



Netherlands Enterprise Agency

# Metocean Campaign

## Hollandse Kust (west) Wind Farm Zone

Part 1: Data report - Fugro

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# RVO Approval for Publication

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## Supply of Meteorological and Oceanographic data at Hollandse Kust (west)

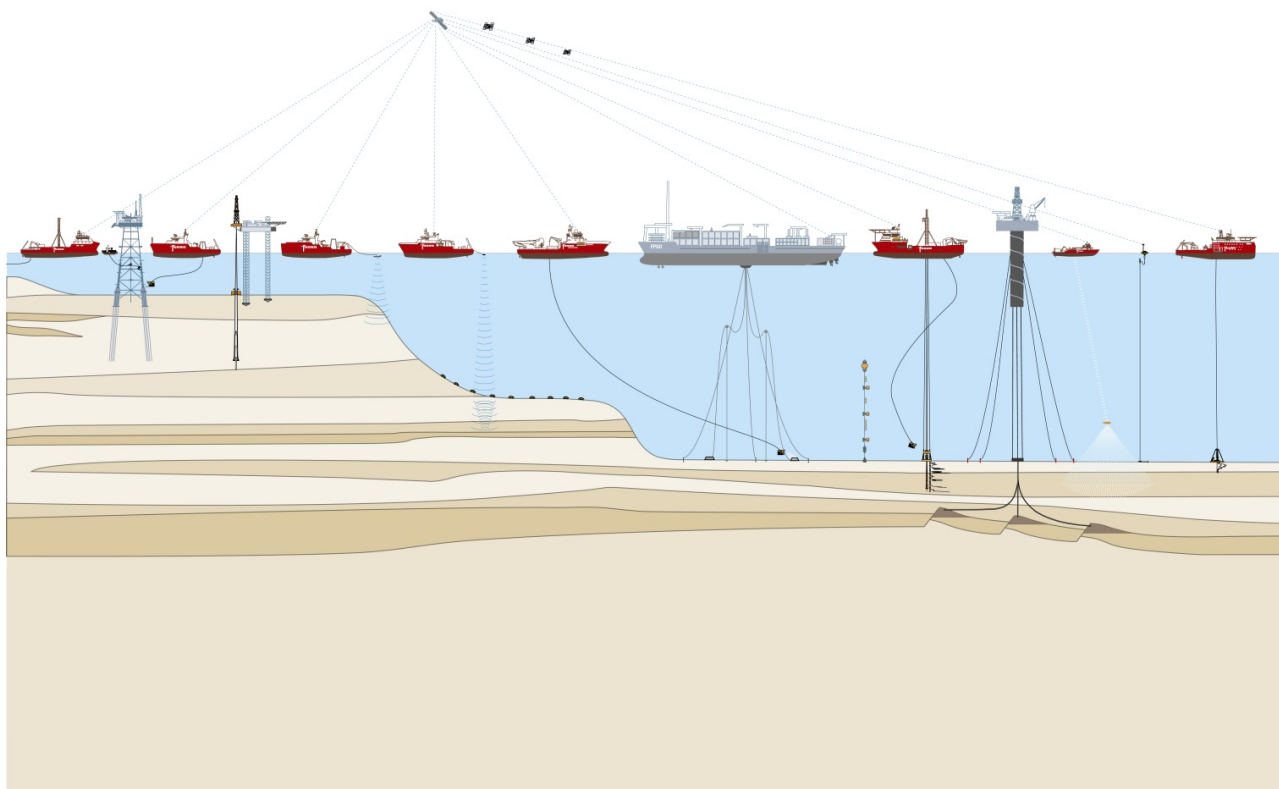
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5 February 2019 - 11 February 2021

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Signed:	<i>Irene Pathirana</i>	<i>Arve Berg</i>

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### EXECUTIVE SUMMARY

Fugro was contracted by RVO to supply meteorological and oceanographic measurement data at the Hollandse Kust (west) (HKW) Wind Farm Zone (WFZ) during a two-year campaign from 5<sup>th</sup> February 2019 - 11<sup>th</sup> February 2021. It is the aim of the measurement campaign to provide two sets of continuous meteorological and oceanographic (metocean) data including wind profiles at Hollandse Kust (west) (HKW) with excellent quality and high availability.

The first Seawatch Wind LiDAR Buoy (SWLB) was deployed at the HKWA location on 5<sup>th</sup> February 2019 and the second SWLB was deployed at HKWB on 10<sup>th</sup> February 2019. An additional third station HKWC was set up in June 2019 to facilitate in-situ validation of a 3<sup>rd</sup> SWLB. Data from HKWC were used for the campaign from August 2019. On 9<sup>th</sup> May 2020 an additional station HKWA-2 was added after the mooring at HKWA became unusable. The full campaign ended after two years in February 2021.

Note, that stations HKWA and HKWA-2 are on top of a sand bank while stations HKWB and HKWC are on the bottom of the sand bank. The wind and meteorological data from the different locations can be concatenated. However, the location dependent wave and current data from different locations (on top of, HKWA & HKWA-2, and to the bottom of the sand bank, HKWB & HKWC) should not be concatenated.

Throughout the campaign 3 SWLBs were used - WS187, WS188, WS170 - and rotated between the stations with the goal of having 2 stations active at all times. During the 2 years at least 1 buoy was deployed at all times, except for the period 24<sup>th</sup> April - 9<sup>th</sup> May 2020.

The SWLB systems were deployed with accompanying bottom mounted tide gauges and temperature sensors with acoustic communication links to the buoys.

Data validation of the measurement campaign was performed by comparing the measurements between the two SWLBs and with nearby references. Deltares as an independent institute was subcontracted by Fugro to carry out the data validation by conducting an independent analysis of the performance of the measurement campaign.

It was decided by RVO and Fugro to summarise the activities and data from year 1 of this metocean campaign into one report covering the period 5 February 2019 - 15 February 2020. From this date monthly reports were published. The year 1 dataset was validated against external data in the accompanying year 1 validation report [1]. Monthly validation reports were provided thereafter.

This report summarises the activities and data from the full 24-month period and includes all final post-campaign quality checks and post-processing. The 24-month dataset supersedes all previously published data from this campaign.

In addition to the data files, data quality is summarized in data quality flag files provided for each datafile. Flags are given as integers (e. g. 0 = publication, 5 = failed, 9 = missing) for each parameter, for each timestep. Details are given in [Section 3.6](#). These files are intended to be used alongside the data files.

Please note the following for the currents of deployments D1, D2, D7, and D8 and water levels of deployment D2:

- The current speed and direction data for deployments D1, D2, D7 and D8 was used in the validation report as given in the respective data files. However, the data at the end of the deployments was

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ultimately deemed not trustworthy and was marked "failed" in the associated quality flag files. This data should be omitted when using these data files.

- The water levels (LAT) for deployment D2 were used in the validation report as given in the respective data file. However, the data was ultimately considered not trustworthy for the entire duration of deployment D2 and was marked "failed" in the associated quality flag file. This data should be omitted when using this data file.

Based on this 24-month dataset, a validation report by Deltares covering the full 24-month campaign is provided as an accompanying report [2].

Metadata templates giving an overview over details of the deployments and datasets available are found in [Appendix D: Metadata](#).

## DEFINITIONS AND ABBREVIATIONS

### Convention of directions:

*Directions* are given in degrees (°) increasing clockwise from North. For wind and waves the direction is defined as incoming: 0° means wind/waves from the North, 90° from the East etc. For current velocity, the vector or flow direction is used: 0° means current flowing toward the North, 90° toward the East etc. The directions are subject to the source of heading, which is either relative to magnetic north if a magnetic compass is used (wind directions from Gill, LiDAR if compass is used, waves, currents) or relative to true north if DGPS is the main heading source (LiDAR wind directions if DGPS is used).

At HKW the deviation between magnetic and true north is  $\leq 1^\circ$ . This difference is negligible if directions determined with two different heading sources are compared.

**Time:** All times refer to UTC.

### Abbreviations:

a.s.f.	above sea floor
DD	day of month 2 digits
LAT	Lowest Astronomical Tide
MM	month 2 digits
Month	Month as text
MSL	Mean Sea Level
NaN	Not-a-Number
SWLB	Seawatch Wind LiDAR Buoy
TI	Turbulence Intensity
UTC	Universal Time Coordinated
WLS	Water level sensor
X	A, B, C or A-2 to separate HKWA, HKWB, HKWC and HKWA-2 respectively
YYYY	year 4 digits

**Definitions of wave parameters used in this report**

Symbol	Unit	Description
H	m	Individual wave height
Hmax	m	= $Max(H)$ : Height of the highest individual wave in the sample, measured from crest to trough in m
Hm0	m	Estimate of significant wave height, $hs$ , $hm0 = 4\sqrt{m0}$ in m
Tp	s	Period of spectral peak = $1/f_p$ . The frequency/period with the highest energy in s
Tm01	s	Estimate of the average wave period; $Tm01 = m0/m1$ in s
Tm02	s	Another estimate of the average wave period; $Tm02 = \sqrt{\frac{m0}{m2}}$
ThTp	°	Mean wave direction at the spectral peak in deg ("The direction of the most energetic waves")
Mdir	°	Wave direction averaged over the whole spectrum
Hm0a, Hm0b	m	Estimates of $Hs$ for frequency bands "a" ([0.04 Hz, 0.1 Hz]) and "b" ([0.1 Hz, 0.5 Hz]), as Hm0, but with the moments calculated by integration over the respective frequency bands
Tm02a, Tm02b	s	Estimate of mean wave periods in s calculated for frequency bands "a" and "b"
Mdira, mdirb	°	Estimate of mean wave direction in deg calculated for frequency bands "a" and "b" Directions are given in degrees clockwise from north, giving the direction the waves come from (0°from north, 90°from east, etc.)



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# 1. INTRODUCTION

## 1.1 Overview

Fugro was contracted by RVO to supply meteorological and oceanographic measurement data at the Hollandse Kust (west) (HKW) Wind Farm Zone (WFZ) in the Dutch sector of the southern North Sea. The goal of the measurement campaign is to provide a 24-month continuous wind profile and metocean data set. It is expected that the data will allow stakeholders to carry out more accurate calculations of the annual energy yield and improve/validate metocean models that have been made as input for the overall wind farm design. Furthermore, it is expected that the resulting accurate wind and metocean data will lead to a lower uncertainty and therefore lower cost of capital in the business case for an offshore wind farm.

The extent of the HKW Wind Farm Zone and the location of the HKW stations is shown in [Figure 1.1](#).

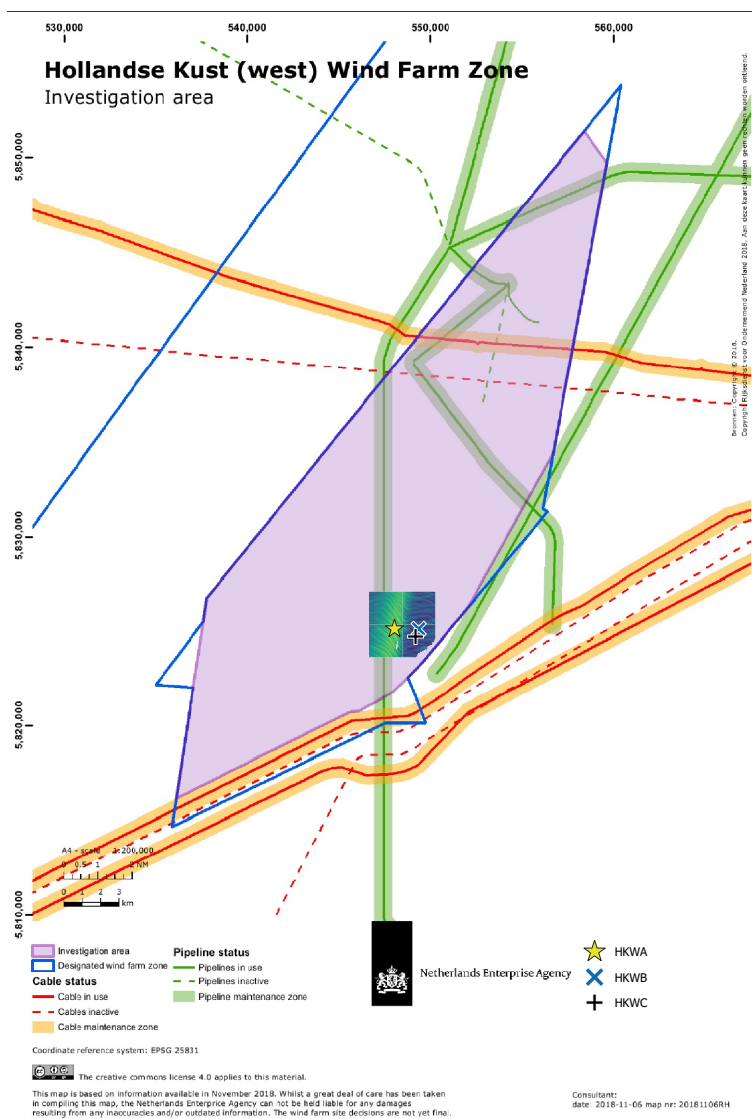


Figure 1.1: Map of the HKW Wind Farm Zone with buoy stations marked.

Two independent Seawatch Wind LiDAR buoys (SWLB) with accompanying water level sensor (WLS) were deployed in February 2019 at the Hollandse Kust (west) stations HKWA and HKWB, respectively. A 3<sup>rd</sup> location, HKWC, was temporarily added in June 2019 to facilitate concurrent in-situ validation of a 3<sup>rd</sup> SWLB. Data from HKWC were used for the campaign from August 2019. On 9<sup>th</sup> May 2020 an additional station HKWA-2 (150 m distance from HKWA) was added after the mooring at HKWA became unusable.

Note, that stations HKWA and HKWA-2 are on top of a sand bank while stations HKWB and HKWC are on the bottom of the sand bank.

Table 1.1 gives the coordinates of the moorings deployed at the 4 HKW stations and Figure 1.2 shows the positions of the buoys throughout the campaign. The water depths relative to LAT for this region are based on data from a detailed bathymetric survey by Fugro commissioned by RVO. As the buoys are free to float around the mooring point within a radius of about 110 m, the actual water depth at the actual position of the buoy varies. The position of the WLS is assumed equal to the position of the bottom weight of the associated buoy.

**Table 1.1: Positions (ETRS89/UTM zone 31N) of the LiDAR buoys at Hollandse Kust (west)**

Station	Longitude (E)	Latitude (N)	Easting (m)	Northing (m)	Water depth (m MSL)
HKWA	3° 42.937'	52° 34.211'	548500	5824700	23.1
HKWA-2	3° 42.812'	52° 34.156'	548360	5824595	23
HKWB	3° 44.264'	52° 34.203'	550000	5824700	30.8
HKWC	3° 44.083'	52° 33.935'	549800	5824200	31.2

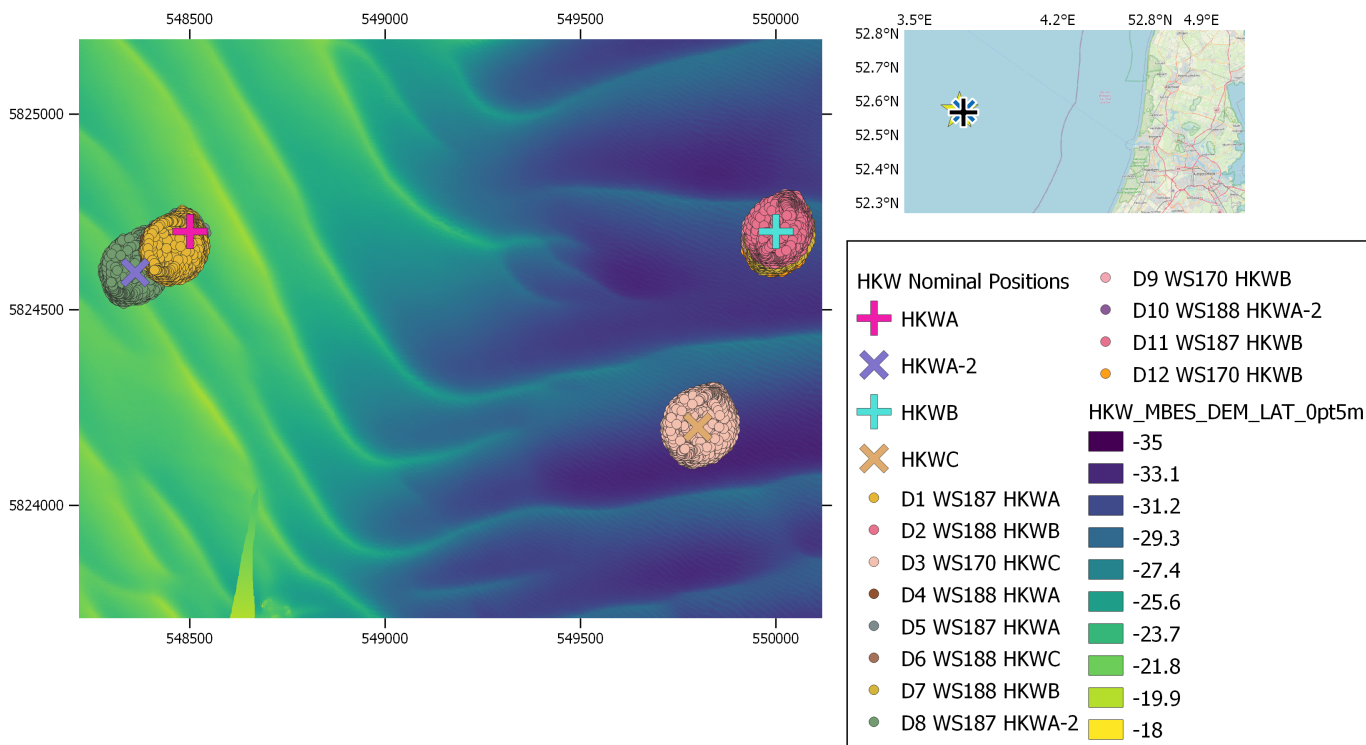


Figure 1.2: Map showing the buoy locations. Note, that stations HKWA and HKWA-2 are on top of a sand bank while stations HKWB and HKWC are on the bottom of the sand bank.

Throughout the campaign 3 SWLBs were used - WS187, WS188, WS170 - and rotated between the stations with the goal of having 2 stations active at all times. The two SWLBs provide a redundant arrangement of instrumentation for the measurement campaign in particular in order to safeguard against data loss. This resulted in 12 deployments (i.e. time buoy moored at sea and active) between February 2019 and February 2021. An overview over the deployments is given in [Table 1.2](#) while [chapter 4](#) gives detailed information about each deployment. Instrumentation for each buoy and any changes are summarized in [Appendix 5](#). SWLB WS170 was a shared spare buoy between this HKW project and the Ten noorden van de Waddeneilanden (TNW) project (also with RVO). After deployment 3, WS170 was deployed twice at TNW before returning to HKW for deployments 9 and 12. Further details can be found in the monthly reports of the TNW campaign ([https://offshorewind.rvo.nl/TNW\\_WindAndWater](https://offshorewind.rvo.nl/TNW_WindAndWater)).

**Table 1.2: Overview over Deployments at Hollandse Kust (west) year 1**

Dep. Number	Station	Buoy	LiDAR unit	Start Time (UTC)	End Time (UTC)	Chapter
1	HKWA	WS187	ZX818M	2019-02-05 12:20	2019-09-21 00:00	<a href="#">Section 4.1</a>
2	HKWB	WS188	ZX802M	2019-02-10 09:00	2019-09-19 09:20	<a href="#">Section 4.2</a>
3	HKWC	WS170	ZX585M	2019-08-01 00:00	2019-11-24 08:30	<a href="#">Section 4.3</a>
4	HKWA	WS188	ZX802M	2019-09-21 13:50	2019-11-24 07:30	<a href="#">Section 4.4</a>
5	HKWA	WS187	ZX818M	2019-11-24 08:00	2020-04-24 16:50	<a href="#">Section 4.5</a>
6	HKWC	WS188	ZX802M	2019-12-18 09:20	2020-02-07 18:40	<a href="#">Section 4.6</a>
7	HKWB	WS188	ZX802M	2020-04-24 16:00	2020-09-15 09:00	<a href="#">Section 4.7</a>
8	HKWA-2	WS187	ZX818M	2020-05-09 09:40	2020-11-06 14:30	<a href="#">Section 4.8</a>
9	HKWB	WS170	ZX585M	2020-09-15 10:50	2020-11-13 23:50	<a href="#">Section 4.9</a>
10	HKWA-2	WS188	ZX802M	2020-11-06 15:50	2021-02-11 23:50	<a href="#">Section 4.10</a>
11	HKWB	WS187	ZX818M	2020-11-14 01:40	2020-11-23 01:20	<a href="#">Section 4.11</a>
12	HKWB	WS170	ZX585M	2020-11-26 15:30	2021-02-11 23:50	<a href="#">Section 4.12</a>

Data measured at each buoy is packed into a digital package that is simultaneously stored on the buoy and transmitted via satellite to allow for near real-time operations checks, maintenance scheduling and monthly

reporting. Data stored onboard are downloaded at regular intervals and form the basis of this report. During year 1 no monthly reports were produced but were provided during year 2.

## 1.2 QHSE

From mid-March 2020 operations were restricted by government measures to mitigate the Corona pandemic. Offshore operations are done by vessel crew only without any Fugro engineers onboard.

The following incident arose during the campaign:

- At the end of deployment 5, buoy WS187@HKWA was successfully recovered for maintenance on 24<sup>th</sup> April 2020. However, during operations the mooring line was tangled up and when the buoy was brought to deck, the mooring at HKWA was lost.
- During deployment 6, the keel weight of buoy WS188@HKWC loosened and led to drifting of the buoy. This led to loss of station HKWC. The keel weight and all parts of the mooring were left on the seafloor and recovered at the end of the campaign.
- At the end of deployment 9, the hose of the crane of the recovery vessel burst before the buoy was lifted out of the water during a first recovery attempt of buoy WS170 at HKWB on 11<sup>th</sup> November 2020. The vessel master confirmed that there had been no tension on the wire prior to the burst and that the buoy was still floating in the water. The buoy was then released again and remained in position until it was successfully recovered a few days later. The data during the recovery attempt were examined closely and determined to be unaffected except for 1 data point on 2020-11-11 15:00 which was removed.
- During deployment 11, SWLB WS187@HKWB began to drift out of position and towards a shipping lane at 01:20 after the keel weight fell off on 23<sup>rd</sup> November 2020. The buoy was recovered in an emergency rescue mission later that day.
- SWLB WS170 was a shared spare buoy between this HKW project and the Ten noorden van de Waddeneilanden (TNW) project (also with RVO). After HKW deployment 3, WS170 was deployed twice at TNW before returning to HKW for deployments 9 and 12. Further details can be found in the monthly reports of the TNW campaign ([https://offshorewind.rvo.nl/TNW\\_WindAndWater](https://offshorewind.rvo.nl/TNW_WindAndWater)).
- SWLB WS170 suffered damage to the main mast during a storm while deployed at TNW resulting in an offset in the DGPS heading data. The LiDAR unit was unaffected. Wind direction for HKW deployments 9 and 12 was reprocessed with compass heading.

There were no other HSE related incidents during the deployments or any other activity related to this project.

### 1.3 Data files

Table 1.3 below provides a list of the processed data provided related to this report collected by Fugro as part of the survey campaign. Table 1.4 lists the raw data files associated with this dataset. Details about the contents of each data file are given in Appendix B: File Contents. A complete list of files is given in Appendix C: List of Files. Recurring identifiers for the raw data files are possible but can be resolved using timestamps.

**Table 1.3: Data files that make up the HKW set of data presented in this report.**

Dep. No.	FileID <id>	File suffix <FILESUFF>
1	wind <id> HKW_20210705_Fugro_MetOcean Buoys HKWA D1 2019	_F
	current <id> HKW_20210707_Fugro_MetOcean Buoys HKWA D1 2019	_F
	currentfilterflags <id> HKW_20211118_Fugro_MetOcean Buoys HKWA D1 2019	_F
	currentqualityflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWA D1 2019	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWA D1 2019	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWA D1 2019	_F
2	wind <id> HKW_20210705_Fugro_MetOcean Buoys HKWB D2 2019	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWB D2 2019	_F
	current <id> HKW_20210708_Fugro_MetOcean Buoys HKWB D2 2019	_F
	currentfilterflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWB D2 2019	_F
	currentqualityflags <id> HKW_20211118_Fugro_MetOcean Buoys HKWB D2 2019	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWB D2 2019	_F
	<metfilterflagid> HKW_20210915_Fugro_MetOcean Buoys HKWB D2 2019	_F
<metqualityflagid> HKW_20211125_Fugro_MetOcean Buoys HKWB D2 2019	_F	
3	wind <id> HKW_20210705_Fugro_MetOcean Buoys HKWC D3 2019	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWC D3 2019	_F
	current <id> HKW_20210706_Fugro_MetOcean Buoys HKWC D3 2019	_F
	currentflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWC D3 2019	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWC D3 2019	_F
4	wind <id> HKW_20210705_Fugro_MetOcean Buoys HKWA D4 2019	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWA D4 2019	_F
	current <id> HKW_20210706_Fugro_MetOcean Buoys HKWA D4 2019	_F
	currentflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWA D4 2019	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWA D4 2019	_F
5	wind <id> HKW_20210705_Fugro_MetOcean Buoys HKWA D5 2019-2020	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWA D5 2019-2020	_F
	current <id> HKW_20210706_Fugro_MetOcean Buoys HKWA D5 2019-2020	_F
	currentflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWA D5 2019-2020	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWA D5 2019-2020	_F
6	wind <id>HKW_20210705_Fugro_MetOcean Buoys HKWC D6 2019-2020	_F
	windflgas <id>HKW_20211013_Fugro_MetOcean Buoys HKWC D6 2019-2020	_F



**Table 1.3: Data files that make up the HKW set of data presented in this report.**

Dep. No.	FileID <id>	File suffix <FILESUFF>
	current <id> HKW_20210706_Fugro_MetOcean Buoys HKWC D6 2019-2020	_F
	currentflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWC D6 2019-2020	_F
	waves <id> HKW_20210715_Fugro_MetOcean Buoys HKWC D6 2019-2020	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWC D6 2019-2020	_F
7	wind <id> HKW_20210705_Fugro_MetOcean Buoys HKWB D7 2020	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWB D7 2020	_F
	current <id> HKW_20210823_Fugro_MetOcean Buoys HKWB D7 2020	_F
	currentfilterflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWB D7 2020	_F
	currentqualityflags <id> HKW_20211118_Fugro_MetOcean Buoys HKWB D7 2020	_F
	waves <id> HKW_20210714_Fugro_MetOcean Buoys HKWB D7 2020	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWB D7 2020	_F
8	wind <id> HKW_20210705_Fugro_MetOcean Buoys HKWA-2 D8 2020	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWA-2 D8 2020	_F
	current <id> HKW_20210823_Fugro_MetOcean Buoys HKWA-2 D8 2020	_F
	currentfilterflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWA-2 D8 2020	_F
	currentqualityflags <id> HKW_20211118_Fugro_MetOcean Buoys HKWA-2 D8 2020	_F
	metqflags <id> HKW_20210915_Fugro_MetOcean Buoys HKWA-2 D8 2020	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWA-2 D8 2020	_F
9	wind <id> HKW_20210709_Fugro_MetOcean Buoys HKWB D9 2020	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWB D9 2020	_F
	current <id> HKW_20210706_Fugro_MetOcean Buoys HKWB D9 2020	_F
	currentflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWB D9 2020	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWB D9 2020	_F
10	wind <id> HKW_20210705_Fugro_MetOcean Buoys HKWA-2 D10 2020-2021	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWA-2 D10 2020-2021	_F
	current <id> HKW_20210706_Fugro_MetOcean Buoys HKWA-2 D10 2020-2021	_F
	currentflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWA-2 D10 2020-2021	_F
	waves <id> HKW_20210718_Fugro_MetOcean Buoys HKWA-2 D10 2020-2021	_F
	metflags<id> HKW_20210915_Fugro_MetOcean Buoys HKWA-2 D10 2020-2021	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWA-2 D10 2020-2021	_F
11	wind <id> HKW_20210705_Fugro_MetOcean Buoys HKWB D11 2020	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWB D11 2020	_F
	current <id> HKW_20210706_Fugro_MetOcean Buoys HKWB D11 2020	_F
	currentflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWB D11 2020	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWB D11 2020	_F
12	wind <id> HKW_20210709_Fugro_MetOcean Buoys HKWB D12 2020-2021	_F
	windflags <id> HKW_20211013_Fugro_MetOcean Buoys HKWB D12 2020-2021	_F

**Table 1.3: Data files that make up the HKW set of data presented in this report.**

Dep. No.	FileID <id>	File suffix <FILESUFF>
	current <id> HKW_20210706_Fugro_MetOcean Buoys HKWB D12 2020-2021	_F
	currentflags <id> HKW_20211008_Fugro_MetOcean Buoys HKWB D12 2020-2021	_F
	<id> HKW_20210709_Fugro_MetOcean Buoys HKWB D12 2020-2021	_F

Item	File
Current Data	<id> CurrentDataStat<FILESUFF>.csv
Current Data Flags	<id> CurrentDataStatFlags<FILESUFF>.csv
Current Data Quality Flags	<id> CurrentDataStatQualityFlags<FILESUFF>.csv
Met Data	<id> MetDataStat<FILESUFF>.csv
Met Data Flags	<id> MetDataStatFlags<FILESUFF>.csv
Met Data Quality Flags	<id> MetDataStatQualityFlags<FILESUFF>.csv
Position Data	<id> PosData<FILESUFF>.csv
Status Data	<id> StatusData<FILESUFF>.csv
Supplementary Data	<id> SupplementaryData<FILESUFF>.csv
Wave Data	<id> WaveDataStat<FILESUFF>.csv
Wave Data Flags	<id> WaveDataStatFlags<FILESUFF>.csv
Wave Data Quality Flags	<id> WaveDataStatQualityFlags<FILESUFF>.csv
Wind Data	<id> WindResourceSpeedDirectionStat<FILESUFF>.csv
Wind Data Filter Flags	<id> WindResourceFilterFlags<FILESUFF>.csv
TI Veer Shear	<id> WindResourceTIVeerShearInflow<FILESUFF>.csv
Wind Data Status Flags	<id> WindResourceStatusFlags<FILESUFF>.csv
Wind Data Quality Flags	<id> WindResourceStatQualityFlags<FILESUFF>.csv

**Table 1.4: Raw data files that form the basis of the HKW set of data presented in this report, where Y = year, M = month, D = day, [Table 1.2](#) for start and end times and LiDAR unit number.**

Dep. No.	Dataset	File
1	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	WS18701.prf
	Currents	WS187.log
		WS187.dep
		aquadopp-Y-M-D.txt
	Raw waves	HKWA-WS187_chpr.csv
	Wave spectra	memspec_HKWA_Y-M-D-D.txt
	Water level	thelma-T-M-D.bin
2	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	WS18801.prf
	Currents	WS188 setup.log

**Table 1.4: Raw data files that form the basis of the HKW set of data presented in this report, where Y = year, M = month, D = day, [Table 1.2](#) for start and end times and LiDAR unit number.**

Dep. No.	Dataset	File
		WS188 setup.dep
		aquadopp-Y-M-D.txt
	Raw waves	HKWB-WS188_chpr.csv
	Wave spectra	memspec_HKWB_Y-M-D-D.txt
	Water level	thelma-T-M-D.bin
3	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	aquadopp-Y-M-D.txt
	Currents	
	Raw waves	HKWC-WS170_chpr.csv
	Wave spectra	memspec_HKWC_WS187_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin
4	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	WS18805.prf
	Currents	WS18803.prf
		WS18802.prf
		WS18801.prf
		WS188.log
		WS188.dep
		aquadopp-Y-M-D.txt
	Raw waves	HKWA-WS188_chpr.csv
	Wave spectra	memspec_HKWA_WS188_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin
5	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	aquadopp-Y-M-D.txt
	Currents	
	Raw waves	HKWA-WS187_chpr.csv
	Wave spectra	memspec_HKWA_WS187_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin
6	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	WS18801.prf
	Currents	WS188.log
		WS188.dep
		aquadopp-Y-M-D.txt
	Raw waves	HKWC-WS188_chpr.csv
	Wave spectra	memspec_HKWC_WS188_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin
7	LiDAR Wind	Wind_unit@Y_M_D.ZPH

**Table 1.4: Raw data files that form the basis of the HKW set of data presented in this report, where Y = year, M = month, D = day, [Table 1.2](#) for start and end times and LiDAR unit number.**

Dep. No.	Dataset	File
	Aquadopp	aquadopp-Y-M-D.txt
	Currents	
	Raw waves	HKWB-WS188_chpr.csv
	Wave spectra	memspec_HKWB_WS188_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin
8	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	aquadopp-Y-M-D.txt
	Currents	
	Raw waves	HKW_D8_WS187_chpr.csv
	Wave spectra	memspec_HKWA2_WS187_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin
9	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	aquadopp-Y-M-D.txt
	Currents	
	Raw waves	HKW_D9_WS170_chpr.csv
	Wave spectra	memspec_HKWB_WS170_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin
10	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	aquadopp-Y-M-D.txt
	Currents	
	Raw waves	HKW_D10_WS188_chpr.csv
	Wave spectra	memspec_HKWA2_WS188_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin
11	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	aquadopp-Y-M-D.txt
	Currents	
	Raw waves	HKW_D11_WS187_chpr.csv
	Wave spectra	memspec_HKWB_WS187_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin
12	LiDAR Wind	Wind_unit@Y_M_D.ZPH
	Aquadopp	aquadopp-Y-M-D.txt
	Currents	
	Raw waves	HKW_D12_WS170_chpr.csv
	Wave spectra	memspec_HKWB_WS170_Y-M-D-Y-M-D.txt
	Water level	thelma-T-M-D.bin

## 1.4 Pre-deployment validation

The Fugro Seawatch Wind LiDAR buoy is 3<sup>rd</sup> party type validated by the accredited institution DNVGL to be in the pre-commercial stage according to Carbon Trust's requirements [3] over a six-month trial [4]. That trial took place in 2014 at the now decommissioned RWE met mast in the Dutch North Sea with overall post-processed data availability of > 97 %. The Best Practice criteria for the KPIs for "Mean Wind Speed – Slope and Coefficient of Determination", "Mean Wind Direction – Slope, Coefficient of Determination and Offset" were passed indicating the capability of capturing wind directions at high accuracy. A similar six-month trial was conducted at the East Anglia One met mast in 2015 as part of the Carbon Trust programme, with the performance independently verified by Natural Power [5]. All wind speed KPI's exceeded the best practise limits, as well as most wind direction KPI's (minimum practice for wind direction offset at the top two measurement heights).

In addition, the specific systems WS187 and WS188 used in the HKW campaign were validated in a pre-deployment validation campaign according to [4] before the start of the HKW field measurement campaign. The performance of the systems was independently verified by DNV GL to reproduce accurate wind speed and direction across a range of wind and sea states against a land reference. The pre-deployment validation campaign took place at the Fugro validation site at the island of Frøya, Norway. The validation site has also been 3<sup>rd</sup> party evaluated by DNVGL [6] as suitable for the purpose of validating systems like the SWLB. For this campaign, wind directions from SWLB WS187 were pre-deployment validated using compass as heading reference [7], while wind directions from SWLB WS188 were pre-deployment validated using DGPS as heading reference [8].

The 3<sup>rd</sup> SWLB WS170 (DGPS heading) was in situ validated at station HKWC from 16<sup>th</sup> June 2019 - 11<sup>th</sup> August 2019 against WS187 (compass heading) at HKWA and WS188 (DGPS heading) at HKWB. For all wind direction KPIs, the Best Practice criterion was passed at all heights. For all wind speed comparisons the Best Practice criteria for the KPI "Mean Wind Speed – Slope" were passed at all heights. Comparing WS170 vs. WS188, the best practice acceptance criterion for the KPI "Mean Wind Speed – Coefficient of Determination" was passed at all heights and wind speed ranges [9].

After the 24-month campaign ended, WS170 was post-deployment validated with compass heading against a fixed Windcube LiDAR at the LEG platform in the Dutch North Sea. For all wind direction KPIs, the Best Practice criterion was passed at all heights. For all wind speed KPIs, the Best Practice criterion was passed for all wind speed ranges and at all heights up to 200 m [10].

All other sensors used are *commercial* and have their tests performed according to each manufacturer's procedure.

## 1.5 Data validation

Deltares as an independent institute was subcontracted by Fugro to conduct an independent field validation of the measurement campaign by comparing the measurements between the SWLBs and with nearby references. The Deltares validation report [2] is provided as an accompanying report.

The validation is carried out by quantifying the agreement between the HKW data and data from other reliable sources (anemometer, LiDAR, numerical models, etc) from fixed North Sea reference stations at the buoy locations. For current and wind measurements their respective vertical profiles are also assessed. All

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comparisons are presented as timeseries and further validated via direct scatter plots for quantifying statistical correspondence between the datasets.

A detailed description of the validation method and data sources used can be found in [\[2\]](#).



## 2. Instrumentation and measurement configuration

### 2.1 Summary of instrumentation and measurement scheme

Each buoy is a Seawatch Wind LiDAR Buoy based on the original Seawatch Wavescan buoy design with the following sensors and main equipment:

- Wavesense 3 3-directional wave sensor
- ZephIR ZX300 CW LiDAR
- Gill Windsonic M acoustic wind sensor
- Nortek Aquadopp 600kHz current profiler
- Vaisala PTB330A air pressure sensor
- Vaisala HMP155 air temperature and humidity sensor
- DualGPS Septentrio position tracking
- Acoustic receiver for Thelma TBR700 water pressure sensor

The LiDARs used in this project are marinized versions of the ZX300 LiDAR type.

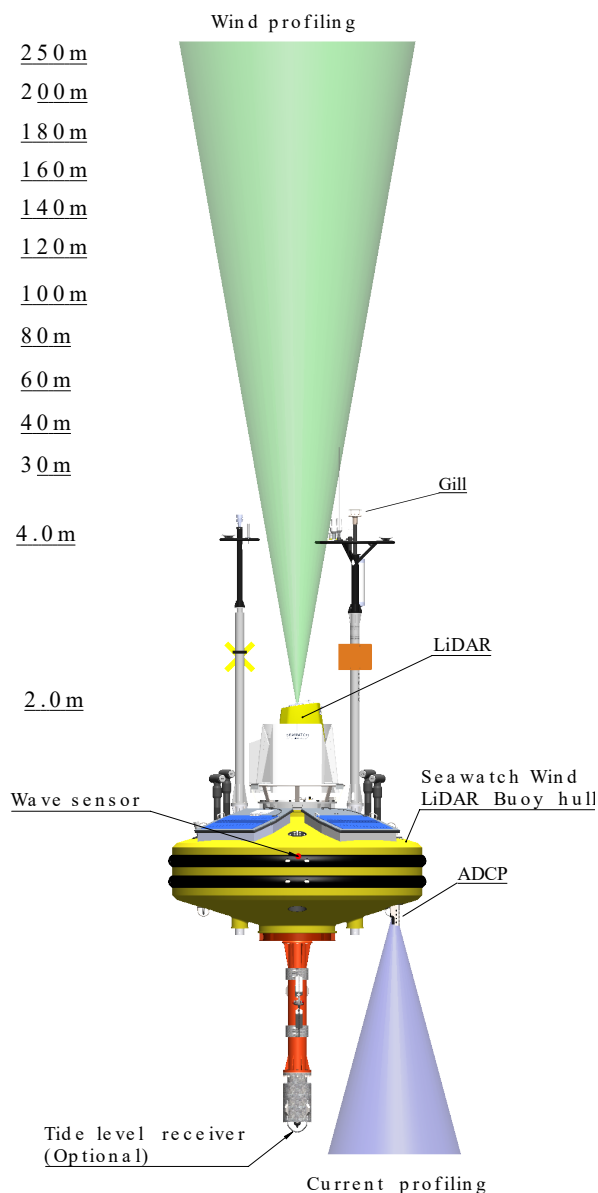
An independent Thelma (TBR 700) water pressure/level sensor (WLS) is located on the sea floor connected to the buoy mooring via a line. The pressure sensor transmits data to the buoy via an acoustic link.

The LiDAR is equipped with a met station that also measures air temperature and pressure. These measurements are given in the dataset as supporting data only (calibration not verified).

Figure 2.1 shows the basic shape of the buoy illustrating the principle for wind and current profile measurements. The drawing shows the location of the sensors, and illustrates the LiDAR and current profiler beams. The buoys are deployed with moorings as shown in Figure 2.2 and Figure 2.3, which include the moorings for the WLSs. The moorings for HKWA-2 and HKWC are the same as for HKWA and HKWB respectively.

Each mast and instrument is mounted such that all instruments are aligned to produce the correct compass bearing.

The measurement setup is detailed in Table 2.1.



**Figure 2.1: Illustration of the wind and current profile measurements from the LiDAR buoy. Heights ref. sea surface**

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Details of sensor types and serial numbers can be found in Appendix A, [Table A.1](#), [Table A.2](#), [Table A.3](#).

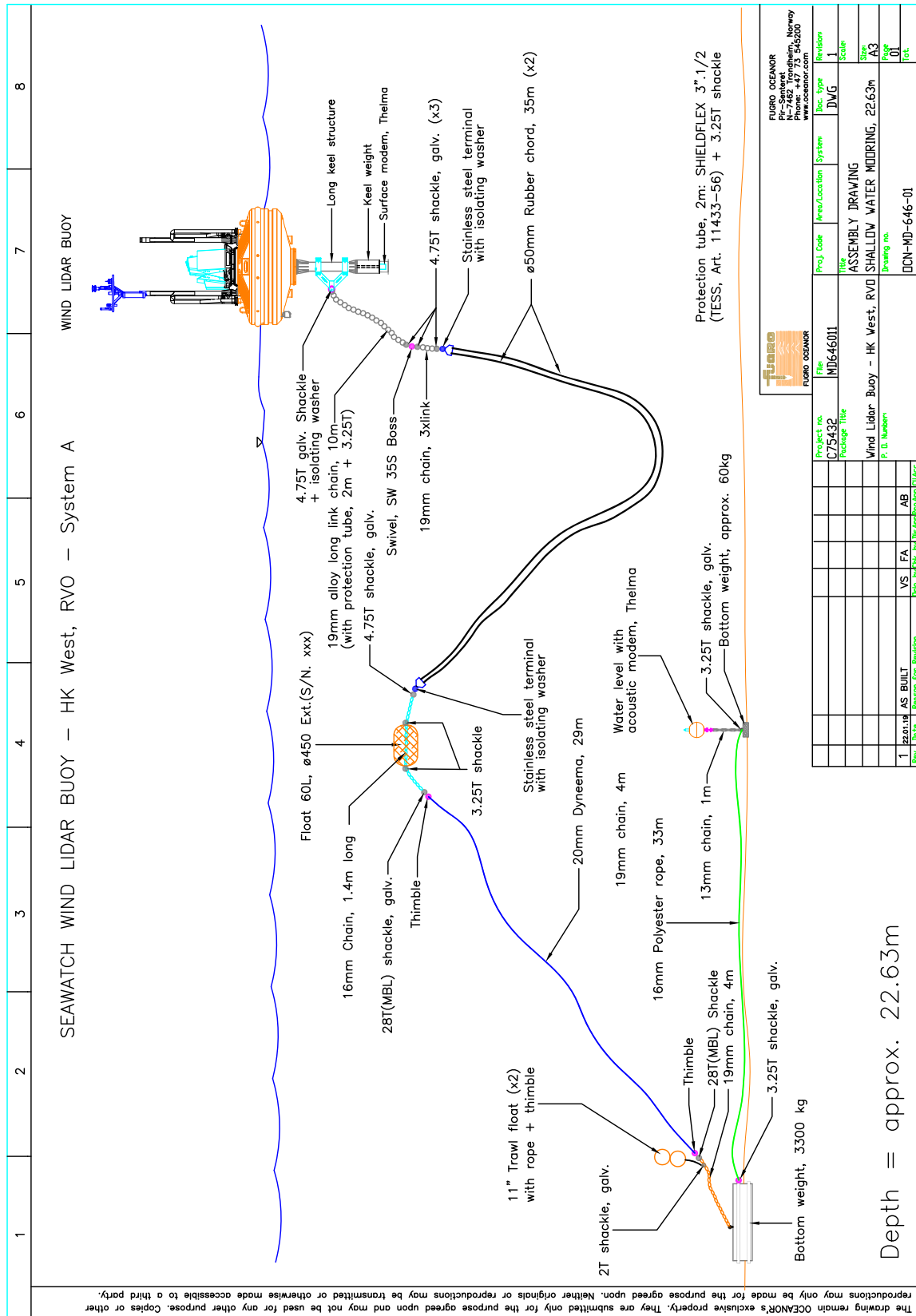


Figure 2.2: Mooring design for the SWLB at Hollandse Kust (west), Station A

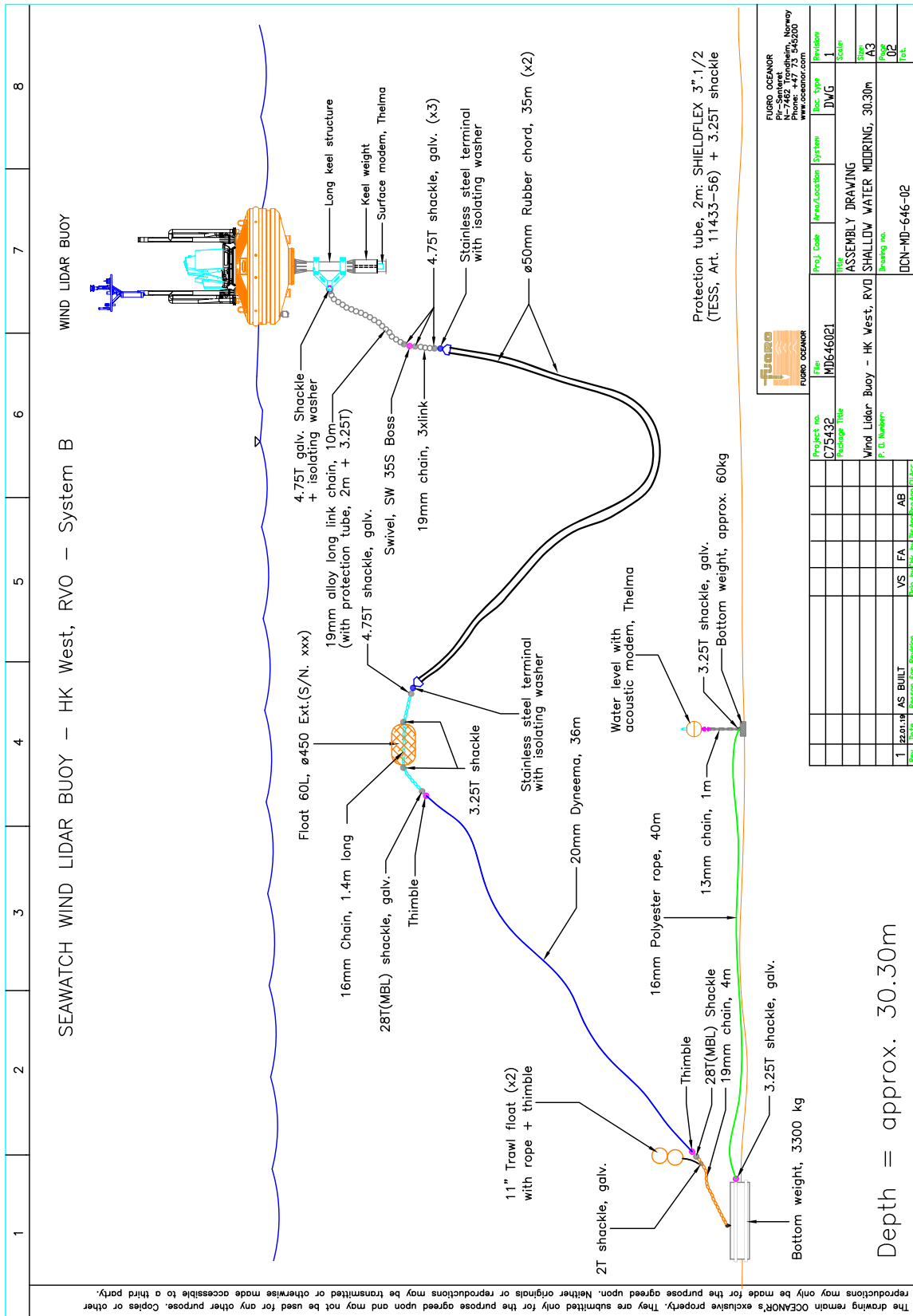


Figure 2.3: Mooring design for the SWLB at Hollandse Kust (west), Station B

Table 2.1: Configuration of measurements by the Seawatch Wind LiDAR buoys at Hollandse Kust (west)

Instrument type	Sensor height <sup>1</sup> (m)	Parameter measured	Sample height <sup>1</sup> (m)	Sampling interval (s)	Averaging period (s)	Burst interval <sup>2</sup> (s)	Transmitted?	
Wavesense 3	0	Heave, pitch, roll, heading	0	1 <sup>4</sup>	Time series duration: 1024 s	600	No	
		Sea state parameters (See Table B.3)	0	600				1024
ZephIR ZX300 LiDAR	2	Wind speed and direction at 10 heights (The 11 <sup>th</sup> level, the so-called reference level which is not configurable, is located at 40 m and referred to as 40.0 Ref.)	30	17.4 s <sup>3</sup>	600	600	Yes	
			40.0 ref					
			60					
			80					
			100					
			120					
			140					
			160					
Gill Windsonic M	4	Wind speed, wind direction	4	1	600	600	Yes	
			HKWA & HKWA-2	HKWB & HKWC	1	600	600	Yes
Nortek Aquadopp	-1	Current speed and direction profile, water temperature (at 1 m depth)	-3	-3				
			-4	-4				
			...	...				
			-23	-32				
			(21 levels)	(30 levels)				
Vaisala PTB330A	0.5	Air pressure	0.5	30	60	600	Yes	
Vaisala HMP155	4.1	Air temperature Air humidity	4.1	5	60	600	Yes	
Thelma WLS	Sea floor	Water pressure Bottom Water Temperature	HKWA & HKWA-2	HKWB & HKWC	1	600	600	Yes
			-23	-32				

<sup>1</sup> Height relative to actual sea surface. The depth of the WLS is an approximate number.

<sup>2</sup> A burst of measurements is the raw data time series used to calculate the average parameters. The burst interval is the time from the beginning of one burst to the beginning of the next burst, and equal to the interval between writing of raw data to disk and transmissions. Note that wave bursts overlap by 424 s.

<sup>3</sup> This is the approximate time between the beginning of one sweep of the profile and the next one; the interval may vary slightly. The ZephIR sweeps one level at a time beginning at the lowest one. After the top level has been swept, it uses some time for calculations and re-focusing back to the lowest level for a new sweep. A minimum of 9 samples per height must be measured in the 10-minute interval in order to produce wind speed and direction, and derived parameters thereof.

<sup>4</sup> During deployment 12, the Wavesense setup for WS170@HKWB was changed to 2 Hz sampling interval, while the rest of the setup (600 s averaging interval for the sea state parameters) remained the same as for all other deployments.

### 3. Data flow, post-processing and quality control

This chapter outlines the data flow, measurement principles for each instrument, processing steps and quality control measures applied to the data before they are delivered to RVO.

#### 3.1 Data flow

For each instrument on a SWLB, the measurement processes are set-up individually according to the resolution needed. The measurements are stored in the onboard in-memory database and, every 10 minutes, packed into encrypted messages and stored. Selected measurements are averaged over 10 minutes and/or used in internal processes together with other measurements from other sensors:

- GPS position and current data (Aquadopp-produced 10-minute-averages) are delivered by these instruments every 10 minutes for storage. No further treatment of either data is done on board.
- Air pressure, temperature, and humidity measurements as well as data from the bottom mounted Thelma pressure sensor are stored in the internal memory database at their respective measurement rates. 10-minute-averages are calculated for storage every 10 minutes.
- Wave parameters are calculated onboard from raw data as described in [Section 3.2.2](#) and stored every 10 minutes.
- Heading information (compass and DGPS) and data from the Gill sensor are continuously stored at 1 Hz and averaged for each 10-minute interval. In addition these measurements are also made available in real time for the LiDAR processes and used as described in [Section 3.2.3](#).
- The LiDAR unit measures at 1 Hz. The LiDAR data are combined with buoy heading information to reference buoy direction to north before calculating the 10-minute-averages. Averaging over 10 minutes also serves as motion correction.

The buoy converts all measurements to physical quantities in SI units. Every 10 minutes the data are timestamped and packed for simultaneous transmission and storage in binary integer numbers using a proprietary compression algorithm (pff), giving sufficient digital resolution while using minimal storage space. The digitization resolution is given in [Table B.1 - Table B.7](#). The digitization resolution is higher than the actual measurement resolution ensuring lossless compression. The high resolution also ensures that there is no biasing effect due to the digitization of the data. The data are stored in several pff messages to further minimize filesize.

Please note that for in-house re-processed data the pff digitization is not applied and the calculations are done in double precision floating point space. The data are then written to file with %11.6f% precision.

Each SWLB is set up with unique telemetry message identifiers. Together with deployment records, timestamps and position data, the datasets for each of the buoys/stations in this campaign will be kept separate and will be unique.

Data measured at each buoy is simultaneously both stored locally and transmitted via satellite to allow for near real-time operations checks, maintenance scheduling and monthly reporting. At the receiving end the data are unpacked to physical values in real numbers using the reverse conversion method. The application of the compression algorithm also means that the data in transmission are encrypted. The dataset presented in this report is therefore binned according to the digitization resolution.

When a buoy is serviced, the following stored data are downloaded:



- stored pff messages
- raw data stored in the geni data logger (Aquadopp bin files, Thelma raw data)
- raw data stored on the major instruments (LiDAR, DGPS) as they have their own independent storage capacity

10-minute averages stored in the pff messages on the geni datalogger form the basis of this report. This circumvents gaps due to transmission problems. In addition any data downloaded during a service (pff and raw) are used to investigate gaps in the data set that occurred during the deployment. When necessary and if available (no other instrument issues), the data can be re-processed using raw data and used to fill gaps.

## 3.2 Measurement principles

### 3.2.1 Heading sources

There are two main heading sources on each SWLB: the magnetic compass and the DGPS system. The compass gives direction relative to magnetic north, while the DGPS system gives direction relative to true north. For wind direction, the Gill sensor uses the compass as heading source, while for the LiDAR wind directions the DGPS system is the main heading source. However, wind directions from the LiDAR can also be given using the magnetic compass as heading source if the DGPS system is unavailable. Raw 1 Hz heading data are stored on disk as backup/fallback. Each mast and instrument is mounted such that all instruments are correctly aligned to the buoy reference and that no directional bias due to mounting is present.

In addition the Wavesense and Aquadopp each have a built-in compass that is used as heading source to align the wave and current directions respectively (both relative to magnetic north).

Note that at HKW, the deviation between magnetic and true north is  $\leq 1^\circ$  and thus negligible.

### 3.2.2 Waves

The wave measurements are based on the fact that the discus shaped buoy will respond to the waves by following the height and slope of the waves, so that the wave motion can be interpreted as the motion of the sea surface. The Wavesense 3 wave sensor employs accelerometers, rotation sensors and a compass to calculate the position, velocities and rotations of the buoy in all directions in space. From these data the spectra of wave height and direction are calculated, and the parameters of wave height, period and direction listed in wave parameter definitions [Table -1](#) are calculated.

The wave parameters are based on a time series of 1024 1Hz values, i.e. 17 minutes ( $1024 \text{ s} \approx 17 \text{ min}$ ). When the acquisition is complete, the analysis phase starts using FFT (Fast Fourier Transform) algorithms. Wave bursts overlap by 424 s, i.e. data is collected for 1024 s, but data is analyzed and written to file every 600 s. Approximately 25 minutes in total are needed for a full measurement cycle, including "heat-up", 17 min sampling and time to run FFT analysis. The measurements are taken continuously and the processing windows overlap.

Maximum wave height,  $h_{max}$ , and the period of the highest individual wave,  $t_{max}$ , are calculated by "zero upcrossing" analysis and requires 50 "high" waves in 17 min. This means that  $h_{max}$  will not be calculated when significant wave height,  $h_{m0}$ , is less than approximately 0.3 m.

In addition to the 10-minute wave parameters, raw 1 Hz compass, heave, pitch and roll data are stored on disk

as backup.

The directional wave spectra are estimated from the directional Fourier components using the Burg Maximum Entropy method (MEM) [11] with  $f_{min} = 0.01$ ;  $f_{max} = 0.50$ ;  $df = 0.01$ ;  $nfreq = 50$ ;  $units = Hz$ ;  $dirmin = 0$ ;  $dirmax = 352.5$ ;  $ddir = 7.5$ ;  $ndir = 50$ ;  $units = degrees$ . The MEMspec data files contain the 2-dimensional directional spectral density  $S(f, \Theta)$  in addition to other spectral parameters. The wave spectra were post-processed to higher resolution using the raw compass, heave, pitch and roll data than what was produced on the buoy while at sea. There is a 20 min offset between the data in the memspec files and the timeseries. Spectra are stamped like the time series, rounded back to the beginning of the measuring interval. Parameter records from real time processing are stamped at the time of recording, which is rounded forward to the end of the recording interval. A timestamp in the timeseries datafile of <20190301 12:20> corresponds to the data in the memspec file of start time with stamp <20190301 12:00>.

*Note:* Calculations of wave parameters done onboard the buoy use the measured data before binning. Thereafter data is stored, both raw and calculated. During this storage process, the data is digitalized with a given resolution (i.e. binned). If the stored raw data or memspec files are used to re-calculate the wave parameters, there may be small differences compared to parameters calculated onboard the buoy. The resolution settings are, however, set such that the differences are insignificant (better than the accuracy).

### 3.2.3 Wind

There are two types of wind sensors on the LiDAR buoy: *Gill Windsonic* and *ZephIR ZX300 LiDAR*. The drawing in [Figure 2.1](#) shows the location of these sensors, and illustrates the LiDAR beams. Heights indicate the levels of the LiDAR optical window (2 m), the height of the Gill sensor (4 m), and the lowest and highest possible LiDAR profile levels, all relative to the sea surface.

The *Gill Windsonic* is an ultrasonic wind sensor measuring the wind along the two horizontal axes defined by the sensor transmitting and receiving elements. The travel time difference of ultrasound emitted in opposite directions along the two perpendicular axes is used to calculate the wind speed components along those axes. From the components the wind speed and direction relative to the instrument's x-axis is computed. Then the wind direction relative to magnetic North is calculated using the measurement of buoy heading from the buoy's compass. An important function of the Gill Windsonic sensor is to be a reference for wind direction as the LiDAR is known for its 180 ° ambiguity.

The *ZephIR LiDAR* is a Continuous Wave (CW) LiDAR system. The continuous beam emitted from the window at the top of the LiDAR is slanted at an angle from the vertical and rotates with a period of 1 second around the central axis to continually scan a cone in the air. The return is focused to a particular elevation using an optical focus stage and samples individual line of sight points around the circle. The magnitude of the Doppler shift of the backscattered individual line of sight samples is used to reconstruct the 1 second wind field at a particular elevation.

The LiDAR focuses at each of the 10 pre-selected heights in sequence sampling the wind profile. Before going back to another profile, the LiDAR spends some time doing other tasks, such as looking for precipitation, fog and cloud base, and measuring at the reference height of 38 m above the laser. The effective interval between each profile is about 17 s.

The profiles collected at 17 s intervals are averaged to give a time series of 10-minute average horizontal and vertical wind which are stored on the LiDAR unit but not used by the SWLB system. The SWLB Wavesense 3 processing unit, takes the raw 1 Hz LiDAR data and uses data from the buoy's compass and/or the DPGS

system to produce the 10-minute averages relative to north. From the components the wind speed and direction relative to the instrument's x-axis are computed. Then the wind direction is calculated using the measurement of buoy heading from Septentrio DGPS. Wind directions are also checked in real-time against the data from the Gill wind sensor to resolve the 180° ambiguity in the results due to the ambiguity in the magnitude of the Doppler shift. In addition to being stored on the LiDAR unit itself, the 1 Hz data from the LiDAR are also stored on the geni data logger independently of the LiDAR unit as second backup.

Up to a total of 36-37 wind data packages are collected in 10 minutes. A minimum of 9 packages (25 %) are required to qualify as a valid measurement.

Averaging over 10 minutes also serves as motion correction.

The LiDAR is equipped with a met. station that includes a compass. This is however not used as primary source for resolving the 180° ambiguity of the LiDAR, but is available as fallback/backup. Any errors in the met station thus do not impact the LiDAR wind measurements except for instances where the LiDAR unit is restarted.

Inflow angle, wind veer and wind shear are derived from the underlying measured physical quantities in post-processing.

At HKW, wind directions from SWLB WS187 were pre-deployment validated using compass as heading source, while wind directions from SWLB WS188 were pre-deployment validated using DGPS as heading source. Wind directions from WS170 were initially in situ validated using DGPS as heading source and after the campaign ended post deployment validated using compass as heading source.

### **3.2.4 Current measurements**

The *AquaDopp current profiler* is mounted in the buoy hull with the acoustic head immediately below the hull facing vertically downward. The three slanted transducers emit sound pulses forming 3 acoustic beams at an angle from the vertical. The Doppler shift of sound echoed from particles such as plankton in the water is used to calculate the current velocity component along the beam. The vertical and horizontal velocity components are then calculated, and a large number of pulses are used to calculate the 10-minute average current velocity.

Signal-to-noise (here amplitude) information is stored internally in the current profiler and from mid-2019 also stored in the data logger. A high-pass filter on amplitude is applied to the current data using the beam with the lowest signal strength.

### **3.2.5 Air temperature and humidity**

The Vaisala HMP155 measures air temperature and humidity using a state of the art HUMICAP® 180R humidity sensor element and a fast temperature probe. The mounting of the sensor in a protective housing on the mast top sensor carrier ensures that the sensor is exposed to free air and yet shielded from cooling and heating due to solar and diffuse radiation.

Air temperature is also recorded by the LiDAR met station. The LiDAR met station is placed in the top of the second mast. It is, however, not equipped with a shield like the main sensor. The data from this sensor is thus expected to be of lower quality than the main temperature sensor and is provided as supporting data. Calibrations of the LiDAR met station sensors are not verified.

### 3.2.6 Air pressure

The Vaisala pressure sensor PTB330A inside the buoy includes Vaisala's top class BAROCAP® pressure sensing technology. The sensor is exposed to the pressure of the open air through a diffusor head on the mast which removes the pressure reducing effect of the wind from the air pressure measurement.

Air pressure is also recorded by the LiDAR met station. The data from this sensor is expected to be of lower quality than the main air pressure sensor and is provided as supporting data. Calibrations of the LiDAR met station sensors are not verified.

### 3.2.7 Water level

Water level is inferred from measurements of water pressure at the seabed following IOC guidelines [12]. The bottom mounted pressure sensor gives out an approximate value of water level as the actual pressure in dbar minus 10 dbar which is then approximately equal to the depth in metres. However, to get the proper height of the water column above the sensor, the air pressure measurement from the buoy must be subtracted from the total measured water pressure as follows:

$$h_w = (P_w - P_a) / \rho g \quad (3.1)$$

where  $h_w$  is the height of the water column,  $P_w$  is the measured total water pressure,  $P_a$  is the measured total air pressure,  $\rho$  is the average density of the water (1025.7 kg/m<sup>3</sup>) according to average temperature and salinity data from this area stored by ICES (International Council for the Exploration of the Sea), and  $g$  is the normal acceleration of gravity.

Water level referenced to LAT is then:

$$wl = h_w + LAT \quad (3.2)$$

where  $LAT$  is a site specific constant to convert to LAT. The constants used in each deployment are given in [Table 3.3](#).

The vertical position of the sensor relative to the mean sea level position is obtained from bathymetry data at the deployed coordinates, as shown in [Table 1.1](#). The pressure sensor head is assumed to be located 1.00 m above the seabed.

### 3.2.8 Water temperature

Water temperature is recorded by 2 main instruments at 2 different water depths: the NORTEK Aquadopp Current profiler (~1 m depth) and the Thelma bottom sensor (seabed).

The water temperature sensor in the NORTEK Aquadopp is used as the main water temperature sensor. This sensor is placed in a "well" on the buoy and is thus measuring the water temperature right under the buoy hull, i.e. ~1 m below the water surface.

Bottom water temperature near the seabed is measured by the Thelma bottom sensor at nominally 1 m above the seafloor. Calibration certificates for this temperature sensor are not available and the data is thus provided as supporting data.

In addition, there is a temperature sensor in the top (acoustic) modem for the water level sensor. This modem is placed inside the keel weight, i.e. ~2 m below the surface. Due to different depths the water temperature will not be the same, especially on calm, warm days when the water is heated from the surface and on calm,

cold days with clear sky when the water is cooled from surface. This temperature measurement is included in the data set as supplementary data.

### 3.2.9 Buoy position (GPS)

Coordinate positions with latitudes and longitudes are measured by two systems on the LiDAR buoy, the Iridium GPS and the Septentrio GPS. The latitudes and longitudes recorded from these two systems are compared to verify the positioning of the buoy.

In addition, the position measurements from the LiDAR met station are also provided as supporting data. This sensor is however showing slow response.

## 3.3 Post-processing

### 3.3.1 General steps and filtering

No tampering or modifications are applied to increase the post-processed availability or enhance the data quality. In post-processing the system integrity is maintained. Post-processing is limited to use of data from the system itself, not depending on use of data from any external sources.

Post-processed data are those values following the steps below. Post-processing is therefore limited to qualifying those quantities by:

1. Deployment period, i.e. removing values outside of those times where the system is deployed at the target position (e.g. in transit to/from shore or onshore)
2. Check that data was saved for all 10-min intervals. If not, substitutions of NaN values when all data for a 10-min time step is missing
3. Removing duplicated measurements (if **all** measurements/parameters by one sensor are repeated from one time step to the next, the duplicated values are removed)
4. Removing out of range values (e.g. degrees above 360) and replacement by NaN (see [Table 3.2](#))
5. Applying parameter group / instrument specific quality control measures outlined below for each group
6. Inspection and assessment (QA/QC) by senior meteorologist/oceanographer

**Note:** Single duplicated values present in the processed dataset are most likely due to measurement resolution, digital binning and/or slow changing physical processes (e.g. water temperature). E.g. if any one of the components of the wind vector (horizontal, vertical or direction) has changed, then all of them must have been updated since they are stored simultaneously (atomically) by the same process and are compressed into the same pff-telegram. If the horizontal component is then repeated twice, it must be because it fell in the same digital step. This can happen during stable conditions.

QA/QC filter flags are given as integers in separate "Flags" files for each parameter set:

**Table 3.1: QA/QC filter flags indicating which filter was applied (and data points replaced by NaN) for each parameter (with reference to the processing given in the list above).**

Flag value	Text code	Description	Filter reference
0	Good data	Passed all tests	
1	Duplicated set	Duplicated set of values from 1 sensor found and removed	<a href="#">item 3</a>
2	Consecutive duplicate		
3	Out of bounds	Value out of valid range ( <a href="#">Table 3.2</a> ) found and removed	<a href="#">item 4</a>
4	Outlier	outlier found and removed	
5	Low signal strength	signal strength below threshold and value removed	<a href="#">item 4</a>
6	Flipped 180°	180 ° ambiguity found and LiDAR wind direction flipped 180°	
7	Low packet count	Number of valid LiDAR wind measurements below threshold LiDAR	
8	Missed Transmission	No data saved for this 10 min interval	<a href="#">item 2</a>
9	Not evaluated / failed	Not evaluated (currents) or failed	

The following QA/QC filter ranges were used for each parameter (group):

**Table 3.2: QA/QC filter ranges for each parameter**

<b>Parameter (group)</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
Horizontal Gill wind speed	0.001	35	m/s
Horizontal LiDAR wind speed	0.01	58	m/s
Vertical LiDAR wind speed	-6	6	m/s
Vertical LiDAR wind speed	0	0	m/s
Vertical LiDAR wind speed	0.0127	0.0127	m/s
Wind direction	0	360	°
Inflow angle	-15	15	deg
LiDAR packet count	9	40	packets
Wave height	0.1	24	m
Hmax	0.1	24	m
Wave period	0.1	23	s
Wave direction	0	360	°
Current speed	0	135	cm/s
Current direction	0	360	°
Current signal strength	0	30	dB
Air humidity	5	101	%
Air pressure	905	1100	hPa
Air temperature	-4	35	°C
Water temperate	2.9	25	°C
Bottom water temperature	2.9	25	°C
Water pressure (HKWA, HKWA-2)	20	26	dbar
Water pressure (HKWB, HKWC)	28	33	dbar

Details on post processing for each parameter group are given in the following sections below.



### 3.3.2 Wind data post processing

The following steps were applied to the wind data:

1. Check for duplicated measurements (Duplicate to Nan (all))
2. Filter Gill speed and direction (Gill only)
3. Filter LiDAR speed (horizontal and vertical speed only)
4. Filter LiDAR direction
5. Filter LiDAR on packet count (all)
6. Filter vertical wind speed (+-6 m/s, == 0.0127 -> NaN)
7. Apply 180° ambiguity fix on LiDAR wind directions using Gill directions
8. Calculate inflow angle and filter
9. Calculate wind sheer and wind veer
10. Translate LiDAR info and status flags
11. Calculate wind system availability for 4-200 m

Please note the following:

- (a) Standard deviation, T1, windMin and windMax were only included in packet count filtering.
- (b) Wind speed and wind direction quality filtering was decoupled which leads to up to 3% difference in availability for some deployments.
- (c) At the beginning of deployment D8, the buoy was on and the LiDAR unit powered. The geni processor was, however, “hung” in a reboot cycle and did not produce data until it was restarted. LiDAR wind speed was recovered. However, since no trustworthy heading source was available (both compass and DGPS system were not measuring), wind direction was not recovered leading to a ca. 10 % offset in availability between LiDAR wind speed and direction.
- (d) Wind data for the following deployments were reprocessed in-house from raw 1hz zph, 1hz Septentrio heading and 4m Gill wind direction: D2, D6, D7 - D12.
- (e) Wind data for deployments D1, D9 and D12 was reprocessed using compass as heading source.
- (f) For D2, D4, D6, D7, and D10, the mast carrying the Gill wind sensor on WS188 was slightly turned from neutral causing an offset in the Gill wind direction by a fairly constant 9°. The wind direction from the Gill sensor was corrected for the mast turn (+9°). The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.
- (g) For D9 and D12 of WS170, a 5 – 7° offset in LiDAR wind direction was observed when using DGPS heading. This was attributed to damage and twisting of the masts carrying the DGPS antennas. Using compass heading, this offset is not present in the wind direction data. In addition, the mast carrying the Gill wind sensor on WS170 was slightly turned from neutral causing an offset in the Gill wind direction by a fairly constant 8°. The wind direction from the Gill sensor was corrected for the mast turn (–8°). The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.
- (h) Fugro cannot guarantee that all ambiguous 180° data are flagged.

Please note that for in-house re-processed data the pff digitization is not applied and the calculations are done in double precision floating point space. The data are then written to file with %11.6f% precision.

### 3.3.3 Wave data post processing

The following steps were applied to the wave data:

1. Check for duplicated measurements (Duplicate to Nan (all))
2. Filter wave height, wave period and wave direction as given in [Table 3.2](#) above
3. Check for  $h_{max} < h_{m0}$  and remove if found
4. Calculate wave system availability excluding parameters derived from zero upcrossing ( $h_{max}$  and  $t_{hmax}$ )

For deployments D1-D5 wave spectra were reprocessed to achieve uniform higher resolution than the initial setup of the onboard wave processing at the start of the campaign.

For deployments D6, D7 and D10 of WS188, raw wave data and wave spectra were reprocessed in house to reverse an additional filter active during these deployments.

For deployment D12, the sampling interval was increased to 2 Hz, resulting in 2048 raw wave data points instead of 1024, while all other wave processing remained the same.

### 3.3.4 Current data post processing

The following steps were applied to the current data:

1. Check for duplicated measurements (Duplicate to Nan (all))
2. Filter current speed and direction for all depths
3. Only validated depths (3 - 22m for HKWA and HKWA-2, 3 - 29 m for HKWB and HKWC) amplitude filtered
4. Non-validated depths (23 - 24 m for HKWA and HKWA-2, 30 - 33 m for HKWB and HKWC) are marked suspicious
5. Calculate currents system availability for validated depths only

For the bins close to the seafloor, seafloor effects have not been taken into account and the data is not validated [2].

Current data for D1, D2, D7 and D8 suffered from poor signal quality most likely resulting from biofouling on the ADCP sensor head during the summer months (June - September period) see [Table 4.1](#) and [Table 4.5](#). Current data for D1, D2 and D7 were reprocessed from raw data with 2 beams only. There was no raw data for reprocessing available for D8.

- For D1, reprocessed data was substituted into the dataset from 15<sup>th</sup> June 2019 until the end of the deployment. For depths 21 m and below, data from 1<sup>st</sup> September 2019 until the end of the deployment was removed.
- For D2, reprocessed data was substituted into the dataset from 15<sup>th</sup> June 2019 until the end of the deployment. For depths 14 m and below, data from 1<sup>st</sup> September 2019 until the end of the deployment was removed. For depths 16 m and below, data from 10<sup>th</sup> August 2019 until the end of the deployment was removed.
- For D7, reprocessed data was substituted into the dataset from 24<sup>th</sup> July until the end of the deployment. For depths 14 m - 15 m, data from 17<sup>th</sup> August 2020 until the end of the deployment was removed. For depths 16 m - 19 m, data from 10<sup>th</sup> August 2020 until the end of the deployment was removed. For depths 20 m and below, data from 13<sup>th</sup> July 2020 until the end of the deployment was removed. From 7<sup>th</sup> September 2020 until the end of the deployment, all current data for all depths was removed.
- For D8, all data for all depths from 10<sup>th</sup> August 2020 until the end of the deployment was removed.

- The current speed and direction data for deployments D1, D2, D7 and D8 has been used in the validation report as given in the respective data files. However, the data at the end of the deployments was ultimately deemed not trustworthy and has been marked "failed" in the associated quality flag files:
  - D1 - quality flag files "failed" from 2019-07-16
  - D2 - quality flag files "failed" from 2019-07-25
  - D7 - quality flag files "failed" from 2020-07-01
  - D8 - quality flag files "failed" from 2020-07-01

This data should be omitted when using these data files.

### 3.3.5 Water level

For water level, the LAT conversion constants used in each deployment are given in [Table 3.3](#). The difference between MSL and LAT at HKW is 0.65 cm (NLLAT2018 reference surface, Dutch Hydrographic Service).

Upon recovery of the mooring at HKWA-2 at the end of the campaign, it was discovered that the water level sensor was wrapped around the mooring. The water level data for D8 and D10 was removed from the dataset.

For D2, the water pressure signal shows several transitions between periods with distinct means. The transition intervals show gradual changes, not single impacts. There is no indication in the tilt data, SNR, or any other data measured to indicate impacts or other changes. A possible cause could be sand waves. Different LAT conversion constants were used for the different periods, see below. 2 transition intervals were excluded in the LAT conversion. The water levels (LAT) for deployment D2 have been used in the validation report as given in the respective data file. However, the data was ultimately considered not trustworthy for the entire duration of deployment D2 and has been marked "failed" in the associated quality flag file. This data should be omitted when using this data file.

Table 3.3: LAT conversion constant used in each deployment.

Deployment	Time interval	LAT constant used in conversion
D1	D1	-21.9
D2	2019-02-10 09:00 - 2019-02-25 00:00	-29.1
	2019-02-25 00:10 - 2019-03-11 00:00	-29.05
	2019-03-11 00:10 - 2019-03-25 00:00	-28.87
	2019-03-25 00:10 - 2019-06-02 12:00	-28.75
	2019-06-02 12:10 - 2019-06-11 12:00	removed
	2019-06-11 12:10 - 2019-07-07 23:50	-28.87
	2019-07-08 00:00 - 2019-07-14 00:00	removed
	2019-07-14 00:10 - 2019-09-01 00:00	-29.4
	2019-09-01 00:10 - 2019-09-19 09:20	-29.25
D3	D3	-30.05
D4	D4	-22.1
D5	D5	-21.99
D6	D6	-29.9
D7	D7	-29.3
D9	D9	-29.1
D11	D11	-29.35
D12	D12	-28.85

### 3.4 Post-processing version number

For each deployment, a separate LAT conversion constant was applied, see [Table 3.3](#).

Thereafter, all tests laid out in this chapter were applied to all deployments in the same order using the following version of the processing script: HKW.24M.05July2021.

### 3.5 Quality control

Fugro follows the international standard recommendations ISO-19901-1:2015 for the collection and supply of oceanographic data, in general:

1. To verify the proper functioning of the measuring and recording systems.
2. Qualified personnel conduct the observations, selection, installation, checking and maintenance of the equipment.
3. For data quality control procedures.

Data are first checked for gaps, instrument and buoy operation issues and timestamp and compass alignment as well as duplicated values indicating potential instrument or data logger issues. Data plots are prepared during post-processing showing the original data set and the effect of the post-processing filters applied. In general all the measured parameters are expected to vary over time, more or less depending on the parameter. In addition the sensors represent parameters that are dynamic and variations in one parameter are typically coupled to variations in one or several other parameters.

The quality control steps are divided into the following categories:

1. Buoy operation:
  - “Household” parameters, i.e. power supply (fuel cells, batteries, power consumption by instrument), error logs, and position data are used to assess the function of the buoy.
  - Any reboots and power supply issues leading to loss of data are identified here.
  - Buoy position is checked to verify the buoy stayed in position during the deployment.
  - Info and status flags from the ZephIR LiDAR unit are stored as part of the household parameters and are used to track the functionality of the LiDAR unit.
2. Variation of single parameters:
  - Some degree of variation is expected. Duplicated values and missing data are indications for instrument operation issues.
  - The measured data are checked against ongoing weather conditions. Reasonable agreement with the nearest weather observations is expected.
  - For currents the diurnal and semidiurnal variations due to the tides should be observed.
3. Variation of related parameters:
  - Humidity and air temperature are expected to increase in rain and fog.
  - The wave period will generally increase with increasing wave heights.
  - Correlation between speed and direction at adjacent levels for both wind and currents is expected.
  - Reasonable agreement between Gill and LiDAR measurements is expected.
  - The gust (from Gill sensor) should be 10-40 % higher than the wind speed.
  - Wind against waves (e.g. high waves during high winds, low winds with long swells, wind from offshore expect correlation between increasing wind speed and wave height).
4. Variation between buoys:
  - Taking variations between the buoys due to location/distance/water depth into account.
  - Air pressure should be very similar.
  - Temperature (both in air and water) should not differ by more than 2-3 ° C.
  - Wind speed and direction should be correlated.

After internal QA done by Fugro during post-processing, the dataset is given to Deltares for validation. Deltares first checks for consistency within the dataset, data files and whether any outliers are present and provides feedback.

If any issues are identified by Deltares, these are checked again by Fugro and dealt with in one of the following ways:

1. If a dataset formality (header lines, file name inconsistency, corrupted file) is identified: the file error is corrected.
2. Status data is checked to determine any buoy operating problems (eg voltage) at the time of the issue in question. Additional parameters are checked to check for packing/saving inconsistencies. Issue is then either determined real and left in dataset and noted for discussion or deemed operating problem and removed with flags files updated accordingly.
3. If an outlier is found: filtering is double-checked, other related parameters and status data are checked. If deemed filter failure, outlier is removed and filter flags are updated. Otherwise outlier is kept in dataset and noted for discussion.

If data points are removed, an updated dataset is issued to Deltares to use in the validation. [Table 1.3](#) lists the data files after all quality control measures that are ultimately used in the validation.

Deltares proceeds then with the validation of the data set as described in [\[2\]](#).

This is the same dataset as provided accompanying this report.

### 3.6 Data Quality Flags

Data quality is summarized in data quality flag files provided for each datafile of the same dimensions: <number\_of\_timesteps> x <number\_of\_columns> of that data-file (i.e. 'mirror' of the datafile itself). Flags are given as integers (0 to 6, 9) for each parameter, for each timestep. Details about the flagging convention applied are given in [Table 3.4](#).

**Table 3.4: Quality flags.**

<b>Flag</b>	<b>Primary level / short name</b>	<b>Definition</b>
0	Publication	Data have passed critical final quality control tests (real time and post-analysis), manual inspection and are deemed adequate for use as final data for publication to the market.
1	Pass/good	Data have passed critical real-time quality control tests and are deemed adequate for use as preliminary data.
2	Not evaluated, not available or unknown	Data have not been QC-tested or validated or the information on quality is not available.
3	Questionable / suspect	Data are considered to be either suspect or of high interest to end-users by Fugro. They are flagged suspect to draw further attention to them by end-users.
4	Questionable / suspect	Data are considered to be either suspect or of high interest to end-users. They are flagged suspect by the data validation process by external party to draw further attention to them by end-users.
5	Fail / bad	Data are considered to have failed one or more critical real-time or post QC checks by Fugro.
6	Fail / bad	Data are considered to have failed one or more critical real-time or post QC checks by the data validation process.
9	Missing data	Used as a placeholder when data are missing.



### 3.7 Calculations of data availability from the SWLB

Data availability in this report is given per signal as to show data entries per time series and per system (wind, waves, currents, air pressure, temperature, water level) ([chapter 5](#)).

The *Post-processed Data Availability per signal* for each deployment is calculated by dividing the number of data entries remaining after subtraction of all non-valid entries by the maximum possible number of 10-minute data entries within the respective deployment based on the given time interval of 10-minutes.

Non-valid entries refer to those caused by including but not limited to:

- downtime (due to equipment failure, maintenance, severe weather, damage, malfunction, theft, or any other events),
- any system filtering resulting in data rejection, flagged and defined,
- application of quality filters based on the system's own parameters, defined in [Section 3.3](#).

The Deployment Post-processed System Data Availability is determined as follows:

- a. Wind: Average of the 10-minute averaged post processed data availabilities per measured elevation, speed and direction up to and including 200 m from the LiDAR\*. The wind data set also include near surface wind speed and direction, i.e. wind measured in mast top (4 m height) by the Gill Windsonic sensor.
- b. Wave: Average of wave parameters (10-min frequency), excluding hmax and thmax.
- c. Current: Average of current speed and direction over the water column. \*\*
- d. Water level: Thelma.
- e. Atmospheric pressure: Vaisala.
- f. Temperature: Average of air and sea surface temperature.

\* Wind speed and direction are also measured at 250 m but are considered exploratory.

\*\* Note that for **c**, currents, only the data in the 3 m - 22 m depth bins at the shallow stations (HKWA, HKWA-2) and 3 m - 29 m depth bins at the deep stations (HKWB, HKWC) is used to calculate post-processed system availability.

Note: In the case of multiple (redundant) measurement instruments determining one parameter value, the availability of at least one parameter value determines the data availability.

Signal and system availability are given for each buoy separately. The data files presented do not combine data from the buoys. However, the buoys are deployed for redundancy reasons, so it is possible to increase data availability for a certain parameter by combining data from buoys measuring in parallel.

## 4. Deployments

This chapter provides detailed information on each deployment including specific issues during the deployment period, switches of equipment, data gaps and statistics for selected parameters.

### 4.1 Deployment 1: HKWA - WS187

**Table 4.1: Details on Deployment 1**

Station	HKWA
Buoy	WS187
Duration	2019-02-05 12:20 - 2019-09-21 00:00
Summary	Buoy WS187 was deployed in the HKWA location on 5 <sup>th</sup> February 2019 and stayed in position until 21 <sup>st</sup> September 2019.
Issues	<p>The DGPS system malfunctioned affecting transmitted LiDAR wind direction. In addition the met station on the LiDAR was not working leading to LiDAR re-boots every 12 hours resulting in missing LiDAR wind data every 12 hours (ca. 1.4 %).</p> <p>Biofouling on the current meter led to decreased quality of the current data in the summer months.</p> <p>Config updated (higher wind speed resolution) through Wi-Fi on 19<sup>th</sup> September 2019 at 06:20 while the buoy was at sea.</p>
Service	<p>After Deployment 1, cables and antennas of the DGPS system were replaced and the DGPS system made operational again. LiDAR was sent to ZephIR for service (power regulator replacement).</p> <p>Config updated to increase range in hspec parameter for wave spectra. However this was unsuccessful.</p>
Post-processing	<p>LiDAR wind direction was post-processed using compass as heading for Deployment 1. Both wind speed and direction were post-processed using uniform higher digital resolution for the 9-month, 12-month and 24-month datasets.</p> <p>Current data from June until September was reprocessed with 2 beams. For depths 21 m and below, data from 1<sup>st</sup> September 2019 until the end of the deployment was removed.</p> <p>The current speed and direction data after 2019-07-16 was ultimately deemed not trustworthy and has been marked "failed" in the associated quality flag files. This data should be omitted when using these data files.</p> <p>Wave spectra were post-processed with higher digital resolution (<a href="#">Section 3.2.2</a>).</p>

**Table 4.2: Post-processed system availability as per Section 3.7 in % during HKW Deployment 1.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
85.5	99.8	92.5	98.6	100.0	97.6

**Table 4.3: Wind speed statistics during HKW Deployment 1: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	6.29	18.4
	3-second gust	4	8.07	25.4
ZephIR LiDAR	10 min mean wind speed	30	7.89	24.1
		40	8.11	24.1
		60	8.50	25.2
		80	8.77	26.5
		100	8.96	26.6
		120	9.11	27.5
		140	9.23	28.4
		160	9.33	27.8
		180	9.41	28.5
		200	9.49	28.7
		250	9.61	32.8

**Table 4.4: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 1.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	982.62	1016.56	1041.89
Air Temperature	°C	4.0	3.48	12.76	23.67
Humidity	% R.H.	4.0	50.38	81.92	100.01
hm0	m	0.0	0.16	1.15	5.02
hmax	m	0.0	0.31	1.74	8.95
thmax	s	0.0	2.55	6.20	22.97
tm01	s	0.0	2.55	4.71	9.97
tm02	s	0.0	2.45	4.42	8.65
tp	s	0.0	2.05	6.18	20.12
Water Temperature	°C	-1.0	6.96	12.97	20.69
Water Level	m LAT	-22.0	0.01	0.96	2.22

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 4.2 Deployment 2: HKWB - WS188

Table 4.5: Details on Deployment 2

Station	HKWB
Buoy	WS188
Duration	2019-02-10 09:00 - 2019-09-19 09:20
Summary	Buoy WS188 was successfully deployed in the HKWB location on 10 <sup>th</sup> February 2019 and stayed in position until 19 <sup>th</sup> September 2019.
Issues	<p>The buoy experienced power issues starting in August leading to decreased LiDAR data return.</p> <p>Biofouling on the current meter led to decreased quality of the current data in the summer months.</p> <p>The mast carrying the Gill wind sensor was slightly turned from neutral causing an offset in the Gill wind direction by a fairly constant 9°.</p>
Service	<p>The buoy was refueled after this deployment.</p> <p>Config updated to increase range in hspec parameter for wave spectra. However this was unsuccessful.</p> <p>Config updated (higher digital wind speed resolution).</p>
Post-processing	<p>Both wind speed and direction were post-processed using uniform higher resolution for the 9-month, 12-month and 24-month datasets.</p> <p>The wind direction from the Gill sensor was corrected for the mast turn (+9°). The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.</p> <p>Current data from June until September was reprocessed with 2 beams. For depths 14 m and below, data from 1<sup>st</sup> September 2019 until the end of the deployment was removed. For depths 16 m and below, data from 10<sup>th</sup> August 2019 until the end of the deployment was removed.</p> <p>The current speed and direction data after 2019-07-25 was ultimately deemed not trustworthy and has been marked "failed" in the associated quality flag files. This data should be omitted when using these data files.</p> <p>Wave spectra were post-processed with higher digital resolution (<a href="#">Section 3.2.2</a>).</p> <p>The water levels (LAT) for deployment D2 were ultimately considered not trustworthy for the entire duration of deployment D2 and were marked "failed" in the associated quality flag file. This data should be omitted when using this data file.</p>

**Table 4.6: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 2.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
82.9	99.0	88.1	89.8	100.0	98.2

**Table 4.7: Wind speed statistics during HKW Deployment 2: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	6.21	18.7
	3-second gust	4	7.92	26.2
ZephIR LiDAR	10 min mean wind speed	30	7.85	24.0
		40	8.08	23.7
		60	8.50	25.2
		80	8.83	25.5
		100	9.03	26.2
		120	9.20	27.2
		140	9.33	27.5
		160	9.44	27.8
		180	9.52	28.3
		200	9.59	28.3
		250	9.72	29.6

**Table 4.8: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 2.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	982.52	1016.63	1041.80
Air Temperature	°C	4.0	3.05	12.82	23.19
Humidity	% R.H.	4.0	43.29	81.90	99.69
hm0	m	0.0	0.16	1.12	5.14
hmax	m	0.0	0.31	1.70	8.36
thmax	s	0.0	2.55	6.04	22.97
tm01	s	0.0	2.55	4.61	8.34
tm02	s	0.0	2.45	4.34	7.43
tp	s	0.0	2.05	5.94	15.25
Water Temperature	°C	-1.0	7.01	13.15	20.82
Water Level	m LAT	-30.8	0.00	0.95	2.27

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

### 4.3 Deployment 3: HKWC - WS170

**Table 4.9: Details on Deployment 3**

Station	HKWC
Buoy	WS170
Duration	2019-08-01 00:00 - 2019-11-24 08:30
Summary	After completing the in situ pre-deployment validation in June - July 2019 in position HKWC, WS170 was considered operational from 1 <sup>st</sup> August 2019. WS170 stayed in position until 24 <sup>th</sup> November 2019. A Thelma WLS was added on 19 <sup>th</sup> September 2019.
Issues	LiDAR Z585 developed an internal laser failure (faulty internal power cable) at the end of the deployment leading to missing wind data after 23 <sup>rd</sup> November 2019. Aquadopp performance decreased during the deployment due to biofouling.
Service	Config updated (higher digital wind speed resolution) through Wi-Fi on 19 <sup>th</sup> September 2019 at 06:20 while the buoy was at sea. After this deployment, the LiDAR was serviced (new laser power cable) and a new Aquadopp current profiler was installed. Config updated to increase range in hspec parameter for wave spectra. However this was unsuccessful.
Post-processing	LiDAR wind speed was post-processed with uniform higher digital resolution for the 9-month, 12-month and 24-month datasets. Wave spectra were post-processed with higher digital resolution ( <a href="#">Section 3.2.2</a> ).

**Table 4.10: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 3.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
98.0	100.0	55.0	81.0	100.0	98.4



**Table 4.11: Wind speed statistics during HKW Deployment 3: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	7.60	19.0
	3-second gust	4	9.93	25.6
ZephIR LiDAR	10 min mean wind speed	30	9.04	23.9
		40	9.20	25.4
		60	9.43	25.8
		80	9.57	26.6
		100	9.68	26.8
		120	9.78	27.9
		140	9.88	27.8
		160	9.96	28.4
		180	10.03	28.5
		200	10.09	28.4
		250	10.22	28.9

**Table 4.12: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 3.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	977.54	1011.26	1036.13
Air Temperature	°C	4.0	4.07	14.90	22.28
Humidity	% R.H.	4.0	47.16	78.36	97.65
hm0	m	0.0	0.16	1.44	4.87
hmax	m	0.0	0.31	2.17	8.87
thmax	s	0.0	2.76	5.88	22.97
tm01	s	0.0	2.76	4.81	7.43
tm02	s	0.0	2.66	4.53	7.02
tp	s	0.0	2.05	6.14	15.96
Water Temperature	°C	-1.0	11.39	16.74	20.88
Water Level	m LAT	-30.8	0.05	0.88	1.90

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

#### 4.4 Deployment 4: HKWA - WS188

**Table 4.13: Details on Deployment 4**

Station	HKWA
Buoy	WS188
Duration	2019-09-21 13:50 - 2019-11-24 07:30
Summary	After refueling WS188 was deployed in the HKWA position on 21 <sup>st</sup> September 2019.
Issues	<p>Increased range for wave spectra implemented in config settings.</p> <p>LiDAR Z802 developed an internal error (laser fault) and stopped working on 30<sup>th</sup> October 2019 resulting in missing wind data in November.</p> <p>The mast carrying the Gill wind sensor was slightly turned from neutral causing an offset in the Gill wind direction by a fairly constant 9°.</p>
Service	After the deployment, the LiDAR was serviced (laser replaced) and the iridium antenna was changed during service in December.
Post-processing	<p>The wind direction from the Gill sensor was corrected for the mast turn (+9°). The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.</p> <p>The buoy was set up with the higher digital wind resolution prior to deployment. No further post-processing was necessary.</p> <p>Wave spectra were post-processed with higher digital resolution (<a href="#">Section 3.2.2</a>).</p>

**Table 4.14: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 4.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
64.2	99.9	90.7	100.0	100.0	99.4

**Table 4.15: Wind speed statistics during HKW Deployment 4: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	8.38	19.0
	3-second gust	4	10.89	25.1
ZephIR LiDAR	10 min mean wind speed	30	10.31	21.3
		40	10.49	21.0
		60	10.76	21.9
		80	10.97	22.4
		100	11.12	23.4
		120	11.26	23.8
		140	11.38	24.4
		160	11.50	24.4
		180	11.61	25.1
		200	11.71	25.2
		250	11.91	26.6

**Table 4.16: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 4.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	977.54	1006.32	1028.91
Air Temperature	°C	4.0	3.96	12.62	20.02
Humidity	% R.H.	4.0	49.52	78.54	97.65
hm0	m	0.0	0.39	1.62	4.45
hmax	m	0.0	0.45	2.37	7.20
thmax	s	0.0	2.76	6.04	21.85
tm01	s	0.0	2.86	5.01	7.94
tm02	s	0.0	2.76	4.71	7.23
tp	s	0.0	2.45	6.51	16.27
Water Temperature	°C	-1.0	11.48	15.08	17.91
Water Level	m LAT	-22.0	0.06	0.89	1.91

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 4.5 Deployment 5: HKWA - WS187

**Table 4.17: Details on Deployment 5**

Station	HKWA
Buoy	WS187
Duration	2019-11-24 08:00 - 2020-04-24 16:50
Summary	WS187 was redeployed with fully functional LiDAR and DGPS system. Increased range for wave spectra implemented in config settings.
Issues	No issues during deployment.
Service	Regular maintenance and refuelling after deployment.
Post-processing	The buoy was set up with the higher digital wind resolution prior to deployment. No further post-processing was necessary. Wave spectra were post-processed with higher digital resolution ( <a href="#">Section 3.2.2</a> ).

