

Cruise report
Sand eel survey 2021

Arctic Hunter
and
M/S Reykjanes

North Sea/Skagerrak – Sand eel area 1r, 2r & 3r
Including the extended area

Cruise: 1/2021

Vessel: Arctic Hunter

Area: Nord Sea, sand eel area 1r & 2r

Departure: Esbjerg **Date:** 16.11.2021

Arrival: Esbjerg **Date:** 10.12.2021

Vessel: M/S Reykjanes

Area: Nord Sea, sand eel area 1r & 3r

Departure: Esbjerg **Date:** 16.11.2021

Arrival: Esbjerg **Date:** 10.12.2021

Project number: 39064 - 21

Participants (scientific)

Arctic Hunter:

Cruise leader: Dirk Cornelis Tijssen Danmarks Tekniske Universitet, Institut for Monitoring og Data (DTU Aqua) 16/11 – 10/12 2021

Consultant: Henning Pedersen FOGA Aps, Esbjerg 16/11 – 10/12 2021

Reykjanes:

Cruise leader: Jan Thomsen Danmarks Tekniske Universitet, Institut for Monitoring og Data (DTU Aqua) 16/11 – 10/12 2021

Assistant: Claus Jepsen Danmarks Tekniske Universitet, Institut for Monitoring og Data (DTU Aqua) 16/11 – x/11 2021

Objectives

The purpose of the sand eel dredge survey is to collect sand eels buried in the seabed and compare catches (number and age composition) with the previous year's collections to assess the 2019 year class strength of sand eel in area 1r, 2r and 3r of the different areas adopted by ICES in 2016 (figure 1). Data from the dredge survey is the basis for calculating an index, which is used in the stock assessment for sand eel in the North Sea.

Achievements

Types of data collected

- Dredge (sand eels; species, weight, length)
- Samples of non-sand eel species from each dredge haul

Arctic Hunter:

- 23 days at sea
- 161 valid dredge hauls distributed over 54 sample positions.

Reykjanes:

- 23 days at sea
- 153 valid dredge hauls distributed over 53 sample positions.

Sampling method and strategy

Due to the extension of the survey area in 2017, two vessels participated in the survey: Arctic Hunter and Reykjanes. Reykjanes worked on sand eel area 3r and the northern part of eel area 2r (i.e. the North Sea and the major part of Skagerrak). Arctic Hunter carried out the remaining stations (i.e. the central and southern part of the North Sea).

Number of samples per position

At all positions, where samples are taken, three stations are carried out in a "star" formation using the dredge.

Time of the day for sampling

Sampling using the dredge is carried out during night time (i.e. 15 min after sunset to 15 min before sunrise).

Haul duration and hauling speed

The duration for each haul is 10 min and the hauling speed is 2 knot.

Working up of samples on board

For more detailed description of the working-up procedure, see the cruise program.

Catch from dredge

The catch of the sand eel species is sorted (Lesser sand eel (*Ammodytes marinus* and *Ammodytes tobianus*) are pooled). The weight and the length distribution of the lesser sand eel are recorded. Sub-samples are frozen for split into the two species and age reading later in the laboratory. Each drag is worked up separately.

Samples of non-sand eel species

The species were sorted in category based of the fragility of the species in plastic bags. The bags were frozen immediately after sorting.

Results

In total where 314 valid hauls were fished using the dredges (table 1) distributed on 113 positions. The weather conditions were in periods very rough and prevented fishing for approx. 7 day in total. All stations carried out during the survey are listed in Table 2.

Table 1 Valid samples obtained during the Sand eels survey 2021 by vessel.

Vessel	1r		2r		3r		Total Hauls	Total Positions
	Hauls	Positions	Hauls	Positions	Hauls	Positions		
Arctic Hunter	141	47	20	7			161	54
Reykjanes	9	3	75	27	69	23	153	53
Grand Total	150	50	95	34	69	23	314	107

Table 2 Valid samples obtained during the Sand eels survey 2021 by priority.

Priority	Hauls	Positions
Priority high	251	85
Priority Low	63	22
Grand Total	314	107

Compare of achieved number of hauls to planned number of hauls

In total 128 standard positions (priority = high and low) were potentially listed to be sampled. This year four additional stations were added to the list in the deeper part of Skagerrak for exploratory reasons. Each position is defined as either high or low priority. Normally, it is not possible to fish all the positions and some of the low priority positions should be skipped. Each position is supposed to be fished three times (star formation). If all stations were fished, this should result in a total of 384 dredge stations. Of the total positions, 93 positions have high priority and 35 have low priority. In 2021 a total of 107 positions were sampled resulting in 314 dredge hauls. 85 of the high priority positions were fished. 22 positions of low priority were fished (Table 2). The reason for not being able to fish all high priority positions were bad weather, which ruined the planning and forced sub-optimal performance due to time constraints.

Two stations were only fished by 1 haul (1 high and 1 low priority) and three stations were only fished by 2 hauls (2 high and 1 low priority). The rest (102 positions) were fished by 3 hauls. The reason for less hauls than planned at each station was logistic. In the actual cases, the windy conditions prevented to complete all three hauls at a certain position and it was then decided instead of waiting for better weather at the position, to optimize the planning by using the unfavourable period to steam to the next position in order to save time overall.

The cruise were prolonged with 16 days (8 days for each vessel) due to the extremely windy weather condition during the survey. Originally, the survey was planned to the extent of 30 days at sea in total.

