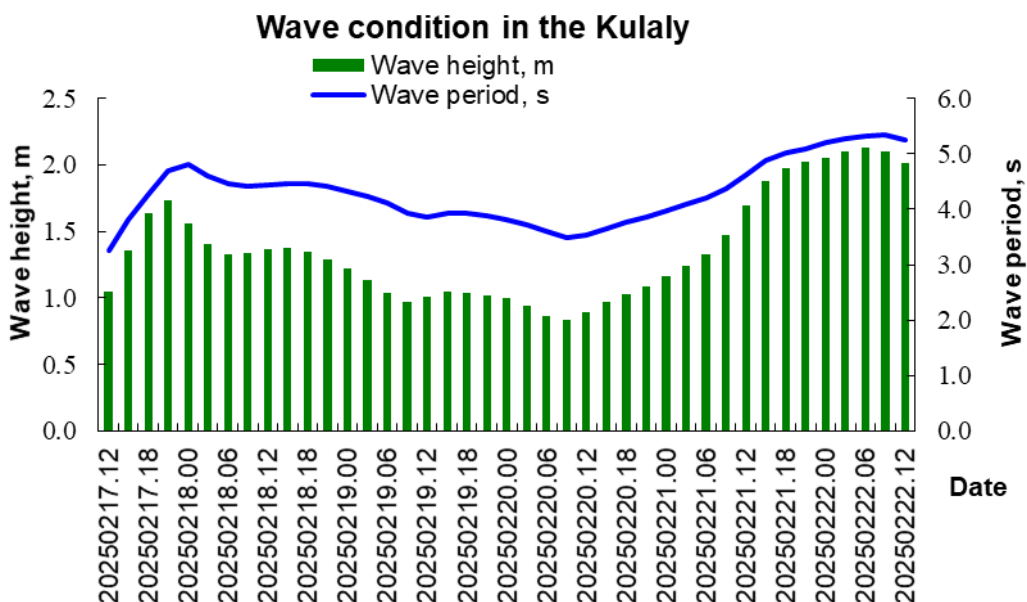
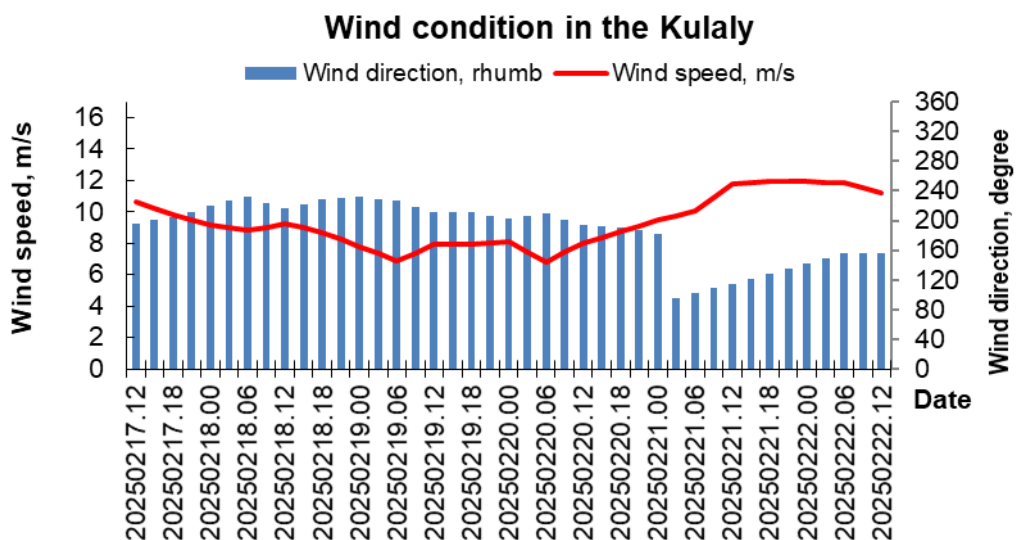




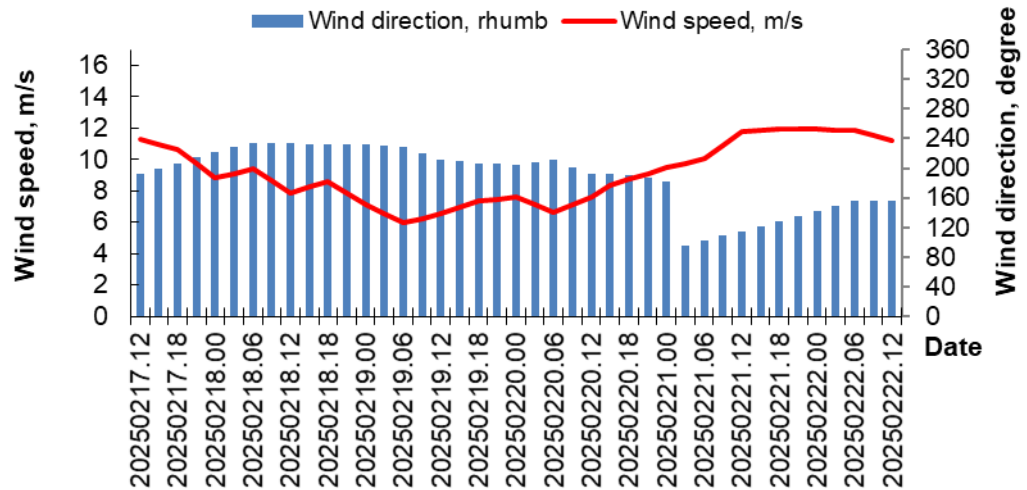
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**Wave and wind forecast for the Kazakhstan part of the Caspian Sea with a 5-day advance
using SWAN spectral model for the period February 17 - 22, 2025.**