**Table 4.18: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 5.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
99.1	99.9	93.4	99.9	100	98.6

**Table 4.19: Wind speed statistics during HKW Deployment 5: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	8.84	21.2
	3-second gust	4	11.39	29.7
ZephIR LiDAR	10 min mean wind speed	30	10.77	28.6
		40	11.05	29.2
		60	11.49	31.0
		80	11.86	31.8
		100	12.11	32.3
		120	12.35	34.4
		140	12.55	34.1
		160	12.73	34.6
		180	12.89	36.4
		200	13.02	37.1
		250	13.29	39.7

**Table 4.20: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 5.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	970.70	1014.05	1047.66
Air Temperature	°C	4.0	2.29	8.27	12.55
Humidity	% R.H.	4.0	44.47	80.57	99.26
hm0	m	0.0	0.19	1.74	5.85
hmax	m	0.0	0.29	2.56	11.83
thmax	s	0.0	2.76	6.24	22.16
tm01	s	0.0	2.76	5.14	9.16
tm02	s	0.0	2.55	4.82	8.24
tp	s	0.0	2.15	6.62	22.26
Water Temperature	°C	-1.0	7.60	8.86	11.67
Water Level	m LAT	-22.0	0.00	1.03	2.59

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 4.6 Deployment 6: HKWC - WS188

**Table 4.21: Details on Deployment 6**

Station	HKWC
Buoy	WS188
Duration	2019-12-18 09:20 - 2020-02-07 18:40
Summary	WS188 was redeployed with fully functional LiDAR unit (new laser).
Issues	<p>LiDAR malfunctioned at the end of December 2019 due to a corrupted disk on the LiDAR unit leading to missing wind data from 1<sup>st</sup> January 2020.</p> <p>Loosening of keel weight due to insufficient fastening lead to drifting out of position on 7<sup>th</sup> February 2020.</p> <p>The mast carrying the Gill wind sensor was slightly turned from neutral causing an offset in the Gill wind direction by a fairly constant 9°.</p> <p>An auxiliary filter on the raw heave, pitch, and roll data was active during the deployment.</p>
Service	<p>After recovery after drifting, an inspection showed torn out holes in the connecting flange caused by the keel weight loosening and minor physical damage to seals, nuts and bolts. The damage was repaired on site.</p> <p>LiDAR met station, GPS antenna on mast 2 were replaced and new mooring with new Thelma sensor was prepared for the next deployment.</p>
Post-processing	<p>Both wind speed and direction were post-processed using uniform higher digital resolution.</p> <p>The wind direction from the Gill sensor was corrected for the mast turn (+9°). The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.</p> <p>Raw wave data and wave spectra were reprocessed in house to reverse the additional filter active during this deployment. In addition the wave spectra were post-processed with higher digital resolution (<a href="#">Section 3.2.2</a>).</p>

**Table 4.22: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 6.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
34.4	98.7	94.9	98.2	99.0	96.9

**Table 4.23: Wind speed statistics during HKW Deployment 6: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	8.64	18.2
	3-second gust	4	11.07	24.3
ZephIR LiDAR	10 min mean wind speed	30	9.96	19.3
		40	10.18	20.0
		60	10.56	21.2
		80	10.87	21.7
		100	11.10	22.0
		120	11.31	23.6
		140	11.52	22.7
		160	11.70	24.8
		180	11.85	24.7
		200	11.95	24.9
		250	12.15	26.9

**Table 4.24: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 6.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	976.46	1016.92	1047.66
Air Temperature	°C	4.0	3.21	8.19	11.75
Humidity	% R.H.	4.0	62.95	84.49	99.04
hm0	m	0.0	0.37	1.52	4.51
hmax	m	0.0	0.41	2.26	6.61
thmax	s	0.0	2.86	5.96	22.26
tm01	s	0.0	2.96	5.13	8.04
tm02	s	0.0	2.86	4.87	7.63
tp	s	0.0	2.76	6.27	16.47
Water Temperature	°C	-1.0	8.17	8.87	9.77
Water Level	m LAT	-30.8	0.00	1.06	2.19

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 4.7 Deployment 7: HKWB - WS188

Table 4.25: Details on Deployment 7

Station	HKWB
Buoy	WS188
Duration	2020-04-24 16:00 - 2020-09-15 09:00
Summary	Buoy WS188 was deployed in the HKWB location on 24 <sup>th</sup> April 2020. However, the buoy was not transmitting data in April 2020. The buoy was restarted on 9 <sup>th</sup> May 2020 and stayed in position until 15 <sup>st</sup> September 2020.
Issues	<p>The mast carrying the Gill wind sensor was slightly turned from neutral causing an offset in the Gill wind direction by a fairly constant 9°.</p> <p>An auxiliary filter on the raw heave, pitch, and roll data was active during the deployment.</p> <p>Biofouling on the current meter led to decreased quality of the current data in the summer months.</p>
Service	Regular maintenance and refuelling after deployment.
Post-processing	<p>Both wind speed and direction were post-processed using uniform higher digital resolution.</p> <p>The wind direction from the Gill sensor was corrected for the mast turn (+9°). The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.</p> <p>Raw wave data and wave spectra were reprocessed in house to reverse the additional filter active during this deployment. In addition the wave spectra were post-processed with higher digital resolution (<a href="#">Section 3.2.2</a>).</p> <p>Current data from July until September was reprocessed with 2 beams. For depths 14 m - 15 m, data from 17<sup>th</sup> August 2020 until the end of the deployment was removed. For depths 16 m - 19 m, data from 10<sup>th</sup> August 2020 until the end of the deployment was removed. For depths 20 m and below, data from 13<sup>th</sup> July 2020 until the end of the deployment was removed. From 7<sup>th</sup> September 2020 onwards all data was removed.</p> <p>The current speed and direction data after 2020-07-01 was ultimately deemed not trustworthy and has been marked "failed" in the associated quality flag files. This data should be omitted when using these data files.</p>

Table 4.26: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 7.

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
93.0	88.9	85.8	65.3	89.7	87.8



**Table 4.27: Wind speed statistics during HKW Deployment 7: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	5.92	18.2
	3-second gust	4	7.53	24.4
ZephIR LiDAR	10 min mean wind speed	30	7.37	24.4
		40	7.60	25.1
		60	7.94	26.7
		80	8.15	26.5
		100	8.29	26.7
		120	8.41	26.9
		140	8.50	27.7
		160	8.57	28.4
		180	8.63	28.5
		200	8.68	28.5
		250	8.77	28.4

**Table 4.28: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 7.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	989.26	1015.93	1036.72
Air Temperature	°C	4.0	6.70	15.75	23.73
Humidity	% R.H.	4.0	48.66	82.14	99.47
hm0	m	0.0	0.14	1.01	5.24
hmax	m	0.0	0.29	1.54	8.63
thmax	s	0.0	2.66	6.23	22.97
tm01	s	0.0	2.76	4.83	8.04
tm02	s	0.0	2.55	4.57	7.53
tp	s	0.0	2.05	6.02	13.12
Water Temperature	°C	-1.0	11.00	16.16	21.15
Water Level	m LAT	-30.8	0.09	0.87	1.92

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 4.8 Deployment 8: HKWA-2 - WS187

**Table 4.29: Details on Deployment 8**

Station	HKWA-2
Buoy	WS187
Duration	2020-05-09 09:40 - 2020-11-06 14:40
Summary	Buoy WS187 was deployed in the HKWB location on 09 <sup>th</sup> May 2020 and stayed in position until 06 <sup>st</sup> November 2020.
Issues	Biofouling on the current meter led to decreased quality of the current data in the summer months. Water level sensor was wrapped around the mooring.
Service	Regular maintenance and refuelling after deployment.
Post-processing	Both wind speed and direction were post-processed using uniform higher digital resolution. Water pressure and water level data removed. Current data from 10 <sup>th</sup> August 2020 until the end of the deployment for all depths was removed. Wave spectra were post-processed with higher digital resolution ( <a href="#">Section 3.2.2</a> ). The current speed and direction data after 2020-07-01 was ultimately deemed not trustworthy and has been marked "failed" in the associated quality flag files. This data should be omitted when using these data files.

**Table 4.30: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 8.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
98.7	99.9	0	51.4	100	98.0

**Table 4.31: Wind speed statistics during HKW Deployment 8: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	6.71	18.6
	3-second gust	4	8.61	26.1
ZephIR LiDAR	10 min mean wind speed	30	8.31	24.2
		40	8.54	24.8
		60	8.87	25.7
		80	9.08	26.2
		100	9.22	27.1
		120	9.36	27.4
		140	9.46	28.6
		160	9.55	29.5
		180	9.63	30.0
		200	9.69	31.2
		250	9.84	32.9

**Table 4.32: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 8.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	981.64	1014.36	1039.16
Air Temperature	°C	4.0	6.81	15.31	23.51
Humidity	% R.H.	4.0	50.17	81.19	99.47
hm0	m	0.0	0.16	1.28	6.16
hmax	m	0.0	0.27	1.91	9.16
thmax	s	0.0	2.66	6.19	22.97
tm01	s	0.0	2.55	4.84	8.45
tm02	s	0.0	2.45	4.54	7.84
tp	s	0.0	2.05	6.29	14.44
Water Temperature	°C	-1.0	10.92	16.06	20.60
Water Level	m LAT	-22.0	NaN	NaN	NaN

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 4.9 Deployment 9: HKWB - WS170

**Table 4.33: Details on Deployment 9**

Station	HKWB
Buoy	WS170
Duration	2020-09-15 10:50 - 2020-11-14 00:00
Summary	Buoy WS170 was deployed in the HKWB location on 15 <sup>th</sup> September 2020 and stayed in position until 14 <sup>st</sup> November 2020.
Issues	SWLB WS170 suffered damage to the main mast during a storm while deployed at TNW resulting in an offset in the DGPS heading data. The LiDAR unit was unaffected.  The mast carrying the Gill wind sensor was turned from neutral causing an offset in the Gill wind direction by a fairly constant 8°.
Service	Regular maintenance and refuelling after deployment.
Post-processing	The wind direction from the Gill sensor was corrected for the mast turn (−8°). The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.  Wind direction was reprocessed with compass heading. Both wind speed and direction were post-processed using uniform higher digital resolution.  Wave spectra were post-processed with higher digital resolution ( <a href="#">Section 3.2.2</a> ).

**Table 4.34: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 9.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
99.9	99.9	100	100	100	98.8

**Table 4.35: Wind speed statistics during HKW Deployment 9: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	8.38	17.0
	3-second gust	4	10.92	24.0
ZephIR LiDAR	10 min mean wind speed	30	10.04	22.5
		40	10.21	23.1
		60	10.46	23.9
		80	10.63	25.3
		100	10.76	25.8
		120	10.89	26.6
		140	11.01	28.3
		160	11.13	28.5
		180	11.23	29.9
		200	11.32	30.7
		250	11.54	32.6

**Table 4.36: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 9.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	982.13	1011.44	1039.06
Air Temperature	°C	4.0	9.49	14.06	20.29
Humidity	% R.H.	4.0	50.49	78.23	96.89
hm0	m	0.0	0.23	1.64	5.47
hmax	m	0.0	0.29	2.40	9.56
thmax	s	0.0	2.76	6.14	22.87
tm01	s	0.0	2.76	4.94	8.14
tm02	s	0.0	2.66	4.65	7.63
tp	s	0.0	2.05	6.27	15.05
Water Temperature	°C	-1.0	13.26	15.68	19.06
Water Level	m LAT	-30.8	0.09	1.15	2.31

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 4.10 Deployment 10: HKWA-2 - WS188

**Table 4.37: Details on Deployment 10**

Station	HKWA-2
Buoy	WS188
Duration	2020-11-06 15:50 - 2021-02-11 23:50
Summary	Buoy WS188 was deployed in the HKWA-2 location on 06 <sup>th</sup> November 2020 and stayed in position until 11 <sup>th</sup> February 2021.
Issues	<p>The mast carrying the Gill wind sensor was slightly turned from neutral causing an offset in the Gill wind direction by a fairly constant 9°.</p> <p>Water level sensor was wrapped around the mooring.</p> <p>An auxiliary filter on the raw heave, pitch, and roll data was active during the deployment.</p> <p>Communication issues between LiDAR unit and datalogger. Raw data stored in zph files.</p>
Service	Regular maintenance and refuelling after deployment.
Post-processing	<p>Both wind speed and direction were post-processed using uniform higher digital resolution.</p> <p>The wind direction from the Gill sensor was corrected for the mast turn (+9°). The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.</p> <p>Water pressure and water level data removed.</p> <p>Raw wave data and wave spectra were reprocessed in house to reverse the additional filter active during this deployment. In addition the wave spectra were post-processed with higher digital resolution (<a href="#">Section 3.2.2</a>).</p>

**Table 4.38: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 10.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
91.1	99.7	0	99.9	100	98.4

**Table 4.39: Wind speed statistics during HKW Deployment 10: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	8.18	20.2
	3-second gust	4	10.74	28.8
ZephIR LiDAR	10 min mean wind speed	30	9.62	27.4
		40	9.81	28.2
		60	10.08	29.1
		80	10.25	29.7
		100	10.39	29.9
		120	10.52	31.1
		140	10.66	31.4
		160	10.77	31.7
		180	10.87	31.6
		200	10.95	32.2
		250	11.13	34.4

**Table 4.40: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 10.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	972.75	1009.84	1034.08
Air Temperature	°C	4.0	-2.81	7.56	14.38
Humidity	% R.H.	4.0	52.42	80.75	98.83
hm0	m	0.0	0.21	1.51	5.98
hmax	m	0.0	0.31	2.24	9.42
thmax	s	0.0	2.66	6.49	22.97
tm01	s	0.0	2.86	5.27	9.66
tm02	s	0.0	2.66	4.95	8.65
tp	s	0.0	2.05	6.83	18.60
Water Temperature	°C	-1.0	6.15	10.00	13.52
Water Level	m LAT	-22.0	NaN	NaN	NaN

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 4.11 Deployment 11: HKWB - WS187

**Table 4.41: Details on Deployment 11**

Station	HKWB
Buoy	WS187
Duration	2020-11-14 01:40 - 2020-11-23 01:20
Summary	Buoy WS187 was deployed in the HKWB location on 14 <sup>th</sup> November 2020 until 23 <sup>rd</sup> November 2020.
Issues	The keel weight loosened due to insufficient fastening and tore off leading to drifting out of position on 23 <sup>rd</sup> November 2020.
Service	After recovery after drifting, an inspection showed torn out holes in the connecting flange caused by the keel weight loosening and minor physical damage to seals, nuts and bolts. The damage was repaired on site. A new keel weight was fitted. Damage on other sensors or equipment was not found.
Post-processing	Both wind speed and direction were post-processed using uniform higher digital resolution.  Wave spectra were post-processed with higher digital resolution ( <a href="#">Section 3.2.2</a> ).

**Table 4.42: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 11.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
99.8	95.3	100	99.6	100	98.8



**Table 4.43: Wind speed statistics during HKW Deployment 11: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	10.61	16.8
	3-second gust	4	13.86	23.2
ZephIR LiDAR	10 min mean wind speed	30	13.03	21.5
		40	13.30	22.3
		60	13.72	23.2
		80	14.03	24.1
		100	14.28	24.1
		120	14.53	24.5
		140	14.77	26.0
		160	14.96	26.3
		180	15.14	26.6
		200	15.31	26.8
		250	15.67	27.7

**Table 4.44: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 11.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	994.24	1017.69	1034.38
Air Temperature	°C	4.0	7.77	11.89	14.38
Humidity	% R.H.	4.0	53.71	78.63	96.89
hm0	m	0.0	0.67	2.30	3.92
hmax	m	0.0	0.82	3.37	6.00
thmax	s	0.0	3.67	6.60	19.52
tm01	s	0.0	3.57	5.58	8.24
tm02	s	0.0	3.37	5.23	7.33
tp	s	0.0	4.08	7.48	22.77
Water Temperature	°C	-1.0	12.47	12.95	13.24
Water Level	m LAT	-30.8	0.06	1.04	2.18

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 4.12 Deployment 12: HKWB - WS170

**Table 4.45: Details on Deployment 12**

Station	HKWB
Buoy	WS170
Duration	2020-11-26 15:30 - 2021-02-11 23:50
Summary	Buoy WS170 was deployed in the HKWB location on 26 <sup>th</sup> November 2020 and stayed in position until 11 <sup>th</sup> February 2021.
Issues	<p>Communication issues between LiDAR unit and datalogger. Raw data stored in zph files.</p> <p>The mast carrying the Gill wind sensor was turned from neutral causing an offset in the Gill wind direction by a fairly constant 8°.</p> <p>The sampling interval for the heave, pitch and roll data was changed to 2 Hz compared to 1 Hz for all other deployments.</p>
Service	Regular maintenance and refuelling after deployment.
Post-processing	<p>The wind direction from the Gill sensor was corrected for the mast turn (−8°). The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.</p> <p>Wind direction was reprocessed with compass heading. Both wind speed and direction were post-processed using uniform higher digital resolution.</p> <p>Wave spectra were post-processed with higher digital resolution (<a href="#">Section 3.2.2</a>).</p>

**Table 4.46: Post-processed system availability as per [Section 3.7](#) in % during HKW Deployment 12.**

Wind	Waves	Water Level	Currents	Air Pressure	Temperature
93.4	99.9	99.8	100	100	98.7

**Table 4.47: Wind speed statistics during HKW Deployment 12: 10 min mean and gust from the Gill sensor at 4 m height, 10 min mean speeds at 11 levels from the LiDAR. (Heights referred to the sea surface.)**

Instrument	Parameter	Height (m)	Average (m/s)	Maximum (m/s)
Gill Windsonic	10 min mean wind speed	4	8.13	20.7
	3-second gust	4	10.72	28.7
ZephIR LiDAR	10 min mean wind speed	30	9.66	27.9
		40	9.83	28.5
		60	10.08	29.8
		80	10.09	31.0
		100	10.22	30.8
		120	10.37	30.6
		140	10.50	31.1
		160	10.60	32.1
		180	10.71	32.8
		200	10.78	32.2
		250	10.98	33.5

**Table 4.48: Statistics of measured values of meteorological data, wave data and sea surface temperature (at 1 m depth) during HKW Deployment 12.**

Parameter	Unit	Height (m)	Minimum	Average	Maximum
Air Pressure	hPa	0.5	972.85	1007.41	1032.62
Air Temperature	°C	4.0	-2.75	6.53	12.18
Humidity	% R.H.	4.0	51.67	80.34	97.86
hm0	m	0.0	0.31	1.61	5.75
hmax	m	0.0	0.43	2.47	15.79
thmax	s	0.0	2.67	5.83	19.26
tm01	s	0.0	2.59	4.97	9.03
tm02	s	0.0	2.52	4.65	8.09
tp	s	0.0	2.07	6.49	14.84
Water Temperature	°C	-1.0	6.05	9.19	12.21
Water Level	m LAT	-30.8	0.05	1.36	2.72

Gaps in the dataset are listed in [Appendix E: Data gap tables](#).

## 5. Campaign Summary

The campaign was executed with the intention of having two buoys deployed at all times for redundancy. This was achieved for most of the 24 months except for the following periods:

- 5 - 10 February 2019: second buoy at HKWB deployed on 10<sup>th</sup> February 2019 due to weather
- 24 November - 18 December 2019: only 1 buoy active at HKWA due to repair and weather issues
- 7 - 24 April 2020: after buoy at HKWC drifted out of position, only 1 buoy active at HKWA due to repair, weather and COVID-10 issues
- 24 April 2020 - 9 May 2020: no buoy active since buoy WS187 was recovered for regular maintenance and buoy at HKWB was "hung" in reboot cycle
- 23 - 26 November 2020: only 1 buoy active at HKWA-2 after buoy at HKWB drifted out of position

In the period 15 June - 19 September 2019, there were 3 buoys deployed as an in situ validation of the spare buoy WS170 was done by deploying WS170 near HKWB. In agreement with RVO, WS170 was then phased into the campaign and data is used from 1<sup>st</sup> August 2019 onwards as deployment 3.

In general the Seawatch Wind LiDAR buoys have performed well during the 24-month campaign. Some irregularities have, however, occurred:

- In the first deployment (HKWA, WS187) the differential GPS failed after some time and the fallback solution for wind direction reference, compass, had to be used. Because of this the wind data from the first deployment was re-processed.
- In the second deployment (HKWB, WS188) the wind data from the LiDAR started to become irregular from 11 August 2019 onwards, after the buoy had been deployed for 7 months. Fortunately the spare buoy, WS170, was deployed nearby (at HKWC) and could be phased into the campaign.
- The water levels (LAT) for deployment D2 were used in the validation report as given in the respective data file. However, the data was ultimately considered not trustworthy for the entire duration of deployment D2 and was marked "failed" in the associated quality flag file. This data should be omitted when using this data file.
- The mast carrying the Gill wind sensor on WS188 was slightly turned from neutral causing an offset in the Gill wind direction by a fairly constant 9°. The wind direction from the Gill sensor was corrected for the mast turn (+ 9°) for all deployments involving WS188. The 180-degree ambiguity was then applied to the LiDAR wind direction with the corrected Gill direction as reference.
- After the first three deployments RVO required that the digital resolution for wind speed should be increased. This was done on 19 September 2019 by updating the geni configuration while the buoys (deployment 1 (WS187) and 3 (WS170)) were at sea. The wind speed data from before that date was re-processed with higher resolution to match the rest of the dataset. This higher digital resolution has been used from 19 September 2019 onwards.
- In deployment 4 (HKWA, WS188), the LiDAR started to fail on 30 October 2019 and the buoy had to be brought to land for repair and service.
- During deployment 6, LiDAR on WS188 malfunctioned at the end of December 2019 due to a corrupted disk on the LiDAR unit leading to missing wind data from 1<sup>st</sup> January 2020 until 7<sup>th</sup> February 2020.
- During deployment 6 (HKWC), loosening of keel weight of WS188 due to insufficient fastening lead to drifting out of position on 7<sup>th</sup> February 2020.
- An auxiliary filter on the raw heave, pitch, and roll data was active during the deployments D6, D7 and D10 of WS188. This filter was reversed during post processing and the wave data restored.
- The current profilers worked during all deployments. During both summers (2019 and 2020), at the end

of deployments 1 and 2, and 7 and 8, measurements from the deeper layers suffered from biofouling on the sensor and algae/particles in the water.

- The current speed and direction data for deployments D1, D2, D7 and D8 was used in the validation report as given in the respective data files. However, the data at the end of the deployments was ultimately deemed not trustworthy and was marked "failed" in the associated quality flag files. This data should be omitted when using these data files.
- Buoy WS188 was deployed in the HKWB location on 24<sup>th</sup> April 2020. However, the buoy was not transmitting data in April 2020. The buoy was manually restarted on 9<sup>th</sup> May 2020 during the deployment operations for buoy WS187 at HKWA-2.
- SWLB WS170 was a shared spare buoy between this HKW project and the Ten noorden van de Waddeneilanden (TNW) project (also with RVO). After HKW deployment 3, WS170 was deployed twice at TNW before returning to HKW for deployments 9 and 12. Further details can be found in the monthly reports of the TNW campaign ([https://offshorewind.rvo.nl/TNW\\_WindAndWater](https://offshorewind.rvo.nl/TNW_WindAndWater)).
- SWLB WS170 suffered damage to the main mast during a storm while deployed at TNW resulting in an offset in the DGPS heading data. The mast carrying the Gill wind sensor was turned from neutral causing an offset in the Gill wind direction by a fairly constant 8°. The LiDAR unit was unaffected. Wind direction for HKW deployments 9 and 12 was reprocessed with compass heading.
- During deployment 11 (HKWB), loss of the keel weight of WS187 lead to drifting out of position on 23 November 2020.
- The water level sensor connected to the mooring at HKWA-2 got wrapped around the mooring and stopped recording data on 18 November 2020.
- Wave spectra for all deployments were post-processed with higher digital resolution.

The following large storms passed over the HKW area during this campaign:

**Table 5.1: Large storm events during the HKW campaign.**

<b>Date</b>	<b>Dep.</b>	<b>Wind speeds</b>	<b>Named storm</b>
7 <sup>th</sup> - 10 <sup>th</sup> February 2019	D1	wind speeds > 25m/s, peaks > 30m/s	Isaias
2 <sup>nd</sup> - 17 <sup>th</sup> March 2019	D1, D2	wind speeds > 25m/s	Laura and Gareth
6 <sup>th</sup> - 7 <sup>th</sup> June 2019	D1, D2	wind speeds > 20m/s	Miguel
8 <sup>th</sup> - 12 <sup>th</sup> August 2019	D1, D2, D3	wind speeds > 25m/s	possibly extratropical remnants of Tropical Storm Ernesto
11 <sup>th</sup> - 12 <sup>th</sup> October 2019	D3, D4	wind speeds > 25m/s	possibly extratropical remnants of Tropical Storm Lorenzo
5 <sup>th</sup> - 14 <sup>th</sup> December 2019	D5	wind speeds > 25m/s	Atiyah
19 <sup>th</sup> December 2019	D5, D6	wind speeds > 25m/s	possibly Elsa
10 <sup>th</sup> - 14 <sup>th</sup> January 2020	D5, D6	wind speeds > 30m/s	Brendan
8 <sup>th</sup> - 10 <sup>th</sup> February 2020	D5	wind speeds > 30m/s	Ciara
15 <sup>th</sup> - 16 <sup>th</sup> February 2020	D5	wind speeds up to 39.0 m/s at 250 m height	Dennis
21 <sup>st</sup> - 23 <sup>rd</sup> August 2020	D7, D8	wind speeds > 24m/s	Ellen
25 <sup>th</sup> - 26 <sup>th</sup> August 2020	D7, D8	wind speeds > 28m/s	Francis
25 <sup>th</sup> September 2020 - 05 <sup>th</sup> October 2020	D8, D9	wind speeds > 27m/s	Alex
21 <sup>st</sup> October 2020	D8, D9	wind speeds > 30m/s	Barbara
29 <sup>th</sup> October 2020 - 02 <sup>nd</sup> of November 2020	D8, D9	wind speeds > 30m/s	Aiden
27 <sup>th</sup> December 2020	D10, D12	wind speeds > 30m/s	Bella
19 <sup>th</sup> - 21 <sup>st</sup> January 2021	D10, D12	wind speeds > 30m/s	Christoph
06 <sup>th</sup> - 08 <sup>th</sup> February 2021	D10, D12	wind speeds > 24m/s	Darcy

Signal and system availability are given for each deployment separately. [Table 5.3](#) gives a breakdown of the number of data gaps associated with post-processing, missing met station data and where LiDAR data is missing at intermediate heights.

The data files presented do not combine data from the buoys/deployments. However, the buoys are deployed for redundancy reasons, so it is possible to increase data availability for a given parameter by combining data from buoys measuring in parallel.

Note, that stations HKWA and HKWA-2 are on top of a sand bank while stations HKWB and HKWC are on the bottom of the sand bank. The wind and meteorological data from the different locations can be concatenated. However, the location dependent wave and current data from different locations (on top of, HKWA & HKWA-2, and to the bottom of the sand bank, HKWB & HKWC) should not be concatenated.

**Table 5.2: Post-processed system availability in % during 24-month HKW campaign.**

	Wind	Waves	Water Level	Currents	Air Pressure	Temperature
D1	85.5	99.8	92.5	98.6	100.0	97.6
D2	82.9	99.0	88.1	89.8	100.0	98.2
D3	98.0	100.0	55.0	81.0	100.0	98.4
D4	64.2	99.9	90.7	100.0	100.0	99.4
D5	99.1	99.9	93.4	99.9	100	98.6
D6	34.4	98.7	94.9	98.2	99.0	96.9
D7	93.0	88.9	85.8	65.3	89.7	87.8
D8	98.7	99.9	0	51.4	100	98.0
D9	99.9	99.9	100	100	100	98.8
D10	91.1	99.7	0	99.9	100	98.4
D11	99.8	95.3	100	99.6	100	98.8
D12	93.4	99.9	99.8	100	100	98.7

**Table 5.3: Availability loss per category: post-processing, partial LiDAR data (likely fog), no met station data.**

Deployment	total # points	Category	Height (m)	% availability
D1	32759	LiDAR failure	all	13.02
			Fog	4.54
		Post processing filters	30	0.49
			40	1.32
			60	1.03
			80	2.43
			100	2.33
			120	2.77
			140	2.86
			160	3.10
180	3.35			
200	3.71			
D2	31827	LiDAR failure	all	14.17
			Fog	6.79
		Post processing filters	30	0.17
			40	1.21
			60	0.89
			80	4.63
			100	4.39
			120	4.90
			140	5.04
			160	5.34
180	5.61			
200	6.27			
D3	16612	LiDAR failure	all	1.19
			Fog	0.61
		Post processing filters	30	0.88
			40	0.90
			60	0.91
			80	1.01
			100	1.00
			120	1.02
			140	1.04
			160	1.05
180	1.06			
200	1.11			
D4	9179	LiDAR failure	all	36.31
			Fog	6.23
		Post processing filters	30	4.33
			40	4.33
			60	4.36



**Table 5.3: Availability loss per category: post-processing, partial LiDAR data (likely fog), no met station data.**

Deployment	total # points	Category	Height (m)	% availability
			80	5.17
			100	5.25
			120	5.15
			140	5.23
			160	5.22
			180	5.30
			200	5.28
D5	21942	LiDAR failure	all	0.18
		Fog	all	10.87
		Post processing filters	30	0.09
			40	0.04
			60	0.09
			80	1.03
			100	1.02
			120	1.03
			140	1.05
			160	1.12
			180	1.16
200	1.16			
D6	7401	LiDAR failure	all	73.52
		Fog	all	1.26
		Post processing filters	30	1.07
			40	1.07
			60	1.07
			80	2.60
			100	2.60
			120	2.55
			140	2.55
			160	2.65
			180	2.70
200	2.80			
D7	20695	LiDAR failure	all	0.37
		Fog	all	1.49
		Post processing filters	30	0.11
			40	0.11
			60	0.74
			80	1.25
			100	1.47
			120	1.62
			140	1.75
			160	1.82
			180	1.95

**Table 5.3: Availability loss per category: post-processing, partial LiDAR data (likely fog), no met station data.**

Deployment	total # points	Category	Height (m)	% availability
			200	2.12
D8	26095	LiDAR failure	all	0.00
			Fog	1.40
		Post processing filters	30	0.07
			40	0.06
			60	0.56
			80	1.52
			100	1.68
			120	1.83
			140	1.85
			160	1.94
		180	2.02	
		200	2.11	
D9	8576	LiDAR failure	all	0.01
			Fog	0.31
		Post processing filters	30	0.03
			40	0.03
			60	0.02
			80	0.13
			100	0.10
			120	0.10
			140	0.10
			160	0.14
		180	0.14	
		200	0.10	
D10	14017	LiDAR failure	all	7.44
			Fog	2.59
		Post processing filters	30	0.26
			40	0.24
			60	0.19
			80	2.97
			100	2.98
			120	3.22
			140	3.33
			160	3.46
		180	3.51	
		200	3.60	
D11	1295	LiDAR failure	all	0.15
			Fog	0.00
		Post processing filters	30	0.00
			40	0.00
			60	0.00

**Table 5.3: Availability loss per category: post-processing, partial LiDAR data (likely fog), no met station data.**

Deployment	total # points	Category	Height (m)	% availability
			80	0.00
			100	0.00
			120	0.00
			140	0.00
			160	0.00
			180	0.00
			200	0.00
D12	11139	LiDAR failure	all	0.02
		Fog	all	4.54
		Post processing filters	30	0.06
			40	0.04
			60	0.01
			80	9.70
			100	9.85
			120	9.97
			140	10.13
			160	10.40
			180	10.52
			200	10.70

**Table 5.4: Signal availability for wind in% for all deployments at HKW.**

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
WindDir004m deg	99.1	99.2	99.8	99.9	99.9	98.9	89.6	99.9	99.9	99.9	99.9	99.9
WindDir030m deg	86.5	85.7	97.9	61	99.7	26.8	89.6	99.9	99.9	92.3	99.8	99.8
WindDir040m deg	85.7	84.6	97.9	61	99.8	26.9	89.6	99.9	99.9	92.3	99.8	99.9
WindDir060m deg	85.9	84.9	97.9	61	99.7	26.8	89	99.4	99.9	92.4	99.8	99.9
WindDir080m deg	84.3	80.7	97.8	60.5	98.8	26.3	88.5	98.5	99.8	89.6	99.8	90.2
WindDir100m deg	84.2	80.7	97.8	60.4	98.8	26.4	88.2	98.3	99.8	89.6	99.8	90.1
WindDir120m deg	83.7	80	97.8	60.5	98.8	26.4	88.1	98.2	99.8	89.3	99.8	89.9
WindDir140m deg	83.4	79.8	97.8	60.5	98.8	26.3	88	98.1	99.8	89.2	99.8	89.8
WindDir160m deg	83.1	79.3	97.7	60.5	98.7	26.3	87.9	98.1	99.8	89.1	99.8	89.5
WindDir180m deg	82.8	78.9	97.7	60.4	98.7	26.3	87.8	98	99.8	89	99.8	89.4
WindDir200m deg	82.3	78.2	97.7	60.4	98.7	26.3	87.6	97.9	99.8	88.9	99.8	89.2
WindDir250m deg	81.7	77.2	97.6	60.3	98.5	26.2	87.3	97.7	99.7	88.8	99.8	89.1
WindGust004m m/s	99.1	99.2	99.8	99.9	99.9	98.9	89.6	99.9	99.9	99.9	99.9	99.9
WindSpeed004m m/s	99.1	99.2	99.8	99.9	99.9	98.9	89.6	99.9	99.9	99.9	99.9	99.9
WindSpeed030m m/s	86.5	85.7	97.9	61	99.7	29.7	99.5	99.9	99.9	92.3	99.8	99.9
WindSpeed040m m/s	85.7	84.6	97.9	61	99.8	29.7	99.5	99.9	99.9	92.3	99.8	99.9
WindSpeed060m m/s	85.9	84.9	97.9	61	99.7	29.8	98.9	99.4	99.9	92.4	99.8	100
WindSpeed080m m/s	84.3	80.7	97.8	60.5	98.8	29.1	98.4	98.5	99.8	89.6	99.8	90.3
WindSpeed100m m/s	84.2	80.7	97.8	60.4	98.8	29.2	98.2	98.3	99.9	89.6	99.8	90.1
WindSpeed120m m/s	83.7	80	97.8	60.5	98.8	29.2	98	98.2	99.9	89.3	99.8	90
WindSpeed140m m/s	83.4	79.8	97.8	60.5	98.8	29.2	97.9	98.1	99.9	89.2	99.8	89.8
WindSpeed160m m/s	83.1	79.3	97.8	60.5	98.7	29.3	97.8	98.1	99.8	89.1	99.8	89.6
WindSpeed180m m/s	82.8	78.9	97.7	60.4	98.7	29.3	97.7	98	99.8	89	99.8	89.5
WindSpeed200m m/s	82.3	78.2	97.7	60.4	98.7	29.2	97.5	97.9	99.9	88.9	99.8	89.3
WindSpeed250m m/s	81.7	77.2	97.6	60.3	98.5	29.2	97.2	97.7	99.8	88.8	99.8	89.2

**Table 5.5: Signal availability in% for metocean parameters for all deployments at HKW.**

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
hm0 m	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
hm0a m	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
hm0b m	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
hmax m	94.3	92.8	96.5	99.9	99.3	98.6	88.8	97.5	99.7	99.6	95.3	99.9
mdir deg	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
mdira deg	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
mdirb deg	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
sprtp deg	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
thhf deg	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
thtp deg	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
thmax s	94	92.4	96.4	99.9	98.8	98.7	88.9	96.7	99	99.7	95.3	99.9
tm01 s	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
tm02 s	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9

**Table 5.5: Signal availability in% for metocean parameters for all deployments at HKW.**

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
tm02a s	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
tm02b s	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
tp s	99.8	99	100	99.9	99.9	98.7	88.9	99.9	99.9	99.7	95.3	99.9
AirPressure hPa	100	100	100	100	100	99	89.7	100	100	100	100	100
AirTemperature degC	96.1	96.3	98.5	98.8	97.2	94.9	85.9	96.2	97.5	96.9	98.1	97.4
AirHumidity %	96.1	96.3	98.5	98.8	97.2	94.9	85.9	96.2	97.5	96.9	98.1	97.4
WaterTemp0001 degC	99.2	100	98.2	100	99.9	98.9	89.7	99.7	100	99.9	99.6	100
BottomTemperature degC	76	86.7	47.4	66.6	80.5	76.7	77.7	93.7	91.7	11.1	87.3	93.9
WaterLevel LAT m	92.5	88.1	55	90.7	93.4	94.9	85.8	0	100	0	100	99.8

**Table 5.6: Signal availability in% for currents for all deployments at HKW.**

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
AqDir003 deg	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqDir004 deg	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqDir005 deg	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqDir006 deg	99.8	99.9	96.4	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqDir007 deg	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqDir008 deg	99.8	99.9	96.4	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqDir009 deg	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqDir010 deg	99.8	99.9	96.4	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqDir011 deg	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqDir012 deg	99.8	99.9	96.3	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqDir013 deg	99.8	99.9	95.6	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqDir014 deg	99.8	91.6	94.3	100	99.9	98.2	69.2	51.4	100	99.9	99.6	100
AqDir015 deg	99.8	91.5	92.2	100	99.8	98.2	69.1	51.4	100	99.9	99.6	100
AqDir016 deg	98.9	81.7	89.1	100	99.8	98.2	64.3	51.4	100	99.9	99.6	100
AqDir017 deg	98.9	81.7	85.2	100	99.8	98.2	64.1	51.4	100	99.9	99.6	100
AqDir018 deg	98.9	81.7	81	100	99.8	98.2	63.7	51.4	100	99.9	99.6	100
AqDir019 deg	98.9	81.7	76.7	100	99.8	98.2	63.3	51.4	100	99.9	99.6	100
AqDir020 deg	98.9	81.6	71.8	100	99.8	98.2	44.8	51.4	100	99.9	99.6	100
AqDir021 deg	90.1	81.7	66.9	100	99.8	98.2	44.8	51.4	100	99.9	99.6	100
AqDir022 deg	90.1	81.6	62	100	99.8	98.2	44.7	51.4	100	99.9	99.6	100
AqDir023 deg	91	81.6	57.3	100	99.9	98.2	44.7	51.4	100	99.9	99.6	100
AqDir024 deg	91	81.6	52.9	100	99.9	98.2	44.7	51.4	100	99.9	99.6	100
AqDir025 deg	NaN	81.6	49.1	NaN	NaN	98.2	44.6	NaN	100	NaN	99.6	100
AqDir026 deg	NaN	81.6	45.9	NaN	NaN	98.2	44.6	NaN	100	NaN	99.6	100
AqDir027 deg	NaN	81.7	50.2	NaN	NaN	98.2	44.7	NaN	100	NaN	99.6	99.9
AqDir028 deg	NaN	81.6	68.1	NaN	NaN	98.2	44.8	NaN	100	NaN	99.6	100
AqDir029 deg	NaN	81.7	84.3	NaN	NaN	98.2	44.9	NaN	100	NaN	99.6	100
AqDir030 deg	NaN	81.6	96.4	NaN	NaN	98.9	44.9	NaN	100	NaN	99.6	100
AqDir031 deg	NaN	81.6	96.4	NaN	NaN	98.9	44.9	NaN	100	NaN	99.5	100

**Table 5.6: Signal availability in% for currents for all deployments at HKW.**

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
AqDir032 deg	NaN	81.6	96.4	NaN	NaN	98.9	44.9	NaN	99.9	NaN	99.6	100
AqDir033 deg	NaN	81.6	96.4	NaN	NaN	98.9	44.9	NaN	99.9	NaN	99.5	100
AqDir034 deg	NaN	80.9	96.4	NaN	NaN	98.9	44.9	NaN	100	NaN	99.6	99.9
AqSpd003 cm/s	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqSpd004 cm/s	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqSpd005 cm/s	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqSpd006 cm/s	99.8	99.9	96.4	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqSpd007 cm/s	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqSpd008 cm/s	99.8	99.9	96.4	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqSpd009 cm/s	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqSpd010 cm/s	99.8	99.9	96.4	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqSpd011 cm/s	99.8	99.9	96.4	100	99.9	98.2	83.9	51.4	100	99.9	99.6	100
AqSpd012 cm/s	99.8	99.9	96.3	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqSpd013 cm/s	99.8	99.9	95.6	100	99.9	98.2	83.8	51.4	100	99.9	99.6	100
AqSpd014 cm/s	99.8	91.6	94.3	100	99.9	98.2	69.2	51.4	100	99.9	99.6	100
AqSpd015 cm/s	99.8	91.5	92.2	100	99.8	98.2	69.1	51.4	100	99.9	99.6	100
AqSpd016 cm/s	98.9	81.7	89.1	100	99.8	98.2	64.3	51.4	100	99.9	99.6	100
AqSpd017 cm/s	98.9	81.7	85.2	100	99.8	98.2	64.1	51.4	100	99.9	99.6	100
AqSpd018 cm/s	98.9	81.7	81	100	99.8	98.2	63.7	51.4	100	99.9	99.6	100
AqSpd019 cm/s	98.9	81.7	76.7	100	99.8	98.2	63.3	51.4	100	99.9	99.6	100
AqSpd020 cm/s	98.9	81.6	71.8	100	99.8	98.2	44.8	51.4	100	99.9	99.6	100
AqSpd021 cm/s	90.1	81.7	66.9	100	99.8	98.2	44.8	51.4	100	99.9	99.6	100
AqSpd022 cm/s	90.1	81.6	62	100	99.8	98.2	44.7	51.4	100	99.9	99.6	100
AqSpd023 cm/s	91	81.6	57.3	100	99.9	98.2	44.7	51.4	100	99.9	99.6	100
AqSpd024 cm/s	91	81.6	52.9	100	99.9	98.2	44.7	51.4	100	99.9	99.6	100
AqSpd025 cm/s	NaN	81.6	49.1	NaN	NaN	98.2	44.6	NaN	100	NaN	99.6	100
AqSpd026 cm/s	NaN	81.6	45.9	NaN	NaN	98.2	44.6	NaN	100	NaN	99.6	100
AqSpd027 cm/s	NaN	81.7	50.2	NaN	NaN	98.2	44.7	NaN	100	NaN	99.6	99.9
AqSpd028 cm/s	NaN	81.6	68.1	NaN	NaN	98.2	44.8	NaN	100	NaN	99.6	100
AqSpd029 cm/s	NaN	81.7	84.3	NaN	NaN	98.2	44.9	NaN	100	NaN	99.6	100
AqSpd030 cm/s	NaN	81.6	96.4	NaN	NaN	98.9	44.9	NaN	100	NaN	99.6	100
AqSpd031 cm/s	NaN	81.6	96.4	NaN	NaN	98.9	44.9	NaN	100	NaN	99.5	100
AqSpd032 cm/s	NaN	81.6	96.4	NaN	NaN	98.9	44.9	NaN	99.9	NaN	99.6	100
AqSpd033 cm/s	NaN	81.6	96.4	NaN	NaN	98.9	44.9	NaN	99.9	NaN	99.5	100
AqSpd034 cm/s	NaN	80.9	96.4	NaN	NaN	98.9	44.9	NaN	100	NaN	99.6	99.9

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## Appendix A: Buoy instrumentation overview

### Instrumentation per buoy

#### A.1 WS187

**Table A.1: WS187 buoy deployment records.**

SWLB		WS187		
Instrument	Serial Number	Time installed		Reason
		From	Until	
Design Version	2.2	2019-02-05 12:15	2020-11-23 01:20	
PMU	432	2019-02-05 12:15	2020-11-23 01:20	
Wavesense	370	2019-02-05 12:15	2020-11-23 01:20	
DGPS AsteRx4	181008	2019-02-05 12:15	2020-11-23 01:20	Both antenna cables replaced in November 2019
Septentrio	AsteRx:3034681	2019-02-05 12:15	2020-11-23 01:20	
Compass	1047495	2019-02-05 12:15	2020-11-23 01:20	
LiDAR	ZX818M	2019-02-05 12:15	2020-11-23 01:20	LiDAR met station replaced in November 2019
LiDAR firmware	2.2020	2019-02-05 12:15	2020-11-23 01:20	
Gill Windsonic	18320062	2019-02-05 12:15	2020-11-23 01:20	
Nortek	AQP 9363	2019-02-05 12:15	2020-11-23 01:20	
Aquadopp	AQD 14604	2019-02-05 12:15	2020-11-23 01:20	
Vaisala PTB	N5230736	2019-02-05 12:15	2020-11-23 01:20	
Vaisala HMP	P1730335	2019-02-05 12:15	2020-11-23 01:20	
Thelma	924	2019-02-05 12:15	2020-11-23 01:20	
Buoy Tracker XEOS	682	2019-02-05 12:15	2020-11-23 01:20	
Pre-Deployment Reference	[7]			



**A.2 WS188**

**Table A.2: WS188 buoy deployment records.**

SWLB		WS188		
Instrument	Serial Number	Time installed		Reason
		From	Until	
Design Version	2.2	2019-02-10 09:00	2021-02-11 23:50	
PMU	433	2019-02-10 09:00	2021-02-11 23:50	
Wavesense	369	2019-02-10 09:00	2021-02-11 23:50	
DGPS AsteRx4	181009	2019-02-10 09:00	2021-02-11 23:50	
Septentrio	AsteRx:3025264	2019-02-10 09:00	2021-02-11 23:50	
Compass	1045104	2019-02-10 09:00	2021-02-11 23:50	
LiDAR	ZX802M	2019-02-10 09:00	2021-02-11 23:50	Laser replaced in December 2019*
LiDAR firmware	2.2020	2019-02-10 09:00	2021-02-11 23:50	
Gill Windsonic	18320035	2019-02-10 09:00	2021-02-11 23:50	
Nortek	AQP 9362	2019-02-10 09:00	2021-02-11 23:50	
Aquadopp	AQD 14599	2019-02-10 09:00	2021-02-11 23:50	
Vaisala PTB	N5230739	2019-02-10 09:00	2021-02-11 23:50	
Vaisala HMP	P1730334	2019-02-10 09:00	2021-02-11 23:50	
Thelma	925	2019-02-10 09:00	2020-02-07 18:40	
	107	2020-04-24 16:00	2021-02-11 23:50	
Buoy Tracker	679	2019-02-10 09:00	2021-02-11 23:50	
XEOS				
Pre-Deployment Reference	[8]			

\*Note: The laser was replaced and the LiDAR unit tested by ZephIR engineers while WS188 was on land. An additional validation for the laser change of the LiDAR was not deemed necessary by both ZephIR and RVO.

**A.3 WS170**

**Table A.3: WS170 buoy deployment records.**

SWLB		WS170		
Instrument	Serial Number	Time installed		Reason
		From	Until	
Design Version	2.1	2019-06-01	2021-02-11 23:50	
PMU	393	2019-06-01	2021-02-11 23:50	
Wavesense	336	2019-06-01	2021-02-11 23:50	
DGPS AsteRx4	181009	2019-06-01	2021-02-11 23:50	
Septentrio	S/N 1810012	2019-08-06	2021-02-11 23:50	
Compass	1045891	2019-06-01	2021-02-11 23:50	
LiDAR	ZX585M	2019-06-01	2021-02-11 23:50	
LiDAR firmware	2.2020	2019-06-01	2021-02-11 23:50	
Gill Windsonic	18320033	2019-06-01	2021-02-11 23:50	
Nortek	AQP 6692	2019-06-01	2019-11-25	Biofouling.
Aquadopp	AQD 13700	2019-06-01	2019-11-25	Biofouling.
	AQP 8644	2019-11-25	2021-02-11 23:50	
	AQD 13597	2019-11-25	2021-02-11 23:50	
Vaisala PTB	M5220804	2019-06-01	2021-02-11 23:50	
Vaisala HMP	P4050602 2018	2019-06-01	2021-02-11 23:50	
Thelma	75	2019-09-19	2021-02-11 23:50	
Buoy Tracker XEOS	359	2019-06-01	2021-02-11 23:50	
Pre-Deployment Reference	[9], [10]			

## Appendix B: File Contents

### B.1 File contents

**File:** *CurrentDataStat*

**Signals:** See [Table B.1](#).

The file contains 10-minute average current speed (AqSpd in cm/s) and direction (AqDir in degrees) from the current meter and the lowest signal strength (AqAmp in dB) of the 3 beams for each measurement. All timestamps are set at the end of the averaging period.

**File:** *CurrentDataStatFlags*

**Signals:** Filter flags on current data as described in [Table 3.1](#).

**File:** *CurrentDataStatQualityFlags*

**Signals:** Data quality flags (integers) on current data as described in [Section 3.6](#).

**File:** *MetDataStat*

**Signals:** See [Table B.2](#).

The file contains 10-minute average data from the meteorological and bottom sensors: Air humidity (%), pressure (hPa) and temperature (°C); sea surface temperature (°C), bottom water temperature (°C), water pressure (dbar), water depth (m) and LAT referenced water level (m). All timestamps are set at the end of the averaging period.

**File:** *MetDataStatFlags*

This file contains the filter flags (see [Table 3.1](#)) for the data in [Table B.1](#).

**File:** *MetDataStatQualityFlags*

**Signals:** Data quality flags (integers) on met data as described in [Section 3.6](#).

**File:** *PosData*

**Signals:** Geographical Latitude and Longitude in Degrees with 6 decimals plus filter flags.

This file contains hourly values of buoy position according to the GPS sources (Iridium and Septentrio).

**File:** *StatusData*

**Signals:** Household parameters.

This file contains hourly values of various buoy household parameters that are used to check buoy functionality:

Fuel cell (1-4) current (A), error (int), fuel remaining (l), operation time (h), voltage (V), battery charge/discharge and voltage (lead and lithium), PMU card number, system up-time plus filter flags.

**File:** *SupplementaryData*

**Signals:** Additional parameters.

This file contains additional Thelma data (SNR, ID, modem temperature, tilt, etc.) and LiDAR met station and other LiDAR functionality parameters (rain count, air pressure and temperature, latitude and longitude, battery voltage, mirror temperature, pod humidity) plus filter flags. The data in this file are provided to supplement the dataset.

**File:** *WaveDataStat*

**Signals:** See [Table B.3](#). Wave parameters are explained in more detail in ??

The file contains the wave data at 10-min frequency based on 17 min sampling.

*Wave data* The following signals derived from the wave spectra:

hm0 m; hm0a m; hm0b m; hmax m; mdir deg; mdira deg; mdirb deg; sprtp deg; thhf deg; thtp deg; thmax s; tm01 s; tm02 s; tm02a s; tm02b s; tp s

**File:** *WaveDataStatFlags*

This file contains the filter flags (see [Table 3.1](#)) for the data in [Table B.1](#) indicating where duplicates or out-of-bounds values were encountered and removed.

**File:** *WaveDataStatQualityFlags*

**Signals:** Data quality flags (integers) on wave data as described in [Section 3.6](#).

**File:** *WindResourceSpeedDirectionStat*

**Signals:** See [Table B.4](#) and [Table B.5](#)

The file contains 10-minute averaged horizontal wind speed and direction, vertical wind speed and minimum and maximum horizontal wind speed in 10-min period. The signals are all timestamped with the end of the averaging period.

**File:** *WindResourceTIVeerShearInflow*

**Signals:** See [Table B.6](#) and [Table B.7](#)

This file contains the inflow angles in degrees, standard deviations and turbulence intensities using data from the ZephIR unit.

The inflow angles are calculated as the angle between the 10-minute average horizontal and vertical components.

This file also contains wind veer and shear statistics calculated from the already processed LiDAR wind directions and speeds in the *WindResourceSpeedDirectionStat* file.

**File:** *WindResourceFilterFlags*

This file contains the processing filter flags (see [Table 3.1](#)) for the wind dataset [Table B.1](#) and [Table B.1](#) .

**File:** *WindResourceStatusFlags*

This file contains LiDAR info and status flags, package count, LiDAR battery voltage, mirror temperature, pod humidity, rain count and heading.

**File:** *WindResourceQualityFlags*

**Signals:** Data quality flags (integers) on wind data as described in [Section 3.6](#).

**File:** *Raw wind data*

Raw 1 Hz LiDAR data directly from the zephir units (unprocessed) is delivered in *.zph* files addition to the processed and quality checked products. The filename convention for this file is: "Wind\_*unit*@Y\_M\_D.ZPH", where *unit* refers to the zephir unit identifier.

In addition 10-minute average files from the ZephIR units are also provided. Note, however, that these are not used in the campaign.

**File:** *Raw wave data*

Raw wave data is provided in *.chpr* files.

These files contain the Wavesens raw motion compass, heave, pitch and roll data. All angles (compass, pitch and roll) are given in  $\sin(\text{angle})$ , heave elevations are in m. Sensor sampling rate is at 1 Hz. For each row the timestamp in the first column given represents the start of the sampling of the time series in that row. The index in the parameter name, given by [0],[1],...[1023], is the sample number for the parameter.

For D12, the sampling rate is 2 Hz.

**File:** *Wave spectra*

Wave spectra are provided in *memspec* files.

The file contains the 2-dimensional directional spectral density  $S(f, \Theta)$  in addition to other spectral parameters. The directional spectrum is estimated from the directional Fourier components using the Burg Maximum Entropy method (MEM).

fmin = 0.01; fmax = 0.50; df = 0.01; nfreq = 50; units=Hz; dirmin=0; dirmax=352.5; ddir=7.5; ndir=50; units=degrees

The MEMspec data file is a sequential text file containing a sequence of records for each recorded wave time series.

**File:** *Raw current data*

Raw Nortek Aquadopp data are provided either as *.prj* files directly from the current meter or as daily *.txt* files, unpacked by the buoy data logger. In both cases the data are otherwise unprocessed.

## B.2 Signal Tables

**Table B.1: *CurrentDataStat* signals**

Signal name	Unit	Height (m)	Description	Sensor	Proc. Code <sup>1)</sup>	Resolution	Configured range
AqDir00xx <sup>2)</sup>	deg	-3	Current direction	Aquadopp	B	0.176758	-1, 361
		...					
AqSpd00xx <sup>2)</sup>	cm/s	-3	Current speed	Aquadopp	B	0.293945	0, 300
		...					
AqAmp00xx <sup>2)</sup>	dB	-3	Signal amplitude	Aquadopp	B	1	0, 128
		...					

<sup>1)</sup> **Proc. code:** Code describing the level of processing applied to data after receipt from the buoy:

B: Data calculated onboard the buoy. QA/QC applied as described in [Data flow, post-processing and quality control](#).

D: Data derived from "B"-data during post-processing (see [Data flow, post-processing and quality control](#)).

<sup>2)</sup> xx = 03, ..., 34 corresponding to measurement height, see [Table 2.1](#)

Table B.2: *MetDataStat* signals

Signal name	Unit	Height (m)	Description	Sensor	Proc. Code <sup>1)</sup>	Resolution	Configured range
AirHumidity	%	4	Air humidity	Vaisala HMP155	B	0.107422	0, 110
AirPressure	hPa	0	Air pressure	Vaisala PTB330	B	0.097656	900, 1100
AirTemperature	°C	4	Air temperature	Vaisala HMP155	B	0.0537109	-15, 40
WaterTemp0001	°C	-1	Surface water temperature	Aquadopp	B	0.0820313	-2, 30
WaterTemp0001 D12	°C	-1	Surface water temperature	Aquadopp	B	0.0585938	-10, 50
Bottom Temperature	°C	1 m a.s.f.	Water temperature	Thelma	B	0.000946045	-5, 26
WaterPressure	dbar	Mooring depth	Pressure of water column from mooring point.	Thelma	B	0.0012207	0, 160

<sup>1)</sup> **Proc. code:** Code describing the level of processing applied to data after receipt from the buoy:

B: Data calculated onboard the buoy. QA/QC applied as described in [Data flow, post-processing and quality control](#).

D: Data derived from "B"-data during post-processing (see [Data flow, post-processing and quality control](#)).

<sup>2)</sup> xx = 03, ..., 34 corresponding to measurement height, see [Table 2.1](#)



**Table B.3: WaveDataStat signals**

Signal name	Unit	Height (m)	Description	Sensor	Proc. Code <sup>1)</sup>	Resolution	Configured range
hm0	m	0	Estimate of Hs (significant wave height).	Wavesense	B	0.0196289	0, 20
hm0a <sup>3)</sup>	m	0	Estimate of Hs of low frequency waves <sup>3)</sup>	Wavesense	B	0.0196289	0, 20
hm0b <sup>3)</sup>	m	0	Estimate of Hs of high frequency waves <sup>3)</sup>	Wavesense	B	0.0196289	0, 20
hmax	m	0	Height of the highest wave in the record.	Wavesense	B	0.0196289	0, 20
mdir	deg	0	Mean spectral wave direction.	Wavesense	B	0.707031	0, 360
mdir <sup>3)</sup>	deg	0	Mean spectral wave direction of low frequency waves <sup>3)</sup>	Wavesense	B	0.707031	0, 360
mdirb <sup>3)</sup>	deg	0	Mean spectral wave direction of high frequency waves <sup>3)</sup>	Wavesense	B	0.707031	0, 360
sprtp	deg	0	Wave spreading at the spectral peak.	Wavesense	B	0.351563	0, 90
thhf	deg	0	High frequency mean wave direction	Wavesense	B	0.707031	0, 360
thmax	s	0	Period of the highest individual wave in the sample.	Wavesense	B	0.101563	0, 25
thtp	deg	0	Estimate of mean wave direction at the spectral peak.	Wavesense	B	0.707031	0, 360
tm01	s	0	Estimate of mean wave period	Wavesense	B	0.101563	0, 25
tm02	s	0	Estimate of mean wave period	Wavesense	B	0.101563	0, 25
tm02a <sup>3)</sup>	s	0	Estimate of mean wave period of low frequency waves <sup>3)</sup>	Wavesense	B	0.101563	10, 25
tm02b <sup>3)</sup>	s	0	Estimate of mean wave period of high frequency waves <sup>3)</sup>	Wavesense	B	0.101563	2, 10
tp	s	0	Period of the spectral peak	Wavesense	B	0.101563	0, 25
<b>WS170 D12</b>							
hm0	m	0	Estimate of Hs (significant wave height).	Wavesense	B	0.00107117	-0.1, 35
hm0a <sup>3)</sup>	m	0	Estimate of Hs of swell <sup>3)</sup>	Wavesense	B	0.00107117	-0.1, 35

Table B.3: WaveDataStat signals

Signal name	Unit	Height (m)	Description	Sensor	Proc. Code <sup>1)</sup>	Resolution	Configured range
hm0b <sup>3)</sup>	m	0	Estimate of Hs of wind sea <sup>3)</sup>	Wavesense	B	0.00107117	-0.1, 35
hmax	m	0	Height of the highest wave in the record.	Wavesense	B	0.00107117	-0.1, 35
mdir	deg	0	Mean spectral wave direction.	Wavesense	B	0.0110474	-1, 361
mdir <sup>3)</sup>	deg	0	Mean spectral wave direction of swell <sup>3)</sup>	Wavesense	B	0.0110474	-1, 361
mdirb <sup>3)</sup>	deg	0	Mean spectral wave direction of wind sea <sup>3)</sup>	Wavesense	B	0.0110474	-1, 361
sprtp	deg	0	Wave spreading at the spectral peak.	Wavesense	B	0.0110474	-1, 361
thhf	deg	0	High frequency mean wave direction	Wavesense	B	0.0110474	-1, 361
thmax	s	0	Period of the highest individual wave in the sample.	Wavesense	B	0.00183716	-0.1, 30
thtp	deg	0	Estimate of mean wave direction at the spectral peak.	Wavesense	B	0.0110474	-1, 361
tm01	s	0	Estimate of mean wave period	Wavesense	B	0.00183716	-0.1, 30
tm02	s	0	Estimate of mean wave period	Wavesense	B	0.00183716	-0.1, 30
tm02a <sup>3)</sup>	s	0	Estimate of mean wave period of swell <sup>3)</sup>	Wavesense	B	0.00183716	-0.1, 30
tm02b <sup>3)</sup>	s	0	Estimate of mean wave period of wind sea <sup>3)</sup>	Wavesense	B	0.00183716	-0.1, 30
tp	s	0	Period of the spectral peak	Wavesense	B	0.00183716	-0.1, 30

<sup>1)</sup> Proc. code: Code describing the level of processing applied to data after receipt from the buoy:

B: Data are presented as delivered by the buoy.

D: Data presented are derived from post-processing as described in [chapter 3](#).

<sup>3)</sup> Wave frequency ranges:

Band "a" (low frequency): 0.04 - 0.10 Hz

Band "b" (high frequency): 0.10 - 0.50 Hz

Table B.4: *WindResourceSpeedDirectionTISat* signals - pff output

Signal name	Unit	Height (m)	Description	Sensor	Proc. Code <sup>1)</sup>	Resolution	Configured range
WindDir004m	deg	4	Ultrasonic anemometer wind direction	Gill anemometer	B	0.353516	-1, 361
WindSpeed004m	m/s	4	Ultrasonic anemometer wind speed	Gill anemometer	B	0.00744629	-1, 60
WindGust004m	m/s	4	Ultrasonic anemometer wind gust speed	Gill anemometer	B	0.00744629	-1, 60
WindDirxxm <sup>2)</sup>	deg	30	LiDAR wind direction	ZephIR	B	0.0883789	-1, 361
		...	10 min average	LiDAR			
		200	using LiDAR data				
WindSpeedxxm <sup>2)</sup>	m/s	30	LiDAR wind speed	ZephIR	B	0.00744629	-1, 60
		...	10 min average	LiDAR			
		200	using LiDAR data				
VerticalWindSpeedxxm <sup>2)</sup> m/s		30	Vertical LiDAR wind speed	ZephIR	B	0.0292969	-15, 15
		...	10 min average	LiDAR			
		200	using LiDAR data				
		250					

<sup>1)</sup> **Proc. code:** Code describing the level of processing applied to data after receipt from the buoy:

B: Data calculated onboard the buoy. QA/QC applied as described in [chapter 3](#).

D: Data derived from "B"-data during post-processing as described in [chapter 3](#).

<sup>2)</sup> **xx** = 30, ..., 200, 250 corresponding to measurement height, see [Table 2.1](#)

Table B.5: *WindResourceSpeedDirectionTISat* signals - reprocessed

Signal name	Unit	Height (m)	Description	Sensor	Proc. Code <sup>1)</sup>	Resolution	Configured range
WindDirxxm <sup>2)</sup>	deg	30	LiDAR wind direction	ZephIR	B	0.000001	0, 360
		...	10 min average	LiDAR			
		200	using LiDAR data				
WindSpeedxxm <sup>2)</sup>	m/s	30	LiDAR wind speed	ZephIR	B	0.000001	0, 60
		...	10 min average	LiDAR			
		200	using LiDAR data				
VerticalWindSpeedxxm <sup>2)</sup> m/s		30	Vertical LiDAR wind speed	ZephIR	B	0.000001	-15, 15
		...	10 min average	LiDAR			
		200	using LiDAR data				
		250					

<sup>1)</sup> **Proc. code:** Code describing the level of processing applied to data after receipt from the buoy:

B: Data calculated onboard the buoy. QA/QC applied as described in [chapter 3](#).

D: Data derived from "B"-data during post-processing as described in [chapter 3](#).

<sup>2)</sup> **xx** = 30, ..., 200, 250 corresponding to measurement height, see [Table 2.1](#)

Table B.6: *WindResourceInflowAnglesStat* signals from pff output

Signal name	Unit	Height (m)	Description	Sensor	Proc. Code <sup>1)</sup>	Resolution	Configured range
Standard Deviation xxm <sup>2)</sup>	m/s	30	Standard Deviation of wind speed in 10 min interval using LiDAR data	ZephIR	B	0.0012207	0, 20
		...		LiDAR			
		200					
		250					
TI xxm <sup>2)</sup>	None	30	Turbulence Intensity <sup>3)</sup> using LiDAR data	ZephIR	B	0.0012207	0, 20
		...		LiDAR			
		200					
		250					
Inflow angle xxm <sup>2)</sup>	deg	30	The Inflow Angle (IA) is the angle of the wind vector relative to the horizontal, calculated from 10 minute averages. IA is positive if the wind vector has an upward directed vertical component.	ZephIR	D	0.0883789	-40 ,40
		...		LiDAR			
		200					
		250					
Wind Veer [index] <sup>2)</sup>	deg/m	[index] <sup>2)</sup>	Difference in direction between adjacent measurement heights per m	ZephIR LiDAR	D	0.0883789	-60, 60
Wind Shear [index] <sup>2)</sup>	[(m/s)/m]	[index] <sup>2)</sup>	Difference in speed between adjacent measurement heights per m	ZephIR LiDAR	D	0.00744629	-20, 20

<sup>1)</sup> **Proc. code:** Code describing the level of processing applied to data after receipt from the buoy:

B: Data calculated onboard the buoy. QA/QC applied as described in chapter 3.

D: Data derived from "B"-data during post-processing as described in chapter 3.

<sup>2)</sup> xx = 30, ..., 200, 250 m index corresponding to measurement height, see Table 2.1

<sup>3)</sup> **Turbulence Intensity (TI)** is defined as:  $(\sigma/\bar{u})C$  where  $\sigma$  is the standard deviation and  $\bar{u}$  is the mean of the wind speed for a 10-min period.  $C = 0.95$  is a constant needed to convert the scan-averaged LiDAR measurement to the point-measurements of a cup anemometer. Note that this definition frequently gives relatively high values in situations with low but variable wind speed. Note also that TI is not compensated for the motion of the buoy, which is a source of increased standard deviation in the measurements, and TI is therefore over-estimated compared to what would be obtained from a LiDAR on a fixed platform. (Z300 MODBUS interface, a user's guide, 19<sup>th</sup> Dec 2013, issue K, ZephIR Lidar)

Table B.7: *WindResourceInflowAnglesStat* signals from reprocessed data

Signal name	Unit	Height (m)	Description	Sensor	Proc. Code <sup>1)</sup>	Resolution	Configured range
Standard Deviation xxm <sup>2)</sup>	m/s	30	Standard Deviation of wind speed in 10 min interval using LiDAR data	ZephIR	B	0.000001	0, 20
		...		LiDAR			
		200					
		250					
TI xxm <sup>2)</sup>	None	30	Turbulence Intensity <sup>3)</sup> using LiDAR data	ZephIR	B	0.000001	0, 20
		...		LiDAR			
		200					
		250					

The Inflow Angle (IA) is the angle of the wind vector relative to the horizontal, calculated from 10

Table B.7: *WindResourceInflowAnglesStat* signals from reprocessed data

Signal name	Unit	Height (m)	Description	Sensor	Proc. Code <sup>1)</sup>	Resolution	Configured range
		30		ZephIR			
		...		LiDAR			
		200					
		250					
Wind Veer [index] <sup>2)</sup>	deg/m	[index] <sup>2)</sup>	Difference in direction between adjacent measurement heights per m	ZephIR LiDAR	D	0.000001	-60, 60
Wind Shear [index] <sup>2)</sup>	[(m/s)/m]	[index] <sup>2)</sup>	Difference in speed between adjacent measurement heights per m	ZephIR LiDAR	D	0.000001	-20, 20

<sup>1)</sup> **Proc. code:** Code describing the level of processing applied to data after receipt from the buoy:

B: Data calculated onboard the buoy. QA/QC applied as described in [chapter 3](#).

D: Data derived from "B"-data during post-processing as described in [chapter 3](#).

<sup>2)</sup> xx = 30, ..., 200, 250 m index corresponding to measurement height, see [Table 2.1](#)

<sup>3)</sup> **Turbulence Intensity (TI)** is defined as:  $(\sigma/\bar{u})C$  where  $\sigma$  is the standard deviation and  $\bar{u}$  is the mean of the wind speed for a 10-min period.  $C = 0.95$  is a constant needed to convert the scan-averaged LiDAR measurement to the point-measurements of a cup anemometer. Note that this definition frequently gives relatively high values in situations with low but variable wind speed. Note also that TI is not compensated for the motion of the buoy, which is a source of increased standard deviation in the measurements, and TI is therefore over-estimated compared to what would be obtained from a LiDAR on a fixed platform. (Z300 MODBUS interface, a user's guide, 19<sup>th</sup> Dec 2013, issue K, ZephIR Lidar)

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## Appendix C: List of Files

HKW 24M  
Processed data

D1	HKW_20210707	_Fugro_MetOcean Buoys HKWA D1 2019	CurrentDataStat	_F
	HKW_20210810	_Fugro_MetOcean Buoys HKWA D1 2019	CurrentDataStatFlags	_F
	HKW_20211118	_Fugro_MetOcean Buoys HKWA D1 2019	CurrentDataStatQualityFlags	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWA D1 2019	MetDataStat	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWA D1 2019	MetDataStatFlags	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWA D1 2019	MetDataQualityFlags	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWA D1 2019	PosData	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWA D1 2019	StatusData	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWA D1 2019	SupplementaryData	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWA D1 2019	WaveDataStat	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWA D1 2019	WaveDataStatFlags	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWA D1 2019	WaveDataStatQualityFlags	_F
	HKW_20210705	_Fugro_MetOcean Buoys HKWA D1 2019	WindResourceSpeedDirectionStat	_F
	HKW_20210705	_Fugro_MetOcean Buoys HKWA D1 2019	WindResourceStatusFlags	_F
	HKW_20211013	_Fugro_MetOcean Buoys HKWA D1 2019	WindResourceFilterFlags	_F
	HKW_20210705	_Fugro_MetOcean Buoys HKWA D1 2019	WindResourceTIVeerShearInflow	_F
	HKW_20211013	_Fugro_MetOcean Buoys HKWA D1 2019	WindResourceQualityFlags	_F
HKW_20210705	_Fugro_MetOcean Buoys HKWA D1 2019	Signal_Availability	_F	
D2	HKW_20210708	_Fugro_MetOcean Buoys HKWB D2 2019	CurrentDataStat	_F
	HKW_20210810	_Fugro_MetOcean Buoys HKWB D2 2019	CurrentDataStatFlags	_F
	HKW_20211118	_Fugro_MetOcean Buoys HKWB D2 2019	CurrentDataStatQualityFlags	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWB D2 2019	MetDataStat	_F
	HKW_20210915	_Fugro_MetOcean Buoys HKWB D2 2019	MetDataStatFlags	_F
	HKW_20211125	_Fugro_MetOcean Buoys HKWB D2 2019	MetDataQualityFlags	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWB D2 2019	PosData	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWB D2 2019	StatusData	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWB D2 2019	SupplementaryData	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWB D2 2019	WaveDataStat	_F
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	HKW_20211013	_Fugro_MetOcean Buoys HKWB D2 2019	WindResourceFilterFlags	_F
	HKW_20210705	_Fugro_MetOcean Buoys HKWB D2 2019	WindResourceTIVeerShearInflow	_F
	HKW_20211013	_Fugro_MetOcean Buoys HKWB D2 2019	WindResourceQualityFlags	_F
HKW_20210705	_Fugro_MetOcean Buoys HKWB D2 2019	Signal_Availability	_F	
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	HKW_20210810	_Fugro_MetOcean Buoys HKWC D3 2019	CurrentDataStatQualityFlags	_F
	HKW_20210709	_Fugro_MetOcean Buoys HKWC D3 2019	MetDataStat	_F
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Wind10\_585@Y2019\_M11\_D17.ZPH.zip  
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Wind10\_585@Y2019\_M11\_D19.ZPH.zip  
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Wind10\_802@Y2019\_M11\_D22.ZPH.zip  
Wind10\_802@Y2019\_M11\_D23.ZPH.zip  
Wind10\_802@Y2019\_M11\_D24.ZPH











**Deployment 6****HKWC****WS188****LIDAR**

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Wind10\_802@Y2020\_M01\_D04.ZPH.zip  
Wind10\_802@Y2020\_M01\_D05.ZPH.zip  
Wind10\_802@Y2020\_M01\_D06.ZPH.zip  
Wind10\_802@Y2020\_M01\_D07.ZPH.zip  
Wind10\_802@Y2020\_M01\_D08.ZPH.zip

**Aquadopp**

WS18801.prf  
WS188.log  
WS188.dep  
aquadopp-2019-12-18.txt  
aquadopp-2019-12-19.txt  
aquadopp-2019-12-20.txt  
aquadopp-2019-12-21.txt  
aquadopp-2019-12-22.txt  
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aquadopp-2020-01-02.txt  
aquadopp-2020-01-03.txt  
aquadopp-2020-01-04.txt  
aquadopp-2020-01-05.txt  
aquadopp-2020-01-06.txt  
aquadopp-2020-01-07.txt  
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aquadopp-2020-01-31.txt  
aquadopp-2020-02-01.txt  
aquadopp-2020-02-02.txt  
aquadopp-2020-02-03.txt  
aquadopp-2020-02-04.txt  
aquadopp-2020-02-05.txt  
aquadopp-2020-02-06.txt  
aquadopp-2020-02-07.txt

**Raw wave**

D6\_HKWC\_WS188\_chpr\_2019-12-18--2020-02-07.csv  
mempspec\_D6\_HKWC\_WS188\_2019-12-18--2020-02-07.txt

**Thelma**

thelma-2019-12-18.bin  
thelma-2019-12-19.bin  
thelma-2019-12-20.bin  
thelma-2019-12-21.bin  
thelma-2019-12-22.bin  
thelma-2019-12-23.bin  
thelma-2019-12-24.bin  
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thelma-2019-12-26.bin  
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thelma-2019-12-28.bin  
thelma-2019-12-29.bin  
thelma-2019-12-30.bin  
thelma-2019-12-31.bin  
thelma-2020-01-01.bin  
thelma-2020-01-02.bin  
thelma-2020-01-03.bin  
thelma-2020-01-04.bin  
thelma-2020-01-05.bin  
thelma-2020-01-06.bin  
thelma-2020-01-07.bin  
thelma-2020-01-08.bin  
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thelma-2020-02-01.bin  
thelma-2020-02-02.bin  
thelma-2020-02-03.bin  
thelma-2020-02-04.bin  
thelma-2020-02-05.bin  
thelma-2020-02-06.bin  
thelma-2020-02-07.bin

Wind10\_802@Y2020\_M01\_D09.ZPH.zip  
Wind10\_802@Y2020\_M01\_D10.ZPH.zip  
Wind10\_802@Y2020\_M01\_D11.ZPH.zip  
Wind10\_802@Y2020\_M01\_D12.ZPH.zip  
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Wind10\_802@Y2020\_M02\_D04.ZPH.zip  
Wind10\_802@Y2020\_M02\_D05.ZPH.zip  
Wind10\_802@Y2020\_M02\_D06.ZPH.zip  
Wind10\_802@Y2020\_M02\_D07.ZPH.zip

## Deployment 7

### HKWB

### WS188

#### LiDAR

Wind\_802@Y2020\_M04\_D24.ZPH.zip  
Wind\_802@Y2020\_M04\_D25.ZPH.zip  
Wind\_802@Y2020\_M04\_D26.ZPH.zip  
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Wind\_802@Y2020\_M06\_D06.ZPH.zip  
Wind\_802@Y2020\_M06\_D07.ZPH.zip  
Wind\_802@Y2020\_M06\_D08.ZPH.zip

#### Aquadopp

WS18801.prf  
README\_HKW\_D7\_WS18801.txt  
aquadopp-2020-04-24.txt  
aquadopp-2020-05-09.txt  
aquadopp-2020-05-10.txt  
aquadopp-2020-05-11.txt  
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aquadopp-2020-06-04.txt  
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aquadopp-2020-06-20.txt

Wind\_802@Y2020\_M06\_D09.ZPH.zip  
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aquadopp-2020-08-09.txt



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**Raw wave**

D7\_HKWB\_WS188\_01-15Sep20\_chpr.csv  
D7\_HKWB\_WS188\_09-31May20\_chpr.csv  
D7\_HKWB\_WS188\_Aug20\_chpr.csv  
D7\_HKWB\_WS188\_Jul20\_chpr.csv  
D7\_HKWB\_WS188\_Jun20\_chpr.csv  
memspec\_D7\_HKWB\_WS188\_2020-05-09--31.txt  
memspec\_D7\_HKWB\_WS188\_2020-06-01--30.txt  
memspec\_D7\_HKWB\_WS188\_2020-07-01--31.txt  
memspec\_D7\_HKWB\_WS188\_2020-08-01--31.txt  
memspec\_D7\_HKWB\_WS188\_2020-09-01--15.txt

**Thelma**

thelma-2020-04-24.bin  
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thelma-2020-09-14.bin  
thelma-2020-09-15.bin

## Deployment 8

### HKWA-2

#### WS187

##### LiDAR

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##### Aquadopp

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Wind10\_818@Y2020\_M10\_D09.ZPH.zip  
Wind10\_818@Y2020\_M10\_D10.ZPH.zip  
Wind10\_818@Y2020\_M10\_D11.ZPH.zip  
Wind10\_818@Y2020\_M10\_D12.ZPH.zip  
Wind10\_818@Y2020\_M10\_D13.ZPH.zip  
Wind10\_818@Y2020\_M10\_D14.ZPH.zip  
Wind10\_818@Y2020\_M10\_D15.ZPH.zip  
Wind10\_818@Y2020\_M10\_D16.ZPH.zip  
Wind10\_818@Y2020\_M10\_D17.ZPH.zip  
Wind10\_818@Y2020\_M10\_D18.ZPH.zip  
Wind10\_818@Y2020\_M10\_D19.ZPH.zip

Wind10\_818@Y2020\_M10\_D20.ZPH.zip  
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Wind10\_818@Y2020\_M10\_D22.ZPH.zip  
Wind10\_818@Y2020\_M10\_D23.ZPH.zip  
Wind10\_818@Y2020\_M10\_D24.ZPH.zip  
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Wind10\_818@Y2020\_M10\_D26.ZPH.zip  
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Wind10\_818@Y2020\_M10\_D30.ZPH.zip  
Wind10\_818@Y2020\_M10\_D31.ZPH.zip  
Wind10\_818@Y2020\_M11\_D01.ZPH.zip  
Wind10\_818@Y2020\_M11\_D02.ZPH.zip  
Wind10\_818@Y2020\_M11\_D03.ZPH.zip  
Wind10\_818@Y2020\_M11\_D04.ZPH.zip  
Wind10\_818@Y2020\_M11\_D05.ZPH.zip  
Wind10\_818@Y2020\_M11\_D06.ZPH.zip

**Raw wave**

HKW\_D8\_WS187\_chpr.csv  
memspec\_HKWA2\_WS187\_2020-05-09--2020-05-31.txt  
memspec\_HKWA2\_WS187\_2020-06-01--2020-06-30.txt  
memspec\_HKWA2\_WS187\_2020-07-01--2020-07-31.txt  
memspec\_HKWA2\_WS187\_2020-08-01--2020-08-31.txt  
memspec\_HKWA2\_WS187\_2020-09-01--2020-09-30.txt  
memspec\_HKWA2\_WS187\_2020-10-01--2020-10-3.txt  
memspec\_HKWA2\_WS187\_2020-11-01--2020-11-06.txt

**Thelma**

thelma-2020-05-09.bin  
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thelma-2020-05-12.bin  
thelma-2020-05-13.bin  
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thelma-2020-11-02.bin  
thelma-2020-11-03.bin  
thelma-2020-11-04.bin  
thelma-2020-11-05.bin  
thelma-2020-11-06.bin

## Deployment 9

### HKWB

### WS170

#### LiDAR

Wind\_585@Y2020\_M09\_D15.ZPH.zip  
Wind\_585@Y2020\_M09\_D16.ZPH.zip  
Wind\_585@Y2020\_M09\_D17.ZPH.zip  
Wind\_585@Y2020\_M09\_D18.ZPH.zip  
Wind\_585@Y2020\_M09\_D19.ZPH.zip  
Wind\_585@Y2020\_M09\_D20.ZPH.zip  
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Wind\_585@Y2020\_M09\_D28.ZPH.zip  
Wind\_585@Y2020\_M09\_D29.ZPH.zip  
Wind\_585@Y2020\_M09\_D30.ZPH.zip  
Wind\_585@Y2020\_M10\_D01.ZPH.zip  
Wind\_585@Y2020\_M10\_D02.ZPH.zip  
Wind\_585@Y2020\_M10\_D03.ZPH.zip  
Wind\_585@Y2020\_M10\_D04.ZPH.zip  
Wind\_585@Y2020\_M10\_D05.ZPH.zip  
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Wind\_585@Y2020\_M10\_D07.ZPH.zip  
Wind\_585@Y2020\_M10\_D08.ZPH.zip  
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Wind\_585@Y2020\_M10\_D25.ZPH.zip  
Wind\_585@Y2020\_M10\_D26.ZPH.zip  
Wind\_585@Y2020\_M10\_D27.ZPH.zip  
Wind\_585@Y2020\_M10\_D28.ZPH.zip  
Wind\_585@Y2020\_M10\_D29.ZPH.zip  
Wind\_585@Y2020\_M10\_D30.ZPH.zip

#### Aquadopp

aquadopp-2020-09-15.txt  
aquadopp-2020-09-16.txt  
aquadopp-2020-09-17.txt  
aquadopp-2020-09-18.txt  
aquadopp-2020-09-19.txt  
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aquadopp-2020-09-30.txt  
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aquadopp-2020-10-03.txt  
aquadopp-2020-10-04.txt  
aquadopp-2020-10-05.txt  
aquadopp-2020-10-06.txt  
aquadopp-2020-10-07.txt  
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aquadopp-2020-10-15.txt  
aquadopp-2020-10-16.txt  
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aquadopp-2020-10-18.txt  
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aquadopp-2020-10-25.txt  
aquadopp-2020-10-26.txt  
aquadopp-2020-10-27.txt  
aquadopp-2020-10-28.txt  
aquadopp-2020-10-29.txt  
aquadopp-2020-10-30.txt

Wind\_585@Y2020\_M10\_D31.ZPH.zip aquadopp-2020-10-31.txt  
Wind\_585@Y2020\_M11\_D01.ZPH.zip aquadopp-2020-11-01.txt  
Wind\_585@Y2020\_M11\_D02.ZPH.zip aquadopp-2020-11-02.txt  
Wind\_585@Y2020\_M11\_D03.ZPH.zip aquadopp-2020-11-03.txt  
Wind\_585@Y2020\_M11\_D04.ZPH.zip aquadopp-2020-11-04.txt  
Wind\_585@Y2020\_M11\_D05.ZPH.zip aquadopp-2020-11-05.txt  
Wind\_585@Y2020\_M11\_D06.ZPH.zip aquadopp-2020-11-06.txt  
Wind\_585@Y2020\_M11\_D07.ZPH.zip aquadopp-2020-11-07.txt  
Wind\_585@Y2020\_M11\_D08.ZPH.zip aquadopp-2020-11-08.txt  
Wind\_585@Y2020\_M11\_D09.ZPH.zip aquadopp-2020-11-09.txt  
Wind\_585@Y2020\_M11\_D10.ZPH.zip aquadopp-2020-11-10.txt  
Wind\_585@Y2020\_M11\_D11.ZPH.zip aquadopp-2020-11-11.txt  
Wind\_585@Y2020\_M11\_D12.ZPH.zip aquadopp-2020-11-12.txt  
Wind\_585@Y2020\_M11\_D13.ZPH.zip aquadopp-2020-11-13.txt  
Wind\_585@Y2020\_M11\_D14.ZPH.zip aquadopp-2020-11-14.txt  
Wind10\_585@Y2020\_M09\_D15.ZPH.zip  
Wind10\_585@Y2020\_M09\_D16.ZPH.zip  
Wind10\_585@Y2020\_M09\_D17.ZPH.zip  
Wind10\_585@Y2020\_M09\_D18.ZPH.zip  
Wind10\_585@Y2020\_M09\_D19.ZPH.zip  
Wind10\_585@Y2020\_M09\_D20.ZPH.zip  
Wind10\_585@Y2020\_M09\_D21.ZPH.zip  
Wind10\_585@Y2020\_M09\_D22.ZPH.zip  
Wind10\_585@Y2020\_M09\_D23.ZPH.zip  
Wind10\_585@Y2020\_M09\_D24.ZPH.zip  
Wind10\_585@Y2020\_M09\_D25.ZPH.zip  
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Wind10\_585@Y2020\_M09\_D29.ZPH.zip  
Wind10\_585@Y2020\_M09\_D30.ZPH.zip  
Wind10\_585@Y2020\_M10\_D01.ZPH.zip  
Wind10\_585@Y2020\_M10\_D02.ZPH.zip  
Wind10\_585@Y2020\_M10\_D03.ZPH.zip  
Wind10\_585@Y2020\_M10\_D04.ZPH.zip  
Wind10\_585@Y2020\_M10\_D05.ZPH.zip  
Wind10\_585@Y2020\_M10\_D06.ZPH.zip  
Wind10\_585@Y2020\_M10\_D07.ZPH.zip  
Wind10\_585@Y2020\_M10\_D08.ZPH.zip  
Wind10\_585@Y2020\_M10\_D09.ZPH.zip  
Wind10\_585@Y2020\_M10\_D10.ZPH.zip  
Wind10\_585@Y2020\_M10\_D11.ZPH.zip  
Wind10\_585@Y2020\_M10\_D12.ZPH.zip  
Wind10\_585@Y2020\_M10\_D13.ZPH.zip  
Wind10\_585@Y2020\_M10\_D14.ZPH.zip  
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Wind10\_585@Y2020\_M10\_D16.ZPH.zip  
Wind10\_585@Y2020\_M10\_D17.ZPH.zip  
Wind10\_585@Y2020\_M10\_D18.ZPH.zip  
Wind10\_585@Y2020\_M10\_D19.ZPH.zip

Wind10\_585@Y2020\_M10\_D20.ZPH.zip  
Wind10\_585@Y2020\_M10\_D21.ZPH.zip  
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Wind10\_585@Y2020\_M10\_D29.ZPH.zip  
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Wind10\_585@Y2020\_M11\_D01.ZPH.zip  
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Wind10\_585@Y2020\_M11\_D03.ZPH.zip  
Wind10\_585@Y2020\_M11\_D04.ZPH.zip  
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Wind10\_585@Y2020\_M11\_D06.ZPH.zip  
Wind10\_585@Y2020\_M11\_D07.ZPH.zip  
Wind10\_585@Y2020\_M11\_D08.ZPH.zip  
Wind10\_585@Y2020\_M11\_D09.ZPH.zip  
Wind10\_585@Y2020\_M11\_D10.ZPH.zip  
Wind10\_585@Y2020\_M11\_D11.ZPH.zip  
Wind10\_585@Y2020\_M11\_D12.ZPH.zip  
Wind10\_585@Y2020\_M11\_D13.ZPH.zip  
Wind10\_585@Y2020\_M11\_D14.ZPH.zip



**Raw wave**

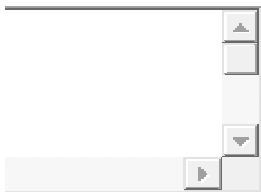
HKW\_D9\_WS170\_chpr.csv  
memspec\_HKWB\_WS170\_2020-09-15--2020-09-30.txt  
memspec\_HKWB\_WS170\_2020-10-01--2020-10-31.txt  
memspec\_HKWB\_WS170\_2020-11-01--2020-11-13.txt

**Thelma**

thelma-2020-09-15.bin  
thelma-2020-09-16.bin  
thelma-2020-09-17.bin  
thelma-2020-09-18.bin  
thelma-2020-09-19.bin  
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thelma-2020-11-13.bin  
thelma-2020-11-14.bin





## Deployment 10

### HKWA-2

#### WS188

##### LiDAR

Wind\_802@Y2020\_M11\_D06.ZPH.zip  
Wind\_802@Y2020\_M11\_D07.ZPH.zip  
Wind\_802@Y2020\_M11\_D08.ZPH.zip  
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Wind\_802@Y2020\_M12\_D02.ZPH.zip  
Wind\_802@Y2020\_M12\_D03.ZPH.zip  
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Wind\_802@Y2020\_M12\_D05.ZPH.zip  
Wind\_802@Y2020\_M12\_D06.ZPH.zip  
Wind\_802@Y2020\_M12\_D07.ZPH.zip  
Wind\_802@Y2020\_M12\_D08.ZPH.zip  
Wind\_802@Y2020\_M12\_D09.ZPH.zip  
Wind\_802@Y2020\_M12\_D10.ZPH.zip  
Wind\_802@Y2020\_M12\_D11.ZPH.zip  
Wind\_802@Y2020\_M12\_D12.ZPH.zip  
Wind\_802@Y2020\_M12\_D13.ZPH.zip  
Wind\_802@Y2020\_M12\_D14.ZPH.zip  
Wind\_802@Y2020\_M12\_D15.ZPH.zip  
Wind\_802@Y2020\_M12\_D16.ZPH.zip  
Wind\_802@Y2020\_M12\_D17.ZPH.zip  
Wind\_802@Y2020\_M12\_D18.ZPH.zip  
Wind\_802@Y2020\_M12\_D19.ZPH.zip  
Wind\_802@Y2020\_M12\_D20.ZPH.zip  
Wind\_802@Y2020\_M12\_D21.ZPH.zip

##### Aquadopp

aquadopp-2020-11-06.txt  
aquadopp-2020-11-07.txt  
aquadopp-2020-11-08.txt  
aquadopp-2020-11-09.txt  
aquadopp-2020-11-10.txt  
aquadopp-2020-11-11.txt  
aquadopp-2020-11-12.txt  
aquadopp-2020-11-13.txt  
aquadopp-2020-11-14.txt  
aquadopp-2020-11-15.txt  
aquadopp-2020-11-16.txt  
aquadopp-2020-11-17.txt  
aquadopp-2020-11-18.txt  
aquadopp-2020-11-19.txt  
aquadopp-2020-11-20.txt  
aquadopp-2020-11-21.txt  
aquadopp-2020-11-22.txt  
aquadopp-2020-11-23.txt  
aquadopp-2020-11-24.txt  
aquadopp-2020-11-25.txt  
aquadopp-2020-11-26.txt  
aquadopp-2020-11-27.txt  
aquadopp-2020-11-28.txt  
aquadopp-2020-11-29.txt  
aquadopp-2020-11-30.txt  
aquadopp-2020-12-01.txt  
aquadopp-2020-12-02.txt  
aquadopp-2020-12-03.txt  
aquadopp-2020-12-04.txt  
aquadopp-2020-12-05.txt  
aquadopp-2020-12-06.txt  
aquadopp-2020-12-07.txt  
aquadopp-2020-12-08.txt  
aquadopp-2020-12-09.txt  
aquadopp-2020-12-10.txt  
aquadopp-2020-12-11.txt  
aquadopp-2020-12-12.txt  
aquadopp-2020-12-13.txt  
aquadopp-2020-12-14.txt  
aquadopp-2020-12-15.txt  
aquadopp-2020-12-16.txt  
aquadopp-2020-12-17.txt  
aquadopp-2020-12-18.txt  
aquadopp-2020-12-19.txt  
aquadopp-2020-12-20.txt  
aquadopp-2020-12-21.txt

Wind_802@Y2020_M12_D22.ZPH.zip	aquadopp-2020-12-22.txt
Wind_802@Y2020_M12_D23.ZPH.zip	aquadopp-2020-12-23.txt
Wind_802@Y2020_M12_D24.ZPH.zip	aquadopp-2020-12-24.txt
Wind_802@Y2020_M12_D25.ZPH.zip	aquadopp-2020-12-25.txt
Wind_802@Y2020_M12_D26.ZPH.zip	aquadopp-2020-12-26.txt
Wind_802@Y2020_M12_D27.ZPH.zip	aquadopp-2020-12-27.txt
Wind_802@Y2020_M12_D28.ZPH.zip	aquadopp-2020-12-28.txt
Wind_802@Y2020_M12_D29.ZPH.zip	aquadopp-2020-12-29.txt
Wind_802@Y2020_M12_D30.ZPH.zip	aquadopp-2020-12-30.txt
Wind_802@Y2020_M12_D31.ZPH.zip	aquadopp-2020-12-31.txt
Wind_802@Y2021_M01_D01.ZPH.zip	aquadopp-2021-01-01.txt
Wind_802@Y2021_M01_D02.ZPH.zip	aquadopp-2021-01-02.txt
Wind_802@Y2021_M01_D03.ZPH.zip	aquadopp-2021-01-03.txt
Wind_802@Y2021_M01_D04.ZPH.zip	aquadopp-2021-01-04.txt
Wind_802@Y2021_M01_D05.ZPH.zip	aquadopp-2021-01-05.txt
Wind_802@Y2021_M01_D06.ZPH.zip	aquadopp-2021-01-06.txt
Wind_802@Y2021_M01_D07.ZPH.zip	aquadopp-2021-01-07.txt
Wind_802@Y2021_M01_D08.ZPH.zip	aquadopp-2021-01-08.txt
Wind_802@Y2021_M01_D09.ZPH.zip	aquadopp-2021-01-09.txt
Wind_802@Y2021_M01_D10.ZPH.zip	aquadopp-2021-01-10.txt
Wind_802@Y2021_M01_D11.ZPH.zip	aquadopp-2021-01-11.txt
Wind_802@Y2021_M01_D12.ZPH.zip	aquadopp-2021-01-12.txt
Wind_802@Y2021_M01_D13.ZPH.zip	aquadopp-2021-01-13.txt
Wind_802@Y2021_M01_D14.ZPH.zip	aquadopp-2021-01-14.txt
Wind_802@Y2021_M01_D15.ZPH.zip	aquadopp-2021-01-15.txt
Wind_802@Y2021_M01_D16.ZPH.zip	aquadopp-2021-01-16.txt
Wind_802@Y2021_M01_D17.ZPH.zip	aquadopp-2021-01-17.txt
Wind_802@Y2021_M01_D18.ZPH.zip	aquadopp-2021-01-18.txt
Wind_802@Y2021_M01_D19.ZPH.zip	aquadopp-2021-01-19.txt
Wind_802@Y2021_M01_D20.ZPH.zip	aquadopp-2021-01-20.txt
Wind_802@Y2021_M01_D21.ZPH.zip	aquadopp-2021-01-21.txt
Wind_802@Y2021_M01_D22.ZPH.zip	aquadopp-2021-01-22.txt
Wind_802@Y2021_M01_D23.ZPH.zip	aquadopp-2021-01-23.txt
Wind_802@Y2021_M01_D24.ZPH.zip	aquadopp-2021-01-24.txt
Wind_802@Y2021_M01_D25.ZPH.zip	aquadopp-2021-01-25.txt
Wind_802@Y2021_M01_D26.ZPH.zip	aquadopp-2021-01-26.txt
Wind_802@Y2021_M01_D27.ZPH.zip	aquadopp-2021-01-27.txt
Wind_802@Y2021_M01_D28.ZPH.zip	aquadopp-2021-01-28.txt
Wind_802@Y2021_M01_D29.ZPH.zip	aquadopp-2021-01-29.txt
Wind_802@Y2021_M01_D30.ZPH.zip	aquadopp-2021-01-30.txt
Wind_802@Y2021_M01_D31.ZPH.zip	aquadopp-2021-01-31.txt
Wind_802@Y2021_M02_D01.ZPH.zip	aquadopp-2021-02-01.txt
Wind_802@Y2021_M02_D02.ZPH.zip	aquadopp-2021-02-02.txt
Wind_802@Y2021_M02_D03.ZPH.zip	aquadopp-2021-02-03.txt
Wind_802@Y2021_M02_D04.ZPH.zip	aquadopp-2021-02-04.txt
Wind_802@Y2021_M02_D05.ZPH.zip	aquadopp-2021-02-05.txt
Wind_802@Y2021_M02_D06.ZPH.zip	aquadopp-2021-02-06.txt
Wind_802@Y2021_M02_D07.ZPH.zip	aquadopp-2021-02-07.txt
Wind_802@Y2021_M02_D08.ZPH.zip	aquadopp-2021-02-08.txt
Wind_802@Y2021_M02_D09.ZPH.zip	aquadopp-2021-02-09.txt

Wind\_802@Y2021\_M02\_D10.ZPH.zip  
Wind\_802@Y2021\_M02\_D11.ZPH.zip  
Wind10\_802@Y2020\_M11\_D06.ZPH.zip  
Wind10\_802@Y2020\_M11\_D07.ZPH.zip  
Wind10\_802@Y2020\_M11\_D08.ZPH.zip  
Wind10\_802@Y2020\_M11\_D09.ZPH.zip  
Wind10\_802@Y2020\_M11\_D10.ZPH.zip  
Wind10\_802@Y2020\_M11\_D11.ZPH.zip  
Wind10\_802@Y2020\_M11\_D12.ZPH.zip  
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Wind10\_802@Y2020\_M11\_D15.ZPH.zip  
Wind10\_802@Y2020\_M11\_D16.ZPH.zip  
Wind10\_802@Y2020\_M11\_D17.ZPH.zip  
Wind10\_802@Y2020\_M11\_D18.ZPH.zip  
Wind10\_802@Y2020\_M11\_D19.ZPH.zip  
Wind10\_802@Y2020\_M11\_D20.ZPH.zip  
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Wind10\_802@Y2020\_M11\_D24.ZPH.zip  
Wind10\_802@Y2020\_M11\_D25.ZPH.zip  
Wind10\_802@Y2020\_M11\_D26.ZPH.zip  
Wind10\_802@Y2020\_M11\_D27.ZPH.zip  
Wind10\_802@Y2020\_M11\_D28.ZPH.zip  
Wind10\_802@Y2020\_M11\_D29.ZPH.zip  
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Wind10\_802@Y2020\_M12\_D04.ZPH.zip  
Wind10\_802@Y2020\_M12\_D05.ZPH.zip  
Wind10\_802@Y2020\_M12\_D06.ZPH.zip  
Wind10\_802@Y2020\_M12\_D07.ZPH.zip  
Wind10\_802@Y2020\_M12\_D08.ZPH.zip  
Wind10\_802@Y2020\_M12\_D09.ZPH.zip  
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Wind10\_802@Y2020\_M12\_D15.ZPH.zip  
Wind10\_802@Y2020\_M12\_D16.ZPH.zip  
Wind10\_802@Y2020\_M12\_D17.ZPH.zip  
Wind10\_802@Y2020\_M12\_D18.ZPH.zip  
Wind10\_802@Y2020\_M12\_D19.ZPH.zip  
Wind10\_802@Y2020\_M12\_D20.ZPH.zip  
Wind10\_802@Y2020\_M12\_D21.ZPH.zip  
Wind10\_802@Y2020\_M12\_D22.ZPH.zip  
Wind10\_802@Y2020\_M12\_D23.ZPH.zip

aquadopp-2021-02-10.txt

aquadopp-2021-02-11.txt

Wind10\_802@Y2020\_M12\_D24.ZPH.zip  
Wind10\_802@Y2020\_M12\_D25.ZPH.zip  
Wind10\_802@Y2020\_M12\_D26.ZPH.zip  
Wind10\_802@Y2020\_M12\_D27.ZPH.zip  
Wind10\_802@Y2020\_M12\_D28.ZPH.zip  
Wind10\_802@Y2020\_M12\_D29.ZPH.zip  
Wind10\_802@Y2020\_M12\_D30.ZPH.zip  
Wind10\_802@Y2020\_M12\_D31.ZPH.zip  
Wind10\_802@Y2021\_M01\_D01.ZPH.zip  
Wind10\_802@Y2021\_M01\_D02.ZPH.zip  
Wind10\_802@Y2021\_M01\_D03.ZPH.zip  
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Wind10\_802@Y2021\_M01\_D05.ZPH.zip  
Wind10\_802@Y2021\_M01\_D06.ZPH.zip  
Wind10\_802@Y2021\_M01\_D07.ZPH.zip  
Wind10\_802@Y2021\_M01\_D08.ZPH.zip  
Wind10\_802@Y2021\_M01\_D09.ZPH.zip  
Wind10\_802@Y2021\_M01\_D10.ZPH.zip  
Wind10\_802@Y2021\_M01\_D11.ZPH.zip  
Wind10\_802@Y2021\_M01\_D12.ZPH.zip  
Wind10\_802@Y2021\_M01\_D13.ZPH.zip  
Wind10\_802@Y2021\_M01\_D14.ZPH.zip  
Wind10\_802@Y2021\_M01\_D15.ZPH.zip  
Wind10\_802@Y2021\_M01\_D16.ZPH.zip  
Wind10\_802@Y2021\_M01\_D17.ZPH.zip  
Wind10\_802@Y2021\_M01\_D18.ZPH.zip  
Wind10\_802@Y2021\_M01\_D19.ZPH.zip  
Wind10\_802@Y2021\_M01\_D20.ZPH.zip  
Wind10\_802@Y2021\_M01\_D21.ZPH.zip  
Wind10\_802@Y2021\_M01\_D22.ZPH.zip  
Wind10\_802@Y2021\_M01\_D23.ZPH.zip  
Wind10\_802@Y2021\_M01\_D24.ZPH.zip  
Wind10\_802@Y2021\_M01\_D25.ZPH.zip  
Wind10\_802@Y2021\_M01\_D26.ZPH.zip  
Wind10\_802@Y2021\_M01\_D27.ZPH.zip  
Wind10\_802@Y2021\_M01\_D28.ZPH.zip  
Wind10\_802@Y2021\_M01\_D29.ZPH.zip  
Wind10\_802@Y2021\_M01\_D30.ZPH.zip  
Wind10\_802@Y2021\_M01\_D31.ZPH.zip  
Wind10\_802@Y2021\_M02\_D01.ZPH.zip  
Wind10\_802@Y2021\_M02\_D02.ZPH.zip  
Wind10\_802@Y2021\_M02\_D03.ZPH.zip  
Wind10\_802@Y2021\_M02\_D04.ZPH.zip  
Wind10\_802@Y2021\_M02\_D05.ZPH.zip  
Wind10\_802@Y2021\_M02\_D06.ZPH.zip  
Wind10\_802@Y2021\_M02\_D07.ZPH.zip  
Wind10\_802@Y2021\_M02\_D08.ZPH.zip  
Wind10\_802@Y2021\_M02\_D09.ZPH.zip  
Wind10\_802@Y2021\_M02\_D10.ZPH.zip  
Wind10\_802@Y2021\_M02\_D11.ZPH.zip

