

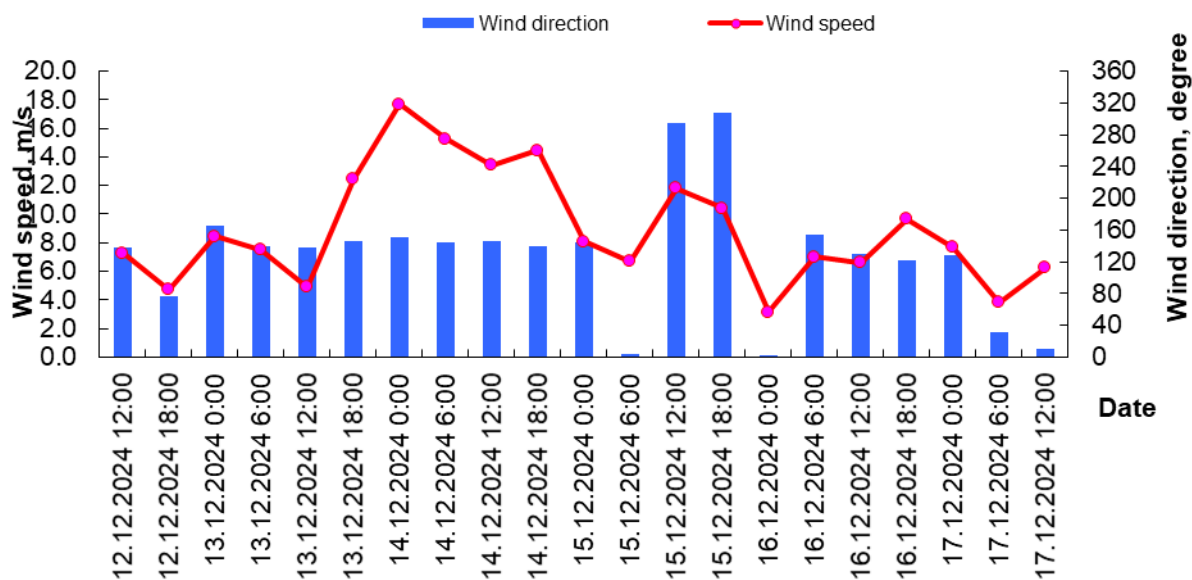


**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN**

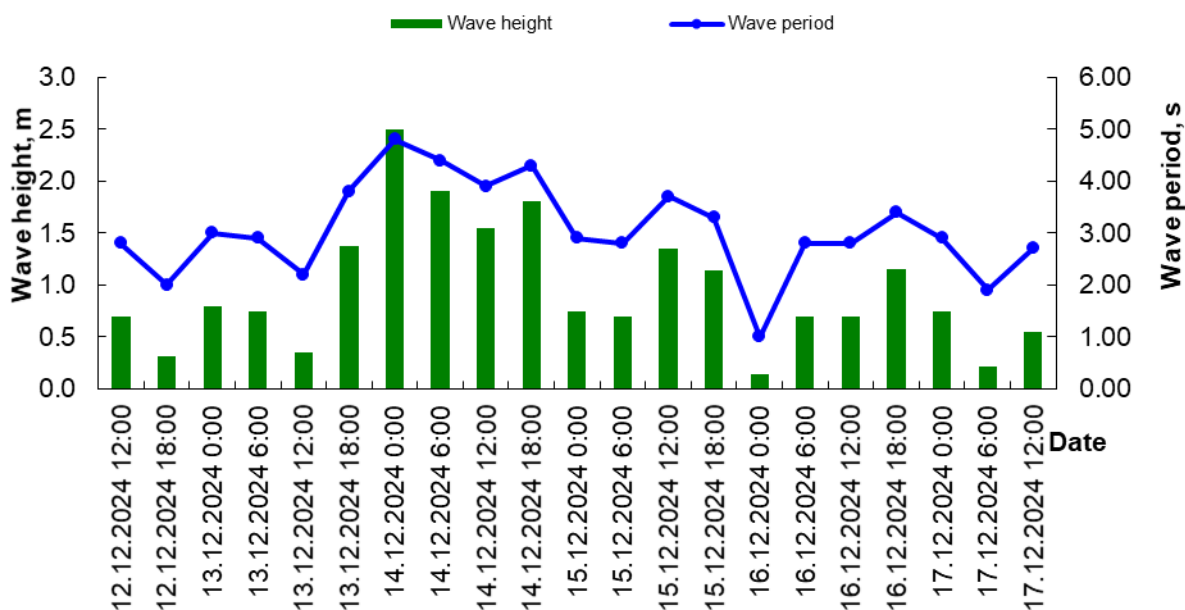
RSE «KAZHYDROMET»