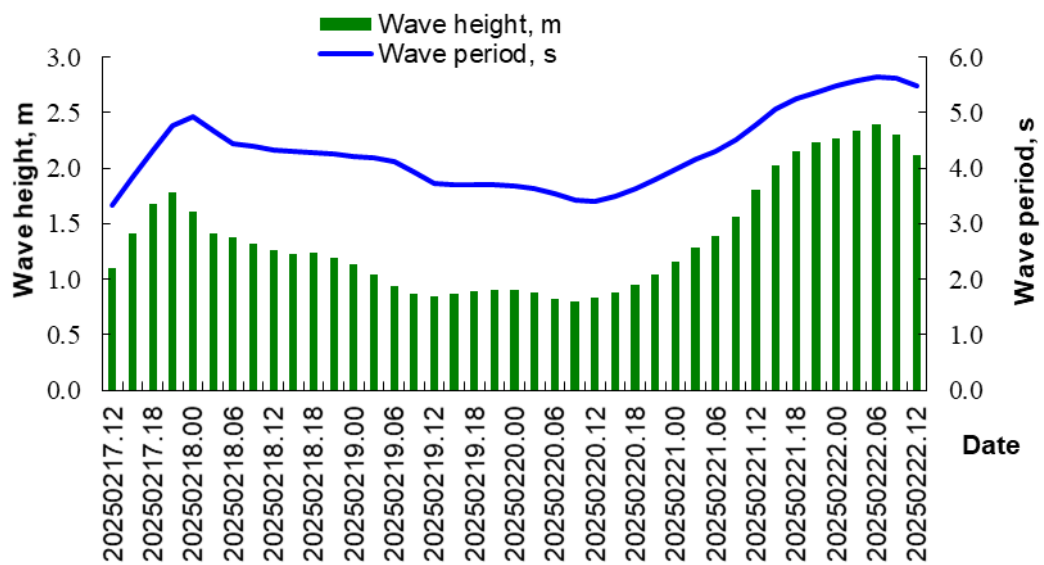


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250217.12	1.04	W	3.3	11	S
20250217.15	1.35	W	3.8	10	S
20250217.18	1.63	W	4.3	10	SW
20250217.21	1.73	SW	4.7	9	SW
20250218.00	1.56	SW	4.8	9	SW
20250218.03	1.40	SW	4.6	9	SW
20250218.06	1.33	SW	4.5	9	SW
20250218.09	1.34	SW	4.4	9	SW
20250218.12	1.37	SW	4.4	9	SW
20250218.15	1.38	SW	4.5	9	SW
20250218.18	1.34	SW	4.5	9	SW
20250218.21	1.29	SW	4.4	8	SW
20250219.00	1.22	SW	4.3	8	SW
20250219.03	1.14	SW	4.2	7	SW
20250219.06	1.04	SW	4.1	7	SW
20250219.09	0.97	SW	3.9	7	SW
20250219.12	1.01	SW	3.9	8	SW
20250219.15	1.05	SW	3.9	8	SW
20250219.18	1.04	SW	3.9	8	SW
20250219.21	1.02	SW	3.9	8	SW
20250220.00	1.00	SW	3.8	8	SW
20250220.03	0.94	W	3.7	7	SW
20250220.06	0.86	W	3.6	7	SW
20250220.09	0.84	W	3.5	7	S
20250220.12	0.89	W	3.5	8	S
20250220.15	0.97	W	3.7	8	S
20250220.18	1.03	W	3.8	9	S
20250220.21	1.09	W	3.9	9	S
20250221.00	1.17	W	4.0	9	S
20250221.03	1.25	W	4.1	10	E
20250221.06	1.33	W	4.2	10	E
20250221.09	1.47	W	4.4	11	E
20250221.12	1.70	W	4.6	12	SE
20250221.15	1.88	W	4.9	12	SE
20250221.18	1.98	NW	5.0	12	SE
20250221.21	2.02	NW	5.1	12	SE
20250222.00	2.06	NW	5.2	12	SE
20250222.03	2.10	NW	5.3	12	SE
20250222.06	2.13	NW	5.3	12	SE
20250222.09	2.10	NW	5.3	12	SE
20250222.12	2.01	NW	5.3	11	SE