**Raw wave**

D10\_HKWA2\_WS188\_01-11Feb21\_chpr.csv  
D10\_HKWA2\_WS188\_01-31Dec20\_chpr.csv  
D10\_HKWA2\_WS188\_01-31Jan21\_chpr.csv  
D10\_HKWA2\_WS188\_06-30Nov20\_chpr.csv  
memspec\_D10\_HKWA2\_WS188\_2020-11-06--2020-11-30.txt  
memspec\_D10\_HKWA2\_WS188\_2020-12-01--2020-12-31.txt  
memspec\_D10\_HKWA2\_WS188\_2021-01-01--2021-01-31.txt  
memspec\_D10\_HKWA2\_WS188\_2021-02-01--2021-02-11.txt

**Thelma**

thelma-2020-11-06.bin  
thelma-2020-11-07.bin  
thelma-2020-11-08.bin  
thelma-2020-11-09.bin  
thelma-2020-11-10.bin  
thelma-2020-11-11.bin  
thelma-2020-11-12.bin  
thelma-2020-11-13.bin  
thelma-2020-11-14.bin  
thelma-2020-11-15.bin  
thelma-2020-11-16.bin  
thelma-2020-11-17.bin  
thelma-2020-11-18.bin

## **Deployment 11**

### **HKWB**

#### **WS187**

##### **LiDAR**

Wind\_818@Y2020\_M11\_D14.ZPH.zip  
Wind\_818@Y2020\_M11\_D15.ZPH.zip  
Wind\_818@Y2020\_M11\_D16.ZPH.zip  
Wind\_818@Y2020\_M11\_D17.ZPH.zip  
Wind\_818@Y2020\_M11\_D18.ZPH.zip  
Wind\_818@Y2020\_M11\_D19.ZPH.zip  
Wind\_818@Y2020\_M11\_D20.ZPH.zip  
Wind\_818@Y2020\_M11\_D21.ZPH.zip  
Wind\_818@Y2020\_M11\_D22.ZPH.zip  
Wind\_818@Y2020\_M11\_D23.ZPH.zip  
Wind10\_818@Y2020\_M11\_D14.ZPH.zip  
Wind10\_818@Y2020\_M11\_D15.ZPH.zip  
Wind10\_818@Y2020\_M11\_D16.ZPH.zip  
Wind10\_818@Y2020\_M11\_D17.ZPH.zip  
Wind10\_818@Y2020\_M11\_D18.ZPH.zip  
Wind10\_818@Y2020\_M11\_D19.ZPH.zip  
Wind10\_818@Y2020\_M11\_D20.ZPH.zip  
Wind10\_818@Y2020\_M11\_D21.ZPH.zip  
Wind10\_818@Y2020\_M11\_D22.ZPH.zip  
Wind10\_818@Y2020\_M11\_D23.ZPH.zip

##### **Aquadopp**

aquadopp-2020-11-14.txt  
aquadopp-2020-11-15.txt  
aquadopp-2020-11-16.txt  
aquadopp-2020-11-17.txt  
aquadopp-2020-11-18.txt  
aquadopp-2020-11-19.txt  
aquadopp-2020-11-20.txt  
aquadopp-2020-11-21.txt  
aquadopp-2020-11-22.txt  
aquadopp-2020-11-23.txt

**Raw wave**

HKW\_D11\_WS187\_chpr.csv

memspec\_HKWB\_WS187\_2020-11-14--2020-11-22.txt

**Thelma**

thelma-2020-11-14.bin

thelma-2020-11-15.bin

thelma-2020-11-16.bin

thelma-2020-11-17.bin

thelma-2020-11-18.bin

thelma-2020-11-19.bin

thelma-2020-11-20.bin

thelma-2020-11-21.bin

thelma-2020-11-22.bin

thelma-2020-11-23.bin



## Deployment 12

### HKWB

### WS170

#### LiDAR

Wind\_585@Y2020\_M11\_D26.ZPH.zip  
Wind\_585@Y2020\_M11\_D27.ZPH.zip  
Wind\_585@Y2020\_M11\_D28.ZPH.zip  
Wind\_585@Y2020\_M11\_D29.ZPH.zip  
Wind\_585@Y2020\_M11\_D30.ZPH.zip  
Wind\_585@Y2020\_M12\_D01.ZPH.zip  
Wind\_585@Y2020\_M12\_D02.ZPH.zip  
Wind\_585@Y2020\_M12\_D03.ZPH.zip  
Wind\_585@Y2020\_M12\_D04.ZPH.zip  
Wind\_585@Y2020\_M12\_D05.ZPH.zip  
Wind\_585@Y2020\_M12\_D06.ZPH.zip  
Wind\_585@Y2020\_M12\_D07.ZPH.zip  
Wind\_585@Y2020\_M12\_D08.ZPH.zip  
Wind\_585@Y2020\_M12\_D09.ZPH.zip  
Wind\_585@Y2020\_M12\_D10.ZPH.zip  
Wind\_585@Y2020\_M12\_D11.ZPH.zip  
Wind\_585@Y2020\_M12\_D12.ZPH.zip  
Wind\_585@Y2020\_M12\_D13.ZPH.zip  
Wind\_585@Y2020\_M12\_D14.ZPH.zip  
Wind\_585@Y2020\_M12\_D15.ZPH.zip  
Wind\_585@Y2020\_M12\_D16.ZPH.zip  
Wind\_585@Y2020\_M12\_D17.ZPH.zip  
Wind\_585@Y2020\_M12\_D18.ZPH.zip  
Wind\_585@Y2020\_M12\_D19.ZPH.zip  
Wind\_585@Y2020\_M12\_D20.ZPH.zip  
Wind\_585@Y2020\_M12\_D21.ZPH.zip  
Wind\_585@Y2020\_M12\_D22.ZPH.zip  
Wind\_585@Y2020\_M12\_D23.ZPH.zip  
Wind\_585@Y2020\_M12\_D24.ZPH.zip  
Wind\_585@Y2020\_M12\_D25.ZPH.zip  
Wind\_585@Y2020\_M12\_D26.ZPH.zip  
Wind\_585@Y2020\_M12\_D27.ZPH.zip  
Wind\_585@Y2020\_M12\_D28.ZPH.zip  
Wind\_585@Y2020\_M12\_D29.ZPH.zip  
Wind\_585@Y2020\_M12\_D30.ZPH.zip  
Wind\_585@Y2020\_M12\_D31.ZPH.zip  
Wind\_585@Y2021\_M01\_D01.ZPH.zip  
Wind\_585@Y2021\_M01\_D02.ZPH.zip  
Wind\_585@Y2021\_M01\_D03.ZPH.zip  
Wind\_585@Y2021\_M01\_D04.ZPH.zip  
Wind\_585@Y2021\_M01\_D05.ZPH.zip  
Wind\_585@Y2021\_M01\_D06.ZPH.zip  
Wind\_585@Y2021\_M01\_D07.ZPH.zip  
Wind\_585@Y2021\_M01\_D08.ZPH.zip  
Wind\_585@Y2021\_M01\_D09.ZPH.zip  
Wind\_585@Y2021\_M01\_D10.ZPH.zip

#### Aquadopp

aquadopp-2020-11-26.txt  
aquadopp-2020-11-27.txt  
aquadopp-2020-11-28.txt  
aquadopp-2020-11-29.txt  
aquadopp-2020-11-30.txt  
aquadopp-2020-12-01.txt  
aquadopp-2020-12-02.txt  
aquadopp-2020-12-03.txt  
aquadopp-2020-12-04.txt  
aquadopp-2020-12-05.txt  
aquadopp-2020-12-06.txt  
aquadopp-2020-12-07.txt  
aquadopp-2020-12-08.txt  
aquadopp-2020-12-09.txt  
aquadopp-2020-12-10.txt  
aquadopp-2020-12-11.txt  
aquadopp-2020-12-12.txt  
aquadopp-2020-12-13.txt  
aquadopp-2020-12-14.txt  
aquadopp-2020-12-15.txt  
aquadopp-2020-12-16.txt  
aquadopp-2020-12-17.txt  
aquadopp-2020-12-18.txt  
aquadopp-2020-12-19.txt  
aquadopp-2020-12-20.txt  
aquadopp-2020-12-21.txt  
aquadopp-2020-12-22.txt  
aquadopp-2020-12-23.txt  
aquadopp-2020-12-24.txt  
aquadopp-2020-12-25.txt  
aquadopp-2020-12-26.txt  
aquadopp-2020-12-27.txt  
aquadopp-2020-12-28.txt  
aquadopp-2020-12-29.txt  
aquadopp-2020-12-30.txt  
aquadopp-2020-12-31.txt  
aquadopp-2021-01-01.txt  
aquadopp-2021-01-02.txt  
aquadopp-2021-01-03.txt  
aquadopp-2021-01-04.txt  
aquadopp-2021-01-05.txt  
aquadopp-2021-01-06.txt  
aquadopp-2021-01-07.txt  
aquadopp-2021-01-08.txt  
aquadopp-2021-01-09.txt  
aquadopp-2021-01-10.txt

Wind\_585@Y2021\_M01\_D11.ZPH.zip aquadopp-2021-01-11.txt  
Wind\_585@Y2021\_M01\_D12.ZPH.zip aquadopp-2021-01-12.txt  
Wind\_585@Y2021\_M01\_D13.ZPH.zip aquadopp-2021-01-13.txt  
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Wind\_585@Y2021\_M01\_D16.ZPH.zip aquadopp-2021-01-16.txt  
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Wind\_585@Y2021\_M01\_D18.ZPH.zip aquadopp-2021-01-18.txt  
Wind\_585@Y2021\_M01\_D19.ZPH.zip aquadopp-2021-01-19.txt  
Wind\_585@Y2021\_M01\_D20.ZPH.zip aquadopp-2021-01-20.txt  
Wind\_585@Y2021\_M01\_D21.ZPH.zip aquadopp-2021-01-21.txt  
Wind\_585@Y2021\_M01\_D22.ZPH.zip aquadopp-2021-01-22.txt  
Wind\_585@Y2021\_M01\_D23.ZPH.zip aquadopp-2021-01-23.txt  
Wind\_585@Y2021\_M01\_D24.ZPH.zip aquadopp-2021-01-24.txt  
Wind\_585@Y2021\_M01\_D25.ZPH.zip aquadopp-2021-01-25.txt  
Wind\_585@Y2021\_M01\_D26.ZPH.zip aquadopp-2021-01-26.txt  
Wind\_585@Y2021\_M01\_D27.ZPH.zip aquadopp-2021-01-27.txt  
Wind\_585@Y2021\_M01\_D28.ZPH.zip aquadopp-2021-01-28.txt  
Wind\_585@Y2021\_M01\_D29.ZPH.zip aquadopp-2021-01-29.txt  
Wind\_585@Y2021\_M01\_D30.ZPH.zip aquadopp-2021-01-30.txt  
Wind\_585@Y2021\_M01\_D31.ZPH.zip aquadopp-2021-01-31.txt  
Wind\_585@Y2021\_M02\_D01.ZPH.zip aquadopp-2021-02-01.txt  
Wind\_585@Y2021\_M02\_D02.ZPH.zip aquadopp-2021-02-02.txt  
Wind\_585@Y2021\_M02\_D03.ZPH.zip aquadopp-2021-02-03.txt  
Wind\_585@Y2021\_M02\_D04.ZPH.zip aquadopp-2021-02-04.txt  
Wind\_585@Y2021\_M02\_D05.ZPH.zip aquadopp-2021-02-05.txt  
Wind\_585@Y2021\_M02\_D06.ZPH.zip aquadopp-2021-02-06.txt  
Wind\_585@Y2021\_M02\_D07.ZPH.zip aquadopp-2021-02-07.txt  
Wind\_585@Y2021\_M02\_D08.ZPH.zip aquadopp-2021-02-08.txt  
Wind\_585@Y2021\_M02\_D09.ZPH.zip aquadopp-2021-02-09.txt  
Wind\_585@Y2021\_M02\_D10.ZPH.zip aquadopp-2021-02-10.txt  
Wind\_585@Y2021\_M02\_D11.ZPH.zip aquadopp-2021-02-11.txt  
Wind10\_585@Y2020\_M11\_D26.ZPH.zip  
Wind10\_585@Y2020\_M11\_D27.ZPH.zip  
Wind10\_585@Y2020\_M11\_D28.ZPH.zip  
Wind10\_585@Y2020\_M11\_D29.ZPH.zip  
Wind10\_585@Y2020\_M11\_D30.ZPH.zip  
Wind10\_585@Y2020\_M12\_D01.ZPH.zip  
Wind10\_585@Y2020\_M12\_D02.ZPH.zip  
Wind10\_585@Y2020\_M12\_D03.ZPH.zip  
Wind10\_585@Y2020\_M12\_D04.ZPH.zip  
Wind10\_585@Y2020\_M12\_D05.ZPH.zip  
Wind10\_585@Y2020\_M12\_D06.ZPH.zip  
Wind10\_585@Y2020\_M12\_D07.ZPH.zip  
Wind10\_585@Y2020\_M12\_D08.ZPH.zip  
Wind10\_585@Y2020\_M12\_D09.ZPH.zip  
Wind10\_585@Y2020\_M12\_D10.ZPH.zip  
Wind10\_585@Y2020\_M12\_D11.ZPH.zip  
Wind10\_585@Y2020\_M12\_D12.ZPH.zip  
Wind10\_585@Y2020\_M12\_D13.ZPH.zip

Wind10\_585@Y2020\_M12\_D14.ZPH.zip  
Wind10\_585@Y2020\_M12\_D15.ZPH.zip  
Wind10\_585@Y2020\_M12\_D16.ZPH.zip  
Wind10\_585@Y2020\_M12\_D17.ZPH.zip  
Wind10\_585@Y2020\_M12\_D18.ZPH.zip  
Wind10\_585@Y2020\_M12\_D19.ZPH.zip  
Wind10\_585@Y2020\_M12\_D20.ZPH.zip  
Wind10\_585@Y2020\_M12\_D21.ZPH.zip  
Wind10\_585@Y2020\_M12\_D22.ZPH.zip  
Wind10\_585@Y2020\_M12\_D23.ZPH.zip  
Wind10\_585@Y2020\_M12\_D24.ZPH.zip  
Wind10\_585@Y2020\_M12\_D25.ZPH.zip  
Wind10\_585@Y2020\_M12\_D26.ZPH.zip  
Wind10\_585@Y2020\_M12\_D27.ZPH.zip  
Wind10\_585@Y2020\_M12\_D28.ZPH.zip  
Wind10\_585@Y2020\_M12\_D29.ZPH.zip  
Wind10\_585@Y2020\_M12\_D30.ZPH.zip  
Wind10\_585@Y2020\_M12\_D31.ZPH.zip  
Wind10\_585@Y2021\_M01\_D01.ZPH.zip  
Wind10\_585@Y2021\_M01\_D02.ZPH.zip  
Wind10\_585@Y2021\_M01\_D03.ZPH.zip  
Wind10\_585@Y2021\_M01\_D04.ZPH.zip  
Wind10\_585@Y2021\_M01\_D05.ZPH.zip  
Wind10\_585@Y2021\_M01\_D06.ZPH.zip  
Wind10\_585@Y2021\_M01\_D07.ZPH.zip  
Wind10\_585@Y2021\_M01\_D08.ZPH.zip  
Wind10\_585@Y2021\_M01\_D09.ZPH.zip  
Wind10\_585@Y2021\_M01\_D10.ZPH.zip  
Wind10\_585@Y2021\_M01\_D11.ZPH.zip  
Wind10\_585@Y2021\_M01\_D12.ZPH.zip  
Wind10\_585@Y2021\_M01\_D13.ZPH.zip  
Wind10\_585@Y2021\_M01\_D14.ZPH.zip  
Wind10\_585@Y2021\_M01\_D15.ZPH.zip  
Wind10\_585@Y2021\_M01\_D16.ZPH.zip  
Wind10\_585@Y2021\_M01\_D17.ZPH.zip  
Wind10\_585@Y2021\_M01\_D18.ZPH.zip  
Wind10\_585@Y2021\_M01\_D19.ZPH.zip  
Wind10\_585@Y2021\_M01\_D20.ZPH.zip  
Wind10\_585@Y2021\_M01\_D21.ZPH.zip  
Wind10\_585@Y2021\_M01\_D22.ZPH.zip  
Wind10\_585@Y2021\_M01\_D23.ZPH.zip  
Wind10\_585@Y2021\_M01\_D24.ZPH.zip  
Wind10\_585@Y2021\_M01\_D25.ZPH.zip  
Wind10\_585@Y2021\_M01\_D26.ZPH.zip  
Wind10\_585@Y2021\_M01\_D27.ZPH.zip  
Wind10\_585@Y2021\_M01\_D28.ZPH.zip  
Wind10\_585@Y2021\_M01\_D29.ZPH.zip  
Wind10\_585@Y2021\_M01\_D30.ZPH.zip  
Wind10\_585@Y2021\_M01\_D31.ZPH.zip  
Wind10\_585@Y2021\_M02\_D01.ZPH.zip

Wind10\_585@Y2021\_M02\_D02.ZPH.zip  
Wind10\_585@Y2021\_M02\_D03.ZPH.zip  
Wind10\_585@Y2021\_M02\_D04.ZPH.zip  
Wind10\_585@Y2021\_M02\_D05.ZPH.zip  
Wind10\_585@Y2021\_M02\_D06.ZPH.zip  
Wind10\_585@Y2021\_M02\_D07.ZPH.zip  
Wind10\_585@Y2021\_M02\_D08.ZPH.zip  
Wind10\_585@Y2021\_M02\_D09.ZPH.zip  
Wind10\_585@Y2021\_M02\_D10.ZPH.zip  
Wind10\_585@Y2021\_M02\_D11.ZPH.zip

**Raw wave**

HKWB\_WS170\_26-30Nov2020\_chpr.csv  
HKWB\_WS170\_01-31Dec2020\_chpr.csv  
HKWB\_WS170\_01-31Jan2021\_chpr.csv  
HKWB\_WS170\_01-11Feb2021\_chpr.csv  
memspec\_HKWB\_WS170\_2020-11-26--2020-11-30.txt  
memspec\_HKWB\_WS170\_2020-12-01--2020-12-31.txt  
memspec\_HKWB\_WS170\_2021-01-01--2021-01-31.txt  
memspec\_HKWB\_WS170\_2021-02-01--2021-02-11.txt

**Thelma**

thelma-2020-11-26.bin  
thelma-2020-11-27.bin  
thelma-2020-11-28.bin  
thelma-2020-11-29.bin  
thelma-2020-11-30.bin  
thelma-2020-12-01.bin  
thelma-2020-12-02.bin  
thelma-2020-12-03.bin  
thelma-2020-12-04.bin  
thelma-2020-12-05.bin  
thelma-2020-12-06.bin  
thelma-2020-12-07.bin  
thelma-2020-12-08.bin  
thelma-2020-12-09.bin  
thelma-2020-12-10.bin  
thelma-2020-12-11.bin  
thelma-2020-12-12.bin  
thelma-2020-12-13.bin  
thelma-2020-12-14.bin  
thelma-2020-12-15.bin  
thelma-2020-12-16.bin  
thelma-2020-12-17.bin  
thelma-2020-12-18.bin  
thelma-2020-12-19.bin  
thelma-2020-12-20.bin  
thelma-2020-12-21.bin  
thelma-2020-12-22.bin  
thelma-2020-12-23.bin  
thelma-2020-12-24.bin  
thelma-2020-12-25.bin  
thelma-2020-12-26.bin  
thelma-2020-12-27.bin  
thelma-2020-12-28.bin  
thelma-2020-12-29.bin  
thelma-2020-12-30.bin  
thelma-2020-12-31.bin  
thelma-2021-01-01.bin  
thelma-2021-01-02.bin  
thelma-2021-01-03.bin  
thelma-2021-01-04.bin  
thelma-2021-01-05.bin  
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thelma-2021-01-07.bin  
thelma-2021-01-08.bin  
thelma-2021-01-09.bin  
thelma-2021-01-10.bin

thelma-2021-01-11.bin  
thelma-2021-01-12.bin  
thelma-2021-01-13.bin  
thelma-2021-01-14.bin  
thelma-2021-01-15.bin  
thelma-2021-01-16.bin  
thelma-2021-01-17.bin  
thelma-2021-01-18.bin  
thelma-2021-01-19.bin  
thelma-2021-01-20.bin  
thelma-2021-01-21.bin  
thelma-2021-01-22.bin  
thelma-2021-01-23.bin  
thelma-2021-01-24.bin  
thelma-2021-01-25.bin  
thelma-2021-01-26.bin  
thelma-2021-01-27.bin  
thelma-2021-01-28.bin  
thelma-2021-01-29.bin  
thelma-2021-01-30.bin  
thelma-2021-01-31.bin  
thelma-2021-02-01.bin  
thelma-2021-02-02.bin  
thelma-2021-02-03.bin  
thelma-2021-02-04.bin  
thelma-2021-02-05.bin  
thelma-2021-02-06.bin  
thelma-2021-02-07.bin  
thelma-2021-02-08.bin  
thelma-2021-02-09.bin  
thelma-2021-02-10.bin  
thelma-2021-02-11.bin

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## Appendix D: Metadata

<b>RVO - Hollandse Kust West</b>
<b>Metocean campaign 2019-2021</b>
<b>Meta Data of the delivered Datasets</b>

Version	Date	Author	Revision history Notes
R1_01	18.05.2021	IP	First draft
R2_01	09.08.2021	IP	Revised draft
R3_01	30.08.2021	IP	Revised draft
F	04.10.2021	IP	Final



Overview of datafiles delivered						
Item	Id	Short name	Description	Example filename	Required	
Wind	Wi1	Raw data	Raw Zephir data	Wind_818@Y2019_M09_D19.ZPH		
	Wi2	Zephir 10-min data	Zephir 10-min average data	Wind10_818@Y2019_M{02..06}_D{15..31}.ZPH		
	Wi3	Timeseries U	Timeseries of wind speed and -direction	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceSpeedDirectionStat_IP_01_DD.csv		
			WindDir004 to WindDir250m			
			WindGust004, WindSpd004 to Windspeed250m			
			windMaxHor030m to windMaxHor250m			
			windMin_hor030m to windMin_hor250m			
	Wi4	Timeseries TI	Timeseries of TI, veer, shear, inflow	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceTIVeerShearInflow_IP_01_D.csv		
			Inflow angle 030m to 250m			
			Standard deviation 030m to 250m			
		Wind Shear 100-80m, 120-100, 140-120, 160-140, 180-160, 200-180, 250-200, 40-30, 60-40, 80-60, 100-80				
		Wind Veer 100-80m, 120-100, 140-120, 160-140, 180-160, 200-180, 250-200, 40-30, 60-40, 80-60, 100-80				
		turbulence(TI) 030m to 250m				
Wi5	Anemometer data	Wind speed and - direction at 4m	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceSpeedDirectionStat_IP_01_D.csv			
Waves	W1	Raw data	CHPR data, 10min compass-heave-pitch-roll (1024 samples, each 10m)	HKWA-WS187-chpr.csv		
	W2	2D spectra	MEM file, 2D wave spectra, spectral density for each freq and dir	HKWA-WS187-MEM-Feb2019.csv		
	W3	Timeseries	Timeseries of processed wave parameters	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 WaveDataStat_IP_01_D.csv		
			hm0, hmax, mdir, sprtp, thhf, thmax, thtp, tm01, tm02			
			hm0a, hm0b, tm02a, hm0b, tm02b, mdira, mdirb			
W4	2D MEM spectra	The directional spectrum is estimated from the directional Fourier components using the Burg Maximum Entropy method (MEM). f, S(f) = Hspec(f), S(f,θ), a1, s2, b1, b2, MDIR1(f), SPR1, hm0 m, Tp s	memspec_HKWC_WS188_2019-12-18--2020-02-07.txt			
Currents	C1	Timeseries	Timeseries of current magnitude and direction	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 CurrentDataStat_IP_01_D.csv		
			AqDir0003 to AqDir0023			
			AqSpd0003 to AqSpd0023			
			AqAmp0003 to AqAmp0023			
Water levels	L1	Timeseries	Timeseries of water pressure ()	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 MetDataStat_IP_01_D.csv		
	L2	Timeseries	Timeseries of water levels processed (m,LAT)			
Other	O1	Timeseries	Timeseries of other parameters	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 MetDataStat_IP_01_D.csv		
			Air Pressure, Air Temperature, Humidity, Water temperature			
	O2	Timeseries	Time series buoy position	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 PosData_IP_01_D.csv		
	O3	Time series	Supplementary data	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 SupplementaryData_IP_01_D.csv		

## WIND

Item	Value
<b>1. Background</b>	
	This section contains an overview of wind datasets, their description, meta data and processing
	Each dataset description contains the following sections:
	1. General information
	2. Columns: what parameters are in the datafile
	3. Processing: description of processing steps applied to dataset
	4. Quality control: description of quality control procedures applied and meaning of quality flags
<b>2. Overview</b>	
Dataset #1	Raw Zephir data
Dataset #2	10 min average Zephir data
Dataset #3	Timeseries of wind speed and -direction
Dataset #4	Timeseries of TI, veer, shear, inflow
Dataset #5	Anemometer data

## Description of datasets

Dataset #1	Raw Zephir data
<b>1. General</b>	
Dataset ID	Wi1
Short name	Raw wind data
Sensor(s)	Zephir Lidar
Description	Raw Zephir wind speed and direction data, binary files
Example filename	Wind_818@Y2019_M09_D19.ZPH
Time interval	1 Hz
<b>2. Columns</b>	
	NOT RELEVANT BECAUSE BINARY DATA
<b>3. Processing</b>	
Digitisation	- digitisation applied: No further digitization, raw Zephir wind speed and direction data. - digitisation resolution: NA
Processing	- data processed from raw Zephir data / other: no processing - filters applied: Internal signal filtering in Lidar - Zephir internal QC filtering applied
<b>4. Quality control</b>	
Tests	- Zephir internal QC filtering applied. See manual
Gaps	See deployment overview template
Flags	Info status flags in 1Hz files Quality flags see Zephir manual

Dataset #2	Zephir 10 minute average data
<b>1. General</b>	
Dataset ID	Wi2
Short name	Zephir 10-min data
Sensor(s)	Zephir Lidar
Description	Zephir wind speed and direction data, 10-min average, binary files
Example filename	Wind10_818@Y2019_M{02..06}_D{15..31}.ZPH
Time interval	10 min average

2. Columns	
	NOT RELEVANT BECAUSE BINARY DATA
3. Processing	
Digitisation	- digitisation applied: No further digitization, "raw" 10-min average Zephir wind speed and direction data. - digitisation resolution: NA
Processing	- data processed from raw Zephir data / other: no processing - filters applied: Internal signal filtering in Lidar
4. Quality control	
Tests	- Zephir internal QC filtering applied. See manual
Gaps	See deployment overview template
Flags	Flags are placed in 10 avg files

Dataset #3	Timeseries of wind speed and -direction
1. General	
Dataset ID	Wi3
Short name	Timeseries of wind speed and -direction
Description	Timeseries of processed windspeed and direction, every 10min
Example filename	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceSpeedDirectionStat_IP_01_D.csv
Time interval	every 10 minutes
Heights at which windspeeds are given	30, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250m
2. Columns	
	TIMESTAMP (ISO-8601) UTC
	VerticalWindSpeed030m m/s
	VerticalWindSpeed040m m/s
	VerticalWindSpeed060m m/s
	VerticalWindSpeed080m m/s
	VerticalWindSpeed100m m/s
	VerticalWindSpeed120m m/s
	VerticalWindSpeed140m m/s
	VerticalWindSpeed160m m/s
	VerticalWindSpeed180m m/s
	VerticalWindSpeed200m m/s
	VerticalWindSpeed250m m/s
	WindDir004m deg
	WindDir030m deg
	WindDir040m deg
	WindDir060m deg
	WindDir080m deg
	WindDir100m deg
	WindDir120m deg
	WindDir140m deg
	WindDir160m deg
	WindDir180m deg
	WindDir200m deg
	WindDir250m deg
	WindGust004m m/s
	WindSpeed004m m/s
	WindSpeed030m m/s
	WindSpeed040m m/s
	WindSpeed060m m/s
	WindSpeed080m m/s
	WindSpeed100m m/s
	WindSpeed120m m/s
	WindSpeed140m m/s
	WindSpeed160m m/s
	WindSpeed180m m/s
	WindSpeed200m m/s
	WindSpeed250m m/s
	windMax_hor030m m/s
	windMax_hor040m m/s

	windMax_hor060m m/s															
	windMax_hor080m m/s															
	windMax_hor100m m/s															
	windMax_hor120m m/s															
	windMax_hor140m m/s															
	windMax_hor160m m/s															
	windMax_hor180m m/s															
	windMax_hor200m m/s															
	windMax_hor250m m/s															
	windMin_hor030m m/s															
	windMin_hor040m m/s															
	windMin_hor060m m/s															
	windMin_hor080m m/s															
	windMin_hor100m m/s															
	windMin_hor120m m/s															
	windMin_hor140m m/s															
	windMin_hor160m m/s															
	windMin_hor180m m/s															
	windMin_hor200m m/s															
	windMin_hor250m m/s															
<b>3. Processing</b>																
<b>Digitisation</b>	- digitisation applied: yes															
	<b>Settings raw data:</b>															
	<table border="1"> <thead> <tr><th>Parameter</th><th>Min</th><th>Max</th><th>nbits</th><th>Resolution</th></tr> </thead> <tbody> <tr><td>Wind speed</td><td>-1</td><td>60</td><td>13</td><td>0.00744629</td></tr> <tr><td>Wind direction</td><td>-1</td><td>361</td><td>12</td><td>0.0883789</td></tr> </tbody> </table>	Parameter	Min	Max	nbits	Resolution	Wind speed	-1	60	13	0.00744629	Wind direction	-1	361	12	0.0883789
Parameter	Min	Max	nbits	Resolution												
Wind speed	-1	60	13	0.00744629												
Wind direction	-1	361	12	0.0883789												
<b>Processing</b>	- data processed from raw Zephir data / wind direction referred to GPS heading/ wind direction checked against independent wind sensor and direction flipped if deviation > 100 deg															
	- filters applied: : repeated values, low packets count, min and max															
	Wind speed LiDAR [0.001;58]m/s, Wind speed Gill [0.001;35] m/s, Direction (all) [0;360] deg, Packet Count [10;40] packets															
	- re-processing LiDAR data from D01, D02, D03, D07, D08, D09, D10, D11, D12 for resolution consistency															
	180 degree ambiguity check redone for WS188 with offset corrected 4 m Gill wind direction (see Wi5)															
	180 degree ambiguity check redone for WS170 with offset corrected 4 m Gill wind direction (see Wi5)															
	The wind speed measurements are (indirectly) compensated for buoy motion in the way the 10-min values are generated. The method takes into account the position (angle with the vertical) in each 1 Hz wind measurements when calculation the 10-min average.															
<b>4. Quality control</b>																
<b>Tests</b>	1. range tests: yes															
	2. spikes: yes															
	3. data gaps: yes															
	4. mean shift: no															
	5. acceleration test: no															
	6. mean test, variance test: no															
	7. count of good points: yes (packet counts per 10 minutes per height)															
	8. timecontinuity or parameter variability: yes															
	9. parameters acceptable range: yes															
	10. 180-degree ambiguity test: yes															
	11. manual inspection: yes															
	Any other tests? No															
<b>Gaps</b>	See meta data template on deployments															
<b>Flags</b>	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceFilterFlags_IP_01_D.csv															
	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceStatusFlags_IP_01_D															

<b>Dataset #4</b>	<b>Timeseries of TI, shear, inflow</b>
<b>1. General</b>	
<b>Dataset ID</b>	Wi4
<b>Short name</b>	Timeseries of TI, veer, shear, inflow
<b>Description</b>	Timeseries of processed TI, shear, inflow, every 10min
<b>Example filename</b>	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceTIVeerShearInflow_IP_01_D.csv
<b>Time interval</b>	every 10 minutes
<b>Heights at which windspeeds are given</b>	Same as wind speed and direction: 30, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250m

2. Columns	
	1: TIMESTAMP (ISO-8601) UTC
	2: InflowAngle030m deg
	3: InflowAngle040m deg
	4: InflowAngle060m deg
	5: InflowAngle080m deg
	6: InflowAngle100m deg
	7: InflowAngle120m deg
	8: InflowAngle140m deg
	9: InflowAngle160m deg
	10: InflowAngle180m deg
	11: InflowAngle200m deg
	12: InflowAngle250m deg
	13: StandardDeviation030m m/s
	14: StandardDeviation040m m/s
	15: StandardDeviation060m m/s
	16: StandardDeviation080m m/s
	17: StandardDeviation100m m/s
	18: StandardDeviation120m m/s
	19: StandardDeviation140m m/s
	20: StandardDeviation160m m/s
	21: StandardDeviation180m m/s
	22: StandardDeviation200m m/s
	23: StandardDeviation250m m/s
	24: Wind Shear 100m-80m [(m/s)/m]
	25: Wind Shear 120m-100m [(m/s)/m]
	26: Wind Shear 140m-120m [(m/s)/m]
	27: Wind Shear 160m-140m [(m/s)/m]
	28: Wind Shear 180m-160m [(m/s)/m]
	29: Wind Shear 200m-180m [(m/s)/m]
	30: Wind Shear 250m-200m [(m/s)/m]
	31: Wind Shear 40m-30m [(m/s)/m]
	32: Wind Shear 60m-40m [(m/s)/m]
	33: Wind Shear 80m-60m [(m/s)/m]
	34: Wind Veer 100m-80m deg/m
	35: Wind Veer 120m-100m deg/m
	36: Wind Veer 140m-120m deg/m
	37: Wind Veer 160m-140m deg/m
	38: Wind Veer 180m-160m deg/m
	39: Wind Veer 200m-180m deg/m
	40: Wind Veer 250m-200m deg/m
	41: Wind Veer 40m-30m deg/m
	42: Wind Veer 60m-40m deg/m
	43: Wind Veer 80m-60m deg/m
	44: turbulence(TI)030m
	45: turbulence(TI)040m
	46: turbulence(TI)060m
	47: turbulence(TI)080m
	48: turbulence(TI)100m
	49: turbulence(TI)120m
	50: turbulence(TI)140m
	51: turbulence(TI)160m
	52: turbulence(TI)180m
	53: turbulence(TI)200m
	54: turbulence(TI)250m
3. Processing	
Digitisation	- digitisation applied: yes
	<b>Settings raw data:</b>
	<b>Parameter            Min            Max            nbits            Resolution</b>
	Turbulence            0            20            14            0.0012207
	Wind shear            calculated from wind speed
	Wind Veer            calculated from wind direction
Processing	- data processed from raw Zephir data / wind speed and direction in Wi3 (inflow angle, wind sheer and veer, TI) - filters applied: same as for Wi3, inflow angle min/max [-15;15] deg, TI min filter [0]

<b>4. Quality control</b>	
Tests	1. range tests: yes 2. spikes: yes 3. data gaps: yes 4. mean shift: no 5. acceleration test: no 6. mean test, variance test: no 7. count of good points: yes (packet counts per 10 minutes per height) 8. timecontinuity or parameter variability: yes 9. parameters acceptable range: yes 10. 180-degree ambiguity test: not relevant 11. manual inspection: yes
Gaps	Flagged with reason in the flag files, see below See also deployment overview template
Flags	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceFilterFlags_IP_01_D.csv HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceStatusFlags_IP_01_D

<b>Dataset #5</b>	<b>Anemometer data</b>
<b>1. General</b>	
Dataset ID	Wi5
Short name	Anemometer data
Sensor(s)	Gill Windsonic
Description	Timeseries of windspeed, gust and direction at mast top, every 10min
Example filename	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceSpeedDirectionStat_IP_01_D.csv
Time interval	10 min
Heights at which windspeeds are given	4 m
<b>2. Columns</b>	
	TIMESTAMP (ISO-8601) UTC
	VerticalWindSpeed030m m/s
	VerticalWindSpeed040m m/s
	VerticalWindSpeed060m m/s
	VerticalWindSpeed080m m/s
	VerticalWindSpeed100m m/s
	VerticalWindSpeed120m m/s
	VerticalWindSpeed140m m/s
	VerticalWindSpeed160m m/s
	VerticalWindSpeed180m m/s
	VerticalWindSpeed200m m/s
	VerticalWindSpeed250m m/s
	<b>WindDir004m deg</b>
	WindDir030m deg
	WindDir040m deg
	WindDir060m deg
	WindDir080m deg
	WindDir100m deg
	WindDir120m deg
	WindDir140m deg
	WindDir160m deg
	WindDir180m deg
	WindDir200m deg
	WindDir250m deg
	<b>WindGust004m m/s</b>
	<b>WindSpeed004m m/s</b>
	WindSpeed030m m/s
	WindSpeed040m m/s
	WindSpeed060m m/s
	WindSpeed080m m/s
	WindSpeed100m m/s
	WindSpeed120m m/s
	WindSpeed140m m/s
	WindSpeed160m m/s
	WindSpeed180m m/s
	WindSpeed200m m/s
	WindSpeed250m m/s

3. Processing																
Digitisation	- digitisation applied: yes															
	<b>Settings raw data:</b>															
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Min</th> <th>Max</th> <th>nbits</th> <th>Resolution</th> </tr> </thead> <tbody> <tr> <td>Wind speed/gust</td> <td>-1</td> <td>60</td> <td>13</td> <td>0.00744629</td> </tr> <tr> <td>Wind direction</td> <td>-1</td> <td>361</td> <td>10</td> <td>0.353516</td> </tr> </tbody> </table>	Parameter	Min	Max	nbits	Resolution	Wind speed/gust	-1	60	13	0.00744629	Wind direction	-1	361	10	0.353516
	Parameter	Min	Max	nbits	Resolution											
	Wind speed/gust	-1	60	13	0.00744629											
Wind direction	-1	361	10	0.353516												
Processing	- data processed from Gill wind sensor															
	- filters applied: repeated values, min, max															
	wind speed Gill [0.001;35] m/s, Direction (all) [0;360] deg,															
	- anemometer data WS188 reprocessed (+9 degree offset added) to be used in additional 180 degree ambiguity check (see Wi3)															
	- anemometer data WS170 D9 and D12 reprocessed (-8 degree offset) to be used in additional 180 degree ambiguity check (see Wi3)															
4. Quality control																
Tests	1. range tests: yes															
	2. spikes: yes															
	3. data gaps: yes															
	4. mean shift: no															
	5. acceleration test: no															
	6. mean test, variance test: no															
	7. percent good points: no															
	8. timecontinuity or parameter variability: yes															
	9. parameters acceptable range: yes															
	10. 180-degree ambiguity test: not relevant															
	11. manual inspection: yes															
Gaps	Flagged with reason in the flag files, see below															
	See also deployment overview template															
Flags	HKW_20210411_Fugro_MetOcean Buoys HKWA D1 2019 WindResourceFilterFlags_IP_01_D.csv															

## Waves

Item	Value
<b>1. Background</b>	
	This section contains an overview of wave datasets and their description and meta data
	Each dataset description contains the following sections:
	1. General information
	2. Columns: what parameters are in the datafile
	3. Processing: description of processing steps applied to dataset
	4. Quality control: description of quality control procedures applied and meaning of quality flags
<b>2. Overview</b>	
Dataset #1	Raw data
Dataset #2	2D spectra
Dataset #3	Timeseries

## Description of datasets

Dataset # 1	Raw data
<b>1. General</b>	
Dataset ID	Wa1
Short name	Raw data
Sensor	Wavesense
Description	CHPR data, 10min compass-heave-pitch-roll (1024 samples=~17min, each 10m)
Example filename	HKWA-WS187-chpr.csv
Time interval	every 10 minutes
Sampling frequency	1 Hz
	WS170 D9 & D12: 2 Hz (2048 samples=~17min, each 10m)
<b>2. Columns</b>	
	1-1024: compass reading every 1sec, units: degN
	1025-2048 : heave samples every 1sec, units: m
	2049-3072: pitch samples every 1sec, units: sin(deg)
	3073-4096: roll samples every 1sec, units sin(deg)
	WS170 D9 & D12: 2 Hz
	1-2048: compass reading every 1sec, units: degN
	2049-4096 : heave samples every 1sec, units: m
	4096-6144: pitch samples every 1sec, units: sin(deg)
	6145-8192: roll samples every 1sec, units sin(deg)
<b>3. Processing</b>	
Digitisation	- digitisation applied: no = based on raw data
Processing	- based on raw data
	- no heave compensation
	Both lowpass and highpass filters are used on accelerometer data in Fugro bNeptun algorithms.
<b>4. Quality control</b>	
Tests	- Internal QC filtering applied in WaveSense. See manual
Gaps	See deployment overview
Flags	No

Dataset # 2	2D spectra
<b>1. General</b>	
Dataset ID	Wa2



<b>Short name</b>	Fourier coefficients
<b>Description</b>	MEM file, 2D wave spectra, spectral density for each freq and dir
<b>Example filename</b>	HKWA-WS187-MEM-Feb2019.csv
<b>Time interval</b>	every 10 minutes
<b>Frequency range</b>	fmin = 0.04; fmax = 1.00; df = 0.01; nfreq = 50; units=Hz
<b>Directional bins</b>	dirmin=0; dirmax=352.5; ddir=7.2; ndir=50; units=degrees
	Coming from N corresponds to dir=0; positive clockwise, nautical convention
<b>2. Columns</b>	
	1-50 : for each frequency band: a1
	51-100 : for each frequency band: a2
	101-150 : for each frequency band: b1
	151-200 : for each frequency band: b2
	201-250 : for each frequency band: hspec (m <sup>2</sup> /Hz)
<b>3. Processing</b>	
<b>Digitisation</b>	- digitisation applied: no = based on raw data - digitisation applied: yes, when transmitting spectra parameters - digitisation resolution: 0.0244 - digitisation settings: nbits=14, min=0, max=400
<b>Processing</b>	- processed first 5 fourier coefficients from raw data
<b>4. Quality control</b>	
<b>Tests</b>	1. range tests: yes/no 2. spikes: yes/no 3. data gaps: yes/no 4. mean shift: yes/no 5. acceleration test: yes/no 6. mean test, variance test: yes/no 7. percent good points: yes/no 8. timecontinuity or parameter variability: yes/no 9. parameters acceptable range: yes/no 10. 180-degree ambiguity test: yes/no 11. manual inspection: yes/no 12. operational frequency range test: yes/no 13. incident low frequency and direction: yes/no 14. check ratio: yes/no
<b>Gaps</b>	Same as for timeseries (data set #3)
<b>Flags</b>	Same as for timeseries (data set #3)

Dataset #3	Timeseries
<b>1. General</b>	
<b>Dataset ID</b>	Wa3
<b>Short name</b>	Timeseries
<b>Description</b>	Timeseries of processed wave parameters
<b>Example filename</b>	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 WaveDataStat_IP_01_D.csv
<b>Time interval</b>	every 10 minutes

2. Columns																					
	TIMESTAMP (ISO-8601) UTC																				
	hm0 m																				
	hm0a m																				
	hm0b m																				
	hmax m																				
	mdir deg																				
	mdir a deg																				
	mdir b deg																				
	sprtp deg																				
	thhf deg																				
	thtp deg																				
	thmax s																				
	tm01 s																				
	tm02 s																				
	tm02a s																				
	tm02b s																				
	tp s																				
3. Processing																					
Digitisation	- digitisation applied: yes, when packing for transmission and storage.																				
	<b>Settings raw data:</b>																				
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Min</th> <th>Max</th> <th>nbits</th> <th>Resolution</th> </tr> </thead> <tbody> <tr> <td>hm0, hm0a, hm0b, hmax</td> <td>-0.1</td> <td>20</td> <td>10</td> <td>0.0196289</td> </tr> <tr> <td>Wave direction</td> <td>-1</td> <td>361</td> <td>9</td> <td>0.70731</td> </tr> <tr> <td>  wave period</td> <td>-1</td> <td>25</td> <td>8</td> <td>0.101563</td> </tr> </tbody> </table>	Parameter	Min	Max	nbits	Resolution	hm0, hm0a, hm0b, hmax	-0.1	20	10	0.0196289	Wave direction	-1	361	9	0.70731	wave period	-1	25	8	0.101563
	Parameter	Min	Max	nbits	Resolution																
	hm0, hm0a, hm0b, hmax	-0.1	20	10	0.0196289																
	Wave direction	-1	361	9	0.70731																
	wave period	-1	25	8	0.101563																
	WS170 D12: 2 Hz																				
	<table border="1"> <tbody> <tr> <td>hm0, hm0a, hm0b, hmax</td> <td>-0.1</td> <td>35</td> <td>15</td> <td>0.00107117</td> </tr> <tr> <td>Wave direction</td> <td>-1</td> <td>361</td> <td>15</td> <td>0.0110474</td> </tr> <tr> <td>  wave period</td> <td>-1</td> <td>30</td> <td>14</td> <td>0.00183716</td> </tr> </tbody> </table>	hm0, hm0a, hm0b, hmax	-0.1	35	15	0.00107117	Wave direction	-1	361	15	0.0110474	wave period	-1	30	14	0.00183716					
	hm0, hm0a, hm0b, hmax	-0.1	35	15	0.00107117																
Wave direction	-1	361	15	0.0110474																	
wave period	-1	30	14	0.00183716																	
Processing	- processed onboard wave sense, Neptune software																				
4. Quality control																					
Tests	1. range tests: yes																				
	2. spikes: yes																				
	3. data gaps: yes																				
	4. mean shift: no																				
	5. acceleration test: no																				
	6. mean test, variance test: no																				
	7. percent good points: no																				
	8. timecontinuity or parameter variability: no																				
	9. parameters acceptable range: yes																				
	10. 180-degree ambiguity test: no																				
	11. manual inspection: yes																				
	12. operational frequency range test: no																				
	13. incident low frequency and direction: no (swell direction from land)																				
	14. check ratio: no																				
	15. wave parameters acceptable range: yes																				
Gaps	Flagged with reason in the flag files, see below																				
Flags	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 WaveDataStatFlags_IP_01_D.csv																				

Dataset #4		2D MEM spectra	
<b>1. General</b>			
Dataset ID	Wa4		
Short name	memspectra		
Description	The directional spectrum is estimated from the directional Fourier components using the Burg Maximum Entropy method (MEM).		
Example filename	memspec_HKWC_WS188_2019-12-18--2020-02-07.txt		
Time interval	every 10 minutes		
<b>2. Columns</b>			
	ISSUE TIME		
	START TIME		
	END TIME		
	LOCATION		
	direction		
	frequency		
	matrix rows		
	Hm0 m		
	Tp s		
	Mdir deg		
	spectral density		
	a1		
	b1		
	a2		
	b2		
	hspec		
<b>3. Processing</b>			
Digitisation	- digitisation applied: yes, based on raw data, same as Wa1		
Processing	-post processed, Neptune software		
<b>4. Quality control</b>			
Tests	1. range tests: no		
	2. spikes: no		
	3. data gaps:no		
	4. mean shift: no		
	5. acceleration test: no		
	6. mean test, variance test: no		
	7. percent good points: no		
	8. timecontinuity or parameter variability: no		
	9. parameters acceptable range: no		
	10. 180-degree ambiguity test: no		
	11. manual inspection: yes		
	12. operational frequency range test: no		
	13. incident low frequency and direction: no (swell direction from land)		
	14. check ratio: no		
	15. wave parameters acceptable range: yes		
Gaps	same as timeseries		
Flags	no		


## Currents

Item	Value
<b>1. Background</b>	
	This section contains an overview of currents datasets and their description and meta data
	Each dataset description contains the following sections:
	1. General information
	2. Columns: what parameters are in the datafile
	3. Processing: description of processing steps applied to dataset
	4. Quality control: description of quality control procedures applied and meaning of quality flags
<b>2. Overview</b>	
<b>Dataset #1</b>	Timeseries data of current speed and direction (at xm below surface)
	AqDir0003 to AqDir0024 (34)
	AqSpd0003 to AqSpd0024 (34)

## Description of datasets

Dataset #1	Timeseries data
<b>1. General</b>	
<b>Dataset ID</b>	Cu1
<b>Short name</b>	Timeseries
<b>Sensor(s)</b>	Nortek Aquadopp current profiler
<b>Description</b>	Timeseries of current magnitude and direction, every 10min accross the vertical
<b>Example filename</b>	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 CurrentDataStat_IP_01_D.csv
<b>Time interval</b>	every 10 minutes
<b>Vertical distance above bottom</b>	depmin=22m; cellsize=1m; nCells=24 (depending on depth)
<b>2. Columns</b>	
	TIMESTAMP (ISO-8601) UTC
	AqDir0003 deg
	AqDir0004 deg
	AqDir0005 deg
	AqDir0006 deg
	AqDir0007 deg
	AqDir0008 deg
	AqDir0009 deg
	AqDir0010 deg
	AqDir0011 deg
	AqDir0012 deg
	AqDir0013 deg
	AqDir0014 deg
	AqDir0015 deg
	AqDir0016 deg
	AqDir0017 deg
	AqDir0018 deg
	AqDir0019 deg
	AqDir0020 deg
	AqDir0021 deg
	AqDir0022 deg
	AqDir0023 deg
	etc
	AqSpd0003 cm/s
	AqSpd0004 cm/s
	AqSpd0005 cm/s
	AqSpd0006 cm/s
	AqSpd0007 cm/s
	AqSpd0008 cm/s
	AqSpd0009 cm/s
	AqSpd0010 cm/s
	AqSpd0011 cm/s
	AqSpd0012 cm/s
	AqSpd0013 cm/s
	AqSpd0014 cm/s
	AqSpd0015 cm/s
	AqSpd0016 cm/s
	AqSpd0017 cm/s
	AqSpd0018 cm/s

AqSpd0019 cm/s
AqSpd0020 cm/s
AqSpd0021 cm/s
AqSpd0022 cm/s
AqSpd0023 cm/s
etc
AqAmp0003 int
AqAmp0004 int
AqAmp0005 int
AqAmp0006 int
AqAmp0007 int
AqAmp0008 int
AqAmp0009 int
AqAmp0010 int
AqAmp0011 int
AqAmp0012 int
AqAmp0013 int
AqAmp0014 int
AqAmp0015 int
AqAmp0016 int
AqAmp0017 int
AqAmp0018 int
AqAmp0019 int
AqAmp0020 int
AqAmp0021 int
AqAmp0022 int
AqAmp0023 int
etc

### 3. Processing

#### Digitisation

- digitisation applied: yes, when packing for transmission and storage

#### Settings raw data:

Parameter	Min	Max	nbits	Resolution
Current speed (cm/s)	-1	300	10	0.293945
Current direction	-1	361	11	0.176758
AqAmp (integer)	0	128	7	1

#### Processing

- raw data sampling from acoustic doppler profiler  
- converted to velocity vectors by Aquadopp firmware  
- quality checked based on recorded signal strength: AqAmp (dB), minimum pass 30 dB  
- D1, D2, D7 summer data reprocessed with 2 beams

### 4. Quality control

#### Tests

1. range tests: yes
2. spikes: yes
3. data gaps: yes
4. mean shift: no
5. acceleration test: no
6. mean test, variance test: no
7. percent good points: quality checked against signal strength
8. timecontinuity or parameter variability: yes
9. parameters acceptable range: yes
10. 180-degree ambiguity test: not relevant
11. manual inspection: yes

#### Gaps

Flagged with reason in the flag files, see below

#### Flags

HKW\_20210412\_Fugro\_MetOcean Buoys HKWA D1 2019 CurrentDataStatFlags\_IP\_01\_D.csv

## Water levels

Item	Value
<b>1. Background</b>	
	This section contains an overview of waterlevel datasets and their description and meta data
	Each dataset description contains the following sections:
	1. General information
	2. Columns: what parameters are in the datafile
	3. Processing: description of processing steps applied to dataset
	4. Quality control: description of quality controle procedures applied and meaning of quality flags
<b>2. Overview</b>	
<b>Dataset #1</b>	Timeseries data of water pressure at the bottom (pressure sensor)
<b>Dataset #2</b>	Timeseries of water level processed from water pressure

## Description of datasets

Dataset #1	Waterpressure data (raw)										
<b>1. General</b>											
<b>Dataset ID</b>	L1										
<b>Short name</b>	Timeseries raw data										
<b>Sensor(s)</b>	Thelma										
<b>Description</b>	Timeseries of water pressure at bottom, every 10min										
<b>Example filename</b>	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 MetDataStat_IP_01_D.csv										
<b>Time interval</b>	every 10 minutes										
<b>Vertical distance above bottom</b>	Pressure valid at sensor height above bottom, sensor height above bottom is: 1 m										
<b>2. Columns</b>											
	TIMESTAMP (ISO-8601) UTC										
	AirHumidity %										
	AirPressure hPa										
	AirTemperature C										
	BottomTemperature degC										
	WaterPressure dbar										
	WaterTemp0001 degC										
	WaterLevel m										
	WaterLevel_LAT m										
<b>3. Processing</b>											
<b>Digitisation</b>	- digitisation applied: yes, when packing for transmission and storage										
	<b>Settings raw data:</b>										
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Min</th> <th>Max</th> <th>nbits</th> <th>Resolution</th> </tr> </thead> <tbody> <tr> <td>Water pressure</td> <td>0</td> <td>160</td> <td>17</td> <td>0.0012207</td> </tr> </tbody> </table>	Parameter	Min	Max	nbits	Resolution	Water pressure	0	160	17	0.0012207
Parameter	Min	Max	nbits	Resolution							
Water pressure	0	160	17	0.0012207							
<b>Processing</b>	- raw data sampling from bottom mounted pressure sensor										
	- to be converted to water depth and waterlevel above mean sea level										
<b>4. Quality control</b>											
<b>Tests</b>	1. range tests: yes										
	2. spikes: yes										
	3. data gaps: yes										
	4. mean shift: no										
	5. acceleration test: no										
	6. mean test, variance test: no										
	7. percent good points: no										
	8. timecontinuity or parameter variability: yes										
	9. parameters acceptable range: yes										
	10. 180-degree ambiguity test: not relevant										
	11. manual inspection: yes										
<b>Gaps</b>	Flagged with reason in the flag files, see below										

Flags	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 MetDataStatFlags_IP_01_D.csv

Dataset #2	Waterlevel data
<b>1. General</b>	
Dataset ID	L2
Short name	Timeseries of water level (m+MSL, m+CD)
Sensor(s)	
Description	Timeseries of water level, every 10min
Example filename	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 MetDataStat_IP_01_D.csv
Time interval	every 10 minutes
Units and reference levels	Waterlevels given in m wrt MSL and CD
<b>2. Columns</b>	
	TIMESTAMP (ISO-8601) UTC
	AirHumidity %
	AirPressure hPa
	AirTemperature C
	BottomTemperature degC
	WaterPressure dbar
	WaterTemp0001 degC
	WaterDepth m
	WaterLevel_LAT m
<b>3. Processing</b>	
Digitisation	- digitisation applied: yes, when packing for transmission and storage
	<b>Settings raw data:</b>
	<b>Parameter      Min      Max      nbits      Resolution</b>
	Calculated from water pressure
Processing	- converted from pressure sensor data corrected for air pressure, rho_water=1025, ref level=xxm, p=rho*g*h, water level (LAT) = h + ref level ref levels in data report MSL-LAT difference is 0.65 m at HKW.
<b>4. Quality control</b>	
Tests	1. range tests: yes 2. spikes: yes 3. data gaps: yes 4. mean shift: no 5. acceleration test: no 6. mean test, variance test: no 7. percent good points: no 8. timecontinuity or parameter variability: yes 9. parameters acceptable range: yes 10. 180-degree ambiguity test: not relevant 11. manual inspection: yes
Gaps	Flagged with reason in the flag files, see below
Flags	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 MetDataStatFlags_IP_01_D.csv



## Other

Item	Value
<b>1. Background</b>	
	This section contains an overview of other datasets and their description and meta data
	Each dataset description contains the following sections:
	1. General information
	2. Columns: what parameters are in the datafile
	3. Processing: description of processing steps applied to dataset
	4. Quality control: description of quality control procedures applied and meaning of quality flags
<b>2. Overview</b>	
<b>Dataset #1</b>	Timeseries data of various parameters
<b>Dataset #2</b>	Timeseries data for buoy position
<b>Dataset #3</b>	Timeseries for supplementary data

## Description of datasets

Dataset #1	Timeseries of various parameters																									
<b>1. General</b>																										
<b>Dataset ID</b>	O1																									
<b>Short name</b>	Timeseries various parameters																									
<b>Sensor(s)</b>	Vaisala Air Pressure sensor PTB, Vaisala Air temperature and humidity sensor HMP, Water temperature from Nortek Aquadopp current profiler																									
<b>Description</b>	Timeseries of various parameters, every 10min																									
<b>Example filename</b>	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 MetDataStat_IP_01_D.csv																									
<b>Time interval</b>	every 10 minutes																									
<b>2. Columns</b>																										
	TIMESTAMP (ISO-8601) UTC																									
	AirHumidity %																									
	AirPressure hPa																									
	AirTemperature C																									
	BottomTemperature degC																									
	WaterPressure dbar																									
	WaterTemp0001 degC																									
	WaterLevel m																									
	WaterLevel_LAT m																									
<b>3. Processing</b>																										
<b>Digitisation</b>	- digitisation applied: yes, when packing for transmission and storage																									
	<b>Settings raw data:</b>																									
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Min</th> <th>Max</th> <th>nbits</th> <th>Resolution</th> </tr> </thead> <tbody> <tr> <td>Air humidity</td> <td>0</td> <td>110</td> <td>10</td> <td>0.107422</td> </tr> <tr> <td>Air pressure</td> <td>900</td> <td>1100</td> <td>11</td> <td>0.0976563</td> </tr> <tr> <td>Air temperature</td> <td>-15</td> <td>40</td> <td>10</td> <td>0.0537109</td> </tr> <tr> <td>Water temperature</td> <td>-1</td> <td>60</td> <td>13</td> <td>0.00744629</td> </tr> </tbody> </table>	Parameter	Min	Max	nbits	Resolution	Air humidity	0	110	10	0.107422	Air pressure	900	1100	11	0.0976563	Air temperature	-15	40	10	0.0537109	Water temperature	-1	60	13	0.00744629
Parameter	Min	Max	nbits	Resolution																						
Air humidity	0	110	10	0.107422																						
Air pressure	900	1100	11	0.0976563																						
Air temperature	-15	40	10	0.0537109																						
Water temperature	-1	60	13	0.00744629																						
<b>Processing</b>	- raw data sampling from various sensors																									
<b>4. Quality control</b>																										
<b>Tests</b>	1. range tests: yes																									
	2. spikes: yes																									
	3. data gaps: yes																									
	4. mean shift: not relevant																									
	5. acceleration test: not relevant																									
	6. mean test, variance test: not relevant																									
	7. percent good points: no																									
	8. timecontinuity or parameter variability: yes																									
	9. parameters acceptable range: yes																									
	10. 180-degree ambiguity test: not relevant																									
	11. manual inspection: yes																									

Gaps	Flagged with reason in the flag files, see below
Flags	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 MetDataStatFlags_IP_01_D.csv

Dataset #2	Position data															
<b>1. General</b>																
Dataset ID	O2															
Short name	Timeseries data of buoy position															
Sensor(s)	GPS (Irridium and Septentrio)															
Description	Timeseries of position, every 10min															
Example filename	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 PosData_IP_01_D.csv															
Time interval	every 10 minutes															
Units and reference levels	...															
<b>2. Columns</b>																
	TIMESTAMP (ISO-8601) UTC															
	irLatitude deg															
	irLongitude deg															
	spLatitude deg															
	spLongitude deg															
	irLatitude deg flag															
	irLongitude deg flag															
	spLatitude deg flag															
	spLongitude deg flag															
<b>3. Processing</b>																
Digitisation	- digitisation applied: yes, when packing for transmission and storage															
	<b>Settings raw data:</b>															
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Min</th> <th>Max</th> <th>nbits</th> <th>Resolution</th> </tr> </thead> <tbody> <tr> <td>Latitude</td> <td>0</td> <td>80</td> <td>21</td> <td>3.8147e-05</td> </tr> <tr> <td>Longitude</td> <td>-100</td> <td>40</td> <td>22</td> <td>3.33786e-05</td> </tr> </tbody> </table>	Parameter	Min	Max	nbits	Resolution	Latitude	0	80	21	3.8147e-05	Longitude	-100	40	22	3.33786e-05
Parameter	Min	Max	nbits	Resolution												
Latitude	0	80	21	3.8147e-05												
Longitude	-100	40	22	3.33786e-05												
Processing	No															
<b>4. Quality control</b>																
Tests	1. range tests: yes 2. spikes: no 3. data gaps: yes 4. mean shift: no 5. acceleration test: no 6. mean test, variance test: no 7. percent good points: no 8. timecontinuity or parameter variability: yes 9. parameters acceptable range: no 10. 180-degree ambiguity test: not relevant 11. manual inspection: yes															
Gaps																
Flags	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 PosData_IP_01_D.csv															


Dataset #3	Timeseries of supplementary parameters
------------	--

1. General	
Dataset ID	O3
Short name	Timeseries supplementary parameters (accuracy not known)
Sensor(s)	Lidar met station, Lidar and Thelma sensor and modem
Description	Timeseries of supplementary parameters, every 10min
Example filename	HKW_20210412_Fugro_MetOcean Buoys HKWA D1 2019 SupplementaryData_IP_01_D.csv
Time interval	every 10 minutes

2. Columns	
------------	--

TIMESTAMP (ISO-8601) UTC
thSNR dB
thSNR dB flag
thTBRid unknown
thTBRid unknown flag
thTBRtemperature degC
thTBRtemperature degC flag
thTilt deg
thTilt deg flag
AirPressure_lidar hPa
AirPressure_lidar hPa flag
AirTemp_lidar C
AirTemp_lidar C flag
liLatitude deg
liLongitude deg
liBattteryVoltage unknown
liMirrorTemp unknown
liPODHumidity unknown
liRain count
liBattteryVoltage unknown flag
liMirrorTemp unknown flag
liPODHumidity unknown flag
liRain flag

3. Processing	
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Digitisation	- digitisation applied: yes, when packing for transmission and storage																									
	<b>Settings raw data:</b>																									
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Min</th> <th>Max</th> <th>nbits</th> <th>Resolution</th> </tr> </thead> <tbody> <tr> <td>TBRtemperature</td> <td>-5</td> <td>45</td> <td>13</td> <td>0.007610352</td> </tr> <tr> <td>AirTemp_lidar</td> <td>-15</td> <td>40</td> <td>10</td> <td>0.0537109</td> </tr> <tr> <td>AirPressure_lidar</td> <td>900</td> <td>1100</td> <td>11</td> <td>0.0976563</td> </tr> <tr> <td>PODhumidity</td> <td>900</td> <td>100</td> <td>10</td> <td>0.0976563</td> </tr> </tbody> </table>	Parameter	Min	Max	nbits	Resolution	TBRtemperature	-5	45	13	0.007610352	AirTemp_lidar	-15	40	10	0.0537109	AirPressure_lidar	900	1100	11	0.0976563	PODhumidity	900	100	10	0.0976563
Parameter	Min	Max	nbits	Resolution																						
TBRtemperature	-5	45	13	0.007610352																						
AirTemp_lidar	-15	40	10	0.0537109																						
AirPressure_lidar	900	1100	11	0.0976563																						
PODhumidity	900	100	10	0.0976563																						

Processing	- raw data sampling from various sensors
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4. Quality control	
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Tests	<ol style="list-style-type: none"> <li>1. range tests: no</li> <li>2. spikes: no</li> <li>3. data gaps: yes</li> <li>4. mean shift: not relevant</li> <li>5. acceleration test: not relevant</li> <li>6. mean test, variance test: not relevant</li> <li>7. percent good points: no</li> <li>8. timecontinuity or parameter variability: yes</li> <li>9. parameters acceptable range: yes</li> <li>10. 180-degree ambiguity test: not relevant</li> <li>11. manual inspection: yes</li> </ol>
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Gaps	Not relevant
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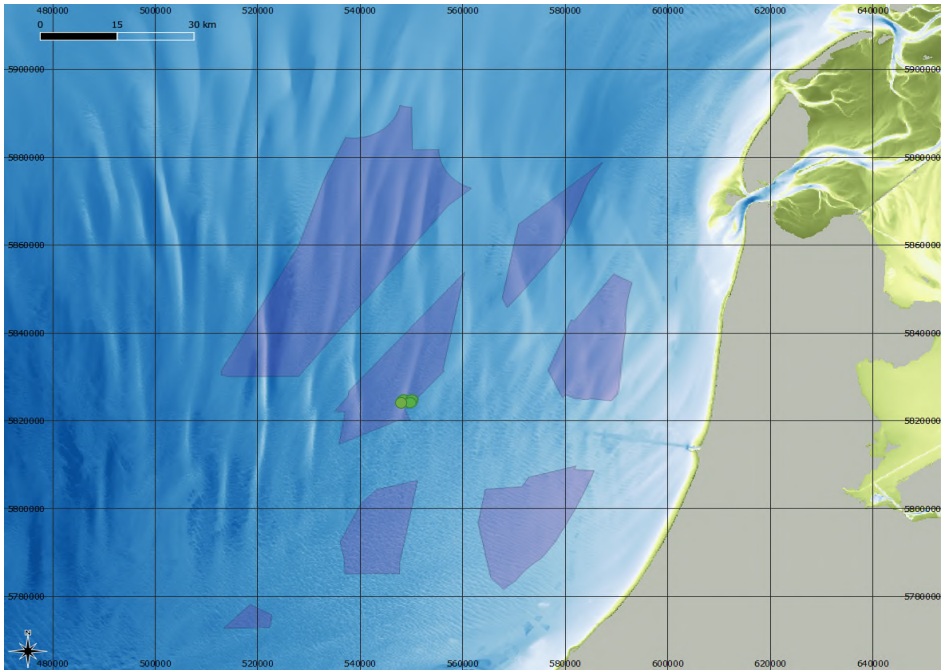
Flags	Not relevant
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**RVO - Hollandse Kust West**  
**Metocean campaign 2019-2021**  
**Meta Data on the various Buoy deployments**

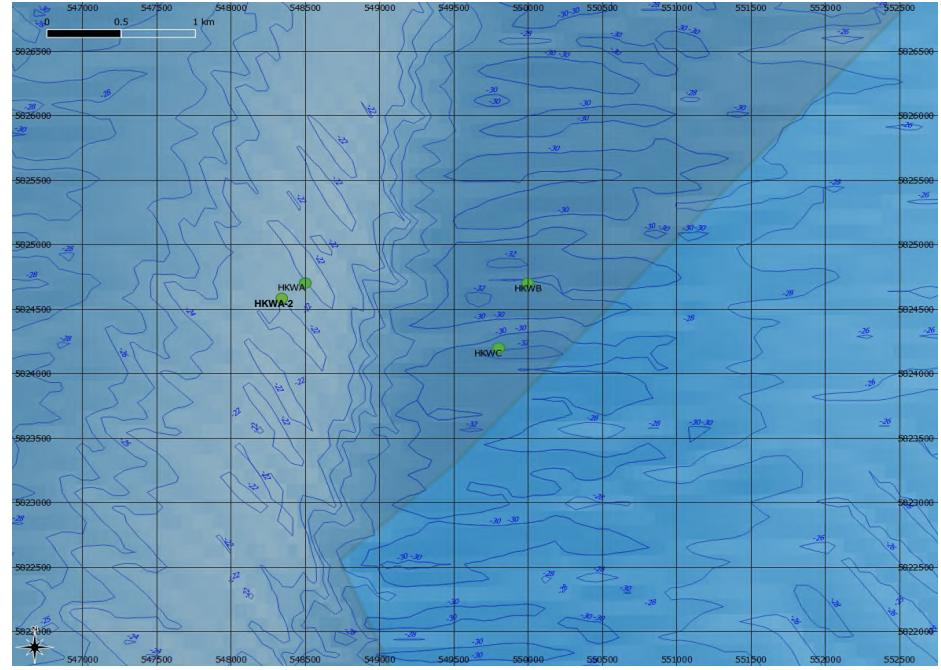
Version	Date	Author	Revision history Notes
R1_01	18.05.2021	IP	First draft
R2_01	09.08.2021	IP	Revised draft
R3_01	30.08.2021	IP	Revised draft
F	04.10.2021	IP	Final

# Map of buoy deployments for HKW

Overview



Detail





## WS187

Item	Value
<b>1. Background</b>	
Buoy ID	WS187
Serial Number	WS187
Design Version	2.2
<b>2. Description</b>	
Description	Primary buoy for HKWA location, validation certified by DNVGL
<b>3. Documentation</b>	
SW Wind Lidar buoy	DNV GL report, 10129033-R-6-E_WS187_20191128.pdf, 10129033-R-6, Rev. E, 2019-11-28 Frøya, Norway, between 2019-01-04 to 2019-01-21
Zephyr	ZX818 DNV GL Verification report.pdf, 10108274-R-0016, Rev. A, 2018-10-30 Persore, UK between 2018-09-28 and 2018-10-16
Wavesense	Wavesense test and calibration certificate 370.pdf Wavesense 3 wave data acquisition principles.pdf
Aquadopp	Nortek_AQP9363.pdf
Vaisala humidity & temperature	Vaisala_HMP155_P1730335.pdf
Vaisala air pressure	Vaisala_PTB330_N5230736.pdf
Gill Windsonic	Gill_Windsonic_18320062.pdf
<b>4. Deployments</b>	
Deployment #1	D01
Deployment #2	D05
Deployment #3	D08
Deployment #4	D11

## Deployments

Deployment #1	
<b>1. General</b>	
Deployment ID	D01
Location name	HKWA
Longitude	3.7156
Latitude	52.5702
Depth	22m
Deployment date	05 feb 2019
Recovery date	21 sep 2019
<b>2. Sensors</b>	
LiDAR	ZX818M, Firmware 2.2020
Wave sensor	Wavesense 370
Current profiler	Nortek Aquadopp AQP 9363/AQD 14604
Air Pressure sensor	Vaisala PTB N5230736
Air temperature and humidity sensor	Vaisala HMP P1730335
Wind sensor (in mast)	Gill Windsonic 18320062
Water pressure sensor	Thelma 924
<b>3. History</b>	
	New buoy. 1st deployment 5th Feb 2019
	21st Sept 2019; recovered for service/refueling

4. Issues / failures	
LiDAR unit	Feb-Sept 2019. Power regulator failure leading to no power to met station and frequent LiDAR unit reboots during deployment.
DGPS system	Feb 2019. Antenna malfunction. LiDAR wind direction was post-processed using compass as heading.
Wind data resolution	Feb-Sept 2019. Wind speed was post-processed using uniform higher resolution than transmitted during deployment.
Aquadopp	Aug-Sept 2019. Biofouling leading to decreased current data availability towards the end of the deployment.

Deployment #2	
1. General	
Deployment ID	D05
Location name	HKWA
Longitude	3.7156
Latitude	52.5702
Depth	22m
Deployment date	24 nov 2019
Recovery date	24 apr 2020
2. Sensors	
LiDAR	ZX818M, Firmware 2.2020
Wave sensor	Wavesense 370
Current profiler	Nortek Aquadopp AQP 9363/AQD 14604
Air Pressure sensor	Vaisala PTB N5230736
Air temperature and humidity sensor	Vaisala HMP P1730335
Wind sensor (in mast)	Gill Windsonic 18320062
Water pressure sensor	Thelma 924
3. History	
Service after 1st deployment	The cables and antennas of the DGPS system were replaced LiDAR unit repaired at ZepHIR UK (power regulator replaced).
	24 Nov 2019: WS187 was redeployed with fully functional LiDAR and DGPS system.
4. Issues / failures	

Deployment #3	
1. General	
Deployment ID	D08
Location name	HKWA-2
Longitude	3.7135
Latitude	52.5693
Depth	22m
Deployment date	09 may 2020
Recovery date	06 nov 2020
2. Sensors	
LiDAR	ZX818M, Firmware 2.2020
Wave sensor	Wavesense 370
Current profiler	Nortek Aquadopp AQP 9363/AQD 14604
Air Pressure sensor	Vaisala PTB N5230736
Air temperature and humidity sensor	Vaisala HMP P1730335
Wind sensor (in mast)	Gill Windsonic 18320062
Water pressure sensor	Thelma 924



<b>3. History</b>	
Service after 1st and 2nd deployment	New buoy. 1st deployment 5th Feb 2019
	21 Sept 2019; recovered for service/refueling
	The cables and antennas of the DGPS system were replaced
	LiDAR unit repaired at ZephIR UK (power regulator replaced).
	24 Nov 2019: redeployed with fully functional LiDAR and DGPS system.
	24 April 2020; recovered for service/refueling
	09 May 2020: redeployed with fully functional LiDAR and DGPS system.
	06 Nov 2020; recovered for service/refueling
<b>4. Issues / failures</b>	
Aquadopp	Aug-Sept 2020. Biofouling leading to decreased current data availability in the summer months.
LiDAR wind data	LiDAR wind speed and direction was post-processed using DGPS heading and LiDAR zph files.
Water level	The water level sensor connected to the mooring at HKWA-2 got wrapped around the mooring and led to suspicious measurements.

<b>Deployment #4</b>	
<b>1. General</b>	
Deployment ID	D11
Location name	HKWB
Longitude	3.7377
Latitude	52.5701
Depth	30m
Deployment date	14 nov 2020
Recovery date	23 nov 2020
<b>2. Sensors</b>	
LiDAR	ZX818M, Firmware 2.2020
Wave sensor	Wavesense 370
Current profiler	Nortek Aquadopp AQP 9363/AQD 14604
Air Pressure sensor	Vaisala PTB N5230736
Air temperature and humidity sensor	Vaisala HMP P1730335
Wind sensor (in mast)	Gill Windsonic 18320062
Water pressure sensor	Thelma 924
<b>3. History</b>	
Service after 1st and 2nd deployment	New buoy. 1st deployment 5th Feb 2019
	21 Sept 2019; recovered for service/refueling
	The cables and antennas of the DGPS system were replaced
	LiDAR unit repaired at ZephIR UK (power regulator replaced).
	24 Nov 2019: redeployed with fully functional LiDAR and DGPS system.
	24 April 2020; recovered for service/refueling
	09 May 2020: redeployed with fully functional LiDAR and DGPS system.
	24 April 2020; recovered for service/refueling
	06 Nov 2020; recovered for service/refueling
	14 Nov 2020; redeployed with fully functional LiDAR and DGPS system.
	06 Nov 2020; recovered for service/refueling
	23 Nov 2020; drifted out of position
<b>4. Issues / failures</b>	
LiDAR wind data	LiDAR wind speed and direction was post-processed using DGPS heading and LiDAR zph files.

## WS188

Item	Value
<b>1. Background</b>	
Buoy ID	WS188
Serial Number	WS188
Design Version	2.2
<b>2. Description</b>	
Description	Primary buoy for HKWB location, validation certified by DNVG
<b>3. Documentation</b>	
SW Wind Lidar buoy	DNV GL report, 10129033-R-7-D_WS188_20191128.pdf, 10129033-R-7, Rev. D, 2019-11-28 Frøya, Norway, 2019-01-03 to 2019-01-20
Zephir	ZX802 DNV GL Verification report.pdf, 10108274-R-0015, Rev. A, 2018-10-30 Persore, UK between 2018-07-26 and 2018-08-21
Wavesense	Wavesense test and calibration certificate 369.pdf Wavesense 3 wave data acquisition principles.pdf
Aquadopp	Nortek_AQP9362.pdf
Vaisala humidity & temperature	Vaisala_HMP155_P1730334.pdf
Vaisala air pressure	Vaisala_PTB330_N5230739.pdf
Gill Windsonic	Gill_Windsonic_18320035.pdf
<b>4. Deployments</b>	
Deployment #1	D02
Deployment #2	D04
Deployment #3	D06
Deployment #4	D07
Deployment #5	D10

## Deployments

Deployment #1	
<b>1. General</b>	
Deployment ID	D02
Location name	HKWB
Longitude	3.7377
Latitude	52.5701
Depth	30m
Deployment date	10 feb 2019
Recovery date	19 sep 2019
<b>2. Sensors</b>	
LiDAR	ZX802M, Firmware 2.2020
Wave sensor	Wavesense 369
Current profiler	Nortek Aquadopp AQP 9362/AQD 14599
Air Pressure sensor	Vaisala PTB N5230739
Air temperature and humidity sensor	Vaisala HMP P1730334
Wind sensor (in mast)	Gill Windsonic 18320035
Water pressure sensor	Thelma 925
<b>3. History</b>	
	New buoy. 1st deployment 10th Feb 2019
	Recovered for service/refueling 19th Sept 2019

<b>4. Issues / failures</b>	
Low power	Power issues starting in August 2019 leading to decreased LiDAR wind data return towards the end of the deployment.
Mast with wind sensor	Misalignment of mast leading to approx. 9° offset in 4m wind direction. No effect on LiDAR wind directions.
Wind data resolution	Feb-Sept 2019. Wind speed was post-processed using uniform higher resolution than transmitted during deployment.
Aquadopp	July-Sept 2019. Biofouling leading to decreased current data availability towards the end of the deployment, especially data from deeper layers.

<b>Deployment #2</b>	
<b>1. General</b>	
Deployment ID	D04
Location name	HKWA
Longitude	3.7156
Latitude	52.5702
Depth	22m
Deployment date	21 sep 2019
Recovery date	24 nov 2019
<b>2. Sensors</b>	
LiDAR	ZX802M, Firmware 2.2020
Wave sensor	Wavesense 369
Current profiler	Nortek Aquadopp AQP 9362/AQD 14599
Air Pressure sensor	Vaisala PTB N5230739
Air temperature and humidity sensor	Vaisala HMP P1730334
Wind sensor (in mast)	Gill Windsonic 18320035
Water pressure sensor	Thelma 925
<b>3. History</b>	
Service after 1st deployment	New buoy. 1st deployment 10th Feb 2019
	19 Sept 2019 Recovered for service/refueling 19th Sept 2019
	21 Sept 2019 Redeployed re-fueled and fully functional.
	24th Nov 2019 buoy recovered for service. Lidar had failed.
<b>4. Issues / failures</b>	
LiDAR unit	LiDAR unit developed internal error (laser fault) and stopped working on 30th October 2019 resulting in missing wind data in November.
Mast with wind sensor	Misalignment of mast leading to approx. 9° offset in 4m wind direction. No effect on LiDAR wind directions.

<b>Deployment #3</b>	
<b>1. General</b>	
Deployment ID	D06
Location name	HKWC
Longitude	3.7347
Latitude	52.5656
Depth	32m
Deployment date	18 des 2019
Recovery date	07 feb 2020
<b>2. Sensors</b>	
LiDAR	ZX802M, Firmware 2.2020
Wave sensor	Wavesense 369
Current profiler	Nortek Aquadopp AQP 9362/AQD 14599
Air Pressure sensor	Vaisala PTB N5230739
Air temperature and humidity sensor	Vaisala HMP P1730334
Wind sensor (in mast)	Gill Windsonic 18320035
Water pressure sensor	Thelma 925

<b>3. History</b>	
Service after 1st and 2nd deployment	New buoy. 1st deployment 10th Feb 2019
	19 Sept 2019 Recovered for service/refueling 19th Sept 2019
	21 Sept 2019 Redeployed re-fueled and fully functional.
	24th Nov 2019 buoy recovered for service. Lidar had failed.
	Iridium antenna replaced.
	LiDAR unit repaired at ZephIR UK (laser replaced).
	18 Dec 2019 redeployed with fully functional LiDAR unit (new laser).
	07 Feb 2020 drifted out of position
<b>4. Issues / failures</b>	
	Buoy drifted on the 7th of February 2020. Reason: the buoy understructure fell off
LiDAR unit	LiDAR unit stopped at end of December 2019 resulting in missing wind data from 1st January 2020. Lidar was assessed by ZephIR after the buoy was brought to land, and concluded that there had been problems with the power supply to the Lidar. Buoy was examined and the power supply to the Lidar restored.
Mast with wind sensor	Misalignment of mast leading to approx. 9° offset in 4m wind direction. No effect on LiDAR wind directions.
Wave data	An auxiliary filter on the raw heave, pitch, and roll data was active during the deployment. Reversed in post processing.

<b>Deployment #4</b>	
<b>1. General</b>	
Deployment ID	D07
Location name	HKWB
Longitude	3.7377
Latitude	52.5701
Depth	30m
Deployment date	24 apr 2020
Recovery date	15 sep 2020
<b>2. Sensors</b>	
LiDAR	ZX802M, Firmware 2.2020
Wave sensor	Wavesense 369
Current profiler	Nortek Aquadopp AQP 9362/AQD 14599
Air Pressure sensor	Vaisala PTB N5230739
Air temperature and humidity sensor	Vaisala HMP P1730334
Wind sensor (in mast)	Gill Windsonic 18320035
Water pressure sensor	Thelma 925
<b>3. History</b>	
Service after 1st and 2nd deployment	New buoy. 1st deployment 10th Feb 2019
	19 Sept 2019 Recovered for service/refueling
	21 Sept 2019 Redeployed re-fueled and fully functional.
	24th Nov 2019 buoy recovered for service. Lidar had failed.
	Iridium antenna replaced.
	LiDAR unit repaired at ZephIR UK (laser replaced).
	18 Dec 2019 redeployed with fully functional LiDAR unit (new laser).
	07 Feb 2020 drifted out of position
	24 Apr 2020 Redeployed re-fueled and fully functional. Hung in reboot cycle not measuring data
	9 May 2020 rebooted
	15 Sept 2020 Recovered for service/refueling
<b>4. Issues / failures</b>	
Aquadopp	July-Sept 2019. Biofouling leading to decreased current data availability towards the end of the deployment, especially data from deeper layers.

Mast with wind sensor	Misalignment of mast leading to approx. 9° offset in 4m wind direction. No effect on LiDAR wind directions.
LiDAR wind data	LiDAR wind speed and direction was post-processed using DGPS heading and LiDAR zph files.
Wave data	An auxiliary filter on the raw heave, pitch, and roll data was active during the deployment. Reversed in post processing.

<b>Deployment #5</b>	
<b>1. General</b>	
Deployment ID	D10
Location name	HKWA-2
Longitude	3.7135
Latitude	52.5693
Depth	22m
Deployment date	06 nov 2020
Recovery date	11 feb 2021
<b>2. Sensors</b>	
LiDAR	ZX802M, Firmware 2.2020
Wave sensor	Wavesense 369
Current profiler	Nortek Aquadopp AQP 9362/AQD 14599
Air Pressure sensor	Vaisala PTB N5230739
Air temperature and humidity sensor	Vaisala HMP P1730334
Wind sensor (in mast)	Gill Windsonic 18320035
Water pressure sensor	Thelma 925
<b>3. History</b>	
Service after 1st and 2nd deployment	New buoy. 1st deployment 10th Feb 2019
	19 Sept 2019 Recovered for service/refueling
	21 Sept 2019 Redeployed re-fueled and fully functional.
	24th Nov 2019 buoy recovered for service. Lidar had failed.
	Iridium antenna replaced.
	LiDAR unit repaired at ZephIR UK (laser replaced).
	18 Dec 2019 redeployed with fully functional LiDAR unit (new laser).
	07 Feb 2020 drifted out of position
	24 Apr 2020 Redeployed re-fueled and fully functional. Hung in reboot cycle not measuring data
	9 May 2020 rebooted
	15 Sept 2020 Recovered for service/refueling
	06 Nov 2020 Redeployed re-fueled and fully functional.
	11 Feb 2021 End of campaign
<b>4. Issues / failures</b>	
LiDAR wind data	LiDAR wind speed and direction was post-processed using DGPS heading and LiDAR zph files.
Water level	The water level sensor connected to the mooring at HKWA-2 got wrapped around the mooring and stopped recording data on 18 Nov 2020 leading to loss of water level and bottom temperature data until the end of the campaign.
Mast with wind sensor	Misalignment of mast leading to approx. 9° offset in 4m wind direction. No effect on LiDAR wind directions.
Wave data	An auxiliary filter on the raw heave, pitch, and roll data was active during the deployment. Reversed in post processing.

## WS170

Item	Value
<b>1. Background</b>	
Buoy ID	WS170
Serial Number	WS170
Design Version	2.1
<b>2. Description</b>	
Description	Spare buoy for HKW project, in-situ verified against WS188, validation certified by DNVGL in August 2019
<b>3. Documentation</b>	
SW Wind Lidar buoy	DNV GL report, 10166838-R-1-A_WS170vsWS187_WS170vsWS188_20190829.pdf, 10166838-R-1, Rev. A, 2019-08-29. In situ HKW site 2019-06-16 to 2019-08-11
Zephyr	DNV GL report, ZP585_Performance_verification_10108274-R-0026-A.pdf, 10108274-R-0026, Rev. A, 2019-02-20, Pershore, UK between 2019-01-06 and 2019-02-06
Wavesense	wavesense_336.pdf
Aquadopp	Wavesense 3 wave data acquisition principles.pdf
Vaisala humidity & temperature	nortekAQP6692.pdf
Vaisala air pressure	vaisalaHMP155_P4050602.pdf
Gill Windsonic	vaisalaPTB330_M5220804.pdf
	gillM_18320033.pdf
<b>4. Deployments</b>	
Deployment #1	D03
Deployment #2	D09
Deployment #3	D12

## Deployments

Deployment #1	
<b>1. General</b>	
Deployment ID	D03
Location name	HKWC
Longitude	3.7347
Latitude	52.5656
Depth	32m
Deployment date	16 jun 2019
Recovery date	24 nov 2019
<b>2. Sensors</b>	
LiDAR	ZP585M, Firmware 2.2020
Wave sensor	Wavesense 336
Current profiler	Nortek Aquadopp AQP 6692/AQD 13700
Air Pressure sensor	Vaisala PTB M5220804
Air temperature and humidity sensor	Vaisala HMP P4050602 2018
Wind sensor (in mast)	Gill Windsonic 18320033
Water pressure sensor	Thelma 75
<b>3. History</b>	
	Water level sensor added 19 Sept 2019
	This spare buoy was recovered and replaced by one of the original buoys on the 24th Nov 2019
	LiDAR unit repaired after recovery.

<b>4. Issues / failures</b>	
Aquadopp	Aug-Nov 2019. Biofouling leading to decreased current data availability towards the end of the deployment, especially from deeper layers.
LiDAR unit	LiDAR unit developed internal laser failure (faulty internal power cable) resulting in missing wind data from 23rd November 2019.
Data resolution	Config updated (higher wind speed resolution) through Wi-Fi on 19th September 2019 at 06:20 while the buoy was at sea.
Wind data resolution	Both wind speed and direction were post-processed using uniform higher resolution than transmitted during deployment. Applies to period before 19 September.

<b>Deployment #2</b>	
<b>1. General</b>	
Deployment ID	D09
Location name	HKWB
Longitude	3.7377
Latitude	52.5701
Depth	30m
Deployment date	15 sep 2020
Recovery date	14 nov 2020
<b>2. Sensors</b>	
LiDAR	ZP585M, Firmware 2.2020
Wave sensor	Wavesense 336
Current profiler	Nortek Aquadopp AQP 6692/AQD 13700
Air Pressure sensor	Vaisala PTB M5220804
Air temperature and humidity sensor	Vaisala HMP P4050602 2018
Wind sensor (in mast)	Gill Windsonic 18320033
Water pressure sensor	Thelma 75
<b>3. History</b>	
	Water level sensor added 19 Sept 2019
	24th Nov 2019 spare buoy recovered and replaced by one of the original buoys
	LiDAR unit repaired after recovery.
	Deployed as spare buoy in TNW campaign ( <a href="https://offshorewind.rvo.nl/TNW_WindAndWater">https://offshorewind.rvo.nl/TNW_WindAndWater</a> ) suffered damage to main mast.
	15 Sept 2020 redeployed fully functional
	14 Nov 2020 recovered for maintenance/service
<b>4. Issues / failures</b>	
LiDAR wind data	LiDAR wind speed and direction was post-processed using compass heading and LiDAR zph files.
Mast with wind sensor	Misalignment of mast leading to approx. 8° offset in 4m wind direction. No effect on LiDAR wind directions.

<b>Deployment #3</b>	
<b>1. General</b>	
Deployment ID	D12
Location name	HKWB
Longitude	3.7377
Latitude	52.5701
Depth	30m
Deployment date	26 nov 2020
Recovery date	11 feb 2021
<b>2. Sensors</b>	
LiDAR	ZP585M, Firmware 2.2020
Wave sensor	Wavesense 336
Current profiler	Nortek Aquadopp AQP 6692/AQD 13700
Air Pressure sensor	Vaisala PTB M5220804

Air temperature and humidity sensor	Vaisala HMP P4050602 2018
Wind sensor (in mast)	Gill Windsonic 18320033
Water pressure sensor	Thelma 75
<b>3. History</b>	
	Water level sensor added 19 Sept 2019
	24th Nov 2019 spare buoy recovered and replaced by one of the original buoys
	LiDAR unit repaired after recovery.
	Deployed as spare buoy in TNW campaign ( <a href="https://offshorewind.rvo.nl/TNW_WindAndWater">https://offshorewind.rvo.nl/TNW_WindAndWater</a> ) suffered damage to main mast.
	15 Sept 2020 redeployed fully functional
	14 Nov 2020 recovered for maintenance/service
	26 Sept 2020 redeployed fully functional
	11 Feb 2021 end of campaign
<b>4. Issues / failures</b>	
LiDAR wind data	LiDAR wind speed and direction was post-processed using compass heading and LiDAR zph files.
Mast with wind sensor	Misalignment of mast leading to approx. 8° offset in 4m wind direction. No effect on LiDAR wind directions.
Raw and derived wave parameters	Wave processing onboard changed to 2hz input from 1hz.