**Wave and wind forecast for the Middle part of the Caspian Sea with a 5-day
advance for the period December 12 – 17, 2024**

Wind condition in the 21050 unit

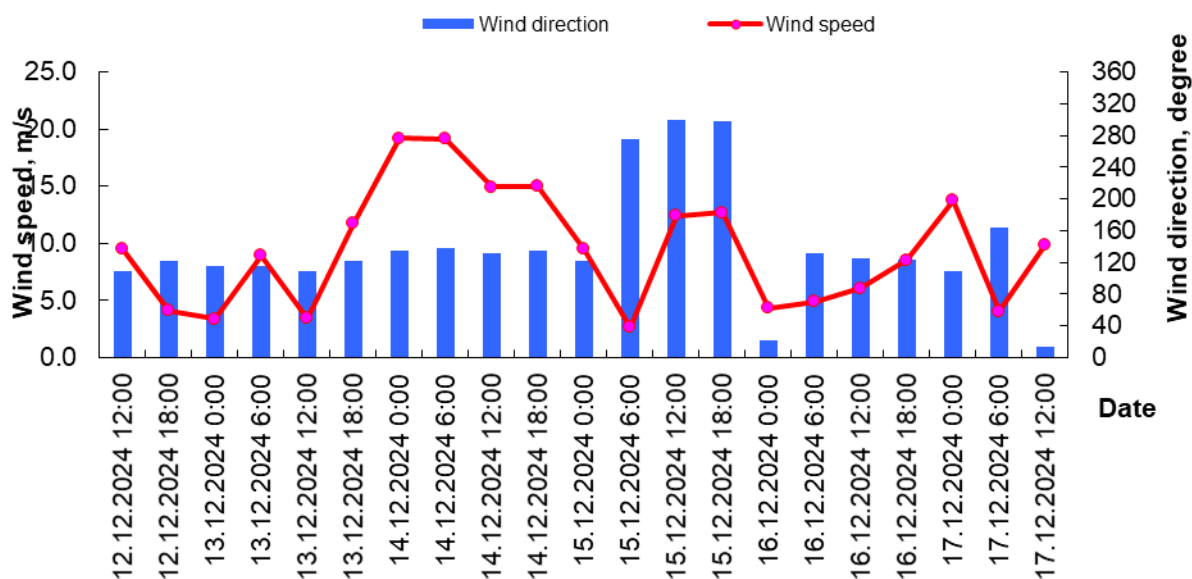


Wave condition in the 21050 unit

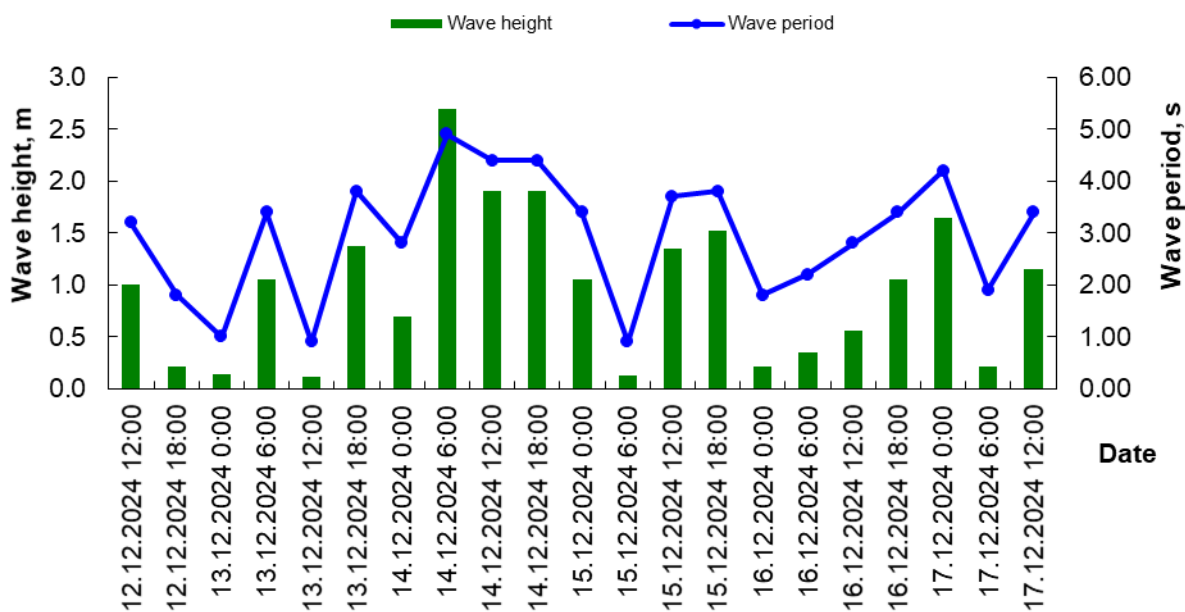


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
12.12.2024 12:00	7	E	0.70	2.80
12.12.2024 18:00	5	SE	0.31	2.00
13.12.2024 0:00	8	SE	0.80	3.00
13.12.2024 6:00	8	SE	0.75	2.90
13.12.2024 12:00	5	E	0.35	2.20
13.12.2024 18:00	12	SE	1.37	3.80
14.12.2024 0:00	18	SE	2.50	4.80
14.12.2024 6:00	15	SE	1.90	4.40
14.12.2024 12:00	13	SE	1.55	3.90
14.12.2024 18:00	14	SE	1.80	4.30
15.12.2024 0:00	8	SE	0.75	2.90
15.12.2024 6:00	7	W	0.70	2.80
15.12.2024 12:00	12	NW	1.35	3.70
15.12.2024 18:00	10	NW	1.14	3.30
16.12.2024 0:00	3	N	0.14	1.00
16.12.2024 6:00	7	SE	0.70	2.80
16.12.2024 12:00	7	SE	0.70	2.80
16.12.2024 18:00	10	SE	1.15	3.40
17.12.2024 0:00	8	E	0.75	2.90
17.12.2024 6:00	4	S	0.22	1.90
17.12.2024 12:00	6	N	0.55	2.70