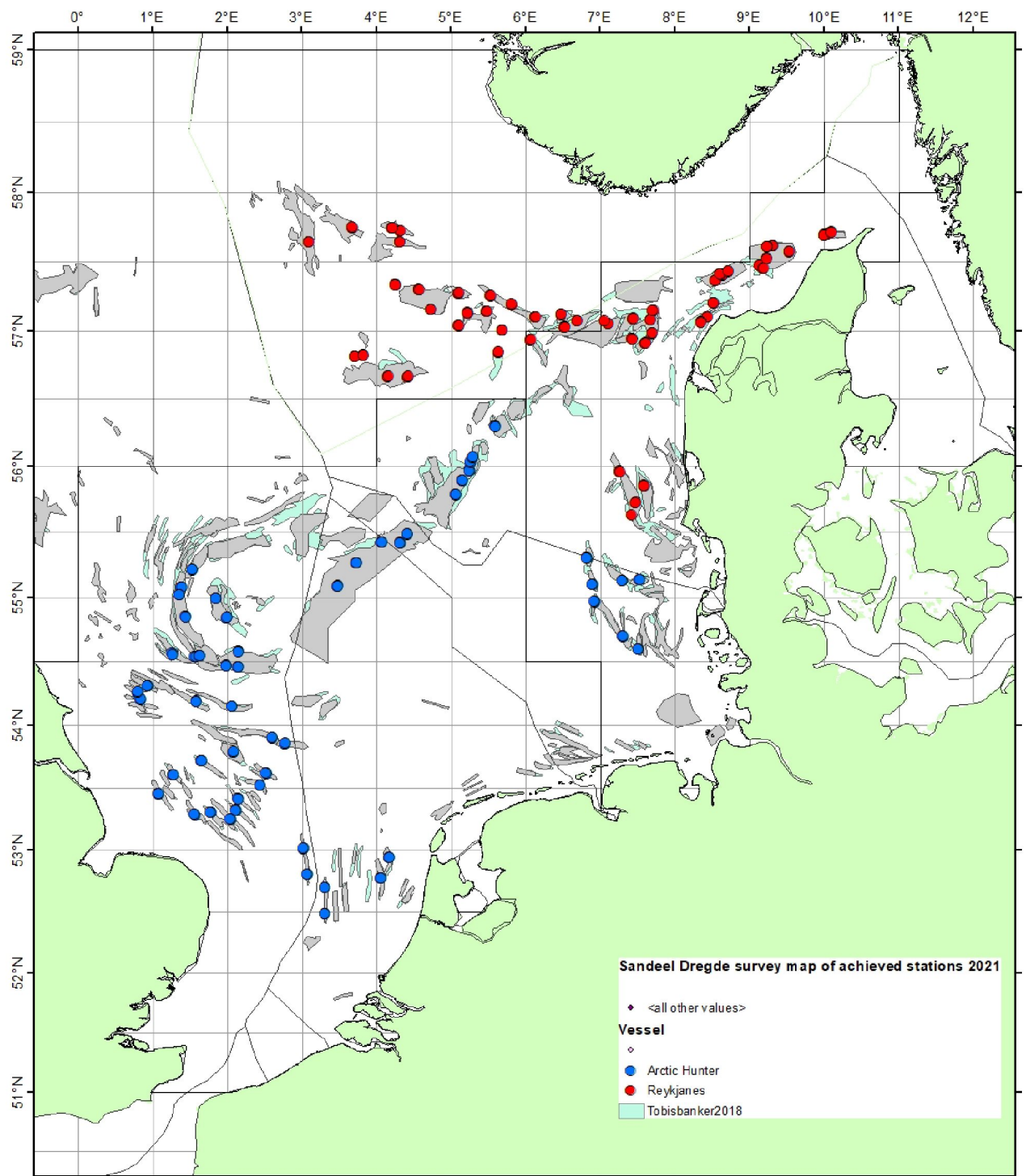


Figure 1 Realized stations in sand eel area 1r, 2r and 3r for the November/December cruise 2020 (Arctic Hunter (blue) and Reykjanes (red)).