## Appendix E: Data gap tables

### Data gap tables

#### E.1 Deployment 1

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
05.02.2019 15:40	10 min	40m 100m 120m 140m 160m 180m 200m
05.02.2019 16:10	10 min	250m
05.02.2019 16:20	10 min	40m 160-250m
05.02.2019 16:30	10 min	120m 180-250m
05.02.2019 16:40	10 min	200-250m
05.02.2019 16:50	10 min	40m 120m 200-250m
05.02.2019 23:30	10 min	40-250m
05.02.2019 23:40	30 min	80-250m
06.02.2019 00:10	10 min	80m 120m 160m 200-250m
06.02.2019 00:20	30 min	80-250m
06.02.2019 00:50	10 min	160m 250m
06.02.2019 01:00	10 min	80-250m
06.02.2019 01:40	40 min	80-250m
06.02.2019 02:20	10 min	80m 100m 140m 250m
06.02.2019 02:30	10 min	60-250m
06.02.2019 02:40	10 min	80-250m
06.02.2019 02:50	10 min	100m 120m 140m 160m 180m 200m
06.02.2019 03:10	10 min	80-250m
06.02.2019 03:20	10 min	40m 80-250m
06.02.2019 03:30	10 min	80m 100m 120m 140m 200m
06.02.2019 03:40	1 hours 50 min	80-250m
06.02.2019 05:30	10 min	140m 180m 250m
06.02.2019 05:40	10 min	80-250m
06.02.2019 05:50	10 min	100-250m
06.02.2019 06:00	10 min	80-250m
06.02.2019 06:10	10 min	100-250m
06.02.2019 06:20	30 min	80-250m
06.02.2019 06:50	10 min	100m 140-250m
06.02.2019 07:00	30 min	80-250m
06.02.2019 07:30	10 min	80m 120-250m
06.02.2019 07:40	1 hours 00 min	80-250m
06.02.2019 08:40	10 min	120-250m
06.02.2019 08:50	10 min	80-250m
06.02.2019 09:00	20 min	120-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
06.02.2019 09:20	30 min	80-250m
06.02.2019 10:00	10 min	80m 120-250m
06.02.2019 10:10	20 min	80-250m
06.02.2019 10:40	40 min	80-250m
06.02.2019 11:20	10 min	100-250m
06.02.2019 11:30	10 min	40m
06.02.2019 11:50	50 min	120-250m
06.02.2019 12:40	10 min	140m 160m
06.02.2019 12:50	30 min	120m
06.02.2019 13:40	10 min	80m
06.02.2019 13:50	10 min	40m 80m
06.02.2019 14:00	20 min	80m
06.02.2019 15:30	30 min	40m
06.02.2019 16:40	30 min	40m
06.02.2019 17:10	10 min	40m 80m
06.02.2019 17:20	10 min	40m 60m 80m
06.02.2019 17:30	10 min	100m
06.02.2019 17:40	10 min	60m 100m
06.02.2019 17:50	10 min	40m 80m 120m
06.02.2019 18:00	10 min	40m
06.02.2019 18:20	10 min	80m
06.02.2019 18:30	10 min	120m 140m
06.02.2019 18:40	10 min	120m 140m 160m
06.02.2019 18:50	20 min	120m 140m 160m 180m 200m
06.02.2019 19:10	10 min	40m 60m 120m
06.02.2019 19:20	10 min	40m 80m 100m 120m
06.02.2019 19:30	10 min	80m
06.02.2019 20:30	20 min	40m 80m
06.02.2019 20:50	10 min	80m
06.02.2019 21:10	20 min	80m
06.02.2019 22:10	40 min	80m
06.02.2019 22:50	20 min	120m 140m
06.02.2019 23:10	30 min	100m
06.02.2019 23:40	10 min	all LiDAR data missing
06.02.2019 23:50	20 min	80-250m
07.02.2019 00:10	30 min	120-250m
07.02.2019 00:40	30 min	80-250m
07.02.2019 01:10	10 min	180-250m
07.02.2019 01:20	10 min	80-250m
07.02.2019 01:30	10 min	120-250m
07.02.2019 01:40	10 min	160-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
07.02.2019 01:50	20 min	120m 160-250m
07.02.2019 02:10	10 min	160-250m
07.02.2019 02:20	10 min	140-250m
07.02.2019 02:30	10 min	250m
07.02.2019 02:40	10 min	120-250m
07.02.2019 02:50	10 min	160-250m
07.02.2019 03:00	20 min	120-250m
07.02.2019 03:20	20 min	200-250m
07.02.2019 04:00	20 min	140-250m
07.02.2019 05:00	10 min	250m
07.02.2019 23:50	30 min	all LiDAR data missing
08.02.2019 03:00	10 min	120m
08.02.2019 03:50	20 min	120-250m
08.02.2019 04:20	10 min	120-250m
08.02.2019 04:30	10 min	80m 160m 250m
08.02.2019 05:20	10 min	200-250m
08.02.2019 06:00	10 min	250m
08.02.2019 06:10	10 min	200-250m
08.02.2019 06:20	10 min	250m
08.02.2019 08:10	10 min	200m
08.02.2019 11:40	10 min	250m
08.02.2019 11:50	10 min	160-250m
08.02.2019 12:50	10 min	250m
08.02.2019 13:20	10 min	250m
08.02.2019 14:40	10 min	250m
08.02.2019 19:30	10 min	250m
09.02.2019 00:00	20 min	all LiDAR data missing
09.02.2019 12:00	10 min	60-250m
10.02.2019 00:10	10 min	all LiDAR data missing
10.02.2019 05:30	10 min	250m
10.02.2019 05:40	10 min	200-250m
10.02.2019 05:50	10 min	200m
10.02.2019 06:00	10 min	180m 250m
10.02.2019 06:10	10 min	160-250m
10.02.2019 06:20	10 min	100-250m
10.02.2019 07:20	10 min	200m
10.02.2019 07:40	10 min	180m 200m
10.02.2019 07:50	10 min	180m
10.02.2019 09:00	10 min	250m
10.02.2019 09:20	10 min	100-250m
10.02.2019 09:30	30 min	80m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
10.02.2019 12:10	10 min	all LiDAR data missing
10.02.2019 14:40	10 min	40m 250m
10.02.2019 15:50	10 min	200m
11.02.2019 12:20	10 min	all LiDAR data missing
12.02.2019 00:20	10 min	40m
12.02.2019 12:30	10 min	all LiDAR data missing
13.02.2019 00:30	10 min	all LiDAR data missing
13.02.2019 05:10	10 min	160-250m
13.02.2019 05:50	10 min	180-250m
13.02.2019 06:00	30 min	180m 250m
13.02.2019 06:30	10 min	40m 80m 100m 120m 180-250m
13.02.2019 06:50	10 min	40m 250m
13.02.2019 08:10	10 min	250m
14.02.2019 00:40	10 min	all LiDAR data missing
14.02.2019 03:00	10 min	250m
14.02.2019 03:20	10 min	250m
14.02.2019 03:50	10 min	250m
14.02.2019 04:10	20 min	250m
14.02.2019 04:50	20 min	180m 200m
14.02.2019 05:10	1 hours 30 min	250m
14.02.2019 07:10	10 min	250m
14.02.2019 10:00	10 min	250m
14.02.2019 10:50	1 hours 20 min	250m
14.02.2019 12:20	1 hours 20 min	250m
14.02.2019 13:40	10 min	180m 200m
14.02.2019 13:50	10 min	200m
14.02.2019 14:00	10 min	180m 200m
14.02.2019 14:10	10 min	180m
14.02.2019 14:20	10 min	180m 200m
14.02.2019 14:30	1 hours 00 min	180m
14.02.2019 15:30	10 min	140m 160m
14.02.2019 15:50	10 min	140m
14.02.2019 16:00	10 min	160m 180m
14.02.2019 16:10	10 min	160m 180m 200m
14.02.2019 16:30	20 min	250m
14.02.2019 21:20	10 min	100m
15.02.2019 00:50	23 hours 30 min	all LiDAR data missing
16.02.2019 01:00	17 hours 00 min	all LiDAR data missing
17.02.2019 13:30	10 min	all LiDAR data missing
17.02.2019 19:30	10 min	Gill data missing
18.02.2019 00:40	20 min	60m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
18.02.2019 01:30	10 min	40m 60m 80m 100m 120m 140m 160m 200m
18.02.2019 01:40	30 min	all LiDAR data missing
18.02.2019 13:40	20 min	all LiDAR data missing
18.02.2019 14:30	20 min	200-250m
19.02.2019 01:40	20 min	all LiDAR data missing
19.02.2019 19:40	10 min	Gill data missing
20.02.2019 01:50	10 min	all LiDAR data missing
20.02.2019 05:20	10 min	all LiDAR data missing
20.02.2019 11:10	10 min	180-250m
20.02.2019 17:30	10 min	all LiDAR data missing
21.02.2019 05:40	1 hours 20 min	all LiDAR data missing
21.02.2019 12:40	10 min	200-250m
21.02.2019 12:50	10 min	160-250m
21.02.2019 13:00	10 min	140-250m
21.02.2019 14:10	10 min	180m
21.02.2019 14:20	10 min	160m 180m 200m
21.02.2019 14:50	10 min	160-250m
21.02.2019 15:00	20 min	160m 180m 200m
21.02.2019 15:20	10 min	160-250m
21.02.2019 15:30	10 min	160m 180m 200m
21.02.2019 15:40	20 min	160m 180m
21.02.2019 16:00	10 min	160m 180m 200m
21.02.2019 16:10	10 min	160m 180m
21.02.2019 16:20	10 min	160m 180m 200m
21.02.2019 16:30	10 min	160m 180m
21.02.2019 17:30	10 min	140m 160m 180m 200m
21.02.2019 17:40	13 hours 20 min	all LiDAR data missing
22.02.2019 17:00	10 min	180m 200m
22.02.2019 17:30	10 min	160m 180m
22.02.2019 17:40	10 min	250m
22.02.2019 17:50	1 hours 10 min	all LiDAR data missing
22.02.2019 19:00	10 min	140-250m
22.02.2019 19:10	10 min	160-250m
22.02.2019 19:20	20 min	180-250m
22.02.2019 19:40	10 min	200m
22.02.2019 19:50	10 min	200-250m
22.02.2019 20:00	10 min	60m
22.02.2019 21:00	10 min	40m 60m 80m 100m 120m 140m 200-250m
23.02.2019 05:50	10 min	all LiDAR data missing
23.02.2019 10:10	10 min	250m
23.02.2019 18:00	10 min	all LiDAR data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
23.02.2019 19:50	10 min	140m
24.02.2019 04:40	10 min	250m
24.02.2019 06:00	2 hours 20 min	all LiDAR data missing
24.02.2019 09:10	10 min	160m
24.02.2019 11:00	10 min	Gill data missing
24.02.2019 14:20	30 min	250m
24.02.2019 15:00	40 min	250m
24.02.2019 18:00	10 min	40m
24.02.2019 18:10	20 min	all LiDAR data missing
25.02.2019 06:10	10 min	all LiDAR data missing
25.02.2019 18:10	10 min	all LiDAR data missing
26.02.2019 18:20	10 min	all LiDAR data missing
27.02.2019 01:50	10 min	250m
27.02.2019 02:10	10 min	160-250m
27.02.2019 02:20	10 min	140m 160m 200m
27.02.2019 02:30	20 min	120m 140m 160m 180m 250m
27.02.2019 02:50	10 min	140m
27.02.2019 17:20	20 min	250m
27.02.2019 18:30	10 min	all LiDAR data missing
28.02.2019 06:30	10 min	all LiDAR data missing
28.02.2019 16:10	10 min	250m
28.02.2019 16:20	10 min	120-250m
28.02.2019 16:50	10 min	120-250m
28.02.2019 18:00	10 min	Gill data missing
28.02.2019 19:20	10 min	80m
28.02.2019 19:50	10 min	250m
28.02.2019 21:50	10 min	200-250m
28.02.2019 22:00	10 min	60m 80m 120-250m
28.02.2019 22:10	1 hours 00 min	120-250m
28.02.2019 23:10	10 min	160-250m
28.02.2019 23:20	10 min	40-250m
28.02.2019 23:30	30 min	120-250m
01.03.2019 00:00	10 min	40-250m
01.03.2019 00:10	10 min	80m 120-250m
01.03.2019 00:20	40 min	120-250m
01.03.2019 01:00	10 min	40m 80m 120-250m
01.03.2019 01:10	10 min	120-250m
01.03.2019 01:20	20 min	140-250m
01.03.2019 01:40	10 min	40-250m
01.03.2019 01:50	10 min	40m 80m 120-250m
01.03.2019 02:00	10 min	40m 140m 180-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
01.03.2019 02:10	10 min	200-250m
01.03.2019 02:20	10 min	120-250m
01.03.2019 02:30	10 min	140m 160m
01.03.2019 02:40	20 min	140m 160m 180m 200m
01.03.2019 03:00	10 min	140-250m
01.03.2019 03:10	10 min	60m 120-250m
01.03.2019 03:20	20 min	120-250m
01.03.2019 03:40	10 min	40m 80m 120m 140m 160m 180m 200m
01.03.2019 03:50	20 min	120-250m
01.03.2019 04:10	10 min	80-250m
01.03.2019 04:20	20 min	120-250m
01.03.2019 04:40	10 min	160-250m
01.03.2019 05:20	10 min	40m 100m 200-250m
01.03.2019 05:30	10 min	60m
01.03.2019 05:40	10 min	40m 60m 80m 140m 180-250m
01.03.2019 05:50	10 min	60m
01.03.2019 06:20	20 min	40m
01.03.2019 06:40	7 hours 50 min	all LiDAR data missing
01.03.2019 18:50	5 hours 50 min	all LiDAR data missing
02.03.2019 06:00	10 min	250m
02.03.2019 06:10	10 min	200-250m
02.03.2019 06:20	10 min	180-250m
02.03.2019 06:30	10 min	120-250m
02.03.2019 06:50	3 hours 10 min	all LiDAR data missing
02.03.2019 12:10	10 min	80m 100m 200-250m
02.03.2019 12:20	10 min	100m 140m
02.03.2019 12:30	10 min	80m 100m 140m 180-250m
02.03.2019 12:40	10 min	180m 200m
02.03.2019 12:50	10 min	120-250m
02.03.2019 13:00	20 min	180-250m
02.03.2019 13:20	10 min	160-250m
02.03.2019 13:30	10 min	160m 180m 200m
02.03.2019 13:50	30 min	180m
02.03.2019 14:20	10 min	180-250m
02.03.2019 14:30	10 min	200-250m
02.03.2019 14:40	10 min	160-250m
02.03.2019 14:50	20 min	120-250m
02.03.2019 15:10	10 min	100-250m
02.03.2019 15:20	20 min	80-250m
02.03.2019 15:40	20 min	80m 100m 120m 140m
02.03.2019 16:00	10 min	40m 80m 100m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
02.03.2019 16:10	10 min	40m 60m 80m 100m
02.03.2019 16:20	10 min	80m 100m 120m
02.03.2019 16:30	20 min	80m
02.03.2019 16:50	10 min	120-250m
02.03.2019 17:00	10 min	200-250m
02.03.2019 18:50	20 min	all LiDAR data missing
02.03.2019 19:10	10 min	200-250m
03.03.2019 05:10	10 min	180m 250m
03.03.2019 05:20	10 min	160-250m
03.03.2019 05:30	10 min	180-250m
03.03.2019 05:50	10 min	250m
03.03.2019 06:00	10 min	160-250m
03.03.2019 06:10	10 min	250m
03.03.2019 06:20	10 min	200-250m
03.03.2019 07:00	10 min	all LiDAR data missing
03.03.2019 08:10	10 min	Gill data missing
03.03.2019 12:00	10 min	40m
03.03.2019 12:10	10 min	all LiDAR data missing
03.03.2019 17:20	10 min	Gill data missing
03.03.2019 18:50	20 min	250m
04.03.2019 00:20	1 hours 50 min	all LiDAR data missing
04.03.2019 02:40	10 min	250m
04.03.2019 04:50	10 min	80-250m
04.03.2019 12:20	2 hours 40 min	all LiDAR data missing
04.03.2019 18:20	10 min	Gill data missing
05.03.2019 00:20	1 hours 30 min	all LiDAR data missing
05.03.2019 12:30	1 hours 30 min	all LiDAR data missing
06.03.2019 00:30	10 min	all LiDAR data missing
06.03.2019 12:40	10 min	all LiDAR data missing
06.03.2019 14:00	10 min	30m 80m 120m
06.03.2019 14:10	20 min	all LiDAR data missing
07.03.2019 02:10	10 min	60m
07.03.2019 05:00	20 min	250m
07.03.2019 14:20	10 min	all LiDAR data missing
07.03.2019 21:00	10 min	Gill data missing
08.03.2019 01:10	10 min	Gill data missing
08.03.2019 02:20	10 min	30m 40m 80m 100m 160-250m
08.03.2019 02:30	10 min	all LiDAR data missing
08.03.2019 14:20	10 min	60m
08.03.2019 14:30	20 min	all LiDAR data missing
09.03.2019 00:10	10 min	Gill data missing



**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
09.03.2019 02:30	9 hours 10 min	all LiDAR data missing
09.03.2019 13:40	10 min	180-250m
09.03.2019 14:40	13 hours 40 min	all LiDAR data missing
10.03.2019 07:00	10 min	140m 180m 200m
10.03.2019 07:20	10 min	200-250m
10.03.2019 08:20	10 min	250m
10.03.2019 08:50	10 min	120m 140m
10.03.2019 09:00	20 min	100-250m
10.03.2019 09:20	1 hours 50 min	all LiDAR data missing
10.03.2019 11:10	10 min	120m 180m
10.03.2019 11:20	10 min	180-250m
10.03.2019 11:40	20 min	140m
10.03.2019 12:00	10 min	140m 180m 200m
10.03.2019 14:30	10 min	40m 200-250m
10.03.2019 14:40	30 min	200-250m
10.03.2019 19:30	10 min	180m
10.03.2019 19:40	10 min	all LiDAR data missing
10.03.2019 20:50	10 min	Gill data missing
10.03.2019 21:00	10 min	all LiDAR data missing
11.03.2019 08:10	10 min	Gill data missing
11.03.2019 08:20	20 min	all LiDAR data missing
11.03.2019 12:00	10 min	Gill data missing
12.03.2019 08:30	20 min	all LiDAR data missing
12.03.2019 15:10	10 min	Gill data missing
12.03.2019 20:30	10 min	30m 60m 100m 140-250m
13.03.2019 08:40	10 min	all LiDAR data missing
13.03.2019 20:40	20 min	all LiDAR data missing
14.03.2019 20:50	10 min	all LiDAR data missing
15.03.2019 05:20	10 min	160-250m
15.03.2019 05:30	10 min	80m 120-250m
15.03.2019 05:40	10 min	80-250m
15.03.2019 05:50	30 min	80m 120-250m
15.03.2019 06:20	10 min	80-250m
15.03.2019 06:30	10 min	100-250m
15.03.2019 06:40	10 min	250m
15.03.2019 06:50	10 min	200-250m
15.03.2019 09:00	3 hours 20 min	all LiDAR data missing
15.03.2019 21:00	7 hours 50 min	all LiDAR data missing
16.03.2019 05:10	10 min	140-250m
16.03.2019 05:40	10 min	120m 160-250m
16.03.2019 05:50	10 min	140m 160m 180m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
16.03.2019 06:00	10 min	120-250m
16.03.2019 06:20	10 min	180-250m
16.03.2019 09:00	14 hours 00 min	all LiDAR data missing
17.03.2019 09:10	20 min	all LiDAR data missing
17.03.2019 18:30	10 min	Gill data missing
17.03.2019 21:10	10 min	60m
18.03.2019 09:20	10 min	all LiDAR data missing
18.03.2019 21:20	10 min	all LiDAR data missing
19.03.2019 09:30	12 hours 10 min	all LiDAR data missing
20.03.2019 09:50	10 min	100m 200-250m
20.03.2019 10:00	10 min	200m
20.03.2019 11:00	10 min	200-250m
20.03.2019 11:10	10 min	180-250m
20.03.2019 11:20	30 min	180m 200m
20.03.2019 11:50	20 min	250m
20.03.2019 12:40	30 min	250m
20.03.2019 13:10	10 min	180m 200m
20.03.2019 13:20	20 min	180m
20.03.2019 13:40	10 min	180m 200m
20.03.2019 13:50	20 min	200m
20.03.2019 14:30	10 min	250m
20.03.2019 15:20	10 min	Gill data missing
20.03.2019 15:50	20 min	250m
20.03.2019 20:00	10 min	180m 200m
20.03.2019 20:20	10 min	180m 250m
20.03.2019 20:30	10 min	160-250m
20.03.2019 20:40	40 min	160m
20.03.2019 21:30	10 min	200m
20.03.2019 21:40	20 min	all LiDAR data missing
20.03.2019 22:00	10 min	120-250m
20.03.2019 22:10	10 min	100m 120m
20.03.2019 22:20	10 min	80m
20.03.2019 22:30	10 min	100m 120m
20.03.2019 22:40	1 hours 20 min	120-250m
21.03.2019 01:10	10 min	60m 80m 250m
21.03.2019 02:00	10 min	100m
21.03.2019 02:10	10 min	60m 80m 100m
21.03.2019 03:00	10 min	250m
21.03.2019 03:10	10 min	180-250m
21.03.2019 03:20	20 min	140-250m
21.03.2019 09:40	10 min	120-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
21.03.2019 09:50	20 min	all LiDAR data missing
21.03.2019 10:10	10 min	Gill data missing
21.03.2019 13:00	20 min	100m
21.03.2019 13:20	10 min	120m 140m
21.03.2019 13:30	10 min	100m 120m 140m 180m 200m
21.03.2019 13:40	10 min	200m
21.03.2019 13:50	10 min	180m 200m
21.03.2019 14:00	10 min	120m 140m 180m 200m
21.03.2019 14:10	10 min	120m 160m 200m
21.03.2019 14:20	10 min	200-250m
21.03.2019 14:40	10 min	200m
21.03.2019 15:00	10 min	200m
21.03.2019 18:10	10 min	200-250m
21.03.2019 21:50	10 min	all LiDAR data missing
21.03.2019 22:20	40 min	30m
21.03.2019 23:00	10 min	30m 40m 200m
21.03.2019 23:10	30 min	30m
21.03.2019 23:40	10 min	30m 60m 200m
21.03.2019 23:50	1 hours 00 min	30m
22.03.2019 02:30	10 min	40m 100m
22.03.2019 03:10	10 min	40m 80m 160m
22.03.2019 03:50	10 min	120m
22.03.2019 04:20	10 min	40m 100m
22.03.2019 05:10	10 min	120m
22.03.2019 06:20	10 min	250m
22.03.2019 06:30	10 min	160-250m
22.03.2019 06:40	20 min	120-250m
22.03.2019 07:00	20 min	100m
22.03.2019 07:30	30 min	80m
22.03.2019 08:10	50 min	60m
22.03.2019 09:20	10 min	80m
22.03.2019 09:40	10 min	140m 160m 180m
22.03.2019 09:50	10 min	all LiDAR data missing
22.03.2019 10:00	10 min	80m 100m 120m 140m 160m
22.03.2019 10:10	10 min	60m 80m 100m 120m 140m 160m 180m
22.03.2019 10:20	20 min	80-250m
22.03.2019 10:40	10 min	120-250m
22.03.2019 10:50	10 min	80m 120-250m
22.03.2019 11:00	20 min	80-250m
22.03.2019 11:20	30 min	120-250m
22.03.2019 11:50	10 min	140-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
22.03.2019 12:00	10 min	100-250m
22.03.2019 12:10	10 min	250m
22.03.2019 12:20	10 min	200-250m
22.03.2019 12:30	10 min	80-250m
22.03.2019 12:40	10 min	80m 120-250m
22.03.2019 12:50	10 min	80-250m
22.03.2019 13:00	10 min	80m 100m 120m 140m 160m 180m 200m
22.03.2019 13:10	10 min	80m 100m 120m 140m
22.03.2019 13:20	30 min	80-250m
22.03.2019 13:50	10 min	100-250m
22.03.2019 14:00	30 min	80-250m
22.03.2019 14:30	30 min	80m 120-250m
22.03.2019 15:00	20 min	80-250m
22.03.2019 15:20	10 min	100-250m
22.03.2019 15:30	10 min	80-250m
22.03.2019 15:40	10 min	80m 120-250m
22.03.2019 15:50	10 min	80-250m
22.03.2019 16:00	10 min	120-250m
22.03.2019 16:10	10 min	80-250m
22.03.2019 16:20	20 min	100-250m
22.03.2019 16:40	10 min	80-250m
22.03.2019 16:50	10 min	100-250m
22.03.2019 17:00	10 min	120-250m
22.03.2019 17:10	20 min	100-250m
22.03.2019 17:30	10 min	80-250m
22.03.2019 17:40	10 min	100m 120m 160-250m
22.03.2019 17:50	10 min	80-250m
22.03.2019 18:00	10 min	120m 140m 160m
22.03.2019 18:10	10 min	80m 120-250m
22.03.2019 18:30	10 min	100-250m
22.03.2019 18:40	20 min	80-250m
22.03.2019 19:10	10 min	80-250m
22.03.2019 19:20	10 min	200m
22.03.2019 19:30	10 min	160m 200m
22.03.2019 20:10	10 min	100m 140m 180m
22.03.2019 22:00	20 min	all LiDAR data missing
23.03.2019 10:00	7 hours 50 min	all LiDAR data missing
23.03.2019 22:10	2 hours 10 min	all LiDAR data missing
24.03.2019 10:10	10 min	all LiDAR data missing
24.03.2019 20:10	10 min	Gill data missing
24.03.2019 22:10	10 min	30m 60m 80m 100m 120m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
24.03.2019 22:20	10 min	all LiDAR data missing
25.03.2019 10:20	10 min	all LiDAR data missing
25.03.2019 22:20	10 min	all LiDAR data missing
26.03.2019 03:20	10 min	Gill data missing
26.03.2019 10:30	7 hours 20 min	all LiDAR data missing
26.03.2019 22:30	1 hours 10 min	all LiDAR data missing
27.03.2019 10:30	10 min	all LiDAR data missing
27.03.2019 22:40	1 hours 00 min	all LiDAR data missing
28.03.2019 07:30	10 min	250m
28.03.2019 07:50	10 min	200m
28.03.2019 10:40	20 min	all LiDAR data missing
28.03.2019 15:50	10 min	60m
28.03.2019 16:10	10 min	60m
28.03.2019 16:50	10 min	180m
28.03.2019 17:20	10 min	160m 250m
28.03.2019 17:30	10 min	80m
28.03.2019 17:40	10 min	140m 180-250m
28.03.2019 18:00	10 min	100-250m
28.03.2019 19:30	10 min	140m 160m 180m 250m
28.03.2019 22:40	10 min	140-250m
28.03.2019 23:00	10 min	180-250m
28.03.2019 23:10	10 min	80-250m
28.03.2019 23:20	10 min	180m 200m
29.03.2019 00:10	10 min	250m
29.03.2019 00:20	10 min	200-250m
29.03.2019 00:30	20 min	250m
29.03.2019 01:30	20 min	250m
29.03.2019 01:50	10 min	160-250m
29.03.2019 02:00	10 min	100m 120m
29.03.2019 03:00	10 min	200-250m
29.03.2019 03:10	1 hours 10 min	250m
29.03.2019 06:30	10 min	120-250m
29.03.2019 06:40	10 min	60m 80m 100m 120m
29.03.2019 06:50	10 min	60m 80m
29.03.2019 07:00	10 min	160-250m
29.03.2019 07:10	10 min	120m 140m 160m 180m 200m
29.03.2019 07:20	10 min	180-250m
29.03.2019 08:40	10 min	250m
29.03.2019 08:50	10 min	120m 250m
29.03.2019 09:00	20 min	250m
29.03.2019 10:50	10 min	all LiDAR data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
29.03.2019 22:50	10 min	all LiDAR data missing
30.03.2019 09:20	10 min	Gill data missing
30.03.2019 23:00	10 min	all LiDAR data missing
31.03.2019 01:20	10 min	60m
31.03.2019 01:30	10 min	40m 80m 100m 120m 140m 160m 180m 200m
31.03.2019 01:40	30 min	40m 100m 160m 180m 200m
31.03.2019 02:20	10 min	180m
31.03.2019 03:40	10 min	200m
31.03.2019 03:50	10 min	160m 200m
31.03.2019 04:10	10 min	40m 80m 140m 160m 180m
31.03.2019 04:20	10 min	40m 80-250m
31.03.2019 04:50	10 min	40m
31.03.2019 23:10	10 min	all LiDAR data missing
01.04.2019 11:10	10 min	all LiDAR data missing
01.04.2019 23:20	10 min	all LiDAR data missing
02.04.2019 06:30	10 min	Gill data missing
02.04.2019 11:00	10 min	180-250m
02.04.2019 11:10	10 min	140-250m
02.04.2019 11:20	10 min	all LiDAR data missing
02.04.2019 11:30	40 min	80-250m
02.04.2019 12:10	10 min	100m 120m 140m 200-250m
02.04.2019 12:20	20 min	180m 200m
02.04.2019 12:50	10 min	40m 80-250m
02.04.2019 13:00	10 min	80-250m
02.04.2019 13:10	10 min	80m
02.04.2019 14:30	10 min	Gill data missing
02.04.2019 19:00	10 min	160m 180m 200m
02.04.2019 19:10	10 min	80-250m
02.04.2019 19:20	10 min	120m 160-250m
02.04.2019 19:30	10 min	80-250m
02.04.2019 19:50	10 min	80-250m
02.04.2019 23:20	10 min	40m 60m 80m 100m
03.04.2019 02:20	10 min	200m
03.04.2019 11:30	10 min	all LiDAR data missing
03.04.2019 20:30	10 min	180m 250m
03.04.2019 21:00	10 min	250m
03.04.2019 21:20	10 min	250m
03.04.2019 23:30	10 min	all LiDAR data missing
04.04.2019 23:40	10 min	all LiDAR data missing
05.04.2019 12:40	10 min	Gill data missing
05.04.2019 23:50	10 min	all LiDAR data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
06.04.2019 01:00	10 min	250m
06.04.2019 02:20	20 min	250m
06.04.2019 02:40	20 min	200-250m
06.04.2019 11:50	10 min	all LiDAR data missing
06.04.2019 13:10	10 min	160-250m
06.04.2019 13:20	10 min	140-250m
06.04.2019 13:40	10 min	140-250m
06.04.2019 13:50	10 min	120-250m
06.04.2019 21:00	10 min	250m
06.04.2019 21:50	10 min	250m
06.04.2019 22:50	10 min	250m
06.04.2019 23:10	10 min	140-250m
07.04.2019 01:10	10 min	180-250m
07.04.2019 01:20	10 min	160-250m
07.04.2019 01:30	10 min	200-250m
07.04.2019 04:40	40 min	250m
07.04.2019 05:40	30 min	250m
07.04.2019 06:10	10 min	40m 250m
07.04.2019 06:20	50 min	60m
07.04.2019 12:00	10 min	all LiDAR data missing
07.04.2019 17:00	10 min	all LiDAR data missing
08.04.2019 04:50	10 min	250m
08.04.2019 05:00	10 min	200-250m
08.04.2019 05:10	10 min	all LiDAR data missing
08.04.2019 14:10	20 min	250m
08.04.2019 14:30	20 min	180-250m
08.04.2019 14:50	10 min	250m
08.04.2019 17:10	20 min	all LiDAR data missing
09.04.2019 05:10	10 min	40m 80m 100m 120m 140m 160m 200m
09.04.2019 17:20	10 min	all LiDAR data missing
09.04.2019 20:20	10 min	Gill data missing
09.04.2019 21:00	10 min	Gill data missing
10.04.2019 05:20	10 min	all LiDAR data missing
11.04.2019 05:30	10 min	all LiDAR data missing
11.04.2019 07:40	10 min	Gill data missing
11.04.2019 10:30	10 min	Gill data missing
11.04.2019 17:30	10 min	30m 40m 160m 180m
11.04.2019 17:40	10 min	all LiDAR data missing
12.04.2019 05:40	10 min	all LiDAR data missing
12.04.2019 17:40	20 min	all LiDAR data missing
12.04.2019 19:50	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
13.04.2019 17:50	20 min	all LiDAR data missing
14.04.2019 05:50	10 min	40m 60m
14.04.2019 06:00	4 hours 10 min	all LiDAR data missing
14.04.2019 17:10	10 min	Gill data missing
14.04.2019 18:00	1 hours 10 min	all LiDAR data missing
15.04.2019 06:00	8 hours 20 min	all LiDAR data missing
15.04.2019 18:10	6 hours 10 min	all LiDAR data missing
16.04.2019 03:20	10 min	Gill data missing
16.04.2019 06:10	10 min	all LiDAR data missing
16.04.2019 18:20	10 min	Gill data missing
17.04.2019 02:10	10 min	Gill data missing
17.04.2019 06:20	3 hours 50 min	all LiDAR data missing
17.04.2019 10:20	10 min	Gill data missing
17.04.2019 13:50	1 hours 40 min	all LiDAR data missing
18.04.2019 02:00	20 min	all LiDAR data missing
18.04.2019 09:20	10 min	Gill data missing
18.04.2019 14:00	5 hours 20 min	all LiDAR data missing
19.04.2019 02:00	10 min	40m
19.04.2019 02:10	10 min	all LiDAR data missing
19.04.2019 10:20	10 min	Gill data missing
19.04.2019 13:20	10 min	Gill data missing
19.04.2019 14:10	10 min	all LiDAR data missing
20.04.2019 02:00	10 min	Gill data missing
20.04.2019 02:10	10 min	all LiDAR data missing
20.04.2019 05:20	10 min	Gill data missing
20.04.2019 06:10	10 min	Gill data missing
20.04.2019 14:20	10 min	all LiDAR data missing
21.04.2019 02:20	10 min	all LiDAR data missing
21.04.2019 06:10	10 min	Gill data missing
21.04.2019 10:00	10 min	Gill data missing
21.04.2019 14:30	10 min	all LiDAR data missing
21.04.2019 22:40	10 min	Gill data missing
22.04.2019 02:30	10 min	all LiDAR data missing
22.04.2019 10:50	10 min	Gill data missing
22.04.2019 12:50	10 min	Gill data missing
22.04.2019 14:30	20 min	all LiDAR data missing
23.04.2019 02:30	10 min	100m
23.04.2019 14:40	10 min	all LiDAR data missing
23.04.2019 15:30	10 min	120m
24.04.2019 00:00	10 min	Gill data missing
24.04.2019 02:40	10 min	30m



**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
24.04.2019 02:50	10 min	all LiDAR data missing
24.04.2019 13:00	10 min	180m
24.04.2019 14:50	20 min	all LiDAR data missing
24.04.2019 20:20	10 min	250m
24.04.2019 21:20	10 min	200-250m
24.04.2019 23:10	10 min	140-250m
24.04.2019 23:20	10 min	180m 200m
25.04.2019 02:50	10 min	all LiDAR data missing
25.04.2019 03:10	10 min	Gill data missing
25.04.2019 11:50	10 min	all LiDAR data missing
25.04.2019 13:30	10 min	all LiDAR data missing
25.04.2019 16:20	10 min	100m 120m 140m 160m 180m
25.04.2019 16:30	10 min	100m 120m 140m 160m 180m 200m
25.04.2019 19:00	10 min	Gill data missing
26.04.2019 13:40	10 min	all LiDAR data missing
27.04.2019 01:40	10 min	30m 60m 100m 120m
27.04.2019 01:50	20 min	all LiDAR data missing
27.04.2019 03:30	10 min	180m 250m
27.04.2019 03:50	10 min	180-250m
27.04.2019 04:00	10 min	200m
27.04.2019 04:10	10 min	160m 180m
27.04.2019 04:20	10 min	200m
27.04.2019 13:50	10 min	all LiDAR data missing
28.04.2019 01:10	10 min	200m
28.04.2019 01:20	10 min	80m 140-250m
28.04.2019 01:50	20 min	all LiDAR data missing
28.04.2019 02:20	10 min	80-250m
28.04.2019 02:30	10 min	80m 120m 140m 180m
28.04.2019 03:20	20 min	80-250m
28.04.2019 03:50	10 min	100m 120m 160-250m
28.04.2019 04:00	40 min	80-250m
28.04.2019 04:50	10 min	80-250m
28.04.2019 05:00	10 min	40m
28.04.2019 05:10	20 min	80-250m
28.04.2019 05:30	10 min	120m 250m
28.04.2019 07:10	10 min	250m
28.04.2019 07:30	10 min	80-250m
28.04.2019 10:00	10 min	250m
28.04.2019 13:50	10 min	160m
28.04.2019 14:00	7 hours 40 min	all LiDAR data missing
29.04.2019 01:30	10 min	250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
29.04.2019 02:00	1 hours 10 min	all LiDAR data missing
29.04.2019 14:10	30 min	all LiDAR data missing
29.04.2019 15:10	10 min	160m
29.04.2019 15:50	10 min	250m
29.04.2019 16:20	10 min	40m 200-250m
29.04.2019 16:30	10 min	250m
29.04.2019 16:40	10 min	40m 80m 160m 200-250m
29.04.2019 17:10	10 min	200m
29.04.2019 18:00	10 min	200m
29.04.2019 19:10	10 min	40m 120m
29.04.2019 20:20	10 min	180m 200m
29.04.2019 20:30	10 min	250m
29.04.2019 22:40	10 min	200m
30.04.2019 02:10	20 min	all LiDAR data missing
30.04.2019 02:30	30 min	80-250m
30.04.2019 03:10	10 min	80-250m
30.04.2019 03:30	10 min	80-250m
30.04.2019 03:50	30 min	80-250m
30.04.2019 04:20	10 min	120m 180-250m
30.04.2019 04:30	40 min	80-250m
30.04.2019 05:20	10 min	80-250m
30.04.2019 05:30	20 min	40m
30.04.2019 05:50	20 min	80-250m
30.04.2019 06:20	10 min	80-250m
30.04.2019 06:30	10 min	80m 100m 120m 140m 160m 180m 250m
30.04.2019 06:40	40 min	80-250m
30.04.2019 07:20	10 min	80m 120-250m
30.04.2019 07:30	20 min	80-250m
30.04.2019 08:00	1 hours 20 min	80-250m
30.04.2019 09:20	10 min	40m
30.04.2019 09:30	10 min	80-250m
30.04.2019 09:40	10 min	40m
30.04.2019 09:50	20 min	80-250m
30.04.2019 10:10	10 min	40m
30.04.2019 10:20	3 hours 30 min	80-250m
30.04.2019 14:00	10 min	80-250m
30.04.2019 14:10	10 min	40-250m
30.04.2019 14:50	10 min	200-250m
30.04.2019 15:20	10 min	180m 200m
30.04.2019 15:30	10 min	200m
30.04.2019 16:40	10 min	160m 200m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
30.04.2019 18:30	10 min	100m 120m
30.04.2019 18:50	10 min	180m 200m
30.04.2019 20:00	10 min	200m
30.04.2019 21:30	10 min	180m
01.05.2019 00:10	10 min	200m
01.05.2019 02:20	3 hours 00 min	all LiDAR data missing
01.05.2019 05:20	10 min	180m 200m
01.05.2019 06:00	10 min	200m
01.05.2019 06:40	10 min	120m 140m 200m
01.05.2019 06:50	10 min	100m 120m 140m 160m 180m 200m
01.05.2019 07:00	10 min	160m 200m
01.05.2019 07:30	10 min	100m 250m
01.05.2019 09:50	10 min	200m
01.05.2019 10:00	10 min	100m 160-250m
01.05.2019 10:10	10 min	200m
01.05.2019 11:00	10 min	200m
01.05.2019 12:40	10 min	200-250m
01.05.2019 13:00	10 min	200m
01.05.2019 13:10	10 min	100-250m
01.05.2019 13:20	10 min	200m
01.05.2019 13:30	10 min	160-250m
01.05.2019 13:40	20 min	160m 180m
01.05.2019 14:00	10 min	100-250m
01.05.2019 14:10	10 min	140-250m
01.05.2019 14:20	10 min	all LiDAR data missing
01.05.2019 14:30	10 min	200m
01.05.2019 14:40	10 min	100-250m
01.05.2019 14:50	10 min	120m 140m 160m 180m 250m
01.05.2019 15:00	10 min	200m
01.05.2019 15:10	10 min	120m 180-250m
01.05.2019 15:40	10 min	140m 180-250m
02.05.2019 02:30	5 hours 50 min	all LiDAR data missing
02.05.2019 09:20	10 min	140-250m
02.05.2019 09:30	10 min	120-250m
02.05.2019 09:40	10 min	180m 200m
02.05.2019 09:50	20 min	120m 140m 180-250m
02.05.2019 10:30	10 min	180m 250m
02.05.2019 14:30	30 min	all LiDAR data missing
02.05.2019 17:00	10 min	160m 180m 200m
02.05.2019 22:10	10 min	Gill data missing
02.05.2019 22:50	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
03.05.2019 02:40	10 min	all LiDAR data missing
03.05.2019 14:40	10 min	all LiDAR data missing
04.05.2019 02:40	9 hours 30 min	all LiDAR data missing
05.05.2019 02:50	10 min	all LiDAR data missing
05.05.2019 08:30	10 min	Gill data missing
05.05.2019 21:00	10 min	Gill data missing
06.05.2019 03:00	1 hours 20 min	all LiDAR data missing
06.05.2019 09:30	10 min	Gill data missing
06.05.2019 15:00	10 min	40m 200-250m
06.05.2019 15:10	3 hours 20 min	all LiDAR data missing
07.05.2019 03:10	1 hours 10 min	all LiDAR data missing
07.05.2019 15:10	50 min	all LiDAR data missing
07.05.2019 16:10	10 min	Gill data missing
08.05.2019 02:40	10 min	Gill data missing
08.05.2019 15:20	20 min	all LiDAR data missing
08.05.2019 18:30	10 min	200-250m
08.05.2019 18:50	10 min	160-250m
09.05.2019 01:50	10 min	Gill data missing
09.05.2019 03:20	10 min	30m 40m 60m 80m 100m 120m 140m 160m 180m
09.05.2019 03:30	18 hours 50 min	all LiDAR data missing
09.05.2019 22:20	10 min	40m 100m 180m 250m
09.05.2019 22:30	10 min	250m
09.05.2019 23:20	10 min	250m
10.05.2019 02:40	10 min	Gill data missing
10.05.2019 03:30	10 min	all LiDAR data missing
10.05.2019 17:00	10 min	40m
10.05.2019 19:50	10 min	Gill data missing
11.05.2019 03:40	10 min	all LiDAR data missing
11.05.2019 15:50	10 min	all LiDAR data missing
12.05.2019 03:50	10 min	all LiDAR data missing
12.05.2019 15:50	10 min	40m 80m 100m 160m 180m
12.05.2019 16:00	10 min	all LiDAR data missing
13.05.2019 04:00	20 min	all LiDAR data missing
13.05.2019 16:00	10 min	all LiDAR data missing
14.05.2019 06:30	10 min	Gill data missing
14.05.2019 08:10	10 min	Gill data missing
14.05.2019 16:10	10 min	all LiDAR data missing
14.05.2019 16:30	10 min	Gill data missing
15.05.2019 11:40	10 min	Gill data missing
15.05.2019 16:20	20 min	all LiDAR data missing
16.05.2019 04:20	20 min	all LiDAR data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

<b>Start time</b>	<b>Duration</b>	<b>Missing LiDAR data at height(s) (m)</b>
16.05.2019 06:40	10 min	Gill data missing
16.05.2019 10:40	10 min	Gill data missing
16.05.2019 16:30	20 min	all LiDAR data missing
16.05.2019 23:50	10 min	Gill data missing
17.05.2019 04:30	18 hours 20 min	all LiDAR data missing
18.05.2019 00:50	2 hours 30 min	all LiDAR data missing
18.05.2019 06:40	10 min	Gill data missing
18.05.2019 13:00	4 hours 00 min	all LiDAR data missing
19.05.2019 00:10	50 min	250m
19.05.2019 01:00	20 min	all LiDAR data missing
19.05.2019 01:20	10 min	250m
19.05.2019 03:10	10 min	250m
19.05.2019 04:00	10 min	160-250m
19.05.2019 04:10	20 min	120-250m
19.05.2019 04:30	10 min	100-250m
19.05.2019 04:40	10 min	120-250m
19.05.2019 04:50	10 min	180-250m
19.05.2019 05:00	10 min	160-250m
19.05.2019 05:10	10 min	120m 200-250m
19.05.2019 05:20	10 min	250m
19.05.2019 05:40	20 min	200-250m
19.05.2019 06:20	10 min	160m 200-250m
19.05.2019 06:30	10 min	120m 250m
19.05.2019 06:40	10 min	250m
19.05.2019 06:50	10 min	120m 250m
19.05.2019 07:00	10 min	250m
19.05.2019 07:10	10 min	180m 200m
19.05.2019 07:40	10 min	40m 120m
19.05.2019 08:00	10 min	200m
19.05.2019 08:10	10 min	120m 250m
19.05.2019 08:20	10 min	250m
19.05.2019 09:20	20 min	160m 250m
19.05.2019 09:40	10 min	160-250m
19.05.2019 09:50	10 min	180-250m
19.05.2019 10:00	10 min	120-250m
19.05.2019 10:10	10 min	180m
19.05.2019 10:30	10 min	160m 180m 200m
19.05.2019 10:40	10 min	180m
19.05.2019 11:10	10 min	160m 200m
19.05.2019 11:20	10 min	40m 200-250m
19.05.2019 11:30	10 min	100-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
19.05.2019 11:40	10 min	160-250m
19.05.2019 11:50	10 min	140m 200-250m
19.05.2019 12:00	10 min	200-250m
19.05.2019 12:10	10 min	180-250m
19.05.2019 12:20	20 min	140-250m
19.05.2019 12:40	20 min	60m 140-250m
19.05.2019 13:00	10 min	all LiDAR data missing
19.05.2019 13:10	10 min	40-250m
19.05.2019 13:20	10 min	60-250m
19.05.2019 13:30	20 min	120-250m
19.05.2019 13:50	10 min	80-250m
19.05.2019 14:00	10 min	60-250m
19.05.2019 14:10	10 min	80-250m
19.05.2019 14:20	10 min	40m 80-250m
19.05.2019 14:30	20 min	80m 120-250m
19.05.2019 14:50	10 min	120-250m
19.05.2019 15:00	20 min	80-250m
19.05.2019 15:20	10 min	80m 120-250m
19.05.2019 15:30	10 min	40m 80-250m
19.05.2019 15:40	10 min	80-250m
19.05.2019 15:50	10 min	40m 80-250m
19.05.2019 16:00	10 min	80-250m
19.05.2019 16:10	10 min	40-250m
19.05.2019 16:20	10 min	40m 80-250m
19.05.2019 16:30	10 min	40-250m
19.05.2019 16:40	10 min	40m 80m 100m 120m 140m 160m 180m 200m
19.05.2019 16:50	10 min	40m 80m 100m 120m 140m
19.05.2019 17:00	10 min	40m 80m 100m
19.05.2019 17:10	10 min	40m 60m 80m 100m 120m
19.05.2019 17:20	10 min	80m 100m 120m
19.05.2019 17:30	30 min	80m 100m
19.05.2019 18:00	10 min	40m 60m 80m
19.05.2019 18:10	10 min	40m 80m
19.05.2019 18:20	30 min	40m
19.05.2019 18:50	10 min	40m 60m 80m
19.05.2019 19:00	20 min	40m 80m
19.05.2019 19:20	20 min	40m 60m 80m
19.05.2019 19:40	10 min	40m 60m 80m 100m 120m 180m 200m
19.05.2019 19:50	10 min	40m 60m 80m 100m 120m 140m
19.05.2019 20:00	10 min	60m 80m 100m 120m 140m
19.05.2019 20:10	20 min	40m 80m 100m 120m 140m 160m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
19.05.2019 20:30	10 min	60-250m
19.05.2019 20:40	10 min	40m 80m 100m 120m 140m 160m 180m
19.05.2019 20:50	10 min	60-250m
19.05.2019 21:00	20 min	80-250m
19.05.2019 21:20	10 min	40m 80-250m
19.05.2019 21:30	10 min	40-250m
19.05.2019 21:40	20 min	80m 100m 120m 140m 160m 180m
19.05.2019 22:00	10 min	80m 100m 120m 140m
19.05.2019 22:10	10 min	40m 60m 80m 100m 120m 140m
19.05.2019 22:20	10 min	40m 80m 100m 120m 140m 160m 180m 200m
19.05.2019 22:30	10 min	40m 60m 80m 100m 120m 140m 160m
19.05.2019 22:40	10 min	40m 80-250m
19.05.2019 22:50	10 min	40m
19.05.2019 23:00	10 min	40-250m
19.05.2019 23:10	30 min	80m 100m 120m 140m 160m
19.05.2019 23:40	20 min	40m 60m 80m 100m 120m 140m 160m
20.05.2019 00:00	10 min	40m 80m 100m 120m 140m 160m
20.05.2019 00:10	10 min	80m 100m 120m 140m 160m
20.05.2019 00:20	20 min	80m 100m 120m 140m
20.05.2019 00:40	10 min	40m
20.05.2019 00:50	10 min	40m 80m 100m 120m
20.05.2019 01:00	10 min	40m 60m 80m 100m 120m 140m
20.05.2019 01:10	63 hours 20 min	all LiDAR data missing
22.05.2019 16:30	10 min	140m
22.05.2019 16:40	20 min	140m 160m
22.05.2019 17:00	10 min	180-250m
22.05.2019 17:10	10 min	200-250m
22.05.2019 17:20	10 min	250m
22.05.2019 18:30	10 min	Gill data missing
22.05.2019 19:30	7 hours 10 min	all LiDAR data missing
23.05.2019 02:50	10 min	Gill data missing
23.05.2019 04:20	10 min	140m
23.05.2019 05:10	10 min	Gill data missing
23.05.2019 10:00	1 hours 00 min	all LiDAR data missing
23.05.2019 22:10	50 min	all LiDAR data missing
24.05.2019 05:10	10 min	Gill data missing
24.05.2019 10:10	10 min	all LiDAR data missing
24.05.2019 22:10	20 min	all LiDAR data missing
25.05.2019 04:30	10 min	250m
25.05.2019 04:40	10 min	200-250m
25.05.2019 05:20	10 min	200-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
25.05.2019 06:10	20 min	250m
25.05.2019 06:30	30 min	200-250m
25.05.2019 07:00	10 min	30m 40m 60m 120m
25.05.2019 07:10	10 min	30m
25.05.2019 10:10	10 min	140m 200m
25.05.2019 10:20	10 min	all LiDAR data missing
25.05.2019 10:40	10 min	250m
25.05.2019 10:50	10 min	all LiDAR data missing
25.05.2019 22:50	10 min	120m 140m 160m
26.05.2019 06:00	10 min	160-250m
26.05.2019 11:00	20 min	all LiDAR data missing
26.05.2019 11:20	10 min	250m
26.05.2019 17:20	10 min	Gill data missing
26.05.2019 17:40	10 min	140-250m
26.05.2019 17:50	20 min	160m 180m 200m
26.05.2019 18:10	10 min	200-250m
26.05.2019 18:20	10 min	120m 140m 180-250m
26.05.2019 18:30	30 min	160-250m
26.05.2019 19:10	10 min	160-250m
26.05.2019 23:00	10 min	40-250m
27.05.2019 10:30	10 min	Gill data missing
27.05.2019 11:10	20 min	all LiDAR data missing
27.05.2019 16:30	10 min	Gill data missing
27.05.2019 23:10	10 min	all LiDAR data missing
28.05.2019 05:30	10 min	180-250m
28.05.2019 06:10	10 min	200-250m
28.05.2019 07:40	10 min	Gill data missing
28.05.2019 11:30	10 min	Gill data missing
28.05.2019 18:40	10 min	Gill data missing
28.05.2019 23:20	20 min	all LiDAR data missing
29.05.2019 08:10	10 min	Gill data missing
29.05.2019 11:20	10 min	30m 40m 60m 80m 100m 120m 140m 160m 250m
29.05.2019 11:30	30 min	all LiDAR data missing
29.05.2019 21:30	10 min	Gill data missing
29.05.2019 23:30	10 min	all LiDAR data missing
29.05.2019 23:40	10 min	Gill data missing
30.05.2019 00:20	40 min	250m
30.05.2019 01:00	10 min	200-250m
30.05.2019 01:10	10 min	140-250m
30.05.2019 01:20	20 min	120-250m
30.05.2019 01:40	10 min	40-250m



**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
30.05.2019 01:50	10 min	120m 140m
30.05.2019 02:00	10 min	140m 160m 180m
30.05.2019 02:10	10 min	140m 160m 180m 200m
30.05.2019 02:20	10 min	120m 140m 160m 180m 200m
30.05.2019 02:30	40 min	120-250m
30.05.2019 03:10	10 min	140-250m
30.05.2019 03:20	10 min	200-250m
30.05.2019 03:40	10 min	200-250m
30.05.2019 03:50	10 min	250m
30.05.2019 04:00	10 min	140m 200-250m
30.05.2019 04:10	10 min	140-250m
30.05.2019 04:20	10 min	120-250m
30.05.2019 04:30	10 min	180-250m
30.05.2019 04:40	10 min	120-250m
30.05.2019 05:40	10 min	180-250m
30.05.2019 06:00	10 min	200-250m
30.05.2019 06:10	20 min	140-250m
30.05.2019 11:30	20 min	all LiDAR data missing
30.05.2019 13:20	10 min	120-250m
30.05.2019 13:30	10 min	140-250m
30.05.2019 13:40	30 min	120-250m
30.05.2019 15:00	10 min	Gill data missing
30.05.2019 15:40	1 hours 00 min	250m
30.05.2019 17:00	40 min	250m
30.05.2019 17:40	20 min	200-250m
30.05.2019 18:00	10 min	250m
30.05.2019 20:50	30 min	250m
30.05.2019 21:30	10 min	200-250m
30.05.2019 21:40	10 min	250m
30.05.2019 23:20	10 min	200-250m
30.05.2019 23:30	10 min	160-250m
30.05.2019 23:40	30 min	all LiDAR data missing
31.05.2019 00:10	20 min	200-250m
31.05.2019 00:30	10 min	160m 180m 200m
31.05.2019 00:40	10 min	140-250m
31.05.2019 00:50	10 min	140m 160m 180m 200m
31.05.2019 01:00	10 min	160m
31.05.2019 01:10	30 min	140m 160m 180m 250m
31.05.2019 01:40	10 min	200-250m
31.05.2019 01:50	10 min	250m
31.05.2019 02:00	10 min	180-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
31.05.2019 11:40	10 min	all LiDAR data missing
31.05.2019 18:10	10 min	Gill data missing
31.05.2019 23:40	10 min	40m 60m 100m 140m
01.06.2019 11:50	10 min	all LiDAR data missing
01.06.2019 17:40	10 min	250m
01.06.2019 18:00	10 min	250m
01.06.2019 18:20	20 min	200m
01.06.2019 18:40	10 min	180m 200m
01.06.2019 23:50	40 min	all LiDAR data missing
02.06.2019 02:20	10 min	80m
02.06.2019 02:30	20 min	60m 80m
02.06.2019 02:50	50 min	60m
02.06.2019 04:00	40 min	60m
02.06.2019 11:40	10 min	80m
02.06.2019 11:50	10 min	60m 80m
02.06.2019 12:00	10 min	80m
02.06.2019 12:20	10 min	60m 80m 120m 140m
02.06.2019 12:30	10 min	60m 80m
02.06.2019 12:40	10 min	100m 120m 140m
02.06.2019 12:50	10 min	120m 160m
02.06.2019 13:00	10 min	60m 80m 100m
02.06.2019 13:30	10 min	100m 140m 200-250m
02.06.2019 13:40	10 min	60m 100m 120m 140m 160m
02.06.2019 13:50	10 min	60m 80m 100m 120m
02.06.2019 14:00	10 min	60m 80m 100m 140m 180m
02.06.2019 14:10	10 min	100m 160m
02.06.2019 14:20	10 min	180m
02.06.2019 15:40	10 min	140-250m
02.06.2019 15:50	10 min	250m
02.06.2019 17:50	10 min	100m 160m 200m
02.06.2019 18:10	10 min	120m 140m
02.06.2019 18:20	10 min	120m
02.06.2019 18:30	10 min	120m 140m
03.06.2019 00:00	20 min	all LiDAR data missing
03.06.2019 04:00	10 min	160-250m
03.06.2019 12:10	10 min	all LiDAR data missing
03.06.2019 14:00	10 min	Gill data missing
03.06.2019 17:20	10 min	Gill data missing
03.06.2019 18:20	10 min	Gill data missing
04.06.2019 00:10	10 min	30m 40m 60m 80m 100m 120m 140m 200m
04.06.2019 00:20	30 min	all LiDAR data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
04.06.2019 02:30	10 min	Gill data missing
04.06.2019 03:20	10 min	Gill data missing
04.06.2019 10:20	30 min	250m
04.06.2019 10:50	20 min	160m 180m 200m
04.06.2019 11:10	10 min	140-250m
04.06.2019 11:20	10 min	200-250m
04.06.2019 11:40	10 min	250m
04.06.2019 12:20	2 hours 40 min	all LiDAR data missing
04.06.2019 16:30	10 min	Gill data missing
04.06.2019 18:50	10 min	Gill data missing
04.06.2019 20:40	10 min	160m 200-250m
05.06.2019 00:20	5 hours 10 min	all LiDAR data missing
05.06.2019 05:40	10 min	120-250m
05.06.2019 05:50	10 min	140m 160m 200-250m
05.06.2019 11:40	10 min	Gill data missing
05.06.2019 12:30	1 hours 30 min	all LiDAR data missing
05.06.2019 15:20	20 min	250m
05.06.2019 23:40	20 min	200m
06.06.2019 00:30	16 hours 40 min	all LiDAR data missing
07.06.2019 00:40	20 min	all LiDAR data missing
07.06.2019 12:00	10 min	Gill data missing
07.06.2019 12:40	10 min	30m 40m 60m 80m 100m 140m 160m 180m 200m
07.06.2019 16:00	10 min	140m 160m 180m 200m
07.06.2019 16:10	10 min	120m 140m 160m
07.06.2019 16:20	10 min	160m 180m
07.06.2019 16:50	10 min	250m
07.06.2019 23:10	10 min	250m
08.06.2019 00:50	1 hours 40 min	all LiDAR data missing
08.06.2019 08:40	10 min	Gill data missing
08.06.2019 12:50	4 hours 20 min	all LiDAR data missing
08.06.2019 23:50	10 min	Gill data missing
09.06.2019 01:00	6 hours 20 min	all LiDAR data missing
09.06.2019 13:00	6 hours 20 min	all LiDAR data missing
09.06.2019 22:10	10 min	Gill data missing
10.06.2019 01:00	10 min	80m
10.06.2019 13:10	10 min	all LiDAR data missing
10.06.2019 16:10	10 min	40m 80m
10.06.2019 17:30	10 min	250m
10.06.2019 17:40	10 min	40m 250m
10.06.2019 17:50	10 min	250m
10.06.2019 18:10	10 min	250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
10.06.2019 18:50	10 min	160-250m
10.06.2019 19:00	10 min	200-250m
10.06.2019 19:10	20 min	140m 160m 180m
10.06.2019 19:30	10 min	160m 180m
10.06.2019 19:40	10 min	140m
10.06.2019 19:50	10 min	120m 140m
10.06.2019 20:00	40 min	250m
10.06.2019 23:10	10 min	250m
10.06.2019 23:20	10 min	120-250m
10.06.2019 23:30	10 min	200m
10.06.2019 23:40	20 min	120-250m
11.06.2019 00:00	10 min	80-250m
11.06.2019 00:10	20 min	250m
11.06.2019 00:30	10 min	120-250m
11.06.2019 01:00	10 min	120m 140m 160m
11.06.2019 01:10	20 min	all LiDAR data missing
11.06.2019 02:00	20 min	250m
11.06.2019 03:40	10 min	250m
11.06.2019 05:10	10 min	40m 60m 180m
11.06.2019 05:20	10 min	40m 80-250m
11.06.2019 13:10	10 min	40m 60m 80m 160-250m
11.06.2019 15:10	10 min	Gill data missing
12.06.2019 01:20	10 min	all LiDAR data missing
12.06.2019 01:30	20 min	100m 140m 200-250m
12.06.2019 01:50	10 min	100-250m
12.06.2019 02:00	20 min	180m
12.06.2019 09:20	10 min	160-250m
12.06.2019 09:30	10 min	160m 180m 250m
12.06.2019 09:40	10 min	40m 140-250m
12.06.2019 09:50	20 min	all LiDAR data missing
12.06.2019 10:10	10 min	60m 80m 100m 120m 140m 180m 200m
12.06.2019 10:20	10 min	all LiDAR data missing
12.06.2019 10:30	10 min	180-250m
12.06.2019 10:40	10 min	140-250m
12.06.2019 10:50	10 min	120-250m
12.06.2019 11:00	10 min	250m
12.06.2019 12:20	20 min	180-250m
12.06.2019 12:40	10 min	250m
12.06.2019 13:20	10 min	160-250m
12.06.2019 17:50	10 min	120m 180m 200m
12.06.2019 18:00	20 min	120m 140m 160m 180m 200m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
12.06.2019 18:20	10 min	160-250m
12.06.2019 18:30	10 min	160m 180m 250m
12.06.2019 18:40	10 min	160m 200m
12.06.2019 18:50	10 min	140m
12.06.2019 19:10	10 min	80m 100m
12.06.2019 19:20	10 min	120m
12.06.2019 19:30	10 min	140-250m
12.06.2019 19:40	10 min	100-250m
12.06.2019 20:00	10 min	120m
13.06.2019 01:30	10 min	all LiDAR data missing
13.06.2019 03:30	10 min	40m 200m
13.06.2019 05:00	20 min	250m
13.06.2019 07:30	20 min	250m
13.06.2019 13:30	10 min	80m
13.06.2019 13:40	10 min	all LiDAR data missing
14.06.2019 01:40	10 min	all LiDAR data missing
14.06.2019 03:50	10 min	Gill data missing
14.06.2019 11:30	10 min	250m
14.06.2019 13:40	10 min	all LiDAR data missing
15.06.2019 01:50	10 min	all LiDAR data missing
15.06.2019 03:10	10 min	180-250m
15.06.2019 03:20	10 min	100-250m
15.06.2019 03:30	10 min	60m 100-250m
15.06.2019 03:40	10 min	80m 100m 120m 140m 160m 180m 200m
15.06.2019 03:50	10 min	80-250m
15.06.2019 04:00	10 min	100m 140m 160m 200m
15.06.2019 04:10	10 min	60m 80m 100m 120m 140m 160m 180m
15.06.2019 04:20	10 min	all LiDAR data missing
15.06.2019 04:30	10 min	80-250m
15.06.2019 04:40	10 min	100m 140m 160m 180m
15.06.2019 04:50	40 min	100m 120m
15.06.2019 06:00	10 min	180-250m
15.06.2019 06:10	20 min	120-250m
15.06.2019 12:30	10 min	Gill data missing
15.06.2019 13:50	4 hours 10 min	all LiDAR data missing
16.06.2019 03:40	10 min	Gill data missing
16.06.2019 05:50	10 min	Gill data missing
16.06.2019 07:10	10 min	250m
16.06.2019 17:30	10 min	all LiDAR data missing
17.06.2019 05:30	10 min	200-250m
17.06.2019 10:10	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
17.06.2019 17:40	10 min	all LiDAR data missing
18.06.2019 05:40	20 min	all LiDAR data missing
18.06.2019 10:30	20 min	250m
18.06.2019 17:40	10 min	140m
18.06.2019 17:50	10 min	all LiDAR data missing
18.06.2019 19:00	10 min	all LiDAR data missing
19.06.2019 00:40	10 min	Gill data missing
19.06.2019 06:20	10 min	100m 120m 140m 160m 180m
19.06.2019 06:30	10 min	100m
19.06.2019 06:40	10 min	120-250m
19.06.2019 06:50	10 min	250m
19.06.2019 07:00	10 min	80m 100m 120m 140m 160m
19.06.2019 07:10	20 min	100m 120m 140m
19.06.2019 07:30	10 min	80m
19.06.2019 07:40	20 min	60m 80m
19.06.2019 08:00	10 min	120m 140m 160m
19.06.2019 08:20	10 min	100m
19.06.2019 08:30	10 min	100m 120m
19.06.2019 08:40	10 min	80-250m
19.06.2019 08:50	10 min	100-250m
19.06.2019 09:00	10 min	Gill data missing
19.06.2019 09:20	10 min	140m 160m
19.06.2019 11:00	10 min	160m 180m 200m
19.06.2019 11:10	10 min	200-250m
19.06.2019 11:30	20 min	250m
19.06.2019 11:50	50 min	160m 180m
19.06.2019 12:40	10 min	120m 140m 160m 180m
19.06.2019 13:20	30 min	250m
19.06.2019 19:10	10 min	all LiDAR data missing
20.06.2019 01:50	10 min	160-250m
20.06.2019 02:00	10 min	140-250m
20.06.2019 04:20	10 min	140-250m
20.06.2019 04:30	10 min	140m 250m
20.06.2019 04:40	10 min	180m
20.06.2019 05:00	20 min	180m 250m
20.06.2019 05:50	10 min	180m
20.06.2019 06:10	20 min	250m
20.06.2019 07:10	10 min	60m 100-250m
20.06.2019 07:20	3 hours 10 min	all LiDAR data missing
20.06.2019 15:00	10 min	Gill data missing
20.06.2019 16:40	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
20.06.2019 19:20	20 min	all LiDAR data missing
21.06.2019 07:20	20 min	all LiDAR data missing
21.06.2019 10:00	10 min	Gill data missing
22.06.2019 04:40	10 min	Gill data missing
22.06.2019 07:20	10 min	Gill data missing
22.06.2019 07:30	10 min	all LiDAR data missing
22.06.2019 09:50	9 hours 20 min	all LiDAR data missing
23.06.2019 04:50	10 min	Gill data missing
23.06.2019 07:00	10 min	all LiDAR data missing
23.06.2019 18:00	10 min	Gill data missing
23.06.2019 19:10	10 min	all LiDAR data missing
23.06.2019 21:50	10 min	80m
24.06.2019 03:00	10 min	Gill data missing
24.06.2019 07:10	10 min	all LiDAR data missing
24.06.2019 08:30	10 min	Gill data missing
24.06.2019 10:50	10 min	60m
24.06.2019 11:00	20 min	all LiDAR data missing
24.06.2019 23:10	10 min	all LiDAR data missing
25.06.2019 01:20	10 min	250m
25.06.2019 03:10	10 min	200m
25.06.2019 03:20	10 min	60m 140m 160m
25.06.2019 03:30	10 min	40m 60m
25.06.2019 03:50	10 min	40m 100m
25.06.2019 04:10	10 min	60m
25.06.2019 04:40	10 min	80m
25.06.2019 06:40	10 min	Gill data missing
25.06.2019 11:10	1 hours 40 min	all LiDAR data missing
25.06.2019 13:50	10 min	140m
25.06.2019 20:00	10 min	180m 200m
25.06.2019 20:40	10 min	180m
25.06.2019 23:00	10 min	250m
25.06.2019 23:10	12 hours 10 min	all LiDAR data missing
26.06.2019 11:20	10 min	40m 60m
26.06.2019 11:30	10 min	40m
26.06.2019 11:50	10 min	180m
26.06.2019 12:10	10 min	40m 140m 160m 250m
26.06.2019 12:20	10 min	40m 60m 80m 100m 140m 160m 200-250m
26.06.2019 12:40	10 min	60m
26.06.2019 13:00	10 min	40m
26.06.2019 13:10	10 min	40m 180-250m
26.06.2019 13:40	10 min	40m 180m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
26.06.2019 14:10	10 min	40m 200-250m
26.06.2019 14:20	10 min	40m 80m 100m 160-250m
26.06.2019 14:30	10 min	40m
26.06.2019 14:40	10 min	40m 100m
26.06.2019 14:50	20 min	40m
26.06.2019 15:10	10 min	40m 60m
26.06.2019 15:20	10 min	40m 100m 200m
26.06.2019 15:30	10 min	40m 80m
26.06.2019 15:40	20 min	60m
26.06.2019 16:10	30 min	40m
26.06.2019 16:50	10 min	40m 120m
26.06.2019 17:00	10 min	40m
26.06.2019 17:10	10 min	40m 80m 140m 200-250m
26.06.2019 17:20	10 min	40m 100m 140m 200m
26.06.2019 17:30	10 min	40m 60m
26.06.2019 17:40	20 min	40m
26.06.2019 18:10	10 min	40m 160m
26.06.2019 18:20	10 min	60m
26.06.2019 19:20	10 min	180m
26.06.2019 23:20	1 hours 10 min	all LiDAR data missing
27.06.2019 00:30	10 min	40m 80-250m
27.06.2019 00:40	10 min	80-250m
27.06.2019 00:50	10 min	40m 80-250m
27.06.2019 01:00	10 min	80m
27.06.2019 01:10	10 min	40m 80-250m
27.06.2019 01:20	10 min	40m 80m 250m
27.06.2019 01:30	10 min	120m 250m
27.06.2019 02:00	10 min	80m 250m
27.06.2019 02:20	10 min	40m 100m
27.06.2019 04:00	20 min	250m
27.06.2019 05:10	10 min	100m
27.06.2019 05:20	10 min	140m 200-250m
27.06.2019 05:40	10 min	80m 100m 120m 140m 160m 200-250m
27.06.2019 06:50	10 min	80m 100m 140m 180-250m
27.06.2019 07:00	10 min	80-250m
27.06.2019 07:10	10 min	80m 120m 200-250m
27.06.2019 07:20	10 min	40-250m
27.06.2019 07:30	10 min	80-250m
27.06.2019 07:40	10 min	80m 180-250m
27.06.2019 07:50	10 min	40-250m
27.06.2019 08:00	10 min	200-250m



**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
27.06.2019 08:10	10 min	80m 100m 180-250m
27.06.2019 08:20	10 min	80-250m
27.06.2019 08:30	10 min	40m 80-250m
27.06.2019 08:40	10 min	80-250m
27.06.2019 09:00	10 min	80m 120-250m
27.06.2019 09:10	10 min	80-250m
27.06.2019 09:20	10 min	80m 100m 120m 140m 180-250m
27.06.2019 09:30	10 min	40m 80-250m
27.06.2019 09:40	10 min	80m 120m 140m 160m 200-250m
27.06.2019 10:00	10 min	140m 200-250m
27.06.2019 10:10	20 min	80-250m
27.06.2019 10:30	10 min	80m 100m 160m 200-250m
27.06.2019 10:40	10 min	80m 120m 160-250m
27.06.2019 11:00	10 min	180m
27.06.2019 11:20	10 min	80m 160m 200-250m
27.06.2019 11:30	10 min	80m 100m 140-250m
27.06.2019 11:40	10 min	40m 80-250m
27.06.2019 11:50	20 min	80-250m
27.06.2019 12:10	40 min	40m 80-250m
27.06.2019 12:50	10 min	80-250m
27.06.2019 13:00	10 min	40m 80-250m
27.06.2019 13:10	10 min	80-250m
27.06.2019 13:20	10 min	40m 80-250m
27.06.2019 13:30	10 min	80-250m
27.06.2019 13:40	10 min	60-250m
27.06.2019 13:50	10 min	80-250m
27.06.2019 14:00	10 min	40m 80-250m
27.06.2019 14:10	10 min	100-250m
27.06.2019 14:20	10 min	40-250m
27.06.2019 14:30	10 min	80-250m
27.06.2019 14:40	10 min	40m 80-250m
27.06.2019 14:50	10 min	80-250m
27.06.2019 15:00	20 min	40m 80-250m
27.06.2019 15:20	10 min	40m
27.06.2019 15:50	10 min	40-250m
27.06.2019 16:10	10 min	40-250m
27.06.2019 16:20	10 min	80-250m
27.06.2019 16:30	10 min	80m 100m 140m 160m 180m 200m
27.06.2019 16:40	10 min	60-250m
27.06.2019 16:50	10 min	80-250m
27.06.2019 17:10	10 min	80m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
27.06.2019 18:00	10 min	80m 140m 180-250m
27.06.2019 18:10	20 min	80-250m
27.06.2019 19:10	10 min	80m 160-250m
27.06.2019 19:40	20 min	40m 80-250m
27.06.2019 20:10	20 min	40m 80-250m
27.06.2019 20:30	10 min	100m 160m 180m 200m
27.06.2019 20:50	10 min	80-250m
27.06.2019 21:00	10 min	80m 140m 180-250m
27.06.2019 21:10	20 min	40m 80-250m
27.06.2019 21:30	10 min	100m 180m 250m
27.06.2019 21:40	40 min	200m
27.06.2019 22:30	10 min	80m 200-250m
27.06.2019 22:40	10 min	80m 120m 160m 200-250m
27.06.2019 22:50	10 min	80m 200-250m
27.06.2019 23:00	10 min	80-250m
27.06.2019 23:10	10 min	100m
27.06.2019 23:20	10 min	80m 250m
27.06.2019 23:30	10 min	all LiDAR data missing
27.06.2019 23:50	20 min	200-250m
28.06.2019 00:20	20 min	250m
28.06.2019 00:40	40 min	80-250m
28.06.2019 01:20	10 min	80m 180m 250m
28.06.2019 01:30	10 min	40m 80-250m
28.06.2019 01:40	10 min	80-250m
28.06.2019 01:50	20 min	80m 100m 140-250m
28.06.2019 02:10	10 min	40m 80-250m
28.06.2019 02:20	30 min	80-250m
28.06.2019 02:50	10 min	80m 120m 160m 250m
28.06.2019 03:00	10 min	80-250m
28.06.2019 03:10	10 min	80m 120m 140m 160m 200-250m
28.06.2019 03:20	10 min	80m 100m 120m 140m 180-250m
28.06.2019 03:30	20 min	80-250m
28.06.2019 03:50	10 min	40m 80-250m
28.06.2019 04:00	10 min	80-250m
28.06.2019 04:10	10 min	40m 80-250m
28.06.2019 04:20	1 hours 10 min	80-250m
28.06.2019 05:30	10 min	80m 100m 140m 160m 180m 250m
28.06.2019 05:40	20 min	40m 80-250m
28.06.2019 06:10	40 min	80-250m
28.06.2019 07:00	10 min	80-250m
28.06.2019 07:20	10 min	80-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
28.06.2019 07:30	10 min	40m 80-250m
28.06.2019 07:40	10 min	40m 80m 100m 120m 140m 160m 180m 200m
28.06.2019 07:50	10 min	40m 80-250m
28.06.2019 08:00	20 min	80-250m
28.06.2019 08:20	10 min	80m 250m
28.06.2019 08:30	10 min	80m 120m 140m 160m 200-250m
28.06.2019 08:40	10 min	120m 180m 200m
28.06.2019 08:50	40 min	80-250m
28.06.2019 09:30	10 min	200m
28.06.2019 10:00	10 min	80m 120m 200-250m
28.06.2019 10:10	10 min	80m 250m
28.06.2019 10:20	20 min	80m 140m 200-250m
28.06.2019 10:40	10 min	80-250m
28.06.2019 10:50	10 min	100m 180-250m
28.06.2019 11:00	10 min	80m 100m 200m
28.06.2019 11:10	20 min	100m 120m 160-250m
28.06.2019 11:30	10 min	40m 80-250m
28.06.2019 20:00	10 min	Gill data missing
28.06.2019 23:40	20 min	all LiDAR data missing
29.06.2019 11:00	10 min	Gill data missing
29.06.2019 11:40	10 min	all LiDAR data missing
29.06.2019 13:00	10 min	Gill data missing
29.06.2019 19:40	10 min	Gill data missing
29.06.2019 22:20	10 min	80m
29.06.2019 22:30	10 min	100m 160m
29.06.2019 22:40	10 min	60m
29.06.2019 22:50	10 min	80m 140m
29.06.2019 23:00	10 min	60m 80m 100m 180m
29.06.2019 23:10	20 min	60m 200m
29.06.2019 23:30	10 min	60m 80m 100m 120m 140m 180m 200m
29.06.2019 23:40	10 min	40-250m
29.06.2019 23:50	10 min	all LiDAR data missing
30.06.2019 00:00	10 min	80m 100m 120m
30.06.2019 00:10	10 min	40m 60m 80m 100m 120m 160m 180m
30.06.2019 00:20	10 min	40m 100m 120m 140m 160m 180m
30.06.2019 00:30	10 min	80m 120m 140m
30.06.2019 00:40	10 min	40m 60m 80m 100m 120m 140m
30.06.2019 00:50	10 min	60m 80m 120m
30.06.2019 01:00	10 min	60m 80m 100m 120m
30.06.2019 01:10	10 min	40m 60m 80m
30.06.2019 01:20	20 min	40m 60m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
30.06.2019 01:40	10 min	60m
30.06.2019 08:40	10 min	Gill data missing
30.06.2019 11:50	20 min	all LiDAR data missing
30.06.2019 19:20	10 min	Gill data missing
30.06.2019 21:40	40 min	250m
30.06.2019 22:20	20 min	200-250m
01.07.2019 00:00	20 min	all LiDAR data missing
01.07.2019 12:00	20 min	all LiDAR data missing
01.07.2019 13:30	10 min	Gill data missing
01.07.2019 14:50	10 min	Gill data missing
01.07.2019 17:30	10 min	Gill data missing
01.07.2019 19:10	10 min	Gill data missing
02.07.2019 00:00	20 min	all LiDAR data missing
02.07.2019 01:40	10 min	Gill data missing
02.07.2019 14:10	10 min	Gill data missing
02.07.2019 22:40	10 min	Gill data missing
03.07.2019 00:10	10 min	all LiDAR data missing
03.07.2019 15:10	10 min	Gill data missing
03.07.2019 22:00	10 min	Gill data missing
04.07.2019 00:20	10 min	all LiDAR data missing
04.07.2019 12:20	10 min	140m
04.07.2019 12:30	10 min	all LiDAR data missing
04.07.2019 16:00	10 min	Gill data missing
04.07.2019 17:10	10 min	Gill data missing
04.07.2019 17:30	10 min	250m
04.07.2019 17:50	20 min	250m
04.07.2019 18:10	30 min	160m 180m 200m
04.07.2019 18:40	10 min	100m 120m 140m 160m
04.07.2019 18:50	20 min	120m 140m 160m
04.07.2019 19:10	20 min	100m 120m
04.07.2019 19:30	10 min	120m
04.07.2019 20:20	10 min	Gill data missing
05.07.2019 00:30	10 min	all LiDAR data missing
05.07.2019 12:30	10 min	all LiDAR data missing
06.07.2019 00:40	10 min	all LiDAR data missing
06.07.2019 10:10	10 min	200-250m
06.07.2019 10:20	10 min	250m
06.07.2019 10:40	10 min	250m
06.07.2019 11:50	10 min	250m
06.07.2019 12:10	10 min	180-250m
06.07.2019 12:20	10 min	200-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
06.07.2019 12:40	10 min	all LiDAR data missing
07.07.2019 12:50	10 min	all LiDAR data missing
08.07.2019 00:50	3 hours 20 min	all LiDAR data missing
08.07.2019 07:50	10 min	Gill data missing
09.07.2019 01:00	10 min	all LiDAR data missing
09.07.2019 09:30	7 hours 10 min	all LiDAR data missing
09.07.2019 17:00	10 min	250m
09.07.2019 17:10	10 min	180-250m
09.07.2019 17:20	10 min	200-250m
09.07.2019 17:30	10 min	160-250m
09.07.2019 17:40	10 min	250m
10.07.2019 04:20	1 hours 30 min	all LiDAR data missing
10.07.2019 10:50	10 min	250m
10.07.2019 12:50	10 min	140m 180-250m
10.07.2019 15:10	10 min	Gill data missing
10.07.2019 16:30	3 hours 40 min	all LiDAR data missing
11.07.2019 04:30	10 min	all LiDAR data missing
11.07.2019 05:10	10 min	250m
11.07.2019 06:00	10 min	80m 100m 120m 140m 160m 200m
11.07.2019 06:10	10 min	200-250m
11.07.2019 06:30	10 min	160m 200-250m
11.07.2019 06:40	20 min	100m 120m 140m 160m 180m 200m
11.07.2019 07:00	10 min	100m 120m
11.07.2019 07:10	10 min	120m
11.07.2019 07:20	20 min	100m 120m
11.07.2019 07:40	10 min	160m
11.07.2019 07:50	10 min	180-250m
11.07.2019 08:00	10 min	250m
11.07.2019 08:40	10 min	250m
11.07.2019 14:30	10 min	Gill data missing
12.07.2019 04:00	10 min	120m 140m
12.07.2019 04:40	8 hours 10 min	all LiDAR data missing
12.07.2019 14:00	10 min	40m
12.07.2019 14:20	10 min	250m
12.07.2019 16:40	10 min	40m 60m 80m 140m 160m
12.07.2019 18:20	10 min	40m
12.07.2019 19:10	10 min	40m
12.07.2019 19:40	10 min	40m 200m
12.07.2019 20:00	10 min	200m
12.07.2019 20:20	10 min	160m 200m
12.07.2019 23:50	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
13.07.2019 03:00	10 min	160m
13.07.2019 04:00	10 min	120m 140m 160m 180m 250m
13.07.2019 04:10	10 min	140m
13.07.2019 04:40	10 min	250m
13.07.2019 04:50	10 min	all LiDAR data missing
13.07.2019 05:10	10 min	160-250m
13.07.2019 05:20	10 min	180m 250m
13.07.2019 05:30	10 min	120-250m
13.07.2019 05:40	10 min	40m 80-250m
13.07.2019 06:00	10 min	40m 100m 140m 180m 200m
13.07.2019 06:10	20 min	40m 250m
13.07.2019 06:30	10 min	40m 100m 120m 160m 180m 250m
13.07.2019 06:50	10 min	40m 80-250m
13.07.2019 07:00	10 min	60m 100m 120m 160m 180m
13.07.2019 07:40	10 min	160m
13.07.2019 09:30	20 min	160m
13.07.2019 09:50	20 min	200-250m
13.07.2019 10:10	10 min	40m 140m 180-250m
13.07.2019 12:30	10 min	40-250m
13.07.2019 12:50	10 min	60m 200-250m
13.07.2019 15:30	10 min	250m
13.07.2019 15:50	10 min	40m
13.07.2019 16:20	10 min	40m 100m
13.07.2019 16:30	10 min	40m 80m 200m
13.07.2019 16:40	10 min	40m 120m
13.07.2019 16:50	10 min	all LiDAR data missing
13.07.2019 17:10	10 min	40m 200m
13.07.2019 17:20	10 min	40m 100m 250m
13.07.2019 17:50	10 min	40m 80-250m
13.07.2019 18:10	10 min	40m 60m 250m
13.07.2019 19:30	10 min	Gill data missing
13.07.2019 21:10	10 min	40m
13.07.2019 21:20	10 min	40m 60m 80m 100m
13.07.2019 21:30	10 min	40m 80m
13.07.2019 21:40	10 min	40m
13.07.2019 22:30	10 min	40m 60m 80m
13.07.2019 22:40	10 min	40m
13.07.2019 23:30	10 min	40m
14.07.2019 02:20	10 min	Gill data missing
14.07.2019 05:00	10 min	all LiDAR data missing
14.07.2019 16:50	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
14.07.2019 17:00	10 min	all LiDAR data missing
14.07.2019 18:50	10 min	250m
15.07.2019 01:00	10 min	40m
15.07.2019 01:30	20 min	250m
15.07.2019 05:40	10 min	40m
15.07.2019 11:20	10 min	Gill data missing
15.07.2019 11:30	10 min	250m
15.07.2019 15:20	10 min	180m 200m
15.07.2019 17:10	10 min	all LiDAR data missing
15.07.2019 18:00	10 min	250m
15.07.2019 18:10	10 min	80-250m
15.07.2019 19:20	20 min	80-250m
15.07.2019 19:40	10 min	200-250m
15.07.2019 20:20	10 min	80-250m
15.07.2019 20:40	10 min	80-250m
15.07.2019 21:30	10 min	100m 120m 140m 160m 180m
15.07.2019 21:50	10 min	140m 180m 200m
15.07.2019 22:20	10 min	200m
15.07.2019 22:50	10 min	80-250m
16.07.2019 01:00	20 min	80-250m
16.07.2019 01:20	10 min	200m
16.07.2019 01:30	10 min	80-250m
16.07.2019 01:40	10 min	200-250m
16.07.2019 01:50	10 min	80-250m
16.07.2019 02:40	20 min	80-250m
16.07.2019 03:20	30 min	80-250m
16.07.2019 03:50	10 min	120m 200m
16.07.2019 04:10	10 min	80-250m
16.07.2019 04:20	10 min	100m 200-250m
16.07.2019 04:30	10 min	80-250m
16.07.2019 05:10	10 min	all LiDAR data missing
16.07.2019 05:20	10 min	200m
16.07.2019 07:10	10 min	250m
16.07.2019 13:10	10 min	Gill data missing
16.07.2019 17:20	20 min	all LiDAR data missing
17.07.2019 04:10	10 min	Gill data missing
17.07.2019 05:20	13 hours 30 min	all LiDAR data missing
18.07.2019 04:20	20 min	all LiDAR data missing
18.07.2019 10:00	10 min	Gill data missing
18.07.2019 16:00	10 min	200-250m
18.07.2019 16:20	10 min	40m 80m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
18.07.2019 16:50	10 min	120m
18.07.2019 17:00	10 min	140m 180-250m
18.07.2019 17:20	10 min	160-250m
18.07.2019 17:30	10 min	100-250m
18.07.2019 18:50	20 min	250m
18.07.2019 19:20	10 min	100-250m
18.07.2019 19:30	10 min	140m 180-250m
18.07.2019 19:40	10 min	160m 200-250m
18.07.2019 19:50	10 min	160-250m
18.07.2019 20:00	10 min	180-250m
18.07.2019 20:10	10 min	140-250m
18.07.2019 20:20	20 min	160-250m
18.07.2019 20:40	10 min	30m 140-250m
18.07.2019 20:50	10 min	60m 160-250m
18.07.2019 21:00	10 min	100-250m
18.07.2019 21:10	20 min	120-250m
18.07.2019 21:40	10 min	160-250m
19.07.2019 02:40	10 hours 30 min	all LiDAR data missing
19.07.2019 15:20	10 min	Gill data missing
19.07.2019 15:50	10 min	Gill data missing
20.07.2019 00:50	10 min	all LiDAR data missing
20.07.2019 03:40	10 min	180-250m
20.07.2019 03:50	10 min	120-250m
20.07.2019 04:00	10 min	100-250m
20.07.2019 04:10	10 min	100m 180-250m
20.07.2019 04:20	10 min	120-250m
20.07.2019 04:30	10 min	120m
20.07.2019 04:40	10 min	80-250m
20.07.2019 05:00	10 min	100-250m
20.07.2019 05:10	30 min	100m 160m 200m
20.07.2019 05:40	10 min	80m 100m 120m 140m 160m 200-250m
20.07.2019 05:50	20 min	80m 100m 160m 180m 200m
20.07.2019 06:10	10 min	140m 160m 180m 200m
20.07.2019 06:40	10 min	180m 200m
20.07.2019 06:50	10 min	180-250m
20.07.2019 07:10	20 min	250m
20.07.2019 11:20	10 min	250m
20.07.2019 13:00	10 min	all LiDAR data missing
20.07.2019 17:00	30 min	250m
20.07.2019 17:30	10 min	200-250m
20.07.2019 19:30	9 hours 00 min	all LiDAR data missing



**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
21.07.2019 08:20	10 min	Gill data missing
21.07.2019 16:20	10 min	40m 80m 100m 120m 140m
21.07.2019 17:00	10 min	Gill data missing
21.07.2019 21:10	10 min	Gill data missing
22.07.2019 03:10	10 min	Gill data missing
22.07.2019 04:30	10 min	all LiDAR data missing
22.07.2019 12:00	10 min	Gill data missing
22.07.2019 13:30	10 min	Gill data missing
22.07.2019 16:30	10 min	all LiDAR data missing
23.07.2019 04:00	10 min	250m
23.07.2019 11:20	20 min	all LiDAR data missing
23.07.2019 14:10	7 hours 30 min	all LiDAR data missing
23.07.2019 22:50	20 min	Gill data missing
24.07.2019 08:40	10 min	all LiDAR data missing
24.07.2019 13:30	10 min	all LiDAR data missing
24.07.2019 21:40	10 min	Gill data missing
25.07.2019 08:40	40 min	250m
25.07.2019 09:20	10 min	180-250m
25.07.2019 09:30	20 min	200-250m
25.07.2019 09:50	10 min	250m
25.07.2019 10:10	10 min	250m
25.07.2019 10:40	10 min	60m
25.07.2019 12:50	10 min	Gill data missing
25.07.2019 13:40	10 min	all LiDAR data missing
25.07.2019 17:30	10 min	40m 60m
25.07.2019 17:40	10 min	40m
25.07.2019 17:50	10 min	40m 80m
25.07.2019 18:20	10 min	80m 100m
25.07.2019 18:30	10 min	80m
25.07.2019 23:20	20 min	250m
25.07.2019 23:40	10 min	180m 200m
25.07.2019 23:50	10 min	250m
26.07.2019 00:30	30 min	all LiDAR data missing
26.07.2019 01:00	1 hours 00 min	250m
26.07.2019 08:40	10 hours 30 min	all LiDAR data missing
27.07.2019 00:50	10 min	200-250m
27.07.2019 01:00	10 min	250m
27.07.2019 01:10	10 min	180-250m
27.07.2019 01:20	10 min	80m 100m 120m 140m 160m 180m 200m
27.07.2019 01:30	10 min	180-250m
27.07.2019 01:40	10 min	250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
27.07.2019 02:40	10 min	250m
27.07.2019 03:00	10 min	180-250m
27.07.2019 03:10	20 min	160-250m
27.07.2019 03:30	10 min	80m 100m 120m 140m 160m 180m 200m
27.07.2019 03:40	10 min	40m 80m 100m 120m 140m 160m 180m 200m
27.07.2019 03:50	10 min	180-250m
27.07.2019 04:00	20 min	80m 100m 120m 140m 160m 180m 200m
27.07.2019 04:20	10 min	80m 100m 120m 140m 160m 180m
27.07.2019 04:30	20 min	80m 100m 120m 140m 160m 180m 200m
27.07.2019 04:50	10 min	180-250m
27.07.2019 05:00	20 min	250m
27.07.2019 05:20	20 min	180m 200m
27.07.2019 06:50	10 min	all LiDAR data missing
27.07.2019 13:50	10 min	all LiDAR data missing
27.07.2019 14:50	10 min	250m
27.07.2019 15:00	10 min	60m 160-250m
27.07.2019 15:10	10 min	180-250m
27.07.2019 15:20	10 min	60m 80m 140-250m
27.07.2019 15:30	10 min	40m 60m 80m
27.07.2019 15:50	10 min	40m
27.07.2019 16:00	40 min	40m 60m
27.07.2019 16:40	20 min	40m 60m 80m
27.07.2019 17:00	20 min	40m 60m 80m 100m
27.07.2019 17:20	10 min	40m 60m 80m 100m 120m
27.07.2019 17:30	10 min	40m 60m 80m
27.07.2019 17:40	10 min	80m
27.07.2019 17:50	10 min	40m 60m
27.07.2019 18:00	20 min	40m
27.07.2019 18:20	10 min	40m 60m 80m 100m
27.07.2019 18:30	10 min	40m 80m 100m 120m 140m 160m 180m 200m
27.07.2019 18:40	10 min	40m 60m 80m 100m 120m
27.07.2019 18:50	10 min	40m
27.07.2019 19:00	20 min	40m 60m
27.07.2019 19:20	10 min	40m 60m 80m
27.07.2019 19:30	10 min	40m 60m 80m 100m 120m
27.07.2019 19:40	30 min	40m 60m 100m 120m 140m 160m 180m 200m
27.07.2019 20:10	10 min	40-250m
27.07.2019 20:20	10 min	40m 80-250m
27.07.2019 20:30	20 min	40m 60m 80m 100m 120m
27.07.2019 20:50	10 min	40m 60m 80m 100m
27.07.2019 21:00	20 min	40m 60m 80m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
27.07.2019 21:20	10 min	60m 80m
27.07.2019 21:30	20 min	40m
27.07.2019 21:50	20 min	60m 80m
27.07.2019 22:10	20 min	80m
27.07.2019 22:30	10 min	80m 100m
27.07.2019 22:40	10 min	80m
27.07.2019 23:00	2 hours 40 min	60m
28.07.2019 01:40	20 min	60m 80m
28.07.2019 02:00	5 hours 20 min	all LiDAR data missing
28.07.2019 07:20	10 min	40m
28.07.2019 07:30	20 min	80m 100m
28.07.2019 07:50	10 min	80m 100m 120m 140m
28.07.2019 08:00	20 min	100m 120m
28.07.2019 08:20	20 min	80m
28.07.2019 08:50	50 min	80m
28.07.2019 09:40	30 min	100m 120m
28.07.2019 10:10	10 min	100m
28.07.2019 10:20	10 min	100m 120m
28.07.2019 10:30	10 min	100m
28.07.2019 10:40	20 min	80m 100m 120m 140m 160m
28.07.2019 11:00	10 min	120m
28.07.2019 11:10	10 min	40m 80m 100m 120m 140m
28.07.2019 11:20	10 min	80-250m
28.07.2019 11:30	10 min	120-250m
28.07.2019 11:40	20 min	250m
28.07.2019 12:10	10 min	80m 100m 120m 140m 180-250m
28.07.2019 12:30	10 min	80-250m
28.07.2019 12:40	10 min	30m 160m 200-250m
28.07.2019 13:10	10 min	80-250m
28.07.2019 13:20	10 min	120m 140m 180-250m
28.07.2019 13:30	10 min	120-250m
28.07.2019 13:40	10 min	30m 80-250m
28.07.2019 13:50	10 min	160m 180m 200m
28.07.2019 14:00	1 hours 00 min	all LiDAR data missing
28.07.2019 15:10	1 hours 00 min	80-250m
28.07.2019 16:20	10 min	200m
28.07.2019 17:00	10 min	160m 200-250m
28.07.2019 17:10	3 hours 10 min	80-250m
28.07.2019 20:20	10 min	100m 120m 140m 160m 180m
28.07.2019 20:30	20 min	80-250m
28.07.2019 20:50	10 min	80m 120-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
29.07.2019 00:50	20 min	250m
29.07.2019 01:30	10 min	180-250m
29.07.2019 01:40	20 min	140m 160m 180m 200m
29.07.2019 02:00	10 min	140m 160m 180m
29.07.2019 02:10	1 hours 00 min	all LiDAR data missing
29.07.2019 03:10	10 min	140m
29.07.2019 03:20	40 min	140m 160m
29.07.2019 04:00	10 min	140m 160m 180m 200m
29.07.2019 04:10	10 min	180-250m
29.07.2019 13:50	8 hours 20 min	all LiDAR data missing
30.07.2019 07:40	10 min	all LiDAR data missing
30.07.2019 12:30	10 min	Gill data missing
31.07.2019 07:50	50 min	all LiDAR data missing
31.07.2019 19:50	10 min	100m 120m 140m 180m 200m
31.07.2019 20:00	40 min	all LiDAR data missing
01.08.2019 00:50	10 min	Gill data missing
01.08.2019 05:40	10 min	40m 60m
01.08.2019 06:10	10 min	40m 80m
01.08.2019 11:50	10 min	60m
01.08.2019 12:20	10 min	250m
01.08.2019 20:00	20 min	all LiDAR data missing
02.08.2019 00:00	10 min	180m 200m
02.08.2019 00:20	10 min	250m
02.08.2019 08:10	10 min	all LiDAR data missing
02.08.2019 14:40	10 min	250m
02.08.2019 15:20	10 min	250m
02.08.2019 16:10	50 min	80-250m
02.08.2019 17:00	10 min	80m 100m 120m 140m 180-250m
02.08.2019 17:10	20 min	80-250m
02.08.2019 17:40	10 min	80m 160m
02.08.2019 17:50	10 min	80m
02.08.2019 18:10	10 min	140m 160m 250m
02.08.2019 18:20	10 min	80-250m
02.08.2019 19:40	10 min	80-250m
02.08.2019 19:50	10 min	80m 100m 250m
02.08.2019 20:10	10 min	40-250m
02.08.2019 22:30	10 min	40m
02.08.2019 23:20	10 min	40m 80m 200-250m
03.08.2019 08:20	10 min	all LiDAR data missing
03.08.2019 20:20	20 min	all LiDAR data missing
04.08.2019 01:10	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
04.08.2019 04:00	10 min	100m 180m 200m
04.08.2019 04:10	10 min	120-250m
04.08.2019 09:10	10 min	Gill data missing
04.08.2019 20:30	1 hours 40 min	all LiDAR data missing
05.08.2019 03:20	10 min	Gill data missing
05.08.2019 04:00	20 min	all LiDAR data missing
05.08.2019 05:50	10 min	all LiDAR data missing
05.08.2019 10:20	10 min	Gill data missing
05.08.2019 16:20	10 min	180m
05.08.2019 16:40	20 min	250m
05.08.2019 18:00	20 min	all LiDAR data missing
05.08.2019 22:40	10 min	Gill data missing
06.08.2019 06:00	10 min	60m
06.08.2019 08:50	11 hours 10 min	all LiDAR data missing
07.08.2019 00:30	10 min	250m
07.08.2019 00:50	10 min	100m 200m
07.08.2019 02:00	10 min	120m
07.08.2019 02:40	10 min	80m 200m
07.08.2019 02:50	10 min	250m
07.08.2019 07:50	10 min	40m
07.08.2019 16:30	10 min	Gill data missing
07.08.2019 20:00	20 min	all LiDAR data missing
08.08.2019 08:00	10 min	all LiDAR data missing
08.08.2019 16:20	10 min	Gill data missing
08.08.2019 20:10	10 min	all LiDAR data missing
09.08.2019 04:40	10 min	200-250m
09.08.2019 07:40	10 min	250m
09.08.2019 08:10	20 min	all LiDAR data missing
09.08.2019 09:00	7 hours 30 min	all LiDAR data missing
10.08.2019 00:00	10 min	140-250m
10.08.2019 04:20	20 min	all LiDAR data missing
10.08.2019 16:20	10 min	40-250m
10.08.2019 16:40	10 min	80m 100m 200m
10.08.2019 17:40	10 min	100m 180m
10.08.2019 18:10	10 min	80m
10.08.2019 19:00	10 min	100m
11.08.2019 04:30	20 min	all LiDAR data missing
11.08.2019 05:20	10 min	Gill data missing
11.08.2019 10:20	10 hours 30 min	all LiDAR data missing
12.08.2019 03:20	10 min	250m
12.08.2019 04:00	10 min	80-250m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
12.08.2019 08:50	20 min	all LiDAR data missing
12.08.2019 17:30	11 hours 20 min	all LiDAR data missing
14.08.2019 04:10	20 min	all LiDAR data missing
14.08.2019 07:10	10 min	Gill data missing
14.08.2019 15:30	10 min	Gill data missing
14.08.2019 16:10	10 min	40m
14.08.2019 16:20	10 min	all LiDAR data missing
14.08.2019 22:30	10 min	160-250m
14.08.2019 23:30	10 min	160m
15.08.2019 04:10	10 min	250m
15.08.2019 04:20	20 min	all LiDAR data missing
15.08.2019 05:50	10 min	40m
15.08.2019 06:00	10 min	200-250m
15.08.2019 06:30	10 min	40m
15.08.2019 16:20	10 min	all LiDAR data missing
16.08.2019 16:30	20 min	all LiDAR data missing
16.08.2019 19:40	10 min	Gill data missing
17.08.2019 04:30	10 min	40m 80m 100m 140-250m
17.08.2019 15:00	10 min	Gill data missing
17.08.2019 16:40	20 min	all LiDAR data missing
17.08.2019 21:10	10 min	Gill data missing
18.08.2019 00:50	10 min	Gill data missing
18.08.2019 01:30	10 min	80-250m
18.08.2019 03:00	10 min	Gill data missing
18.08.2019 03:20	8 hours 40 min	all LiDAR data missing
18.08.2019 19:20	10 min	Gill data missing
19.08.2019 00:00	20 min	all LiDAR data missing
19.08.2019 12:00	10 min	all LiDAR data missing
19.08.2019 15:30	10 min	100m 120m
19.08.2019 15:40	9 hours 40 min	all LiDAR data missing
20.08.2019 11:00	10 min	Gill data missing
20.08.2019 13:20	10 min	all LiDAR data missing
21.08.2019 01:20	30 min	all LiDAR data missing
21.08.2019 08:50	10 min	Gill data missing
21.08.2019 13:30	10 min	all LiDAR data missing
21.08.2019 15:10	11 hours 50 min	all LiDAR data missing
22.08.2019 03:40	10 min	all LiDAR data missing
22.08.2019 03:50	10 min	Gill data missing
22.08.2019 04:00	10 min	all LiDAR data missing
22.08.2019 14:40	10 min	Gill data missing
22.08.2019 15:00	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
22.08.2019 16:00	10 min	40m 60m 100m
22.08.2019 23:40	10 min	Gill data missing
23.08.2019 01:20	20 min	250m
23.08.2019 01:40	20 min	200-250m
23.08.2019 02:00	10 min	160-250m
23.08.2019 02:10	20 min	250m
23.08.2019 04:10	10 min	all LiDAR data missing
23.08.2019 07:00	10 min	Gill data missing
23.08.2019 16:10	20 min	all LiDAR data missing
23.08.2019 19:50	10 min	Gill data missing
24.08.2019 00:20	10 min	Gill data missing
24.08.2019 03:40	10 min	Gill data missing
24.08.2019 05:40	20 min	Gill data missing
24.08.2019 16:20	10 min	all LiDAR data missing
24.08.2019 23:10	10 min	Gill data missing
25.08.2019 04:30	10 min	all LiDAR data missing
25.08.2019 07:20	6 hours 50 min	all LiDAR data missing
25.08.2019 21:50	10 min	Gill data missing
26.08.2019 10:40	10 min	all LiDAR data missing
26.08.2019 16:20	10 min	all LiDAR data missing
26.08.2019 20:50	10 min	60m 80m
26.08.2019 21:00	20 min	40m
26.08.2019 22:10	10 min	Gill data missing
26.08.2019 22:50	10 min	all LiDAR data missing
27.08.2019 01:00	10 min	Gill data missing
27.08.2019 07:00	10 min	Gill data missing
27.08.2019 07:20	10 min	Gill data missing
27.08.2019 07:40	8 hours 00 min	all LiDAR data missing
27.08.2019 18:10	10 min	Gill data missing
27.08.2019 22:00	10 min	Gill data missing
27.08.2019 22:30	10 min	Gill data missing
27.08.2019 23:00	10 min	all LiDAR data missing
27.08.2019 23:30	10 min	60m
28.08.2019 00:50	10 min	all LiDAR data missing
28.08.2019 03:20	20 min	all LiDAR data missing
28.08.2019 04:50	10 min	all LiDAR data missing
28.08.2019 08:40	10 min	80m 100m 120m
28.08.2019 09:00	10 min	120-250m
28.08.2019 09:10	10 min	80m 120-250m
28.08.2019 09:20	10 min	80m
28.08.2019 11:10	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
28.08.2019 17:00	10 min	all LiDAR data missing
28.08.2019 22:50	10 min	250m
28.08.2019 23:10	8 hours 00 min	all LiDAR data missing
29.08.2019 10:00	10 min	250m
29.08.2019 10:10	10 min	200-250m
29.08.2019 18:30	10 min	Gill data missing
29.08.2019 19:00	10 min	40m 100m 140-250m
30.08.2019 07:10	10 min	Gill data missing
30.08.2019 09:10	10 min	Gill data missing
30.08.2019 10:40	7 hours 20 min	all LiDAR data missing
30.08.2019 23:10	10 min	Gill data missing
31.08.2019 06:00	10 min	all LiDAR data missing
31.08.2019 06:30	10 min	Gill data missing
31.08.2019 08:50	10 min	Gill data missing
31.08.2019 18:00	10 min	all LiDAR data missing
31.08.2019 22:40	10 min	Gill data missing
01.09.2019 06:00	20 min	all LiDAR data missing
01.09.2019 11:20	10 min	Gill data missing
01.09.2019 18:10	10 min	all LiDAR data missing
02.09.2019 06:10	10 min	all LiDAR data missing
02.09.2019 06:40	10 min	Gill data missing
02.09.2019 08:20	10 min	Gill data missing
02.09.2019 09:20	12 hours 40 min	all LiDAR data missing
03.09.2019 04:40	10 min	Gill data missing
03.09.2019 10:00	20 min	all LiDAR data missing
03.09.2019 16:20	10 min	Gill data missing
03.09.2019 22:00	10 min	80m 140m
04.09.2019 03:10	10 min	80-250m
04.09.2019 03:30	10 min	120m
04.09.2019 05:40	10 min	40m
04.09.2019 05:50	20 min	80m 200-250m
04.09.2019 06:10	10 min	40m 80m 100m 120m 160m 180m 250m
04.09.2019 06:20	10 min	40m 80m 250m
04.09.2019 06:30	20 min	100m 180m
04.09.2019 08:00	10 min	180m
04.09.2019 08:20	10 min	200-250m
04.09.2019 09:20	10 min	160-250m
04.09.2019 09:30	10 min	160m 180m 250m
04.09.2019 09:40	10 min	180m 250m
04.09.2019 10:00	10 min	250m
04.09.2019 10:10	10 min	all LiDAR data missing