Wind condition in the Fort-Shevchenko

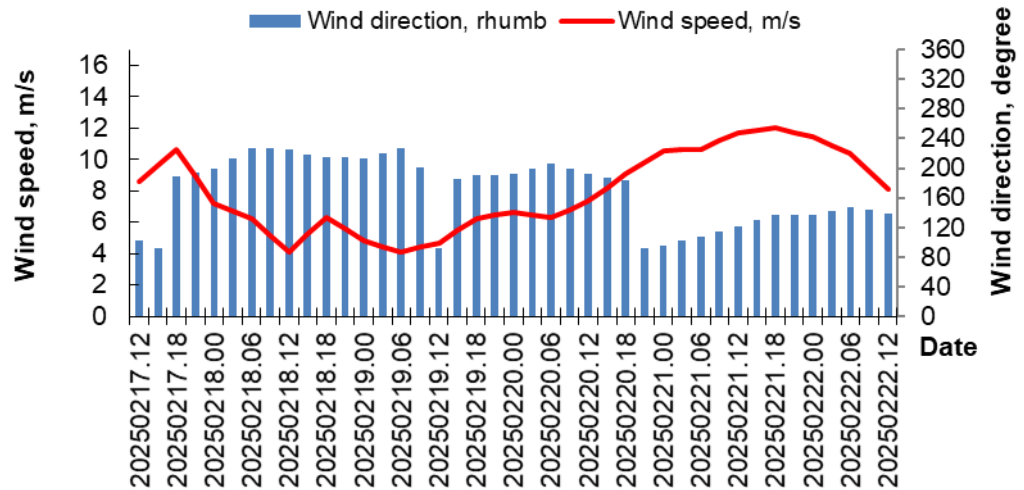


Wave condition in the Fort-Shevchenko

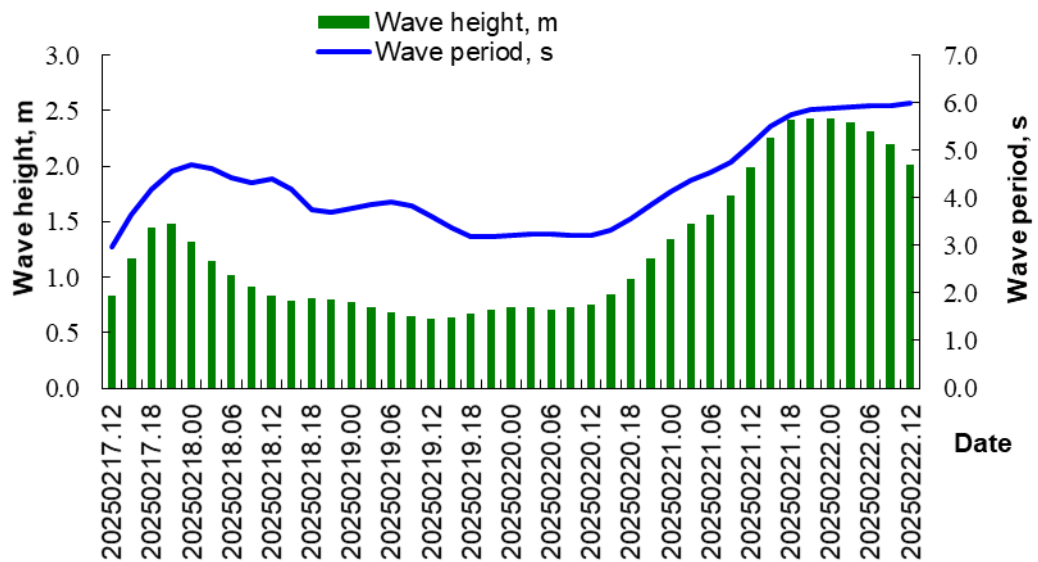


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250217.12	1.10	W	3.3	11	S
20250217.15	1.41	W	3.8	11	S
20250217.18	1.68	W	4.3	11	SW
20250217.21	1.79	W	4.8	10	SW
20250218.00	1.61	SW	4.9	9	SW
20250218.03	1.41	SW	4.7	9	SW
20250218.06	1.37	SW	4.5	9	SW
20250218.09	1.32	SW	4.4	9	SW
20250218.12	1.26	SW	4.3	8	SW
20250218.15	1.23	SW	4.3	8	SW
20250218.18	1.24	SW	4.3	9	SW
20250218.21	1.20	SW	4.3	8	SW
20250219.00	1.14	SW	4.2	7	SW
20250219.03	1.04	SW	4.2	7	SW
20250219.06	0.94	SW	4.1	6	SW
20250219.09	0.86	SW	3.9	6	SW
20250219.12	0.85	SW	3.7	7	SW
20250219.15	0.87	SW	3.7	7	SW
20250219.18	0.90	W	3.7	7	SW
20250219.21	0.91	W	3.7	7	SW
20250220.00	0.91	W	3.7	8	SW
20250220.03	0.88	W	3.6	7	SW
20250220.06	0.82	W	3.5	7	SW
20250220.09	0.80	W	3.4	7	S
20250220.12	0.83	W	3.4	8	S
20250220.15	0.88	W	3.5	8	S
20250220.18	0.95	W	3.6	9	S
20250220.21	1.04	W	3.8	9	S
20250221.00	1.16	W	4.0	9	S
20250221.03	1.28	W	4.2	10	E
20250221.06	1.39	W	4.3	10	E
20250221.09	1.56	W	4.5	11	E
20250221.12	1.81	W	4.8	12	SE
20250221.15	2.02	NW	5.1	12	SE
20250221.18	2.16	NW	5.2	12	SE
20250221.21	2.23	NW	5.4	12	SE
20250222.00	2.27	NW	5.5	12	SE
20250222.03	2.34	NW	5.6	12	SE
20250222.06	2.40	NW	5.6	12	SE
20250222.09	2.31	NW	5.6	12	SE
20250222.12	2.12	NW	5.5	11	SE