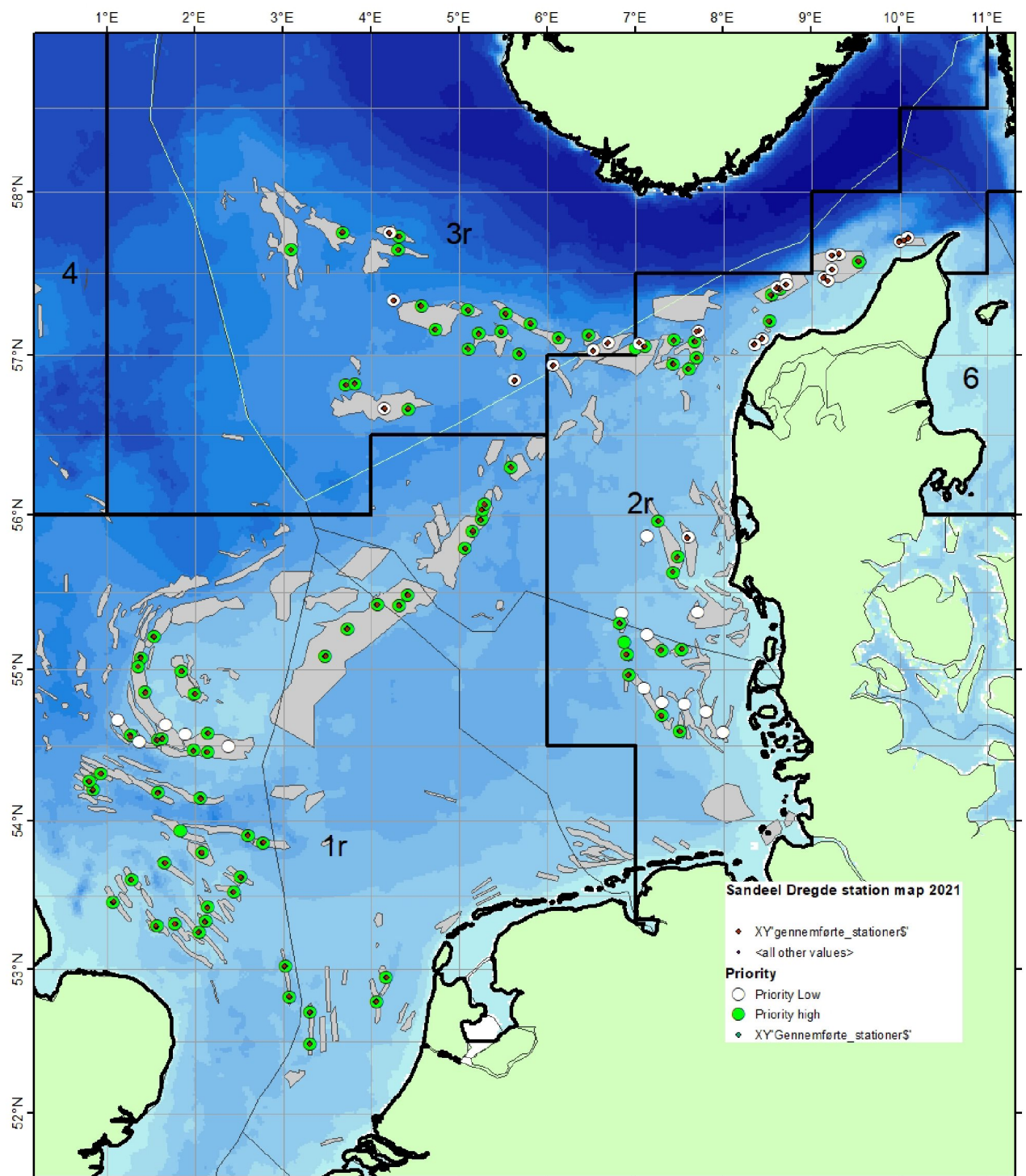


Figure 2 Compare of planned stations (according to Cruise plan) and realized stations in sand eel area 1r, 2r and 3r for the November/December cruise 2020. (Planned High priority station (green) and Planned Low priority station (white) and realized station (black dot).

Table 2 List of realized dredge and sediments stations during the sand eel survey in area 1r, 2r and 3r in November/December 2021.