**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
04.09.2019 11:50	10 min	200m
04.09.2019 22:10	10 min	all LiDAR data missing
05.09.2019 22:20	20 min	all LiDAR data missing
06.09.2019 10:20	10 min	30m 40m 60m 80m 100m 120m 140m 160m 200-250m
06.09.2019 19:10	10 min	120-250m
07.09.2019 08:30	10 min	30m 40m 60m 80m 100m 120m 160m 200m
07.09.2019 08:40	6 hours 20 min	all LiDAR data missing
08.09.2019 02:50	10 min	30m 40m 60m 80m 100m 120m 140m 160m 250m
08.09.2019 15:00	10 min	all LiDAR data missing
09.09.2019 03:00	20 min	all LiDAR data missing
09.09.2019 03:50	10 min	Gill data missing
09.09.2019 13:30	10 min	40m
09.09.2019 13:40	9 hours 10 min	all LiDAR data missing
10.09.2019 07:00	10 min	160-250m
10.09.2019 07:10	10 min	80m 120m 160m
10.09.2019 07:20	10 min	80m 100m 120m 140m 160m
10.09.2019 08:10	10 min	100-250m
10.09.2019 08:20	10 min	100m 180m 250m
10.09.2019 08:30	20 min	180m 250m
10.09.2019 09:00	10 min	all LiDAR data missing
10.09.2019 09:10	10 min	120-250m
10.09.2019 10:50	10 min	all LiDAR data missing
10.09.2019 14:30	2 hours 00 min	all LiDAR data missing
10.09.2019 20:10	10 min	Gill data missing
11.09.2019 01:40	10 min	Gill data missing
11.09.2019 04:20	10 min	all LiDAR data missing
11.09.2019 10:40	10 min	180m 200m
11.09.2019 11:10	10 min	160m
11.09.2019 11:30	10 min	180m
11.09.2019 15:40	10 min	Gill data missing
11.09.2019 16:30	10 min	all LiDAR data missing
11.09.2019 20:50	20 min	all LiDAR data missing
12.09.2019 09:00	10 min	all LiDAR data missing
12.09.2019 10:30	10 min	Gill data missing
12.09.2019 14:10	10 min	Gill data missing
12.09.2019 17:20	10 min	Gill data missing
12.09.2019 21:00	10 min	60m
12.09.2019 21:10	10 min	all LiDAR data missing
13.09.2019 09:00	10 min	Gill data missing
13.09.2019 09:10	10 min	all LiDAR data missing
13.09.2019 16:40	10 min	Gill data missing

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
13.09.2019 21:10	10 min	all LiDAR data missing
13.09.2019 22:40	2 hours 10 min	all LiDAR data missing
14.09.2019 09:40	10 min	Gill data missing
14.09.2019 21:10	10 min	Gill data missing
15.09.2019 00:50	20 min	all LiDAR data missing
15.09.2019 01:50	10 min	Gill data missing
15.09.2019 12:10	10 min	Gill data missing
15.09.2019 12:50	10 min	30m 40m 60m 80m 100m 120m 140m 160m 200-250m
15.09.2019 17:00	10 min	80-250m
15.09.2019 19:00	10 min	180m 250m
15.09.2019 19:10	10 min	250m
15.09.2019 19:50	20 min	250m
15.09.2019 20:10	10 min	140-250m
15.09.2019 20:20	20 min	180-250m
15.09.2019 20:40	30 min	250m
15.09.2019 21:50	10 min	250m
15.09.2019 22:20	10 min	200m
15.09.2019 22:40	10 min	80-250m
15.09.2019 22:50	10 min	250m
15.09.2019 23:10	10 min	80m 100m 120m 140m 160m 200-250m
15.09.2019 23:20	20 min	80-250m
16.09.2019 00:40	10 min	250m
16.09.2019 01:30	10 min	30m 40m 60m
16.09.2019 01:40	20 min	30m 40m 60m 80m 100m 200m
16.09.2019 02:00	10 min	140m 160m 180m
16.09.2019 02:10	10 min	140m 160m
16.09.2019 02:50	30 min	30m 40m
16.09.2019 03:30	10 min	120m 140m
16.09.2019 03:50	10 min	120-250m
16.09.2019 04:10	10 min	200m
16.09.2019 05:00	10 min	30m 40m
16.09.2019 05:40	10 min	180m 200m
16.09.2019 05:50	10 min	120m
16.09.2019 06:00	10 min	100m 120m
16.09.2019 06:10	10 min	120m
16.09.2019 06:30	10 min	120m 140m
16.09.2019 06:40	10 min	120m 160m 180m
16.09.2019 06:50	10 min	120m 140m 160m 180m 200m
16.09.2019 07:40	10 min	160m 180m 200m
16.09.2019 08:00	10 min	160m
16.09.2019 08:10	30 min	80m

**Table E.1: Gaps in the wind dataset of Deployment 1 in addition to those covered in the post-processing *WindResourceStatusFlags***

Start time	Duration	Missing LiDAR data at height(s) (m)
16.09.2019 08:40	10 min	160m 180m
16.09.2019 09:40	10 min	100m 140m 200m
16.09.2019 09:50	10 min	120m 160m 180m 200m
16.09.2019 10:00	10 min	60m
16.09.2019 10:10	10 min	60-250m
16.09.2019 10:20	10 min	60m 120m 160-250m
16.09.2019 10:30	10 min	80-250m
16.09.2019 10:40	10 min	120m 160-250m
16.09.2019 10:50	10 min	100-250m
16.09.2019 11:00	20 min	120-250m
16.09.2019 11:30	20 min	140m 160m
16.09.2019 11:50	10 min	250m
16.09.2019 13:00	10 min	all LiDAR data missing
16.09.2019 17:50	6 hours 50 min	all LiDAR data missing
17.09.2019 10:10	10 min	Gill data missing
17.09.2019 12:20	10 min	30m 60m 160m 250m
18.09.2019 00:30	10 min	all LiDAR data missing
18.09.2019 05:00	7 hours 50 min	all LiDAR data missing
18.09.2019 14:40	10 min	Gill data missing
18.09.2019 22:10	10 min	Gill data missing
19.09.2019 00:40	10 min	30m 40m 60m 80m
19.09.2019 11:20	10 min	Gill data missing
19.09.2019 11:30	10 min	all LiDAR data missing
19.09.2019 16:10	8 hours 10 min	all LiDAR data missing
20.09.2019 11:40	20 min	all LiDAR data missing
20.09.2019 18:20	10 min	Gill data missing
20.09.2019 23:50	10 min	all LiDAR data missing

## E.2 Deployment 2

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
10.02.2019 09:20	10 min	120m 160-250m
10.02.2019 09:40	10 min	180m
10.02.2019 14:50	10 min	180-250m
12.02.2019 22:10	10 min	Gill data missing
13.02.2019 04:00	10 min	Gill data missing
13.02.2019 05:10	10 min	160m 180m
13.02.2019 05:30	10 min	180m 200m
13.02.2019 05:40	10 min	200m
13.02.2019 05:50	10 min	200-250m
13.02.2019 06:00	20 min	40m 200-250m
13.02.2019 06:20	10 min	180m 200m
13.02.2019 06:30	10 min	200m
13.02.2019 07:10	10 min	200m
13.02.2019 08:40	10 min	40m 200m
14.02.2019 03:10	10 min	250m
14.02.2019 03:40	30 min	250m
14.02.2019 04:30	50 min	250m
14.02.2019 05:20	10 min	180m 200m
14.02.2019 05:30	30 min	200m
14.02.2019 06:20	20 min	250m
14.02.2019 07:00	10 min	250m
14.02.2019 07:20	10 min	250m
14.02.2019 09:50	20 min	250m
14.02.2019 10:50	2 hours 40 min	250m
14.02.2019 13:30	30 min	160m 180m
14.02.2019 14:00	30 min	180m
14.02.2019 14:30	10 min	160m 180m
14.02.2019 14:40	20 min	140m
14.02.2019 15:10	1 hours 00 min	100m
14.02.2019 16:10	10 min	180-250m
14.02.2019 16:20	10 min	200m
15.02.2019 22:00	20 min	60m
15.02.2019 22:50	30 min	180m
18.02.2019 00:50	10 min	60m
18.02.2019 05:20	10 min	Gill data missing
18.02.2019 07:30	10 min	Gill data missing
18.02.2019 08:10	10 min	Gill data missing
18.02.2019 08:30	10 min	all LiDAR data missing
18.02.2019 14:30	10 min	250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
18.02.2019 14:40	10 min	180m 250m
18.02.2019 20:00	10 min	160m 180m 200m
19.02.2019 15:10	10 min	Gill data missing
19.02.2019 17:50	10 min	Gill data missing
20.02.2019 05:20	10 min	all LiDAR data missing
20.02.2019 10:30	30 min	250m
20.02.2019 11:00	10 min	180-250m
20.02.2019 11:10	10 min	140-250m
20.02.2019 11:20	10 min	160-250m
21.02.2019 08:10	10 min	200-250m
21.02.2019 11:10	10 min	160m 180m 200m
21.02.2019 11:20	10 min	140m 160m 180m 200m
21.02.2019 11:30	10 min	160m 180m 200m
21.02.2019 11:50	10 min	160m 180m
21.02.2019 12:20	10 min	Gill data missing
21.02.2019 12:40	10 min	160-250m
21.02.2019 12:50	10 min	140-250m
21.02.2019 13:00	10 min	120-250m
21.02.2019 13:10	10 min	200m
21.02.2019 13:30	10 min	80m 100m 120m 160m 200-250m
21.02.2019 13:40	20 min	200m
21.02.2019 14:00	20 min	160-250m
21.02.2019 14:20	20 min	80-250m
21.02.2019 14:40	10 min	80m 100m 160-250m
21.02.2019 14:50	10 min	80m 160-250m
21.02.2019 15:00	30 min	80-250m
21.02.2019 15:30	30 min	80m 100m 160-250m
21.02.2019 16:00	30 min	160m 180m
21.02.2019 16:30	10 min	140m 160m 180m
21.02.2019 16:40	10 min	160m
21.02.2019 16:50	20 min	140m 160m 180m
21.02.2019 17:10	10 min	160m 180m
21.02.2019 17:30	10 min	80-250m
21.02.2019 17:40	10 min	140m 160m 180m
21.02.2019 17:50	10 min	140m
21.02.2019 18:00	10 min	80m 140m 160m 180m 200m
21.02.2019 18:10	10 min	140m 160m 180m
21.02.2019 18:20	10 min	80m 140m 160m 180m 200m
21.02.2019 18:30	10 min	200-250m
22.02.2019 17:20	10 min	180m
22.02.2019 18:50	10 min	40m 80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
22.02.2019 19:00	10 min	80-250m
22.02.2019 19:10	10 min	80m 100m 120m 140m 160m 180m 250m
22.02.2019 19:20	20 min	80-250m
22.02.2019 19:40	10 min	250m
22.02.2019 19:50	10 min	80-250m
22.02.2019 20:00	10 min	40m
22.02.2019 20:10	30 min	80-250m
22.02.2019 20:40	10 min	80m 200-250m
22.02.2019 20:50	10 min	80m 120m 140m 200m
22.02.2019 21:00	10 min	80-250m
22.02.2019 21:10	20 min	80m 100m 200m
22.02.2019 21:40	10 min	60-250m
23.02.2019 07:40	10 min	200-250m
23.02.2019 07:50	10 min	250m
23.02.2019 08:20	1 hours 00 min	250m
23.02.2019 09:30	10 min	250m
23.02.2019 09:40	10 min	200-250m
23.02.2019 09:50	20 min	250m
23.02.2019 10:10	40 min	200-250m
23.02.2019 10:50	20 min	250m
24.02.2019 07:40	10 min	160m
24.02.2019 13:40	50 min	250m
24.02.2019 14:40	30 min	250m
24.02.2019 15:20	20 min	200m
24.02.2019 15:50	10 min	250m
24.02.2019 19:50	10 min	160-250m
25.02.2019 08:40	10 min	250m
27.02.2019 02:20	10 min	140m 180m
27.02.2019 02:30	10 min	180m
27.02.2019 17:00	10 min	250m
27.02.2019 17:20	30 min	250m
27.02.2019 21:20	10 min	Gill data missing
28.02.2019 12:10	10 min	180-250m
28.02.2019 13:00	20 min	160-250m
28.02.2019 13:20	10 min	80m 120-250m
28.02.2019 16:00	20 min	250m
28.02.2019 16:20	10 min	140-250m
28.02.2019 16:30	10 min	250m
28.02.2019 16:40	10 min	120m 250m
28.02.2019 16:50	20 min	120-250m
28.02.2019 17:10	10 min	80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
28.02.2019 18:30	10 min	80m
28.02.2019 18:50	10 min	80m 100m 120m
28.02.2019 19:00	10 min	80m 100m 200-250m
28.02.2019 19:10	10 min	80-250m
28.02.2019 19:20	10 min	80m 100m 120m 250m
28.02.2019 19:50	10 min	120m 160-250m
28.02.2019 20:10	10 min	120-250m
28.02.2019 20:20	10 min	80-250m
28.02.2019 20:30	10 min	120m 140m 160m 180m 250m
28.02.2019 21:50	30 min	80-250m
28.02.2019 22:20	10 min	60-250m
28.02.2019 22:30	1 hours 00 min	80-250m
28.02.2019 23:30	20 min	40m 80-250m
28.02.2019 23:50	10 min	40m 60m 80m 120m 140m 160m 180m
01.03.2019 00:00	20 min	40m 60m 80m 100m 120m 140m 160m 180m
01.03.2019 00:20	10 min	40-250m
01.03.2019 00:30	30 min	80-250m
01.03.2019 01:00	10 min	40m 60m 80m 100m 120m 140m 160m 180m 200m
01.03.2019 01:10	30 min	80-250m
01.03.2019 01:40	10 min	60-250m
01.03.2019 01:50	10 min	40m 100m 120m 160-250m
01.03.2019 02:00	30 min	80-250m
01.03.2019 02:30	10 min	80m 100m 120m 140m 160m 180m 200m
01.03.2019 02:40	10 min	100m 120m 140m 160m
01.03.2019 02:50	10 min	120-250m
01.03.2019 03:00	10 min	80-250m
01.03.2019 03:10	10 min	40m 80-250m
01.03.2019 03:20	10 min	80-250m
01.03.2019 03:30	10 min	100-250m
01.03.2019 03:40	10 min	80m 100m 120m 140m
01.03.2019 03:50	10 min	80m 100m 120m 140m 160m 180m 200m
01.03.2019 04:00	20 min	80-250m
01.03.2019 04:20	10 min	120-250m
01.03.2019 04:30	10 min	160-250m
01.03.2019 04:40	10 min	160m
01.03.2019 05:00	10 min	180-250m
01.03.2019 05:10	10 min	80m 100m 120m 160-250m
01.03.2019 05:20	20 min	80-250m
01.03.2019 05:40	10 min	80m 140m 160m 180m 250m
01.03.2019 06:20	10 min	80-250m
01.03.2019 06:30	20 min	80m 120-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
01.03.2019 06:50	10 min	80-250m
01.03.2019 07:00	10 min	250m
01.03.2019 07:10	10 min	100m 120m 140m 160m 200-250m
01.03.2019 07:20	10 min	80m 250m
01.03.2019 07:30	10 min	160m 200-250m
01.03.2019 07:40	10 min	40m 80-250m
01.03.2019 08:00	20 min	40m 80-250m
01.03.2019 11:40	20 min	80-250m
02.03.2019 02:20	10 min	200m
02.03.2019 02:40	10 min	140-250m
02.03.2019 02:50	10 min	140m 200-250m
02.03.2019 03:00	10 min	120-250m
02.03.2019 03:40	10 min	80m 120m 140m
02.03.2019 04:00	10 min	80-250m
02.03.2019 04:20	10 min	180m 200m
02.03.2019 04:30	10 min	180m
02.03.2019 04:40	10 min	200-250m
02.03.2019 04:50	10 min	250m
02.03.2019 05:10	10 min	250m
02.03.2019 05:40	30 min	180-250m
02.03.2019 06:10	10 min	80-250m
02.03.2019 06:20	10 min	80m 120-250m
02.03.2019 06:30	10 min	80-250m
02.03.2019 06:40	10 min	120-250m
02.03.2019 12:20	10 min	80m 100m
02.03.2019 12:30	10 min	200m
02.03.2019 12:40	10 min	200-250m
02.03.2019 12:50	10 min	160-250m
02.03.2019 13:00	10 min	250m
02.03.2019 13:20	10 min	180-250m
02.03.2019 13:30	10 min	80m 140m 180-250m
02.03.2019 14:00	10 min	250m
02.03.2019 14:10	10 min	200-250m
02.03.2019 14:20	10 min	250m
02.03.2019 14:30	10 min	180-250m
02.03.2019 14:40	30 min	120-250m
02.03.2019 15:10	10 min	80-250m
02.03.2019 15:20	10 min	120-250m
02.03.2019 15:30	10 min	80-250m
02.03.2019 15:40	10 min	80m 100m 120m
02.03.2019 15:50	20 min	80m 100m



**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
02.03.2019 16:10	10 min	80m
02.03.2019 16:20	10 min	80m 100m 120m
02.03.2019 16:30	20 min	80m
02.03.2019 16:50	10 min	80-250m
02.03.2019 17:10	10 min	200-250m
02.03.2019 19:10	10 min	250m
03.03.2019 00:50	10 min	250m
03.03.2019 05:00	30 min	160-250m
03.03.2019 05:30	10 min	180-250m
03.03.2019 05:40	20 min	180m 250m
03.03.2019 06:00	10 min	180-250m
03.03.2019 06:10	10 min	250m
03.03.2019 06:20	10 min	120-250m
03.03.2019 09:20	10 min	Gill data missing
03.03.2019 09:50	10 min	200m
03.03.2019 11:00	10 min	250m
04.03.2019 04:10	10 min	250m
04.03.2019 04:30	10 min	250m
06.03.2019 07:50	10 min	250m
07.03.2019 04:20	10 min	250m
07.03.2019 04:30	10 min	180-250m
07.03.2019 04:40	10 min	200-250m
07.03.2019 04:50	10 min	250m
07.03.2019 05:00	10 min	160m 200-250m
07.03.2019 05:10	10 min	120-250m
07.03.2019 06:10	10 min	250m
07.03.2019 13:30	10 min	Gill data missing
08.03.2019 17:00	10 min	Gill data missing
09.03.2019 11:40	10 min	Gill data missing
10.03.2019 07:20	10 min	80m 140-250m
10.03.2019 07:30	10 min	250m
10.03.2019 07:50	10 min	250m
10.03.2019 08:30	10 min	200m
10.03.2019 08:40	20 min	100m 140-250m
10.03.2019 09:00	10 min	160-250m
10.03.2019 09:10	10 min	80-250m
10.03.2019 09:20	10 min	160m 180m
10.03.2019 09:40	10 min	120m 140m 200-250m
10.03.2019 09:50	10 min	100m 120m 160-250m
10.03.2019 10:00	20 min	140m 160m 180m 200m
10.03.2019 10:20	10 min	140m 160m 180m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
10.03.2019 10:40	10 min	100m 120m 180m
10.03.2019 10:50	10 min	120m 140m 160m 180m
10.03.2019 11:10	10 min	140m 160m 250m
10.03.2019 11:20	10 min	100-250m
10.03.2019 11:50	10 min	120m 140m 160m
10.03.2019 13:00	10 min	160m 180m 250m
10.03.2019 13:20	10 min	120-250m
10.03.2019 13:30	10 min	180-250m
10.03.2019 13:40	10 min	160m
10.03.2019 13:50	10 min	160m 180m 250m
10.03.2019 14:40	10 min	250m
10.03.2019 15:00	10 min	80m 120-250m
10.03.2019 15:20	10 min	250m
12.03.2019 18:10	10 min	250m
13.03.2019 16:00	10 min	Gill data missing
15.03.2019 05:20	10 min	180-250m
15.03.2019 05:30	20 min	120-250m
15.03.2019 05:50	10 min	80m 160-250m
15.03.2019 06:00	40 min	120-250m
15.03.2019 06:40	10 min	200-250m
15.03.2019 11:40	10 min	250m
15.03.2019 12:20	10 min	250m
15.03.2019 17:30	10 min	Gill data missing
16.03.2019 05:10	10 min	140-250m
16.03.2019 05:20	10 min	100-250m
16.03.2019 05:30	20 min	80-250m
16.03.2019 05:50	10 min	100-250m
16.03.2019 06:00	10 min	120m 140m 160m
16.03.2019 06:10	10 min	100-250m
16.03.2019 06:20	10 min	120-250m
18.03.2019 15:30	10 min	Gill data missing
19.03.2019 09:10	10 min	Gill data missing
19.03.2019 14:40	10 min	250m
19.03.2019 15:50	10 min	200-250m
19.03.2019 18:20	30 min	250m
19.03.2019 19:30	10 min	250m
19.03.2019 20:40	10 min	250m
19.03.2019 21:00	10 min	250m
19.03.2019 21:20	10 min	200-250m
19.03.2019 21:30	10 min	250m
20.03.2019 10:00	10 min	200m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
20.03.2019 11:10	10 min	180-250m
20.03.2019 11:20	10 min	160-250m
20.03.2019 11:30	10 min	160m 180m
20.03.2019 11:40	10 min	160m 180m 200m
20.03.2019 11:50	20 min	250m
20.03.2019 12:20	40 min	250m
20.03.2019 13:00	30 min	180m 200m
20.03.2019 13:30	40 min	180m
20.03.2019 14:20	40 min	250m
20.03.2019 15:50	1 hours 00 min	250m
20.03.2019 19:30	10 min	200m
20.03.2019 19:40	10 min	120m 140m 160m 200-250m
20.03.2019 19:50	10 min	160m 200m
20.03.2019 20:00	10 min	250m
20.03.2019 20:20	20 min	180m 200m
20.03.2019 20:50	10 min	160m 180m 200m
20.03.2019 21:10	50 min	200m
20.03.2019 22:00	10 min	100-250m
20.03.2019 22:10	10 min	80m 100m
20.03.2019 22:20	20 min	80m
20.03.2019 22:40	30 min	120-250m
20.03.2019 23:10	10 min	140-250m
20.03.2019 23:20	40 min	120-250m
21.03.2019 00:00	10 min	120m 200-250m
21.03.2019 00:40	10 min	80m 160m 200m
21.03.2019 00:50	10 min	80m
21.03.2019 01:00	10 min	80m 200-250m
21.03.2019 01:10	10 min	250m
21.03.2019 01:20	10 min	80-250m
21.03.2019 01:40	10 min	80m 120-250m
21.03.2019 01:50	10 min	80m 100m 140m 200m
21.03.2019 02:00	10 min	80m 100m 160-250m
21.03.2019 02:10	10 min	80-250m
21.03.2019 02:20	10 min	80m 100m 120m 160-250m
21.03.2019 03:00	10 min	250m
21.03.2019 03:10	10 min	180-250m
21.03.2019 03:20	20 min	140-250m
21.03.2019 03:40	20 min	160-250m
21.03.2019 05:30	10 min	Gill data missing
21.03.2019 06:00	10 min	100m
21.03.2019 06:50	10 min	250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
21.03.2019 07:00	10 min	100m 200m
21.03.2019 07:10	10 min	120m 140m 160m 180m 200m
21.03.2019 07:30	10 min	80-250m
21.03.2019 07:40	10 min	120m 180-250m
21.03.2019 07:50	10 min	160m 200m
21.03.2019 08:00	10 min	40m 80-250m
21.03.2019 08:10	10 min	100m 120m 140m 160m 180m 200m
21.03.2019 08:20	10 min	160-250m
21.03.2019 08:30	10 min	200m
21.03.2019 09:30	10 min	Gill data missing
21.03.2019 10:40	30 min	80-250m
21.03.2019 12:50	10 min	140m
21.03.2019 13:00	10 min	80-250m
21.03.2019 13:20	40 min	80-250m
21.03.2019 14:00	10 min	80m 100m 120m 140m 160m 180m 200m
21.03.2019 14:10	10 min	120m 140m 200m
21.03.2019 14:20	10 min	100-250m
21.03.2019 14:40	10 min	120m 140m 160m 180m 200m
21.03.2019 15:00	10 min	Gill data missing
21.03.2019 15:20	10 min	200m
21.03.2019 16:00	10 min	120m 140m 200m
21.03.2019 16:20	10 min	140m
21.03.2019 18:40	10 min	250m
21.03.2019 21:20	10 min	80-250m
21.03.2019 21:50	20 min	80-250m
21.03.2019 22:10	1 hours 00 min	30m 80-250m
21.03.2019 23:10	10 min	30m
21.03.2019 23:20	20 min	30m 80-250m
21.03.2019 23:40	10 min	30m
21.03.2019 23:50	20 min	30m 80-250m
22.03.2019 00:10	10 min	30m
22.03.2019 00:20	30 min	30m 80-250m
22.03.2019 00:50	10 min	30m 200m
22.03.2019 01:30	10 min	120m 200m
22.03.2019 01:40	10 min	80-250m
22.03.2019 01:50	10 min	120m
22.03.2019 02:20	10 min	80-250m
22.03.2019 02:30	10 min	80m 140-250m
22.03.2019 02:40	20 min	80-250m
22.03.2019 03:00	10 min	40m
22.03.2019 03:10	50 min	80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
22.03.2019 04:10	50 min	80-250m
22.03.2019 05:10	10 min	160-250m
22.03.2019 05:50	10 min	80-250m
22.03.2019 06:00	10 min	120m
22.03.2019 06:20	10 min	160-250m
22.03.2019 06:30	20 min	120-250m
22.03.2019 06:50	10 min	80-250m
22.03.2019 07:00	10 min	80m 100m
22.03.2019 07:10	10 min	80m
22.03.2019 08:10	1 hours 10 min	60m
22.03.2019 09:40	10 min	80m 100m 120m 140m 160m 180m 200m
22.03.2019 09:50	10 min	40m 80m 100m 120m 140m 160m 180m 200m
22.03.2019 10:00	10 min	80m 100m 120m 140m
22.03.2019 10:10	20 min	80m 100m 120m 140m 160m
22.03.2019 10:30	10 min	120m 140m
22.03.2019 10:40	10 min	100-250m
22.03.2019 10:50	10 min	80-250m
22.03.2019 11:10	10 min	80m 120-250m
22.03.2019 11:20	40 min	120-250m
22.03.2019 12:00	10 min	160-250m
22.03.2019 12:10	10 min	80-250m
22.03.2019 12:20	20 min	140-250m
22.03.2019 12:40	10 min	120-250m
22.03.2019 12:50	10 min	80-250m
22.03.2019 13:00	10 min	80m 100m 120m 140m 160m 180m
22.03.2019 13:10	20 min	80-250m
22.03.2019 13:30	10 min	80m 100m 120m 140m 160m 180m 200m
22.03.2019 13:40	10 min	80m 100m 120m 140m
22.03.2019 13:50	10 min	80-250m
22.03.2019 14:00	20 min	120-250m
22.03.2019 14:20	10 min	80-250m
22.03.2019 14:30	10 min	120-250m
22.03.2019 14:40	10 min	80-250m
22.03.2019 14:50	10 min	120-250m
22.03.2019 15:00	10 min	80m 100m 120m 140m
22.03.2019 15:10	40 min	80-250m
22.03.2019 15:50	10 min	120-250m
22.03.2019 16:00	20 min	80-250m
22.03.2019 16:20	10 min	100-250m
22.03.2019 16:30	20 min	80-250m
22.03.2019 16:50	10 min	40m 80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
22.03.2019 17:00	10 min	80-250m
22.03.2019 17:10	10 min	100-250m
22.03.2019 17:20	10 min	80-250m
22.03.2019 17:30	10 min	80m 120-250m
22.03.2019 17:40	30 min	80-250m
22.03.2019 18:10	10 min	80m 140m 160m 180m 250m
22.03.2019 18:20	10 min	80m 100m 120m 140m 160m 200-250m
22.03.2019 18:30	10 min	160m
22.03.2019 18:40	10 min	180-250m
22.03.2019 18:50	10 min	100m 120m 140m 200-250m
22.03.2019 19:00	10 min	80-250m
22.03.2019 19:10	10 min	120m 140m 160m 180m 250m
22.03.2019 19:20	10 min	120-250m
22.03.2019 19:30	30 min	80-250m
22.03.2019 20:10	10 min	80m 120m 140m 160m 200-250m
22.03.2019 20:20	10 min	200m
24.03.2019 00:30	10 min	Gill data missing
24.03.2019 20:10	10 min	Gill data missing
28.03.2019 00:20	10 min	Gill data missing
28.03.2019 14:40	10 min	200m
28.03.2019 15:30	10 min	60m 80m
28.03.2019 15:40	20 min	80m
28.03.2019 16:50	30 min	100m
28.03.2019 17:50	10 min	80-250m
28.03.2019 18:00	10 min	120m 160m 200m
28.03.2019 19:20	10 min	200-250m
28.03.2019 21:30	20 min	200m
28.03.2019 22:50	10 min	250m
28.03.2019 23:00	20 min	180-250m
28.03.2019 23:20	10 min	60m 80m 100m 120m
29.03.2019 01:50	10 min	250m
29.03.2019 02:00	10 min	200-250m
29.03.2019 02:10	30 min	250m
29.03.2019 02:50	10 min	200-250m
29.03.2019 03:00	10 min	200m
29.03.2019 03:10	10 min	180m 200m
29.03.2019 03:20	10 min	180-250m
29.03.2019 03:30	10 min	200-250m
29.03.2019 03:40	1 hours 00 min	250m
29.03.2019 06:20	20 min	250m
29.03.2019 06:40	10 min	all LiDAR data missing

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
29.03.2019 06:50	10 min	40-250m
29.03.2019 07:00	10 min	200-250m
29.03.2019 07:10	10 min	80m 100m 120m 140m 160m 180m 200m
29.03.2019 07:20	10 min	250m
29.03.2019 08:40	10 min	250m
29.03.2019 08:50	10 min	120m 140m 250m
29.03.2019 12:50	10 min	140m
29.03.2019 13:00	10 min	120m 140m 160m
31.03.2019 01:10	20 min	200-250m
31.03.2019 01:30	10 min	80-250m
31.03.2019 01:40	10 min	40m 80-250m
31.03.2019 01:50	10 min	80m 100m 160-250m
31.03.2019 02:00	10 min	80m 120m 160m 200-250m
31.03.2019 02:10	10 min	60-250m
31.03.2019 02:20	10 min	80-250m
31.03.2019 02:30	10 min	160-250m
31.03.2019 02:40	10 min	80-250m
31.03.2019 03:40	30 min	80-250m
31.03.2019 04:10	20 min	40m 80-250m
31.03.2019 04:30	10 min	80-250m
31.03.2019 04:40	10 min	160m 200-250m
31.03.2019 04:50	10 min	120-250m
31.03.2019 05:00	10 min	40m 80-250m
31.03.2019 05:10	10 min	250m
31.03.2019 05:20	10 min	80m 100m 140m 200-250m
02.04.2019 11:10	10 min	160-250m
02.04.2019 11:20	10 min	120-250m
02.04.2019 11:30	10 min	100-250m
02.04.2019 11:40	20 min	80-250m
02.04.2019 12:00	10 min	120m 160m 250m
02.04.2019 12:10	10 min	140m 250m
02.04.2019 12:20	10 min	100-250m
02.04.2019 12:30	20 min	250m
02.04.2019 12:50	10 min	140m 160m 180m
02.04.2019 13:00	10 min	100-250m
02.04.2019 13:10	10 min	120m
02.04.2019 19:10	30 min	80-250m
02.04.2019 21:10	10 min	250m
02.04.2019 22:30	10 min	250m
03.04.2019 01:00	10 min	250m
03.04.2019 01:10	20 min	80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
03.04.2019 01:50	40 min	80-250m
03.04.2019 06:40	10 min	80-250m
03.04.2019 13:00	10 min	80m 140m 180-250m
03.04.2019 20:20	10 min	250m
03.04.2019 20:30	10 min	120-250m
03.04.2019 21:00	10 min	250m
03.04.2019 21:10	10 min	160-250m
04.04.2019 16:20	10 min	Gill data missing
04.04.2019 21:10	10 min	Gill data missing
05.04.2019 18:10	10 min	Gill data missing
06.04.2019 02:00	10 min	250m
06.04.2019 02:20	10 min	250m
06.04.2019 02:40	10 min	250m
06.04.2019 02:50	10 min	180-250m
06.04.2019 03:00	10 min	250m
06.04.2019 03:10	40 min	80-250m
06.04.2019 03:50	10 min	180-250m
06.04.2019 04:00	10 min	250m
06.04.2019 05:00	10 min	160-250m
06.04.2019 05:30	10 min	140m
06.04.2019 07:00	10 min	80-250m
06.04.2019 07:10	10 min	80m 140-250m
06.04.2019 07:20	20 min	80-250m
06.04.2019 07:50	10 min	80m 100m 120m
06.04.2019 08:00	30 min	80-250m
06.04.2019 08:30	10 min	160m
06.04.2019 08:40	10 min	160m 250m
06.04.2019 09:00	20 min	80-250m
06.04.2019 09:40	1 hours 10 min	80-250m
06.04.2019 11:00	20 min	80-250m
06.04.2019 11:20	10 min	80m 100m 120m 140m 160m 180m 200m
06.04.2019 11:30	10 min	80-250m
06.04.2019 11:50	20 min	80-250m
06.04.2019 13:10	20 min	80-250m
06.04.2019 13:40	10 min	80-250m
06.04.2019 13:50	10 min	120m 160m 200m
06.04.2019 19:00	10 min	80-250m
06.04.2019 19:20	10 min	80m
06.04.2019 19:40	10 min	80m 100m 120m
06.04.2019 19:50	10 min	80m 120m
06.04.2019 20:00	10 min	80m 120m 160m 250m



**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
06.04.2019 20:10	10 min	80-250m
06.04.2019 20:20	10 min	80m
06.04.2019 20:30	10 min	200-250m
06.04.2019 20:40	40 min	80-250m
06.04.2019 21:20	10 min	80m 160-250m
06.04.2019 21:30	10 min	80-250m
06.04.2019 21:40	10 min	40m 80-250m
06.04.2019 21:50	10 min	80m 100m 120m 200-250m
06.04.2019 22:00	10 min	80m 180-250m
06.04.2019 22:10	10 min	60-250m
06.04.2019 22:20	10 min	80-250m
06.04.2019 22:40	10 min	80m 250m
06.04.2019 22:50	10 min	80-250m
06.04.2019 23:00	10 min	100-250m
06.04.2019 23:10	10 min	160-250m
07.04.2019 00:10	10 min	250m
07.04.2019 00:20	30 min	80m 250m
07.04.2019 00:50	10 min	80m 100m 120m 140m
07.04.2019 01:00	10 min	120-250m
07.04.2019 01:10	10 min	200-250m
07.04.2019 01:20	10 min	160-250m
07.04.2019 01:30	10 min	250m
07.04.2019 02:00	10 min	80-250m
07.04.2019 02:10	10 min	80m 100m 120m 140m 160m 180m 250m
07.04.2019 02:30	10 min	140m 200m
07.04.2019 02:50	10 min	100m 140m 160m 180m 200m
07.04.2019 04:10	30 min	250m
07.04.2019 04:40	10 min	80m 250m
07.04.2019 04:50	20 min	80-250m
07.04.2019 05:10	10 min	80m 100m 120m 200-250m
07.04.2019 05:20	30 min	250m
07.04.2019 05:50	10 min	80-250m
07.04.2019 06:00	10 min	80m 100m 120m 140m 160m 180m 200m
07.04.2019 06:10	10 min	80-250m
07.04.2019 06:20	20 min	80m 100m 250m
07.04.2019 06:40	20 min	250m
07.04.2019 07:00	10 min	200-250m
08.04.2019 04:40	10 min	250m
08.04.2019 04:50	10 min	200-250m
08.04.2019 05:00	30 min	250m
08.04.2019 14:20	10 min	200-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
08.04.2019 14:30	10 min	180-250m
08.04.2019 14:40	10 min	160-250m
08.04.2019 14:50	10 min	250m
11.04.2019 08:20	10 min	Gill data missing
12.04.2019 08:30	10 min	Gill data missing
13.04.2019 10:50	10 min	Gill data missing
14.04.2019 11:00	10 min	Gill data missing
15.04.2019 08:00	10 min	80m 250m
15.04.2019 08:10	10 min	80m 120m 160-250m
17.04.2019 05:10	10 min	Gill data missing
18.04.2019 02:50	10 min	Gill data missing
18.04.2019 18:10	10 min	Gill data missing
19.04.2019 13:40	10 min	Gill data missing
20.04.2019 17:40	20 min	100m
21.04.2019 10:30	10 min	Gill data missing
22.04.2019 13:50	10 min	40m
23.04.2019 20:20	10 min	Gill data missing
24.04.2019 16:50	10 min	Gill data missing
24.04.2019 20:20	10 min	250m
24.04.2019 20:40	10 min	250m
24.04.2019 21:20	10 min	180-250m
24.04.2019 22:40	10 min	250m
24.04.2019 23:10	10 min	250m
25.04.2019 13:50	10 min	Gill data missing
25.04.2019 15:00	10 min	250m
25.04.2019 17:10	10 min	250m
26.04.2019 03:50	10 min	Gill data missing
27.04.2019 04:10	10 min	180m
28.04.2019 00:40	10 min	Gill data missing
28.04.2019 01:20	10 min	100-250m
28.04.2019 02:00	10 min	80-250m
28.04.2019 02:20	10 min	250m
28.04.2019 03:10	10 min	180m 250m
28.04.2019 03:30	10 min	80m 100m 120m 140m 180-250m
28.04.2019 03:40	10 min	80-250m
28.04.2019 03:50	10 min	200-250m
28.04.2019 04:00	10 min	80-250m
28.04.2019 04:10	10 min	40m 80-250m
28.04.2019 04:20	20 min	80-250m
28.04.2019 05:00	10 min	40m
28.04.2019 05:10	20 min	40m 80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
28.04.2019 05:30	10 min	80-250m
28.04.2019 05:40	10 min	250m
28.04.2019 06:20	10 min	160m 250m
28.04.2019 08:20	10 min	250m
28.04.2019 10:00	10 min	250m
28.04.2019 22:50	10 min	Gill data missing
29.04.2019 01:30	10 min	200m
29.04.2019 05:40	10 min	200-250m
29.04.2019 06:00	10 min	250m
29.04.2019 07:10	10 min	Gill data missing
29.04.2019 15:10	10 min	250m
29.04.2019 16:30	10 min	120m 160-250m
29.04.2019 16:40	2 hours 10 min	80-250m
29.04.2019 18:50	10 min	80m 100m 120m 140m 180-250m
29.04.2019 19:00	1 hours 20 min	80-250m
29.04.2019 20:20	10 min	120m 180-250m
29.04.2019 20:30	20 min	200m
29.04.2019 20:50	30 min	80-250m
29.04.2019 21:20	10 min	120-250m
29.04.2019 21:30	10 min	80-250m
29.04.2019 21:50	1 hours 30 min	80-250m
29.04.2019 23:20	10 min	80m 100m 120m 160-250m
29.04.2019 23:30	10 min	80-250m
29.04.2019 23:40	10 min	80m 120m 140m 160m 180m 200m
29.04.2019 23:50	10 min	80-250m
30.04.2019 00:10	10 min	140m 160m 200m
30.04.2019 00:20	10 min	100m 140m 160m 200-250m
30.04.2019 00:30	10 min	80m 100m 120m 140m 180-250m
30.04.2019 00:40	10 min	140m 160m 180m 200m
30.04.2019 00:50	30 min	80-250m
30.04.2019 01:30	50 min	80-250m
30.04.2019 02:30	40 min	80-250m
30.04.2019 03:50	20 min	80-250m
30.04.2019 04:10	10 min	120-250m
30.04.2019 04:30	20 min	80-250m
30.04.2019 05:00	20 min	80-250m
30.04.2019 05:20	10 min	160m 180m 200m
30.04.2019 05:30	20 min	80-250m
30.04.2019 05:50	10 min	120m 140m 200-250m
30.04.2019 06:00	1 hours 10 min	80-250m
30.04.2019 07:20	3 hours 30 min	80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
30.04.2019 10:50	10 min	120-250m
30.04.2019 11:00	10 min	80-250m
30.04.2019 11:10	10 min	100-250m
30.04.2019 11:20	30 min	80-250m
30.04.2019 12:10	50 min	80-250m
30.04.2019 13:10	1 hours 10 min	80-250m
30.04.2019 14:30	20 min	80-250m
30.04.2019 14:50	10 min	180m
30.04.2019 15:00	1 hours 00 min	80-250m
30.04.2019 16:10	10 min	80-250m
30.04.2019 16:20	10 min	100-250m
30.04.2019 16:30	10 min	80-250m
30.04.2019 16:40	10 min	120m 160-250m
30.04.2019 16:50	20 min	80-250m
30.04.2019 17:20	40 min	80-250m
30.04.2019 18:10	10 min	80-250m
30.04.2019 18:20	10 min	160m 200m
30.04.2019 18:30	10 min	100m 140m 160m 180m 200m
30.04.2019 18:50	30 min	80-250m
30.04.2019 19:30	10 min	200m
30.04.2019 19:40	40 min	80-250m
30.04.2019 20:20	10 min	200m
30.04.2019 21:20	10 min	80-250m
30.04.2019 22:40	10 min	200m
30.04.2019 22:50	10 min	160m 250m
01.05.2019 01:10	10 min	200m
01.05.2019 02:10	10 min	120m
01.05.2019 02:30	10 min	120m 200m
01.05.2019 04:40	10 min	140m 160m 200-250m
01.05.2019 05:20	10 min	120m 160m 200m
01.05.2019 06:50	10 min	140m 160m 180m 200m
01.05.2019 07:10	20 min	120m 140m 180m 200m
01.05.2019 07:30	20 min	200m
01.05.2019 10:30	20 min	200m
01.05.2019 12:50	10 min	120m 180m 200m
01.05.2019 13:00	10 min	120-250m
01.05.2019 13:20	10 min	80m 120-250m
01.05.2019 13:40	10 min	160m 200m
01.05.2019 13:50	10 min	160-250m
01.05.2019 14:00	10 min	80m 100m 120m 140m 160m 200-250m
01.05.2019 14:10	20 min	80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
01.05.2019 14:30	10 min	120-250m
01.05.2019 14:40	10 min	200m
01.05.2019 14:50	10 min	80-250m
01.05.2019 15:00	10 min	140-250m
01.05.2019 15:40	10 min	160m 200m
02.05.2019 08:20	10 min	140-250m
02.05.2019 09:20	50 min	80-250m
02.05.2019 10:30	10 min	200m
02.05.2019 11:00	10 min	200-250m
02.05.2019 11:10	10 min	80-250m
02.05.2019 14:20	10 min	80m 100m 180-250m
02.05.2019 15:30	10 min	80-250m
02.05.2019 16:30	10 min	120m 250m
02.05.2019 16:40	10 min	160m
02.05.2019 16:50	10 min	40m 80-250m
02.05.2019 17:00	20 min	80-250m
02.05.2019 17:20	10 min	200-250m
02.05.2019 17:30	10 min	80m 160-250m
02.05.2019 17:40	10 min	80m 140m 200-250m
02.05.2019 17:50	10 min	80-250m
02.05.2019 21:10	10 min	Gill data missing
02.05.2019 21:20	10 min	80m
06.05.2019 13:20	10 min	200-250m
07.05.2019 15:10	10 min	Gill data missing
08.05.2019 12:50	10 min	180m 200m
08.05.2019 13:40	10 min	140-250m
08.05.2019 13:50	10 min	140m 180-250m
08.05.2019 18:40	10 min	200-250m
08.05.2019 18:50	10 min	160m 180m 200m
08.05.2019 19:00	10 min	200-250m
09.05.2019 10:10	10 min	100m 200m
09.05.2019 10:20	10 min	100m
09.05.2019 11:20	10 min	180m 250m
09.05.2019 21:00	10 min	80-250m
09.05.2019 21:10	10 min	140-250m
09.05.2019 21:30	10 min	40m 80-250m
09.05.2019 21:40	20 min	80-250m
09.05.2019 22:00	30 min	40m 80-250m
09.05.2019 22:30	10 min	80-250m
10.05.2019 03:40	10 min	100m 160m 200-250m
10.05.2019 21:00	10 min	Gill data missing

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
10.05.2019 23:10	10 min	Gill data missing
12.05.2019 23:50	10 min	Gill data missing
13.05.2019 13:40	10 min	Gill data missing
14.05.2019 13:10	10 min	Gill data missing
15.05.2019 10:50	10 min	Gill data missing
16.05.2019 02:10	10 min	Gill data missing
16.05.2019 23:30	10 min	Gill data missing
17.05.2019 02:10	10 min	200m
17.05.2019 02:30	10 min	250m
17.05.2019 06:10	10 min	80-250m
17.05.2019 06:20	10 min	160m 200-250m
17.05.2019 06:30	10 min	250m
17.05.2019 06:40	10 min	120m 160-250m
17.05.2019 08:00	10 min	Gill data missing
17.05.2019 08:10	10 min	80-250m
17.05.2019 08:20	10 min	Gill data missing
17.05.2019 17:10	10 min	Gill data missing
19.05.2019 00:10	20 min	250m
19.05.2019 00:30	20 min	180m 200m
19.05.2019 00:50	40 min	200m
19.05.2019 01:40	30 min	250m
19.05.2019 03:10	50 min	250m
19.05.2019 04:00	10 min	80-250m
19.05.2019 04:10	20 min	120m 160-250m
19.05.2019 04:30	10 min	80-250m
19.05.2019 04:40	10 min	100-250m
19.05.2019 04:50	10 min	80-250m
19.05.2019 05:00	10 min	100-250m
19.05.2019 05:10	30 min	80-250m
19.05.2019 05:40	10 min	100-250m
19.05.2019 05:50	10 min	80-250m
19.05.2019 06:00	10 min	100-250m
19.05.2019 06:10	10 min	180m 200m
19.05.2019 06:20	50 min	80-250m
19.05.2019 07:10	10 min	100-250m
19.05.2019 07:20	10 min	80-250m
19.05.2019 07:30	10 min	120m 140m 250m
19.05.2019 07:40	10 min	80-250m
19.05.2019 07:50	10 min	100-250m
19.05.2019 08:00	20 min	80-250m
19.05.2019 08:20	10 min	160-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
19.05.2019 08:30	10 min	140-250m
19.05.2019 08:40	10 min	160m 200m
19.05.2019 08:50	30 min	80-250m
19.05.2019 09:20	10 min	140-250m
19.05.2019 09:30	10 min	80-250m
19.05.2019 09:40	10 min	120-250m
19.05.2019 09:50	10 min	80-250m
19.05.2019 10:00	20 min	120-250m
19.05.2019 10:20	10 min	250m
19.05.2019 10:30	10 min	100m 180-250m
19.05.2019 10:40	10 min	80-250m
19.05.2019 10:50	10 min	40m 80-250m
19.05.2019 11:00	1 hours 20 min	80-250m
19.05.2019 12:20	10 min	80m 100m 120m 140m 160m 200-250m
19.05.2019 12:30	1 hours 40 min	80-250m
19.05.2019 14:10	10 min	60-250m
19.05.2019 14:20	10 min	40-250m
19.05.2019 14:30	10 min	80-250m
19.05.2019 14:40	10 min	100-250m
19.05.2019 14:50	20 min	80-250m
19.05.2019 15:10	10 min	40m 80-250m
19.05.2019 15:20	10 min	80-250m
19.05.2019 15:30	10 min	120-250m
19.05.2019 15:40	40 min	80-250m
19.05.2019 16:20	10 min	100-250m
19.05.2019 16:30	20 min	80-250m
19.05.2019 16:50	10 min	40m 80m 100m 120m 140m 160m 180m
19.05.2019 17:00	10 min	40m 80m
19.05.2019 17:10	20 min	80m 100m 120m
19.05.2019 17:30	10 min	80m 100m
19.05.2019 17:40	10 min	80m
19.05.2019 17:50	10 min	40m 80m
19.05.2019 18:00	20 min	40m
19.05.2019 18:40	10 min	40m 60m 80m
19.05.2019 18:50	10 min	80m 100m
19.05.2019 19:00	10 min	40m 60m 80m
19.05.2019 19:10	10 min	40m 60m
19.05.2019 19:20	10 min	40m 60m 80m
19.05.2019 19:30	10 min	80m 100m 120m 140m 160m 180m 200m
19.05.2019 19:40	10 min	40m 60m 80m 100m 120m 140m 160m 180m
19.05.2019 19:50	20 min	80m 100m 120m 140m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
19.05.2019 20:10	10 min	40m 60m 80m 100m 120m 140m
19.05.2019 20:20	30 min	80-250m
19.05.2019 20:50	10 min	60-250m
19.05.2019 21:00	10 min	80-250m
19.05.2019 21:10	10 min	40m 80-250m
19.05.2019 21:20	10 min	40m 80m 100m 140-250m
19.05.2019 21:30	10 min	40m 60m 80m 100m 120m 140m
19.05.2019 21:40	10 min	40m
19.05.2019 21:50	10 min	40m 60m 80m 100m 120m 140m
19.05.2019 22:00	10 min	40m 60m 100m
19.05.2019 22:10	10 min	40m 60m 80m 100m 120m
19.05.2019 22:20	10 min	40m 80-250m
19.05.2019 22:30	10 min	60m 80m 100m 120m 160m 180m 200m
19.05.2019 22:40	10 min	40m 80-250m
19.05.2019 22:50	30 min	80-250m
19.05.2019 23:20	10 min	40m 80m 100m 120m 140m
19.05.2019 23:30	10 min	80m 100m 120m 140m
19.05.2019 23:40	30 min	60m 80m 100m 120m 140m 160m
20.05.2019 00:10	10 min	40m 80m 100m 120m
20.05.2019 00:20	10 min	40m 80m 100m 120m 140m 160m
20.05.2019 00:30	10 min	80m 100m
20.05.2019 00:40	10 min	40m 60m 80m 100m 120m
20.05.2019 00:50	10 min	80m 100m 120m 140m 160m 180m
20.05.2019 01:00	10 min	40m 80m 100m 120m 140m
20.05.2019 01:10	10 min	40m 80m 100m 120m
20.05.2019 01:20	10 min	80m 100m 120m 140m 160m 180m
20.05.2019 01:30	10 min	60m 100m 120m
20.05.2019 01:40	10 min	60m 80m 100m 120m 140m 160m 180m
20.05.2019 01:50	10 min	80m 100m 120m 140m
20.05.2019 02:00	10 min	80m 100m 120m 140m 160m 180m 200m
20.05.2019 02:10	10 min	80m 100m 120m 140m 160m
20.05.2019 02:20	10 min	80m 120-250m
20.05.2019 02:30	40 min	80-250m
20.05.2019 03:10	20 min	80m 120-250m
20.05.2019 03:30	10 min	80-250m
20.05.2019 03:40	10 min	120-250m
20.05.2019 03:50	10 min	80m 120-250m
20.05.2019 04:00	10 min	80-250m
20.05.2019 04:10	10 min	120-250m
20.05.2019 04:20	50 min	80-250m
20.05.2019 05:10	10 min	120-250m



**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
20.05.2019 05:20	10 min	80-250m
20.05.2019 05:30	30 min	40m 120m 140m 160m 180m
20.05.2019 06:00	10 min	60m 80m 100m 120m
20.05.2019 06:10	10 min	80m 100m
20.05.2019 06:20	10 min	40m 60m 80m 100m 120m 140m
20.05.2019 06:30	30 min	80m 100m 120m
20.05.2019 07:00	30 min	80m 100m
20.05.2019 07:30	10 min	40m 60m 80m 100m
20.05.2019 07:40	10 min	40m 80m 100m
20.05.2019 07:50	10 min	40-250m
20.05.2019 08:00	10 min	40m 60m 80m 100m 120m 160-250m
20.05.2019 08:10	10 min	60m 80m 100m 120m 140m 160m 180m
20.05.2019 08:20	10 min	40m 60m 120m 140m
20.05.2019 08:30	10 min	40m 80-250m
20.05.2019 08:40	10 min	40m
20.05.2019 08:50	20 min	40m 60m 100m 140-250m
20.05.2019 09:10	20 min	40m 60m 80m 100m 120m
20.05.2019 09:30	10 min	40m 80m 100m 120m
20.05.2019 09:40	10 min	40m 80m 100m 120m 140m
20.05.2019 09:50	10 min	40m 80-250m
20.05.2019 10:00	10 min	40-250m
20.05.2019 10:10	10 min	60m 80m 100m 120m
20.05.2019 10:20	10 min	40m 60m 80m 100m 120m 140m 160m 180m 200m
20.05.2019 10:30	10 min	40m 80m 100m 120m
20.05.2019 10:40	1 hours 00 min	80-250m
20.05.2019 11:40	10 min	40m 60m
20.05.2019 11:50	10 min	80-250m
20.05.2019 12:00	20 min	60m 80m 100m 120m 140m
20.05.2019 12:20	10 min	40m 80m 100m
20.05.2019 12:30	10 min	80m 100m 120m 140m 160m 180m 200m
20.05.2019 12:40	10 min	40m 80-250m
20.05.2019 12:50	10 min	40m 80m 100m 120m
20.05.2019 13:00	10 min	40-250m
20.05.2019 13:10	10 min	80-250m
20.05.2019 13:20	10 min	40m 80-250m
20.05.2019 13:30	10 min	40-250m
20.05.2019 13:40	20 min	60-250m
20.05.2019 14:00	20 min	80-250m
20.05.2019 14:20	10 min	100-250m
20.05.2019 14:30	10 min	80-250m
20.05.2019 14:40	10 min	80m 120-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
20.05.2019 14:50	10 min	80-250m
20.05.2019 15:00	10 min	120-250m
20.05.2019 15:10	10 min	80m 120-250m
20.05.2019 15:20	20 min	80-250m
20.05.2019 15:40	20 min	80m 100m 120m 140m 160m 180m
20.05.2019 16:00	10 min	80-250m
20.05.2019 16:10	10 min	40m 80-250m
20.05.2019 16:20	30 min	80-250m
20.05.2019 16:50	10 min	80m 100m 120m 140m 160m 180m 200m
20.05.2019 17:00	20 min	80m 100m 120m 140m
20.05.2019 17:20	10 min	80m 100m 120m
20.05.2019 17:30	10 min	80-250m
20.05.2019 17:40	10 min	120-250m
20.05.2019 17:50	10 min	80-250m
20.05.2019 18:00	10 min	120-250m
20.05.2019 18:10	20 min	80m 120-250m
20.05.2019 18:30	10 min	120-250m
20.05.2019 18:40	10 min	80m 120-250m
20.05.2019 18:50	20 min	80-250m
20.05.2019 19:10	20 min	60-250m
20.05.2019 19:30	10 min	80-250m
20.05.2019 19:40	10 min	40-250m
20.05.2019 19:50	50 min	80-250m
20.05.2019 20:40	10 min	40m 80-250m
20.05.2019 20:50	10 min	40m 80m 100m 120m 160m 200m
20.05.2019 21:00	10 min	40m 80-250m
20.05.2019 21:10	10 min	60m 80m 100m 120m 140m 160m
20.05.2019 21:20	20 min	80-250m
20.05.2019 21:40	10 min	40m 80m 100m 120m 140m
20.05.2019 21:50	10 min	40m 60m 80m 100m
20.05.2019 22:00	20 min	40m 60m 80m
20.05.2019 22:20	20 min	40m 80m
20.05.2019 22:40	10 min	40m 80m 100m
20.05.2019 22:50	10 min	40m 80m
20.05.2019 23:00	20 min	80m
20.05.2019 23:20	10 min	60m 80m
20.05.2019 23:30	10 min	80m
20.05.2019 23:40	10 min	40m 60m 80m
20.05.2019 23:50	10 min	40m 80m
21.05.2019 00:00	10 min	40m 80m 100m
21.05.2019 00:10	30 min	40m 80m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
21.05.2019 00:40	10 min	40m 80m 100m 120m
21.05.2019 00:50	10 min	40m 60m 80m
21.05.2019 01:10	20 min	40m 60m 80m
21.05.2019 01:30	10 min	40m
21.05.2019 01:40	10 min	40m 60m
21.05.2019 01:50	10 min	40m 60m 80m 100m
21.05.2019 02:00	30 min	40m 80-250m
21.05.2019 02:30	10 min	120-250m
21.05.2019 02:40	10 min	80m 120-250m
21.05.2019 02:50	10 min	80-250m
21.05.2019 03:00	10 min	80m 100m 120m 140m 160m 180m 200m
21.05.2019 03:10	10 min	80-250m
21.05.2019 03:20	10 min	140-250m
21.05.2019 03:30	20 min	140m 250m
21.05.2019 04:00	20 min	100m 120m 140m 200-250m
21.05.2019 04:20	10 min	140m
21.05.2019 04:30	10 min	120m 140m 180m
21.05.2019 04:40	10 min	160m 180m
21.05.2019 04:50	20 min	120m
21.05.2019 05:20	10 min	160m 200m
21.05.2019 06:10	10 min	80m 120m 140m 180m 200m
21.05.2019 06:20	10 min	160m
21.05.2019 06:30	10 min	100m 140-250m
21.05.2019 06:40	10 min	160m
21.05.2019 07:00	10 min	140-250m
21.05.2019 07:10	10 min	80-250m
21.05.2019 07:20	10 min	100-250m
21.05.2019 07:30	10 min	160m 180m 200m
21.05.2019 07:40	10 min	120m 180-250m
21.05.2019 07:50	10 min	180m 200m
21.05.2019 08:00	10 min	80-250m
21.05.2019 08:10	10 min	200m
21.05.2019 08:20	10 min	140-250m
21.05.2019 08:30	20 min	120-250m
21.05.2019 09:00	10 min	160m
21.05.2019 09:10	10 min	160-250m
21.05.2019 09:20	10 min	80-250m
21.05.2019 09:30	10 min	160-250m
21.05.2019 09:40	10 min	80-250m
21.05.2019 09:50	10 min	80m 100m 140m 180m 200m
21.05.2019 10:00	20 min	100m 140-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
21.05.2019 10:30	20 min	160m 180m 200m
21.05.2019 10:50	10 min	100-250m
21.05.2019 11:00	10 min	80-250m
21.05.2019 11:10	10 min	80m 120m 160m 180m 200m
21.05.2019 11:20	10 min	40m 80-250m
21.05.2019 11:30	10 min	100-250m
21.05.2019 11:40	20 min	80-250m
21.05.2019 12:00	10 min	160m 180m
21.05.2019 12:10	10 min	80-250m
21.05.2019 12:20	10 min	80m 140-250m
21.05.2019 12:30	10 min	80-250m
21.05.2019 12:40	10 min	80m 120-250m
21.05.2019 12:50	10 min	80m 140m 160m 180m 250m
21.05.2019 13:00	10 min	140m 200m
21.05.2019 13:10	20 min	80-250m
21.05.2019 13:30	10 min	140-250m
21.05.2019 13:40	20 min	80-250m
21.05.2019 14:00	10 min	40m 80-250m
21.05.2019 14:10	10 min	80-250m
21.05.2019 14:20	10 min	100m 140-250m
21.05.2019 14:30	10 min	80-250m
21.05.2019 14:40	20 min	60m 160m 200m
21.05.2019 15:10	10 min	80-250m
21.05.2019 15:20	10 min	80m 100m 120m 160m 200m
21.05.2019 15:50	10 min	140m 160m 200m
21.05.2019 16:10	10 min	80-250m
21.05.2019 16:20	10 min	80m 200-250m
21.05.2019 16:30	10 min	140m
21.05.2019 16:40	10 min	140m 250m
21.05.2019 16:50	10 min	100m 140m 180-250m
21.05.2019 17:00	10 min	160m 250m
21.05.2019 17:10	20 min	80m 100m 160-250m
21.05.2019 17:30	10 min	80-250m
21.05.2019 17:40	10 min	160m
21.05.2019 17:50	10 min	120m 160m 200-250m
21.05.2019 18:00	10 min	100m 120m 160-250m
21.05.2019 18:10	10 min	80-250m
21.05.2019 18:20	10 min	100-250m
21.05.2019 18:40	20 min	80-250m
21.05.2019 19:00	10 min	180m 250m
21.05.2019 19:10	10 min	120m 140m 180-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
21.05.2019 19:20	10 min	40m 80-250m
21.05.2019 19:30	10 min	140m 160m 200-250m
21.05.2019 19:40	10 min	80-250m
21.05.2019 20:00	30 min	80-250m
21.05.2019 20:30	10 min	80m 100m 120m 160-250m
21.05.2019 20:40	20 min	80-250m
21.05.2019 21:00	10 min	120m 140m 180-250m
21.05.2019 21:10	20 min	80-250m
21.05.2019 21:30	10 min	100-250m
21.05.2019 21:40	50 min	80-250m
21.05.2019 22:30	10 min	40m 80-250m
21.05.2019 22:40	10 min	80-250m
21.05.2019 23:00	10 min	200-250m
21.05.2019 23:20	10 min	80m 100m 120m 140m 160m 200-250m
21.05.2019 23:30	20 min	80-250m
21.05.2019 23:50	10 min	80m 100m 120m 140m 160m 250m
22.05.2019 00:00	10 min	80-250m
22.05.2019 00:10	10 min	40m 80-250m
22.05.2019 00:20	10 min	80-250m
22.05.2019 00:30	10 min	40m
22.05.2019 00:40	2 hours 10 min	80-250m
22.05.2019 03:20	20 min	80-250m
22.05.2019 03:50	10 min	80-250m
22.05.2019 04:10	10 min	200-250m
22.05.2019 04:20	20 min	250m
22.05.2019 06:00	10 min	100-250m
22.05.2019 06:10	10 min	100m
22.05.2019 06:20	10 min	80-250m
22.05.2019 06:40	10 min	120m 160m 180m 200m
22.05.2019 06:50	10 min	80-250m
22.05.2019 09:30	10 min	Gill data missing
22.05.2019 10:50	10 min	80m 100m 120m 140m 160m 180m 200m
22.05.2019 13:20	50 min	250m
22.05.2019 14:20	20 min	250m
22.05.2019 14:40	10 min	200-250m
22.05.2019 14:50	20 min	180-250m
22.05.2019 15:10	20 min	140-250m
22.05.2019 15:30	10 min	140m
22.05.2019 15:40	10 min	100-250m
22.05.2019 15:50	30 min	100m
22.05.2019 16:20	10 min	120m 140m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
22.05.2019 16:30	10 min	180m
22.05.2019 16:40	20 min	180m 200m
22.05.2019 17:00	10 min	200m
22.05.2019 17:10	10 min	180-250m
22.05.2019 17:20	10 min	200-250m
22.05.2019 17:30	20 min	250m
22.05.2019 21:00	10 min	180-250m
23.05.2019 03:30	10 min	Gill data missing
23.05.2019 07:30	10 min	120m
23.05.2019 19:40	10 min	Gill data missing
25.05.2019 04:20	10 min	250m
25.05.2019 06:00	10 min	250m
25.05.2019 06:10	10 min	200-250m
25.05.2019 06:40	20 min	30m
25.05.2019 07:00	10 min	30m 40m 60m 80m 100m 120m 140m 160m 180m
25.05.2019 07:10	10 min	30m 40m
25.05.2019 07:40	10 min	40m 60m 80m 120m
25.05.2019 11:50	10 min	250m
25.05.2019 18:00	10 min	180-250m
25.05.2019 18:10	10 min	40m 60m 80m 100m
25.05.2019 18:20	10 min	40m 60m 80m 100m 120m
25.05.2019 18:30	10 min	40m 60m 80m 100m 120m 140m
25.05.2019 18:40	10 min	40m 60m 80m 100m 120m 140m 160m
25.05.2019 18:50	10 min	40-250m
25.05.2019 19:00	10 min	40m 60m 80m 100m 120m 140m
25.05.2019 19:10	20 min	40m
26.05.2019 06:00	10 min	140-250m
26.05.2019 06:10	10 min	180-250m
26.05.2019 06:50	10 min	250m
26.05.2019 10:30	10 min	250m
26.05.2019 11:10	20 min	250m
26.05.2019 12:10	10 min	250m
26.05.2019 13:40	10 min	250m
26.05.2019 17:30	40 min	140-250m
26.05.2019 18:10	10 min	160-250m
26.05.2019 18:20	10 min	180-250m
26.05.2019 18:30	20 min	160-250m
26.05.2019 18:50	20 min	140-250m
26.05.2019 19:10	10 min	120-250m
26.05.2019 19:20	20 min	180-250m
26.05.2019 20:10	10 min	250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
27.05.2019 02:00	10 min	Gill data missing
28.05.2019 06:00	20 min	80-250m
28.05.2019 07:10	10 min	Gill data missing
29.05.2019 05:10	10 min	Gill data missing
29.05.2019 05:30	10 min	Gill data missing
30.05.2019 00:20	20 min	250m
30.05.2019 00:40	20 min	200-250m
30.05.2019 01:00	10 min	180-250m
30.05.2019 01:10	30 min	120-250m
30.05.2019 01:40	10 min	140-250m
30.05.2019 01:50	20 min	100m 120m 140m
30.05.2019 02:10	20 min	120m 140m
30.05.2019 02:30	10 min	80m 120-250m
30.05.2019 02:40	50 min	120-250m
30.05.2019 03:30	10 min	100m 120m 140m
30.05.2019 03:40	10 min	120-250m
30.05.2019 03:50	10 min	120m 160-250m
30.05.2019 04:00	10 min	120-250m
30.05.2019 04:10	10 min	100-250m
30.05.2019 04:20	40 min	120-250m
30.05.2019 05:50	10 min	180-250m
30.05.2019 06:00	10 min	140-250m
30.05.2019 06:10	20 min	120-250m
30.05.2019 06:30	10 min	180-250m
30.05.2019 13:20	10 min	120-250m
30.05.2019 13:30	10 min	140-250m
30.05.2019 13:40	10 min	100-250m
30.05.2019 13:50	10 min	80-250m
30.05.2019 14:00	10 min	100-250m
30.05.2019 15:10	10 min	200-250m
30.05.2019 15:30	1 hours 20 min	250m
30.05.2019 17:00	40 min	250m
30.05.2019 17:40	30 min	200-250m
30.05.2019 18:10	10 min	250m
30.05.2019 20:50	40 min	250m
30.05.2019 21:30	10 min	180-250m
30.05.2019 21:40	10 min	200-250m
30.05.2019 22:10	10 min	200-250m
30.05.2019 22:30	10 min	200-250m
30.05.2019 22:40	10 min	250m
30.05.2019 23:20	20 min	160-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
30.05.2019 23:40	10 min	180m 200m
30.05.2019 23:50	20 min	180-250m
31.05.2019 00:10	20 min	200-250m
31.05.2019 00:30	10 min	160m 180m 200m
31.05.2019 00:40	10 min	200-250m
31.05.2019 00:50	10 min	160-250m
31.05.2019 01:00	10 min	140m 160m 180m
31.05.2019 01:10	10 min	140m
31.05.2019 01:20	10 min	140m 160m
31.05.2019 01:30	10 min	140-250m
31.05.2019 01:40	10 min	120-250m
31.05.2019 01:50	20 min	160-250m
31.05.2019 02:10	10 min	250m
31.05.2019 03:10	10 min	Gill data missing
31.05.2019 22:10	10 min	Gill data missing
01.06.2019 09:20	10 min	Gill data missing
01.06.2019 11:30	10 min	180m
01.06.2019 16:40	10 min	160m 180m 200m
01.06.2019 17:00	10 min	140m
01.06.2019 17:10	10 min	40m 120-250m
01.06.2019 17:20	10 min	40m 60m 100m 120m 140m 160m
01.06.2019 17:30	20 min	40m 60m 100m 120m 140m
01.06.2019 17:50	10 min	40m 140m 160m 180m 200m
01.06.2019 18:00	10 min	250m
01.06.2019 18:10	10 min	140-250m
01.06.2019 18:20	10 min	180-250m
01.06.2019 18:30	20 min	140m 160m
01.06.2019 19:20	20 min	200m
01.06.2019 21:20	10 min	Gill data missing
02.06.2019 03:40	10 min	Gill data missing
02.06.2019 04:20	10 min	250m
02.06.2019 05:20	10 min	Gill data missing
02.06.2019 10:00	10 min	Gill data missing
02.06.2019 12:00	10 min	100m
02.06.2019 12:10	20 min	80m 120m
02.06.2019 12:50	10 min	60m
02.06.2019 13:10	20 min	60m
02.06.2019 13:30	10 min	200-250m
02.06.2019 13:40	10 min	60m 80m 140m
02.06.2019 13:50	10 min	100m 180m
02.06.2019 14:00	20 min	140m



**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
02.06.2019 15:40	10 min	120-250m
02.06.2019 15:50	10 min	200-250m
02.06.2019 17:20	10 min	160m
02.06.2019 17:30	10 min	160m 180m
02.06.2019 17:40	20 min	140m 160m 200m
02.06.2019 18:10	10 min	200-250m
02.06.2019 18:20	10 min	100m
03.06.2019 01:00	10 min	Gill data missing
03.06.2019 04:10	10 min	60-250m
03.06.2019 04:20	10 min	80-250m
03.06.2019 14:50	10 min	Gill data missing
03.06.2019 22:30	10 min	Gill data missing
04.06.2019 04:10	10 min	Gill data missing
04.06.2019 04:30	10 min	Gill data missing
04.06.2019 05:20	10 min	Gill data missing
04.06.2019 10:20	10 min	250m
04.06.2019 10:30	20 min	200-250m
04.06.2019 10:50	10 min	140m 160m 180m
04.06.2019 11:00	10 min	140m 160m 180m 200m
04.06.2019 11:10	10 min	120-250m
04.06.2019 11:20	10 min	180-250m
04.06.2019 11:30	10 min	250m
04.06.2019 12:50	10 min	Gill data missing
04.06.2019 13:30	10 min	Gill data missing
04.06.2019 19:50	20 min	250m
04.06.2019 20:30	20 min	250m
05.06.2019 01:20	50 min	80m 250m
05.06.2019 02:10	10 min	40m 60m 80m
05.06.2019 02:40	30 min	60m
05.06.2019 03:10	20 min	80-250m
05.06.2019 03:30	10 min	80m 100m 120m
05.06.2019 03:40	10 min	80m 100m
05.06.2019 03:50	10 min	40m 60m 80m
05.06.2019 04:00	10 min	60m 80m 100m 120m
05.06.2019 05:10	10 min	200m
05.06.2019 05:30	10 min	140-250m
05.06.2019 05:40	10 min	120-250m
05.06.2019 06:50	20 min	200-250m
05.06.2019 07:10	10 min	250m
05.06.2019 07:20	10 min	200-250m
05.06.2019 07:30	10 min	160m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
05.06.2019 07:40	10 min	80m 120-250m
05.06.2019 07:50	10 min	100m 180m 200m
05.06.2019 08:00	10 min	180m 250m
05.06.2019 14:50	1 hours 00 min	250m
05.06.2019 15:50	10 min	Gill data missing
05.06.2019 22:20	10 min	200-250m
05.06.2019 22:40	10 min	250m
05.06.2019 23:20	10 min	200m
05.06.2019 23:50	10 min	250m
06.06.2019 03:00	30 min	40m 60m
06.06.2019 03:40	20 min	160-250m
06.06.2019 04:40	10 min	160m 200-250m
06.06.2019 04:50	10 min	200-250m
06.06.2019 05:00	10 min	180-250m
06.06.2019 05:10	10 min	120-250m
06.06.2019 05:20	10 min	200-250m
06.06.2019 14:50	10 min	Gill data missing
06.06.2019 17:00	10 min	Gill data missing
07.06.2019 16:00	20 min	140m 160m 180m 200m
07.06.2019 16:20	10 min	140m 160m 180m
07.06.2019 16:50	10 min	200-250m
07.06.2019 17:00	10 min	250m
07.06.2019 17:20	10 min	250m
07.06.2019 23:10	10 min	250m
08.06.2019 05:10	10 min	200-250m
08.06.2019 06:40	10 min	Gill data missing
08.06.2019 13:10	20 min	250m
08.06.2019 13:30	10 min	120-250m
08.06.2019 13:40	20 min	140-250m
08.06.2019 14:00	10 min	180-250m
08.06.2019 20:20	10 min	Gill data missing
09.06.2019 14:50	30 min	all LiDAR data missing
09.06.2019 16:50	30 min	160-250m
09.06.2019 17:20	10 min	200-250m
09.06.2019 17:30	10 min	180-250m
09.06.2019 18:20	20 min	250m
09.06.2019 18:50	10 min	160-250m
09.06.2019 19:00	10 min	40m 80m 100m 140m 160m 180m 250m
09.06.2019 19:10	20 min	60m
09.06.2019 20:00	10 min	250m
09.06.2019 22:00	10 min	Gill data missing

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
10.06.2019 00:40	10 min	Gill data missing
10.06.2019 08:40	10 min	Gill data missing
10.06.2019 09:10	10 min	Gill data missing
10.06.2019 16:10	10 min	80m 100m 120m 140m
10.06.2019 16:30	10 min	80m 100m
10.06.2019 16:40	10 min	80m
10.06.2019 17:20	10 min	Gill data missing
10.06.2019 17:30	10 min	80m 100m 120m 140m 160m 200-250m
10.06.2019 17:40	10 min	100m 160-250m
10.06.2019 17:50	10 min	250m
10.06.2019 18:00	10 min	80m 180m 200m
10.06.2019 18:10	20 min	250m
10.06.2019 18:40	10 min	250m
10.06.2019 18:50	10 min	140m 160m 180m 200m
10.06.2019 19:00	10 min	180-250m
10.06.2019 19:10	10 min	120m 140m
10.06.2019 19:20	10 min	140m 160m 180m 200m
10.06.2019 19:30	10 min	160m 180m 200m
10.06.2019 19:40	10 min	120m 140m
10.06.2019 19:50	20 min	120m 140m 160m
10.06.2019 20:10	10 min	200-250m
10.06.2019 20:20	20 min	250m
10.06.2019 22:00	10 min	200-250m
10.06.2019 22:40	10 min	80-250m
10.06.2019 22:50	10 min	160-250m
10.06.2019 23:00	10 min	250m
10.06.2019 23:10	10 min	80m 120-250m
10.06.2019 23:20	1 hours 50 min	80-250m
11.06.2019 01:10	10 min	80m 120m 140m 160m 180m 200m
11.06.2019 01:20	10 min	120m 180m 250m
11.06.2019 02:00	10 min	120m 250m
11.06.2019 02:10	20 min	120-250m
11.06.2019 02:40	10 min	80m 100m 120m 140m 160m 180m
11.06.2019 02:50	20 min	80-250m
11.06.2019 03:30	10 min	250m
11.06.2019 03:40	10 min	120m 160-250m
11.06.2019 04:00	20 min	80-250m
11.06.2019 04:20	10 min	200m
11.06.2019 04:30	10 min	80m 140m 160m 180m 250m
11.06.2019 04:40	40 min	80-250m
11.06.2019 05:20	10 min	40m 80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
11.06.2019 05:30	10 min	80m 100m 120m 140m 180-250m
11.06.2019 07:50	10 min	Gill data missing
11.06.2019 08:40	10 min	40m 80-250m
12.06.2019 01:20	10 min	200-250m
12.06.2019 01:30	10 min	120m 140m 200-250m
12.06.2019 01:40	10 min	80-250m
12.06.2019 01:50	10 min	100-250m
12.06.2019 02:50	10 min	160m
12.06.2019 03:00	10 min	250m
12.06.2019 09:20	10 min	160m 200-250m
12.06.2019 09:30	10 min	160-250m
12.06.2019 09:40	10 min	30m 40m 60m 80m 100m 160-250m
12.06.2019 09:50	10 min	30m 40m 120-250m
12.06.2019 10:00	30 min	all LiDAR data missing
12.06.2019 10:30	10 min	140-250m
12.06.2019 10:50	10 min	140-250m
12.06.2019 12:20	10 min	140-250m
12.06.2019 12:30	10 min	180-250m
12.06.2019 12:40	10 min	200-250m
12.06.2019 15:40	10 min	250m
12.06.2019 17:50	10 min	180-250m
12.06.2019 18:00	10 min	200m
12.06.2019 18:10	10 min	160-250m
12.06.2019 18:20	10 min	120-250m
12.06.2019 18:30	10 min	140-250m
12.06.2019 19:10	20 min	100m
12.06.2019 19:30	10 min	120m 140m 160m 180m 200m
13.06.2019 03:20	10 min	200-250m
13.06.2019 03:40	10 min	80m 180-250m
13.06.2019 03:50	10 min	200-250m
13.06.2019 04:30	10 min	250m
13.06.2019 04:50	20 min	250m
13.06.2019 05:40	10 min	180-250m
13.06.2019 05:50	10 min	250m
13.06.2019 06:20	10 min	200-250m
13.06.2019 07:10	10 min	180m 200m
13.06.2019 07:30	20 min	200-250m
14.06.2019 03:20	10 min	Gill data missing
14.06.2019 07:00	10 min	Gill data missing
14.06.2019 11:30	10 min	200-250m
14.06.2019 17:00	10 min	250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
14.06.2019 17:40	30 min	250m
14.06.2019 18:30	10 min	250m
14.06.2019 18:40	20 min	200-250m
14.06.2019 19:00	10 min	200m
14.06.2019 19:10	10 min	200-250m
14.06.2019 19:20	10 min	160-250m
14.06.2019 19:30	10 min	160m
14.06.2019 20:40	10 min	250m
15.06.2019 01:40	10 min	250m
15.06.2019 03:20	20 min	80m 100m 120m 140m 180m
15.06.2019 03:40	10 min	80-250m
15.06.2019 03:50	10 min	140m 180-250m
15.06.2019 04:10	10 min	all LiDAR data missing
15.06.2019 04:20	10 min	30m 140m 180m 200m
15.06.2019 04:30	10 min	100m 120m 140m 160m 180m
15.06.2019 05:00	10 min	60-250m
15.06.2019 05:10	20 min	60-250m
15.06.2019 06:00	10 min	120m
15.06.2019 06:10	10 min	140-250m
15.06.2019 06:20	10 min	160-250m
15.06.2019 06:30	10 min	200-250m
15.06.2019 18:10	10 min	80m 100m 120m 140m 180m
15.06.2019 18:20	10 min	60-250m
15.06.2019 18:30	10 min	60m 80m 100m 120m 140m 160m 180m 250m
15.06.2019 18:40	10 min	80m 100m 120m
16.06.2019 07:10	10 min	250m
16.06.2019 09:20	10 min	250m
17.06.2019 05:20	10 min	Gill data missing
18.06.2019 06:30	10 min	Gill data missing
18.06.2019 10:20	10 min	250m
18.06.2019 10:40	30 min	250m
18.06.2019 15:30	10 min	250m
18.06.2019 15:40	10 min	60m 140-250m
18.06.2019 15:50	20 min	40m 60m 80m 100m 120m 140m 160m 180m 200m
18.06.2019 16:10	10 min	40m 60m 80m 100m 120m 140m
18.06.2019 16:20	10 min	40m 60m 100m 120m
18.06.2019 16:30	20 min	40m 60m 80m 100m 120m 140m
18.06.2019 16:50	10 min	40m 60m 80m 100m 120m
18.06.2019 17:00	10 min	40m 60m 100m
18.06.2019 17:10	10 min	40m 60m
18.06.2019 17:20	20 min	40m 60m 80m 100m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
18.06.2019 17:40	10 min	40m 60m 80m 100m 120m
18.06.2019 17:50	10 min	40m 60m 80m 100m 120m 140m 160m 180m 200m
18.06.2019 18:00	10 min	80-250m
18.06.2019 18:10	10 min	100m 120m 140m 160m 200-250m
18.06.2019 18:20	10 min	140m 250m
19.06.2019 06:20	10 min	160m 180m 200m
19.06.2019 06:30	10 min	120m 140m
19.06.2019 06:40	10 min	80m 100m 120m 160m 200m
19.06.2019 06:50	10 min	80-250m
19.06.2019 07:00	10 min	100m 120m 140m
19.06.2019 07:10	10 min	60m
19.06.2019 07:20	10 min	60m 80m
19.06.2019 07:30	10 min	80m
19.06.2019 07:50	30 min	80m
19.06.2019 08:40	10 min	80m
19.06.2019 09:10	20 min	200-250m
19.06.2019 10:50	10 min	250m
19.06.2019 11:00	10 min	180m 200m
19.06.2019 11:10	10 min	160m 180m 200m
19.06.2019 11:30	30 min	250m
19.06.2019 12:00	10 min	180m 200m
19.06.2019 12:10	10 min	160m
19.06.2019 12:20	20 min	160m 180m
19.06.2019 12:40	10 min	120m
19.06.2019 13:20	1 hours 00 min	250m
19.06.2019 19:00	10 min	Gill data missing
20.06.2019 02:10	10 min	200-250m
20.06.2019 04:30	10 min	160m 180m 250m
20.06.2019 04:50	10 min	180m
20.06.2019 05:10	10 min	250m
20.06.2019 05:50	10 min	180m
20.06.2019 06:10	10 min	160m 180m 200m
20.06.2019 08:00	10 min	40m 60m 80m 100m 140m 160m 180m 200m
20.06.2019 08:20	10 min	60-250m
20.06.2019 09:00	10 min	100-250m
20.06.2019 14:10	10 min	40m 60m 80m 100m 120m 140m 160m 180m 200m
20.06.2019 14:20	10 min	40-250m
20.06.2019 14:30	10 min	40m 60m 80m 100m 120m
20.06.2019 14:40	10 min	40m 60m
20.06.2019 19:40	10 min	250m
21.06.2019 03:10	10 min	Gill data missing

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
21.06.2019 04:50	10 min	Gill data missing
21.06.2019 12:20	10 min	250m
21.06.2019 19:40	10 min	250m
22.06.2019 05:20	10 min	Gill data missing
22.06.2019 10:00	10 min	250m
22.06.2019 10:10	10 min	40m 60m 80m 100m 120m 160m 200-250m
22.06.2019 10:20	10 min	40m 60m 80m
23.06.2019 19:10	10 min	Gill data missing
25.06.2019 01:00	10 min	250m
25.06.2019 01:40	20 min	250m
25.06.2019 03:40	20 min	120m
25.06.2019 19:10	50 min	100m
25.06.2019 20:00	10 min	180m 200m
25.06.2019 20:10	10 min	200m
25.06.2019 20:20	30 min	180m 200m
25.06.2019 20:50	10 min	180m
25.06.2019 23:00	10 min	80m 100m 120m 250m
25.06.2019 23:10	10 min	250m
25.06.2019 23:20	40 min	80-250m
26.06.2019 00:00	30 min	120-250m
26.06.2019 00:40	10 min	40m 60m
26.06.2019 00:50	10 min	40m
26.06.2019 01:00	20 min	40m 60m
26.06.2019 01:20	20 min	40m
26.06.2019 01:40	10 min	40m 80m
26.06.2019 01:50	10 min	80m
26.06.2019 02:00	20 min	40m 60m
26.06.2019 02:30	20 min	60m 80m
26.06.2019 02:50	10 min	60-250m
26.06.2019 03:00	10 min	40m 60m 80m 100m
26.06.2019 03:10	30 min	40m 60m 80m
26.06.2019 03:40	10 min	40m 60m
26.06.2019 03:50	10 min	40m
26.06.2019 04:00	30 min	40m 60m
26.06.2019 04:30	10 min	60m
26.06.2019 04:40	10 min	40m 60m 80m
26.06.2019 04:50	10 min	40m 60m
26.06.2019 05:00	10 min	40m
26.06.2019 05:10	10 min	40m 80m
26.06.2019 05:20	10 min	40m
26.06.2019 05:30	10 min	40m 80m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
26.06.2019 05:40	10 min	40m 60m 80m
26.06.2019 05:50	20 min	60m 80m
26.06.2019 06:10	10 min	40m 60m 80m 100m 120m
26.06.2019 06:20	10 min	40m 80m 100m 120m
26.06.2019 06:30	10 min	40m 80m 100m
26.06.2019 06:40	10 min	40m 60m
26.06.2019 06:50	10 min	40m 80m 100m 120m 140m 160m
26.06.2019 07:00	10 min	40m 80-250m
26.06.2019 07:10	10 min	80-250m
26.06.2019 07:20	10 min	40m 80m 100m 140m 160m 180m 200m
26.06.2019 07:30	10 min	60-250m
26.06.2019 07:40	10 min	80m 100m 140-250m
26.06.2019 07:50	10 min	80-250m
26.06.2019 08:00	10 min	100m 120m 160-250m
26.06.2019 08:10	10 min	80-250m
26.06.2019 08:20	10 min	120m 140m 250m
26.06.2019 08:40	10 min	80m 100m 120m 250m
26.06.2019 08:50	10 min	120-250m
26.06.2019 09:00	10 min	140m 180m
26.06.2019 09:20	10 min	180m
26.06.2019 09:40	10 min	200m
26.06.2019 09:50	10 min	120-250m
26.06.2019 10:00	10 min	140m 200m
26.06.2019 10:10	10 min	120m 160m 200m
26.06.2019 10:20	10 min	80m 120m 140m 160m 180m 250m
26.06.2019 10:30	10 min	180m
26.06.2019 10:40	10 min	40m 80-250m
26.06.2019 10:50	10 min	160m 180m 250m
26.06.2019 11:00	20 min	140-250m
26.06.2019 11:20	20 min	40m 80-250m
26.06.2019 11:40	20 min	80-250m
26.06.2019 12:00	10 min	100m 200-250m
26.06.2019 12:10	10 min	40m 80-250m
26.06.2019 12:20	10 min	100-250m
26.06.2019 12:30	20 min	80-250m
26.06.2019 12:50	10 min	40m 80-250m
26.06.2019 13:00	30 min	80-250m
26.06.2019 13:30	10 min	80m 100m 120m 140m 180-250m
26.06.2019 13:40	10 min	80-250m
26.06.2019 13:50	10 min	120m 200-250m
26.06.2019 14:00	10 min	40m 100m 140-250m