Wind condition in the Aktau

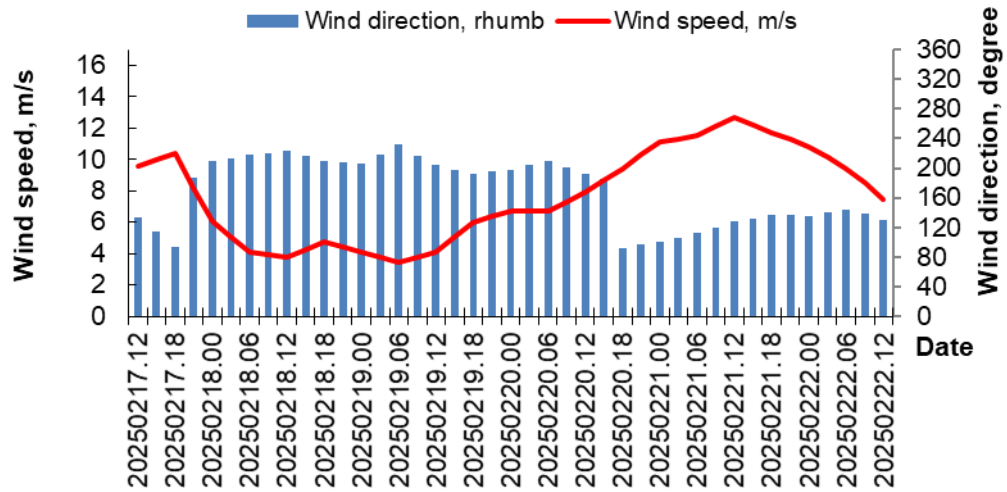


Wave condition in the Aktau

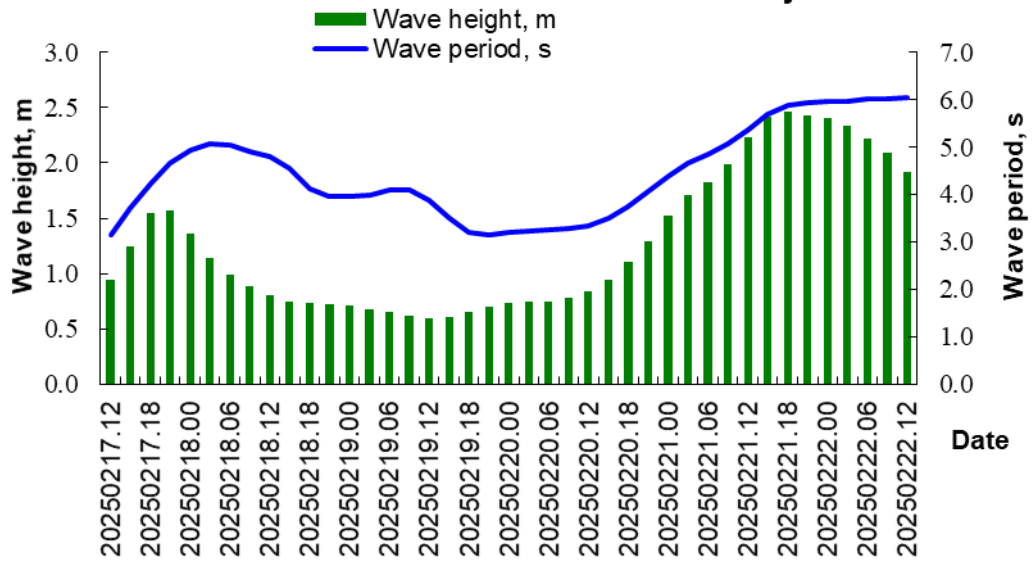


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20250217.12	0.83	W	3.0	9	E
20250217.15	1.17	W	3.6	10	E
20250217.18	1.45	W	4.2	11	S
20250217.21	1.49	W	4.6	9	S
20250218.00	1.32	W	4.7	7	S
20250218.03	1.14	W	4.6	7	SW
20250218.06	1.02	W	4.4	6	SW
20250218.09	0.92	W	4.3	5	SW
20250218.12	0.83	W	4.4	4	SW
20250218.15	0.79	W	4.2	5	SW
20250218.18	0.81	W	3.8	6	SW
20250218.21	0.80	W	3.7	6	SW
20250219.00	0.77	W	3.8	5	SW
20250219.03	0.73	W	3.9	4	SW
20250219.06	0.68	W	3.9	4	SW
20250219.09	0.65	W	3.8	4	S
20250219.12	0.63	W	3.6	5	E
20250219.15	0.63	W	3.4	5	S
20250219.18	0.67	W	3.2	6	S
20250219.21	0.71	W	3.2	6	S
20250220.00	0.73	W	3.2	7	S
20250220.03	0.73	W	3.2	6	S
20250220.06	0.71	W	3.2	6	SW
20250220.09	0.72	W	3.2	7	S
20250220.12	0.76	W	3.2	7	S
20250220.15	0.84	W	3.3	8	S
20250220.18	0.99	W	3.6	9	S
20250220.21	1.17	W	3.9	10	E
20250221.00	1.35	W	4.1	11	E
20250221.03	1.48	W	4.4	11	E
20250221.06	1.56	W	4.5	11	E
20250221.09	1.74	NW	4.7	11	SE
20250221.12	1.99	NW	5.1	12	SE
20250221.15	2.26	NW	5.5	12	SE
20250221.18	2.42	NW	5.8	12	SE
20250221.21	2.43	NW	5.8	12	SE
20250222.00	2.42	NW	5.9	11	SE
20250222.03	2.39	NW	5.9	11	SE
20250222.06	2.32	NW	5.9	10	SE
20250222.09	2.20	NW	5.9	9	SE
20250222.12	2.01	NW	6.0	8	SE