Wind condition in the 21141 unit

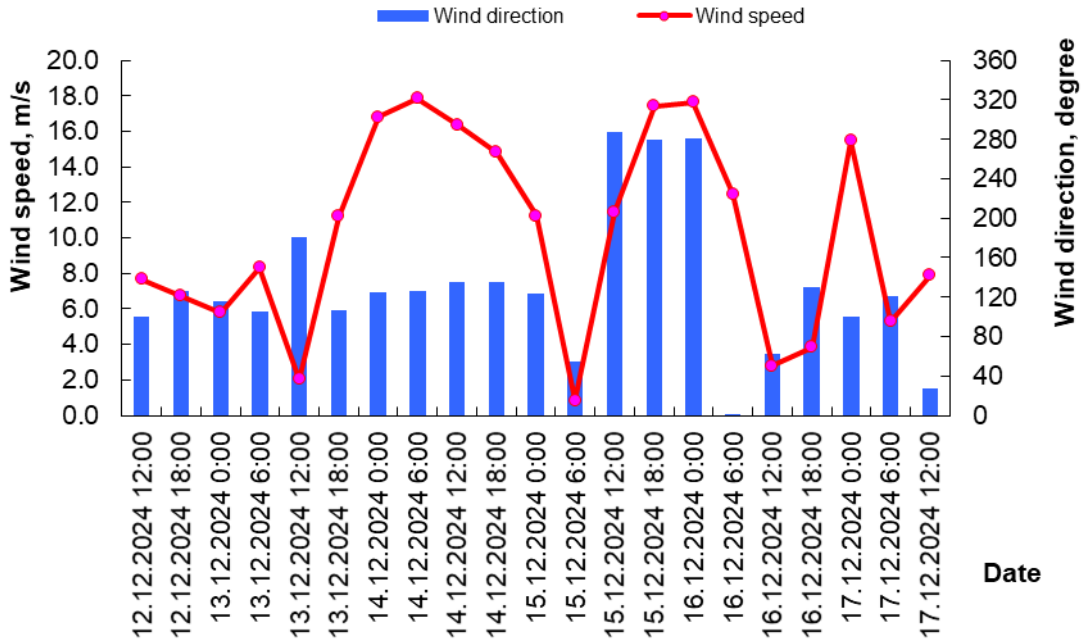


Wave condition in the 21141 unit

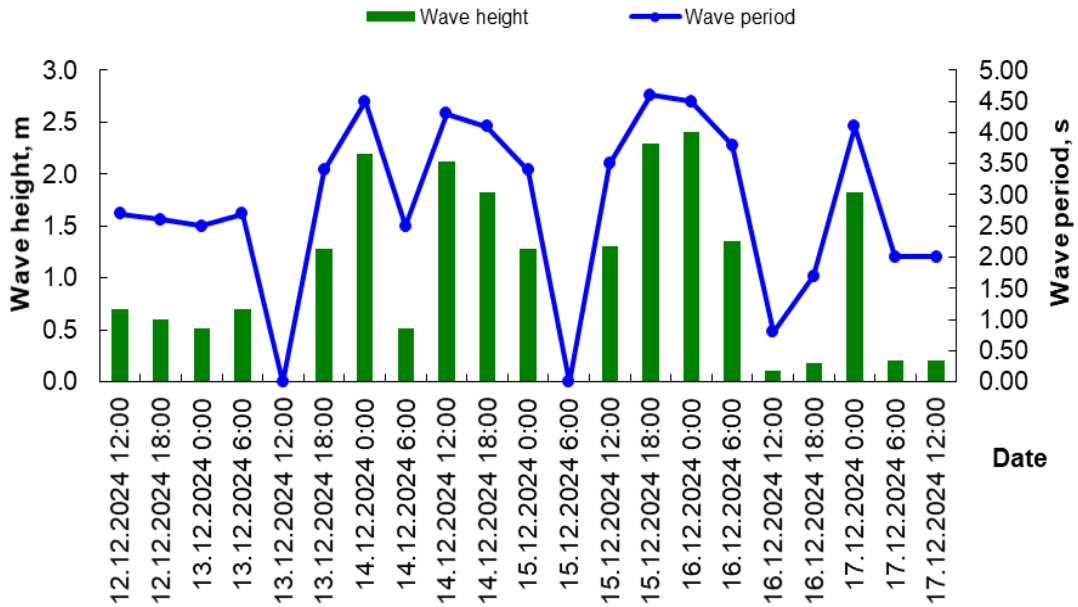


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
12.12.2024 12:00	9	E	1.01	3.20
12.12.2024 18:00	4	SE	0.21	1.80
13.12.2024 0:00	3	SE	0.14	1.00
13.12.2024 6:00	9	SE	1.05	3.40
13.12.2024 12:00	3	E	0.12	0.90
13.12.2024 18:00	12	SE	1.37	3.80
14.12.2024 0:00	7	SE	0.70	2.80
14.12.2024 6:00	19	SE	2.70	4.90
14.12.2024 12:00	15	SE	1.90	4.40
14.12.2024 18:00	15	SE	1.90	4.40
15.12.2024 0:00	9	SE	1.05	3.40
15.12.2024 6:00	3	W	0.13	0.90
15.12.2024 12:00	12	NW	1.35	3.70
15.12.2024 18:00	13	NW	1.52	3.80
16.12.2024 0:00	4	N	0.21	1.80
16.12.2024 6:00	5	SE	0.35	2.20
16.12.2024 12:00	6	SE	0.56	2.80
16.12.2024 18:00	9	SE	1.05	3.40
17.12.2024 0:00	14	E	1.65	4.20
17.12.2024 6:00	4	S	0.22	1.90
17.12.2024 12:00	10	N	1.15	3.40