**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
26.06.2019 14:10	10 min	40m 80-250m
26.06.2019 14:20	10 min	80-250m
26.06.2019 14:30	10 min	80m 120-250m
26.06.2019 14:40	10 min	40m 80-250m
26.06.2019 14:50	10 min	80-250m
26.06.2019 15:00	10 min	80m 100m 120m 140m 180-250m
26.06.2019 15:10	10 min	40m 80-250m
26.06.2019 15:20	10 min	100m 120m 180-250m
26.06.2019 15:30	10 min	80-250m
26.06.2019 15:40	20 min	80m 140m 180-250m
26.06.2019 16:00	30 min	80-250m
26.06.2019 16:30	10 min	40m 80-250m
26.06.2019 16:40	40 min	40m 80m 120-250m
26.06.2019 17:20	10 min	160m 180m
26.06.2019 17:30	10 min	80-250m
26.06.2019 17:40	10 min	40m 80-250m
26.06.2019 17:50	10 min	80-250m
26.06.2019 18:00	10 min	180-250m
26.06.2019 18:10	10 min	60-250m
26.06.2019 18:20	10 min	80-250m
26.06.2019 18:30	10 min	80m 120-250m
26.06.2019 18:40	10 min	40m 80-250m
26.06.2019 18:50	10 min	100m 140-250m
26.06.2019 19:00	20 min	80-250m
26.06.2019 19:20	10 min	120m 140m 180-250m
26.06.2019 19:30	20 min	80-250m
26.06.2019 19:50	10 min	40m 80-250m
26.06.2019 20:00	10 min	160-250m
26.06.2019 20:10	10 min	80-250m
26.06.2019 20:20	10 min	40m 80-250m
26.06.2019 20:30	10 min	160m 180m 200m
26.06.2019 20:50	10 min	80m 100m 140-250m
26.06.2019 21:00	10 min	200-250m
26.06.2019 21:10	10 min	40m 80-250m
26.06.2019 21:20	10 min	80m 100m 140m 160m 200-250m
26.06.2019 21:30	10 min	140m
26.06.2019 21:40	10 min	80m 100m 140-250m
26.06.2019 21:50	10 min	160-250m
26.06.2019 22:00	20 min	80-250m
26.06.2019 22:20	10 min	80m 100m 140-250m
26.06.2019 22:30	10 min	80m 100m 140m 250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
26.06.2019 22:40	10 min	80m 100m 180-250m
26.06.2019 22:50	10 min	80m 100m 120m 200m
26.06.2019 23:20	20 min	200m
26.06.2019 23:40	10 min	80-250m
26.06.2019 23:50	10 min	250m
27.06.2019 00:00	10 min	80-250m
27.06.2019 00:10	10 min	200m
27.06.2019 00:20	10 min	80-250m
27.06.2019 00:30	10 min	160m 250m
27.06.2019 00:40	10 min	80-250m
27.06.2019 00:50	10 min	80m 100m 160-250m
27.06.2019 01:00	10 min	80-250m
27.06.2019 01:10	10 min	40m 80-250m
27.06.2019 01:20	10 min	80m 100m 120m 160-250m
27.06.2019 01:30	10 min	80-250m
27.06.2019 01:50	10 min	250m
27.06.2019 02:00	10 min	80m 160m 200-250m
27.06.2019 02:50	10 min	80-250m
27.06.2019 05:00	10 min	80m 120m 200m
27.06.2019 05:50	10 min	80m 250m
27.06.2019 06:00	10 min	80m 180-250m
27.06.2019 06:10	10 min	40m 80-250m
27.06.2019 07:00	10 min	120m
27.06.2019 07:30	10 min	80m 100m 120m 140m 200-250m
27.06.2019 07:40	40 min	80-250m
27.06.2019 08:20	10 min	80m 100m 120m 160-250m
27.06.2019 08:30	30 min	80-250m
27.06.2019 09:10	10 min	80-250m
27.06.2019 09:20	10 min	80m 120-250m
27.06.2019 09:30	10 min	80-250m
27.06.2019 09:40	10 min	100m 160-250m
27.06.2019 09:50	20 min	80-250m
27.06.2019 10:10	10 min	100m 140-250m
27.06.2019 10:20	40 min	80-250m
27.06.2019 11:00	10 min	140m 180-250m
27.06.2019 11:10	10 min	200m
27.06.2019 11:20	10 min	200-250m
27.06.2019 11:30	20 min	80m 100m 120m 140m 160m 200-250m
27.06.2019 11:50	10 min	140m 250m
27.06.2019 12:00	10 min	40m 80-250m
27.06.2019 12:10	1 hours 10 min	80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
27.06.2019 13:20	10 min	40m 80-250m
27.06.2019 13:30	10 min	100-250m
27.06.2019 13:40	10 min	80-250m
27.06.2019 13:50	10 min	100m 120m 200m
27.06.2019 14:00	10 min	100m 180-250m
27.06.2019 14:10	10 min	40m 80-250m
27.06.2019 14:20	10 min	40-250m
27.06.2019 14:30	10 min	80m 100m 120m 180-250m
27.06.2019 14:40	10 min	80m 100m 120m 160-250m
27.06.2019 14:50	30 min	40m 80-250m
27.06.2019 15:20	10 min	80-250m
27.06.2019 15:30	10 min	80m 100m 120m 200-250m
27.06.2019 15:40	10 min	80-250m
27.06.2019 15:50	10 min	80m 100m 200m
27.06.2019 16:00	20 min	80-250m
27.06.2019 16:20	10 min	40m 80-250m
27.06.2019 16:30	10 min	80-250m
27.06.2019 16:40	10 min	40m 80-250m
27.06.2019 16:50	10 min	80-250m
27.06.2019 17:00	10 min	100m 160m
27.06.2019 17:20	10 min	80m 100m 120m 160-250m
27.06.2019 17:30	10 min	180m
27.06.2019 17:50	10 min	80-250m
27.06.2019 18:00	10 min	80m 100m 120m 160-250m
27.06.2019 18:10	10 min	40m 80-250m
27.06.2019 18:20	10 min	80-250m
27.06.2019 18:30	10 min	80m
27.06.2019 18:40	10 min	80m 140-250m
27.06.2019 19:30	10 min	40m 100m 140m 160m 180m 250m
27.06.2019 19:40	30 min	80-250m
27.06.2019 20:10	10 min	80m 100m 120m 140m 160m 200-250m
27.06.2019 20:20	10 min	80-250m
27.06.2019 20:30	10 min	80m 100m
27.06.2019 20:50	10 min	80m 100m 120m 140m 180-250m
27.06.2019 21:00	20 min	80m 120m 140m 180-250m
27.06.2019 21:20	10 min	80m 120m 180-250m
27.06.2019 21:30	10 min	80-250m
27.06.2019 21:40	10 min	200-250m
27.06.2019 21:50	10 min	80m 100m 120m 200-250m
27.06.2019 22:00	10 min	120m 200m
27.06.2019 22:10	10 min	100m 200-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
27.06.2019 22:20	10 min	80m 100m 120m 140m 160m 200-250m
27.06.2019 22:30	10 min	80-250m
27.06.2019 22:50	50 min	80-250m
27.06.2019 23:40	10 min	80m 100m 160m
27.06.2019 23:50	10 min	80-250m
28.06.2019 00:30	10 min	200m
28.06.2019 00:40	40 min	80-250m
28.06.2019 01:20	10 min	80m 100m 120m 140m 160m 200-250m
28.06.2019 01:30	10 min	80-250m
28.06.2019 01:50	30 min	80-250m
28.06.2019 02:20	10 min	80m 120-250m
28.06.2019 02:30	10 min	80-250m
28.06.2019 02:40	10 min	80m 100m 120m 140m 160m 180m 200m
28.06.2019 02:50	1 hours 20 min	80-250m
28.06.2019 04:10	10 min	40m
28.06.2019 04:20	20 min	80-250m
28.06.2019 04:50	10 min	80-250m
28.06.2019 05:10	20 min	80-250m
28.06.2019 05:40	10 min	80-250m
28.06.2019 06:30	10 min	80m 120m 180-250m
28.06.2019 06:50	40 min	80-250m
28.06.2019 07:30	10 min	40m 80-250m
28.06.2019 07:40	20 min	80-250m
28.06.2019 08:10	30 min	80-250m
28.06.2019 08:40	10 min	40m 80-250m
28.06.2019 08:50	20 min	80-250m
28.06.2019 09:20	10 min	80-250m
28.06.2019 09:30	10 min	80m 140m 180m 250m
28.06.2019 09:40	1 hours 30 min	80-250m
28.06.2019 11:10	10 min	80m 120m 180m 200m
28.06.2019 11:20	10 min	80-250m
28.06.2019 11:30	10 min	120m 200m
28.06.2019 11:40	20 min	80-250m
28.06.2019 14:50	10 min	Gill data missing
29.06.2019 22:40	10 min	80m 120m
29.06.2019 22:50	10 min	60m
29.06.2019 23:30	10 min	40m 200m
30.06.2019 00:20	10 min	120m 140m
30.06.2019 00:30	10 min	100m 120m 140m
30.06.2019 00:40	20 min	100m 120m
30.06.2019 01:00	10 min	100m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
30.06.2019 03:10	10 min	Gill data missing
30.06.2019 15:20	10 min	Gill data missing
30.06.2019 16:00	10 min	Gill data missing
30.06.2019 19:40	10 min	Gill data missing
30.06.2019 21:30	30 min	250m
30.06.2019 22:00	10 min	200-250m
30.06.2019 22:10	10 min	250m
30.06.2019 22:30	10 min	250m
01.07.2019 17:00	10 min	Gill data missing
02.07.2019 14:50	10 min	40m 60m 100-250m
02.07.2019 15:00	10 min	140-250m
02.07.2019 15:10	10 min	40m 60m 80m 100m
02.07.2019 15:20	10 min	100-250m
02.07.2019 15:30	10 min	100m
02.07.2019 15:40	10 min	40m 60m 80m 100m 180m
02.07.2019 15:50	10 min	40-250m
02.07.2019 16:00	10 min	40m 60m 80m 100m 120m 140m 180-250m
02.07.2019 16:10	10 min	40-250m
02.07.2019 16:20	10 min	40m 60m 80m 100m 160m 200m
02.07.2019 16:30	10 min	60m
02.07.2019 16:40	10 min	60m 100m
02.07.2019 17:30	10 min	60m 80m 140m
02.07.2019 17:40	10 min	40m 60m 80m 100m 120m
02.07.2019 17:50	10 min	40-250m
02.07.2019 18:00	10 min	40m 60m 80m 100m 120m 140m
02.07.2019 18:10	10 min	40m 60m 80m
02.07.2019 18:20	10 min	40m 60m
03.07.2019 08:40	10 min	Gill data missing
04.07.2019 15:40	10 min	Gill data missing
04.07.2019 16:20	10 min	250m
04.07.2019 16:40	20 min	250m
04.07.2019 17:00	10 min	200-250m
04.07.2019 17:30	10 min	250m
04.07.2019 17:50	50 min	200-250m
04.07.2019 18:50	10 min	140m
05.07.2019 08:10	10 min	Gill data missing
05.07.2019 16:40	10 min	Gill data missing
05.07.2019 17:10	10 min	Gill data missing
05.07.2019 20:40	10 min	250m
05.07.2019 21:10	10 min	250m
06.07.2019 10:00	10 min	250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
06.07.2019 10:10	10 min	80-250m
06.07.2019 10:20	10 min	120m 140m 200-250m
06.07.2019 10:30	10 min	250m
06.07.2019 14:40	10 min	250m
06.07.2019 16:20	10 min	250m
09.07.2019 12:10	10 min	160-250m
09.07.2019 17:10	10 min	250m
09.07.2019 17:20	10 min	200-250m
09.07.2019 17:30	20 min	180-250m
09.07.2019 17:50	10 min	250m
10.07.2019 09:20	10 min	Gill data missing
10.07.2019 12:40	10 min	180-250m
10.07.2019 12:50	10 min	120-250m
10.07.2019 13:00	10 min	120m 140m 160m
10.07.2019 15:20	10 min	Gill data missing
10.07.2019 22:50	10 min	Gill data missing
11.07.2019 05:20	10 min	180-250m
11.07.2019 05:30	10 min	250m
11.07.2019 06:10	10 min	140m 160m 180m 200m
11.07.2019 06:20	10 min	160m 200-250m
11.07.2019 06:30	10 min	100m 120m 140m 160m 180m 200m
11.07.2019 06:40	20 min	80m 100m 160m 180m 250m
11.07.2019 07:00	10 min	100m
11.07.2019 07:10	20 min	100m 120m 140m
11.07.2019 07:30	10 min	140m 160m
11.07.2019 07:40	10 min	140m
11.07.2019 07:50	10 min	160m 180m 200m
11.07.2019 08:00	10 min	200-250m
11.07.2019 08:40	10 min	250m
11.07.2019 09:40	10 min	160-250m
11.07.2019 20:10	10 min	Gill data missing
12.07.2019 03:20	10 min	140-250m
12.07.2019 05:50	10 min	Gill data missing
12.07.2019 08:40	10 min	250m
12.07.2019 09:00	10 min	250m
12.07.2019 09:20	20 min	250m
12.07.2019 10:30	10 min	140m 180-250m
12.07.2019 10:40	10 min	140-250m
12.07.2019 10:50	10 min	250m
12.07.2019 12:50	10 min	250m
12.07.2019 13:00	10 min	160m 200-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
12.07.2019 13:10	10 min	250m
12.07.2019 14:00	10 min	80-250m
12.07.2019 14:20	10 min	250m
12.07.2019 16:30	10 min	Gill data missing
12.07.2019 16:50	10 min	180-250m
12.07.2019 17:00	10 min	80-250m
12.07.2019 17:10	10 min	40m 80-250m
12.07.2019 17:50	10 min	80-250m
12.07.2019 18:00	10 min	40m 80-250m
12.07.2019 18:10	10 min	80m 100m 120m 140m 200-250m
12.07.2019 18:20	30 min	80-250m
12.07.2019 18:50	10 min	80m 100m 160-250m
12.07.2019 19:00	10 min	80m 120-250m
12.07.2019 19:10	10 min	100m 140-250m
12.07.2019 19:20	2 hours 30 min	80-250m
12.07.2019 21:50	10 min	200-250m
12.07.2019 22:10	10 min	80-250m
12.07.2019 22:50	10 min	80-250m
12.07.2019 23:00	10 min	80m 100m 120m 140m 160m 200-250m
13.07.2019 00:00	20 min	80-250m
13.07.2019 00:20	10 min	120m 140m 160m 180m
13.07.2019 01:10	10 min	160m 250m
13.07.2019 01:20	30 min	80-250m
13.07.2019 01:50	10 min	180m 250m
13.07.2019 02:00	10 min	80-250m
13.07.2019 02:10	10 min	100-250m
13.07.2019 02:30	10 min	180-250m
13.07.2019 02:40	20 min	80-250m
13.07.2019 03:00	20 min	100-250m
13.07.2019 03:20	10 min	120-250m
13.07.2019 03:30	10 min	100m 140m 160m 180m 250m
13.07.2019 03:50	10 min	120m
13.07.2019 04:00	20 min	120-250m
13.07.2019 04:30	10 min	100m 140-250m
13.07.2019 04:40	20 min	80-250m
13.07.2019 05:20	10 min	140-250m
13.07.2019 05:30	10 min	120-250m
13.07.2019 05:40	10 min	60-250m
13.07.2019 05:50	20 min	80-250m
13.07.2019 06:20	10 min	200-250m
13.07.2019 06:30	30 min	80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
13.07.2019 07:00	10 min	100m 120m 160m 200-250m
13.07.2019 07:10	10 min	120m 180-250m
13.07.2019 07:30	10 min	160m
13.07.2019 07:40	10 min	200-250m
13.07.2019 08:00	10 min	200m
13.07.2019 08:30	20 min	120-250m
13.07.2019 09:20	10 min	100-250m
13.07.2019 09:30	10 min	160-250m
13.07.2019 09:50	10 min	160-250m
13.07.2019 10:00	10 min	250m
13.07.2019 10:10	10 min	200-250m
13.07.2019 10:20	10 min	160m 200-250m
13.07.2019 10:30	10 min	200-250m
13.07.2019 10:40	10 min	250m
13.07.2019 12:30	10 min	80-250m
13.07.2019 12:40	10 min	40m 80-250m
13.07.2019 12:50	10 min	80-250m
13.07.2019 14:50	10 min	120m 160m 180m 250m
13.07.2019 15:00	10 min	140m 200-250m
13.07.2019 15:10	20 min	160-250m
13.07.2019 15:30	10 min	80m 120-250m
13.07.2019 15:40	10 min	40m 80-250m
13.07.2019 15:50	40 min	40m 80m 100m 120m 140m 160m 180m 200m
13.07.2019 16:30	10 min	40m 80-250m
13.07.2019 16:40	10 min	80-250m
13.07.2019 16:50	20 min	40m 80-250m
13.07.2019 17:10	10 min	80-250m
13.07.2019 17:20	10 min	40m 120m 140m 160m 200-250m
13.07.2019 17:30	20 min	80-250m
13.07.2019 17:50	10 min	40m 80-250m
13.07.2019 18:00	10 min	160-250m
13.07.2019 18:10	20 min	80-250m
13.07.2019 18:30	10 min	250m
13.07.2019 18:40	10 min	80m 100m 160-250m
13.07.2019 18:50	10 min	80-250m
13.07.2019 19:00	10 min	40m 80-250m
13.07.2019 19:10	10 min	80-250m
13.07.2019 19:20	10 min	80m 100m 120m 140m 160m 200-250m
13.07.2019 19:30	10 min	80-250m
13.07.2019 19:40	10 min	40m 80-250m
13.07.2019 19:50	10 min	250m



**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
13.07.2019 20:00	10 min	80-250m
13.07.2019 20:10	10 min	100m
13.07.2019 20:20	10 min	80-250m
13.07.2019 21:00	10 min	80m 250m
13.07.2019 21:10	20 min	80-250m
13.07.2019 21:30	20 min	40m 80-250m
13.07.2019 22:00	10 min	80m 100m 140-250m
13.07.2019 22:30	30 min	80-250m
13.07.2019 23:00	10 min	80m 100m 120m 200-250m
13.07.2019 23:10	10 min	80-250m
13.07.2019 23:20	10 min	80m 180m 250m
13.07.2019 23:30	20 min	80-250m
14.07.2019 00:20	10 min	80m 120m
14.07.2019 08:10	10 min	120m
14.07.2019 16:10	10 min	80m 100m 140-250m
14.07.2019 17:00	10 min	80m 100m 120m 180-250m
14.07.2019 21:30	10 min	Gill data missing
14.07.2019 21:50	10 min	180m 250m
15.07.2019 00:20	10 min	80m 100m 120m 160m 200-250m
15.07.2019 01:00	1 hours 00 min	80-250m
15.07.2019 02:10	10 min	80-250m
15.07.2019 02:40	10 min	80m 120m 160m 200m
15.07.2019 03:10	10 min	80m 100m 120m 180-250m
15.07.2019 04:10	10 min	120m 140m 200m
15.07.2019 05:30	10 min	80-250m
15.07.2019 05:40	10 min	40m 80-250m
15.07.2019 07:00	20 min	80-250m
15.07.2019 07:20	10 min	80m 180-250m
15.07.2019 07:30	10 min	80-250m
15.07.2019 09:10	10 min	80-250m
15.07.2019 11:50	10 min	200-250m
15.07.2019 12:00	10 min	100m
15.07.2019 12:10	10 min	80-250m
15.07.2019 12:20	10 min	140-250m
15.07.2019 12:50	10 min	100-250m
15.07.2019 13:00	10 min	80-250m
15.07.2019 13:20	10 min	80m 120m 160-250m
15.07.2019 13:40	10 min	140m 200-250m
15.07.2019 14:00	10 min	120m
15.07.2019 14:40	10 min	120m 160m 200m
15.07.2019 14:50	10 min	140m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
15.07.2019 15:00	10 min	200-250m
15.07.2019 15:20	10 min	80-250m
15.07.2019 16:40	10 min	100m 120m 160-250m
15.07.2019 16:50	10 min	80-250m
15.07.2019 17:50	10 min	140-250m
15.07.2019 18:00	10 min	80-250m
15.07.2019 18:10	10 min	140-250m
15.07.2019 19:30	10 min	80-250m
15.07.2019 19:40	10 min	40m 80-250m
15.07.2019 19:50	10 min	80-250m
15.07.2019 20:00	10 min	160m
15.07.2019 20:10	10 min	80-250m
15.07.2019 20:30	30 min	80-250m
15.07.2019 21:10	10 min	100m 140-250m
15.07.2019 21:40	40 min	80-250m
15.07.2019 22:40	10 min	80-250m
16.07.2019 01:10	30 min	80-250m
16.07.2019 02:20	10 min	80-250m
16.07.2019 02:50	10 min	80m 100m 250m
16.07.2019 03:00	10 min	80m 120-250m
16.07.2019 03:20	40 min	80-250m
16.07.2019 04:10	10 min	80-250m
16.07.2019 04:20	10 min	40m
16.07.2019 04:30	10 min	80-250m
16.07.2019 05:10	20 min	80-250m
16.07.2019 05:30	10 min	80m 250m
16.07.2019 06:50	30 min	80-250m
16.07.2019 09:10	10 min	80-250m
16.07.2019 18:20	10 min	160m
17.07.2019 07:10	10 min	250m
17.07.2019 21:50	10 min	Gill data missing
18.07.2019 01:40	10 min	100m
18.07.2019 04:10	10 min	Gill data missing
18.07.2019 05:30	10 min	Gill data missing
18.07.2019 05:50	10 min	Gill data missing
18.07.2019 07:50	10 min	Gill data missing
18.07.2019 14:20	10 min	Gill data missing
18.07.2019 14:30	10 min	140-250m
18.07.2019 15:10	30 min	160m
18.07.2019 15:40	10 min	180m 250m
18.07.2019 16:20	10 min	140m 160m 180m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
18.07.2019 16:40	20 min	250m
18.07.2019 17:00	10 min	80-250m
18.07.2019 17:10	30 min	120-250m
18.07.2019 18:10	10 min	160-250m
18.07.2019 18:20	10 min	140m
18.07.2019 18:40	10 min	120-250m
18.07.2019 18:50	10 min	250m
18.07.2019 19:10	10 min	120m 140m 160m 200m
18.07.2019 19:20	10 min	200m
18.07.2019 19:30	20 min	120-250m
18.07.2019 19:50	20 min	180-250m
18.07.2019 20:10	10 min	120-250m
18.07.2019 20:20	20 min	180-250m
18.07.2019 20:40	20 min	30m 120-250m
18.07.2019 21:00	10 min	30m 80-250m
18.07.2019 21:10	10 min	30m 180-250m
18.07.2019 21:20	10 min	120-250m
18.07.2019 21:30	10 min	120m 160-250m
18.07.2019 21:50	10 min	180-250m
19.07.2019 02:50	10 min	180-250m
19.07.2019 03:00	10 min	160m 180m
19.07.2019 03:10	10 min	120m 140m 160m
19.07.2019 03:20	40 min	100m
19.07.2019 04:00	10 min	80m 100m
19.07.2019 04:10	30 min	80m
19.07.2019 04:50	30 min	80m
19.07.2019 05:20	30 min	100m 120m
19.07.2019 06:10	10 min	250m
19.07.2019 07:40	10 min	250m
20.07.2019 03:40	10 min	160-250m
20.07.2019 03:50	10 min	100m 120m 140m 160m 180m 200m
20.07.2019 04:00	10 min	120-250m
20.07.2019 04:10	10 min	120-250m
20.07.2019 04:20	10 min	100m 120m 140m 250m
20.07.2019 04:30	10 min	120-250m
20.07.2019 04:40	10 min	80m 140m 160m 180m 200m
20.07.2019 04:50	10 min	140-250m
20.07.2019 05:00	10 min	100m 120m 140m 160m 180m 200m
20.07.2019 05:10	20 min	80-250m
20.07.2019 05:30	10 min	250m
20.07.2019 05:40	10 min	80m 100m 120m 140m 160m 180m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
20.07.2019 05:50	20 min	120m 140m 180m 200m
20.07.2019 06:10	20 min	120m 140m
20.07.2019 06:40	10 min	180-250m
20.07.2019 06:50	30 min	180m
20.07.2019 11:00	10 min	250m
20.07.2019 11:20	10 min	250m
20.07.2019 11:50	10 min	Gill data missing
20.07.2019 12:00	10 min	160-250m
20.07.2019 12:10	20 min	250m
20.07.2019 17:00	30 min	250m
20.07.2019 17:30	10 min	200-250m
20.07.2019 20:40	40 min	250m
21.07.2019 09:10	10 min	Gill data missing
21.07.2019 14:40	20 min	200-250m
21.07.2019 15:00	10 min	100m 120m 140m 160m
21.07.2019 15:10	10 min	60m 80m 100m 120m 140m 160m
21.07.2019 15:20	10 min	40m 60m 80m 100m 120m 140m 160m 180m
21.07.2019 15:30	10 min	40-250m
21.07.2019 15:40	20 min	40m 60m 100-250m
21.07.2019 16:00	10 min	140m 180-250m
21.07.2019 16:10	10 min	250m
22.07.2019 10:00	10 min	Gill data missing
22.07.2019 12:40	10 min	Gill data missing
22.07.2019 23:10	10 min	Gill data missing
23.07.2019 02:50	10 min	250m
23.07.2019 09:40	10 min	Gill data missing
23.07.2019 14:40	10 min	Gill data missing
23.07.2019 18:10	10 min	Gill data missing
25.07.2019 08:30	20 min	250m
25.07.2019 08:50	10 min	200-250m
25.07.2019 09:00	20 min	180-250m
25.07.2019 09:20	10 min	200-250m
25.07.2019 09:30	40 min	250m
25.07.2019 10:10	10 min	200-250m
25.07.2019 16:30	20 min	60m
25.07.2019 17:20	10 min	40m
25.07.2019 19:10	10 min	Gill data missing
25.07.2019 23:20	10 min	250m
25.07.2019 23:40	10 min	200m
26.07.2019 00:00	10 min	250m
26.07.2019 01:00	20 min	250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
26.07.2019 01:20	10 min	200-250m
26.07.2019 01:30	30 min	250m
26.07.2019 18:10	10 min	Gill data missing
26.07.2019 21:50	10 min	Gill data missing
27.07.2019 01:10	10 min	200-250m
27.07.2019 01:20	10 min	250m
27.07.2019 01:30	10 min	40m 80m 100m 120m 140m 160m 180m 200m
27.07.2019 01:40	20 min	250m
27.07.2019 02:40	10 min	200-250m
27.07.2019 02:50	20 min	180-250m
27.07.2019 03:10	20 min	200-250m
27.07.2019 03:30	20 min	250m
27.07.2019 03:50	30 min	200-250m
27.07.2019 04:20	10 min	140m 160m 180m 200m
27.07.2019 04:30	10 min	80m 100m 120m 140m 160m 180m 200m
27.07.2019 04:40	10 min	180-250m
27.07.2019 04:50	20 min	200-250m
27.07.2019 05:10	10 min	200m
27.07.2019 05:20	10 min	80m 100m 120m 140m 160m 180m
27.07.2019 05:30	10 min	180-250m
27.07.2019 05:40	10 min	250m
27.07.2019 07:30	10 min	180m 200m
27.07.2019 07:40	10 min	250m
27.07.2019 15:40	30 min	40m 60m
27.07.2019 16:10	10 min	40m 60m 80m
27.07.2019 16:20	1 hours 00 min	40m 60m
27.07.2019 17:20	10 min	40m
27.07.2019 17:30	30 min	40m 80m
27.07.2019 18:00	10 min	40m
27.07.2019 18:10	10 min	40m 60m
27.07.2019 18:20	10 min	60m
27.07.2019 18:30	10 min	40m 60m
27.07.2019 18:40	20 min	40m
27.07.2019 19:10	10 min	40m
27.07.2019 19:20	10 min	40m 60m
27.07.2019 19:30	20 min	40m 60m 80m
27.07.2019 19:50	10 min	40m
27.07.2019 20:00	20 min	40m 80m 100m 120m 140m 160m 180m 200m
27.07.2019 20:20	10 min	40m 80-250m
27.07.2019 20:30	10 min	40m 60m
27.07.2019 20:40	20 min	40m 60m 80m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
27.07.2019 21:00	10 min	40m
27.07.2019 21:10	20 min	40m 60m
27.07.2019 21:30	10 min	40m
27.07.2019 21:40	40 min	60m 80m
27.07.2019 22:20	20 min	60m
27.07.2019 22:40	10 min	40m 60m
27.07.2019 23:10	2 hours 40 min	60m
28.07.2019 02:10	10 min	60m
28.07.2019 02:40	20 min	80m
28.07.2019 03:40	10 min	80m
28.07.2019 04:00	20 min	80m
28.07.2019 04:40	10 min	80m
28.07.2019 05:00	30 min	80m
28.07.2019 05:40	40 min	80m
28.07.2019 06:20	10 min	80-250m
28.07.2019 06:30	10 min	80m 100m 120m 140m 160m
28.07.2019 06:40	10 min	80-250m
28.07.2019 06:50	10 min	120-250m
28.07.2019 07:00	10 min	100-250m
28.07.2019 07:10	10 min	80-250m
28.07.2019 07:30	10 min	80m 100m 120m
28.07.2019 07:40	10 min	100m
28.07.2019 07:50	20 min	100m 120m
28.07.2019 08:10	50 min	80m
28.07.2019 09:10	40 min	80m
28.07.2019 09:50	10 min	80m 100m 120m
28.07.2019 10:00	10 min	80m 100m
28.07.2019 10:10	10 min	80m
28.07.2019 10:20	10 min	80m 100m 120m 140m
28.07.2019 10:30	20 min	80m 100m
28.07.2019 10:50	10 min	80-250m
28.07.2019 11:00	10 min	40m 80m 100m
28.07.2019 11:10	10 min	40m
28.07.2019 11:20	10 min	80m 100m 120m 140m 160m 180m
28.07.2019 11:40	10 min	160-250m
28.07.2019 11:50	10 min	80-250m
28.07.2019 12:00	10 min	250m
28.07.2019 12:10	10 min	80m 100m 120m 140m 160m 180m
28.07.2019 12:20	10 min	80-250m
28.07.2019 12:40	10 min	30m 80-250m
28.07.2019 12:50	10 min	80-250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
28.07.2019 13:10	20 min	80-250m
28.07.2019 13:30	30 min	30m 80-250m
28.07.2019 14:20	10 min	200m
28.07.2019 14:30	10 min	140m 160m 180m 200m
28.07.2019 14:40	10 min	30m 80-250m
28.07.2019 14:50	50 min	80-250m
28.07.2019 15:40	10 min	40m 80-250m
28.07.2019 15:50	20 min	120-250m
28.07.2019 16:10	10 min	200-250m
28.07.2019 16:20	10 min	100-250m
28.07.2019 16:40	10 min	200-250m
28.07.2019 17:00	10 min	200m
28.07.2019 17:10	1 hours 00 min	80-250m
28.07.2019 18:10	10 min	80m 160-250m
28.07.2019 18:20	10 min	80-250m
28.07.2019 18:30	10 min	80m 100m 120m 140m 180-250m
28.07.2019 18:40	10 min	120m 140m 180-250m
28.07.2019 18:50	10 min	40m 80-250m
28.07.2019 19:00	20 min	80-250m
28.07.2019 19:20	10 min	120-250m
28.07.2019 19:30	10 min	140-250m
28.07.2019 19:40	10 min	80-250m
28.07.2019 19:50	10 min	120m 160m 180m 200m
28.07.2019 20:00	20 min	80m 120-250m
28.07.2019 20:20	50 min	80-250m
28.07.2019 21:20	10 min	250m
29.07.2019 00:50	20 min	200-250m
29.07.2019 01:20	10 min	200-250m
29.07.2019 01:40	10 min	120m 140m
29.07.2019 01:50	10 min	140m 160m 180m 200m
29.07.2019 02:00	10 min	140m 160m 180m
29.07.2019 02:10	20 min	160m 180m
29.07.2019 02:30	10 min	160m 180m 200m
29.07.2019 02:40	20 min	140m 160m
29.07.2019 03:00	10 min	160m 180m 200m
29.07.2019 03:10	10 min	140m 160m
29.07.2019 03:20	20 min	140m 160m 180m
29.07.2019 03:40	10 min	180m 200m
29.07.2019 03:50	20 min	160m 180m 200m
29.07.2019 04:10	10 min	250m
29.07.2019 08:20	10 min	Gill data missing

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
29.07.2019 10:10	10 min	Gill data missing
29.07.2019 15:10	30 min	250m
29.07.2019 15:40	30 min	200-250m
29.07.2019 16:10	10 min	140m 160m 180m 200m
29.07.2019 16:20	20 min	120m 140m
29.07.2019 16:40	10 min	140m
29.07.2019 16:50	10 min	180-250m
29.07.2019 17:10	10 min	140-250m
29.07.2019 17:20	20 min	160-250m
29.07.2019 21:30	10 min	Gill data missing
30.07.2019 11:20	10 min	Gill data missing
30.07.2019 18:10	10 min	40m 60m
31.07.2019 09:50	10 min	Gill data missing
01.08.2019 00:30	10 min	Gill data missing
01.08.2019 05:40	20 min	80-250m
01.08.2019 06:10	10 min	120m 160-250m
01.08.2019 06:20	10 min	80-250m
01.08.2019 06:40	10 min	140m 200-250m
01.08.2019 07:50	10 min	80m 100m 120m 140m 180-250m
01.08.2019 08:10	10 min	250m
01.08.2019 08:20	10 min	140-250m
01.08.2019 08:30	10 min	160-250m
01.08.2019 08:40	10 min	80m 140-250m
01.08.2019 08:50	10 min	200-250m
01.08.2019 09:00	10 min	180-250m
01.08.2019 09:20	10 min	160m 180m 250m
01.08.2019 09:30	10 min	80m 160m 200-250m
01.08.2019 09:50	10 min	200-250m
01.08.2019 10:10	10 min	250m
01.08.2019 11:20	10 min	200-250m
01.08.2019 11:30	10 min	180-250m
01.08.2019 11:40	10 min	80-250m
01.08.2019 11:50	10 min	80m 180-250m
01.08.2019 12:00	20 min	80-250m
01.08.2019 12:20	10 min	80m 120m 180m 250m
01.08.2019 12:30	10 min	250m
01.08.2019 13:50	10 min	250m
01.08.2019 15:10	20 min	250m
01.08.2019 15:40	10 min	80-250m
01.08.2019 16:20	10 min	40m 80-250m
01.08.2019 16:30	20 min	80-250m



**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
01.08.2019 16:50	10 min	80m 140m 200-250m
01.08.2019 17:00	10 min	140-250m
01.08.2019 17:10	1 hours 10 min	80-250m
01.08.2019 18:20	10 min	120-250m
01.08.2019 18:40	10 min	80-250m
01.08.2019 18:50	10 min	80m 120-250m
01.08.2019 19:00	40 min	80-250m
01.08.2019 19:40	10 min	80m 140m 250m
01.08.2019 20:00	20 min	80-250m
01.08.2019 20:20	10 min	80m 140m 180m 250m
01.08.2019 20:30	10 min	200-250m
01.08.2019 21:00	10 min	80m 100m 120m 160-250m
01.08.2019 21:10	10 min	80m 100m 250m
02.08.2019 00:00	10 min	80-250m
02.08.2019 00:10	10 min	80m 100m 140-250m
02.08.2019 00:20	10 min	160-250m
02.08.2019 00:30	10 min	80-250m
02.08.2019 00:40	10 min	160m 180m 200m
02.08.2019 00:50	10 min	140m 160m 200-250m
02.08.2019 01:00	10 min	80-250m
02.08.2019 01:10	10 min	180-250m
02.08.2019 01:20	10 min	80m 140-250m
02.08.2019 01:30	10 min	40m 80-250m
02.08.2019 01:40	10 min	120-250m
02.08.2019 02:00	10 min	180-250m
02.08.2019 03:00	10 min	140-250m
02.08.2019 03:10	20 min	180m 250m
02.08.2019 03:30	10 min	180-250m
02.08.2019 03:50	10 min	80-250m
02.08.2019 04:00	20 min	200-250m
02.08.2019 04:20	10 min	200m
02.08.2019 04:40	10 min	160m
02.08.2019 04:50	10 min	200-250m
02.08.2019 05:00	10 min	200m
02.08.2019 05:40	10 min	180-250m
02.08.2019 05:50	10 min	250m
02.08.2019 06:00	20 min	200-250m
02.08.2019 07:20	10 min	250m
02.08.2019 16:30	10 min	200-250m
02.08.2019 16:50	10 min	80m 120m 160-250m
02.08.2019 17:00	10 min	250m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
02.08.2019 17:10	10 min	200-250m
02.08.2019 17:20	10 min	100m 120m 180-250m
02.08.2019 17:50	10 min	250m
02.08.2019 18:20	10 min	180-250m
02.08.2019 18:30	10 min	250m
02.08.2019 19:50	10 min	80m 180m 250m
02.08.2019 20:00	10 min	160m 250m
02.08.2019 20:30	10 min	40m 80-250m
02.08.2019 21:50	10 min	100m 120m 140m 180-250m
02.08.2019 22:00	10 min	Gill data missing
02.08.2019 22:30	20 min	80m 140-250m
02.08.2019 22:50	10 min	80-250m
02.08.2019 23:00	10 min	80m 100m 250m
03.08.2019 10:50	10 min	200-250m
03.08.2019 13:20	10 min	Gill data missing
04.08.2019 03:40	10 min	160m 180m 200m
04.08.2019 03:50	20 min	100m
04.08.2019 04:20	10 min	180m
04.08.2019 08:10	10 min	Gill data missing
04.08.2019 15:00	10 min	140m
04.08.2019 15:50	10 min	140m
04.08.2019 16:10	10 min	250m
05.08.2019 00:10	10 min	250m
05.08.2019 16:10	10 min	200m
05.08.2019 16:20	10 min	160m 180m 200m
05.08.2019 18:10	10 min	Gill data missing
06.08.2019 22:20	10 min	Gill data missing
07.08.2019 00:50	10 min	200-250m
07.08.2019 02:50	10 min	250m
07.08.2019 11:40	10 min	140m 200-250m
07.08.2019 19:10	10 min	Gill data missing
08.08.2019 22:10	10 min	Gill data missing
09.08.2019 01:10	10 min	Gill data missing
09.08.2019 04:40	10 min	250m
09.08.2019 06:40	10 min	250m
09.08.2019 07:40	10 min	250m
09.08.2019 12:20	10 min	200-250m
09.08.2019 12:30	10 min	180-250m
09.08.2019 12:40	10 min	250m
09.08.2019 12:50	10 min	160m 180m 200m
09.08.2019 13:30	10 min	180m 200m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
09.08.2019 14:00	10 min	160m
09.08.2019 15:40	10 min	Gill data missing
10.08.2019 00:00	10 min	120-250m
10.08.2019 00:10	10 min	250m
10.08.2019 00:20	10 min	180-250m
10.08.2019 03:30	10 min	Gill data missing
11.08.2019 21:20	20 hours 50 min	all LiDAR data missing
13.08.2019 12:10	10 min	30m 40m 60m 80m 120m
13.08.2019 12:20	20 hours 30 min	all LiDAR data missing
14.08.2019 11:50	10 min	Gill data missing
14.08.2019 13:00	10 min	Gill data missing
15.08.2019 02:00	10 min	40m 60m 80m 100m 160-250m
15.08.2019 02:10	19 hours 20 min	all LiDAR data missing
16.08.2019 04:30	10 min	Gill data missing
16.08.2019 09:00	10 min	40m
16.08.2019 09:10	10 min	60m 200-250m
16.08.2019 09:20	30 min	200m
16.08.2019 09:50	10 min	40-250m
16.08.2019 12:00	10 min	Gill data missing
16.08.2019 12:10	14 hours 40 min	all LiDAR data missing
17.08.2019 03:00	10 min	250m
17.08.2019 04:00	10 min	250m
17.08.2019 04:20	10 min	250m
17.08.2019 04:30	10 min	180-250m
17.08.2019 04:40	10 min	100m 120m 160-250m
17.08.2019 04:50	10 min	180-250m
17.08.2019 05:00	10 min	180m 250m
17.08.2019 05:20	10 min	180m
17.08.2019 05:50	10 min	120m 180-250m
17.08.2019 06:00	10 min	80m 160-250m
17.08.2019 06:40	10 min	250m
17.08.2019 06:50	10 min	80m 120-250m
17.08.2019 07:00	10 min	180-250m
17.08.2019 07:10	10 min	200-250m
17.08.2019 07:30	20 min	200-250m
17.08.2019 07:50	10 min	140-250m
17.08.2019 10:20	10 min	Gill data missing
17.08.2019 12:10	10 min	Gill data missing
17.08.2019 13:20	10 min	80-250m
17.08.2019 16:30	15 hours 00 min	all LiDAR data missing
18.08.2019 07:40	10 min	Gill data missing

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
18.08.2019 12:20	10 min	Gill data missing
18.08.2019 21:50	10 min	Gill data missing
18.08.2019 22:20	17 hours 00 min	all LiDAR data missing
19.08.2019 22:30	10 min	Gill data missing
20.08.2019 05:30	30 hours 20 min	all LiDAR data missing
21.08.2019 17:50	10 min	40m 60m 80m
21.08.2019 18:00	10 min	40m 60m
21.08.2019 18:10	10 min	40m 60m 80m
21.08.2019 18:20	10 min	40m 60m
21.08.2019 18:30	10 min	40m 60m 80m 100m 140m 250m
21.08.2019 18:40	10 min	60m
21.08.2019 23:00	10 min	Gill data missing
22.08.2019 08:40	10 min	60m 80m 140m 160m 200-250m
22.08.2019 08:50	20 hours 30 min	all LiDAR data missing
23.08.2019 11:50	10 min	Gill data missing
23.08.2019 14:50	10 min	30m
23.08.2019 15:00	221 hours 40 min	all LiDAR data missing
01.09.2019 21:20	12 hours 10 min	all LiDAR data missing
02.09.2019 10:20	10 min	160-250m
02.09.2019 10:30	10 min	120m 140m 180-250m
02.09.2019 10:40	20 min	60-250m
02.09.2019 11:00	1 hours 40 min	all LiDAR data missing
02.09.2019 12:40	10 min	40m 60m 80m 120m
02.09.2019 12:50	10 min	40m 60m 80m 100m 120m 250m
02.09.2019 13:00	10 min	40m 60m 80m 100m 160m
02.09.2019 13:10	10 min	40m 60m 80m 100m 120m 140m 160m 180m 200m
02.09.2019 13:20	10 min	40-250m
02.09.2019 13:30	20 min	40m 60m 80m 100m 120m 140m 160m 180m 200m
02.09.2019 13:50	30 min	40-250m
02.09.2019 14:20	10 min	all LiDAR data missing
02.09.2019 14:30	30 min	40-250m
02.09.2019 15:00	10 min	all LiDAR data missing
02.09.2019 15:10	10 min	40-250m
02.09.2019 15:20	10 min	all LiDAR data missing
02.09.2019 15:30	20 min	40-250m
02.09.2019 15:50	10 min	all LiDAR data missing
02.09.2019 16:00	20 min	40m 60m 80m 100m 120m 140m 160m
02.09.2019 16:20	10 min	40-250m
02.09.2019 16:30	10 min	40m 60m 80m 100m 120m 140m 160m 180m
02.09.2019 16:40	10 min	40m 60m 80m 100m 120m 140m 160m
02.09.2019 16:50	10 min	60m

**Table E.2: Gaps in the wind dataset of Deployment 2 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
02.09.2019 17:00	10 min	30m 40m 60m 100m 120m 140m 200m
02.09.2019 17:10	58 hours 50 min	all LiDAR data missing
05.09.2019 19:40	42 hours 40 min	all LiDAR data missing
07.09.2019 14:20	10 min	200-250m
08.09.2019 04:50	79 hours 40 min	all LiDAR data missing
11.09.2019 12:40	10 min	80m 160-250m
11.09.2019 12:50	10 min	250m
11.09.2019 13:30	10 min	80m 120m 140m 200-250m
11.09.2019 14:10	10 min	250m
11.09.2019 16:50	10 min	Gill data missing
11.09.2019 18:50	10 min	200m
11.09.2019 22:40	176 hours 30 min	all LiDAR data missing

### E.3 Deployment 3

**Table E.3: Gaps in the wind dataset of Deployment 3 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
02.08.2019 11:40	10 min	80m
02.08.2019 14:00	10 min	40m
04.08.2019 04:20	10 min	180m 200m
05.08.2019 00:10	10 min	120m
05.08.2019 16:20	10 min	140m 160m
05.08.2019 19:10	40 min	all LiDAR data missing
06.08.2019 08:40	50 min	all LiDAR data missing
07.08.2019 08:50	10 min	Gill data missing
09.08.2019 04:40	10 min	250m
09.08.2019 07:20	40 min	all LiDAR data missing
09.08.2019 20:30	10 min	Gill data missing
10.08.2019 00:00	10 min	160-250m
10.08.2019 10:10	10 min	Gill data missing
12.08.2019 06:20	10 min	Gill data missing
13.08.2019 11:50	10 min	Gill data missing
14.08.2019 08:40	10 min	Gill data missing
15.08.2019 06:40	10 min	100m
16.08.2019 13:30	10 min	Gill data missing
17.08.2019 13:00	10 min	Gill data missing
17.08.2019 13:20	40 min	all LiDAR data missing
18.08.2019 09:50	50 min	all LiDAR data missing
21.08.2019 11:40	10 min	Gill data missing
22.08.2019 09:50	10 min	Gill data missing
23.08.2019 02:20	10 min	250m
24.08.2019 03:30	10 min	Gill data missing
24.08.2019 06:10	10 min	Gill data missing
25.08.2019 16:20	10 min	Gill data missing
26.08.2019 12:00	10 min	Gill data missing
27.08.2019 19:00	10 min	Gill data missing
29.08.2019 18:30	40 min	all LiDAR data missing
30.08.2019 12:30	10 min	Gill data missing
02.09.2019 00:10	10 min	Gill data missing
02.09.2019 11:00	4 hours 30 min	all LiDAR data missing
04.09.2019 06:30	10 min	80m 100m
04.09.2019 08:40	10 min	60m 80m
07.09.2019 20:00	10 min	80m
08.09.2019 03:50	10 min	Gill data missing
08.09.2019 06:00	10 min	30m
08.09.2019 11:00	10 min	120m

**Table E.3: Gaps in the wind dataset of Deployment 3 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
08.09.2019 11:40	10 min	120m
08.09.2019 19:00	10 min	250m
09.09.2019 17:20	10 min	Gill data missing
09.09.2019 23:40	40 min	all LiDAR data missing
10.09.2019 07:00	10 min	140m 250m
10.09.2019 07:10	10 min	80m
10.09.2019 07:20	10 min	80m 100m
10.09.2019 09:10	10 min	30m 40m 60m 80m 100m 120m 140m 160m 180m
10.09.2019 10:50	40 min	all LiDAR data missing
10.09.2019 11:50	40 min	all LiDAR data missing
13.09.2019 16:20	10 min	250m
14.09.2019 22:20	10 min	all LiDAR data missing
15.09.2019 19:00	10 min	200-250m
15.09.2019 19:10	10 min	250m
15.09.2019 20:00	10 min	250m
15.09.2019 20:10	30 min	200-250m
15.09.2019 20:40	10 min	250m
16.09.2019 01:30	30 min	30m 40m 60m
16.09.2019 08:10	50 min	40m 60m
16.09.2019 10:10	10 min	80m 120-250m
16.09.2019 10:50	10 min	180m
16.09.2019 11:10	10 min	140-250m
16.09.2019 11:40	10 min	160m
17.09.2019 22:00	10 min	Gill data missing
18.09.2019 22:00	10 min	160m
19.09.2019 02:50	10 min	200m
19.09.2019 06:00	20 min	all LiDAR data missing
19.09.2019 08:40	10 min	60m
19.09.2019 17:30	10 min	100m
20.09.2019 01:30	10 min	120m 160m
20.09.2019 13:20	10 min	Gill data missing
21.09.2019 06:30	40 min	all LiDAR data missing
23.09.2019 03:20	10 min	250m
24.09.2019 07:40	10 min	60m 80m
24.09.2019 08:50	10 min	200-250m
24.09.2019 13:20	40 min	all LiDAR data missing
25.09.2019 09:30	20 min	120m
25.09.2019 10:20	10 min	80m 180m
25.09.2019 10:30	10 min	80m 100m 120m 140m 180m 250m
25.09.2019 10:50	10 min	80-250m
25.09.2019 14:00	10 min	120m 250m

**Table E.3: Gaps in the wind dataset of Deployment 3 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
25.09.2019 21:40	10 min	250m
27.09.2019 15:00	40 min	all LiDAR data missing
27.09.2019 18:50	10 min	250m
29.09.2019 19:10	10 min	200m
29.09.2019 20:20	10 min	250m
01.10.2019 15:10	10 min	140m 180m
01.10.2019 15:20	10 min	80-250m
02.10.2019 02:30	10 min	120m
04.10.2019 15:50	20 min	250m
04.10.2019 18:20	10 min	Gill data missing
06.10.2019 11:50	10 min	120-250m
06.10.2019 12:00	10 min	80-250m
06.10.2019 18:10	10 min	160m 200-250m
12.10.2019 14:00	10 min	250m
12.10.2019 16:20	10 min	250m
12.10.2019 17:10	40 min	all LiDAR data missing
14.10.2019 11:10	20 min	160-250m
14.10.2019 21:10	10 min	250m
14.10.2019 21:20	10 min	200-250m
14.10.2019 21:30	10 min	120-250m
14.10.2019 21:40	10 min	140-250m
14.10.2019 21:50	10 min	160-250m
14.10.2019 22:00	20 min	200-250m
18.10.2019 08:40	10 min	80m 120m 160m
18.10.2019 22:40	10 min	Gill data missing
21.10.2019 10:00	10 min	100m
21.10.2019 10:30	10 min	80m 100m 120m 140m 160m 200m
21.10.2019 11:10	10 min	80-250m
21.10.2019 13:10	30 min	30m 40m 60m 80m 100m
21.10.2019 17:10	10 min	250m
21.10.2019 18:10	10 min	80-250m
21.10.2019 20:20	10 min	30m
21.10.2019 21:00	10 min	100m
22.10.2019 00:40	10 min	250m
24.10.2019 07:10	10 min	250m
24.10.2019 11:20	40 min	all LiDAR data missing
24.10.2019 21:00	10 min	250m
25.10.2019 23:20	40 min	all LiDAR data missing
26.10.2019 15:50	40 min	all LiDAR data missing
28.10.2019 09:10	10 min	160m
28.10.2019 13:30	40 min	all LiDAR data missing



**Table E.3: Gaps in the wind dataset of Deployment 3 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
31.10.2019 09:50	40 min	all LiDAR data missing
01.11.2019 00:40	40 min	all LiDAR data missing
02.11.2019 01:50	10 min	Gill data missing
03.11.2019 15:10	50 min	all LiDAR data missing
03.11.2019 18:20	10 min	250m
04.11.2019 10:30	10 min	120m 250m
04.11.2019 11:20	10 min	120m 180m
04.11.2019 17:30	40 min	all LiDAR data missing
05.11.2019 02:40	40 min	all LiDAR data missing
05.11.2019 05:20	40 min	all LiDAR data missing
06.11.2019 06:10	10 min	40m
07.11.2019 09:00	10 min	80-250m
07.11.2019 09:40	10 min	160m 180m
10.11.2019 11:40	10 min	200-250m
10.11.2019 11:50	10 min	100-250m
10.11.2019 12:00	10 min	40-250m
10.11.2019 12:10	40 min	all LiDAR data missing
10.11.2019 12:50	10 min	40-250m
10.11.2019 13:00	3 hours 00 min	all LiDAR data missing
10.11.2019 16:00	10 min	100-250m
10.11.2019 16:10	10 min	140-250m
10.11.2019 16:20	10 min	200-250m
11.11.2019 11:50	10 min	250m
13.11.2019 06:30	40 min	all LiDAR data missing
15.11.2019 17:40	2 hours 10 min	all LiDAR data missing
16.11.2019 04:20	10 min	Gill data missing
17.11.2019 15:00	10 min	180-250m
18.11.2019 04:30	20 min	180m 200m
18.11.2019 04:50	10 min	160m 180m 200m
18.11.2019 05:00	10 min	160m 200m
18.11.2019 05:20	30 min	160m
18.11.2019 09:40	10 min	140m 180m
18.11.2019 10:00	10 min	140m
21.11.2019 11:20	40 min	all LiDAR data missing
22.11.2019 07:20	40 min	all LiDAR data missing
22.11.2019 08:50	10 min	80m 100m 250m
22.11.2019 09:20	10 min	80m 100m 120m 140m 200-250m
23.11.2019 03:20	7 hours 20 min	all LiDAR data missing
23.11.2019 11:10	11 hours 30 min	all LiDAR data missing
23.11.2019 22:50	9 hours 50 min	all LiDAR data missing

## E.4 Deployment 4

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
21.09.2019 13:50	10 min	40m
21.09.2019 14:10	20 min	all LiDAR data missing
21.09.2019 14:40	10 min	40m
21.09.2019 16:00	10 min	40m
21.09.2019 18:40	10 min	40m
21.09.2019 19:30	10 min	40m
21.09.2019 20:40	10 min	40m
21.09.2019 23:00	10 min	40m
22.09.2019 01:40	10 min	40m
22.09.2019 02:20	10 min	40m
22.09.2019 02:50	10 min	40m
22.09.2019 04:50	20 min	40m
22.09.2019 05:50	10 min	40m
22.09.2019 07:50	10 min	40m
22.09.2019 09:00	10 min	40m
22.09.2019 09:20	10 min	40m
22.09.2019 09:40	10 min	40m
22.09.2019 10:10	10 min	40m
22.09.2019 10:30	10 min	40m
22.09.2019 13:20	10 min	40m
22.09.2019 15:00	10 min	40m
22.09.2019 15:20	10 min	40m
22.09.2019 16:50	10 min	40m
22.09.2019 18:20	10 min	40m
22.09.2019 20:30	10 min	40m
22.09.2019 21:40	30 min	Gill data missing
23.09.2019 00:20	10 min	40m
23.09.2019 03:50	10 min	40m
23.09.2019 04:40	10 min	80-250m
23.09.2019 05:00	10 min	40m
23.09.2019 08:00	10 min	40m
23.09.2019 09:50	10 min	40m
23.09.2019 10:10	10 min	40m
23.09.2019 13:10	10 min	40m
23.09.2019 13:50	20 min	40m
23.09.2019 14:30	20 min	40m
23.09.2019 16:40	10 min	40m
23.09.2019 17:30	20 min	40m
23.09.2019 19:40	10 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
23.09.2019 21:00	10 min	40m
23.09.2019 23:30	10 min	40m
24.09.2019 00:10	10 min	40m
24.09.2019 01:10	10 min	40m
24.09.2019 06:20	10 min	100m
24.09.2019 07:40	10 min	100m 120m 140m 180m 250m
24.09.2019 08:10	10 min	80m 100m 180m
24.09.2019 08:40	10 min	80m 100m 180m 200m
24.09.2019 08:50	10 min	160m 250m
24.09.2019 13:20	10 min	40m
24.09.2019 15:10	10 min	40m
24.09.2019 16:30	10 min	40m
24.09.2019 17:50	10 min	40m
24.09.2019 18:30	10 min	40m
24.09.2019 19:00	20 min	40m
25.09.2019 00:10	10 min	40m
25.09.2019 00:50	10 min	40m
25.09.2019 01:20	10 min	80-250m
25.09.2019 01:40	20 min	80-250m
25.09.2019 02:20	10 min	40m
25.09.2019 04:30	10 min	160m
25.09.2019 06:30	10 min	40m
25.09.2019 08:50	10 min	40m
25.09.2019 11:00	10 min	40m
25.09.2019 11:50	10 min	40m
25.09.2019 13:10	10 min	40m
25.09.2019 14:30	10 min	60m 80m 100m 140m 180m 250m
25.09.2019 14:40	10 min	40m
25.09.2019 16:50	10 min	40m
25.09.2019 19:40	20 min	40m
25.09.2019 21:50	10 min	80m 100m 160m 250m
25.09.2019 22:00	10 min	40m
25.09.2019 22:20	10 min	40m
25.09.2019 23:20	30 min	40m
26.09.2019 01:00	30 min	40m
26.09.2019 01:40	10 min	40m
26.09.2019 02:20	10 min	40m
26.09.2019 03:10	10 min	40m
26.09.2019 07:10	20 min	40m
26.09.2019 07:50	10 min	40m
26.09.2019 11:10	10 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
26.09.2019 12:00	10 min	40m
26.09.2019 12:20	10 min	40m
26.09.2019 17:30	10 min	40m
26.09.2019 18:10	10 min	40m
26.09.2019 23:20	10 min	40m
26.09.2019 23:50	10 min	40m
27.09.2019 01:30	10 min	40m
27.09.2019 01:50	10 min	40m
27.09.2019 03:00	10 min	40m
27.09.2019 03:30	10 min	40m
27.09.2019 05:50	10 min	40m
27.09.2019 06:10	10 min	40m
27.09.2019 13:30	10 min	40m
27.09.2019 14:10	10 min	40m
27.09.2019 14:30	10 min	40m
27.09.2019 21:00	10 min	40m
27.09.2019 22:50	10 min	40m
28.09.2019 02:10	30 min	40m
28.09.2019 05:20	10 min	40m
28.09.2019 07:00	20 min	40m
28.09.2019 09:30	10 min	40m
28.09.2019 12:40	10 min	40m
28.09.2019 13:30	10 min	40m
28.09.2019 15:50	10 min	40m
28.09.2019 17:10	10 min	40m
28.09.2019 17:40	10 min	40m
28.09.2019 18:20	10 min	40m
28.09.2019 18:40	10 min	40m
28.09.2019 20:40	10 min	40m
28.09.2019 23:10	10 min	40m
28.09.2019 23:40	10 min	40m
29.09.2019 03:00	10 min	40m
29.09.2019 04:50	10 min	40m
29.09.2019 06:20	5 hours 30 min	all LiDAR data missing
29.09.2019 12:10	20 min	40m
29.09.2019 13:50	10 min	40m
29.09.2019 16:40	10 min	40m
29.09.2019 17:30	10 min	40m
29.09.2019 18:40	20 min	40m
29.09.2019 23:20	10 min	40m
30.09.2019 05:20	10 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
30.09.2019 07:20	10 min	40m
30.09.2019 09:50	20 min	40m
30.09.2019 12:10	10 min	40m
30.09.2019 14:00	1 hours 00 min	40m
30.09.2019 15:10	10 min	40m
30.09.2019 15:40	20 min	40m
30.09.2019 18:10	10 min	40m
30.09.2019 20:10	10 min	40m
30.09.2019 20:30	10 min	40m
30.09.2019 20:50	10 min	40m
30.09.2019 22:00	10 min	40m
30.09.2019 23:10	10 min	40m
01.10.2019 00:00	6 hours 40 min	all LiDAR data missing
01.10.2019 06:40	10 min	40m
01.10.2019 07:20	10 min	40m
01.10.2019 08:40	10 min	40m
01.10.2019 09:20	10 min	40m
01.10.2019 09:50	10 min	40m
01.10.2019 12:10	10 min	80-250m
01.10.2019 12:50	10 min	40-250m
01.10.2019 13:10	10 min	40m
01.10.2019 13:40	10 min	40m
01.10.2019 14:40	10 min	200-250m
01.10.2019 15:00	10 min	120-250m
01.10.2019 15:10	10 min	80-250m
01.10.2019 15:30	10 min	40m 80-250m
01.10.2019 16:10	10 min	80-250m
01.10.2019 18:40	10 min	200m
01.10.2019 18:50	10 min	80-250m
01.10.2019 19:10	10 min	40m
01.10.2019 20:50	10 min	40m
01.10.2019 21:50	10 min	40m
01.10.2019 22:10	10 min	40m
01.10.2019 23:50	10 min	40m
02.10.2019 02:10	10 min	40m
02.10.2019 04:20	10 min	40m
02.10.2019 10:00	10 min	40m
02.10.2019 11:00	10 min	40m
02.10.2019 11:50	10 min	40m
02.10.2019 12:40	10 min	40m
02.10.2019 21:30	10 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
03.10.2019 02:30	10 min	40m
03.10.2019 03:40	10 min	40m
03.10.2019 04:00	20 min	40m
03.10.2019 05:10	10 min	40m
03.10.2019 06:10	6 hours 40 min	all LiDAR data missing
03.10.2019 13:50	10 min	40m
03.10.2019 14:20	10 min	40m
03.10.2019 15:10	10 min	40m
03.10.2019 16:00	10 min	40m
03.10.2019 16:20	10 min	40m
03.10.2019 18:10	10 min	40m
03.10.2019 18:30	20 min	40m
03.10.2019 19:10	10 min	40m
03.10.2019 19:40	10 min	40m
03.10.2019 23:10	10 min	40m
03.10.2019 23:40	10 min	40m
04.10.2019 00:30	10 min	40m
04.10.2019 00:50	10 min	40m
04.10.2019 03:20	10 min	40m
04.10.2019 07:20	10 min	40m
04.10.2019 12:00	10 min	40m
04.10.2019 13:20	10 min	40m
04.10.2019 14:00	10 min	40m
04.10.2019 14:20	10 min	40m
04.10.2019 20:20	20 min	40m
04.10.2019 22:40	10 min	40m
04.10.2019 23:30	10 min	40m
04.10.2019 23:50	10 min	40m
05.10.2019 00:20	10 min	40m
05.10.2019 02:00	10 min	40m
05.10.2019 04:40	10 min	40m
05.10.2019 06:10	20 min	40m
05.10.2019 07:20	10 min	40m
05.10.2019 08:10	30 min	40m
05.10.2019 09:30	10 min	40m
05.10.2019 10:10	10 min	40m
05.10.2019 11:10	30 min	40m
05.10.2019 12:10	10 min	40m
05.10.2019 14:50	20 min	40m
05.10.2019 15:40	10 min	40m
05.10.2019 16:10	10 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
05.10.2019 16:30	10 min	40m
05.10.2019 17:50	10 min	40m
05.10.2019 20:30	10 min	40m
05.10.2019 22:00	10 min	40m
05.10.2019 23:00	10 min	40m
06.10.2019 04:00	10 min	40m
06.10.2019 04:30	10 min	40m
06.10.2019 05:00	10 min	40m
06.10.2019 06:40	20 min	40m
06.10.2019 16:50	10 min	100m 140m 180m 250m
06.10.2019 20:00	10 min	40m
06.10.2019 21:20	10 min	40m
06.10.2019 21:40	10 min	40m
07.10.2019 01:10	10 min	40m
07.10.2019 01:50	10 min	Gill data missing
07.10.2019 02:10	10 min	40m
07.10.2019 03:30	10 min	40m
07.10.2019 05:40	10 min	40m
07.10.2019 06:10	10 min	40m
07.10.2019 06:40	10 min	40m
07.10.2019 07:10	10 min	40m
07.10.2019 08:20	10 min	40m
07.10.2019 10:00	10 min	80-250m
07.10.2019 13:40	10 min	40m
07.10.2019 14:00	40 min	all LiDAR data missing
07.10.2019 17:40	10 min	40m
07.10.2019 18:00	10 min	40m
07.10.2019 18:40	10 min	40m
07.10.2019 19:50	10 min	40m
07.10.2019 22:50	10 min	40m
08.10.2019 02:40	10 min	40m
08.10.2019 03:00	10 min	40m
08.10.2019 03:30	10 min	40m
08.10.2019 04:20	10 min	40m
08.10.2019 07:50	10 min	40m
08.10.2019 09:30	10 min	40m
08.10.2019 11:30	30 min	40m
08.10.2019 16:10	10 min	40m
08.10.2019 17:20	10 min	40m
08.10.2019 18:50	10 min	40m
08.10.2019 19:40	10 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
08.10.2019 21:10	10 min	40m
08.10.2019 23:00	10 min	40m
09.10.2019 00:40	10 min	40m
09.10.2019 03:10	10 min	40m
09.10.2019 08:10	10 min	40m
09.10.2019 09:00	10 min	40m
09.10.2019 11:40	10 min	40m
09.10.2019 12:00	10 min	40m
09.10.2019 13:10	10 min	40m
09.10.2019 14:20	10 min	40m
09.10.2019 16:00	10 min	40m
09.10.2019 17:50	10 min	40m
09.10.2019 20:30	10 min	40m
09.10.2019 23:50	20 min	40m
10.10.2019 03:40	10 min	40m
10.10.2019 06:20	10 min	40m
10.10.2019 07:20	10 min	40m
10.10.2019 09:30	10 min	40m
10.10.2019 11:50	10 min	40m
10.10.2019 13:10	10 min	40m
10.10.2019 16:20	10 min	40m
10.10.2019 18:00	30 min	40m
10.10.2019 18:50	10 min	40m
10.10.2019 19:50	20 min	40m
10.10.2019 21:50	10 min	40m
11.10.2019 00:40	10 min	40m
11.10.2019 04:40	10 min	40m
11.10.2019 07:10	10 min	40m
11.10.2019 08:20	10 min	40m
11.10.2019 09:10	20 min	40m
11.10.2019 11:20	10 min	40m
11.10.2019 16:00	10 min	40m
11.10.2019 17:00	10 min	40m
11.10.2019 20:00	10 min	40m
12.10.2019 04:40	10 min	40m
12.10.2019 06:10	20 min	40m
12.10.2019 07:20	10 min	40m
12.10.2019 10:30	10 min	40m
12.10.2019 11:00	10 min	40m
12.10.2019 13:20	10 min	40m
12.10.2019 13:40	10 min	40m



**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
12.10.2019 14:50	10 min	40m
12.10.2019 16:10	10 min	40m
12.10.2019 18:00	10 min	250m
12.10.2019 20:00	10 min	250m
12.10.2019 20:10	10 min	180m 250m
12.10.2019 20:30	10 min	60m 80m
13.10.2019 02:50	10 min	40m
13.10.2019 05:20	10 min	40m
13.10.2019 08:40	10 min	40m
13.10.2019 09:00	10 min	40m
13.10.2019 09:30	10 min	40m
13.10.2019 13:20	10 min	40m
13.10.2019 13:50	10 min	40m
13.10.2019 16:10	10 min	40m
13.10.2019 20:40	10 min	40m
13.10.2019 21:30	10 min	40m
13.10.2019 22:30	10 min	40m
13.10.2019 23:30	10 min	40m
14.10.2019 01:20	20 min	40m
14.10.2019 02:10	20 min	40m
14.10.2019 03:10	20 min	40m
14.10.2019 05:00	10 min	40m
14.10.2019 05:30	10 min	40m
14.10.2019 05:50	20 min	40m
14.10.2019 06:30	20 min	40m
14.10.2019 07:50	10 min	40m
14.10.2019 08:30	10 min	40m
14.10.2019 09:00	10 min	40m
14.10.2019 09:30	10 min	40m
14.10.2019 10:20	10 min	40m
14.10.2019 10:40	10 min	40m
14.10.2019 11:10	20 min	200-250m
14.10.2019 17:30	40 min	40m
14.10.2019 18:50	10 min	40m
14.10.2019 20:40	10 min	40m
14.10.2019 21:10	10 min	250m
14.10.2019 21:20	10 min	180-250m
14.10.2019 21:30	10 min	120-250m
14.10.2019 21:40	30 min	140-250m
14.10.2019 22:10	10 min	250m
14.10.2019 22:40	20 min	250m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
15.10.2019 00:20	10 min	40m
15.10.2019 03:50	10 min	40m
15.10.2019 04:30	10 min	40m
15.10.2019 07:50	10 min	40m
15.10.2019 13:40	10 min	40m
15.10.2019 14:40	10 min	40m
15.10.2019 15:20	10 min	40m
15.10.2019 18:20	10 min	40m
15.10.2019 20:30	20 min	40m
15.10.2019 21:00	10 min	40m
16.10.2019 04:40	10 min	40m
16.10.2019 05:30	10 min	40m
16.10.2019 06:20	30 min	40m
16.10.2019 08:20	10 min	40m
16.10.2019 15:10	10 min	40m
16.10.2019 16:50	10 min	40m
16.10.2019 18:20	10 min	40m
16.10.2019 23:20	20 min	40m
16.10.2019 23:50	30 min	40m
17.10.2019 02:20	10 min	40m
17.10.2019 03:20	30 min	40m
17.10.2019 04:20	10 min	40m
17.10.2019 05:20	20 min	40m
17.10.2019 06:50	10 min	40m
17.10.2019 07:50	10 min	40m
17.10.2019 12:50	10 min	40m
17.10.2019 13:20	10 min	40m
17.10.2019 15:00	30 min	40m
17.10.2019 15:40	30 min	40m
17.10.2019 17:10	20 min	40m
17.10.2019 18:30	10 min	40m
17.10.2019 19:20	10 min	40m
18.10.2019 01:30	20 min	40m
18.10.2019 02:10	10 min	40m
18.10.2019 02:50	20 min	40m
18.10.2019 04:30	10 min	40m
18.10.2019 04:50	20 min	40m
18.10.2019 06:10	10 min	40m
18.10.2019 08:40	10 min	40m
18.10.2019 09:30	10 min	40m
18.10.2019 11:00	10 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
18.10.2019 12:00	10 min	40m
18.10.2019 12:50	10 min	40m
18.10.2019 16:20	10 min	40m
18.10.2019 16:40	20 min	40m
18.10.2019 21:00	7 hours 50 min	all LiDAR data missing
19.10.2019 05:30	20 min	40m
19.10.2019 07:10	10 min	40m
19.10.2019 09:20	10 min	40m
19.10.2019 10:20	10 min	40m
19.10.2019 11:20	10 min	40m
19.10.2019 13:50	20 min	40m
19.10.2019 14:30	20 min	40m
19.10.2019 18:10	10 min	40m
19.10.2019 20:50	10 min	40m
19.10.2019 22:10	10 min	40m
19.10.2019 23:10	10 min	40m
20.10.2019 01:10	10 min	40m
20.10.2019 02:10	20 min	40m
20.10.2019 04:20	10 min	40m
20.10.2019 04:50	20 min	40m
20.10.2019 06:00	10 min	40m
20.10.2019 06:20	20 min	40m
20.10.2019 08:20	10 min	40m
20.10.2019 08:40	10 min	40m
20.10.2019 09:40	10 min	40m
20.10.2019 12:00	10 min	40m
20.10.2019 12:20	20 min	40m
20.10.2019 12:50	40 min	all LiDAR data missing
20.10.2019 14:00	10 min	40m
20.10.2019 16:30	10 min	40m
20.10.2019 17:30	10 min	40m
20.10.2019 18:10	10 min	40m
20.10.2019 18:50	10 min	40m
20.10.2019 21:40	10 min	40m
20.10.2019 22:40	10 min	40m
20.10.2019 23:20	10 min	40m
21.10.2019 00:10	10 min	40m
21.10.2019 03:10	10 min	40m
21.10.2019 05:40	10 min	Gill data missing
21.10.2019 06:10	10 min	40m
21.10.2019 07:10	20 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
21.10.2019 08:40	2 hours 40 min	80-250m
21.10.2019 11:20	10 min	40-250m
21.10.2019 11:30	50 min	80-250m
21.10.2019 13:10	10 min	140m 160m 200m
21.10.2019 13:20	10 min	180m
21.10.2019 13:30	10 min	30m
21.10.2019 18:20	10 min	40m
21.10.2019 18:40	20 min	40m
21.10.2019 19:00	10 min	100m 120m
21.10.2019 20:10	10 min	80m
21.10.2019 20:30	10 min	40m
21.10.2019 21:10	10 min	40m 80-250m
21.10.2019 22:00	10 min	40m
21.10.2019 22:40	10 min	80m 100m 120m 140m 160m 200-250m
21.10.2019 23:30	10 min	180-250m
22.10.2019 00:00	10 min	200m
22.10.2019 01:10	10 min	80-250m
22.10.2019 01:50	20 min	40m
22.10.2019 03:00	10 min	100m
22.10.2019 03:30	10 min	40m
22.10.2019 04:40	10 min	40m
22.10.2019 07:20	10 min	40m
22.10.2019 07:30	30 min	80-250m
22.10.2019 08:00	10 min	40m
22.10.2019 08:20	10 min	80-250m
22.10.2019 09:20	30 min	80-250m
22.10.2019 09:50	10 min	40m
22.10.2019 10:20	40 min	40m
22.10.2019 11:20	10 min	40m
22.10.2019 11:40	10 min	40m
22.10.2019 12:30	10 min	40m
22.10.2019 13:10	10 min	40m
22.10.2019 13:40	30 min	40m
22.10.2019 14:50	30 min	40m
22.10.2019 15:30	10 min	40m
22.10.2019 16:30	10 min	40m
22.10.2019 17:30	10 min	40m
22.10.2019 19:00	10 min	40m
22.10.2019 21:20	10 min	40m
22.10.2019 23:30	10 min	40m
23.10.2019 00:50	10 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
23.10.2019 01:50	10 min	40m
23.10.2019 03:30	10 min	40m
23.10.2019 04:00	10 min	40m
23.10.2019 05:00	30 min	40m
23.10.2019 06:10	10 min	40m
23.10.2019 11:50	20 min	40m
23.10.2019 12:30	10 min	40m
23.10.2019 13:50	10 min	40m
23.10.2019 14:10	10 min	40m
23.10.2019 17:00	20 min	40m
23.10.2019 18:30	10 min	40m
23.10.2019 20:40	10 min	40m
23.10.2019 21:20	10 min	40m
23.10.2019 21:40	10 min	40m
24.10.2019 00:20	10 min	40m
24.10.2019 03:40	10 min	40m
24.10.2019 05:40	40 min	all LiDAR data missing
24.10.2019 06:50	30 min	250m
24.10.2019 08:00	10 min	40m
24.10.2019 09:10	20 min	40m
24.10.2019 10:30	10 min	40m
24.10.2019 13:00	10 min	40m
24.10.2019 15:10	10 min	40m
24.10.2019 21:00	10 min	80-250m
24.10.2019 22:00	10 min	100m
24.10.2019 22:10	10 min	80m 140m 200-250m
24.10.2019 23:40	10 min	40m
25.10.2019 01:50	10 min	40m
25.10.2019 02:10	20 min	40m
25.10.2019 03:00	10 min	40m
25.10.2019 04:00	10 min	40m
25.10.2019 05:10	10 min	40m
25.10.2019 05:50	10 min	40m
25.10.2019 06:10	10 min	40m
25.10.2019 07:10	20 min	40m
25.10.2019 08:10	10 min	40m
25.10.2019 09:10	10 min	40m
25.10.2019 11:30	10 min	40m
25.10.2019 12:20	10 min	40m
25.10.2019 12:40	10 min	40m
25.10.2019 14:00	20 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
25.10.2019 20:30	10 min	40m
25.10.2019 22:30	10 min	40m
26.10.2019 07:50	10 min	40m
26.10.2019 10:10	10 min	40m
26.10.2019 10:40	10 min	40m
26.10.2019 11:40	10 min	40m
26.10.2019 12:40	10 min	40m
26.10.2019 13:30	10 min	40m
26.10.2019 13:50	10 min	40m
26.10.2019 21:20	10 min	80-250m
27.10.2019 09:30	10 min	40m
27.10.2019 22:00	20 min	40m
27.10.2019 23:40	10 min	40m
28.10.2019 00:30	10 min	40m
28.10.2019 02:20	10 min	40m
28.10.2019 04:00	10 min	40m
28.10.2019 04:20	10 min	40m
28.10.2019 06:10	10 min	40m
28.10.2019 06:40	10 min	40m
28.10.2019 08:50	10 min	40m
28.10.2019 09:20	10 min	40m
28.10.2019 10:40	20 min	40m
28.10.2019 12:30	30 min	40m
28.10.2019 13:20	10 min	180m
28.10.2019 14:50	10 min	40m
28.10.2019 15:20	10 min	40m
28.10.2019 15:50	10 min	40m
28.10.2019 16:10	10 min	40m
28.10.2019 16:30	10 min	40m
28.10.2019 17:20	20 min	40m
28.10.2019 18:30	10 min	40m
28.10.2019 22:40	10 min	40m
28.10.2019 23:20	10 min	40m
29.10.2019 00:10	10 min	40m
29.10.2019 01:30	10 min	40m
29.10.2019 01:50	20 min	40m
29.10.2019 05:00	10 min	40m
29.10.2019 06:50	10 min	40m
29.10.2019 08:20	10 min	40m
29.10.2019 08:40	40 min	40m
29.10.2019 09:40	10 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
29.10.2019 11:10	10 min	40m
29.10.2019 11:40	10 min	40m
29.10.2019 12:00	10 min	40m
29.10.2019 13:10	10 min	40m
29.10.2019 15:00	10 min	40m
29.10.2019 16:30	10 min	40m
29.10.2019 17:50	30 min	40m
29.10.2019 19:50	10 min	40m
29.10.2019 20:20	10 min	40m
29.10.2019 21:30	10 min	40m
29.10.2019 22:50	10 min	40m
29.10.2019 23:30	50 min	all LiDAR data missing
30.10.2019 00:20	10 min	40m
30.10.2019 00:50	10 min	40m
30.10.2019 01:40	10 min	40m
30.10.2019 02:20	10 min	40m
30.10.2019 04:50	20 min	40m
30.10.2019 06:20	10 min	40m
30.10.2019 06:50	10 min	40m
30.10.2019 07:10	10 min	40m
30.10.2019 07:50	10 min	40m
30.10.2019 09:00	10 min	40m
30.10.2019 10:20	10 min	40m
30.10.2019 12:10	10 min	40m
30.10.2019 13:20	10 min	40m
30.10.2019 14:40	10 min	40m
30.10.2019 16:00	10 min	40m
30.10.2019 16:50	30 min	40m
30.10.2019 18:00	10 min	40m
30.10.2019 19:50	10 min	40m
30.10.2019 20:10	10 min	40m
30.10.2019 21:30	10 min	40m
30.10.2019 21:50	10 min	40m
30.10.2019 23:10	10 min	40m
30.10.2019 23:30	10 min	40m
30.10.2019 23:50	10 min	40m
31.10.2019 01:30	10 min	40m
31.10.2019 03:00	10 min	40m
31.10.2019 03:20	20 min	40m
31.10.2019 05:30	10 min	40m
31.10.2019 05:50	20 min	40m

**Table E.4: Gaps in the wind dataset of Deployment 4 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
31.10.2019 06:40	10 min	40m
31.10.2019 07:00	10 min	40m
31.10.2019 07:20	10 min	40m
31.10.2019 08:10	10 min	40m
31.10.2019 09:00	10 min	40m
31.10.2019 09:50	10 min	40m
31.10.2019 10:10	10 min	40m
31.10.2019 12:10	20 min	all LiDAR data missing
31.10.2019 12:50	11 hours 40 min	all LiDAR data missing
01.11.2019 00:40	10 min	40m
01.11.2019 01:30	10 min	40m
01.11.2019 02:10	10 min	40m
01.11.2019 04:10	8 hours 20 min	all LiDAR data missing
01.11.2019 12:40	20 min	40m
01.11.2019 13:10	11 hours 20 min	all LiDAR data missing
02.11.2019 00:40	12 hours 00 min	all LiDAR data missing
02.11.2019 12:50	11 hours 50 min	all LiDAR data missing
03.11.2019 00:50	10 min	40m 120m
03.11.2019 01:00	510 hours 40 min	all LiDAR data missing



## E.5 Deployment 5

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
24.11.2019 08:40	10 min	40m
24.11.2019 09:00	10 min	40m
24.11.2019 09:20	10 min	40m 250m
24.11.2019 09:40	10 min	40m
24.11.2019 10:00	20 min	40m
24.11.2019 11:20	30 min	40m
24.11.2019 12:10	10 min	40m
24.11.2019 12:50	20 min	40m
24.11.2019 13:20	10 min	180m
24.11.2019 13:40	10 min	40m
24.11.2019 13:50	10 min	80-250m
24.11.2019 14:00	10 min	40m
24.11.2019 15:40	40 min	40m
24.11.2019 16:50	10 min	80-250m
24.11.2019 17:00	10 min	80m 180m
24.11.2019 19:00	10 min	40m
24.11.2019 19:10	20 min	all LiDAR data missing
24.11.2019 20:10	10 min	40m
24.11.2019 22:00	20 min	40m
24.11.2019 22:40	10 min	40m
24.11.2019 23:40	10 min	40m
25.11.2019 00:20	10 min	40m
25.11.2019 01:20	20 min	40m
25.11.2019 02:50	10 min	40m
25.11.2019 04:20	10 min	40m
25.11.2019 05:20	10 min	40m
25.11.2019 06:00	10 min	40m
25.11.2019 06:20	20 min	40m
25.11.2019 06:50	10 min	40m
25.11.2019 08:20	10 min	40m
25.11.2019 13:10	10 min	Gill data missing
25.11.2019 14:10	10 min	80-250m
25.11.2019 14:30	10 min	80-250m
25.11.2019 15:40	10 min	40m
25.11.2019 16:00	20 min	40m
25.11.2019 18:50	10 min	40m
25.11.2019 20:50	10 min	40m
26.11.2019 00:40	10 min	40m 80m 100m 120m 160m 180m 250m
26.11.2019 01:30	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
26.11.2019 02:20	10 min	40m
26.11.2019 03:10	10 min	40m
26.11.2019 12:40	10 min	40m
26.11.2019 18:20	10 min	40m
26.11.2019 20:40	10 min	40m
26.11.2019 22:40	10 min	40m
26.11.2019 23:40	10 min	40m
27.11.2019 02:20	10 min	40m
27.11.2019 03:50	10 min	40m
27.11.2019 05:20	10 min	40m
27.11.2019 06:10	10 min	40m
27.11.2019 09:40	10 min	40m
27.11.2019 11:20	10 min	40m
27.11.2019 12:20	10 min	40m
27.11.2019 14:10	10 min	40m
27.11.2019 18:40	10 min	40m
27.11.2019 19:20	10 min	40m
27.11.2019 20:20	20 min	40m
27.11.2019 22:20	10 min	40m
28.11.2019 05:00	10 min	40m
28.11.2019 06:00	10 min	40m
28.11.2019 07:20	10 min	40m 250m
28.11.2019 11:50	10 min	40m
28.11.2019 12:00	10 min	140m 200-250m
28.11.2019 12:40	10 min	40m
28.11.2019 13:00	10 min	250m
28.11.2019 15:00	10 min	40m
28.11.2019 16:00	10 min	40m
28.11.2019 16:20	10 min	40m
28.11.2019 20:30	10 min	40m
28.11.2019 21:00	10 min	40m
28.11.2019 22:50	10 min	40m
29.11.2019 00:10	10 min	40m
29.11.2019 00:30	10 min	40m
29.11.2019 01:20	10 min	40m
29.11.2019 02:10	20 min	40m
29.11.2019 04:10	10 min	40m
29.11.2019 09:10	10 min	40m
29.11.2019 09:40	10 min	40m
29.11.2019 11:50	10 min	40m
29.11.2019 15:40	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
29.11.2019 16:50	20 min	40m
29.11.2019 17:40	10 min	40m
29.11.2019 18:00	10 min	40m
29.11.2019 18:30	10 min	40m
29.11.2019 19:30	20 min	40m
29.11.2019 21:10	10 min	40m
29.11.2019 21:50	30 min	40m
29.11.2019 23:40	10 min	40m
30.11.2019 00:20	10 min	40m
30.11.2019 00:50	10 min	40m
30.11.2019 02:40	10 min	40m
30.11.2019 03:00	10 min	40m
30.11.2019 03:20	10 min	40m
30.11.2019 04:20	10 min	40m
30.11.2019 05:10	10 min	40m
30.11.2019 05:50	10 min	40m
30.11.2019 06:20	10 min	40m
30.11.2019 06:40	10 min	40m
30.11.2019 08:20	20 min	40m
30.11.2019 09:10	10 min	40m
30.11.2019 09:40	10 min	40m
30.11.2019 10:50	10 min	40m
30.11.2019 11:10	20 min	250m
30.11.2019 12:40	20 min	40m
30.11.2019 13:10	20 min	40m
30.11.2019 15:00	10 min	40m
30.11.2019 17:00	10 min	30m 60m 100-250m
30.11.2019 18:00	10 min	40m
30.11.2019 19:00	10 min	40m
30.11.2019 20:50	10 min	40m
30.11.2019 21:40	10 min	40m
30.11.2019 22:20	10 min	40m
30.11.2019 23:20	30 min	40m
01.12.2019 00:50	10 min	40m
01.12.2019 01:10	10 min	40m
01.12.2019 01:50	10 min	40m
01.12.2019 02:20	10 min	40m
01.12.2019 03:00	10 min	40m
01.12.2019 06:10	10 min	40m
01.12.2019 07:00	10 min	40m
01.12.2019 07:40	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
01.12.2019 08:00	30 min	40m
01.12.2019 08:50	20 min	40m
01.12.2019 09:30	10 min	40m
01.12.2019 10:20	10 min	40m
01.12.2019 11:40	10 min	40m
01.12.2019 13:00	10 min	40m
01.12.2019 14:00	10 min	40m
01.12.2019 14:40	10 min	40m
01.12.2019 15:10	10 min	40m
01.12.2019 16:20	10 min	40m
01.12.2019 16:50	20 min	40m
01.12.2019 17:40	10 min	40m
01.12.2019 18:50	10 min	40m
01.12.2019 21:30	10 min	40m
01.12.2019 23:10	10 min	40m
02.12.2019 00:20	10 min	40m
02.12.2019 00:40	10 min	40m
02.12.2019 01:00	10 min	40m
02.12.2019 02:20	10 min	40m
02.12.2019 04:00	10 min	40m
02.12.2019 10:00	10 min	40m
02.12.2019 10:20	10 min	40m
02.12.2019 11:00	10 min	40m
02.12.2019 11:40	10 min	40m
02.12.2019 12:20	10 min	40m
02.12.2019 13:30	10 min	40m
02.12.2019 14:20	10 min	40m
02.12.2019 15:40	20 min	40m
02.12.2019 17:30	10 min	40m
02.12.2019 18:20	10 min	40m
02.12.2019 18:50	10 min	40m
02.12.2019 20:00	10 min	80m 120m 140m 160m
02.12.2019 20:10	10 min	80m 100m
02.12.2019 20:20	10 min	40m 80-250m
02.12.2019 20:50	50 min	80-250m
02.12.2019 21:50	10 min	80-250m
02.12.2019 22:00	10 min	40m
02.12.2019 22:10	10 min	80-250m
02.12.2019 22:50	10 min	80-250m
02.12.2019 23:30	10 min	40m
03.12.2019 01:00	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
03.12.2019 01:30	20 min	40m
03.12.2019 03:10	10 min	40m
03.12.2019 03:50	10 min	40m
03.12.2019 04:40	20 min	40m
03.12.2019 07:40	10 min	40m
03.12.2019 08:00	20 min	40m
03.12.2019 09:50	10 min	40m
03.12.2019 10:00	10 min	80-250m
03.12.2019 10:20	10 min	30m 40m 80m
03.12.2019 12:20	10 min	40m
03.12.2019 14:00	10 min	40m
03.12.2019 14:30	10 min	40m
03.12.2019 15:10	10 min	40m
03.12.2019 16:30	10 min	40m
03.12.2019 18:50	10 min	40m
03.12.2019 20:10	20 min	40m
03.12.2019 21:10	10 min	40m
03.12.2019 21:40	10 min	40m
03.12.2019 22:00	10 min	40m
03.12.2019 22:40	10 min	40m
03.12.2019 23:20	10 min	40m
04.12.2019 00:50	10 min	40m
04.12.2019 02:30	10 min	40m
04.12.2019 03:20	10 min	40m
04.12.2019 05:20	20 min	40m
04.12.2019 06:00	10 min	40m
04.12.2019 06:40	10 min	40m
04.12.2019 07:20	30 min	40m
04.12.2019 08:50	10 min	40m
04.12.2019 09:10	10 min	40m
04.12.2019 09:30	10 min	40m
04.12.2019 10:00	10 min	40m
04.12.2019 13:00	10 min	40m
04.12.2019 13:30	10 min	40m
04.12.2019 13:50	20 min	40m
04.12.2019 14:40	10 min	40m
04.12.2019 16:00	10 min	40m
04.12.2019 16:40	10 min	40m
04.12.2019 17:50	10 min	40m
04.12.2019 18:10	10 min	40m
04.12.2019 19:20	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
04.12.2019 19:50	10 min	40m
04.12.2019 20:20	10 min	40m
04.12.2019 21:10	10 min	40m
04.12.2019 21:30	10 min	40m
04.12.2019 22:10	10 min	40m
04.12.2019 22:30	20 min	40m
04.12.2019 23:20	10 min	40m
04.12.2019 23:50	10 min	40m
05.12.2019 00:10	20 min	40m
05.12.2019 02:10	20 min	40m
05.12.2019 02:40	10 min	40m
05.12.2019 03:30	10 min	40m
05.12.2019 05:10	10 min	40m
05.12.2019 07:00	10 min	40m
05.12.2019 10:30	10 min	80m 120-250m
05.12.2019 11:30	10 min	40m 80-250m
05.12.2019 12:00	10 min	180m
05.12.2019 12:20	10 min	40m
05.12.2019 15:30	10 min	40m
05.12.2019 23:30	10 min	40m
06.12.2019 04:10	10 min	40m
06.12.2019 05:40	20 min	40m
06.12.2019 11:30	10 min	40m
06.12.2019 16:40	10 min	40m
06.12.2019 19:10	10 min	40m
06.12.2019 19:30	10 min	40m
06.12.2019 21:30	10 min	40m
06.12.2019 22:50	10 min	40m
06.12.2019 23:20	10 min	40m
07.12.2019 00:10	10 min	40m
07.12.2019 00:50	10 min	40m
07.12.2019 01:20	10 min	40m
07.12.2019 03:30	10 min	40m
07.12.2019 04:00	10 min	40m
07.12.2019 05:00	10 min	40m
07.12.2019 07:30	10 min	40m
07.12.2019 08:10	10 min	40m
07.12.2019 09:20	10 min	40m
07.12.2019 12:10	10 min	40m
07.12.2019 15:50	10 min	40m
07.12.2019 17:30	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
07.12.2019 18:00	10 min	40m
07.12.2019 18:20	10 min	40m
07.12.2019 22:30	10 min	40m
08.12.2019 01:50	10 min	40m
08.12.2019 06:20	10 min	40m
08.12.2019 08:30	10 min	40m
08.12.2019 13:10	10 min	40m
08.12.2019 14:10	10 min	40m
08.12.2019 22:30	10 min	40m
09.12.2019 09:30	10 min	40m
09.12.2019 10:50	10 min	40m
09.12.2019 11:10	20 min	40m
09.12.2019 12:20	10 min	40m
09.12.2019 15:30	10 min	Gill data missing
09.12.2019 20:00	10 min	40m
09.12.2019 23:10	10 min	40m
10.12.2019 00:20	10 min	40m
10.12.2019 00:50	20 min	40m
10.12.2019 01:50	10 min	40m
10.12.2019 03:00	10 min	40m
10.12.2019 04:30	10 min	40m
10.12.2019 05:00	10 min	40m
10.12.2019 05:30	10 min	40m
10.12.2019 06:10	10 min	40m
10.12.2019 20:30	10 min	40m
10.12.2019 21:20	10 min	40m
11.12.2019 02:10	20 min	40m
11.12.2019 03:50	10 min	40m
11.12.2019 05:00	10 min	40m
11.12.2019 05:20	10 min	40m
11.12.2019 06:00	10 min	40m
11.12.2019 08:20	10 min	40m
11.12.2019 09:10	10 min	40m
11.12.2019 09:30	10 min	40m
11.12.2019 12:50	20 min	40m
11.12.2019 13:20	40 min	40m
11.12.2019 14:20	10 min	40m
11.12.2019 15:50	10 min	40m
11.12.2019 16:20	10 min	40m
11.12.2019 16:40	10 min	40m
11.12.2019 17:00	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
11.12.2019 19:00	10 min	40m
11.12.2019 23:10	10 min	40m
12.12.2019 02:30	10 min	40m
12.12.2019 02:50	10 min	40m
12.12.2019 03:30	10 min	40m
12.12.2019 03:50	20 min	40m
12.12.2019 05:40	10 min	40m
12.12.2019 07:50	10 min	40m
12.12.2019 09:30	10 min	40m
12.12.2019 11:50	10 min	40m
12.12.2019 13:20	10 min	40m
12.12.2019 16:20	10 min	40m
12.12.2019 20:30	10 min	40m
12.12.2019 21:00	10 min	40m
12.12.2019 22:50	10 min	40m
13.12.2019 04:10	10 min	40m
13.12.2019 05:30	10 min	40m
13.12.2019 07:20	10 min	40m
13.12.2019 07:50	10 min	40m
13.12.2019 08:50	10 min	40m
13.12.2019 09:00	20 min	80-250m
13.12.2019 09:20	10 min	60-250m
13.12.2019 09:30	20 min	80-250m
13.12.2019 10:10	10 min	60m 80m
13.12.2019 12:10	10 min	40m
13.12.2019 14:30	20 min	40m
13.12.2019 15:20	10 min	40m
13.12.2019 15:40	10 min	40m
13.12.2019 20:10	10 min	40m
14.12.2019 00:20	10 min	40m
14.12.2019 02:20	10 min	40m
14.12.2019 04:20	10 min	40m
14.12.2019 05:10	10 min	40m
14.12.2019 12:10	10 min	40m
14.12.2019 14:00	10 min	40m
14.12.2019 22:00	10 min	40m
14.12.2019 22:20	10 min	40m
14.12.2019 23:00	10 min	40m
15.12.2019 00:10	10 min	40m
15.12.2019 01:40	10 min	40m
15.12.2019 09:30	10 min	40m



**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
15.12.2019 17:50	10 min	40m
15.12.2019 19:40	10 min	40m
15.12.2019 20:00	20 min	40m
15.12.2019 23:30	10 min	40m
16.12.2019 00:00	10 min	40m
16.12.2019 01:50	10 min	40m
16.12.2019 10:00	10 min	40m
16.12.2019 13:10	10 min	40m
16.12.2019 14:20	10 min	40m
16.12.2019 15:50	10 min	Gill data missing
16.12.2019 16:20	20 min	40m
16.12.2019 16:50	10 min	40m
16.12.2019 17:30	10 min	40m
16.12.2019 19:30	10 min	40m
16.12.2019 20:20	20 min	40m
16.12.2019 21:30	10 min	40m
16.12.2019 22:10	10 min	250m
16.12.2019 22:40	10 min	40m 250m
16.12.2019 23:00	10 min	40m 180m
16.12.2019 23:20	10 min	180m
16.12.2019 23:30	30 min	40m
17.12.2019 00:10	10 min	80-250m
17.12.2019 00:20	10 min	40m 160-250m
17.12.2019 00:30	10 min	40m
17.12.2019 02:40	10 min	40m
17.12.2019 03:10	10 min	40m
17.12.2019 04:30	20 min	40m
17.12.2019 05:20	10 min	40m
17.12.2019 06:00	20 min	40m
17.12.2019 07:20	10 min	40m
17.12.2019 07:40	10 min	40m
17.12.2019 08:00	10 min	40m
17.12.2019 09:30	10 min	40m
17.12.2019 10:20	10 min	40m
17.12.2019 10:40	10 min	40m
17.12.2019 13:40	10 min	40m
17.12.2019 15:20	10 min	80-250m
17.12.2019 15:30	10 min	40m
17.12.2019 16:00	10 min	40m
17.12.2019 16:40	10 min	40m
17.12.2019 20:10	20 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
17.12.2019 23:10	20 min	40m
18.12.2019 02:30	30 min	40m
18.12.2019 04:00	10 min	40m
18.12.2019 07:00	30 min	40m
18.12.2019 08:20	10 min	40m
18.12.2019 08:40	20 min	40m
18.12.2019 09:20	10 min	40m
18.12.2019 10:00	10 min	40m
18.12.2019 10:50	10 min	40m
18.12.2019 12:00	10 min	40m
18.12.2019 12:50	10 min	40m
18.12.2019 14:20	10 min	40m
18.12.2019 14:40	20 min	40m
18.12.2019 16:10	10 min	40m
18.12.2019 17:30	20 min	40m
18.12.2019 21:10	10 min	40m
18.12.2019 21:40	10 min	40m
19.12.2019 02:10	10 min	40m
19.12.2019 03:40	10 min	40m
19.12.2019 05:00	20 min	40m
19.12.2019 08:30	10 min	40m
19.12.2019 09:30	10 min	40m
19.12.2019 10:00	20 min	40m
19.12.2019 10:30	10 min	40m
19.12.2019 12:10	10 min	40m
19.12.2019 13:20	10 min	40m
19.12.2019 16:20	10 min	40m
19.12.2019 18:30	10 min	40m
19.12.2019 20:10	10 min	40m
19.12.2019 21:10	10 min	40m
19.12.2019 22:20	10 min	40m
20.12.2019 01:30	20 min	40m
20.12.2019 02:40	30 min	250m
20.12.2019 05:20	10 min	40m
20.12.2019 05:40	10 min	40m
20.12.2019 06:20	10 min	40m
20.12.2019 06:40	10 min	40m
20.12.2019 07:20	10 min	40m
20.12.2019 07:50	10 min	250m
20.12.2019 11:20	10 min	40m
20.12.2019 13:20	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
20.12.2019 14:30	10 min	40m
20.12.2019 15:30	10 min	40m
20.12.2019 16:00	10 min	40m
20.12.2019 17:00	10 min	40m
20.12.2019 21:50	10 min	40m
20.12.2019 23:50	10 min	40m
21.12.2019 01:30	10 min	40m
21.12.2019 05:00	10 min	40m
21.12.2019 10:30	10 min	40m
21.12.2019 14:20	10 min	40m
21.12.2019 15:00	10 min	40m
21.12.2019 17:00	20 min	40m
21.12.2019 22:00	10 min	40m
22.12.2019 03:10	10 min	40m
22.12.2019 04:10	10 min	40m
22.12.2019 07:00	10 min	40m
22.12.2019 09:30	10 min	40m
22.12.2019 09:50	10 min	40m
22.12.2019 12:10	10 min	40m
22.12.2019 12:50	10 min	40m
22.12.2019 14:00	20 min	40m
22.12.2019 14:40	10 min	40m
22.12.2019 17:30	10 min	40m
22.12.2019 18:10	10 min	40m
22.12.2019 21:10	10 min	40m
22.12.2019 22:00	10 min	40m
22.12.2019 22:20	10 min	40m
23.12.2019 01:20	10 min	40m
23.12.2019 04:30	10 min	40m
23.12.2019 06:50	10 min	40m
23.12.2019 07:30	10 min	40m
23.12.2019 10:00	10 min	160m 200-250m
23.12.2019 10:10	10 min	40m
23.12.2019 18:20	10 min	Gill data missing
23.12.2019 21:50	10 min	40m
23.12.2019 22:10	10 min	40m
23.12.2019 23:00	10 min	40m
24.12.2019 00:10	10 min	40m
24.12.2019 00:40	10 min	40m
24.12.2019 01:20	10 min	40m
24.12.2019 02:00	20 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
24.12.2019 04:20	10 min	60m 180m
24.12.2019 06:20	10 min	40m
24.12.2019 06:40	10 min	40m
24.12.2019 10:00	40 min	40m
24.12.2019 14:00	10 min	40m
24.12.2019 14:20	10 min	40m
24.12.2019 17:10	10 min	40m
24.12.2019 19:10	10 min	40m
24.12.2019 21:30	30 min	40m
24.12.2019 22:40	10 min	40m
24.12.2019 23:10	10 min	40m
25.12.2019 00:50	10 min	40m
25.12.2019 03:00	10 min	40m
25.12.2019 04:00	10 min	40m
25.12.2019 04:40	10 min	40m
25.12.2019 05:10	10 min	40m
25.12.2019 07:00	10 min	40m
25.12.2019 08:40	20 min	40m
25.12.2019 09:50	10 min	40m
25.12.2019 10:10	10 min	40m
25.12.2019 11:00	20 min	40m
25.12.2019 19:40	10 min	40m
25.12.2019 20:00	10 min	80-250m
25.12.2019 22:50	10 min	40m
25.12.2019 23:50	30 min	40m
26.12.2019 00:50	10 min	40m
26.12.2019 02:40	10 min	40m
26.12.2019 03:20	20 min	40m
26.12.2019 04:40	10 min	40m
26.12.2019 05:00	10 min	40m
26.12.2019 06:50	10 min	40m
26.12.2019 07:20	10 min	40m
26.12.2019 08:20	20 min	40m
26.12.2019 09:20	10 min	40m
26.12.2019 09:50	10 min	40m
26.12.2019 11:10	10 min	40m
26.12.2019 12:20	10 min	40m
26.12.2019 13:00	10 min	40m
26.12.2019 13:20	10 min	40m
26.12.2019 18:20	10 min	40m
26.12.2019 18:50	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
26.12.2019 19:10	20 min	40m
26.12.2019 22:20	10 min	40m
26.12.2019 23:10	10 min	40m
26.12.2019 23:30	10 min	40m
27.12.2019 08:50	10 min	40m
27.12.2019 10:10	10 min	40m
27.12.2019 11:00	10 min	40m
27.12.2019 11:20	20 min	40m
27.12.2019 12:20	20 min	40m
27.12.2019 13:20	10 min	40m
27.12.2019 14:10	20 min	40m
27.12.2019 16:00	10 min	40m
27.12.2019 16:40	10 min	40m
27.12.2019 17:20	10 min	40m
27.12.2019 18:10	10 min	40m
27.12.2019 19:20	10 min	40m
27.12.2019 20:10	10 min	40m
27.12.2019 21:10	10 min	40m
27.12.2019 22:30	20 min	40m
27.12.2019 23:40	10 min	40m
28.12.2019 00:30	10 min	40m
28.12.2019 00:50	10 min	40m
28.12.2019 02:20	10 min	40m
28.12.2019 02:40	10 min	40m
28.12.2019 04:00	10 min	40m
28.12.2019 04:20	20 min	40m
28.12.2019 05:00	10 min	80m 120m
28.12.2019 05:10	10 min	40m
28.12.2019 05:30	10 min	40m 80-250m
28.12.2019 05:40	10 min	100-250m
28.12.2019 06:10	10 min	40m
28.12.2019 07:30	10 min	40m 80-250m
28.12.2019 08:10	20 min	40m
28.12.2019 09:20	20 min	40m
28.12.2019 10:30	10 min	40m
28.12.2019 11:10	10 min	80-250m
28.12.2019 11:30	10 min	40m
28.12.2019 11:50	10 min	40m
28.12.2019 13:00	10 min	40m
28.12.2019 13:30	20 min	40m
28.12.2019 14:10	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
28.12.2019 14:20	20 min	80-250m
28.12.2019 14:50	10 min	80-250m
28.12.2019 15:00	10 min	80m 100m 120m 140m
28.12.2019 15:30	10 min	80-250m
28.12.2019 15:50	10 min	80-250m
28.12.2019 16:00	20 min	200m
28.12.2019 16:20	20 min	40m
28.12.2019 17:00	10 min	100m
28.12.2019 17:10	10 min	40m
28.12.2019 17:40	10 min	40m 80-250m
28.12.2019 18:20	10 min	40m
28.12.2019 19:00	10 min	40m 80m 100m 120m 140m 160m 180m
28.12.2019 19:10	10 min	80-250m
28.12.2019 19:20	10 min	40m 80m 100m 120m 160m 250m
28.12.2019 19:40	10 min	140m 160m
28.12.2019 22:30	10 min	40m
28.12.2019 23:00	10 min	40m
28.12.2019 23:40	10 min	100m 180m
29.12.2019 00:00	20 min	40m
29.12.2019 01:10	10 min	40m
29.12.2019 01:50	10 min	40m
29.12.2019 05:40	10 min	40m
29.12.2019 06:10	10 min	40m
29.12.2019 06:30	30 min	40m
29.12.2019 08:10	10 min	40m
29.12.2019 09:50	10 min	40m
29.12.2019 10:50	10 min	40m
29.12.2019 11:20	10 min	40m
29.12.2019 13:00	20 min	40m
29.12.2019 15:00	10 min	40m
29.12.2019 17:20	10 min	40m
29.12.2019 21:00	30 min	40m
29.12.2019 22:50	10 min	40m
30.12.2019 00:40	10 min	40m
30.12.2019 01:00	10 min	40m
30.12.2019 02:30	10 min	40m
30.12.2019 03:40	10 min	40m
30.12.2019 07:40	10 min	40m
30.12.2019 11:30	10 min	40m
30.12.2019 15:50	10 min	40m
30.12.2019 17:30	20 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
30.12.2019 18:30	30 min	40m
30.12.2019 23:50	10 min	40m
31.12.2019 01:20	10 min	40m
31.12.2019 02:50	10 min	40m
31.12.2019 06:00	10 min	40m
31.12.2019 06:30	10 min	40m
31.12.2019 08:50	10 min	40m
31.12.2019 11:00	10 min	40m
31.12.2019 11:20	10 min	40m
31.12.2019 12:00	20 min	40m
31.12.2019 12:40	20 min	40m
31.12.2019 13:50	20 min	40m
31.12.2019 14:20	10 min	40m
31.12.2019 15:10	20 min	40m
31.12.2019 15:40	10 min	40m
31.12.2019 16:20	10 min	40m
31.12.2019 16:40	10 min	40m
31.12.2019 17:30	20 min	40m
31.12.2019 18:00	10 min	40m
31.12.2019 18:30	10 min	40m
31.12.2019 19:30	10 min	40m
31.12.2019 19:50	10 min	40m
31.12.2019 20:40	10 min	40m
31.12.2019 21:40	10 min	40m 80-250m
31.12.2019 21:50	10 min	30m 80-250m
31.12.2019 22:00	20 min	80-250m
31.12.2019 22:20	10 min	30m 40m 80-250m
31.12.2019 22:30	30 min	80-250m
31.12.2019 23:40	10 min	40m
01.01.2020 01:30	10 min	40m
01.01.2020 02:30	10 min	80m 200m
01.01.2020 03:00	10 min	80-250m
01.01.2020 03:10	10 min	80m 100m 120m 140m 180-250m
01.01.2020 03:30	10 min	40m 80m 100m 120m 140m 160m 180m 250m
01.01.2020 03:40	10 min	40m
01.01.2020 03:50	10 min	80-250m
01.01.2020 04:10	10 min	120m
01.01.2020 04:20	10 min	40m 160m 180m
01.01.2020 04:40	10 min	80-250m
01.01.2020 04:50	10 min	120m
01.01.2020 05:00	10 min	80-250m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
01.01.2020 05:30	10 min	80m 100m 120m 160m 200m
01.01.2020 05:40	10 min	40m
01.01.2020 06:00	10 min	40m
01.01.2020 06:20	10 min	40m 80m 140m
01.01.2020 06:50	10 min	40m
01.01.2020 08:10	10 min	40m
01.01.2020 08:30	10 min	40m
01.01.2020 08:50	10 min	80-250m
01.01.2020 09:20	10 min	40m
01.01.2020 10:10	10 min	40m
01.01.2020 10:50	10 min	40m
01.01.2020 11:30	10 min	40m
01.01.2020 11:50	10 min	40m
01.01.2020 12:50	10 min	40m
01.01.2020 14:00	10 min	40m
01.01.2020 15:00	10 min	40m
01.01.2020 15:30	10 min	40m
01.01.2020 15:50	10 min	40m
01.01.2020 16:10	10 min	40m
01.01.2020 17:00	10 min	40m
01.01.2020 17:30	20 min	40m
01.01.2020 20:20	20 min	40m
01.01.2020 20:50	10 min	40m
02.01.2020 00:00	10 min	40m
02.01.2020 00:50	10 min	40m
02.01.2020 01:10	10 min	40m
02.01.2020 02:10	10 min	40m
02.01.2020 03:20	10 min	40m
02.01.2020 08:40	10 min	40m
02.01.2020 14:00	10 min	40m
02.01.2020 14:20	10 min	200m
02.01.2020 15:50	10 min	40m
02.01.2020 16:20	10 min	40m
02.01.2020 21:30	10 min	40m
02.01.2020 22:00	10 min	40m
02.01.2020 22:20	10 min	40m
03.01.2020 00:00	10 min	40m
03.01.2020 07:30	10 min	40m
03.01.2020 09:50	10 min	40m
03.01.2020 10:30	20 min	40m
03.01.2020 11:20	10 min	40m