Wind condition in the Peschanyi

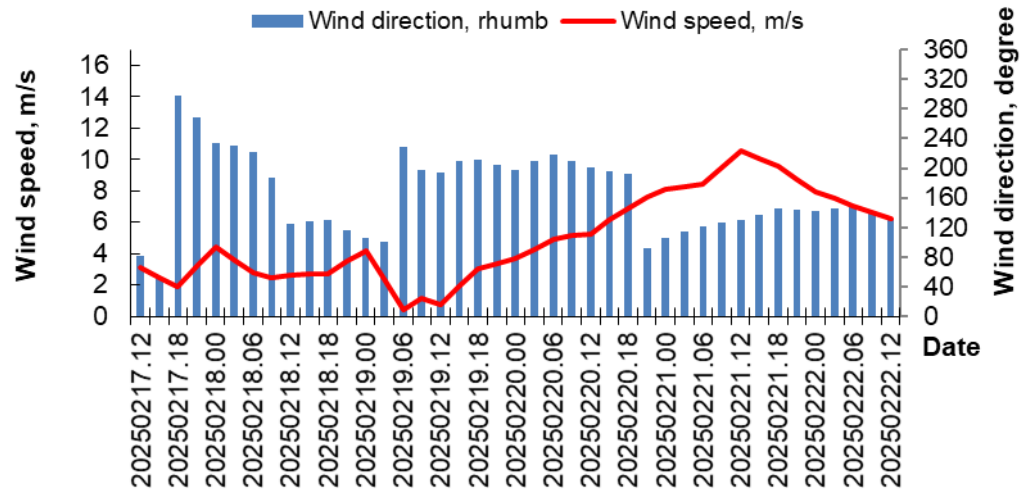


Wave condition in the Peschanyi

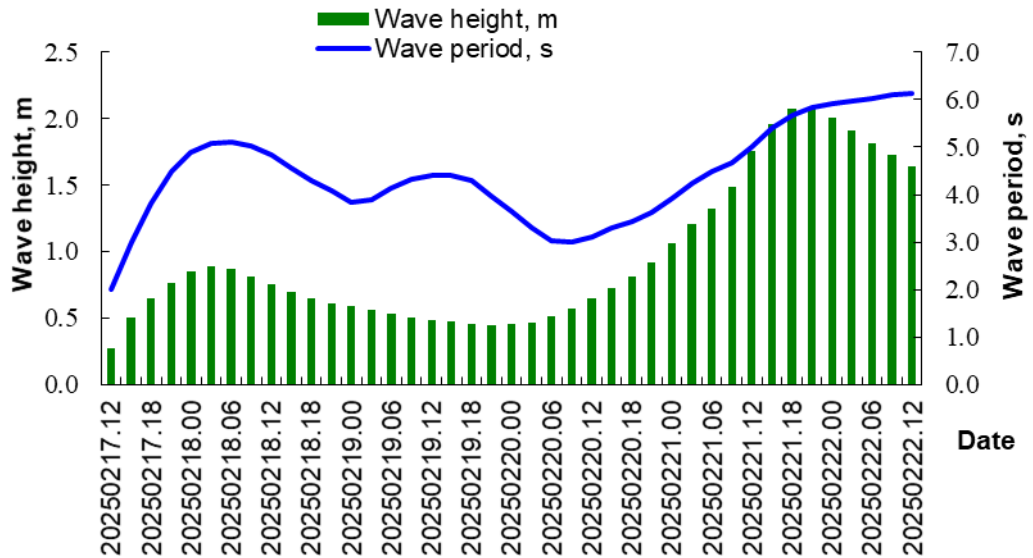


Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250217.12	0.95	NW	3.1	10	SE
20250217.15	1.24	NW	3.7	10	SE
20250217.18	1.54	NW	4.2	10	E
20250217.21	1.57	NW	4.7	8	S
20250218.00	1.36	NW	4.9	6	SW
20250218.03	1.14	W	5.1	5	SW
20250218.06	0.99	W	5.0	4	SW
20250218.09	0.88	W	4.9	4	SW
20250218.12	0.81	W	4.8	4	SW
20250218.15	0.75	W	4.6	4	SW
20250218.18	0.74	W	4.1	5	SW
20250218.21	0.73	W	4.0	4	SW
20250219.00	0.71	W	4.0	4	SW
20250219.03	0.68	W	4.0	4	SW
20250219.06	0.65	W	4.1	3	SW
20250219.09	0.62	W	4.1	4	SW
20250219.12	0.60	W	3.9	4	SW
20250219.15	0.60	W	3.5	5	S
20250219.18	0.65	W	3.2	6	S
20250219.21	0.70	W	3.2	6	S
20250220.00	0.73	W	3.2	7	S
20250220.03	0.75	W	3.2	7	SW
20250220.06	0.75	W	3.3	7	SW
20250220.09	0.78	W	3.3	7	S
20250220.12	0.84	W	3.3	8	S
20250220.15	0.95	W	3.5	9	S
20250220.18	1.10	W	3.8	9	E
20250220.21	1.30	W	4.1	10	E
20250221.00	1.53	W	4.4	11	E
20250221.03	1.71	W	4.7	11	E
20250221.06	1.83	W	4.9	11	E
20250221.09	1.99	NW	5.1	12	SE
20250221.12	2.23	NW	5.4	13	SE
20250221.15	2.42	NW	5.7	12	SE
20250221.18	2.46	NW	5.9	12	SE
20250221.21	2.43	NW	5.9	11	SE
20250222.00	2.40	NW	6.0	11	SE
20250222.03	2.34	NW	6.0	10	SE
20250222.06	2.22	NW	6.0	9	SE
20250222.09	2.09	NW	6.0	8	SE
20250222.12	1.92	NW	6.0	7	SE