Wind condition in the 21142 unit

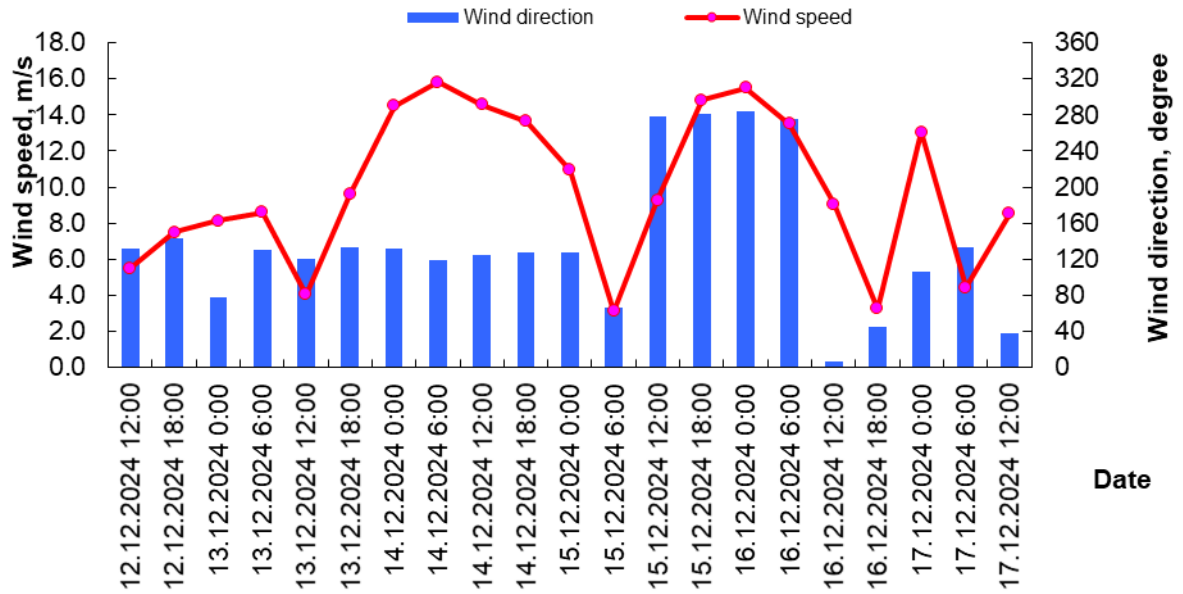


Wave condition in the 21142 unit

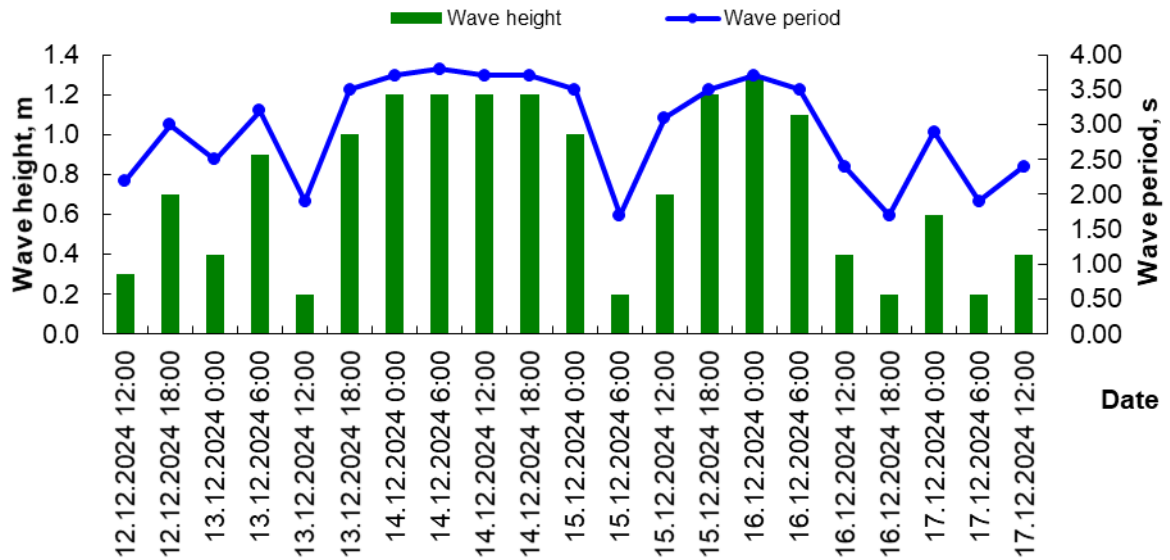


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
12.12.2024 12:00	8	E	0.70	2.70
12.12.2024 18:00	7	SE	0.60	2.60
13.12.2024 0:00	6	SE	0.51	2.50
13.12.2024 6:00	8	E	0.70	2.70
13.12.2024 12:00	2	S	0.00	0.00
13.12.2024 18:00	11	E	1.28	3.40
14.12.2024 0:00	17	SE	2.20	4.50
14.12.2024 6:00	6	SE	0.51	2.50
14.12.2024 12:00	16	SE	2.12	4.30
14.12.2024 18:00	15	SE	1.82	4.10
15.12.2024 0:00	11	SE	1.28	3.40
15.12.2024 6:00	1	NE	0.00	0.00
15.12.2024 12:00	11	W	1.30	3.50
15.12.2024 18:00	17	W	2.30	4.60
16.12.2024 0:00	18	W	2.40	4.50
16.12.2024 6:00	12	N	1.35	3.80
16.12.2024 12:00	3	NE	0.11	0.80
16.12.2024 18:00	4	SE	0.18	1.70
17.12.2024 0:00	15	E	1.82	4.10
17.12.2024 6:00	5	SE	0.20	2.00
17.12.2024 12:00	5	NE	0.20	2.00