ID	Vessel	Validity	dateGearStart	fishingtime	latPosStart	lonPosStart	dateArea	statisticalRange	distance	Gear ID	Depth (Average)	windSpeed	Tobaraeva	Location	Priority
1	Arctic Hunter	V	27-11-2021	4	10	54.12 3220 N	0.8433	37FO	0.37284265	DK1	48	10	1r	Dogger	Priority high
1	Arctic Hunter	V	27-11-2021	4	10	54.12 1340 N	0.83623333	37FO	0.36138272	DK1	48	11	1r	Dogger	Priority high
1	Arctic Hunter	V	27-11-2021	4	10	54.12 5140 N	0.83496667	37FO	0.464838218	DK1	48	11	1r	Dogger	Priority high
2	Arctic Hunter	V	27-11-2021	4	10	54.15 7370 N	0.80275	37FO	0.372307869	DK1	52	3	1r	Dogger	Priority high
2	Arctic Hunter	V	27-11-2021	4	10	54.15 5430 N	0.79695	37FO	0.382117792	DK1	52	3	1r	Dogger	Priority high
2	Arctic Hunter	V	26-11-2021	4	10	54.15 8510 N	0.79516667	37FO	0.379247906	DK1	52	3	1r	Dogger	Priority high
3	Arctic Hunter	V	25-11-2021	4	10	54.18 8710 N	0.92541667	37FO	0.337623576	DK1	50	14	1r	Dogger	Priority high
3	Arctic Hunter	V	25-11-2021	4	10	54.18 7800 N	0.93081667	37FO	0.361983954	DK1	50	14	1r	Dogger	Priority high
3	Arctic Hunter	V	25-11-2021	4	10	54.18 8200 N	0.92603333	37FO	0.357301584	DK1	50	14	1r	Dogger	Priority high
4	Arctic Hunter	V	24-11-2021	4	10	54.28 0520 N	1.98925	37F1	0.368126416	DK1	20	8	1r	Dogger	Priority high
4	Arctic Hunter	V	24-11-2021	4	10	54.28 1990 N	1.98817	37F1	0.345247692	DK1	20	8	1r	Dogger	Priority high
4	Arctic Hunter	V	24-11-2021	4	10	54.27 9040 N	1.98817	37F1	0.321901817	DK1	20	8	1r	Dogger	Priority high
5	Arctic Hunter	V	25-11-2021	4	10	54.11 3640 N	1.57415	37F1	0.342764862	DK1	29	11	1r	Dogger	Priority high
5	Arctic Hunter	V	25-11-2021	4	10	54.11 5140 N	1.58191667	37F1	0.372788433	DK1	29	11	1r	Dogger	Priority high
5	Arctic Hunter	V	25-11-2021	4	10	54.11 1950 N	1.57998333	37F1	0.345863797	DK1	29	11	1r	Dogger	Priority high
6	Arctic Hunter	V	24-11-2021	4	10	54.27 4190 N	2.14575	37F2	0.358469856	DK1	19	8	1r	Dogger	Priority high
6	Arctic Hunter	V	24-11-2021	4	10	54.27 3150 N	2.13706667	37F2	0.330963393	DK1	19	8	1r	Dogger	Priority high
6	Arctic Hunter	V	24-11-2021	4	10	54.27 5550 N	2.13711667	37F2	0.339088759	DK1	20	8	1r	Dogger	Priority high
7	Arctic Hunter	V	24-11-2021	4	10	54.09 1270 N	2.05738333	37F2	0.363822347	DK1	29	9	1r	Dogger	Priority high
7	Arctic Hunter	V	24-11-2021	4	10	54.08 9720 N	2.0659	37F2	0.335377655	DK1	29	9	1r	Dogger	Priority high
7	Arctic Hunter	V	24-11-2021	4	10	54.08 8380 N	2.0577	37F2	0.334757193	DK1	29	9	1r	Dogger	Priority high
8	Arctic Hunter	V	24-11-2021	4	10	54.34 8550 N	2.15276667	38F2	0.346262724	DK1	21	5	1r	Dogger	Priority high
8	Arctic Hunter	V	24-11-2021	4	10	54.34 9530 N	2.14341667	38F2	0.339420485	DK1	21	5	1r	Dogger	Priority high
8	Arctic Hunter	V	24-11-2021	4	10	54.34 7400 N	2.14398333	38F2	0.34461136	DK1	21	5	1r	Dogger	Priority high
9	Arctic Hunter	V	23-11-2021	4	10	54.50 5020 N	1.99936667	38F1	0.390531818	DK1	24	8	1r	Dogger	Priority high
9	Arctic Hunter	V	23-11-2021	4	10	54.50 3640 N	1.99951667	38F1	0.36658748	DK1	24	8	1r	Dogger	Priority high
9	Arctic Hunter	V	23-11-2021	4	10	54.50 5060 N	1.99236667	38F1	0.37633448	DK1	24	8	1r	Dogger	Priority high
10	Arctic Hunter	V	22-11-2021	4	10	55.12 5290 N	1.52965	39F1	0.332071102	DK1	38	9	1r	Dogger	Priority high
10	Arctic Hunter	V	22-11-2021	4	10	55.12 7150 N	1.53521667	39F1	0.332823371	DK1	39	9	1r	Dogger	Priority high
10	Arctic Hunter	V	22-11-2021	4	10	55.12 8340 N	1.52836667	39F1	0.35019014	DK1	39	9	1r	Dogger	Priority high
12	Arctic Hunter	V	23-11-2021	4	10	54.51 1220 N	1.43616667	38F1	0.344145136	DK1	27	5	1r	Dogger	Priority high
12	Arctic Hunter	V	23-11-2021	4	10	54.50 9940 N	1.43873333	38F1	0.36320504	DK1	27	5	1r	Dogger	Priority high
12	Arctic Hunter	V	23-11-2021	4	10	54.50 8120 N	1.43116667	38F1	0.363753805	DK1	27	5	1r	Dogger	Priority high
13	Arctic Hunter	V	23-11-2021	4	10	54.34 1450 N	1.26053333	38F1	0.367391675	DK1	26	4	1r	Dogger	Priority high
13	Arctic Hunter	V	23-11-2021	4	10	54.34 0310 N	1.26988333	38F1	0.359028203	DK1	26	4	1r	Dogger	Priority high
13	Arctic Hunter	V	23-11-2021	4	10	54.33 3090 N	1.26136667	38F1	0.360900546	DK1	26	4	1r	Dogger	Priority high
14	Arctic Hunter	V	24-11-2021	4	10	54.32 3240 N	1.57656667	38F1	0.349195369	DK1	26	4	1r	Dogger	Priority high
14	Arctic Hunter	V	24-11-2021	4	10	54.32 4700 N	1.56903333	38F1	0.482179384	DK1	26	4	1r	Dogger	Priority high
14	Arctic Hunter	V	24-11-2021	4	10	54.32 1590 N	1.5689	38F1	0.37276159	DK1	26	4	1r	Dogger	Priority high
15	Arctic Hunter	V	24-11-2021	4	10	54.32 7320 N	1.62741667	38F1	0.329151765	DK1	24	4	1r	Dogger	Priority high