Wind condition in the Fetisovo

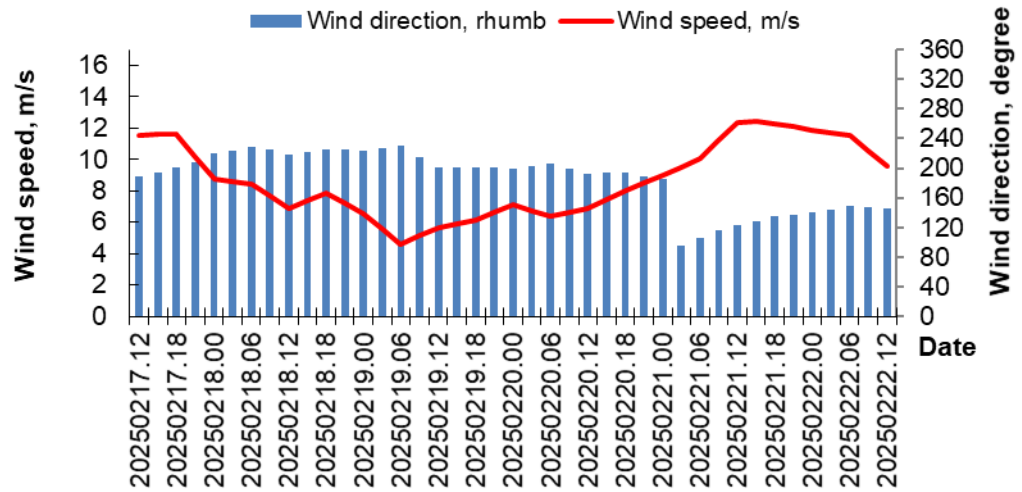


Wave condition in the Fetisovo

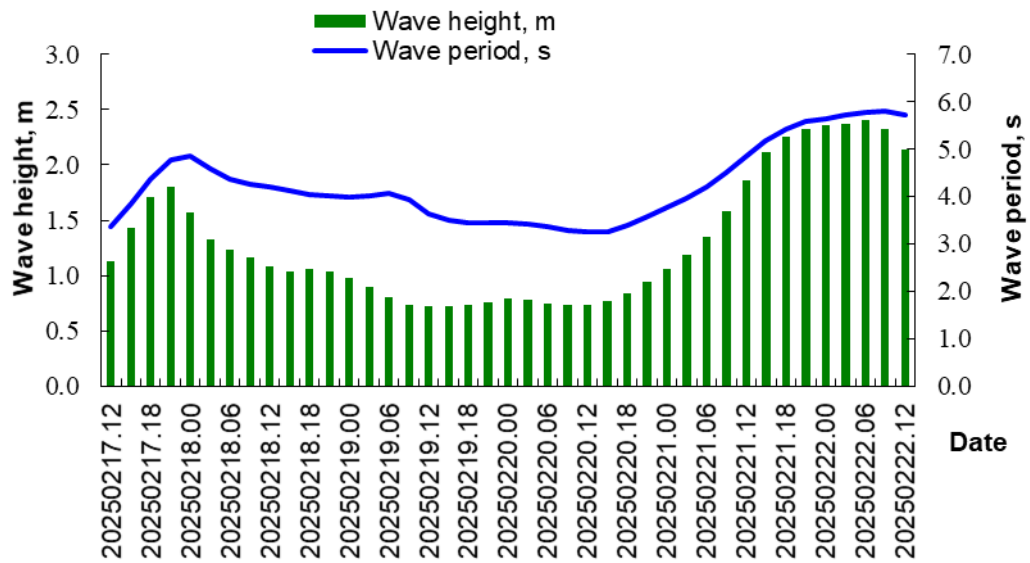


Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250217.12	0.27	N	2.0	3	E
20250217.15	0.50	N	3.0	2	NE
20250217.18	0.65	N	3.8	2	NW
20250217.21	0.77	N	4.5	3	W
20250218.00	0.85	N	4.9	4	SW
20250218.03	0.89	NW	5.1	4	SW
20250218.06	0.87	NW	5.1	3	SW
20250218.09	0.81	NW	5.0	2	S
20250218.12	0.75	NW	4.8	3	SE
20250218.15	0.70	NW	4.6	3	SE
20250218.18	0.65	NW	4.3	3	SE
20250218.21	0.61	W	4.1	4	SE
20250219.00	0.59	W	3.8	4	E
20250219.03	0.56	W	3.9	2	E
20250219.06	0.53	W	4.1	0	SW
20250219.09	0.51	W	4.3	1	S
20250219.12	0.49	W	4.4	1	S
20250219.15	0.47	W	4.4	2	SW
20250219.18	0.46	W	4.3	3	SW