Wind condition in the Bautino Bay

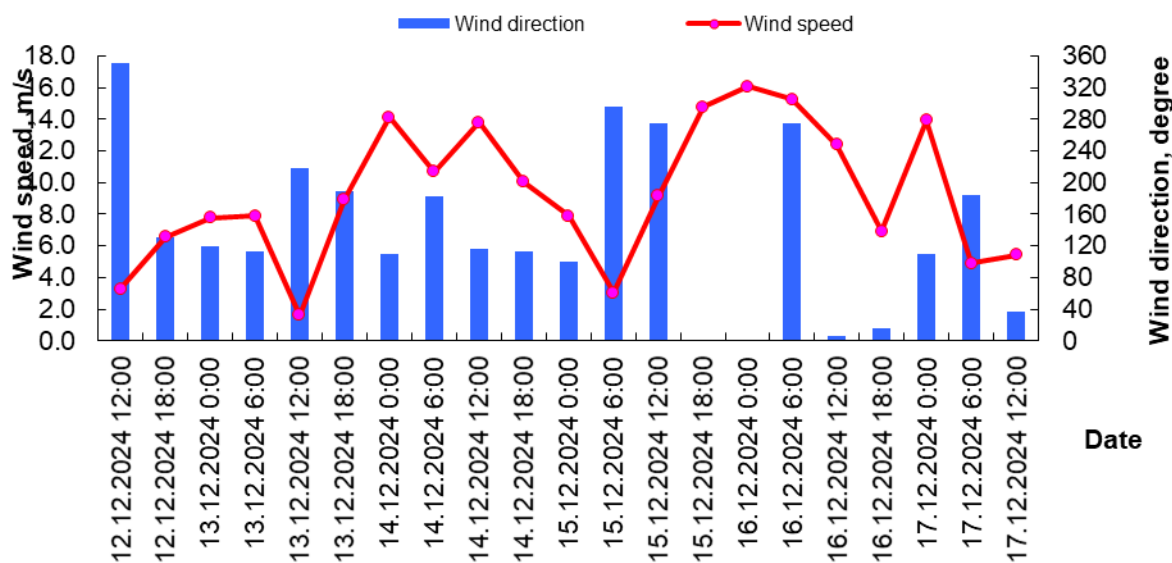


Wave condition in the Bautino Bay

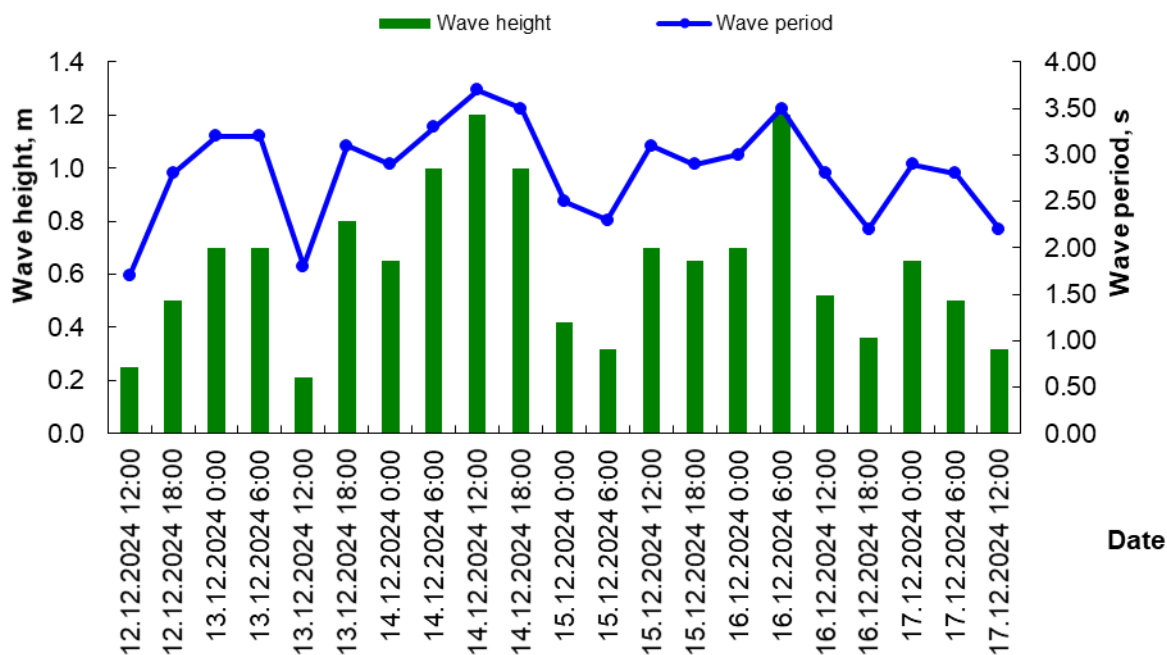


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
	12.12.2024 12:00	5	SE	0.30
12.12.2024 18:00	8	SE	0.70	3.00
13.12.2024 0:00	8	E	0.40	2.50
13.12.2024 6:00	9	SE	0.90	3.20
13.12.2024 12:00	4	SE	0.20	1.90
13.12.2024 18:00	10	SE	1.00	3.50
14.12.2024 0:00	14	SE	1.20	3.70
14.12.2024 6:00	16	SE	1.20	3.80
14.12.2024 12:00	15	SE	1.20	3.70
14.12.2024 18:00	14	SE	1.20	3.70
15.12.2024 0:00	11	SE	1.00	3.50
15.12.2024 6:00	3	NE	0.20	1.70
15.12.2024 12:00	9	W	0.70	3.10
15.12.2024 18:00	15	W	1.20	3.50
16.12.2024 0:00	16	W	1.30	3.70
16.12.2024 6:00	14	W	1.10	3.50
16.12.2024 12:00	9	N	0.40	2.40
16.12.2024 18:00	3	NE	0.20	1.70
17.12.2024 0:00	13	E	0.60	2.90
17.12.2024 6:00	4	SE	0.20	1.90