**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
03.01.2020 12:00	20 min	40m
03.01.2020 13:40	10 min	40m
03.01.2020 14:10	10 min	40m
03.01.2020 16:50	10 min	40m
03.01.2020 17:40	10 min	40m
03.01.2020 20:40	10 min	40m
03.01.2020 21:30	10 min	40m
03.01.2020 21:50	10 min	40m
03.01.2020 22:20	10 min	40m
03.01.2020 22:50	10 min	40m
04.01.2020 00:10	10 min	40m
04.01.2020 01:40	10 min	40m
04.01.2020 03:00	10 min	40m
04.01.2020 03:20	10 min	40m
04.01.2020 03:40	10 min	40m
04.01.2020 06:20	10 min	40m
04.01.2020 06:40	10 min	40m
04.01.2020 08:40	10 min	40m
04.01.2020 12:20	10 min	40m
04.01.2020 13:00	10 min	40m
04.01.2020 16:20	10 min	40m
04.01.2020 17:30	20 min	40m
04.01.2020 18:40	10 min	40m
04.01.2020 19:10	10 min	40m
04.01.2020 19:30	10 min	40m
04.01.2020 21:40	10 min	40m
04.01.2020 22:00	10 min	40m
04.01.2020 23:00	10 min	40m
04.01.2020 23:30	10 min	40m
04.01.2020 23:50	10 min	40m
05.01.2020 00:20	10 min	40m
05.01.2020 00:50	10 min	40m
05.01.2020 01:10	10 min	40m
05.01.2020 01:30	10 min	40m
05.01.2020 04:10	10 min	40m
05.01.2020 06:20	10 min	40m
05.01.2020 10:40	20 min	40m
05.01.2020 13:50	10 min	40m
05.01.2020 16:00	20 min	40m
05.01.2020 17:00	10 min	40m
05.01.2020 18:00	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
05.01.2020 21:40	10 min	40m
05.01.2020 22:30	20 min	40m
05.01.2020 23:40	10 min	40m
06.01.2020 01:40	10 min	40m
06.01.2020 04:00	10 min	40m
06.01.2020 05:00	10 min	40m
06.01.2020 07:30	10 min	250m
06.01.2020 07:40	10 min	40m
06.01.2020 10:20	10 min	40m
06.01.2020 16:10	10 min	40m
06.01.2020 16:50	10 min	40m
06.01.2020 20:20	10 min	Gill data missing
06.01.2020 23:30	10 min	40m
07.01.2020 00:30	10 min	40m
07.01.2020 01:50	10 min	40m
07.01.2020 03:10	20 min	40m
07.01.2020 04:30	10 min	Gill data missing
07.01.2020 06:20	10 min	40m
07.01.2020 07:00	10 min	40m
07.01.2020 07:20	10 min	40m
07.01.2020 07:40	10 min	40m
07.01.2020 08:10	10 min	40m
07.01.2020 08:30	10 min	40m
07.01.2020 08:50	10 min	40m
07.01.2020 10:00	10 min	40m
07.01.2020 10:20	10 min	40m
07.01.2020 10:50	10 min	40m
07.01.2020 17:00	10 min	40m
07.01.2020 20:00	10 min	40m
08.01.2020 00:30	10 min	40m 200-250m
08.01.2020 00:40	20 min	160-250m
08.01.2020 01:00	20 min	180-250m
08.01.2020 01:20	10 min	200-250m
08.01.2020 02:20	10 min	40m
08.01.2020 06:20	10 min	40m
08.01.2020 08:10	20 min	40m
08.01.2020 10:30	10 min	40m
08.01.2020 10:50	20 min	40m
08.01.2020 13:00	10 min	40m
08.01.2020 13:30	20 min	40m
08.01.2020 14:00	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
08.01.2020 16:50	20 min	40m
08.01.2020 18:00	10 min	40m
08.01.2020 18:40	10 min	40m
08.01.2020 19:40	10 min	40m
08.01.2020 20:00	10 min	40m
08.01.2020 20:50	10 min	40m
08.01.2020 21:00	10 min	180m 250m
08.01.2020 21:10	10 min	40m
08.01.2020 21:50	30 min	40m
08.01.2020 22:50	10 min	40m
08.01.2020 23:50	10 min	40m
09.01.2020 00:10	20 min	40m
09.01.2020 01:20	10 min	40m 140-250m
09.01.2020 01:30	40 min	80-250m
09.01.2020 02:10	30 min	60-250m
09.01.2020 02:40	10 min	40m 100-250m
09.01.2020 03:10	10 min	250m
09.01.2020 03:20	10 min	180-250m
09.01.2020 03:30	10 min	160-250m
09.01.2020 03:40	10 min	250m
09.01.2020 04:50	10 min	40m
09.01.2020 09:00	10 min	40m
09.01.2020 09:30	10 min	40m
09.01.2020 10:10	10 min	40m
09.01.2020 11:40	10 min	40m
09.01.2020 17:30	10 min	40m
09.01.2020 18:00	10 min	40m
09.01.2020 18:20	10 min	120m 160m
09.01.2020 18:50	10 min	40m
09.01.2020 23:40	10 min	40m
10.01.2020 02:00	10 min	40m
10.01.2020 02:20	10 min	40m
10.01.2020 03:30	20 min	40m
10.01.2020 04:10	10 min	40m
10.01.2020 05:10	10 min	40m
10.01.2020 05:30	10 min	40m
10.01.2020 06:20	10 min	40m
10.01.2020 07:00	20 min	40m
10.01.2020 09:40	10 min	40m
10.01.2020 10:10	20 min	40m
10.01.2020 12:00	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
10.01.2020 13:10	10 min	40m
10.01.2020 15:00	10 min	40m
10.01.2020 16:30	10 min	40m
10.01.2020 18:50	10 min	40m
10.01.2020 19:20	10 min	40m
10.01.2020 20:20	10 min	40m
10.01.2020 21:00	20 min	40m
10.01.2020 22:00	10 min	40m
10.01.2020 23:00	10 min	40m
11.01.2020 04:00	10 min	40m
11.01.2020 18:00	10 min	40m
11.01.2020 21:40	10 min	40m
12.01.2020 08:10	10 min	40m
12.01.2020 09:50	10 min	40m
12.01.2020 19:10	20 min	40m
12.01.2020 19:50	10 min	40m
12.01.2020 20:10	10 min	40m
12.01.2020 20:30	10 min	40m
12.01.2020 22:10	20 min	40m
13.01.2020 00:30	10 min	40m
13.01.2020 02:20	10 min	40m
13.01.2020 03:50	10 min	40m
13.01.2020 06:20	10 min	40m
13.01.2020 08:10	10 min	40m
13.01.2020 18:20	10 min	40m
13.01.2020 20:00	10 min	40m
13.01.2020 20:30	10 min	40m
14.01.2020 02:40	20 min	40m
14.01.2020 03:30	20 min	40m
14.01.2020 06:40	10 min	40m
14.01.2020 07:00	10 min	40m
14.01.2020 08:30	10 min	40m
14.01.2020 12:30	10 min	40m
14.01.2020 18:50	10 min	250m
14.01.2020 19:10	30 min	250m
14.01.2020 20:00	10 min	250m
14.01.2020 21:00	10 min	250m
15.01.2020 00:00	10 min	40m
15.01.2020 01:10	10 min	40m
15.01.2020 06:30	10 min	40m
15.01.2020 13:00	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
15.01.2020 13:50	10 min	40m
15.01.2020 15:20	10 min	40m
15.01.2020 15:40	10 min	40m
15.01.2020 17:00	10 min	40m
15.01.2020 18:40	10 min	40m
15.01.2020 22:20	10 min	40m
15.01.2020 23:20	10 min	40m
16.01.2020 02:50	30 min	40m
16.01.2020 03:30	10 min	40m
16.01.2020 03:50	10 min	40m
16.01.2020 06:00	10 min	40m
16.01.2020 07:10	10 min	40m
16.01.2020 07:30	10 min	40m
16.01.2020 12:10	10 min	40m
16.01.2020 13:20	10 min	40m
16.01.2020 14:20	10 min	40m
16.01.2020 17:50	10 min	40m
16.01.2020 20:00	10 min	40m
16.01.2020 22:00	10 min	40m
17.01.2020 02:40	10 min	40m
17.01.2020 06:40	10 min	40m
17.01.2020 09:40	20 min	40m
17.01.2020 11:00	10 min	40m
17.01.2020 14:00	10 min	40m
17.01.2020 15:50	10 min	40m
17.01.2020 16:20	10 min	40m
17.01.2020 18:50	10 min	40m
18.01.2020 01:30	10 min	40m
18.01.2020 03:00	10 min	40m
18.01.2020 03:20	10 min	40m
18.01.2020 04:50	10 min	40m
18.01.2020 05:30	10 min	40m
18.01.2020 08:20	10 min	40m
18.01.2020 15:30	10 min	40m
18.01.2020 16:00	10 min	40m
18.01.2020 23:20	10 min	40m
19.01.2020 01:40	10 min	40m
19.01.2020 05:20	10 min	250m
19.01.2020 06:20	10 min	40m
19.01.2020 07:00	10 min	40m
19.01.2020 09:40	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
19.01.2020 10:40	10 min	40m
19.01.2020 11:40	10 min	40m
19.01.2020 12:50	10 min	40m
19.01.2020 13:30	10 min	40m
19.01.2020 14:10	20 min	40m
19.01.2020 18:10	20 min	40m
19.01.2020 18:40	10 min	40m
19.01.2020 19:20	10 min	40m
19.01.2020 20:10	10 min	40m
19.01.2020 20:30	20 min	40m
19.01.2020 21:50	10 min	40m
19.01.2020 22:10	10 min	40m
19.01.2020 23:00	20 min	40m
19.01.2020 23:50	10 min	40m
20.01.2020 00:20	20 min	40m
20.01.2020 02:20	10 min	40m
20.01.2020 02:40	10 min	40m
20.01.2020 03:20	10 min	40m
20.01.2020 03:40	10 min	40m
20.01.2020 04:00	10 min	40m
20.01.2020 05:00	10 min	40m
20.01.2020 05:40	10 min	40m
20.01.2020 06:20	10 min	40m
20.01.2020 06:50	20 min	40m
20.01.2020 07:40	10 min	40m
20.01.2020 08:10	10 min	40m
20.01.2020 09:00	10 min	40m
20.01.2020 09:30	20 min	40m
20.01.2020 10:20	10 min	40m
20.01.2020 11:40	10 min	40m
20.01.2020 12:30	30 min	40m
20.01.2020 13:10	10 min	40m
20.01.2020 13:40	10 min	40m
20.01.2020 14:00	10 min	40m
20.01.2020 14:30	10 min	40m
20.01.2020 15:10	10 min	40m
20.01.2020 16:30	10 min	40m
20.01.2020 18:40	10 min	40m
20.01.2020 19:00	10 min	40m
20.01.2020 19:20	10 min	40m
20.01.2020 20:10	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
20.01.2020 21:50	10 min	40m
20.01.2020 22:50	20 min	40m
21.01.2020 00:00	10 min	40m
21.01.2020 00:20	20 min	40m
21.01.2020 00:50	10 min	40m
21.01.2020 01:40	10 min	40m
21.01.2020 02:50	10 min	40m
21.01.2020 04:10	10 min	40m
21.01.2020 04:40	20 min	40m
21.01.2020 05:20	10 min	40m
21.01.2020 06:00	10 min	40m
21.01.2020 07:10	10 min	40m
21.01.2020 08:00	10 min	40m
21.01.2020 08:50	20 min	40m
21.01.2020 09:30	10 min	40m
21.01.2020 09:50	10 min	40m
21.01.2020 10:10	10 min	80-250m
21.01.2020 10:20	10 min	40m 80m 100m 120m 140m 160m 180m 200m
21.01.2020 10:30	10 min	80m 140m 250m
21.01.2020 11:30	10 min	40m
21.01.2020 12:00	20 min	40m
21.01.2020 12:50	40 min	40m
21.01.2020 14:30	10 min	40m
21.01.2020 14:40	10 min	80-250m
21.01.2020 15:10	10 min	40m
21.01.2020 15:20	10 min	200m
21.01.2020 15:40	10 min	40m
21.01.2020 16:10	10 min	40m
21.01.2020 16:30	10 min	40m
21.01.2020 16:50	20 min	40m
21.01.2020 18:00	20 min	40m
21.01.2020 19:20	10 min	40m
21.01.2020 20:10	10 min	40m
21.01.2020 20:30	10 min	40m
21.01.2020 21:30	10 min	80-250m
21.01.2020 21:50	20 min	40m
21.01.2020 22:20	10 min	40m
22.01.2020 00:00	10 min	40m
22.01.2020 00:30	10 min	40m 80-250m
22.01.2020 00:50	10 min	80-250m
22.01.2020 02:00	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
22.01.2020 02:20	10 min	40m
22.01.2020 03:00	10 min	80-250m
22.01.2020 03:20	10 min	40m
22.01.2020 03:30	20 min	40m 80-250m
22.01.2020 03:50	10 min	200-250m
22.01.2020 04:00	10 min	all LiDAR data missing
22.01.2020 04:20	20 min	40m
22.01.2020 05:20	20 min	80-250m
22.01.2020 06:20	10 min	40m 80-250m
22.01.2020 06:40	20 min	80-250m
22.01.2020 07:00	10 min	40m
22.01.2020 08:50	20 min	40m
22.01.2020 09:20	10 min	80-250m
22.01.2020 09:40	10 min	40m
22.01.2020 10:00	30 min	40m
22.01.2020 10:50	10 min	40m
22.01.2020 11:00	20 min	80-250m
22.01.2020 11:20	10 min	40m
22.01.2020 11:50	20 min	40m 80-250m
22.01.2020 12:20	10 min	40m
22.01.2020 12:40	10 min	40m
22.01.2020 13:50	20 min	40m
22.01.2020 14:20	20 min	40m
22.01.2020 15:10	10 min	40m
22.01.2020 15:30	10 min	40m
22.01.2020 16:10	10 min	40m
22.01.2020 16:20	10 min	40m 60m
22.01.2020 16:40	20 min	40m
22.01.2020 17:00	10 min	60m
22.01.2020 17:10	10 min	40m
22.01.2020 17:20	10 min	60m
22.01.2020 17:30	10 min	40m
22.01.2020 17:50	10 min	40m
22.01.2020 18:20	40 min	30m 40m 60m 80m 100m 120m
22.01.2020 19:10	40 min	30m 40m 60m 80m 100m 120m
22.01.2020 19:50	10 min	200-250m
22.01.2020 20:00	10 min	250m
22.01.2020 20:10	10 min	30m
22.01.2020 20:20	10 min	30m 40m 80m 100m 120m
22.01.2020 20:40	10 min	30m 80m
22.01.2020 20:50	10 min	140-250m



**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
22.01.2020 21:50	10 min	30m 40m
22.01.2020 22:20	10 min	100m
22.01.2020 22:40	10 min	160-250m
22.01.2020 22:50	10 min	40m
22.01.2020 23:20	10 min	160-250m
22.01.2020 23:30	10 min	40m
22.01.2020 23:40	10 min	160m 180m 200m
22.01.2020 23:50	10 min	250m
23.01.2020 00:10	10 min	160m
23.01.2020 00:40	20 min	40m
23.01.2020 01:00	10 min	40m 120-250m
23.01.2020 01:20	10 min	40m 250m
23.01.2020 01:30	10 min	160-250m
23.01.2020 01:40	20 min	120-250m
23.01.2020 02:00	10 min	40m
23.01.2020 02:40	10 min	40m
23.01.2020 02:50	10 min	250m
23.01.2020 03:40	10 min	140m
23.01.2020 04:30	10 min	80m
23.01.2020 04:40	10 min	80m 100m
23.01.2020 04:50	20 min	80m 100m 120m
23.01.2020 05:10	10 min	30m 160m
23.01.2020 05:20	10 min	30m 60m 80m
23.01.2020 05:30	10 min	30m 40m 60m
23.01.2020 05:50	10 min	30m
23.01.2020 06:30	10 min	30m 40m 140m 160m
23.01.2020 07:00	10 min	30m 40m
23.01.2020 07:10	10 min	30m 40m 140m 160m 180m 200m
23.01.2020 07:20	10 min	30m 40m 140m
23.01.2020 07:30	10 min	30m 40m 180m
23.01.2020 07:40	10 min	30m 40m 60m
23.01.2020 07:50	10 min	60m 160m 180m
23.01.2020 08:00	10 min	160m
23.01.2020 09:50	20 min	30m 40m
23.01.2020 10:30	20 min	30m 40m
23.01.2020 11:00	20 min	120m
23.01.2020 11:30	10 min	100m 120m 140m 180m
23.01.2020 12:10	10 min	40m 60m 80m 100m 120m 140m 160m 180m
23.01.2020 12:20	10 min	40m 80m 140m 250m
23.01.2020 12:30	40 min	40-250m
23.01.2020 13:10	10 min	120m 140m 160m 200m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
23.01.2020 13:30	10 min	60m 80m 100m 120m 160m
23.01.2020 14:40	10 min	80m
23.01.2020 15:20	10 min	40m
23.01.2020 16:00	10 min	40m
23.01.2020 16:20	10 min	200-250m
23.01.2020 16:30	10 min	80-250m
23.01.2020 16:50	10 min	250m
23.01.2020 17:00	10 min	80-250m
23.01.2020 17:10	10 min	40m
23.01.2020 17:30	20 min	250m
23.01.2020 18:00	10 min	40m 80-250m
23.01.2020 19:30	10 min	40m
23.01.2020 20:40	10 min	40m
23.01.2020 21:00	10 min	40m
23.01.2020 21:20	10 min	40m
23.01.2020 21:40	10 min	40m 80-250m
23.01.2020 22:00	50 min	80-250m
23.01.2020 22:50	10 min	100m 250m
23.01.2020 23:00	50 min	80-250m
23.01.2020 23:50	10 min	30m 40m 80-250m
24.01.2020 00:00	10 min	40m 80-250m
24.01.2020 00:10	10 min	40m 250m
24.01.2020 00:30	10 min	250m
24.01.2020 01:00	10 min	250m
24.01.2020 01:30	10 min	40m
24.01.2020 02:10	10 min	40m
24.01.2020 02:50	20 min	40m
24.01.2020 03:20	10 min	40m
24.01.2020 03:40	20 min	40m
24.01.2020 04:40	20 min	40m
24.01.2020 07:20	10 min	40m
24.01.2020 07:40	10 min	40m
24.01.2020 08:30	10 min	80-250m
24.01.2020 08:40	10 min	30m 80-250m
24.01.2020 08:50	1 hours 20 min	80-250m
24.01.2020 10:20	10 min	80-250m
24.01.2020 11:10	10 min	80-250m
24.01.2020 11:20	10 min	100m 180m 250m
24.01.2020 11:30	40 min	80-250m
24.01.2020 12:10	10 min	30m 80-250m
24.01.2020 12:20	40 min	80-250m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
24.01.2020 13:00	20 min	30m 80-250m
24.01.2020 13:20	20 min	80-250m
24.01.2020 13:50	10 min	80-250m
24.01.2020 15:00	20 min	80-250m
24.01.2020 15:20	10 min	100m 140-250m
24.01.2020 15:30	10 min	160m 180m 200m
24.01.2020 15:50	40 min	80-250m
24.01.2020 17:30	10 min	80-250m
24.01.2020 18:40	10 min	40m
24.01.2020 18:50	10 min	80-250m
24.01.2020 19:10	10 min	80-250m
24.01.2020 19:40	10 min	200m
24.01.2020 20:00	10 min	80-250m
24.01.2020 20:10	10 min	200m
24.01.2020 20:20	10 min	80m 100m 120m 140m 160m 180m 200m
24.01.2020 21:20	30 min	80-250m
24.01.2020 21:50	10 min	30m 40m 80-250m
24.01.2020 22:30	10 min	80-250m
24.01.2020 23:00	10 min	120m 180m
24.01.2020 23:20	20 min	40m
24.01.2020 23:40	10 min	80m 100m 120m 180m 250m
24.01.2020 23:50	10 min	40m
25.01.2020 00:50	10 min	40m
25.01.2020 01:00	10 min	80-250m
25.01.2020 01:40	10 min	80-250m
25.01.2020 02:20	10 min	40m
25.01.2020 04:50	10 min	40m
25.01.2020 05:10	10 min	40m
25.01.2020 05:30	10 min	40m
25.01.2020 06:40	10 min	40m
25.01.2020 08:00	10 min	40m
25.01.2020 08:20	10 min	40m
25.01.2020 09:30	10 min	40m
25.01.2020 11:20	30 min	40m
25.01.2020 12:00	10 min	40m
25.01.2020 12:40	10 min	40m
25.01.2020 13:30	10 min	40m
25.01.2020 14:20	10 min	40m
25.01.2020 16:00	10 min	40m
25.01.2020 17:10	30 min	40m
25.01.2020 18:10	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
25.01.2020 19:10	10 min	100m
25.01.2020 21:10	10 min	40m
25.01.2020 23:10	10 min	40m
25.01.2020 23:40	10 min	250m
25.01.2020 23:50	10 min	60m 140-250m
26.01.2020 00:00	20 min	160-250m
26.01.2020 00:20	10 min	100-250m
26.01.2020 00:30	10 min	40m 120-250m
26.01.2020 00:40	10 min	80-250m
26.01.2020 00:50	10 min	120-250m
26.01.2020 01:00	10 min	100-250m
26.01.2020 01:10	1 hours 10 min	80-250m
26.01.2020 02:20	10 min	30m 80-250m
26.01.2020 02:30	20 min	120-250m
26.01.2020 02:50	10 min	80-250m
26.01.2020 03:00	10 min	40m 160-250m
26.01.2020 03:10	10 min	250m
26.01.2020 04:10	20 min	40m
26.01.2020 08:50	10 min	40m
26.01.2020 09:50	10 min	40m
26.01.2020 11:10	10 min	40m
26.01.2020 12:10	10 min	40m
26.01.2020 17:40	10 min	40m
26.01.2020 20:10	10 min	40m
26.01.2020 23:50	10 min	40m
27.01.2020 00:10	10 min	40m
27.01.2020 01:20	10 min	40m
27.01.2020 05:00	10 min	40m
27.01.2020 05:40	10 min	40m
27.01.2020 06:00	20 min	40m
27.01.2020 07:00	10 min	40m
27.01.2020 07:40	20 min	40m
27.01.2020 11:40	10 min	40m
27.01.2020 13:30	10 min	40m
27.01.2020 14:00	10 min	40m
27.01.2020 14:30	10 min	40m
27.01.2020 17:30	10 min	40m
27.01.2020 20:30	10 min	40m
27.01.2020 21:50	10 min	40m
27.01.2020 22:50	10 min	40m
28.01.2020 04:20	20 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
28.01.2020 14:40	10 min	40m
28.01.2020 17:10	10 min	40m
28.01.2020 20:20	10 min	40m
28.01.2020 23:00	10 min	40m
29.01.2020 12:10	10 min	40m
29.01.2020 12:30	10 min	40m
29.01.2020 12:50	10 min	40m
29.01.2020 16:10	10 min	40m
29.01.2020 17:00	10 min	40m
29.01.2020 21:00	10 min	40m
29.01.2020 22:20	20 min	40m
29.01.2020 23:10	10 min	40m
30.01.2020 05:50	10 min	40m
30.01.2020 07:20	20 min	40m
30.01.2020 08:40	10 min	40m
30.01.2020 13:20	10 min	40m
30.01.2020 13:50	10 min	40m
30.01.2020 14:20	10 min	40m
30.01.2020 15:20	10 min	40m
30.01.2020 23:10	10 min	40m
31.01.2020 01:20	10 min	40m
31.01.2020 07:20	10 min	40m
31.01.2020 07:40	10 min	40m
31.01.2020 08:20	10 min	40m
31.01.2020 11:00	10 min	40m
31.01.2020 12:20	10 min	40m
31.01.2020 14:10	10 min	40m
31.01.2020 22:50	10 min	40m
01.02.2020 02:00	10 min	40m
01.02.2020 03:40	10 min	40m
01.02.2020 05:40	10 min	40m
01.02.2020 07:00	20 min	40m
01.02.2020 09:40	10 min	40m
01.02.2020 13:00	10 min	40m
01.02.2020 14:30	10 min	40m
01.02.2020 15:40	10 min	40m
01.02.2020 17:10	10 min	40m
01.02.2020 18:50	10 min	40m
01.02.2020 23:50	10 min	40m
02.02.2020 02:10	10 min	40m
02.02.2020 05:30	20 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
02.02.2020 06:10	20 min	40m
02.02.2020 07:10	20 min	40m
02.02.2020 07:40	10 min	40m
02.02.2020 08:00	10 min	40m
02.02.2020 09:50	20 min	Gill data missing
02.02.2020 12:50	10 min	40m
02.02.2020 17:00	10 min	40m
02.02.2020 18:50	10 min	40m
02.02.2020 19:10	10 min	40m
02.02.2020 21:00	10 min	Gill data missing
03.02.2020 01:20	10 min	40m
03.02.2020 03:30	10 min	40m
03.02.2020 05:20	10 min	40m
03.02.2020 05:50	10 min	40m
03.02.2020 09:50	10 min	40m
03.02.2020 10:30	10 min	40m
03.02.2020 11:30	10 min	40m
03.02.2020 12:10	10 min	40m
03.02.2020 12:40	10 min	40m
03.02.2020 14:10	10 min	40m
03.02.2020 15:30	20 min	40m
03.02.2020 17:50	20 min	40m
03.02.2020 22:20	10 min	40m
03.02.2020 23:50	10 min	40m
04.02.2020 01:10	10 min	40m
04.02.2020 14:50	10 min	40m
04.02.2020 17:40	10 min	80m
04.02.2020 20:30	10 min	40m
04.02.2020 21:30	10 min	40m
04.02.2020 21:50	10 min	40m
04.02.2020 22:30	10 min	40m
05.02.2020 00:50	20 min	40m
05.02.2020 04:30	20 min	40m
05.02.2020 05:00	10 min	180m
05.02.2020 06:10	10 min	40m
05.02.2020 06:40	20 min	40m
05.02.2020 07:10	10 min	40m
05.02.2020 07:30	10 min	40m
05.02.2020 07:50	10 min	40m
05.02.2020 09:20	10 min	40m
05.02.2020 10:50	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
05.02.2020 11:10	20 min	40m
05.02.2020 11:40	10 min	40m
05.02.2020 12:00	10 min	40m
05.02.2020 12:20	20 min	40m
05.02.2020 13:30	20 min	40m
05.02.2020 14:30	40 min	40m
05.02.2020 15:30	30 min	40m
05.02.2020 17:20	10 min	40m
05.02.2020 18:20	10 min	40m
05.02.2020 20:20	10 min	40m
05.02.2020 22:00	10 min	40m
05.02.2020 22:50	20 min	40m
05.02.2020 23:40	10 min	40m
06.02.2020 00:10	10 min	40m
06.02.2020 00:40	10 min	40m
06.02.2020 01:50	10 min	40m
06.02.2020 02:30	10 min	40m
06.02.2020 03:00	10 min	40m
06.02.2020 03:40	10 min	40m
06.02.2020 04:30	10 min	40m
06.02.2020 06:00	10 min	40m
06.02.2020 06:40	10 min	40m
06.02.2020 07:50	10 min	40m
06.02.2020 10:00	10 min	40m
06.02.2020 10:20	10 min	80-250m
06.02.2020 11:10	10 min	40m
06.02.2020 11:40	10 min	40m
06.02.2020 12:00	10 min	40m
06.02.2020 13:00	10 min	40m
06.02.2020 13:30	30 min	40m
06.02.2020 14:40	20 min	40m
06.02.2020 15:10	10 min	40m
06.02.2020 15:30	20 min	40m
06.02.2020 16:00	10 min	40m
06.02.2020 16:30	10 min	40m
06.02.2020 16:50	30 min	40m
06.02.2020 17:30	20 min	40m
06.02.2020 18:00	10 min	40m
06.02.2020 20:00	30 min	40m
06.02.2020 20:40	20 min	40m
06.02.2020 21:20	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
06.02.2020 22:20	10 min	40m
06.02.2020 23:00	10 min	40m
06.02.2020 23:40	10 min	40m
07.02.2020 00:00	20 min	40m
07.02.2020 00:30	10 min	40m
07.02.2020 01:30	10 min	40m
07.02.2020 02:30	10 min	40m
07.02.2020 03:00	10 min	40m
07.02.2020 03:30	20 min	40m
07.02.2020 04:40	50 min	40m
07.02.2020 07:20	10 min	40m
07.02.2020 08:10	10 min	40m
07.02.2020 12:50	10 min	40m
07.02.2020 13:10	10 min	40m
08.02.2020 02:20	20 min	40m
08.02.2020 08:10	10 min	40m
08.02.2020 09:50	10 min	40m
08.02.2020 11:40	20 min	40m
08.02.2020 13:10	10 min	40m
08.02.2020 13:50	20 min	40m
08.02.2020 14:20	10 min	40m
08.02.2020 14:50	10 min	40m
08.02.2020 15:40	10 min	40m
08.02.2020 16:30	10 min	40m
08.02.2020 17:00	20 min	40m
08.02.2020 18:50	20 min	40m
08.02.2020 21:20	10 min	40m
09.02.2020 16:30	10 min	200-250m
09.02.2020 23:30	10 min	40m
10.02.2020 19:30	20 min	40m
11.02.2020 10:20	10 min	40m
11.02.2020 11:10	10 min	40m
12.02.2020 07:00	10 min	40m
12.02.2020 10:20	10 min	40m
12.02.2020 12:10	10 min	40m
12.02.2020 12:30	10 min	40m
12.02.2020 14:30	10 min	40m
12.02.2020 15:00	10 min	40m
12.02.2020 17:40	10 min	40m
12.02.2020 19:00	10 min	40m
12.02.2020 21:30	10 min	40m



**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
12.02.2020 22:40	10 min	40m
13.02.2020 03:10	10 min	40m
13.02.2020 08:00	10 min	40m
13.02.2020 10:20	10 min	40m
13.02.2020 15:20	10 min	40m
13.02.2020 16:20	10 min	40m
13.02.2020 16:50	10 min	40m
13.02.2020 17:10	10 min	40m
13.02.2020 18:10	10 min	40m
13.02.2020 20:50	10 min	40m
13.02.2020 21:20	10 min	40m
14.02.2020 02:40	10 min	80m
14.02.2020 03:40	10 min	200m
14.02.2020 04:40	10 min	40m
14.02.2020 05:50	20 min	40m
14.02.2020 06:10	10 min	80-250m
14.02.2020 06:20	10 min	40m
14.02.2020 07:00	10 min	40m
14.02.2020 07:20	10 min	40m
14.02.2020 07:50	10 min	40m
14.02.2020 09:10	20 min	40m
14.02.2020 09:40	20 min	40m
14.02.2020 11:10	10 min	40m
14.02.2020 12:20	10 min	40m
14.02.2020 13:10	10 min	40m
14.02.2020 14:30	10 min	40m
14.02.2020 17:10	10 min	40m
15.02.2020 03:50	10 min	40m
15.02.2020 12:50	10 min	40m
15.02.2020 14:00	10 min	40m
15.02.2020 16:20	10 min	40m
15.02.2020 16:40	10 min	40m
15.02.2020 17:20	10 min	250m
15.02.2020 18:30	10 min	Gill data missing
16.02.2020 00:20	10 min	40m
16.02.2020 02:20	10 min	40m
16.02.2020 08:20	10 min	250m
16.02.2020 12:40	10 min	40m
16.02.2020 13:20	10 min	40m
16.02.2020 15:40	10 min	40m
17.02.2020 05:50	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
17.02.2020 14:40	10 min	40m
17.02.2020 15:10	10 min	40m
17.02.2020 15:40	20 min	40m
17.02.2020 16:20	10 min	40m
17.02.2020 18:40	20 min	40m
17.02.2020 20:30	10 min	40m
17.02.2020 22:30	10 min	40m
18.02.2020 01:30	10 min	40m
18.02.2020 02:50	10 min	40m
18.02.2020 04:00	10 min	40m
18.02.2020 04:30	10 min	40m
18.02.2020 08:20	10 min	40m
18.02.2020 19:30	10 min	40m
19.02.2020 02:20	10 min	40m
19.02.2020 06:50	10 min	40m
19.02.2020 09:40	10 min	40m
19.02.2020 14:40	10 min	40m
19.02.2020 15:20	10 min	40m
19.02.2020 17:10	20 min	40m
19.02.2020 18:00	10 min	40m
19.02.2020 21:10	10 min	40m
20.02.2020 00:10	10 min	40m
20.02.2020 04:00	10 min	40m
20.02.2020 08:00	10 min	40m
20.02.2020 16:50	20 min	40m
20.02.2020 22:40	10 min	40m
21.02.2020 02:10	10 min	40m
21.02.2020 02:40	10 min	40m
21.02.2020 06:20	10 min	40m
21.02.2020 09:00	10 min	40m
21.02.2020 10:20	10 min	40m
21.02.2020 11:40	10 min	40m
21.02.2020 12:00	10 min	40m
21.02.2020 17:40	10 min	40m
21.02.2020 21:30	10 min	40m
22.02.2020 08:50	10 min	40m
22.02.2020 15:00	10 min	40m
22.02.2020 18:10	10 min	40m
22.02.2020 18:40	10 min	40m
22.02.2020 19:10	10 min	40m
22.02.2020 23:50	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
23.02.2020 00:40	10 min	40m
23.02.2020 03:30	10 min	40m
23.02.2020 07:10	10 min	40m
23.02.2020 07:20	10 min	40m 80m
23.02.2020 07:30	10 min	80-250m
23.02.2020 16:40	10 min	40m
23.02.2020 19:30	10 min	40m
23.02.2020 22:20	10 min	40m
24.02.2020 00:00	10 min	40m
24.02.2020 02:20	10 min	40m
24.02.2020 04:00	10 min	40m
24.02.2020 04:50	10 min	40m
24.02.2020 05:50	10 min	40m
24.02.2020 06:40	20 min	40m
24.02.2020 07:40	10 min	40m
24.02.2020 08:00	10 min	40m
25.02.2020 04:00	10 min	40m
25.02.2020 07:00	10 min	40m
25.02.2020 07:20	20 min	40m
25.02.2020 11:10	10 min	40m
25.02.2020 11:40	10 min	40m
25.02.2020 14:00	10 min	40m
25.02.2020 15:00	10 min	40m
25.02.2020 16:10	10 min	40m
25.02.2020 19:40	10 min	40m
25.02.2020 20:40	10 min	40m
25.02.2020 21:10	10 min	40m
25.02.2020 22:40	10 min	40m
25.02.2020 23:00	30 min	40m
26.02.2020 00:20	10 min	40m
26.02.2020 05:00	10 min	40m
26.02.2020 09:20	10 min	40m
26.02.2020 10:30	10 min	40m
26.02.2020 11:50	10 min	40m
26.02.2020 12:50	10 min	40m
26.02.2020 17:30	10 min	40m
26.02.2020 19:40	10 min	40m
26.02.2020 20:30	10 min	40m
26.02.2020 22:30	10 min	40m
26.02.2020 23:40	10 min	40m
27.02.2020 01:20	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
27.02.2020 02:20	10 min	40m
27.02.2020 05:00	10 min	40m
27.02.2020 05:50	10 min	40m
27.02.2020 08:00	20 min	200m
27.02.2020 09:10	20 min	180m 200m
27.02.2020 10:00	10 min	80m 100m 120m 140m 160m 200-250m
27.02.2020 10:40	10 min	180m
27.02.2020 10:50	20 min	80-250m
27.02.2020 11:10	10 min	180m 200m
27.02.2020 11:20	10 min	40m 80-250m
27.02.2020 11:30	10 min	80m 100m 120m 140m 160m 180m 250m
27.02.2020 11:40	10 min	80-250m
27.02.2020 11:50	10 min	60m 80m 100m 180-250m
27.02.2020 12:00	10 min	80m
27.02.2020 12:10	10 min	all LiDAR data missing
27.02.2020 12:20	10 min	30m 40m 60m 100m 120m
27.02.2020 12:30	10 min	40m 60m 80m 100m
27.02.2020 12:50	10 min	30m
27.02.2020 13:10	30 min	80-250m
27.02.2020 17:40	10 min	40m
27.02.2020 20:10	10 min	40m
27.02.2020 22:20	10 min	40m
28.02.2020 01:00	10 min	40m
28.02.2020 02:00	10 min	40m
28.02.2020 04:10	10 min	40m
28.02.2020 05:00	10 min	40m
28.02.2020 05:40	10 min	40m
28.02.2020 06:50	20 min	40m
28.02.2020 08:30	10 min	40m
28.02.2020 10:40	10 min	40m
28.02.2020 20:20	10 min	40m
29.02.2020 02:10	10 min	40m
29.02.2020 04:00	10 min	40m
29.02.2020 07:30	10 min	40m
29.02.2020 11:10	10 min	40m
29.02.2020 15:30	10 min	40m
29.02.2020 20:30	10 min	Gill data missing
29.02.2020 22:40	10 min	40m
01.03.2020 00:30	10 min	40m
01.03.2020 02:40	10 min	40m
01.03.2020 04:30	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
01.03.2020 09:20	10 min	40m
01.03.2020 14:30	10 min	40m
01.03.2020 14:50	10 min	40m
01.03.2020 19:30	10 min	40m
01.03.2020 23:00	10 min	40m
02.03.2020 00:40	10 min	40m
02.03.2020 02:50	10 min	40m
02.03.2020 03:30	10 min	40m
02.03.2020 04:30	10 min	40m
02.03.2020 06:20	10 min	40m
02.03.2020 09:40	10 min	40m
02.03.2020 10:10	10 min	40m 180m
02.03.2020 12:10	10 min	40m
02.03.2020 12:30	10 min	40m
02.03.2020 12:50	10 min	100m 120m 160m
02.03.2020 13:20	10 min	40m
02.03.2020 13:50	10 min	40m
02.03.2020 14:20	10 min	250m
02.03.2020 15:30	10 min	80m 100m 140m 160m 200m
02.03.2020 15:50	10 min	40m 80-250m
02.03.2020 16:30	10 min	40m
02.03.2020 17:50	10 min	40m
02.03.2020 19:10	20 min	40m
02.03.2020 20:30	10 min	40m
02.03.2020 20:50	10 min	40m
02.03.2020 21:10	10 min	40m
02.03.2020 21:40	30 min	40m
02.03.2020 22:30	10 min	40m
02.03.2020 23:10	10 min	40m
02.03.2020 23:30	10 min	40m
03.03.2020 00:00	10 min	40m
03.03.2020 03:00	30 min	40m
03.03.2020 03:40	10 min	40m
03.03.2020 05:00	10 min	40m
03.03.2020 05:40	10 min	40m
03.03.2020 06:00	10 min	40m
03.03.2020 09:10	10 min	40m
03.03.2020 10:00	10 min	40m
03.03.2020 10:30	20 min	40m
03.03.2020 11:50	10 min	40m
03.03.2020 12:10	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
03.03.2020 13:10	10 min	40m
03.03.2020 14:50	10 min	40m
03.03.2020 16:20	10 min	40m
03.03.2020 16:40	20 min	40m
03.03.2020 17:10	10 min	40m
03.03.2020 18:00	20 min	40m
03.03.2020 19:20	10 min	40m
03.03.2020 19:50	10 min	40m
03.03.2020 21:00	20 min	40m
03.03.2020 22:30	20 min	40m
03.03.2020 23:10	10 min	40m
04.03.2020 00:00	10 min	40m
04.03.2020 00:20	10 min	40m
04.03.2020 03:10	30 min	40m
04.03.2020 04:40	20 min	40m
04.03.2020 05:20	20 min	40m
04.03.2020 06:20	10 min	40m
04.03.2020 07:00	10 min	80-250m
04.03.2020 07:20	10 min	40m
04.03.2020 08:00	20 min	40m
04.03.2020 08:30	10 min	40m
04.03.2020 09:10	10 min	40m
04.03.2020 09:40	10 min	40m
04.03.2020 10:00	10 min	40m
04.03.2020 10:30	10 min	40m
04.03.2020 12:00	10 min	40m
04.03.2020 12:40	10 min	40m
04.03.2020 13:00	10 min	40m
04.03.2020 14:30	10 min	40m
04.03.2020 15:10	10 min	40m
04.03.2020 15:40	10 min	40m
04.03.2020 18:10	10 min	40m
04.03.2020 18:50	10 min	40m
04.03.2020 20:30	20 min	40m
04.03.2020 21:30	10 min	40m
04.03.2020 22:10	10 min	30m
05.03.2020 02:40	10 min	40m
05.03.2020 03:00	10 min	40m
05.03.2020 04:10	10 min	40m
05.03.2020 04:40	10 min	40m
05.03.2020 05:40	10 min	200-250m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
05.03.2020 06:20	10 min	40m
05.03.2020 09:20	10 min	40m
05.03.2020 10:40	10 min	40m
05.03.2020 12:50	10 min	30m 80m 100m 160m 200m
05.03.2020 13:00	10 min	40m
05.03.2020 13:40	10 min	40m
05.03.2020 14:30	10 min	40m
05.03.2020 22:00	10 min	40m
05.03.2020 22:40	10 min	40m
06.03.2020 02:40	10 min	40m
06.03.2020 04:30	10 min	80m
06.03.2020 06:40	10 min	40m
06.03.2020 11:50	10 min	40m
06.03.2020 12:10	10 min	40m
06.03.2020 13:20	10 min	40m
06.03.2020 15:10	10 min	40m
06.03.2020 15:30	10 min	40m
06.03.2020 16:30	10 min	40m
06.03.2020 17:20	10 min	40m
06.03.2020 17:40	10 min	80m
06.03.2020 18:30	10 min	40m
06.03.2020 18:50	10 min	40m
06.03.2020 19:10	10 min	40m
06.03.2020 19:50	10 min	40m
06.03.2020 20:10	10 min	40m
06.03.2020 20:50	10 min	40m
06.03.2020 22:20	10 min	40m
06.03.2020 22:50	10 min	40m
07.03.2020 02:00	10 min	40m
07.03.2020 03:00	10 min	40m
07.03.2020 04:20	10 min	40m
07.03.2020 04:50	40 min	40m
07.03.2020 06:30	10 min	40m
07.03.2020 07:40	10 min	40m
07.03.2020 08:30	10 min	40m
07.03.2020 09:00	40 min	40m
07.03.2020 10:10	10 min	40m
07.03.2020 10:30	10 min	40m
07.03.2020 12:10	10 min	40m
07.03.2020 13:10	10 min	40m
07.03.2020 15:00	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
07.03.2020 16:50	10 min	40m
07.03.2020 18:10	20 min	40m
07.03.2020 18:50	10 min	40m
07.03.2020 19:30	10 min	40m
07.03.2020 23:40	10 min	40m
08.03.2020 01:00	10 min	40m
08.03.2020 07:00	10 min	40m
08.03.2020 12:40	10 min	40m
08.03.2020 15:50	10 min	40m
08.03.2020 17:30	10 min	40m
08.03.2020 18:10	10 min	40m
08.03.2020 18:40	10 min	40m
08.03.2020 19:00	20 min	40m
08.03.2020 20:20	10 min	40m
08.03.2020 22:10	20 min	40m
08.03.2020 22:40	10 min	40m
08.03.2020 23:30	10 min	40m
09.03.2020 03:40	10 min	40m
09.03.2020 04:10	10 min	40m
09.03.2020 04:30	10 min	40m
09.03.2020 05:00	10 min	40m
09.03.2020 07:00	10 min	40m
09.03.2020 08:50	10 min	40m
09.03.2020 09:10	10 min	40m
09.03.2020 10:00	10 min	40m
09.03.2020 10:30	10 min	40m
09.03.2020 12:20	20 min	40m
09.03.2020 22:30	10 min	40m
10.03.2020 04:40	10 min	40m
10.03.2020 06:10	10 min	40m
10.03.2020 08:50	10 min	40m
10.03.2020 10:30	10 min	40m
10.03.2020 11:40	10 min	40m
10.03.2020 22:50	10 min	40m
10.03.2020 23:20	10 min	40m
10.03.2020 23:50	10 min	40m
11.03.2020 00:40	10 min	40m
11.03.2020 02:00	10 min	40m
11.03.2020 06:50	10 min	40m
11.03.2020 07:40	10 min	40m
11.03.2020 09:10	10 min	40m



**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
11.03.2020 09:30	20 min	40m
11.03.2020 10:20	10 min	40m
11.03.2020 10:50	20 min	40m
11.03.2020 11:50	10 min	40m
11.03.2020 14:20	10 min	40m
11.03.2020 15:40	10 min	250m
11.03.2020 15:50	20 min	80-250m
11.03.2020 16:10	10 min	120-250m
11.03.2020 16:20	10 min	180-250m
11.03.2020 16:30	10 min	250m
11.03.2020 17:00	10 min	40m
11.03.2020 19:50	10 min	40m
12.03.2020 00:20	10 min	40m
12.03.2020 09:20	10 min	40m
12.03.2020 10:50	10 min	40m
12.03.2020 12:40	10 min	40m
12.03.2020 14:10	10 min	40m
13.03.2020 02:30	10 min	40m
13.03.2020 03:10	10 min	40m
13.03.2020 12:00	10 min	40m
13.03.2020 12:20	10 min	40m
13.03.2020 12:50	10 min	40m
13.03.2020 15:10	10 min	40m
13.03.2020 15:30	10 min	40m
13.03.2020 17:00	10 min	40m
13.03.2020 18:30	10 min	40m
13.03.2020 18:50	20 min	40m
13.03.2020 19:20	20 min	40m
13.03.2020 21:00	10 min	40m
13.03.2020 21:40	10 min	40m
13.03.2020 22:20	10 min	40m
13.03.2020 22:40	40 min	40m
13.03.2020 23:30	10 min	40m
13.03.2020 23:50	20 min	40m
14.03.2020 00:20	10 min	40m
14.03.2020 01:10	10 min	40m
14.03.2020 01:50	10 min	40m
14.03.2020 02:30	20 min	40m
14.03.2020 03:10	10 min	40m
14.03.2020 05:10	10 min	120m 140m 180-250m
14.03.2020 05:40	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
14.03.2020 06:50	10 min	40m
14.03.2020 08:40	20 min	40m
14.03.2020 11:30	10 min	40m
14.03.2020 14:00	10 min	40m
14.03.2020 14:20	10 min	40m
14.03.2020 18:50	10 min	40m
14.03.2020 19:50	10 min	40m
14.03.2020 21:10	10 min	Gill data missing
14.03.2020 21:30	10 min	40m
14.03.2020 22:30	10 min	40m
15.03.2020 01:20	10 min	40m
15.03.2020 02:10	10 min	40m
15.03.2020 07:20	10 min	40m
15.03.2020 11:50	10 min	40m
15.03.2020 14:50	10 min	40m
15.03.2020 16:10	10 min	40m
15.03.2020 19:50	10 min	40m
15.03.2020 21:00	10 min	40m
15.03.2020 22:20	10 min	40m
16.03.2020 00:10	10 min	40m
16.03.2020 00:40	10 min	40m
16.03.2020 01:10	10 min	40m
16.03.2020 03:50	10 min	40m
16.03.2020 04:10	10 min	40m
16.03.2020 04:50	30 min	40m
16.03.2020 05:50	20 min	40m
16.03.2020 06:20	10 min	40m
16.03.2020 08:10	10 min	40m
16.03.2020 08:30	10 min	80-250m
16.03.2020 09:00	10 min	80-250m
16.03.2020 09:40	10 min	40m
16.03.2020 10:00	10 min	40m
16.03.2020 10:20	20 min	80-250m
16.03.2020 11:10	10 min	40m
16.03.2020 11:40	10 min	80-250m
16.03.2020 12:20	10 min	40m
16.03.2020 13:30	10 min	40m
16.03.2020 14:10	10 min	40m
16.03.2020 14:40	40 min	40m
16.03.2020 16:00	20 min	40m
16.03.2020 16:40	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
16.03.2020 17:00	20 min	40m
16.03.2020 18:00	10 min	40m
16.03.2020 18:30	20 min	40m
16.03.2020 19:30	10 min	40m
16.03.2020 19:50	30 min	40m
17.03.2020 01:40	10 min	40m
17.03.2020 02:40	10 min	40m
17.03.2020 03:50	10 min	40m
17.03.2020 04:20	10 min	40m
17.03.2020 11:10	10 min	40m
17.03.2020 11:40	10 min	40m
17.03.2020 12:10	10 min	40m
17.03.2020 15:30	10 min	40m
17.03.2020 16:00	10 min	40m
17.03.2020 17:30	30 min	40m
17.03.2020 18:20	10 min	40m
18.03.2020 02:00	10 min	40m
18.03.2020 03:00	10 min	40m
18.03.2020 04:00	10 min	40m
18.03.2020 05:40	10 min	40m
18.03.2020 10:20	10 min	40m
18.03.2020 11:10	10 min	40m
18.03.2020 12:50	10 min	40m
18.03.2020 13:40	20 min	40m
18.03.2020 15:30	10 min	40m
18.03.2020 17:30	10 min	40m
18.03.2020 18:20	10 min	40m
18.03.2020 18:40	10 min	40m
18.03.2020 19:10	10 min	40m
18.03.2020 19:40	10 min	40m
18.03.2020 21:50	10 min	30m 80-250m
18.03.2020 22:00	20 min	80-250m
18.03.2020 22:20	10 min	40m 180m 250m
18.03.2020 22:30	30 min	80-250m
19.03.2020 00:20	10 min	40m
19.03.2020 00:50	10 min	80-250m
19.03.2020 01:10	20 min	40m 100m 140m 160m 200-250m
19.03.2020 01:30	1 hours 00 min	40m 80-250m
19.03.2020 03:10	10 min	40m
19.03.2020 03:20	10 min	160m
19.03.2020 03:30	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
19.03.2020 03:50	10 min	80-250m
19.03.2020 04:50	10 min	100m 120m 160-250m
19.03.2020 05:20	10 min	80-250m
19.03.2020 05:30	10 min	160m 200-250m
19.03.2020 05:40	10 min	180m 200m
19.03.2020 06:10	10 min	40m 80m 120-250m
19.03.2020 06:40	10 min	40m 80-250m
19.03.2020 06:50	10 min	40m
19.03.2020 07:30	10 min	40m
19.03.2020 08:00	10 min	40m
19.03.2020 09:10	10 min	40m
19.03.2020 09:50	10 min	40m
19.03.2020 11:40	10 min	40m
19.03.2020 12:30	20 min	40m
19.03.2020 13:00	10 min	40m
19.03.2020 13:20	10 min	40m
19.03.2020 13:50	10 min	40m
19.03.2020 14:40	10 min	40m
19.03.2020 15:10	10 min	40m
19.03.2020 17:20	10 min	40m
19.03.2020 18:50	10 min	40m
19.03.2020 22:20	10 min	40m
20.03.2020 01:00	30 min	40m
20.03.2020 02:10	10 min	40m
20.03.2020 05:20	10 min	40m
20.03.2020 06:00	10 min	40m
20.03.2020 06:40	10 min	40m
20.03.2020 07:30	10 min	40m
20.03.2020 08:00	10 min	40m
20.03.2020 08:50	10 min	40m
20.03.2020 09:20	10 min	40m
20.03.2020 13:30	30 min	40m
20.03.2020 16:50	10 min	40m
20.03.2020 17:10	10 min	40m
20.03.2020 18:20	10 min	40m
21.03.2020 01:00	10 min	40m
21.03.2020 05:30	10 min	40m
21.03.2020 08:30	10 min	40m
21.03.2020 10:50	10 min	40m
21.03.2020 13:10	10 min	40m
21.03.2020 14:30	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
21.03.2020 16:30	10 min	40m
21.03.2020 17:10	10 min	40m
21.03.2020 22:00	10 min	40m
22.03.2020 05:10	10 min	40m
22.03.2020 11:10	10 min	40m
22.03.2020 12:10	10 min	40m
22.03.2020 17:30	10 min	40m
22.03.2020 22:10	10 min	40m
22.03.2020 23:50	10 min	40m
23.03.2020 03:00	10 min	40m
23.03.2020 07:10	30 min	40m
23.03.2020 09:20	10 min	40m
23.03.2020 11:20	10 min	40m
23.03.2020 11:50	10 min	40m
23.03.2020 13:10	20 min	40m
23.03.2020 13:40	10 min	40m
23.03.2020 15:40	10 min	40m
23.03.2020 16:00	20 min	40m
23.03.2020 20:00	10 min	40m
23.03.2020 23:10	10 min	40m
24.03.2020 02:50	20 min	40m
24.03.2020 06:30	10 min	40m
24.03.2020 06:50	20 min	40m
24.03.2020 12:30	10 min	40m
24.03.2020 13:40	20 min	40m
24.03.2020 14:30	10 min	40m
24.03.2020 14:50	40 min	40m
24.03.2020 15:40	10 min	40m
24.03.2020 16:10	10 min	40m
24.03.2020 18:10	20 min	40m
24.03.2020 19:10	10 min	40m
24.03.2020 21:10	10 min	40m
25.03.2020 00:50	10 min	40m
25.03.2020 01:20	10 min	40m
25.03.2020 03:10	10 min	40m
25.03.2020 06:40	10 min	40m
25.03.2020 08:20	10 min	40m
25.03.2020 08:40	10 min	40m
25.03.2020 12:40	10 min	40m
25.03.2020 13:40	10 min	40m
25.03.2020 14:50	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
25.03.2020 15:20	10 min	40m
25.03.2020 16:10	10 min	40m
25.03.2020 17:00	10 min	40m
25.03.2020 17:30	10 min	40m
25.03.2020 18:40	20 min	40m
25.03.2020 22:00	10 min	40m
25.03.2020 23:00	10 min	40m
26.03.2020 00:10	10 min	40m
26.03.2020 01:20	10 min	40m
26.03.2020 01:40	10 min	40m
26.03.2020 02:00	10 min	40m
26.03.2020 05:10	10 min	40m
26.03.2020 13:20	20 min	40m
26.03.2020 14:00	10 min	40m
26.03.2020 16:20	20 min	40m
26.03.2020 17:40	10 min	40m
26.03.2020 18:40	20 min	40m
26.03.2020 20:50	20 min	40m
27.03.2020 00:40	10 min	40m
27.03.2020 01:40	10 min	40m
27.03.2020 02:00	10 min	40m
27.03.2020 03:50	10 min	40m
27.03.2020 05:30	10 min	40m
27.03.2020 06:30	20 min	40m
27.03.2020 07:10	10 min	40m
27.03.2020 08:40	10 min	40m
27.03.2020 11:40	10 min	40m
27.03.2020 13:40	10 min	40m
27.03.2020 17:20	10 min	40m
27.03.2020 19:00	10 min	40m
27.03.2020 21:20	10 min	40m
27.03.2020 22:20	10 min	40m
28.03.2020 03:30	10 min	40m
28.03.2020 04:30	10 min	40m
28.03.2020 13:40	10 min	40m
28.03.2020 18:20	10 min	40m
28.03.2020 20:00	10 min	40m
28.03.2020 23:40	10 min	Gill data missing
29.03.2020 00:30	10 min	40m
29.03.2020 05:50	10 min	40m
29.03.2020 13:20	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
29.03.2020 15:00	10 min	40m
29.03.2020 20:30	10 min	40m
30.03.2020 00:00	10 min	40m
30.03.2020 00:50	10 min	40m
30.03.2020 01:50	10 min	40m
30.03.2020 02:50	10 min	40m
30.03.2020 03:10	10 min	40m
30.03.2020 03:30	20 min	40m
30.03.2020 04:00	10 min	40m
30.03.2020 04:20	20 min	40m
30.03.2020 05:10	10 min	40m
30.03.2020 05:40	40 min	40m
30.03.2020 07:00	10 min	40m
30.03.2020 10:40	10 min	60m
30.03.2020 11:10	20 min	40m
30.03.2020 12:10	10 min	40m
30.03.2020 13:40	10 min	40m
30.03.2020 14:20	10 min	40m
30.03.2020 16:50	10 min	40m
30.03.2020 18:00	10 min	40m
30.03.2020 19:20	10 min	40m
30.03.2020 21:30	10 min	40m
30.03.2020 23:10	10 min	40m
31.03.2020 00:10	10 min	40m
31.03.2020 02:30	10 min	40m
31.03.2020 03:20	10 min	40m
31.03.2020 05:00	10 min	40m
31.03.2020 06:20	10 min	40m
31.03.2020 08:50	10 min	40m
31.03.2020 09:20	10 min	40m
31.03.2020 10:30	20 min	40m
31.03.2020 11:10	10 min	40m
31.03.2020 12:00	20 min	40m
31.03.2020 13:10	20 min	40m
31.03.2020 13:40	10 min	40m
31.03.2020 14:20	20 min	40m
31.03.2020 15:10	20 min	40m
31.03.2020 15:40	20 min	40m
31.03.2020 16:20	30 min	40m
31.03.2020 17:40	10 min	40m
31.03.2020 18:10	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
31.03.2020 18:30	30 min	40m
31.03.2020 19:30	10 min	40m
31.03.2020 20:30	20 min	40m
31.03.2020 21:50	20 min	40m
31.03.2020 23:50	10 min	40m
01.04.2020 00:30	20 min	40m
01.04.2020 01:00	20 min	40m
01.04.2020 01:30	10 min	40m
01.04.2020 02:40	20 min	40m
01.04.2020 03:10	10 min	40m
01.04.2020 04:10	10 min	40m
01.04.2020 06:10	10 min	40m
01.04.2020 06:30	10 min	40m
01.04.2020 07:10	20 min	40m
01.04.2020 09:00	10 min	40m
01.04.2020 09:40	20 min	40m
01.04.2020 10:10	10 min	40m
01.04.2020 10:30	10 min	40m
01.04.2020 10:50	20 min	40m
01.04.2020 11:20	10 min	40m
01.04.2020 11:50	20 min	40m
01.04.2020 13:00	10 min	40m
01.04.2020 13:30	10 min	40m
01.04.2020 15:40	10 min	40m
01.04.2020 16:00	10 min	40m
01.04.2020 17:00	10 min	40m
01.04.2020 18:30	10 min	40m
01.04.2020 19:00	10 min	40m
01.04.2020 20:50	20 min	40m
01.04.2020 22:10	20 min	40m
02.04.2020 00:00	10 min	40m
02.04.2020 05:00	20 min	40m
02.04.2020 05:40	10 min	40m
02.04.2020 06:50	10 min	40m
02.04.2020 07:50	10 min	40m
02.04.2020 09:50	10 min	40m
02.04.2020 12:10	10 min	40m
02.04.2020 12:50	10 min	40m
02.04.2020 15:10	10 min	40m
02.04.2020 22:00	10 min	40m
02.04.2020 22:50	10 min	40m



**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
02.04.2020 23:10	10 min	40m
03.04.2020 00:20	10 min	40m
03.04.2020 01:50	10 min	40m
03.04.2020 03:00	30 min	40m
03.04.2020 03:50	10 min	40m
03.04.2020 05:00	10 min	80-250m
03.04.2020 05:30	10 min	40m
03.04.2020 06:00	20 min	40m
03.04.2020 07:00	10 min	40m
03.04.2020 10:50	20 min	40m
03.04.2020 12:10	10 min	40m
03.04.2020 14:40	10 min	40m
03.04.2020 15:20	10 min	40m
03.04.2020 15:40	10 min	40m
03.04.2020 16:40	40 min	40m
03.04.2020 18:30	10 min	40m
03.04.2020 20:30	10 min	40m
03.04.2020 21:10	10 min	40m
03.04.2020 22:30	10 min	40m
03.04.2020 22:50	10 min	40m
03.04.2020 23:20	10 min	40m
04.04.2020 01:20	10 min	40m
04.04.2020 03:40	10 min	40m
04.04.2020 04:00	20 min	40m
04.04.2020 05:00	10 min	40m
04.04.2020 07:10	10 min	40m
04.04.2020 07:40	10 min	40m
04.04.2020 08:10	10 min	40m
04.04.2020 09:30	20 min	40m
04.04.2020 11:20	10 min	40m
04.04.2020 13:00	10 min	40m
04.04.2020 14:20	20 min	40m
04.04.2020 14:50	30 min	40m
04.04.2020 15:30	10 min	40m
04.04.2020 16:00	10 min	40m
04.04.2020 16:30	10 min	40m
04.04.2020 18:30	10 min	40m
04.04.2020 19:20	10 min	40m
04.04.2020 20:40	20 min	40m
04.04.2020 21:10	10 min	40m
05.04.2020 00:40	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
05.04.2020 02:10	10 min	40m
05.04.2020 03:00	10 min	40m
05.04.2020 04:50	10 min	40m
05.04.2020 07:10	10 min	40m
05.04.2020 09:00	20 min	40m
05.04.2020 11:00	10 min	40m
05.04.2020 11:20	10 min	40m
05.04.2020 12:10	1 hours 00 min	all LiDAR data missing
05.04.2020 13:10	10 min	40m
05.04.2020 14:10	20 min	40m
05.04.2020 14:40	10 min	40m
05.04.2020 15:10	10 min	40m
05.04.2020 16:10	10 min	40m
05.04.2020 16:30	10 min	40m
05.04.2020 16:50	10 min	40m
05.04.2020 22:10	10 min	40m
05.04.2020 23:40	10 min	40m
06.04.2020 00:40	10 min	40m
06.04.2020 03:40	10 min	40m
06.04.2020 06:10	20 min	40m
06.04.2020 06:40	10 min	40m
06.04.2020 07:00	10 min	40m
06.04.2020 07:40	10 min	40m
06.04.2020 08:10	10 min	40m
06.04.2020 11:40	10 min	40m
06.04.2020 12:20	10 min	40m
06.04.2020 12:40	10 min	40m
06.04.2020 14:50	10 min	40m
06.04.2020 17:00	10 min	40m
06.04.2020 17:30	10 min	40m
06.04.2020 19:50	10 min	30m 40m 80m 180m 250m
06.04.2020 20:00	10 min	40m 250m
06.04.2020 20:10	10 min	140-250m
06.04.2020 21:10	10 min	40m
06.04.2020 21:30	10 min	40m
06.04.2020 22:10	50 min	40m
06.04.2020 23:10	20 min	40m
07.04.2020 00:00	30 min	40m
07.04.2020 00:40	10 min	40m
07.04.2020 01:00	20 min	40m
07.04.2020 03:10	20 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
07.04.2020 04:20	20 min	40m
07.04.2020 04:50	10 min	40m
07.04.2020 05:30	10 min	40m
07.04.2020 07:00	10 min	40m
07.04.2020 07:20	10 min	40m
07.04.2020 09:30	10 min	40m
07.04.2020 10:30	10 min	40m
07.04.2020 11:00	30 min	40m
07.04.2020 12:00	10 min	40m
07.04.2020 12:30	10 min	40m
07.04.2020 12:40	1 hours 40 min	all LiDAR data missing
07.04.2020 15:50	10 min	40m
07.04.2020 16:20	10 min	40m
07.04.2020 16:40	20 min	40m
07.04.2020 17:50	10 min	40m
07.04.2020 20:40	10 min	40m
07.04.2020 22:20	20 min	40m
07.04.2020 23:10	10 min	40m
08.04.2020 00:20	10 min	40m
08.04.2020 01:20	50 min	all LiDAR data missing
08.04.2020 03:10	1 hours 20 min	all LiDAR data missing
08.04.2020 04:40	20 min	40m
08.04.2020 05:50	50 min	all LiDAR data missing
08.04.2020 06:50	10 min	40m
08.04.2020 07:20	10 min	140m
08.04.2020 07:40	20 min	40m
08.04.2020 08:20	20 min	40m
08.04.2020 09:20	10 min	40m
08.04.2020 10:30	10 min	40m
08.04.2020 10:50	1 hours 20 min	40m
08.04.2020 12:50	30 min	40m
08.04.2020 14:00	10 min	40m
08.04.2020 14:20	50 min	40m
08.04.2020 15:20	10 min	40m
08.04.2020 15:40	20 min	40m
08.04.2020 16:20	20 min	40m
08.04.2020 16:50	10 min	40m
08.04.2020 17:20	10 min	40m
08.04.2020 17:40	10 min	40m
08.04.2020 18:00	10 min	40m
08.04.2020 18:40	30 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
08.04.2020 19:30	10 min	40m
08.04.2020 20:00	30 min	40m
08.04.2020 20:40	10 min	40m
08.04.2020 21:00	30 min	40m
08.04.2020 23:00	10 min	40m
08.04.2020 23:20	20 min	40m
09.04.2020 00:30	10 min	40m
09.04.2020 02:30	20 min	40m
09.04.2020 04:00	10 min	40m
09.04.2020 04:20	20 min	40m
09.04.2020 06:10	1 hours 10 min	40m
09.04.2020 07:30	10 min	40m
09.04.2020 07:50	10 min	40m
09.04.2020 09:00	10 min	40m 250m
09.04.2020 09:10	10 min	40m
09.04.2020 09:20	1 hours 00 min	40m 250m
09.04.2020 10:20	20 min	40m
09.04.2020 10:50	50 min	40m
09.04.2020 12:00	20 min	40m
09.04.2020 12:30	10 min	40m
09.04.2020 13:20	10 min	40m
09.04.2020 13:50	40 min	40m
09.04.2020 14:40	10 min	40m
09.04.2020 16:00	10 min	40m
09.04.2020 17:00	10 min	40m
09.04.2020 18:20	10 min	40m
09.04.2020 19:20	10 min	40m
09.04.2020 21:20	10 min	40m
09.04.2020 21:40	10 min	40m
10.04.2020 00:20	10 min	40m
10.04.2020 01:50	10 min	40m
10.04.2020 02:50	10 min	40m
10.04.2020 03:50	10 min	40m
10.04.2020 04:20	10 min	40m
10.04.2020 05:10	10 min	40m
10.04.2020 05:40	10 min	40m
10.04.2020 07:00	10 min	40m
10.04.2020 08:50	10 min	40m
10.04.2020 09:20	10 min	40m
10.04.2020 10:20	50 min	40m 250m
10.04.2020 11:10	10 min	200-250m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
10.04.2020 11:20	20 min	250m
10.04.2020 11:40	10 min	40m
10.04.2020 12:00	10 min	40m
10.04.2020 13:20	10 min	40m
10.04.2020 13:50	10 min	40m
10.04.2020 14:10	10 min	40m
10.04.2020 14:30	20 min	40m
10.04.2020 15:00	10 min	40m
10.04.2020 16:10	20 min	40m
10.04.2020 17:30	10 min	40m
10.04.2020 17:50	20 min	40m
10.04.2020 18:20	10 min	40m
10.04.2020 18:50	10 min	40m
10.04.2020 19:20	10 min	40m
10.04.2020 19:40	10 min	40m
10.04.2020 20:20	10 min	40m
10.04.2020 23:40	10 min	40m
11.04.2020 03:30	10 min	40m
11.04.2020 04:40	20 min	40m
11.04.2020 05:20	10 min	40m
11.04.2020 06:00	10 min	40m
11.04.2020 07:10	10 min	40m
11.04.2020 07:30	10 min	Gill data missing
11.04.2020 07:50	10 min	40m
11.04.2020 08:10	20 min	40m
11.04.2020 09:40	10 min	40m
11.04.2020 10:20	10 min	40m
11.04.2020 12:00	40 min	40m
11.04.2020 12:50	10 min	40m
11.04.2020 14:30	30 min	40m
11.04.2020 16:40	10 min	40m
11.04.2020 17:00	40 min	40m
11.04.2020 17:50	10 min	40m
11.04.2020 18:10	40 min	40m
11.04.2020 19:00	40 min	40m
11.04.2020 19:50	20 min	40m
11.04.2020 20:40	10 min	40m
11.04.2020 21:20	1 hours 20 min	40m
11.04.2020 22:50	20 min	40m
11.04.2020 23:50	10 min	40m
12.04.2020 00:10	20 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
12.04.2020 01:00	10 min	40m
12.04.2020 01:20	20 min	40m
12.04.2020 02:10	10 min	40m
12.04.2020 03:10	10 min	40m
12.04.2020 04:00	10 min	40m
12.04.2020 04:40	20 min	40m
12.04.2020 05:00	10 min	100m 120m
12.04.2020 05:10	10 min	40m
12.04.2020 05:40	50 min	40m
12.04.2020 06:40	1 hours 30 min	40m
12.04.2020 08:40	30 min	all LiDAR data missing
12.04.2020 09:20	10 min	40m
12.04.2020 09:40	10 min	40m
12.04.2020 10:10	10 min	40m
12.04.2020 11:10	20 min	40m
12.04.2020 11:40	10 min	40m
12.04.2020 12:20	10 min	40m
12.04.2020 12:40	30 min	40m
12.04.2020 13:20	20 min	40m
12.04.2020 14:20	10 min	40m
12.04.2020 14:40	20 min	40m
12.04.2020 15:20	20 min	40m
12.04.2020 15:50	20 min	40m
12.04.2020 17:30	40 min	40m
12.04.2020 19:10	10 min	40m
12.04.2020 21:00	10 min	40m
13.04.2020 01:10	10 min	all LiDAR data missing
13.04.2020 03:00	10 min	40m
13.04.2020 08:50	10 min	40m
13.04.2020 09:30	20 min	40m
13.04.2020 10:30	20 min	40m
13.04.2020 16:20	10 min	40m
13.04.2020 16:40	10 min	40m
13.04.2020 17:30	20 min	40m
13.04.2020 20:40	10 min	40m
13.04.2020 21:40	10 min	40m
13.04.2020 23:40	10 min	40m
14.04.2020 00:50	10 min	40m
14.04.2020 01:20	10 min	40m
14.04.2020 04:20	10 min	40m
14.04.2020 04:40	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
14.04.2020 05:10	10 min	140m
14.04.2020 06:10	10 min	40m
14.04.2020 06:40	10 min	40m
14.04.2020 07:00	10 min	40m
14.04.2020 08:10	10 min	40m
14.04.2020 08:40	10 min	40m
14.04.2020 09:30	10 min	40m
14.04.2020 11:10	10 min	40m
14.04.2020 12:10	10 min	40m
14.04.2020 12:50	10 min	40m
14.04.2020 14:50	10 min	40m
14.04.2020 15:20	10 min	40m
14.04.2020 16:10	10 min	40m
14.04.2020 16:40	10 min	180m
14.04.2020 17:20	10 min	40m
14.04.2020 19:00	10 min	40m
14.04.2020 20:10	10 min	40m
14.04.2020 20:30	10 min	40m
14.04.2020 20:50	10 min	40m
14.04.2020 21:30	10 min	40m
14.04.2020 21:50	20 min	40m
14.04.2020 22:20	20 min	40m
14.04.2020 23:00	10 min	40m
14.04.2020 23:20	10 min	40m
15.04.2020 00:50	20 min	40m
15.04.2020 01:30	10 min	40m
15.04.2020 02:30	10 min	40m
15.04.2020 03:10	20 min	40m
15.04.2020 03:40	10 min	40m
15.04.2020 04:20	20 min	40m
15.04.2020 05:10	10 min	40m
15.04.2020 05:30	10 min	40m
15.04.2020 06:00	20 min	40m
15.04.2020 06:30	10 min	40m
15.04.2020 06:50	30 min	40m
15.04.2020 07:40	10 min	40m
15.04.2020 08:20	50 min	40m
15.04.2020 10:20	10 min	40m
15.04.2020 11:40	10 min	40m
15.04.2020 12:00	20 min	40m
15.04.2020 13:00	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
15.04.2020 13:40	10 min	40m
15.04.2020 14:00	30 min	40m
15.04.2020 15:00	10 min	40m
15.04.2020 15:20	10 min	40m
15.04.2020 15:40	10 min	40m
15.04.2020 16:30	20 min	40m
15.04.2020 17:10	10 min	40m
15.04.2020 19:00	10 min	40m
15.04.2020 19:10	10 min	180m 200m
15.04.2020 20:00	20 min	40m 140m
15.04.2020 20:40	10 min	40m
15.04.2020 21:00	10 min	40m
15.04.2020 22:30	10 min	40m
16.04.2020 00:10	20 min	40m
16.04.2020 02:20	40 min	40m
16.04.2020 03:10	30 min	40m
16.04.2020 04:40	10 min	40m
16.04.2020 05:30	10 min	40m
16.04.2020 06:10	10 min	40m
16.04.2020 06:50	10 min	40m
16.04.2020 09:10	10 min	40m
16.04.2020 10:10	10 min	40m
16.04.2020 12:20	10 min	40m
16.04.2020 12:50	10 min	40m
16.04.2020 13:20	20 min	40m
16.04.2020 14:40	10 min	40m
16.04.2020 15:50	10 min	40m
16.04.2020 16:20	20 min	40m
16.04.2020 19:10	10 min	40m
16.04.2020 23:40	10 min	40m
17.04.2020 06:00	10 min	40m
17.04.2020 06:20	10 min	40m
17.04.2020 06:50	10 min	40m
17.04.2020 09:00	10 min	40m
17.04.2020 09:40	10 min	40m
17.04.2020 10:40	10 min	40m
17.04.2020 11:00	10 min	40m
17.04.2020 12:20	10 min	40m
17.04.2020 18:00	10 min	40m
17.04.2020 20:10	10 min	40m
17.04.2020 21:30	20 min	40m



**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
17.04.2020 22:30	30 min	40m
17.04.2020 23:20	10 min	40m
18.04.2020 01:50	10 min	40m
18.04.2020 02:20	10 min	40m
18.04.2020 02:50	10 min	40m
18.04.2020 05:10	20 min	40m
18.04.2020 09:10	10 min	40m
18.04.2020 10:00	10 min	40m
18.04.2020 10:30	20 min	40m
18.04.2020 11:00	10 min	40m
18.04.2020 12:10	10 min	40m
18.04.2020 13:20	20 min	40m
18.04.2020 14:30	10 min	40m
18.04.2020 16:50	10 min	40m
18.04.2020 17:10	10 min	40m
18.04.2020 18:20	30 min	40m
18.04.2020 19:00	10 min	40m
18.04.2020 20:00	10 min	40m
18.04.2020 21:50	10 min	40m
18.04.2020 22:30	10 min	40m
19.04.2020 00:20	30 min	40m
19.04.2020 01:40	10 min	40m
19.04.2020 04:30	10 min	40m
19.04.2020 05:10	10 min	40m
19.04.2020 11:40	10 min	40m
19.04.2020 13:10	10 min	40m
19.04.2020 17:30	10 min	40m
19.04.2020 17:50	10 min	40m
19.04.2020 18:10	10 min	40m
19.04.2020 19:00	10 min	40m
20.04.2020 00:10	10 min	40m
20.04.2020 01:10	10 min	40m
20.04.2020 04:00	10 min	40m
20.04.2020 04:50	10 min	40m
20.04.2020 08:50	10 min	40m
20.04.2020 09:10	10 min	40m
20.04.2020 12:00	10 min	40m
20.04.2020 13:00	10 min	40m
20.04.2020 15:20	10 min	40m
20.04.2020 18:40	10 min	40m
20.04.2020 21:10	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
20.04.2020 21:40	10 min	40m
20.04.2020 22:30	10 min	40m
21.04.2020 00:30	10 min	40m
21.04.2020 04:20	10 min	40m
21.04.2020 04:50	10 min	40m
21.04.2020 07:50	10 min	40m
21.04.2020 09:00	10 min	40m
21.04.2020 13:30	10 min	40m
21.04.2020 14:00	20 min	40m
21.04.2020 19:10	10 min	40m
21.04.2020 21:30	10 min	40m
22.04.2020 02:50	10 min	40m
22.04.2020 03:30	10 min	40m
22.04.2020 03:50	10 min	40m
22.04.2020 04:20	20 min	40m
22.04.2020 07:40	20 min	40m
22.04.2020 09:00	10 min	40m
22.04.2020 10:30	10 min	40m
22.04.2020 13:10	10 min	40m
22.04.2020 14:20	10 min	40m
22.04.2020 14:40	10 min	40m
22.04.2020 15:00	10 min	40m
22.04.2020 16:30	10 min	40m
22.04.2020 17:10	10 min	40m
22.04.2020 17:40	20 min	40m
22.04.2020 19:40	10 min	40m
22.04.2020 22:50	30 min	40m
22.04.2020 23:30	20 min	40m
23.04.2020 00:10	10 min	40m
23.04.2020 01:10	10 min	40m
23.04.2020 02:40	10 min	40m
23.04.2020 03:00	10 min	40m
23.04.2020 03:20	10 min	40m
23.04.2020 05:30	10 min	40m
23.04.2020 06:30	10 min	40m
23.04.2020 06:50	10 min	40m
23.04.2020 07:10	30 min	40m
23.04.2020 08:50	10 min	40m
23.04.2020 09:10	30 min	40m
23.04.2020 09:50	10 min	40m
23.04.2020 11:20	10 min	40m

**Table E.5: Gaps in the wind dataset of Deployment 5 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
23.04.2020 12:20	10 min	40m
23.04.2020 13:30	20 min	40m
23.04.2020 14:00	10 min	40m
23.04.2020 14:50	10 min	40m
23.04.2020 15:10	10 min	40m
23.04.2020 17:10	10 min	40m
23.04.2020 17:50	10 min	40m
23.04.2020 20:00	20 min	40m
23.04.2020 20:30	20 min	40m
23.04.2020 21:20	10 min	40m
23.04.2020 21:40	10 min	40m
23.04.2020 22:20	20 min	40m
23.04.2020 23:20	10 min	40m
23.04.2020 23:40	10 min	40m
24.04.2020 00:00	30 min	40m
24.04.2020 00:50	10 min	40m
24.04.2020 01:20	20 min	40m
24.04.2020 01:50	10 min	40m
24.04.2020 02:50	10 min	40m
24.04.2020 06:50	10 min	40m
24.04.2020 07:20	10 min	40m
24.04.2020 08:00	10 min	40m
24.04.2020 08:20	20 min	40m
24.04.2020 08:50	20 min	40m
24.04.2020 09:30	10 min	40m
24.04.2020 10:00	10 min	40m
24.04.2020 10:20	20 min	40m
24.04.2020 10:50	10 min	40m
24.04.2020 13:10	10 min	80-250m
24.04.2020 13:20	10 min	100-250m
24.04.2020 16:30	30 min	40m

## E.6 Deployment 6

**Table E.6: Gaps in the wind dataset of Deployment 6 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
18.12.2019 09:40	12 hours 10 min	Gill data missing
18.12.2019 22:00	10 min	Gill data missing
19.12.2019 23:10	10 min	250m
20.12.2019 00:10	10 min	180m 250m
20.12.2019 02:00	10 min	250m
20.12.2019 02:40	30 min	250m
20.12.2019 05:10	10 min	Gill data missing
20.12.2019 07:50	20 min	200-250m
20.12.2019 08:30	10 min	250m
21.12.2019 00:50	10 min	100m
21.12.2019 04:10	10 min	80m 160m
21.12.2019 04:30	10 min	80-250m
21.12.2019 05:10	2 hours 10 min	80-250m
24.12.2019 04:30	10 min	80-250m
25.12.2019 10:20	10 min	80m 250m
26.12.2019 20:40	1 hours 40 min	all LiDAR data missing
26.12.2019 22:40	30 min	all LiDAR data missing
26.12.2019 23:10	10 min	80-250m
26.12.2019 23:20	1 hours 10 min	all LiDAR data missing
27.12.2019 00:40	10 min	80m 160m
27.12.2019 00:50	10 min	all LiDAR data missing
27.12.2019 01:00	10 min	80-250m
27.12.2019 02:30	10 min	200m
27.12.2019 03:40	10 min	180-250m
27.12.2019 03:50	10 min	80-250m
27.12.2019 04:10	40 min	80-250m
27.12.2019 05:00	10 min	80-250m
31.12.2019 21:40	10 min	100-250m
31.12.2019 21:50	40 min	80-250m
31.12.2019 22:30	10 min	100-250m
31.12.2019 22:40	10 min	180-250m
01.01.2020 00:50	10 min	200m
01.01.2020 02:40	10 min	80m
01.01.2020 02:50	20 min	80-250m
01.01.2020 03:10	10 min	80m 200-250m
01.01.2020 03:30	10 min	80-250m
01.01.2020 03:40	10 min	250m
01.01.2020 04:20	10 min	80m
01.01.2020 05:00	10 min	80m

**Table E.6: Gaps in the wind dataset of Deployment 6 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
01.01.2020 17:00	1 hours 20 min	all LiDAR data missing
01.01.2020 18:40	4 hours 10 min	all LiDAR data missing
01.01.2020 22:50	10 min	80m 100m 120m 140m 180m 200m
01.01.2020 23:00	6 hours 50 min	all LiDAR data missing
02.01.2020 05:50	10 min	40-250m
02.01.2020 06:00	15 hours 00 min	all LiDAR data missing
02.01.2020 21:00	10 min	30m 40m 60m 80m 100m 120m 140m 160m 180m 250m
02.01.2020 21:10	14 hours 40 min	all LiDAR data missing
03.01.2020 11:50	10 min	40-250m
03.01.2020 12:00	9 hours 00 min	all LiDAR data missing
03.01.2020 21:10	8 hours 20 min	all LiDAR data missing
04.01.2020 05:40	1 hours 00 min	all LiDAR data missing
04.01.2020 06:40	10 min	30m 40m 60m 80m 100m 120m 140m 200-250m
04.01.2020 06:50	13 hours 40 min	all LiDAR data missing
04.01.2020 20:30	10 min	30m 40m 60m 80m 100m 120m 200m
04.01.2020 20:40	1 hours 50 min	all LiDAR data missing
04.01.2020 22:30	10 min	30m
04.01.2020 22:40	19 hours 40 min	all LiDAR data missing
05.01.2020 18:20	10 min	30m 40m 120m 160m 250m
05.01.2020 18:30	1 hours 50 min	all LiDAR data missing
05.01.2020 20:20	10 min	30m 40m 80m 100m 140m
05.01.2020 20:30	3 hours 10 min	all LiDAR data missing
05.01.2020 23:40	10 min	80m 100m 120m
05.01.2020 23:50	8 hours 00 min	all LiDAR data missing
06.01.2020 08:00	28 hours 00 min	all LiDAR data missing
07.01.2020 12:30	3 hours 00 min	all LiDAR data missing
07.01.2020 17:10	10 min	all LiDAR data missing
08.01.2020 00:20	10 min	250m
08.01.2020 00:30	10 min	200-250m
08.01.2020 00:40	3 hours 20 min	all LiDAR data missing
08.01.2020 04:00	10 min	40m 200-250m
08.01.2020 04:10	4 hours 20 min	all LiDAR data missing
08.01.2020 08:30	10 min	30m 40m
08.01.2020 08:40	8 hours 20 min	all LiDAR data missing
08.01.2020 17:40	10 min	30m 40m 60m 80m 100m 120m 140m 160m 180m
08.01.2020 18:00	7 hours 10 min	all LiDAR data missing
09.01.2020 01:20	10 min	140-250m
09.01.2020 01:30	1 hours 10 min	80-250m
09.01.2020 02:40	10 min	140-250m
09.01.2020 03:10	10 min	40m 80-250m
09.01.2020 03:20	14 hours 30 min	all LiDAR data missing

**Table E.6: Gaps in the wind dataset of Deployment 6 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
09.01.2020 17:50	10 min	30m 60-250m
09.01.2020 18:00	13 hours 00 min	all LiDAR data missing
10.01.2020 07:00	10 min	30m 40m 60m 80m 100m 120m 140m 200-250m
10.01.2020 07:10	6 hours 20 min	all LiDAR data missing
10.01.2020 13:30	10 min	30m 40m 60m 80m 100m 120m 140m 160m
10.01.2020 13:40	1 hours 10 min	all LiDAR data missing
10.01.2020 15:00	21 hours 20 min	all LiDAR data missing
11.01.2020 12:20	10 min	30m 40m 60m 80m 100m
11.01.2020 12:30	1 hours 20 min	all LiDAR data missing
11.01.2020 13:50	10 min	30m 40m 60m 100m 120m 140m 160m 200m
11.01.2020 14:00	10 min	30m 60m 80m 100m 120m 140m 160m 180m 200m
11.01.2020 14:10	10 min	all LiDAR data missing
11.01.2020 14:30	7 hours 10 min	all LiDAR data missing
11.01.2020 21:40	10 min	160m
11.01.2020 21:50	27 hours 00 min	all LiDAR data missing
13.01.2020 01:00	3 hours 00 min	all LiDAR data missing
13.01.2020 04:10	10 hours 00 min	all LiDAR data missing
13.01.2020 14:10	10 min	40-250m
13.01.2020 14:20	11 hours 10 min	all LiDAR data missing
14.01.2020 01:30	10 min	30m 40m 60m 80m 100m 120m 140m 160m 200-250m
14.01.2020 01:40	25 hours 10 min	all LiDAR data missing
15.01.2020 02:50	10 min	30m 40m 100m 140m
15.01.2020 03:00	2 hours 30 min	all LiDAR data missing
15.01.2020 05:30	10 min	30m 40m 120m 140m 250m
15.01.2020 05:40	4 hours 00 min	all LiDAR data missing
15.01.2020 09:40	10 min	30m 60m
15.01.2020 09:50	8 hours 20 min	all LiDAR data missing
15.01.2020 18:10	10 min	40m 60m 80m 120m
15.01.2020 18:20	9 hours 50 min	all LiDAR data missing
16.01.2020 04:20	3 hours 30 min	all LiDAR data missing
16.01.2020 07:50	10 min	30m 40m 60m 80m 100m 120m 160m
16.01.2020 08:00	30 hours 10 min	all LiDAR data missing
17.01.2020 14:10	10 min	30m
17.01.2020 14:20	4 hours 40 min	all LiDAR data missing
17.01.2020 19:10	2 hours 30 min	all LiDAR data missing
17.01.2020 21:50	23 hours 20 min	all LiDAR data missing
18.01.2020 21:10	10 min	30m 40m 80-250m
18.01.2020 21:20	10 min	all LiDAR data missing
18.01.2020 21:30	10 min	30m 40m 60m 160m
18.01.2020 21:40	3 hours 00 min	all LiDAR data missing
19.01.2020 00:40	10 min	30m 40m 60m 80m 120m 140m 160m 180m

**Table E.6: Gaps in the wind dataset of Deployment 6 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
19.01.2020 00:50	10 hours 30 min	all LiDAR data missing
19.01.2020 11:20	10 min	30m 40m 60m 80m 100m 140m 200-250m
19.01.2020 11:30	17 hours 50 min	all LiDAR data missing
20.01.2020 05:30	19 hours 30 min	all LiDAR data missing
21.01.2020 01:00	10 min	80m 140m 160m
21.01.2020 01:10	6 hours 20 min	all LiDAR data missing
21.01.2020 07:30	10 min	30m 40m 60m 80m 100m 120m 140m 160m 180m 200m
21.01.2020 07:40	30 min	all LiDAR data missing
21.01.2020 08:10	10 min	60m
21.01.2020 10:40	10 min	all LiDAR data missing
21.01.2020 11:20	3 hours 50 min	all LiDAR data missing
21.01.2020 15:30	1 hours 50 min	all LiDAR data missing
21.01.2020 18:10	9 hours 20 min	all LiDAR data missing
22.01.2020 03:30	10 min	30m 40m 60m 80m 140-250m
22.01.2020 03:40	11 hours 00 min	all LiDAR data missing
22.01.2020 14:50	5 hours 20 min	all LiDAR data missing
22.01.2020 20:10	10 min	30m 40m 60m 80m 120m 140m 160m 180m
22.01.2020 20:20	11 hours 10 min	all LiDAR data missing
23.01.2020 07:30	10 min	40m 60m 80m 100m 120m 140m 160m 180m
23.01.2020 07:40	3 hours 00 min	all LiDAR data missing
23.01.2020 10:40	10 min	30m 40m 60m 80m 100m 120m 140m 160m 180m 200m
23.01.2020 10:50	4 hours 40 min	all LiDAR data missing
23.01.2020 15:40	3 hours 10 min	all LiDAR data missing
23.01.2020 18:50	10 min	250m
23.01.2020 19:00	10 hours 20 min	all LiDAR data missing
24.01.2020 05:30	2 hours 50 min	all LiDAR data missing
24.01.2020 08:20	10 min	100m
24.01.2020 08:30	9 hours 30 min	all LiDAR data missing
24.01.2020 18:00	10 min	80-250m
24.01.2020 18:10	2 hours 50 min	all LiDAR data missing
24.01.2020 21:10	17 hours 00 min	all LiDAR data missing
25.01.2020 14:20	7 hours 10 min	all LiDAR data missing
25.01.2020 21:30	10 min	40m 80-250m
25.01.2020 21:40	17 hours 30 min	all LiDAR data missing
26.01.2020 15:20	3 hours 30 min	all LiDAR data missing
26.01.2020 19:00	31 hours 50 min	all LiDAR data missing
28.01.2020 02:50	10 min	30m 40m 60m 80m 100m 140-250m
28.01.2020 03:00	11 hours 10 min	all LiDAR data missing
28.01.2020 14:20	25 hours 00 min	all LiDAR data missing
29.01.2020 15:20	10 min	30m 40m 60m 80m 100m 120m 200m
29.01.2020 15:30	27 hours 40 min	all LiDAR data missing

**Table E.6: Gaps in the wind dataset of Deployment 6 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
30.01.2020 19:20	30 min	all LiDAR data missing
30.01.2020 19:50	10 min	180m
30.01.2020 20:00	8 hours 30 min	all LiDAR data missing
31.01.2020 04:50	6 hours 10 min	all LiDAR data missing
31.01.2020 11:20	12 hours 10 min	all LiDAR data missing
31.01.2020 23:30	10 min	30m 40m 120m 140m 180-250m
31.01.2020 23:40	4 hours 10 min	all LiDAR data missing
01.02.2020 03:50	10 min	40m 120m 140m 200-250m
01.02.2020 04:00	7 hours 20 min	all LiDAR data missing
01.02.2020 11:30	1 hours 20 min	all LiDAR data missing
01.02.2020 12:50	10 min	30m 40m
01.02.2020 13:00	2 hours 40 min	all LiDAR data missing
01.02.2020 15:50	11 hours 50 min	all LiDAR data missing
02.02.2020 03:40	10 min	30m 40m 60m 80m 100m 120m 140m 160m 180m
02.02.2020 03:50	17 hours 00 min	all LiDAR data missing
02.02.2020 20:50	10 min	60m 100m
02.02.2020 21:00	9 hours 00 min	all LiDAR data missing
03.02.2020 06:00	10 min	30m 40m 60m 80m 100m 120m 140m 180m
03.02.2020 06:10	21 hours 10 min	all LiDAR data missing
04.02.2020 03:30	36 hours 40 min	all LiDAR data missing
05.02.2020 18:30	16 hours 50 min	all LiDAR data missing
06.02.2020 11:20	10 min	30m 40m 60m 80m 100m
06.02.2020 11:30	14 hours 30 min	all LiDAR data missing
07.02.2020 02:00	10 min	140m
07.02.2020 02:10	8 hours 20 min	all LiDAR data missing
07.02.2020 10:30	10 min	30m 40m 60m 80m 100m 120m 160m
07.02.2020 10:40	8 hours 10 min	all LiDAR data missing



## E.7 Deployment 7

**Table E.7: Gaps in the wind dataset of Deployment 7 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
24.04.2020 16:00	10 min	120m 140m 160m 180m 200m
24.04.2020 16:10	10 min	30m 60m
24.04.2020 16:20	10 min	120-250m
24.04.2020 16:30	10 min	all LiDAR data missing
24.04.2020 16:40	71 hours 20 min	Gill data missing
27.04.2020 16:00	10 min	160-250m
27.04.2020 16:10	27 hours 50 min	Gill data missing
28.04.2020 20:00	6 hours 40 min	all LiDAR data missing
29.04.2020 02:40	10 min	140m
29.04.2020 02:50	4 hours 10 min	Gill data missing
29.04.2020 07:00	10 min	250m
29.04.2020 07:10	18 hours 20 min	Gill data missing
30.04.2020 01:30	5 hours 30 min	all LiDAR data missing
30.04.2020 07:00	10 min	100m
30.04.2020 07:10	219 hours 30 min	Gill data missing
09.05.2020 10:40	2 hours 50 min	all LiDAR data missing
10.05.2020 20:30	10 min	Gill data missing
19.05.2020 22:20	40 min	250m
19.05.2020 23:30	40 min	200m
21.05.2020 16:40	20 min	250m
21.05.2020 17:00	10 min	180-250m
22.05.2020 11:50	30 min	250m
24.05.2020 18:50	10 min	Gill data missing
26.05.2020 04:30	20 min	250m
26.05.2020 04:50	20 min	180-250m
26.05.2020 05:10	20 min	200-250m
01.06.2020 14:20	10 min	250m
02.06.2020 10:20	30 min	200m
03.06.2020 07:30	10 min	200-250m
03.06.2020 08:10	20 min	250m
03.06.2020 08:30	10 min	200-250m
03.06.2020 08:40	10 min	180-250m
03.06.2020 08:50	10 min	250m
03.06.2020 11:20	10 min	250m
07.06.2020 13:50	10 min	Gill data missing
08.06.2020 10:10	10 min	80m
08.06.2020 11:20	10 min	80-250m
08.06.2020 12:30	10 min	80-250m
08.06.2020 13:00	10 min	80m 100m 120m 180-250m

