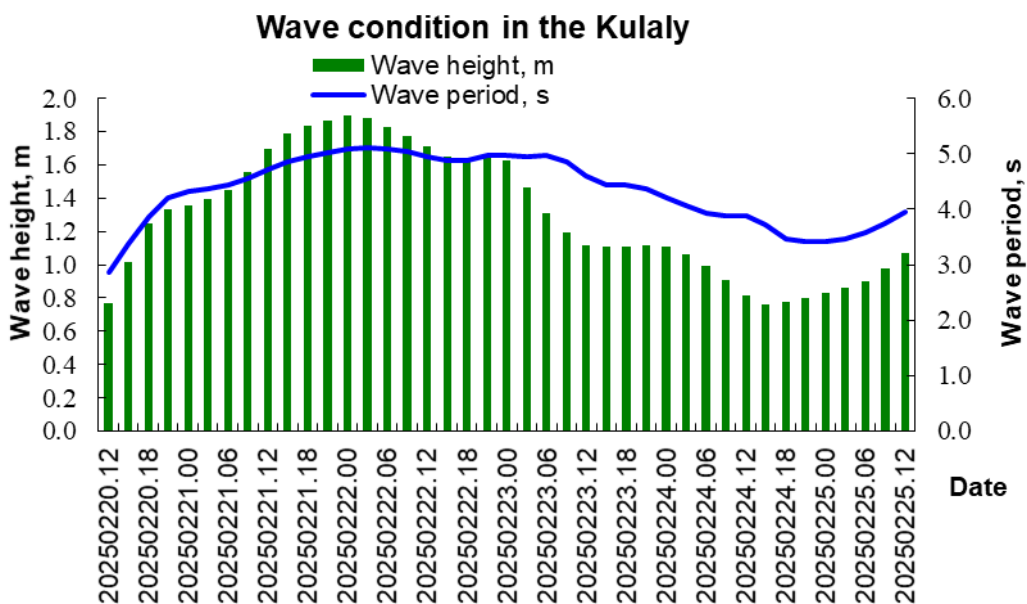
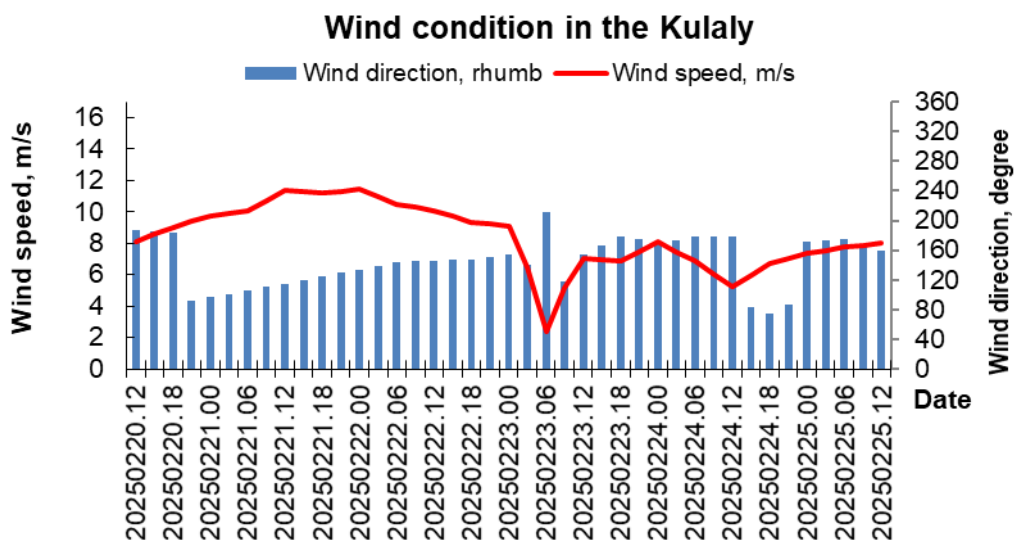




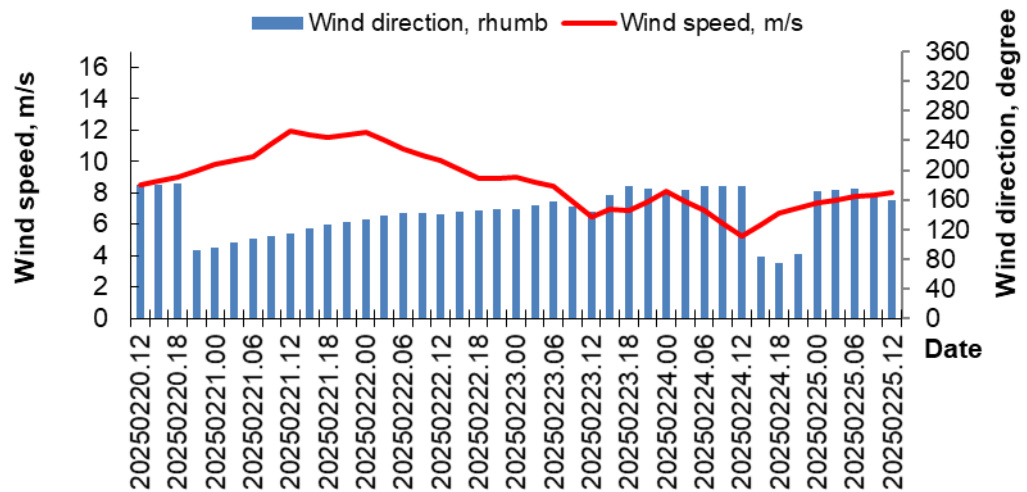
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**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 20 - 25, 2025.**