17.12.2024 12:00	9	NE	0.40	2.40

Wind condition in the Kuryik Bay



Wave condition in the Kuryik Bay



Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
12.12.2024 12:00	3	N	0.25	1.70
12.12.2024 18:00	7	SE	0.50	2.80
13.12.2024 0:00	8	SE	0.70	3.20
13.12.2024 6:00	8	SE	0.70	3.20
13.12.2024 12:00	2	SW	0.21	1.80
13.12.2024 18:00	9	S	0.80	3.10
14.12.2024 0:00	14	E	0.65	2.90
14.12.2024 6:00	11	S	1.00	3.30
14.12.2024 12:00	14	SE	1.20	3.70
14.12.2024 18:00	10	SE	1.00	3.50
15.12.2024 0:00	8	E	0.42	2.50
15.12.2024 6:00	3	NW	0.32	2.30
15.12.2024 12:00	9	W	0.70	3.10
15.12.2024 18:00	15	N	0.65	2.90
16.12.2024 0:00	16	N	0.70	3.00
16.12.2024 6:00	15	W	1.20	3.50
16.12.2024 12:00	12	N	0.52	2.80
16.12.2024 18:00	7	N	0.36	2.20
17.12.2024 0:00	14	E	0.65	2.90
17.12.2024 6:00	5	S	0.50	2.80
17.12.2024 12:00	5	NE	0.32	2.20

Made by: Bazarbay L.B.

Checked by: Shishkina G.