**Table E.7: Gaps in the wind dataset of Deployment 7 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
08.06.2020 13:50	10 min	80-250m
12.06.2020 17:20	10 min	160-250m
12.06.2020 17:30	10 min	140-250m
12.06.2020 17:40	10 min	160-250m
12.06.2020 19:40	10 min	140-250m
12.06.2020 19:50	20 min	120-250m
12.06.2020 20:10	10 min	200-250m
12.06.2020 20:20	10 min	250m
12.06.2020 22:10	10 min	160-250m
12.06.2020 22:20	10 min	120-250m
12.06.2020 22:30	10 min	250m
12.06.2020 23:00	20 min	140m 180-250m
12.06.2020 23:20	10 min	30m 100-250m
12.06.2020 23:30	10 min	60-250m
12.06.2020 23:40	20 min	all LiDAR data missing
13.06.2020 00:20	10 min	200-250m
13.06.2020 03:00	10 min	120-250m
13.06.2020 03:10	10 min	200-250m
13.06.2020 03:20	20 min	250m
13.06.2020 03:40	10 min	180-250m
13.06.2020 03:50	10 min	140-250m
13.06.2020 04:00	20 min	120-250m
13.06.2020 04:20	10 min	160-250m
13.06.2020 04:30	20 min	200-250m
13.06.2020 04:50	10 min	250m
13.06.2020 05:00	10 min	200-250m
13.06.2020 05:20	10 min	180m 250m
13.06.2020 05:30	10 min	160-250m
13.06.2020 15:50	10 min	200-250m
13.06.2020 21:50	10 min	200-250m
13.06.2020 22:00	10 min	160-250m
13.06.2020 22:10	10 min	140-250m
13.06.2020 22:20	10 min	120-250m
13.06.2020 22:30	10 min	140-250m
13.06.2020 22:40	10 min	120-250m
13.06.2020 22:50	20 min	160-250m
13.06.2020 23:10	10 min	180-250m
13.06.2020 23:20	20 min	160-250m
13.06.2020 23:40	10 min	140-250m
13.06.2020 23:50	20 min	100-250m
14.06.2020 00:10	10 min	80-250m

**Table E.7: Gaps in the wind dataset of Deployment 7 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
14.06.2020 00:20	20 min	100-250m
14.06.2020 00:40	10 min	120-250m
14.06.2020 00:50	20 min	100-250m
14.06.2020 01:10	40 min	80-250m
14.06.2020 01:50	1 hours 30 min	60-250m
14.06.2020 03:20	10 min	80-250m
14.06.2020 03:30	1 hours 50 min	60-250m
14.06.2020 05:20	20 min	80-250m
14.06.2020 05:40	20 min	100-250m
14.06.2020 06:20	10 min	80-250m
14.06.2020 06:30	10 min	100-250m
14.06.2020 06:40	10 min	80-250m
14.06.2020 06:50	10 min	100-250m
14.06.2020 07:00	10 min	80-250m
14.06.2020 07:10	10 min	60-250m
14.06.2020 07:20	10 min	80-250m
14.06.2020 07:30	10 min	100-250m
14.06.2020 07:40	20 min	80-250m
14.06.2020 08:00	1 hours 10 min	60-250m
14.06.2020 09:10	1 hours 00 min	80-250m
14.06.2020 10:10	10 min	140-250m
14.06.2020 10:20	10 min	100-250m
14.06.2020 10:30	10 min	60-250m
14.06.2020 10:40	30 min	80-250m
14.06.2020 11:10	10 min	60-250m
14.06.2020 11:20	10 min	80-250m
14.06.2020 11:30	10 min	120-250m
14.06.2020 11:40	10 min	140-250m
14.06.2020 11:50	10 min	200-250m
14.06.2020 12:00	10 min	80-250m
14.06.2020 12:10	20 min	60-250m
14.06.2020 12:30	10 min	80-250m
14.06.2020 12:40	10 min	120-250m
14.06.2020 12:50	10 min	80-250m
14.06.2020 13:00	40 min	60-250m
14.06.2020 13:40	10 min	80-250m
14.06.2020 14:10	10 min	250m
14.06.2020 15:30	10 min	250m
14.06.2020 15:40	10 min	120-250m
14.06.2020 15:50	10 min	160-250m
14.06.2020 16:00	10 min	120-250m

**Table E.7: Gaps in the wind dataset of Deployment 7 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
14.06.2020 16:10	10 min	100-250m
14.06.2020 16:20	10 min	80-250m
14.06.2020 16:30	10 min	60-250m
14.06.2020 16:40	10 min	80-250m
14.06.2020 16:50	20 min	100-250m
14.06.2020 17:10	20 min	80-250m
14.06.2020 17:30	10 min	120-250m
14.06.2020 17:40	20 min	100-250m
14.06.2020 18:00	1 hours 40 min	80-250m
14.06.2020 19:40	30 min	60-250m
14.06.2020 20:10	10 min	80-250m
14.06.2020 20:20	10 min	100-250m
14.06.2020 20:30	20 min	80-250m
14.06.2020 20:50	2 hours 00 min	60-250m
15.06.2020 14:20	10 min	250m
15.06.2020 14:30	1 hours 00 min	60-250m
15.06.2020 15:30	10 min	80-250m
15.06.2020 15:40	20 min	60-250m
15.06.2020 16:00	10 min	250m
15.06.2020 20:30	2 hours 00 min	60-250m
15.06.2020 22:30	10 min	30m 60-250m
15.06.2020 22:40	40 min	60-250m
15.06.2020 23:20	20 min	80-250m
15.06.2020 23:40	10 min	60-250m
15.06.2020 23:50	1 hours 20 min	80-250m
16.06.2020 01:10	1 hours 40 min	60-250m
16.06.2020 02:50	10 min	200m
16.06.2020 04:10	10 min	180m 250m
16.06.2020 04:20	10 min	250m
16.06.2020 05:40	20 min	160-250m
16.06.2020 06:00	10 min	180-250m
16.06.2020 06:10	10 min	200-250m
16.06.2020 06:20	10 min	250m
16.06.2020 06:30	20 min	140-250m
16.06.2020 06:50	10 min	180-250m
16.06.2020 07:00	10 min	250m
16.06.2020 07:30	10 min	250m
17.06.2020 13:10	20 min	250m
17.06.2020 13:30	10 min	200-250m
17.06.2020 13:40	10 min	250m
17.06.2020 14:00	20 min	250m

**Table E.7: Gaps in the wind dataset of Deployment 7 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
17.06.2020 15:50	20 min	250m
17.06.2020 16:20	10 min	250m
17.06.2020 16:40	10 min	200-250m
17.06.2020 16:50	10 min	100-250m
17.06.2020 17:00	1 hours 10 min	80-250m
17.06.2020 19:50	20 min	250m
17.06.2020 22:00	10 min	200-250m
17.06.2020 22:10	10 min	250m
17.06.2020 22:20	10 min	180-250m
17.06.2020 22:30	10 min	200-250m
17.06.2020 23:00	10 min	250m
18.06.2020 02:20	10 min	160-250m
20.06.2020 20:30	10 min	Gill data missing
21.06.2020 21:40	20 min	250m
21.06.2020 22:00	20 min	200-250m
27.06.2020 02:30	10 min	120-250m
27.06.2020 02:50	10 min	100m 140m
27.06.2020 03:00	10 min	100-250m
27.06.2020 04:00	10 min	160m 180m 200m
27.06.2020 04:10	10 min	140m 160m 180m 200m
27.06.2020 05:30	10 min	100m 120m 140m 160m
27.06.2020 05:40	10 min	100m 120m 140m 160m 180m 200m
27.06.2020 05:50	10 min	140m
27.06.2020 06:10	10 min	100-250m
27.06.2020 06:20	10 min	140m 160m
27.06.2020 06:30	10 min	140m 160m 180m
27.06.2020 10:30	10 min	140-250m
27.06.2020 10:40	10 min	250m
27.06.2020 17:10	10 min	160-250m
03.07.2020 03:40	10 min	250m
03.07.2020 05:40	10 min	250m
04.07.2020 15:10	10 min	Gill data missing
04.07.2020 17:10	10 min	250m
07.07.2020 17:50	10 min	180m 200m
07.07.2020 18:10	20 min	250m
07.07.2020 19:00	10 min	40m 120-250m
07.07.2020 19:10	10 min	140m 180-250m
07.07.2020 19:20	10 min	250m
07.07.2020 19:30	10 min	180-250m
07.07.2020 19:40	10 min	180m 200m
07.07.2020 19:50	10 min	250m

**Table E.7: Gaps in the wind dataset of Deployment 7 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
07.07.2020 20:10	10 min	100m 120m 140m 180m
07.07.2020 21:30	10 min	60m
08.07.2020 06:40	10 min	30m 40m 60m 80m 100m 120m 140m
08.07.2020 06:50	10 min	30m 40m 60m 80m 100m 120m 140m 160m
08.07.2020 07:20	10 min	250m
08.07.2020 07:30	20 min	180-250m
08.07.2020 08:30	10 min	40m 60m 180-250m
08.07.2020 08:40	10 min	40m
08.07.2020 11:40	20 min	30m 40m 60m
08.07.2020 16:30	10 min	160m 200m
08.07.2020 16:50	10 min	140m 180-250m
09.07.2020 20:50	10 min	250m
09.07.2020 21:00	10 min	180-250m
09.07.2020 22:10	30 min	80-250m
10.07.2020 02:20	10 min	140m 200-250m
14.07.2020 05:10	20 min	30m 40m 80m
14.07.2020 05:50	10 min	30m 40m 60m
14.07.2020 06:20	30 min	180m 250m
15.07.2020 20:10	20 min	30m 40m 60m 80m
15.07.2020 20:40	30 min	30m 40m 60m 80m 100m 120m 140m
16.07.2020 16:20	10 min	160m
16.07.2020 22:40	10 min	250m
17.07.2020 00:00	10 min	250m
17.07.2020 00:40	10 min	Gill data missing
18.07.2020 15:50	20 min	250m
25.07.2020 18:00	10 min	180-250m
25.07.2020 18:30	10 min	200-250m
25.07.2020 18:50	20 min	250m
25.07.2020 19:40	10 min	250m
30.07.2020 17:40	10 min	Gill data missing
03.08.2020 00:30	20 min	100-250m
03.08.2020 04:10	10 min	200-250m
03.08.2020 10:00	10 min	250m
03.08.2020 10:30	20 min	200-250m
03.08.2020 12:20	10 min	120m 140m 160m 180m
03.08.2020 12:30	10 min	120m
08.08.2020 08:50	10 min	180m 200m
08.08.2020 09:10	10 min	100m 140m
08.08.2020 09:20	10 min	120m
08.08.2020 09:30	10 min	100m 120m 140m
09.08.2020 05:20	10 min	Gill data missing

**Table E.7: Gaps in the wind dataset of Deployment 7 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
09.08.2020 09:30	10 min	250m
09.08.2020 09:40	10 min	200-250m
09.08.2020 09:50	10 min	250m
10.08.2020 12:30	10 min	Gill data missing
13.08.2020 05:30	10 min	Gill data missing
14.08.2020 08:10	10 min	160-250m
14.08.2020 12:00	10 min	250m
14.08.2020 12:10	10 min	60-250m
14.08.2020 12:20	1 hours 00 min	80-250m
14.08.2020 13:20	10 min	100-250m
14.08.2020 13:30	10 min	140-250m
14.08.2020 13:40	20 min	80-250m
14.08.2020 14:00	10 min	100-250m
14.08.2020 14:10	10 min	80-250m
14.08.2020 14:20	10 min	250m
14.08.2020 14:50	10 min	180-250m
14.08.2020 15:00	20 min	80-250m
14.08.2020 15:20	20 min	60-250m
14.08.2020 15:40	10 min	80-250m
14.08.2020 15:50	20 min	all LiDAR data missing
14.08.2020 16:10	3 hours 10 min	60-250m
14.08.2020 19:20	10 min	80-250m
14.08.2020 19:30	20 min	60-250m
14.08.2020 19:50	10 min	80-250m
14.08.2020 21:40	10 min	200-250m
14.08.2020 21:50	10 min	160-250m
14.08.2020 22:00	10 min	140-250m
14.08.2020 22:10	30 min	100-250m
14.08.2020 22:40	10 min	120-250m
14.08.2020 23:20	10 min	200-250m
14.08.2020 23:30	40 min	250m
15.08.2020 08:10	10 min	100-250m
15.08.2020 08:20	40 min	80-250m
15.08.2020 09:00	10 min	100-250m
15.08.2020 09:10	20 min	80-250m
15.08.2020 09:30	20 min	120-250m
15.08.2020 09:50	10 min	160-250m
15.08.2020 10:00	10 min	100-250m
15.08.2020 10:10	10 min	80-250m
15.08.2020 10:20	30 min	100-250m
15.08.2020 10:50	10 min	80-250m

**Table E.7: Gaps in the wind dataset of Deployment 7 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
15.08.2020 11:00	30 min	100-250m
15.08.2020 11:30	10 min	120-250m
15.08.2020 11:40	10 min	200-250m
15.08.2020 14:30	10 min	180m
15.08.2020 15:40	10 min	180-250m
15.08.2020 15:50	1 hours 10 min	80-250m
15.08.2020 17:00	3 hours 20 min	60-250m
15.08.2020 20:20	30 min	80-250m
15.08.2020 20:50	10 min	120-250m
15.08.2020 21:00	10 min	140-250m
15.08.2020 21:10	10 min	160-250m
16.08.2020 17:20	10 min	100m 120m 140m 160m 180m 200m
16.08.2020 17:50	10 min	250m
16.08.2020 18:00	10 min	200-250m
16.08.2020 18:10	10 min	180-250m
16.08.2020 18:20	10 min	200-250m
16.08.2020 18:30	10 min	140-250m
16.08.2020 18:40	10 min	250m
16.08.2020 18:50	10 min	200-250m
16.08.2020 19:00	10 min	180-250m
16.08.2020 19:10	20 min	120-250m
16.08.2020 19:30	10 min	180-250m
16.08.2020 19:40	20 min	140-250m
16.08.2020 20:00	10 min	160-250m
16.08.2020 20:10	10 min	180-250m
16.08.2020 20:20	20 min	120-250m
16.08.2020 20:40	20 min	100-250m
16.08.2020 21:00	10 min	120-250m
16.08.2020 21:20	10 min	250m
17.08.2020 17:10	10 min	160-250m
17.08.2020 17:20	20 min	180-250m
17.08.2020 17:40	10 min	250m
24.08.2020 20:30	10 min	140m
26.08.2020 12:00	10 min	Gill data missing
02.09.2020 04:00	20 min	180m
02.09.2020 04:50	10 min	100m
06.09.2020 00:00	10 min	100-250m
08.09.2020 08:00	10 min	80-250m
08.09.2020 08:30	10 min	80-250m
08.09.2020 23:40	10 min	Gill data missing
09.09.2020 02:10	10 min	250m



**Table E.7: Gaps in the wind dataset of Deployment 7 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
09.09.2020 03:00	10 min	140-250m
09.09.2020 03:10	10 min	120-250m
09.09.2020 03:20	10 min	140-250m
09.09.2020 03:30	10 min	180-250m
09.09.2020 03:40	10 min	120-250m
13.09.2020 22:30	30 min	250m

## E.8 Deployment 8

**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
09.05.2020 22:50	10 min	Gill data missing
19.05.2020 23:30	10 min	200m
20.05.2020 00:10	10 min	250m
20.05.2020 23:20	10 min	40m 60m 100m
20.05.2020 23:30	10 min	60m
20.05.2020 23:40	10 min	60m 100m
20.05.2020 23:50	10 min	140m
21.05.2020 16:50	10 min	250m
21.05.2020 17:10	10 min	250m
22.05.2020 03:50	10 min	80m
22.05.2020 04:00	20 min	60m 80m 100m
22.05.2020 04:20	20 min	40m 60m 100m 120m
22.05.2020 12:00	10 min	250m
23.05.2020 23:40	10 min	Gill data missing
26.05.2020 05:20	10 min	250m
26.05.2020 05:30	20 min	200-250m
03.06.2020 07:20	10 min	200-250m
03.06.2020 07:30	10 min	180-250m
03.06.2020 08:00	30 min	250m
03.06.2020 08:30	10 min	200-250m
03.06.2020 08:40	10 min	250m
06.06.2020 18:40	10 min	Gill data missing
08.06.2020 00:30	10 min	80-250m
08.06.2020 00:50	10 min	100m 160-250m
08.06.2020 09:30	10 min	250m
08.06.2020 09:50	20 min	80m
08.06.2020 11:00	10 min	200m
08.06.2020 12:10	10 min	120m
08.06.2020 13:10	10 min	100m 120m 140m 180m 200m
08.06.2020 18:20	10 min	80m
12.06.2020 17:20	10 min	200-250m
12.06.2020 17:30	10 min	100-250m
12.06.2020 18:30	10 min	120-250m
12.06.2020 19:50	10 min	120-250m
12.06.2020 20:00	10 min	140-250m
12.06.2020 20:10	10 min	180-250m
12.06.2020 22:10	10 min	160-250m
12.06.2020 22:20	10 min	120-250m
12.06.2020 23:00	20 min	250m

**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
12.06.2020 23:20	10 min	30m 100-250m
12.06.2020 23:30	30 min	all LiDAR data missing
13.06.2020 00:20	20 min	250m
13.06.2020 03:00	20 min	200-250m
13.06.2020 03:20	10 min	180-250m
13.06.2020 03:30	10 min	250m
13.06.2020 03:40	10 min	200-250m
13.06.2020 03:50	10 min	140-250m
13.06.2020 04:00	20 min	120-250m
13.06.2020 04:20	10 min	160-250m
13.06.2020 04:30	10 min	200-250m
13.06.2020 05:00	10 min	200-250m
13.06.2020 05:20	10 min	250m
13.06.2020 05:30	10 min	160-250m
13.06.2020 22:10	10 min	140-250m
13.06.2020 22:20	10 min	120-250m
13.06.2020 22:30	10 min	140-250m
13.06.2020 22:40	10 min	120-250m
13.06.2020 22:50	30 min	160-250m
13.06.2020 23:20	10 min	180-250m
13.06.2020 23:30	10 min	160-250m
13.06.2020 23:40	20 min	140-250m
14.06.2020 00:00	10 min	120-250m
14.06.2020 00:10	10 min	100-250m
14.06.2020 00:20	10 min	80-250m
14.06.2020 00:30	30 min	120-250m
14.06.2020 01:00	10 min	100-250m
14.06.2020 01:10	40 min	80-250m
14.06.2020 01:50	3 hours 30 min	60-250m
14.06.2020 05:20	30 min	80-250m
14.06.2020 05:50	10 min	140-250m
14.06.2020 06:30	20 min	100-250m
14.06.2020 06:50	10 min	120-250m
14.06.2020 07:00	10 min	100-250m
14.06.2020 07:10	20 min	80-250m
14.06.2020 07:30	10 min	100-250m
14.06.2020 07:40	30 min	80-250m
14.06.2020 08:10	1 hours 00 min	60-250m
14.06.2020 09:10	30 min	80-250m
14.06.2020 09:40	40 min	100-250m
14.06.2020 10:20	10 min	120-250m

**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
14.06.2020 10:30	10 min	30m 100-250m
14.06.2020 10:40	10 min	100-250m
14.06.2020 10:50	20 min	60-250m
14.06.2020 11:10	10 min	80-250m
14.06.2020 11:20	10 min	60-250m
14.06.2020 11:30	10 min	80-250m
14.06.2020 11:50	10 min	120-250m
14.06.2020 12:00	20 min	80-250m
14.06.2020 12:20	10 min	60-250m
14.06.2020 12:30	10 min	80-250m
14.06.2020 12:40	10 min	120-250m
14.06.2020 12:50	10 min	80-250m
14.06.2020 13:00	30 min	60-250m
14.06.2020 13:30	20 min	80-250m
14.06.2020 15:30	20 min	250m
14.06.2020 15:50	10 min	180-250m
14.06.2020 16:00	10 min	80-250m
14.06.2020 16:10	20 min	100-250m
14.06.2020 16:30	10 min	60-250m
14.06.2020 16:40	10 min	100-250m
14.06.2020 16:50	10 min	120-250m
14.06.2020 17:00	30 min	80-250m
14.06.2020 17:30	20 min	100-250m
14.06.2020 17:50	1 hours 50 min	80-250m
14.06.2020 19:40	20 min	60-250m
14.06.2020 20:00	10 min	80-250m
14.06.2020 20:10	20 min	100-250m
14.06.2020 20:30	20 min	80-250m
14.06.2020 20:50	1 hours 50 min	60-250m
15.06.2020 14:20	10 min	250m
15.06.2020 14:30	1 hours 20 min	60-250m
15.06.2020 15:50	10 min	80-250m
15.06.2020 20:20	10 min	200-250m
15.06.2020 20:30	2 hours 00 min	60-250m
15.06.2020 22:30	10 min	30m 60-250m
15.06.2020 22:40	50 min	60-250m
15.06.2020 23:30	10 min	80-250m
15.06.2020 23:40	20 min	60-250m
16.06.2020 00:00	1 hours 20 min	80-250m
16.06.2020 01:20	1 hours 30 min	60-250m
16.06.2020 02:50	10 min	80-250m

**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
16.06.2020 03:10	10 min	180m
16.06.2020 04:10	10 min	200-250m
16.06.2020 04:20	20 min	200m
16.06.2020 04:40	10 min	160m 250m
16.06.2020 05:20	10 min	250m
16.06.2020 05:50	10 min	250m
16.06.2020 06:00	10 min	180-250m
16.06.2020 06:10	30 min	250m
16.06.2020 06:40	10 min	180-250m
16.06.2020 06:50	10 min	160-250m
16.06.2020 07:40	10 min	250m
16.06.2020 21:00	10 min	30m 40m 60m 80m 100m 120m 140m 250m
17.06.2020 13:10	10 min	250m
17.06.2020 13:30	10 min	250m
17.06.2020 14:20	10 min	250m
17.06.2020 16:20	10 min	250m
17.06.2020 16:50	10 min	140m 160m 200-250m
17.06.2020 17:00	1 hours 10 min	80-250m
17.06.2020 18:10	10 min	80m 120-250m
17.06.2020 22:00	10 min	200-250m
17.06.2020 22:10	10 min	180-250m
17.06.2020 22:20	10 min	160-250m
17.06.2020 22:30	10 min	180-250m
18.06.2020 02:20	10 min	140m 160m 180m 200m
18.06.2020 03:30	10 min	200-250m
20.06.2020 08:10	10 min	Gill data missing
21.06.2020 21:30	10 min	250m
21.06.2020 21:40	10 min	200-250m
21.06.2020 21:50	20 min	180-250m
21.06.2020 22:10	10 min	200-250m
21.06.2020 22:20	40 min	250m
24.06.2020 17:00	10 min	all LiDAR data missing
27.06.2020 02:30	30 min	100-250m
27.06.2020 03:00	10 min	160-250m
27.06.2020 04:00	10 min	160m 180m 200m
27.06.2020 04:10	10 min	160m
27.06.2020 05:30	10 min	100m 120m 140m 160m 180m 200m
27.06.2020 05:40	10 min	120m 140m 160m 180m 200m
27.06.2020 06:10	10 min	140-250m
27.06.2020 06:20	10 min	120m 140m 160m
27.06.2020 06:30	10 min	160m 180m

**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
27.06.2020 10:30	10 min	250m
03.07.2020 02:50	10 min	250m
03.07.2020 03:40	10 min	250m
03.07.2020 05:20	10 min	250m
04.07.2020 11:30	10 min	Gill data missing
07.07.2020 17:50	10 min	160m 180m
07.07.2020 19:00	10 min	30m 160-250m
07.07.2020 19:10	10 min	160-250m
07.07.2020 19:20	10 min	180m 250m
07.07.2020 21:10	20 min	30m 60m
08.07.2020 05:20	10 min	80m 100m 120m 140m 160m
08.07.2020 05:30	10 min	120m
08.07.2020 06:40	10 min	30m
08.07.2020 07:10	20 min	250m
08.07.2020 07:50	10 min	120m 180m
08.07.2020 08:30	10 min	40m 60m 200m
08.07.2020 08:40	10 min	40m
08.07.2020 11:40	10 min	30m 40m 80m
09.07.2020 00:50	10 min	30m
09.07.2020 15:30	10 min	160m
09.07.2020 20:50	10 min	180-250m
09.07.2020 22:10	10 min	120-250m
09.07.2020 22:20	20 min	100-250m
10.07.2020 02:20	10 min	250m
10.07.2020 04:10	10 min	80m 100m 180m 200m
13.07.2020 11:50	10 min	Gill data missing
14.07.2020 05:20	10 min	30m
14.07.2020 05:40	10 min	30m
14.07.2020 06:20	20 min	30m 40m 100m 140m 180m
15.07.2020 20:10	1 hours 00 min	40m
16.07.2020 02:30	10 min	200-250m
16.07.2020 03:20	10 min	250m
16.07.2020 17:10	10 min	Gill data missing
16.07.2020 20:10	10 min	200m
18.07.2020 15:50	10 min	200-250m
18.07.2020 16:00	10 min	250m
19.07.2020 14:20	10 min	250m
25.07.2020 04:00	10 min	80-250m
25.07.2020 09:00	10 min	180m 200m
25.07.2020 18:00	10 min	180-250m
25.07.2020 18:30	10 min	250m

**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
25.07.2020 18:50	20 min	250m
30.07.2020 11:40	10 min	Gill data missing
31.07.2020 21:40	10 min	30m 40m 60m 80m 100m 120m 140m 180m 200m
03.08.2020 00:20	20 min	80-250m
03.08.2020 12:30	10 min	120m
06.08.2020 00:00	10 min	all LiDAR data missing
06.08.2020 18:10	10 min	140m
08.08.2020 09:00	10 min	100m 120m 160m 180m
08.08.2020 09:20	10 min	100m 120m
08.08.2020 09:50	10 min	180m 200m
09.08.2020 09:10	10 min	250m
09.08.2020 09:40	20 min	250m
09.08.2020 10:20	10 min	250m
13.08.2020 03:50	10 min	Gill data missing
14.08.2020 03:30	10 min	250m
14.08.2020 08:00	10 min	160-250m
14.08.2020 12:00	20 min	60-250m
14.08.2020 12:20	1 hours 00 min	80-250m
14.08.2020 13:20	10 min	200-250m
14.08.2020 13:30	50 min	80-250m
14.08.2020 14:40	30 min	80-250m
14.08.2020 15:10	10 min	60-250m
14.08.2020 15:20	20 min	80-250m
14.08.2020 15:40	10 min	100-250m
14.08.2020 15:50	10 min	80-250m
14.08.2020 16:00	2 hours 20 min	60-250m
14.08.2020 18:20	10 min	80-250m
14.08.2020 18:30	1 hours 20 min	60-250m
14.08.2020 19:50	10 min	80-250m
14.08.2020 20:00	10 min	250m
14.08.2020 21:50	10 min	250m
14.08.2020 22:00	20 min	120-250m
14.08.2020 22:20	20 min	100-250m
14.08.2020 22:40	10 min	120-250m
14.08.2020 23:20	30 min	250m
15.08.2020 04:00	10 min	100m 120m 140m
15.08.2020 08:10	10 min	140-250m
15.08.2020 08:20	10 min	100-250m
15.08.2020 08:30	10 min	80-250m
15.08.2020 08:40	40 min	100-250m
15.08.2020 09:20	20 min	120-250m

**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
15.08.2020 09:40	10 min	160-250m
15.08.2020 09:50	10 min	140-250m
15.08.2020 10:00	20 min	120-250m
15.08.2020 10:20	20 min	100-250m
15.08.2020 10:40	10 min	80-250m
15.08.2020 10:50	10 min	100-250m
15.08.2020 11:00	10 min	80-250m
15.08.2020 11:10	30 min	100-250m
15.08.2020 11:40	10 min	180-250m
15.08.2020 15:10	10 min	250m
15.08.2020 15:40	10 min	250m
15.08.2020 15:50	10 min	100-250m
15.08.2020 16:00	1 hours 30 min	80-250m
15.08.2020 17:30	10 min	60-250m
15.08.2020 17:40	30 min	80-250m
15.08.2020 18:10	2 hours 10 min	60-250m
15.08.2020 20:20	20 min	80-250m
15.08.2020 20:40	30 min	120-250m
15.08.2020 21:10	10 min	140-250m
15.08.2020 21:20	10 min	180-250m
16.08.2020 17:20	10 min	120-250m
16.08.2020 17:50	10 min	160-250m
16.08.2020 18:00	10 min	140-250m
16.08.2020 18:10	10 min	250m
16.08.2020 18:20	10 min	250m
16.08.2020 18:30	10 min	120-250m
16.08.2020 18:40	30 min	250m
16.08.2020 19:10	10 min	160-250m
16.08.2020 19:20	10 min	120-250m
16.08.2020 19:30	10 min	180-250m
16.08.2020 19:40	20 min	160-250m
16.08.2020 20:00	10 min	120-250m
16.08.2020 20:10	10 min	180-250m
16.08.2020 20:20	10 min	140-250m
16.08.2020 20:30	20 min	120-250m
16.08.2020 20:50	10 min	100-250m
16.08.2020 21:00	10 min	120-250m
17.08.2020 17:30	10 min	140-250m
17.08.2020 17:40	10 min	250m
21.08.2020 00:10	10 min	160m 200m
21.08.2020 00:20	10 min	160m



**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
25.08.2020 10:30	10 min	180m 250m
26.08.2020 08:20	10 min	80-250m
26.08.2020 10:00	10 min	80m 250m
26.08.2020 12:20	10 min	120m 250m
26.08.2020 12:30	10 min	80m 100m 160m 180m 250m
26.08.2020 12:40	10 min	80m 120m
26.08.2020 13:20	10 min	200m
27.08.2020 12:40	10 min	80-250m
27.08.2020 13:30	10 min	80-250m
28.08.2020 02:50	10 min	80m 140m 200m
28.08.2020 03:20	10 min	80-250m
28.08.2020 03:30	10 min	120m 160-250m
28.08.2020 03:40	10 min	80-250m
28.08.2020 03:50	10 min	80m
28.08.2020 04:10	10 min	80-250m
28.08.2020 04:20	10 min	80m 100m 120m 140m 160m 200-250m
28.08.2020 04:30	10 min	80-250m
28.08.2020 04:40	10 min	100m 180-250m
28.08.2020 05:20	10 min	80-250m
28.08.2020 05:40	40 min	80-250m
28.08.2020 06:20	10 min	80m 100m 160m 250m
28.08.2020 06:30	10 min	80-250m
28.08.2020 06:40	10 min	80m 100m 120m 160-250m
28.08.2020 06:50	30 min	80-250m
28.08.2020 07:50	10 min	80-250m
29.08.2020 03:20	10 min	180m
29.08.2020 04:30	20 min	80-250m
29.08.2020 06:10	10 min	80m 100m 120m 140m 200-250m
29.08.2020 06:20	20 min	80-250m
30.08.2020 07:40	10 min	100m
01.09.2020 22:10	10 min	80-250m
03.09.2020 07:00	10 min	80m 100m 120m 180m 200m
03.09.2020 07:40	20 min	160m 200m
03.09.2020 11:20	10 min	250m
03.09.2020 15:50	10 min	80m 100m 120m
08.09.2020 01:10	30 min	80-250m
08.09.2020 02:20	2 hours 00 min	80-250m
08.09.2020 04:30	5 hours 10 min	80-250m
08.09.2020 09:50	30 min	80-250m
08.09.2020 10:30	20 min	80-250m
08.09.2020 11:20	20 min	80-250m

**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
08.09.2020 11:40	10 min	100m 160-250m
08.09.2020 11:50	30 min	80-250m
08.09.2020 12:50	10 min	80-250m
08.09.2020 13:10	30 min	80-250m
08.09.2020 14:00	40 min	80-250m
08.09.2020 15:00	3 hours 10 min	80-250m
08.09.2020 18:50	10 min	180-250m
08.09.2020 23:50	10 min	Gill data missing
09.09.2020 00:10	10 min	100m 120m 140m 160m 200-250m
09.09.2020 00:20	10 min	80m 140m 160m
09.09.2020 00:30	4 hours 00 min	80-250m
09.09.2020 04:50	10 min	250m
09.09.2020 08:10	10 min	180-250m
09.09.2020 08:20	20 min	80-250m
09.09.2020 09:50	10 min	80m 100m 120m 140m
09.09.2020 10:00	10 min	80-250m
09.09.2020 11:20	10 min	80-250m
09.09.2020 11:30	10 min	140m 200m
09.09.2020 11:40	10 min	80-250m
09.09.2020 12:20	10 min	120m 180m
09.09.2020 13:20	10 min	250m
09.09.2020 13:30	20 min	80-250m
12.09.2020 09:50	10 min	120m
15.09.2020 18:30	10 min	140m
15.09.2020 18:50	10 min	160m
17.09.2020 16:50	10 min	30m 40m 60m 80m 100m 120m 140m 160m 180m
17.09.2020 17:00	10 min	all LiDAR data missing
18.09.2020 17:00	10 min	all LiDAR data missing
22.09.2020 04:30	10 min	all LiDAR data missing
22.09.2020 09:40	10 min	Gill data missing
23.09.2020 22:20	10 min	180m 200m
24.09.2020 19:20	10 min	250m
24.09.2020 19:30	10 min	140-250m
24.09.2020 21:10	10 min	250m
24.09.2020 22:20	10 min	160m 180m
24.09.2020 22:30	10 min	30m 80-250m
27.09.2020 20:50	20 min	40m
27.09.2020 22:50	20 min	30m
28.09.2020 16:50	10 min	180m 250m
29.09.2020 17:40	10 min	30m 40m
01.10.2020 15:10	10 min	250m

**Table E.8: Gaps in the wind dataset of Deployment 8 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
03.10.2020 14:00	10 min	250m
06.10.2020 07:40	10 min	60-250m
06.10.2020 08:00	10 min	160m 200-250m
06.10.2020 08:10	10 min	120-250m
06.10.2020 08:20	10 min	60-250m
06.10.2020 09:20	10 min	Gill data missing
16.10.2020 23:00	10 min	40m 100m 140m
17.10.2020 13:50	10 min	120m
17.10.2020 14:10	30 min	120m 180m 250m
17.10.2020 15:10	10 min	120m
17.10.2020 19:10	40 min	250m
17.10.2020 20:40	10 min	200-250m
17.10.2020 20:50	10 min	250m
17.10.2020 22:30	10 min	30m 40m 60m 80m
17.10.2020 22:40	10 min	30m 40m 60m 80m 100m 120m
17.10.2020 23:00	10 min	250m
19.10.2020 11:20	10 min	Gill data missing
29.10.2020 21:00	10 min	Gill data missing
02.11.2020 15:30	10 min	Gill data missing
02.11.2020 16:50	10 min	all LiDAR data missing

## E.9 Deployment 9

**Table E.9: Gaps in the wind dataset of Deployment 9 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
17.09.2020 18:40	10 min	Gill data missing
18.09.2020 11:40	10 min	Gill data missing
19.09.2020 18:40	10 min	Gill data missing
21.09.2020 23:50	20 min	40m
24.09.2020 21:00	10 min	200-250m
27.09.2020 20:40	30 min	30m
27.09.2020 22:10	20 min	40m
27.09.2020 22:40	40 min	30m
28.09.2020 01:50	10 min	80m 100m 140m 160m 180m 250m
29.09.2020 00:00	10 min	80m
29.09.2020 00:20	10 min	80m 160m 250m
29.09.2020 00:30	10 min	80-250m
29.09.2020 17:10	10 min	30m 40m 60m 80m 120m 140m 160m 200m
03.10.2020 07:50	10 min	100m 160m 250m
03.10.2020 08:10	10 min	80m
03.10.2020 08:30	10 min	80m
03.10.2020 09:00	10 min	180m
03.10.2020 09:40	10 min	100m 160m 180m 250m
03.10.2020 10:50	10 min	80-250m
03.10.2020 11:50	10 min	Gill data missing
06.10.2020 07:40	10 min	80m 120-250m
06.10.2020 08:10	10 min	60-250m
17.10.2020 11:30	10 min	Gill data missing
17.10.2020 19:30	10 min	180m
17.10.2020 22:30	10 min	40m
17.10.2020 22:40	10 min	30m 40m 60m 80m 100m 120m
17.10.2020 22:50	10 min	30m
29.10.2020 19:40	10 min	Gill data missing
01.11.2020 00:00	10 min	all LiDAR data missing
11.11.2020 09:10	10 min	100-250m
11.11.2020 09:20	10 min	120-250m
11.11.2020 09:30	10 min	80-250m
11.11.2020 09:40	10 min	120-250m
11.11.2020 09:50	10 min	250m
12.11.2020 23:00	10 min	Gill data missing

## E.10 Deployment 10

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
07.11.2020 05:50	10 min	Gill data missing
07.11.2020 06:10	10 min	Gill data missing
11.11.2020 09:20	20 min	80-250m
11.11.2020 09:40	10 min	100-250m
11.11.2020 10:30	40 min	80-250m
11.11.2020 11:10	10 min	30m
11.11.2020 11:20	50 min	all LiDAR data missing
11.11.2020 13:20	1 hours 00 min	all LiDAR data missing
11.11.2020 18:50	1 hours 00 min	all LiDAR data missing
12.11.2020 01:50	1 hours 00 min	all LiDAR data missing
12.11.2020 04:10	1 hours 00 min	all LiDAR data missing
12.11.2020 07:00	1 hours 00 min	all LiDAR data missing
12.11.2020 11:20	1 hours 00 min	all LiDAR data missing
12.11.2020 13:10	1 hours 00 min	all LiDAR data missing
12.11.2020 19:50	1 hours 00 min	all LiDAR data missing
12.11.2020 21:30	1 hours 00 min	all LiDAR data missing
12.11.2020 23:50	1 hours 00 min	all LiDAR data missing
13.11.2020 02:40	1 hours 00 min	all LiDAR data missing
13.11.2020 05:50	1 hours 00 min	all LiDAR data missing
13.11.2020 10:30	1 hours 00 min	all LiDAR data missing
13.11.2020 11:50	1 hours 00 min	all LiDAR data missing
13.11.2020 23:00	1 hours 00 min	all LiDAR data missing
14.11.2020 01:00	1 hours 00 min	all LiDAR data missing
14.11.2020 09:40	1 hours 00 min	all LiDAR data missing
14.11.2020 11:20	1 hours 00 min	all LiDAR data missing
14.11.2020 13:20	1 hours 00 min	all LiDAR data missing
14.11.2020 18:00	1 hours 00 min	all LiDAR data missing
14.11.2020 19:40	1 hours 00 min	all LiDAR data missing
14.11.2020 21:10	1 hours 00 min	all LiDAR data missing
14.11.2020 23:00	1 hours 00 min	all LiDAR data missing
15.11.2020 00:50	1 hours 00 min	all LiDAR data missing
15.11.2020 03:50	1 hours 00 min	all LiDAR data missing
15.11.2020 05:40	1 hours 00 min	all LiDAR data missing
15.11.2020 08:10	1 hours 00 min	all LiDAR data missing
15.11.2020 10:00	1 hours 00 min	all LiDAR data missing
20.11.2020 02:20	1 hours 00 min	all LiDAR data missing
20.11.2020 04:30	1 hours 00 min	all LiDAR data missing
20.11.2020 06:50	1 hours 00 min	all LiDAR data missing
20.11.2020 10:10	1 hours 00 min	all LiDAR data missing

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
21.11.2020 09:00	10 min	Gill data missing
22.11.2020 07:20	1 hours 00 min	all LiDAR data missing
22.11.2020 09:20	1 hours 00 min	all LiDAR data missing
22.11.2020 11:00	1 hours 00 min	all LiDAR data missing
22.11.2020 12:20	1 hours 00 min	all LiDAR data missing
22.11.2020 23:30	10 min	Gill data missing
23.11.2020 00:40	40 min	all LiDAR data missing
23.11.2020 03:00	1 hours 00 min	all LiDAR data missing
23.11.2020 08:30	1 hours 00 min	all LiDAR data missing
23.11.2020 14:50	1 hours 00 min	all LiDAR data missing
23.11.2020 16:20	1 hours 00 min	all LiDAR data missing
23.11.2020 19:30	1 hours 00 min	all LiDAR data missing
23.11.2020 23:40	1 hours 00 min	all LiDAR data missing
24.11.2020 01:40	1 hours 00 min	all LiDAR data missing
24.11.2020 08:10	1 hours 00 min	all LiDAR data missing
24.11.2020 09:10	10 min	80-250m
24.11.2020 10:10	1 hours 00 min	all LiDAR data missing
24.11.2020 13:40	1 hours 00 min	all LiDAR data missing
24.11.2020 14:40	10 min	80m 250m
24.11.2020 15:30	10 min	120-250m
24.11.2020 15:40	1 hours 00 min	all LiDAR data missing
24.11.2020 19:20	1 hours 00 min	all LiDAR data missing
25.11.2020 05:20	1 hours 00 min	all LiDAR data missing
25.11.2020 09:10	1 hours 00 min	all LiDAR data missing
25.11.2020 10:50	10 min	80-250m
25.11.2020 11:30	1 hours 00 min	all LiDAR data missing
25.11.2020 15:50	1 hours 00 min	all LiDAR data missing
25.11.2020 18:00	1 hours 00 min	all LiDAR data missing
26.11.2020 12:40	1 hours 00 min	all LiDAR data missing
28.11.2020 06:20	10 min	30m 40m 60m 80m 100m 120m 160-250m
28.11.2020 09:00	1 hours 00 min	all LiDAR data missing
28.11.2020 12:00	1 hours 00 min	all LiDAR data missing
28.11.2020 18:30	10 min	200-250m
28.11.2020 18:40	10 min	250m
28.11.2020 19:00	1 hours 00 min	all LiDAR data missing
28.11.2020 20:00	50 min	80-250m
28.11.2020 20:50	1 hours 00 min	all LiDAR data missing
28.11.2020 21:50	10 min	120-250m
28.11.2020 22:00	20 min	180m 250m
28.11.2020 22:20	10 min	120-250m
28.11.2020 22:30	10 min	140-250m

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
28.11.2020 22:40	10 min	120-250m
28.11.2020 22:50	10 min	160-250m
28.11.2020 23:00	10 min	120-250m
28.11.2020 23:30	10 min	160-250m
28.11.2020 23:40	1 hours 00 min	all LiDAR data missing
29.11.2020 00:40	10 min	80m 180-250m
29.11.2020 01:00	10 min	80-250m
29.11.2020 01:20	1 hours 00 min	all LiDAR data missing
29.11.2020 03:30	10 min	250m
29.11.2020 07:10	1 hours 00 min	all LiDAR data missing
29.11.2020 12:50	10 min	250m
29.11.2020 16:20	10 min	120m 160m
30.11.2020 05:50	10 min	80m 160m
30.11.2020 06:30	10 min	100m 180m
30.11.2020 06:40	10 min	80-250m
30.11.2020 08:40	1 hours 00 min	all LiDAR data missing
30.11.2020 19:40	1 hours 00 min	all LiDAR data missing
30.11.2020 21:40	1 hours 00 min	all LiDAR data missing
01.12.2020 05:00	1 hours 00 min	all LiDAR data missing
01.12.2020 11:20	1 hours 00 min	all LiDAR data missing
01.12.2020 14:10	1 hours 00 min	all LiDAR data missing
01.12.2020 22:30	1 hours 00 min	all LiDAR data missing
02.12.2020 02:10	1 hours 00 min	all LiDAR data missing
02.12.2020 04:10	1 hours 00 min	all LiDAR data missing
02.12.2020 07:50	1 hours 00 min	all LiDAR data missing
02.12.2020 10:20	10 min	Gill data missing
02.12.2020 13:50	1 hours 00 min	all LiDAR data missing
02.12.2020 16:20	1 hours 00 min	all LiDAR data missing
03.12.2020 00:40	1 hours 00 min	all LiDAR data missing
03.12.2020 04:10	1 hours 00 min	all LiDAR data missing
03.12.2020 11:20	1 hours 00 min	all LiDAR data missing
03.12.2020 13:30	1 hours 00 min	all LiDAR data missing
03.12.2020 17:10	1 hours 00 min	all LiDAR data missing
04.12.2020 03:20	1 hours 00 min	all LiDAR data missing
04.12.2020 06:00	1 hours 00 min	all LiDAR data missing
04.12.2020 09:30	1 hours 00 min	all LiDAR data missing
04.12.2020 13:50	1 hours 00 min	all LiDAR data missing
04.12.2020 15:20	1 hours 00 min	all LiDAR data missing
04.12.2020 16:50	1 hours 00 min	all LiDAR data missing
04.12.2020 20:30	1 hours 00 min	all LiDAR data missing
05.12.2020 04:50	1 hours 00 min	all LiDAR data missing

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
05.12.2020 17:00	50 min	all LiDAR data missing
05.12.2020 20:40	1 hours 00 min	all LiDAR data missing
05.12.2020 22:30	1 hours 00 min	all LiDAR data missing
06.12.2020 11:00	30 min	all LiDAR data missing
07.12.2020 02:30	10 min	60m 80m 160m
07.12.2020 09:50	10 min	Gill data missing
07.12.2020 17:40	1 hours 00 min	all LiDAR data missing
07.12.2020 19:00	1 hours 00 min	all LiDAR data missing
07.12.2020 22:50	10 min	80-250m
07.12.2020 23:20	10 min	80-250m
07.12.2020 23:30	10 min	120m 140m 200-250m
07.12.2020 23:50	20 min	80-250m
08.12.2020 00:30	30 min	80-250m
08.12.2020 01:10	10 min	80-250m
08.12.2020 01:20	10 min	200m
08.12.2020 01:30	10 min	80-250m
08.12.2020 01:40	10 min	160m
08.12.2020 01:50	1 hours 00 min	80-250m
08.12.2020 02:50	1 hours 00 min	all LiDAR data missing
08.12.2020 07:50	1 hours 00 min	all LiDAR data missing
08.12.2020 10:00	1 hours 00 min	all LiDAR data missing
08.12.2020 16:10	10 min	Gill data missing
09.12.2020 03:00	10 min	140m 180m 250m
09.12.2020 07:40	10 min	80-250m
09.12.2020 08:50	1 hours 00 min	all LiDAR data missing
09.12.2020 13:20	1 hours 00 min	all LiDAR data missing
09.12.2020 21:20	1 hours 00 min	all LiDAR data missing
09.12.2020 22:20	4 hours 30 min	80-250m
10.12.2020 02:50	10 min	80m 100m 120m 160m 180m 250m
10.12.2020 03:00	5 hours 00 min	80-250m
10.12.2020 08:10	40 min	80-250m
10.12.2020 09:00	3 hours 10 min	80-250m
10.12.2020 12:20	30 min	80-250m
10.12.2020 13:10	10 min	80-250m
10.12.2020 13:30	30 min	80-250m
10.12.2020 14:10	30 min	80-250m
10.12.2020 14:40	10 min	200m
10.12.2020 15:10	10 min	80-250m
10.12.2020 15:30	10 min	100-250m
10.12.2020 15:50	10 min	80-250m
10.12.2020 16:10	10 min	80m



**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
10.12.2020 16:40	10 min	80-250m
10.12.2020 17:10	10 min	100m 160m 180m 250m
10.12.2020 17:40	40 min	80-250m
10.12.2020 18:20	10 min	80m 100m 120m 160m
10.12.2020 18:30	1 hours 00 min	all LiDAR data missing
11.12.2020 08:10	10 min	80m
11.12.2020 10:40	10 min	80-250m
11.12.2020 15:00	1 hours 00 min	all LiDAR data missing
11.12.2020 16:00	10 min	80m 160m
11.12.2020 16:40	1 hours 00 min	all LiDAR data missing
11.12.2020 18:10	1 hours 00 min	all LiDAR data missing
11.12.2020 19:10	20 min	80-250m
11.12.2020 19:30	10 min	100m
11.12.2020 19:40	20 min	80-250m
11.12.2020 20:10	1 hours 00 min	80-250m
11.12.2020 21:10	10 min	100m 140m
11.12.2020 21:20	1 hours 00 min	all LiDAR data missing
11.12.2020 22:30	20 min	80-250m
11.12.2020 22:50	10 min	80m 140m
11.12.2020 23:20	10 min	160m
11.12.2020 23:30	5 hours 10 min	80-250m
12.12.2020 06:40	1 hours 00 min	all LiDAR data missing
12.12.2020 11:40	30 min	80-250m
12.12.2020 12:10	10 min	200-250m
12.12.2020 12:20	10 min	180m
12.12.2020 17:50	10 min	250m
12.12.2020 18:20	10 min	200-250m
12.12.2020 18:30	10 min	40m 60m 80m
12.12.2020 18:40	10 min	120m 200-250m
12.12.2020 19:20	10 min	160m
12.12.2020 19:30	10 min	180m 200m
12.12.2020 19:50	10 min	140m
12.12.2020 20:50	10 min	140m
12.12.2020 21:10	10 min	160m 200-250m
12.12.2020 21:20	10 min	140-250m
12.12.2020 21:30	10 min	250m
12.12.2020 22:00	10 min	200-250m
12.12.2020 22:10	10 min	180-250m
12.12.2020 22:20	10 min	180m 250m
16.12.2020 07:10	10 min	160-250m
16.12.2020 07:40	10 min	250m

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
16.12.2020 07:50	10 min	120-250m
16.12.2020 08:00	10 min	200-250m
16.12.2020 09:40	10 min	80m 140m 160m 200m
16.12.2020 09:50	10 min	80m 200m
16.12.2020 10:30	10 min	80m 100m 120m 140m 160m 200-250m
16.12.2020 10:40	1 hours 00 min	all LiDAR data missing
16.12.2020 21:40	1 hours 00 min	all LiDAR data missing
17.12.2020 10:00	40 min	all LiDAR data missing
17.12.2020 10:40	10 min	100m 120m 140m 180m
18.12.2020 01:50	10 min	250m
18.12.2020 11:30	1 hours 00 min	all LiDAR data missing
18.12.2020 16:50	1 hours 00 min	all LiDAR data missing
18.12.2020 18:30	1 hours 00 min	all LiDAR data missing
19.12.2020 00:40	1 hours 00 min	all LiDAR data missing
19.12.2020 04:00	1 hours 00 min	all LiDAR data missing
19.12.2020 06:30	1 hours 00 min	all LiDAR data missing
19.12.2020 09:40	1 hours 00 min	all LiDAR data missing
19.12.2020 14:30	1 hours 00 min	all LiDAR data missing
19.12.2020 19:30	1 hours 00 min	all LiDAR data missing
20.12.2020 01:40	1 hours 00 min	all LiDAR data missing
20.12.2020 11:40	10 min	100-250m
20.12.2020 14:20	10 min	80-250m
20.12.2020 14:30	10 min	160m
21.12.2020 06:10	10 min	80-250m
21.12.2020 07:20	10 min	160m 250m
21.12.2020 07:30	10 min	80-250m
21.12.2020 18:30	10 min	80-250m
21.12.2020 18:40	10 min	200-250m
21.12.2020 18:50	10 min	250m
21.12.2020 21:00	10 min	120m 200m
21.12.2020 21:10	10 min	100m
22.12.2020 00:20	10 min	180m 200m
22.12.2020 00:30	10 min	Gill data missing
22.12.2020 06:30	10 min	200m
22.12.2020 06:40	10 min	80-250m
23.12.2020 02:40	10 min	250m
23.12.2020 02:50	10 min	140-250m
23.12.2020 03:00	10 min	120-250m
23.12.2020 03:10	10 min	140-250m
23.12.2020 03:20	10 min	120-250m
23.12.2020 03:30	50 min	140-250m

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
23.12.2020 04:20	30 min	120-250m
23.12.2020 04:50	10 min	140-250m
23.12.2020 05:00	10 min	120-250m
23.12.2020 05:10	30 min	100-250m
23.12.2020 05:40	20 min	120-250m
23.12.2020 06:00	10 min	250m
23.12.2020 06:10	10 min	200-250m
23.12.2020 06:20	30 min	140-250m
23.12.2020 06:50	10 min	120-250m
23.12.2020 07:00	20 min	140-250m
23.12.2020 07:20	30 min	120-250m
23.12.2020 07:50	10 min	140-250m
23.12.2020 08:00	30 min	120-250m
23.12.2020 08:40	10 min	180-250m
23.12.2020 08:50	10 min	160-250m
23.12.2020 09:00	10 min	200-250m
23.12.2020 11:50	10 min	250m
23.12.2020 12:30	10 min	160-250m
23.12.2020 12:40	10 min	120-250m
23.12.2020 13:40	10 min	160-250m
23.12.2020 14:10	10 min	180m
24.12.2020 05:00	1 hours 00 min	all LiDAR data missing
24.12.2020 11:00	1 hours 00 min	all LiDAR data missing
24.12.2020 14:00	1 hours 00 min	all LiDAR data missing
24.12.2020 18:20	1 hours 00 min	all LiDAR data missing
25.12.2020 06:40	40 min	all LiDAR data missing
25.12.2020 08:50	1 hours 00 min	all LiDAR data missing
25.12.2020 12:20	1 hours 00 min	all LiDAR data missing
26.12.2020 10:20	1 hours 00 min	all LiDAR data missing
26.12.2020 11:50	1 hours 00 min	all LiDAR data missing
26.12.2020 14:40	10 min	Gill data missing
26.12.2020 16:20	1 hours 00 min	all LiDAR data missing
26.12.2020 22:40	10 min	Gill data missing
26.12.2020 23:30	1 hours 00 min	all LiDAR data missing
27.12.2020 01:00	1 hours 00 min	all LiDAR data missing
27.12.2020 03:00	1 hours 00 min	all LiDAR data missing
27.12.2020 06:00	1 hours 00 min	all LiDAR data missing
27.12.2020 07:30	10 min	120m 200m
28.12.2020 05:40	10 min	Gill data missing
28.12.2020 06:10	10 min	80-250m
28.12.2020 06:40	3 hours 30 min	80-250m

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
28.12.2020 10:20	20 min	80-250m
28.12.2020 11:00	10 min	80-250m
28.12.2020 11:10	20 min	200m
28.12.2020 11:30	10 min	80m 100m 180m
28.12.2020 11:40	10 min	80-250m
28.12.2020 16:10	1 hours 00 min	all LiDAR data missing
28.12.2020 19:30	10 min	Gill data missing
28.12.2020 23:30	1 hours 00 min	all LiDAR data missing
29.12.2020 04:00	10 min	80m 120m 140m
29.12.2020 10:20	10 min	all LiDAR data missing
29.12.2020 17:00	10 min	Gill data missing
29.12.2020 22:50	1 hours 00 min	all LiDAR data missing
30.12.2020 00:20	1 hours 00 min	all LiDAR data missing
30.12.2020 02:10	1 hours 00 min	all LiDAR data missing
30.12.2020 23:20	10 min	Gill data missing
31.12.2020 01:30	10 min	80-250m
31.12.2020 03:10	30 min	80-250m
31.12.2020 05:30	10 min	250m
31.12.2020 10:40	10 min	40m 60m 80m
01.01.2021 16:50	10 min	80m 100m 120m 140m 180-250m
02.01.2021 20:50	10 min	160m
02.01.2021 21:30	10 min	180m 250m
03.01.2021 01:10	10 min	140-250m
04.01.2021 04:10	10 min	180m 200m
04.01.2021 05:50	10 min	80-250m
04.01.2021 07:00	10 min	80-250m
04.01.2021 07:20	10 min	80m 100m 140m 180m 200m
04.01.2021 07:40	10 min	80m 100m 120m 140m 160m 180m 250m
04.01.2021 08:10	10 min	80m
04.01.2021 08:40	10 min	80m 100m 160-250m
04.01.2021 09:10	10 min	80-250m
04.01.2021 09:30	10 min	80-250m
04.01.2021 09:50	10 min	250m
04.01.2021 10:00	10 min	120m 200-250m
04.01.2021 10:30	10 min	80-250m
04.01.2021 10:40	10 min	100m 120m 160-250m
04.01.2021 10:50	10 min	80-250m
04.01.2021 11:10	10 min	140m 160m 200-250m
04.01.2021 11:20	10 min	80-250m
04.01.2021 11:40	20 min	200m
04.01.2021 12:00	10 min	80-250m

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
04.01.2021 12:40	10 min	80-250m
04.01.2021 13:00	10 min	80-250m
04.01.2021 13:10	10 min	180-250m
04.01.2021 20:20	1 hours 00 min	all LiDAR data missing
05.01.2021 01:00	1 hours 00 min	all LiDAR data missing
05.01.2021 05:10	1 hours 00 min	all LiDAR data missing
05.01.2021 06:20	10 min	250m
05.01.2021 07:20	10 min	80m 200m
05.01.2021 07:30	20 min	100m
05.01.2021 08:30	10 min	250m
05.01.2021 09:00	20 min	80-250m
05.01.2021 09:30	10 min	120m 180m 200m
05.01.2021 10:00	10 min	120m 200m
05.01.2021 10:10	1 hours 00 min	all LiDAR data missing
05.01.2021 11:10	40 min	80-250m
05.01.2021 11:50	1 hours 00 min	all LiDAR data missing
05.01.2021 13:50	1 hours 00 min	all LiDAR data missing
05.01.2021 15:20	10 min	200m
05.01.2021 15:40	10 min	180m 200m
05.01.2021 15:50	10 min	80-250m
05.01.2021 16:30	10 min	80m 100m 120m 160-250m
05.01.2021 17:00	1 hours 00 min	all LiDAR data missing
08.01.2021 04:40	10 min	120m
08.01.2021 22:00	20 min	250m
09.01.2021 15:40	1 hours 00 min	all LiDAR data missing
09.01.2021 22:30	1 hours 00 min	all LiDAR data missing
10.01.2021 00:50	1 hours 00 min	all LiDAR data missing
10.01.2021 05:10	10 min	80-250m
10.01.2021 05:40	30 min	80-250m
10.01.2021 06:20	40 min	80-250m
10.01.2021 07:00	10 min	80m 100m 120m 200m
10.01.2021 07:10	10 min	80-250m
10.01.2021 07:20	10 min	200-250m
10.01.2021 07:30	10 min	80-250m
10.01.2021 07:50	50 min	80-250m
10.01.2021 08:40	10 min	140m
10.01.2021 08:50	40 min	80-250m
10.01.2021 09:30	10 min	80m 100m 120m 140m 160m 180m
10.01.2021 10:00	30 min	80-250m
10.01.2021 10:30	10 min	100m 160m
10.01.2021 10:40	10 min	80-250m

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
10.01.2021 10:50	10 min	80m 100m 120m 160m 180m
10.01.2021 11:20	30 min	80-250m
10.01.2021 12:30	10 min	80-250m
10.01.2021 12:50	10 min	80-250m
10.01.2021 13:10	10 min	80m 100m 120m 140m 160m 180m 250m
10.01.2021 13:20	10 min	120m
10.01.2021 13:50	10 min	80-250m
10.01.2021 14:00	10 min	140m
10.01.2021 14:20	10 min	120m 160m
10.01.2021 14:40	10 min	80m 100m 120m 140m 180-250m
10.01.2021 14:50	10 min	80m 160m 200-250m
10.01.2021 15:10	10 min	80-250m
10.01.2021 16:10	10 min	80m
10.01.2021 16:20	20 min	80-250m
10.01.2021 16:40	10 min	80m 120m 180-250m
10.01.2021 16:50	10 min	120m 140m 160m 200m
10.01.2021 17:00	20 min	80-250m
10.01.2021 17:30	10 min	80-250m
10.01.2021 17:50	1 hours 40 min	80-250m
10.01.2021 19:40	10 min	80-250m
10.01.2021 19:50	10 min	80m 120-250m
10.01.2021 20:00	20 min	80-250m
10.01.2021 20:20	10 min	120-250m
10.01.2021 20:30	10 min	140m
10.01.2021 20:40	10 min	80-250m
10.01.2021 21:00	10 min	80-250m
10.01.2021 21:10	10 min	80m 100m 140m 160m
10.01.2021 21:20	10 min	80m 140m 200m
10.01.2021 21:30	20 min	80-250m
10.01.2021 22:10	10 min	80-250m
10.01.2021 22:30	10 min	80m 250m
10.01.2021 22:50	10 min	80m 100m 120m 140m 160m 180m 200m
10.01.2021 23:00	10 min	80m 140-250m
11.01.2021 00:10	10 min	80m 100m 180m
11.01.2021 00:40	10 min	80-250m
11.01.2021 02:00	10 min	100m 120m 140m 180-250m
11.01.2021 03:00	10 min	80m 100m 180m
11.01.2021 03:40	10 min	80-250m
11.01.2021 05:00	10 min	80-250m
11.01.2021 05:10	10 min	140m 250m
11.01.2021 05:20	10 min	80-250m

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
11.01.2021 05:40	10 min	80m 100m 160-250m
11.01.2021 06:00	10 min	80m 100m 160-250m
11.01.2021 06:10	10 min	200m
11.01.2021 06:30	10 min	80-250m
12.01.2021 01:00	1 hours 00 min	all LiDAR data missing
12.01.2021 03:50	1 hours 00 min	all LiDAR data missing
12.01.2021 05:10	1 hours 00 min	all LiDAR data missing
12.01.2021 06:20	10 min	80m 120m 160m 180m 200m
12.01.2021 06:40	1 hours 00 min	all LiDAR data missing
12.01.2021 12:50	1 hours 00 min	all LiDAR data missing
12.01.2021 19:50	1 hours 00 min	all LiDAR data missing
13.01.2021 02:50	1 hours 00 min	all LiDAR data missing
13.01.2021 14:20	10 min	Gill data missing
15.01.2021 07:40	10 min	180m
15.01.2021 09:10	20 min	140m 160m 180m 200m
15.01.2021 09:30	10 min	100m 120m 140m 160m 200m
15.01.2021 09:40	10 min	180m
15.01.2021 10:00	10 min	160m
15.01.2021 17:00	20 min	140m
16.01.2021 12:30	10 min	120m 160m 200-250m
16.01.2021 13:10	10 min	80m 100m
16.01.2021 13:50	10 min	80m 100m 120m 180m 250m
16.01.2021 14:00	10 min	80-250m
16.01.2021 14:10	10 min	80m 140m 160m
16.01.2021 14:30	10 min	80-250m
20.01.2021 14:40	1 hours 00 min	all LiDAR data missing
20.01.2021 16:20	1 hours 00 min	all LiDAR data missing
21.01.2021 02:40	10 min	250m
21.01.2021 04:00	1 hours 00 min	all LiDAR data missing
21.01.2021 05:50	1 hours 00 min	all LiDAR data missing
21.01.2021 09:30	1 hours 00 min	all LiDAR data missing
21.01.2021 12:10	1 hours 00 min	all LiDAR data missing
21.01.2021 20:10	1 hours 00 min	all LiDAR data missing
22.01.2021 06:50	1 hours 00 min	all LiDAR data missing
22.01.2021 08:50	1 hours 00 min	all LiDAR data missing
23.01.2021 05:50	10 min	80-250m
23.01.2021 07:00	10 min	80-250m
23.01.2021 07:30	10 min	80-250m
23.01.2021 08:40	10 min	80-250m
23.01.2021 09:00	10 min	80m
23.01.2021 12:10	1 hours 00 min	all LiDAR data missing

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
23.01.2021 18:30	20 min	80-250m
23.01.2021 18:50	10 min	80-250m
23.01.2021 20:50	10 min	100m 120m 160-250m
26.01.2021 01:40	1 hours 00 min	all LiDAR data missing
26.01.2021 19:30	10 min	Gill data missing
27.01.2021 00:50	1 hours 00 min	all LiDAR data missing
29.01.2021 00:20	10 min	180-250m
29.01.2021 00:30	10 min	140-250m
29.01.2021 00:40	20 min	120-250m
29.01.2021 01:00	10 min	140-250m
29.01.2021 01:10	10 min	120-250m
29.01.2021 01:20	50 min	80-250m
29.01.2021 02:10	20 min	100-250m
29.01.2021 02:30	10 min	80-250m
29.01.2021 02:40	10 min	100-250m
29.01.2021 02:50	20 min	140m 250m
29.01.2021 03:10	10 min	250m
29.01.2021 03:20	10 min	180-250m
02.02.2021 00:50	20 min	160m
04.02.2021 02:30	10 min	80m 120m
04.02.2021 15:20	10 min	80-250m
04.02.2021 15:30	20 min	60-250m
04.02.2021 15:50	20 min	80-250m
04.02.2021 16:10	10 min	60-250m
06.02.2021 00:40	10 min	120m
06.02.2021 05:10	10 min	250m
06.02.2021 05:20	40 min	140-250m
06.02.2021 06:00	20 min	160-250m
06.02.2021 06:20	10 min	140-250m
06.02.2021 06:30	50 min	120-250m
06.02.2021 07:20	10 min	100-250m
06.02.2021 07:30	10 min	80-250m
06.02.2021 07:40	10 min	100-250m
06.02.2021 07:50	10 min	120-250m
06.02.2021 08:00	10 min	80-250m
06.02.2021 08:10	10 min	80m 140-250m
06.02.2021 08:20	20 min	80-250m
06.02.2021 08:50	10 min	140m 160m
06.02.2021 09:00	10 min	160m
06.02.2021 22:00	10 min	80-250m
06.02.2021 22:40	10 min	120m 140m 180m



**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
07.02.2021 02:00	10 min	80m 200m
07.02.2021 02:30	10 min	250m
07.02.2021 02:40	10 min	80-250m
07.02.2021 02:50	10 min	200-250m
07.02.2021 03:00	30 min	250m
07.02.2021 04:00	10 min	250m
07.02.2021 04:10	20 min	180-250m
07.02.2021 04:30	10 min	250m
07.02.2021 05:10	20 min	250m
07.02.2021 05:30	10 min	80m 100m 120m 250m
07.02.2021 05:40	40 min	30m 40m 80-250m
07.02.2021 06:20	20 min	30m 80-250m
07.02.2021 06:40	10 min	30m 250m
07.02.2021 06:50	30 min	80-250m
07.02.2021 07:20	10 min	30m
07.02.2021 07:30	10 min	30m 80-250m
07.02.2021 07:50	10 min	80m 180-250m
07.02.2021 08:40	10 min	80m 100m 120m 180-250m
07.02.2021 09:40	10 min	80-250m
07.02.2021 10:00	10 min	30m 40m 80-250m
07.02.2021 10:10	20 min	30m 80-250m
07.02.2021 10:50	40 min	80-250m
07.02.2021 11:40	10 min	160m 180m
07.02.2021 12:00	30 min	80-250m
07.02.2021 12:30	10 min	80m 100m 120m
07.02.2021 14:50	10 min	80-250m
07.02.2021 16:20	10 min	250m
07.02.2021 18:30	10 min	80-250m
07.02.2021 18:40	10 min	80m 120m
07.02.2021 18:50	10 min	80-250m
07.02.2021 19:10	10 min	100m 120m 140m 200m
07.02.2021 19:20	10 min	30m 80m 140m 160m 200m
07.02.2021 19:30	10 min	30m
07.02.2021 19:40	10 min	30m 80-250m
07.02.2021 19:50	10 min	100m 120m 140m 160m
07.02.2021 20:10	10 min	30m 80-250m
07.02.2021 20:20	10 min	80-250m
07.02.2021 21:40	10 min	80-250m
07.02.2021 22:10	10 min	80m
07.02.2021 23:10	10 min	80-250m
07.02.2021 23:30	10 min	100m 160m 180m 250m

**Table E.10: Gaps in the wind dataset of Deployment 10 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
07.02.2021 23:50	10 min	80m 100m 120m 200m
08.02.2021 00:00	1 hours 00 min	all LiDAR data missing
08.02.2021 01:00	10 min	80-250m
08.02.2021 01:10	10 min	30m 40m 80-250m
08.02.2021 01:20	10 min	40m 80-250m
08.02.2021 01:30	10 min	30m 40m 80m 120m 140m 180m
08.02.2021 01:40	20 min	30m 40m 80-250m
08.02.2021 02:00	10 min	30m 80-250m
08.02.2021 02:10	10 min	80-250m
08.02.2021 02:20	10 min	100m
08.02.2021 02:30	10 min	40m 80-250m
08.02.2021 02:40	10 min	40m 100m 180m 250m
08.02.2021 03:00	10 min	120m 140m 160m 200-250m
08.02.2021 03:30	10 min	80m 100m
08.02.2021 03:50	10 min	80m 200m
08.02.2021 04:20	1 hours 00 min	all LiDAR data missing
08.02.2021 05:30	1 hours 00 min	all LiDAR data missing
08.02.2021 07:50	1 hours 00 min	all LiDAR data missing
08.02.2021 10:50	1 hours 00 min	all LiDAR data missing
08.02.2021 12:40	10 min	160m 180m 200m
08.02.2021 12:50	1 hours 00 min	all LiDAR data missing
08.02.2021 14:10	1 hours 00 min	all LiDAR data missing
08.02.2021 16:10	1 hours 00 min	all LiDAR data missing
08.02.2021 18:50	1 hours 00 min	all LiDAR data missing
09.02.2021 00:20	1 hours 00 min	all LiDAR data missing
09.02.2021 06:00	1 hours 00 min	all LiDAR data missing
09.02.2021 07:30	10 min	Gill data missing
10.02.2021 10:00	10 min	40m

## E.11 Deployment 11

**Table E.11: Gaps in the wind dataset of Deployment 11 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
14.11.2020 01:50	10 min	all LiDAR data missing
14.11.2020 15:20	10 min	Gill data missing
23.11.2020 01:20	10 min	all LiDAR data missing

## E.12 Deployment 12

Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.

Start time	Duration	Missing data at height(s) (m)
27.11.2020 10:30	10 min	Gill data missing
27.11.2020 14:10	20 min	80-250m
27.11.2020 18:10	20 min	80-250m
27.11.2020 18:30	10 min	200m
27.11.2020 21:40	10 min	200m
28.11.2020 18:30	10 min	250m
28.11.2020 18:40	10 min	180m 200m
28.11.2020 20:00	10 min	120-250m
28.11.2020 20:30	10 min	180-250m
28.11.2020 20:40	10 min	80-250m
28.11.2020 21:00	10 min	120-250m
28.11.2020 21:10	10 min	100-250m
28.11.2020 21:20	10 min	80-250m
28.11.2020 21:30	10 min	120-250m
28.11.2020 21:40	10 min	140m 180-250m
28.11.2020 21:50	10 min	80-250m
28.11.2020 22:00	10 min	180-250m
28.11.2020 22:10	10 min	160-250m
28.11.2020 22:20	10 min	140-250m
28.11.2020 22:30	20 min	120-250m
28.11.2020 22:50	10 min	180-250m
28.11.2020 23:00	10 min	120-250m
28.11.2020 23:10	10 min	250m
28.11.2020 23:30	10 min	140-250m
28.11.2020 23:40	20 min	250m
29.11.2020 00:00	10 min	160-250m
29.11.2020 00:10	10 min	140-250m
29.11.2020 00:20	10 min	180-250m
29.11.2020 00:30	10 min	200-250m
29.11.2020 01:00	10 min	250m
29.11.2020 01:40	20 min	250m
29.11.2020 02:40	10 min	250m
29.11.2020 03:30	10 min	250m
29.11.2020 19:40	10 min	80-250m
29.11.2020 20:10	10 min	200m
29.11.2020 21:20	10 min	40m
10.12.2020 03:40	10 min	120m
10.12.2020 07:00	10 min	80m 100m 140m 160m 200m
10.12.2020 17:50	10 min	80m 100m 140m 180m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
11.12.2020 07:40	10 min	Gill data missing
11.12.2020 17:10	10 min	140m 160m
11.12.2020 17:40	10 min	100m 140m
12.12.2020 00:00	10 min	180-250m
12.12.2020 00:10	30 min	160-250m
12.12.2020 00:40	10 min	180-250m
12.12.2020 00:50	10 min	80-250m
12.12.2020 01:00	10 min	200-250m
12.12.2020 01:30	10 min	140m
12.12.2020 01:40	10 min	80-250m
12.12.2020 01:50	20 min	140-250m
12.12.2020 02:10	10 min	80m 120-250m
12.12.2020 02:20	20 min	120-250m
12.12.2020 02:40	10 min	80-250m
12.12.2020 03:00	10 min	200-250m
12.12.2020 03:10	10 min	160-250m
12.12.2020 03:20	10 min	140-250m
12.12.2020 03:30	30 min	120-250m
12.12.2020 04:00	10 min	160-250m
12.12.2020 04:10	20 min	250m
12.12.2020 10:50	10 min	120m
12.12.2020 11:10	10 min	80-250m
12.12.2020 11:20	10 min	250m
12.12.2020 11:30	30 min	80-250m
12.12.2020 12:00	10 min	80m 140m 160m 200m
12.12.2020 13:20	10 min	80-250m
12.12.2020 19:00	10 min	30m 40m 60m 80m 100m
12.12.2020 19:20	10 min	30m
12.12.2020 19:50	10 min	160m 180m
12.12.2020 20:40	10 min	60m
12.12.2020 21:00	10 min	200m
12.12.2020 21:10	10 min	120-250m
12.12.2020 21:20	10 min	140m 160m 200-250m
16.12.2020 07:10	10 min	250m
16.12.2020 07:20	10 min	200-250m
16.12.2020 07:30	20 min	80m 140m 180m 200m
16.12.2020 08:10	20 min	200-250m
16.12.2020 09:00	10 min	140m
16.12.2020 11:00	10 min	180m
20.12.2020 11:40	10 min	120-250m
22.12.2020 07:30	10 min	100m 250m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
22.12.2020 08:30	10 min	100m 160m
22.12.2020 08:40	10 min	180m
22.12.2020 09:20	10 min	80-250m
22.12.2020 09:40	10 min	80-250m
22.12.2020 10:00	10 min	160m 200-250m
23.12.2020 02:40	10 min	250m
23.12.2020 02:50	10 min	160-250m
23.12.2020 03:00	20 min	140-250m
23.12.2020 03:20	10 min	80-250m
23.12.2020 03:30	10 min	140-250m
23.12.2020 03:40	20 min	160-250m
23.12.2020 04:00	10 min	180-250m
23.12.2020 04:10	30 min	120-250m
23.12.2020 04:40	10 min	100-250m
23.12.2020 04:50	20 min	120-250m
23.12.2020 05:10	20 min	100-250m
23.12.2020 05:30	10 min	120-250m
23.12.2020 05:40	10 min	140-250m
23.12.2020 05:50	10 min	120-250m
23.12.2020 06:00	10 min	120m 140m 180-250m
23.12.2020 06:20	30 min	140-250m
23.12.2020 06:50	20 min	120-250m
23.12.2020 07:10	20 min	140-250m
23.12.2020 07:30	10 min	160-250m
23.12.2020 07:40	10 min	140-250m
23.12.2020 07:50	10 min	180-250m
23.12.2020 08:00	20 min	120-250m
23.12.2020 08:20	10 min	140-250m
23.12.2020 08:30	10 min	250m
23.12.2020 08:40	10 min	160-250m
23.12.2020 08:50	10 min	200-250m
23.12.2020 09:00	10 min	250m
23.12.2020 12:30	10 min	200-250m
23.12.2020 12:40	10 min	120-250m
23.12.2020 12:50	10 min	160-250m
23.12.2020 13:40	10 min	80-250m
23.12.2020 14:10	20 min	30m 80m 140m 200m
23.12.2020 18:20	10 min	80-250m
23.12.2020 18:30	10 min	80m 160m 180m 200m
23.12.2020 18:40	20 min	80-250m
23.12.2020 19:00	10 min	80m 100m 120m 160m 180m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
23.12.2020 19:40	10 min	80m 100m 140-250m
23.12.2020 19:50	10 min	80m 140m 180m 200m
24.12.2020 14:40	10 min	Gill data missing
26.12.2020 14:40	10 min	180m
26.12.2020 14:50	10 min	160m 200-250m
26.12.2020 15:30	10 min	80-250m
26.12.2020 21:40	10 min	100m
26.12.2020 22:20	10 min	80-250m
26.12.2020 22:40	10 min	140m 200-250m
27.12.2020 03:50	10 min	80m 100m 140-250m
27.12.2020 04:40	10 min	200-250m
27.12.2020 05:10	10 min	200m
27.12.2020 05:40	10 min	200-250m
27.12.2020 06:00	10 min	80-250m
27.12.2020 06:10	10 min	100m 120m 140m 160m 200-250m
27.12.2020 07:20	10 min	80m 140m 160m 200-250m
27.12.2020 07:30	10 min	100m
27.12.2020 07:50	10 min	80-250m
27.12.2020 08:00	10 min	200m
27.12.2020 21:20	10 min	Gill data missing
28.12.2020 06:10	10 min	80-250m
28.12.2020 06:20	10 min	80m 100m 120m 160-250m
28.12.2020 06:40	5 hours 20 min	80-250m
28.12.2020 15:50	10 min	80-250m
28.12.2020 16:30	10 min	140m
28.12.2020 16:40	20 min	80-250m
29.12.2020 01:50	20 min	80-250m
29.12.2020 03:40	10 min	30m
29.12.2020 10:00	10 min	80-250m
29.12.2020 11:40	20 min	80-250m
29.12.2020 12:00	10 min	200-250m
29.12.2020 12:10	10 min	80-250m
30.12.2020 08:40	10 min	80-250m
30.12.2020 11:20	10 min	80-250m
31.12.2020 01:30	10 min	80-250m
31.12.2020 04:00	10 min	80-250m
31.12.2020 10:30	10 min	40m 60m 80m 160m
01.01.2021 00:00	10 min	all LiDAR data missing
01.01.2021 10:40	10 min	100m 120m
02.01.2021 21:30	10 min	30m
03.01.2021 00:20	10 min	160m 180m 200m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
03.01.2021 00:40	1 hours 50 min	80-250m
03.01.2021 02:40	10 min	80-250m
03.01.2021 03:00	30 min	80-250m
03.01.2021 03:30	10 min	100m 140m 250m
03.01.2021 03:40	1 hours 00 min	80-250m
03.01.2021 05:00	10 min	80-250m
03.01.2021 06:10	10 min	100m
03.01.2021 08:20	10 min	80-250m
03.01.2021 08:40	20 min	80-250m
04.01.2021 01:50	10 min	200m
04.01.2021 02:20	10 min	30m
04.01.2021 04:10	10 min	80-250m
04.01.2021 05:00	10 min	80-250m
04.01.2021 05:30	30 min	80-250m
04.01.2021 07:00	20 min	80-250m
04.01.2021 07:20	10 min	120m
04.01.2021 07:30	1 hours 40 min	80-250m
04.01.2021 09:20	2 hours 00 min	80-250m
04.01.2021 11:30	2 hours 10 min	80-250m
04.01.2021 14:20	10 min	80-250m
04.01.2021 16:10	10 min	80-250m
04.01.2021 17:40	10 min	80m 100m 120m 140m 180m 200m
04.01.2021 19:50	10 min	80m 100m 120m
04.01.2021 23:10	10 min	80-250m
04.01.2021 23:40	10 min	80m 100m 120m 140m 160m 180m
05.01.2021 00:50	10 min	80m 120m 180-250m
05.01.2021 01:10	10 min	250m
05.01.2021 01:20	10 min	80-250m
05.01.2021 02:40	10 min	80-250m
05.01.2021 03:10	20 min	80-250m
05.01.2021 03:40	40 min	80-250m
05.01.2021 04:20	10 min	120m 140m 180m 200m
05.01.2021 04:30	10 min	100m 140m 180-250m
05.01.2021 04:40	10 min	80-250m
05.01.2021 05:00	30 min	80-250m
05.01.2021 05:40	10 min	80-250m
05.01.2021 06:00	10 min	80-250m
05.01.2021 06:30	10 min	80m 100m 120m 140m 160m 180m 250m
05.01.2021 06:40	10 min	120m 200-250m
05.01.2021 06:50	10 min	100m
05.01.2021 07:00	10 min	80-250m



**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
05.01.2021 07:20	20 min	80-250m
05.01.2021 08:20	10 min	180m 250m
05.01.2021 08:30	10 min	80-250m
05.01.2021 08:40	10 min	80m
05.01.2021 09:10	10 min	200m
05.01.2021 09:20	20 min	100m 140m 160m 180m 250m
05.01.2021 09:40	1 hours 10 min	80-250m
05.01.2021 11:10	1 hours 00 min	80-250m
05.01.2021 12:10	10 min	80m 100m 160m 180m 200m
05.01.2021 12:50	20 min	250m
05.01.2021 13:10	40 min	80-250m
05.01.2021 14:00	40 min	80-250m
05.01.2021 14:40	10 min	80m 200-250m
05.01.2021 14:50	10 min	250m
05.01.2021 15:00	4 hours 30 min	80-250m
05.01.2021 19:30	10 min	100m 120m 160m 180m 250m
05.01.2021 19:40	10 min	100m 120m 250m
05.01.2021 20:00	4 hours 00 min	80-250m
06.01.2021 00:00	10 min	140m 180m 250m
06.01.2021 00:10	40 min	80-250m
06.01.2021 01:00	10 min	80m 100m 120m 140m 160m 180m 200m
06.01.2021 01:10	10 min	80m 200m
06.01.2021 01:20	10 min	80-250m
06.01.2021 01:40	10 min	100m 120m 160m 180m 200m
08.01.2021 03:10	10 min	80-250m
08.01.2021 08:50	10 min	80m
08.01.2021 22:10	10 min	40m
10.01.2021 05:00	10 min	80m
10.01.2021 05:40	30 min	80-250m
10.01.2021 06:20	22 hours 10 min	80-250m
11.01.2021 04:40	2 hours 00 min	80-250m
11.01.2021 07:10	10 min	140-250m
11.01.2021 07:30	10 min	80-250m
11.01.2021 12:30	10 min	30m
11.01.2021 15:10	10 min	80m 120m 160m
11.01.2021 17:10	10 min	100m
11.01.2021 17:20	10 min	80-250m
11.01.2021 23:50	10 min	100m 160-250m
12.01.2021 01:10	10 min	250m
12.01.2021 01:30	10 min	200-250m
12.01.2021 04:10	10 min	200-250m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
12.01.2021 04:30	10 min	250m
12.01.2021 06:00	10 min	80-250m
12.01.2021 06:10	10 min	160m 250m
12.01.2021 06:20	40 min	80-250m
12.01.2021 07:10	10 min	160m
15.01.2021 08:50	20 min	180m 200m
15.01.2021 09:10	10 min	140m 160m 180m 200m
15.01.2021 09:20	10 min	140m 160m 180m
15.01.2021 09:30	10 min	160m
15.01.2021 17:40	10 min	120m
16.01.2021 12:10	2 hours 10 min	80-250m
16.01.2021 14:30	10 min	80-250m
16.01.2021 14:40	20 min	250m
16.01.2021 15:00	20 min	80-250m
16.01.2021 16:50	10 min	80-250m
16.01.2021 17:30	10 min	80-250m
16.01.2021 17:40	10 min	140m 160m 180m
16.01.2021 17:50	20 min	80-250m
16.01.2021 18:20	10 min	80-250m
16.01.2021 18:40	10 min	80-250m
16.01.2021 19:20	10 min	80-250m
16.01.2021 19:30	10 min	80m 120m 140m 160m 200-250m
16.01.2021 20:00	30 min	80-250m
16.01.2021 20:30	10 min	80m 250m
16.01.2021 21:00	10 min	80-250m
16.01.2021 21:50	10 min	80-250m
17.01.2021 06:20	10 min	80m 100m 120m 140m 160m
17.01.2021 11:40	10 min	80m 100m 140-250m
18.01.2021 00:00	10 min	80-250m
18.01.2021 00:10	10 min	100m 120m 140m 180m
19.01.2021 00:40	10 min	160-250m
19.01.2021 01:50	10 min	180m
19.01.2021 02:10	10 min	200m
19.01.2021 02:20	10 min	180m 200m
19.01.2021 02:30	10 min	80-250m
19.01.2021 02:50	30 min	80-250m
19.01.2021 03:20	10 min	100-250m
19.01.2021 03:40	10 min	80-250m
19.01.2021 03:50	10 min	250m
19.01.2021 04:00	20 min	80-250m
19.01.2021 04:20	10 min	160m 200-250m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
19.01.2021 04:30	10 min	160m 180m
19.01.2021 04:50	10 min	80-250m
19.01.2021 05:40	10 min	80-250m
19.01.2021 08:50	10 min	80-250m
19.01.2021 09:00	10 min	180m
19.01.2021 10:50	10 min	80m
20.01.2021 03:20	10 min	80m 100m 120m 140m 180-250m
20.01.2021 03:30	10 min	80m 160m 200m
23.01.2021 18:40	10 min	60-250m
23.01.2021 22:10	10 min	80-250m
24.01.2021 00:20	10 min	Gill data missing
26.01.2021 00:50	20 min	80-250m
26.01.2021 08:00	10 min	100m 120m 160m
26.01.2021 09:50	10 min	80-250m
26.01.2021 10:30	10 min	80m 100m 120m 140m 160m 180m 250m
26.01.2021 21:00	10 min	80m
26.01.2021 22:20	10 min	80-250m
26.01.2021 23:00	20 min	80-250m
26.01.2021 23:30	10 min	80-250m
26.01.2021 23:40	10 min	140m 180-250m
26.01.2021 23:50	20 min	80-250m
27.01.2021 00:20	10 min	100-250m
27.01.2021 00:40	20 min	120m
27.01.2021 01:00	20 min	80-250m
27.01.2021 01:20	10 min	200-250m
27.01.2021 01:30	10 min	80-250m
27.01.2021 01:40	10 min	180m
27.01.2021 01:50	1 hours 10 min	80-250m
27.01.2021 03:10	10 min	80m 100m 160-250m
27.01.2021 03:30	10 min	200m
27.01.2021 03:40	40 min	80-250m
27.01.2021 05:00	30 min	80-250m
27.01.2021 05:30	10 min	100m 120m 160m 200-250m
27.01.2021 05:40	20 min	80-250m
27.01.2021 06:20	10 min	80-250m
27.01.2021 06:30	10 min	140m 160m 250m
27.01.2021 06:40	1 hours 50 min	80-250m
27.01.2021 08:40	1 hours 00 min	80-250m
27.01.2021 09:40	10 min	100m 200m
27.01.2021 09:50	10 min	80-250m
27.01.2021 10:00	10 min	140m 160m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
27.01.2021 10:10	40 min	80-250m
27.01.2021 11:10	10 min	180m 250m
27.01.2021 11:30	10 min	80-250m
27.01.2021 11:50	2 hours 50 min	80-250m
27.01.2021 14:40	10 min	140m 180m 250m
27.01.2021 14:50	20 min	80-250m
27.01.2021 16:10	20 min	80-250m
27.01.2021 16:30	10 min	80m 120m 160-250m
27.01.2021 16:40	1 hours 00 min	80-250m
27.01.2021 20:30	10 min	80-250m
27.01.2021 21:30	10 min	80-250m
28.01.2021 06:20	10 min	120m 180-250m
28.01.2021 06:50	10 min	80-250m
28.01.2021 07:00	10 min	100m 120m 160-250m
28.01.2021 07:10	10 min	80-250m
28.01.2021 07:20	10 min	120-250m
28.01.2021 07:30	10 min	80-250m
28.01.2021 08:50	10 min	80m 200-250m
28.01.2021 09:10	10 min	80-250m
28.01.2021 09:30	10 min	80m 100m 140m 160m 200-250m
28.01.2021 09:40	20 min	80-250m
28.01.2021 10:00	10 min	80m 180m 250m
28.01.2021 10:10	1 hours 10 min	80-250m
28.01.2021 11:20	10 min	80m 120-250m
28.01.2021 11:40	10 min	250m
28.01.2021 13:10	10 min	100m 120m 160-250m
28.01.2021 13:30	1 hours 50 min	80-250m
28.01.2021 15:20	10 min	80m 100m 120m 140m 180m 200m
28.01.2021 15:30	10 min	80-250m
28.01.2021 15:40	10 min	80m 100m
28.01.2021 15:50	1 hours 20 min	80-250m
28.01.2021 17:20	10 min	120-250m
28.01.2021 17:50	10 min	80-250m
28.01.2021 18:10	10 min	80-250m
28.01.2021 18:40	20 min	100m 200m
28.01.2021 19:10	20 min	80-250m
28.01.2021 19:40	30 min	80-250m
28.01.2021 20:10	10 min	80m 100m 120m 140m
29.01.2021 00:10	10 min	80-250m
29.01.2021 00:20	10 min	180-250m
29.01.2021 00:30	2 hours 20 min	80-250m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
29.01.2021 02:50	20 min	100-250m
29.01.2021 03:10	40 min	80-250m
29.01.2021 04:20	10 min	80-250m
29.01.2021 16:00	5 hours 30 min	80-250m
29.01.2021 22:10	40 min	80-250m
29.01.2021 22:50	10 min	100-250m
29.01.2021 23:10	10 min	160m
29.01.2021 23:30	10 min	80-250m
30.01.2021 03:10	10 min	80-250m
30.01.2021 07:30	10 min	80-250m
30.01.2021 07:50	10 min	80-250m
30.01.2021 08:10	10 min	250m
30.01.2021 08:20	20 min	80-250m
30.01.2021 08:50	10 min	80-250m
30.01.2021 09:10	10 min	80m 100m 120m 140m 160m 200-250m
01.02.2021 00:00	10 min	all LiDAR data missing
01.02.2021 00:10	10 min	100m 120m 250m
01.02.2021 00:20	20 min	80-250m
01.02.2021 02:00	2 hours 20 min	80-250m
01.02.2021 04:30	20 min	80-250m
01.02.2021 04:50	10 min	80m 120m 140m 160m 200m
01.02.2021 05:00	10 min	80-250m
01.02.2021 05:10	10 min	80m 100m 120m 140m 200m
01.02.2021 05:20	10 min	80-250m
01.02.2021 05:30	10 min	100m
01.02.2021 05:50	10 min	80-250m
01.02.2021 06:00	10 min	120m
01.02.2021 06:10	10 min	120m 160m 180m
01.02.2021 06:30	1 hours 00 min	80-250m
01.02.2021 07:30	10 min	160m 200-250m
01.02.2021 07:40	20 min	80-250m
01.02.2021 08:00	10 min	180m
01.02.2021 08:40	1 hours 40 min	80-250m
01.02.2021 10:40	10 min	80-250m
01.02.2021 10:50	10 min	40m
01.02.2021 11:00	10 min	80-250m
01.02.2021 11:20	10 min	80-250m
01.02.2021 11:30	10 min	80m
01.02.2021 11:40	10 min	80-250m
01.02.2021 11:50	10 min	80m 100m 120m 250m
01.02.2021 12:10	1 hours 30 min	80-250m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
01.02.2021 13:50	2 hours 30 min	80-250m
01.02.2021 22:50	10 min	140m
02.02.2021 08:30	30 min	80-250m
02.02.2021 09:00	10 min	80m 120m 160m 200-250m
02.02.2021 09:10	20 min	80-250m
02.02.2021 09:40	10 min	180m
02.02.2021 09:50	10 min	160m 180m 200m
02.02.2021 10:50	20 min	80-250m
02.02.2021 11:10	10 min	100m 160-250m
02.02.2021 11:20	3 hours 00 min	80-250m
02.02.2021 14:20	10 min	120m
02.02.2021 14:30	10 min	80-250m
02.02.2021 23:40	10 min	80-250m
03.02.2021 14:00	10 min	80-250m
03.02.2021 14:10	10 min	100m 140m
04.02.2021 00:20	50 min	80-250m
04.02.2021 01:10	10 min	80m 100m 140m 200m
04.02.2021 01:20	10 min	200-250m
04.02.2021 01:30	10 min	100m 120m 160-250m
04.02.2021 01:40	2 hours 00 min	80-250m
04.02.2021 08:20	50 min	80-250m
04.02.2021 12:20	10 min	140m
04.02.2021 14:50	40 min	80-250m
04.02.2021 15:30	10 min	60-250m
04.02.2021 15:40	30 min	80-250m
04.02.2021 21:10	20 min	180m 250m
04.02.2021 23:50	10 min	80-250m
05.02.2021 06:20	40 min	80-250m
05.02.2021 07:50	20 min	80-250m
05.02.2021 08:40	1 hours 00 min	80-250m
05.02.2021 10:30	20 min	80-250m
05.02.2021 10:50	10 min	160m
05.02.2021 11:10	10 min	80-250m
05.02.2021 11:20	10 min	80m 100m 120m 140m 160m 180m
05.02.2021 12:10	30 min	80-250m
05.02.2021 12:50	10 min	80-250m
05.02.2021 13:30	20 min	80-250m
05.02.2021 15:00	10 min	250m
05.02.2021 15:10	10 min	80-250m
05.02.2021 15:50	10 min	80-250m
05.02.2021 16:00	10 min	180m 250m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
05.02.2021 16:10	10 min	80-250m
05.02.2021 17:20	20 min	80-250m
05.02.2021 19:30	1 hours 30 min	80-250m
05.02.2021 21:10	30 min	80-250m
05.02.2021 22:00	20 min	80-250m
05.02.2021 22:30	10 min	80-250m
06.02.2021 00:00	10 min	250m
06.02.2021 00:30	10 min	100m 120m
06.02.2021 00:50	10 min	80m 100m 180m
06.02.2021 01:10	10 min	80-250m
06.02.2021 01:20	10 min	100m
06.02.2021 02:00	10 hours 20 min	80-250m
06.02.2021 12:30	10 min	100m 160-250m
06.02.2021 12:40	10 min	100m 120m 160-250m
06.02.2021 12:50	40 min	80-250m
06.02.2021 13:30	10 min	120m 160m 180m
06.02.2021 13:50	10 min	180m 200m
06.02.2021 14:00	30 min	80-250m
06.02.2021 14:40	10 min	120m 200-250m
06.02.2021 14:50	20 min	80-250m
06.02.2021 15:10	10 min	180m 250m
06.02.2021 15:20	10 min	80m 100m 120m 200-250m
06.02.2021 15:50	10 min	250m
06.02.2021 16:20	10 min	80m 100m 120m 140m 160m 180m 250m
06.02.2021 16:30	30 min	80-250m
06.02.2021 17:00	10 min	80m 140m 160m 200-250m
06.02.2021 17:10	10 min	250m
06.02.2021 17:20	30 min	80-250m
06.02.2021 18:30	20 min	80-250m
06.02.2021 22:30	1 hours 00 min	80-250m
07.02.2021 00:10	30 min	80-250m
07.02.2021 00:50	3 hours 10 min	80-250m
07.02.2021 04:00	10 min	250m
07.02.2021 04:10	1 hours 40 min	80-250m
07.02.2021 05:50	30 min	30m 80-250m
07.02.2021 06:20	5 hours 00 min	80-250m
07.02.2021 12:30	50 min	80-250m
07.02.2021 13:30	5 hours 00 min	80-250m
07.02.2021 19:00	10 min	100m
07.02.2021 19:20	2 hours 10 min	80-250m
07.02.2021 22:00	30 min	80-250m

**Table E.12: Gaps in the wind dataset of Deployment 12 in addition to those covered in the post-processing *WindResourceStatusFlags*.**

Start time	Duration	Missing data at height(s) (m)
07.02.2021 22:40	20 min	80-250m
07.02.2021 23:10	10 min	80-250m
07.02.2021 23:30	10 min	100m
07.02.2021 23:40	2 hours 50 min	80-250m
08.02.2021 02:40	10 min	80m 100m 160m
08.02.2021 10:50	20 min	80-250m
08.02.2021 12:00	10 min	120m 140m
08.02.2021 12:40	40 min	80-250m
08.02.2021 13:20	10 min	80m
08.02.2021 13:30	10 min	80m 100m
08.02.2021 13:40	20 min	80-250m
08.02.2021 14:20	10 min	100m 200m
08.02.2021 14:40	20 min	80-250m
08.02.2021 15:10	10 min	80-250m
08.02.2021 15:30	10 min	80-250m
08.02.2021 15:40	10 min	160m
08.02.2021 15:50	10 min	80-250m
10.02.2021 10:00	10 min	30m 40m
10.02.2021 14:50	10 min	40m
10.02.2021 17:30	10 min	40m
10.02.2021 19:20	10 min	40m
10.02.2021 19:30	10 min	30m 40m
10.02.2021 19:40	10 min	30m





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The information in this document is valid at the time of publishing (see month/year). Updates will be published on the website <https://offshorewind.rvo.nl/> at the relevant Wind Farm Site, General Information, submap Revision Log and Q & A. In the Revision Log is indicated which versions are the latest and what the changes are in relation to previous versions. The documents can be found at the relevant sites, indicated in the List of all reports and deliverables.

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