15	Arctic Hunter	V	24-11-2021	4	10	54.32 8820 N	1.61951667	38F1	0.373792871	DK1	24	4	1r	Dogger	Priority high
15	Arctic Hunter	V	24-11-2021	4	10	54.32 5990 N	1.61821667	38F1	0.376429404	DK1	24	4	1r	Dogger	Priority high
16	Arctic Hunter	V	23-11-2021	4	10	54.59 4430 N	1.8436	38F1	0.360570212	DK1	27	8	1r	Dogger	Priority high
16	Arctic Hunter	V	23-11-2021	4	10	54.59 4290 N	1.84026667	38F1	0.332017943	DK1	27	8	1r	Dogger	Priority high
16	Arctic Hunter	V	23-11-2021	4	10	54.59 3030 N	1.85195	38F1	0.37108338	DK1	27	8	1r	Dogger	Priority high
17	Arctic Hunter	V	22-11-2021	4	10	55.04 6360 N	1.38585	39F1	0.364341426	DK1	37	8	1r	Dogger	Priority high
17	Arctic Hunter	V	22-11-2021	4	10	55.04 7090 N	1.3798	39F1	0.362416082	DK1	37	8	1r	Dogger	Priority high
17	Arctic Hunter	V	22-11-2021	4	10	55.04 5490 N	1.37766667	39F1	0.376905088	DK1	37	8	1r	Dogger	Priority high
18	Arctic Hunter	V	22-11-2021	4	10	55.01 2120 N	1.35066667	39F1	0.340059047	DK1	33	8	1r	Dogger	Priority high
18	Arctic Hunter	V	22-11-2021	4	10	55.01 1700 N	1.3557	39F1	0.362701369	DK1	33	8	1r	Dogger	Priority high
18	Arctic Hunter	V	22-11-2021	4	10	55.01 0530 N	1.34635	39F1	0.344800962	DK1	33	8	1r	Dogger	Priority high
23	Arctic Hunter	V	22-11-2021	4	10	55.05 4260 N	3.47385	39F3	0.394042289	DK1	33	10	1r	Elbow SpT	Priority high
23	Arctic Hunter	V	22-11-2021	4	10	55.05 1970 N	3.48031667	39F3	0.386962086	DK1	33	10	1r	Elbow SpT	Priority high
23	Arctic Hunter	V	22-11-2021	4	10	55.05 0040 N	3.47406667	39F3	0.345585713	DK1	33	10	1r	Elbow SpT	Priority high
24	Arctic Hunter	V	22-11-2021	4	10	55.16 0100 N	3.72391667	39F3	0.342628672	DK1	34	10	1r	Elbow SpT	Priority high
24	Arctic Hunter	V	22-11-2021	4	10	55.15 8330 N	3.72946667	39F3	0.368395288	DK1	34	10	1r	Elbow SpT	Priority high
24	Arctic Hunter	V	22-11-2021	4	10	55.15 6080 N	3.72431667	39F3	0.318915079	DK1	34	10	1r	Elbow SpT	Priority high
25	Arctic Hunter	V	21-11-2021	4	10	55.25 2930 N	4.06325	39F4	0.366335532	DK1	30	12	1r	Elbow SpT	Priority high
25	Arctic Hunter	V	21-11-2021	4	10	55.25 3010 N	4.06413333	39F4	0.385120377	DK1	30	12	1r	Elbow SpT	Priority high
25	Arctic Hunter	V	21-11-2021	4	10	55.25 0790 N	4.06231667	39F4	0.341061213	DK1	30	12	1r	Elbow SpT	Priority high
26	Arctic Hunter	V	21-11-2021	4	10	55.25 1650 N	4.31756667	39F4	0.359418711	DK1	35	14	1r	Elbow SpT	Priority high
26	Arctic Hunter	V	21-11-2021	4	10	55.24 8700 N	4.3142	39F4	0.355363263	DK1	35	14	1r	Elbow SpT	Priority high
26	Arctic Hunter	V	21-11-2021	4	10	55.24 7880 N	4.30974	39F4	0.362979999	DK1	35	14	1r	Elbow SpT	Priority high
27	Arctic Hunter	V	20-11-2021	4	10	55.29 1730 N	4.40818333	39F4	0.311874543	DK1	32	12	1r	Elbow SpT	Priority high
27	Arctic Hunter	V	20-11-2021	4	10	55.28 8570 N	4.40806667	39F4	0.354676043	DK1	32	12	1r	Elbow SpT	Priority high
27	Arctic Hunter	V	20-11-2021	4	10	55.29 0000 N	4.4078	39F4	0.320370833	DK1	32	12	1r	Elbow SpT	Priority high
28	Arctic Hunter	V	19-11-2021	4	10	55.46 9040 N	5.06921667	40F5	0.367189923	DK1	36	11	1r	Tail End	Priority high
28	Arctic Hunter	V	19-11-2021	4	10	55.46 7250 N	5.06251667	40F5	0.33336265	DK1	36	11	1r	Tail End	Priority high
28	Arctic Hunter	V	19-11-2021	4	10	55.47 0540 N	5.06185	40F5	0.376070919	DK1	36	11	1r	Tail End	Priority high
29	Arctic Hunter	V	19-11-2021	4	10	55.53 5340 N	5.15166667	40F5	0.34451242	DK1	38	12	1r	Tail End	Priority high
29	Arctic Hunter	V	19-11-2021	4	10	55.53 2140 N	5.14555	40F5	0.392831984	DK1	38	12	1r	Tail End	Priority high
29	Arctic Hunter	V	19-11-2021	4	10	55.53 6260 N	5.1479	40F5	0.387757849	DK1	38	12	1r	Tail End	Priority high
30	Arctic Hunter	V	19-11-2021	4	10	55.58 0120 N	5.25236667	40F5	0.357672428	DK1	47	14	1r	Tail End	Priority high
30	Arctic Hunter	V	19-11-2021	4	10	55.57 8110 N	5.24643333	40F5	0.340711562	DK1	47	14	1r	Tail End	Priority high
30	Arctic Hunter	V	19-11-2021	4	10	55.57 8630 N	5.2542	40F5	0.341269325	DK1	47	14	1r	Tail End	Priority high
31	Arctic Hunter	V	18-11-2021	4	10	56.01 6240 N	5.26418333	41F5	0.48184312	DK1	41	14	1r	Tail End	Priority high
31	Arctic Hunter	V	18-11-2021	4	10	56.01 6720 N	5.25383333	41F5	0.340167584	DK1	41	14	1r	Tail End	Priority high
31	Arctic Hunter	V	18-11-2021	4	10	56.01 8210 N	5.26445	41F5	0.374422068	DK1	41	14	1r	Tail End	Priority high
32	Arctic Hunter	V	18-11-2021	4	10	56.03 7410 N	5.29345	41F5	0.43632942	DK1	44	13	1r	Tail End	Priority high
32	Arctic Hunter	V	18-11-2021	4	10	56.03 6300 N	5.28285	41F5	0.382407049	DK1	44	13	1r	Tail End	Priority high
32	Arctic Hunter	V	18-11-2021	4	10	56.03 8820 N	5.28983333	41F5	0.304028169	DK1	44	13	1r	Tail End	Priority high
33	Arctic Hunter	V	17-11-2021	4	10	56.18 0									