20250219.21	0.45	W	4.0	3	SW
20250220.00	0.45	W	3.6	4	S
20250220.03	0.47	W	3.3	4	SW
20250220.06	0.51	W	3.0	5	SW
20250220.09	0.57	W	3.0	5	SW
20250220.12	0.65	W	3.1	5	S
20250220.15	0.73	W	3.3	6	S
20250220.18	0.81	W	3.4	7	S
20250220.21	0.91	W	3.6	8	E
20250221.00	1.07	W	3.9	8	E
20250221.03	1.21	NW	4.3	8	SE
20250221.06	1.32	NW	4.5	8	SE
20250221.09	1.49	NW	4.7	9	SE
20250221.12	1.76	NW	5.0	11	SE
20250221.15	1.96	NW	5.4	10	SE
20250221.18	2.07	NW	5.7	10	SE
20250221.21	2.08	NW	5.8	9	SE
20250222.00	2.01	NW	5.9	8	SE
20250222.03	1.91	NW	6.0	7	SE
20250222.06	1.82	NW	6.0	7	SE
20250222.09	1.72	NW	6.1	7	SE
20250222.12	1.64	NW	6.1	6	SE

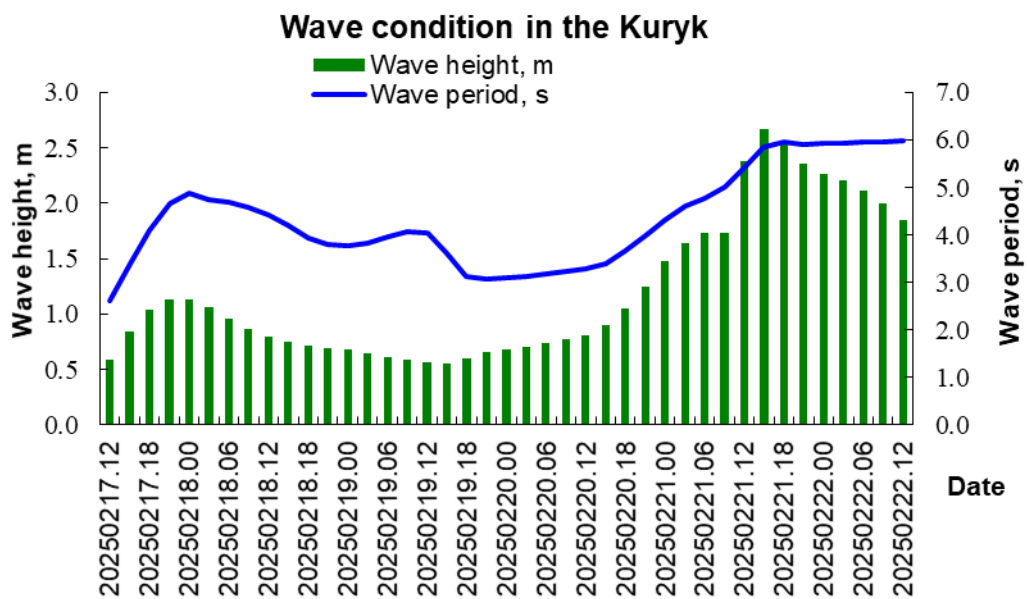
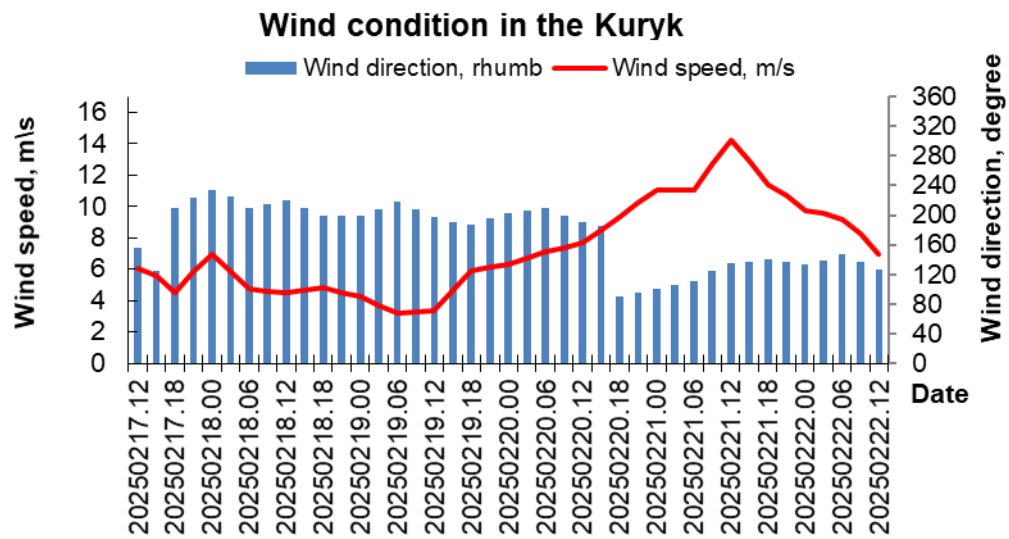
Wind condition in the Saura