116	Arctic Hunter	V	29-11-2021	4	10	53.25 0910 N	2.1489	35F2	0.950282756	DK1	19	15	1r	Svd for Dogger	Priority high
116	Arctic Hunter	V	29-11-2021	4	10	53.249030 N	2.14125	35F2	0.363034602	DK1	19	15	1r	Svd for Dogger	Priority high
117	Arctic Hunter	V	3-12-2021	4	10	53.19 5000 N	2.118833333	35F2	0.376954067	DK1	17	7	1r	Svd for Dogger	Priority high
117	Arctic Hunter	V	3-12-2021	4	10	53.19 3080 N	2.112883333	35F2	0.358041415	DK1	16	7	1r	Svd for Dogger	Priority high
117	Arctic Hunter	V	3-12-2021	4	10	53.19 0800 N	2.118633333	35F2	0.418050173	DK1	19	7	1r	Svd for Dogger	Priority high
118	Arctic Hunter	V	2-12-2021	4	10	53.18 4440 N	1.770466667	35F1	0.348436517	DK1	18	10	1r	Svd for Dogger	Priority high
118	Arctic Hunter	V	2-12-2021	4	10	53.18 1660 N	1.7712	35F1	0.351058202	DK1	18	10	1r	Svd for Dogger	Priority high
118	Arctic Hunter	V	2-12-2021	4	11	53.18 3000 N	1.77165	35F1	0.374334027	DK1	18	10	1r	Svd for Dogger	Priority high
120	Arctic Hunter	V	3-12-2021	4	10	53.14 9000 N	2.039616667	35F2	0.34880515	DK1	11	8	1r	Svd for Dogger	Priority high
120	Arctic Hunter	V	3-12-2021	4	10	53.15 1330 N	2.037483333	35F2	0.365734927	DK1	14	8	1r	Svd for Dogger	Priority high
120	Arctic Hunter	V	2-12-2021	4	10	53.14 9550 N	2.046733333	35F2	0.357642149	DK1	14	8	1r	Svd for Dogger	Priority high
122	Arctic Hunter	V	2-12-2021	4	10	53.17 2010 N	1.5575	35F1	0.333670733	DK1	14	12	1r	Svd for Dogger	Priority high
122	Arctic Hunter	V	2-12-2021	4	10	53.17 3440 N	1.5649	35F1	0.355197755	DK1	15	12	1r	Svd for Dogger	Priority high
122	Arctic Hunter	V	2-12-2021	4	10	53.17 4000 N	1.5608	35F1	0.360984607	DK1	15	12	1r	Svd for Dogger	Priority high
123	Arctic Hunter	V	4-12-2021	4	5	52.29 1030 N	3.3057	33F3	0.173216597	DK1	28	5	1r	Svd for Dogger	Priority high
123	Arctic Hunter	V	4-12-2021	4	5	52.29 0840 N	3.304083333	33F3	0.138886328	DK1	28	5	1r	Svd for Dogger	Priority high
123	Arctic Hunter	V	4-12-2021	4	5	52.29 0070 N	3.307166667	33F3	0.184648563	DK1	28	5	1r	Svd for Dogger	Priority high
124	Arctic Hunter	V	3-12-2021	4	10	52.48 2460 N	3.074216667	34F3	0.361732762	DK1	27	0	1r	Svd for Dogger	Priority high
124	Arctic Hunter	V	3-12-2021	4	10	52.48 3660 N	3.0661	34F3	0.358616831	DK1	27	0	1r	Svd for Dogger	Priority high
124	Arctic Hunter	V	3-12-2021	4	10	52.48 5720 N	3.073516667	34F3	0.365956588	DK1	27	0	1r	Svd for Dogger	Priority high
125	Arctic Hunter	V	3-12-2021	4	10	53.00 8010 N	3.0217	33F3	0.347814908	DK1	27	8	1r	Svd for Dogger	Priority high
125	Arctic Hunter	V	3-12-2021	4	10	53.00 9830 N	3.01575	33F3	0.360257447	DK1	27	8	1r	Svd for Dogger	Priority high
125	Arctic Hunter	V	3-12-2021	4	10	53.01 1490 N	3.023	33F3	0.404392725	DK1	27	8	1r	Svd for Dogger	Priority high
126	Arctic Hunter	V	4-12-2021	4	10	52.41 8620 N	3.310483333	34F3	0.37616807	DK1	24	7	1r	Svd for Dogger	Priority high
126	Arctic Hunter	V	4-12-2021	4	5	52.42 0000 N	3.306233333	34F3	0.181943975	DK1	24	7	1r	Svd for Dogger	Priority high
126	Arctic Hunter	V	4-12-2021	4	5	52.42 1080 N	3.3078	34F3	0.172142064	DK1	24	7	1r	Svd for Dogger	Priority high
127	Arctic Hunter	V	4-12-2021	4	10	52.46 5280 N	4.051833333	34F4	0.41661255	DK1	25	12	1r	Ny banke east	Priority high
127	Arctic Hunter	V	4-12-2021	4	10	52.46 7070 N	4.053866667	34F4	0.367659306	DK1	25	12	1r	Ny banke east	Priority high
127	Arctic Hunter	V	4-12-2021	4	10	52.46 3320 N	4.054016667	34F4	0.350103963	DK1	25	12	1r	Ny banke east	Priority high
128	Arctic Hunter	V	4-12-2021	4	10	52.56 4910 N	4.173666667	34F4	0.371819133	DK1	26	12	1r	Ny banke east	Priority high
128	Arctic Hunter	V	4-12-2021	4	10	52.56 3570 N	4.176066667	34F4	0.317261392	DK1	26	12	1r	Ny banke east	Priority high
128	Arctic Hunter	V	4-12-2021	4	10	52.56 6140 N	4.163816667	34F4	0.377570151	DK1	26	12	1r	Ny banke east	Priority high
129	Arctic Hunter	V	1-12-2021	4	10	53.27 2910 N	1.07435	35F1	0.349996636	DK1	32	4	1r	Doosne	Priority high
129	Arctic Hunter	V	1-12-2021	4	10	53.27 1460 N	1.067066667	35F1	0.338116046	DK1	32	4	1r	Doosne	Priority high
129	Arctic Hunter	V	1-12-2021	4	10	53.27 4380 N	1.066466667	35F1	0.340192384	DK1	32	4	1r	Doosne	Priority high
130	Arctic Hunter	V	1-12-2021	4	10	53.36 2990 N	1.278766667	36F1	0.349267082	DK1	23	12	1r	Ny banke west	Priority high
130	Arctic Hunter	V	1-12-2021	4	10	53.36 4530 N	1.277316667	36F1	0.369610605	DK1	23	12	1r	Ny banke west	Priority high
130	Arctic Hunter	V	1-12-2021	4	10	53.36 4670 N	1.274666667	36F1	0.355205107	DK1	23	12	1r	Ny banke west	Priority high
34	Reykjanes	V	6-12-2021	4	10	56.56 7300 N	7.429533333	42F7	0.344731876	DK3	27	8	1r	Tail End	Priority high
34	Reykjanes	V	6-12-2021	4	10	56.56 4930 N	7.434566667	42F7	0.345692406	DK3	27	8	1r	Tail End	Priority high
34	Reykjanes	V	6-12-2021	4	10	56.56 3960 N	7.426233333	42F7	0.342312901	DK3	27	8	1r	Tail End	Priority high
35	Reykjanes	V	5-12-2021	4	10	56.59 1140 N	7.697633333	42F7	0.343504787	DK3	21	15	1r	Tail End	Priority high
35	Reykjanes	V	5-12-2021	4	10	56.58 8090 N	7.699183333	42F7	0.343180263	DK3	21	15	1r	Tail End	Priority high
35	Reykjanes	V	5-12-2021	4	10	56.58 9500 N	7.691466667	42F7	0.34898073	DK3	21	15	1r	Tail End	Priority high
36	Reykjanes	V	5-12-2021	4	10	56.54 9080 N	7.601283333	42F7	0.343706836	DK3	24	10	1r	Tail End	Priority high
36	Reykjanes	V	6-12-2021	4	10	56.54 6860 N	7.608833333	42F7	0.344675769	DK3	24	10	1r	Tail End	Priority high
36	Reykjanes	V	6-12-2021	4	10	56.54 6860 N	7.608833333	42F7	0.344675769	DK3	24	10	1r	Tail End	Priority high
36	Reykjanes	V	6-12-2021	4	10	56.54 6860 N	7.608833333	42F7	0.344675769	DK3	24	10	1r	Tail End	Priority high
38	Reykjanes	V	6-12-2021	4	10	57.03 2650 N	7.10495	43F7	0.334898528	DK3	29	18	2r	Tail End	Priority high
38	Reykjanes	V	6-12-2021	4	10	57.03 0190 N	7.1087	43F7	0.345020623	DK3	29	18	2r	Tail End	Priority high
38	Reykjanes	V	6-12-2021	4	10	57.03 0220 N	7.1	43F7	0.337304372	DK3	29	18	2r	Tail End	Priority high
39	Reykjanes	V	6-12-2021	4	10	57.05 2950 N	7.436466667	43F7	0.345521893	DK3	26	12	2r	Tail End	Priority high
39	Reykjanes	V	6-12-2021	4	10	57.05 5750 N	7.432516667	43F7	0.343484483	DK3	26	12	2r	Tail End	Priority high
39	Reykjanes	V	6-12-2021	4	10	57.05 3590 N	7.432683333	43F7	0.344882034	DK3	26	12	2r	Tail End	Priority high
40	Reykjanes	V	5-12-2021	4	10	57.05 0440 N	7.674466667	43F7	0.355014502	DK3	28	18	2r	Tail End	Priority high
40	Reykjanes	V	5-12-2021	4	10	57.04 7440 N	7.67495	43F7	0.345745692	DK3	28	18	2r	Tail End	Priority high
40	Reykjanes	V	5-12-2021	4	10	57.04 8650 N	7.666483333	43F7	0.341152397	DK3	28	18	2r	Tail End	Priority high
41	Reykjanes	V	28-11-2021	4	10	57.04 3330 N	6.691183333	43F6	0.348381757	DK3	53	14	3r	Norway EEZ	Priority Low
41	Reykjanes	V	28-11-2021	4	10	57.04 4430 N	6.682316667	43F6	0.344627981	DK3	53	14	3r	Norway EEZ	Priority Low
41	Reykjanes	V	28-11-2021	4	10	57.04 6280 N	6.689283333	43F6	0.339975644	DK3	53	14	3r	Norway EEZ	Priority Low
42	Reykjanes	V	24-11-2021	4	10	57.08 5060 N	5.482833333	43F5	0.48524747	DK3	46	6	3r	Norway EEZ	Priority high
42	Reykjanes	V	24-11-2021	4	10	57.08 3930 N	5.481740	43F5	0.316666582	DK3	46	6	3r	Norway EEZ	Priority high
42	Reykjanes	V	24-11-2021	4	10	57.08 6510 N	5.47475	43F5	0.370851717	DK3	46	6	3r	Norway EEZ	Priority high
43	Reykjanes	V	27-11-2021	4	10	57.06 2960 N	6.125833333	43F6	0.33690313	DK3	51	15	3r	Norway EEZ	Priority high
43	Reykjanes	V	27-11-2021	4	10	57.06 0760 N	6.131433333	43F6	0.349345208	DK3	51	15	3r	Norway EEZ	Priority high
43	Reykjanes	V	27-11-2021	4	10	57.06 0250 N	6.122683333	43F6	0.339721963	DK3	51	15	3r	Norway EEZ	Priority high
44	Reykjanes	V	23-11-2021	4	3	56.48 8130 N	3.713833333	42F3	0.110562163	DK3	59	9	3r	Norway EEZ	Priority high
44	Reykjanes	V	23-11-2021	4	3	56.48 7830 N	3.712833333	42F3	0.106378283	DK3	59	9	3r	Norway EEZ	Priority high
44	Reykjanes	V	23-11-2021	4	3	56.48 7960 N	3.7104	42F3	0.103287575	DK3	59	9	3r	Norway EEZ	Priority high
45	Reykjanes	V	24-11-2021	4	10	56.40 1410 N	4.153466667	42F4	0.344535444	DK3	50	8	3r	Norway EEZ	Priority Low
45	Reykjanes	V	24-11-2021	4	10	56.39 8260 N	4.151016667	42F4	0.34268267	DK3	50	8	3r	Norway EEZ	Priority Low
45	Reykjanes	V	24-11-2021	4	10	56.40 0680 N	4.145716667	42F4	0.332528335	DK3	50	8	3r	Norway EEZ	Priority Low
46	Reykjanes	V	24-11-2021	4	10	56.39 7970 N	4.4213	42F4	0.337657735	DK3	52	8	3r	Norway EEZ	Priority high
46	Reykjanes	V	24-11-2021	4	10	56.39 6540 N	4.41435	42F4	0.332838323	DK3	52	8	3r	Norway EEZ	Priority high
46	Reykjanes	V	24-11-2021	4	10	56.39 3900 N	4.413283333	42F4	0.346131123	DK3	52	8	3r	Norway EEZ	Priority high
47	Reykjanes	V	24-11-2021	4	10	57.07 9000 N	5.214033333	43F5	0.329445224	DK3	54	10	3r	Norway EEZ	Priority high
47	Reykjanes	V	24-11-2021	4	10	57.08 0700 N	5.220566667	43F5	0.346123332	DK3	54	10	3r	Norway EEZ	Priority high
47	Reykjanes	V	24-11-2021	4	10	57.07 7390 N	5.221783333	43F5	0.356163885	DK3	54	10	3r	Norway EEZ	Priority high
48	Reykjanes	V	22-11-2021	4	10	57.15 4330 N	5.5284	43F5	0.342483115	DK3	59	16	3r	Norway EEZ	Priority high
48	Reykjanes	V	22-11-2021	4	10	57.15 1080 N	5.525416667	43F5	0.339617003	DK3	59	16	3r	Norway EEZ	Priority high
48	Reykjanes	V	22-11-2021	4	10	57.15 1360 N	5.52520616667	43F5	0.333197919	DK3	59	16	3r	Norway EEZ	Priority high
49	Reykjanes	V	20-11-2021	4	10										