Wave condition in the Saura



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250217.12	1.12	W	3.4	12	S
20250217.15	1.43	W	3.9	12	S
20250217.18	1.71	W	4.4	12	S
20250217.21	1.80	W	4.8	10	SW
20250218.00	1.57	W	4.9	9	SW
20250218.03	1.33	W	4.6	9	SW
20250218.06	1.24	SW	4.4	8	SW
20250218.09	1.16	SW	4.3	8	SW
20250218.12	1.08	SW	4.2	7	SW
20250218.15	1.04	SW	4.1	7	SW
20250218.18	1.06	SW	4.0	8	SW
20250218.21	1.04	SW	4.0	7	SW
20250219.00	0.98	SW	4.0	7	SW
20250219.03	0.90	W	4.0	6	SW
20250219.06	0.80	W	4.1	5	SW
20250219.09	0.74	W	3.9	5	SW
20250219.12	0.72	W	3.6	6	S
20250219.15	0.73	W	3.5	6	S
20250219.18	0.74	W	3.5	6	S
20250219.21	0.76	W	3.4	7	S
20250220.00	0.79	W	3.4	7	S
20250220.03	0.78	W	3.4	7	SW
20250220.06	0.75	W	3.4	6	SW
20250220.09	0.73	W	3.3	7	S
20250220.12	0.73	W	3.2	7	S
20250220.15	0.77	W	3.3	7	S
20250220.18	0.84	W	3.4	8	S
20250220.21	0.94	W	3.6	9	S
20250221.00	1.06	W	3.8	9	S
20250221.03	1.19	W	4.0	10	E
20250221.06	1.35	W	4.2	10	E
20250221.09	1.58	W	4.5	11	SE
20250221.12	1.86	NW	4.9	12	SE
20250221.15	2.12	NW	5.2	12	SE
20250221.18	2.26	NW	5.4	12	SE
20250221.21	2.33	NW	5.6	12	SE
20250222.00	2.35	NW	5.7	12	SE
20250222.03	2.37	NW	5.7	12	SE
20250222.06	2.40	NW	5.8	12	SE
20250222.09	2.32	NW	5.8	11	SE
20250222.12	2.14	NW	5.7	10	SE



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250217.12	0.59	NW	2.6	6	SE
20250217.15	0.84	NW	3.4	6	SE
20250217.18	1.04	NW	4.1	4	SW
20250217.21	1.13	NW	4.7	6	SW
20250218.00	1.13	NW	4.9	7	SW
20250218.03	1.06	NW	4.8	6	SW
20250218.06	0.96	W	4.7	5	SW
20250218.09	0.87	W	4.6	5	SW
20250218.12	0.80	W	4.4	5	SW
20250218.15	0.75	W	4.2	5	SW
20250218.18	0.72	W	3.9	5	S
20250218.21	0.70	W	3.8	5	S
20250219.00	0.68	W	3.8	4	S
20250219.03	0.65	W	3.8	4	SW
20250219.06	0.62	W	4.0	3	SW
20250219.09	0.59	W	4.1	3	SW
20250219.12	0.56	W	4.1	3	S
20250219.15	0.56	W	3.6	5	S
20250219.18	0.61	W	3.1	6	S
20250219.21	0.66	W	3.1	6	S
20250220.00	0.68	W	3.1	6	S
20250220.03	0.71	W	3.1	7	SW
20250220.06	0.74	W	3.2	7	SW
20250220.09	0.77	W	3.2	7	S
20250220.12	0.81	W	3.3	8	S
20250220.15	0.90	W	3.4	9	S
20250220.18	1.05	W	3.7	9	E
20250220.21	1.25	W	4.0	10	E
20250221.00	1.48	W	4.3	11	E
20250221.03	1.64	W	4.6	11	E
20250221.06	1.73	NW	4.8	11	E
20250221.09	1.73	NW	5.0	13	SE
20250221.12	2.38	NW	5.4	14	SE
20250221.15	2.67	NW	5.8	13	SE
20250221.18	2.53	NW	6.0	11	SE
20250221.21	2.36	NW	5.9	11	SE
20250222.00	2.27	NW	5.9	10	SE
20250222.03	2.20	NW	5.9	10	SE
20250222.06	2.11	NW	6.0	9	SE
20250222.09	2.00	NW	6.0	8	SE
20250222.12	1.85	NW	6.0	7	SE

**Calculation characteristics were obtained using the SWAN wave model, adapted in RSE «Kazhydromet» to the conditions of the Caspian Sea.*

Compiled by: Bazarbay L.B.

Checked by: Yeltay A.G.

RSE «Kazhydromet» – Caspian Sea Hydrometeorological Research Department

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