72	Reykjanes	V	4-12-2021	4	10	57 28 4340 N	9 143183333	43F9	0 345604715	DK3	21	10	2r	Skagerrak	Priority Low
74	Reykjanes	V	1-12-2021	4	10	57 25 9530 N	8 7197	43F8	0 341579682	DK3	28	8	2r	Skagerrak	Priority Low
74	Reykjanes	V	1-12-2021	4	10	57 25 8350 N	8 7111	43F8	0 332992603	DK3	28	8	2r	Skagerrak	Priority Low
74	Reykjanes	V	1-12-2021	4	10	57 26 1310 N	8 714533333	43F8	0 338783336	DK3	28	8	2r	Skagerrak	Priority Low
75	Reykjanes	V	4-12-2021	4	10	57 27 5220 N	9 185333333	43E9	0 342611426	DK3	21	8	2r	Skagerrak	Priority Low
75	Reykjanes	V	4-12-2021	4	10	57 27 2040 N	9 189116667	43E9	0 356255714	DK3	21	8	2r	Skagerrak	Priority Low
75	Reykjanes	V	4-12-2021	4	10	57 27 2330 N	9 1815	43E9	0 347212389	DK3	21	8	2r	Skagerrak	Priority Low
76	Reykjanes	V	3-12-2021	4	10	57 31 6640 N	9 232933333	44E9	0 344634584	DK3	20	8	2r	Skagerrak	Priority Low
76	Reykjanes	V	3-12-2021	4	10	57 31 4240 N	9 235183333	44E9	0 36491185	DK3	20	8	2r	Skagerrak	Priority Low
76	Reykjanes	V	4-12-2021	4	10	57 31 4930 N	9 225266667	44E9	0 341429429	DK3	20	8	2r	Skagerrak	Priority Low
77	Reykjanes	V	3-12-2021	4	10	57 34 4750 N	9 538783333	44E9	0 372970303	DK3	21	4	2r	Skagerrak	Priority high
77	Reykjanes	V	3-12-2021	4	10	57 34 2050 N	9 534016667	44E9	0 339235373	DK3	21	4	2r	Skagerrak	Priority high
77	Reykjanes	V	3-12-2021	4	10	57 34 5200 N	9 5317	44E9	0 340905182	DK3	21	4	2r	Skagerrak	Priority high
78	Reykjanes	V	3-12-2021	4	10	57 37 1830 N	9 313333333	44E9	0 340894961	DK3	22	10	2r	Skagerrak	Priority Low
78	Reykjanes	V	3-12-2021	4	10	57 37 0550 N	9 305783333	44E9	0 346789559	DK3	22	10	2r	Skagerrak	Priority Low
78	Reykjanes	V	3-12-2021	4	10	57 37 2010 N	9 308816667	44E9	0 340652278	DK3	22	10	2r	Skagerrak	Priority Low
79	Reykjanes	V	3-12-2021	4	10	57 36 7030 N	9 226883333	44E9	0 341983779	DK3	21	9	2r	Skagerrak	Priority Low
79	Reykjanes	V	3-12-2021	4	10	57 36 8210 N	9 235366667	44E9	0 340617999	DK3	21	9	2r	Skagerrak	Priority Low
79	Reykjanes	V	3-12-2021	4	10	57 36 5320 N	9 221866667	44E9	0 456685101	DK3	21	9	2r	Skagerrak	Priority Low
80	Reykjanes	V	2-12-2021	4	10	57 42 1940 N	10 050316667	44G0	0 345526098	DK3	24	6	2r	Skagerrak	Priority Low
80	Reykjanes	V	2-12-2021	4	10	57 42 2040 N	10 059366667	44G0	0 337238087	DK3	24	6	2r	Skagerrak	Priority Low
80	Reykjanes	V	2-12-2021	4	10	57 42 0110 N	10 05965	44G0	0 345526098	DK3	24	6	2r	Skagerrak	Priority Low
81	Reykjanes	V	3-12-2021	4	10	57 41 6890 N	9 996016667	44G0	0 340470051	DK3	24	6	2r	Skagerrak	Priority Low
81	Reykjanes	V	3-12-2021	4	10	57 41 8370 N	10 004133333	44F9	0 343946351	DK3	24	6	2r	Skagerrak	Priority Low
81	Reykjanes	V	3-12-2021	4	10	57 41 5630 N	10 0037	44F9	0 334841993	DK3	24	6	2r	Skagerrak	Priority Low
82	Reykjanes	V	7-12-2021	4	10	55 57 4900 N	7 25935	40E7	0 328942361	DK3	26	12	2r	West Coast Jutland	Priority high
82	Reykjanes	V	7-12-2021	4	10	55 57 2970 N	7 264866667	40E7	0 354635979	DK3	26	12	2r	West Coast Jutland	Priority high
82	Reykjanes	V	7-12-2021	4	10	55 57 2760 N	7 255216667	40E7	0 353492841	DK3	26	12	2r	West Coast Jutland	Priority high
85	Reykjanes	V	8-12-2021	4	10	55 37 7710 N	7 4217	40E7	0 357104176	DK3	16	18	2r	West Coast Jutland	Priority high
102	Reykjanes	V	7-12-2021	4	10	55 43 7660 N	7 4761	40E7	0 369246139	DK3	21	15	2r	West Coast Jutland	Priority high
102	Reykjanes	V	8-12-2021	4	10	55 43 4350 N	7 481566667	40E7	0 379874013	DK3	21	15	2r	West Coast Jutland	Priority high
103	Reykjanes	V	7-12-2021	4	10	55 51 2900 N	7 595783333	40E7	0 356193138	DK3	20	15	2r	West Coast Jutland	Priority Low
103	Reykjanes	V	7-12-2021	4	10	55 51 0120 N	7 592016667	40E7	0 337568081	DK3	20	15	2r	West Coast Jutland	Priority Low
103	Reykjanes	V	7-12-2021	4	10	55 51 0790 N	7 595966667	40E7	0 344511477	DK3	20	15	2r	West Coast Jutland	Priority Low
132	Reykjanes	V	2-12-2021	4	10	57 43 0270 N	10 093833333	44G0	0 349408643	DK3	21	2	2r	Skagerrak	Priority Low
132	Reykjanes	V	2-12-2021	4	10	57 42 8570 N	10 100933333	44G0	0 344845946	DK3	21	2	2r	Skagerrak	Priority Low
132	Reykjanes	V	2-12-2021	4	10	57 42 7320 N	10 0928	44G0	0 349616345	DK3	21	2	2r	Skagerrak	Priority Low
133	Reykjanes	V	5-12-2021	4	10	57 08 9470 N	7 711433333	43E7	0 347376764	DK3	43	15	2r	Skagerrak	Priority Low
133	Reykjanes	V	5-12-2021	4	10	57 08 7910 N	7 700983333	43E7	0 392747964	DK3	43	15	2r	Skagerrak	Priority Low
134	Reykjanes	V	6-12-2021	4	10	57 04 4540 N	7 047816667	43E7	0 341340907	DK3	49	19	2r	Skagerrak	Priority Low
135	Reykjanes	V	27-11-2021	4	10	57 01 8070 N	6 518266667	43F6	0 347648571	DK3	59	12	2r	Skagerrak	Priority Low
135	Reykjanes	V	27-11-2021	4	10	57 01 5830 N	6 5258	43F6	0 342959076	DK3	59	12	2r	Skagerrak	Priority Low
135	Reykjanes	V	28-11-2021	4	10	57 01 5010 N	6 518183333	43F6	0 338958882	DK3	59	12	2r	Skagerrak	Priority Low