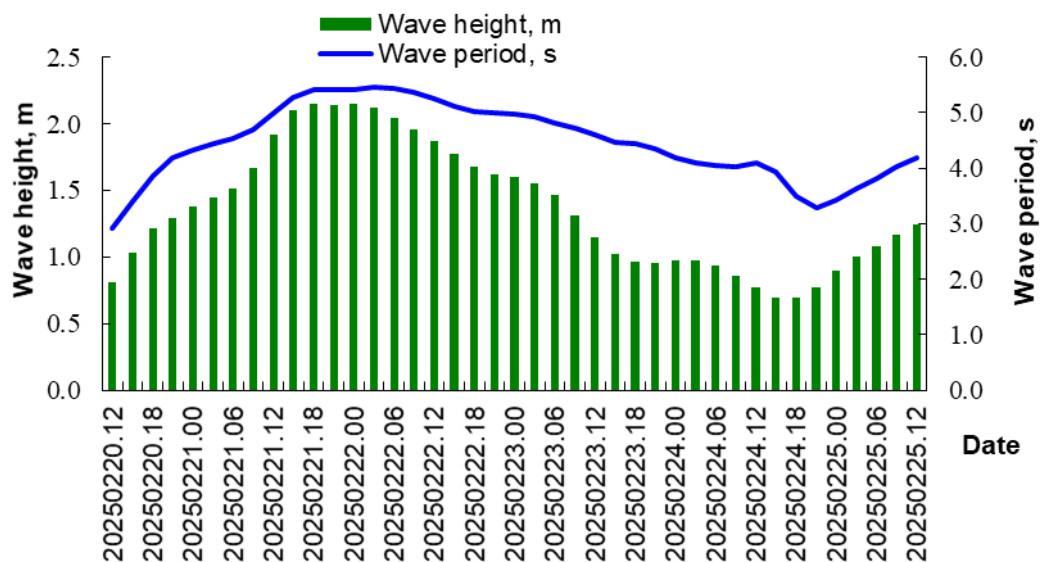


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250220.12	0.77	W	2.9	8	S
20250220.15	1.02	W	3.4	9	S
20250220.18	1.25	W	3.9	9	S
20250220.21	1.33	W	4.2	9	E
20250221.00	1.36	W	4.3	10	E
20250221.03	1.40	W	4.4	10	E
20250221.06	1.45	W	4.4	10	E
20250221.09	1.56	W	4.6	11	E
20250221.12	1.70	W	4.7	11	SE
20250221.15	1.79	W	4.9	11	SE
20250221.18	1.83	NW	4.9	11	SE
20250221.21	1.87	NW	5.0	11	SE
20250222.00	1.90	NW	5.1	11	SE
20250222.03	1.88	NW	5.1	11	SE
20250222.06	1.83	NW	5.1	10	SE
20250222.09	1.77	NW	5.0	10	SE
20250222.12	1.71	NW	4.9	10	SE
20250222.15	1.65	NW	4.9	10	SE
20250222.18	1.63	NW	4.9	9	SE
20250222.21	1.65	NW	5.0	9	SE
20250223.00	1.62	NW	5.0	9	SE
20250223.03	1.46	NW	4.9	6	SE
20250223.06	1.31	NW	5.0	2	SW
20250223.09	1.19	N	4.8	5	SE
20250223.12	1.12	N	4.6	7	SE
20250223.15	1.11	N	4.4	7	S
20250223.18	1.11	N	4.4	7	S
20250223.21	1.11	N	4.4	7	S
20250224.00	1.11	N	4.2	8	S
20250224.03	1.06	N	4.1	7	S
20250224.06	0.99	N	3.9	7	S
20250224.09	0.91	N	3.9	6	S
20250224.12	0.82	N	3.9	5	S
20250224.15	0.76	N	3.7	6	E
20250224.18	0.77	N	3.5	7	E
20250224.21	0.80	N	3.4	7	E
20250225.00	0.83	N	3.4	7	S
20250225.03	0.86	N	3.5	8	S
20250225.06	0.90	N	3.6	8	S
20250225.09	0.98	N	3.8	8	S
20250225.12	1.07	N	4.0	8	S

Wind condition in the Fort-Shevchenko

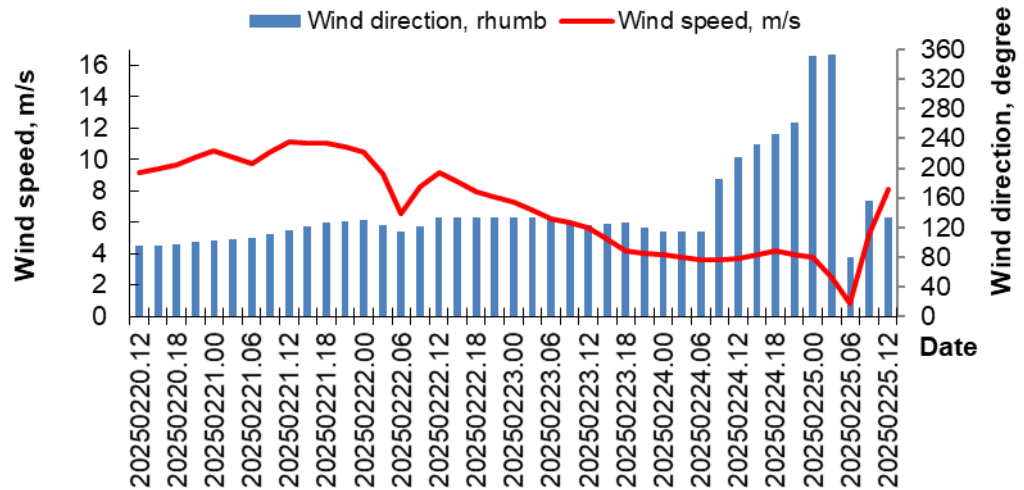


Wave condition in the Fort-Shevchenko

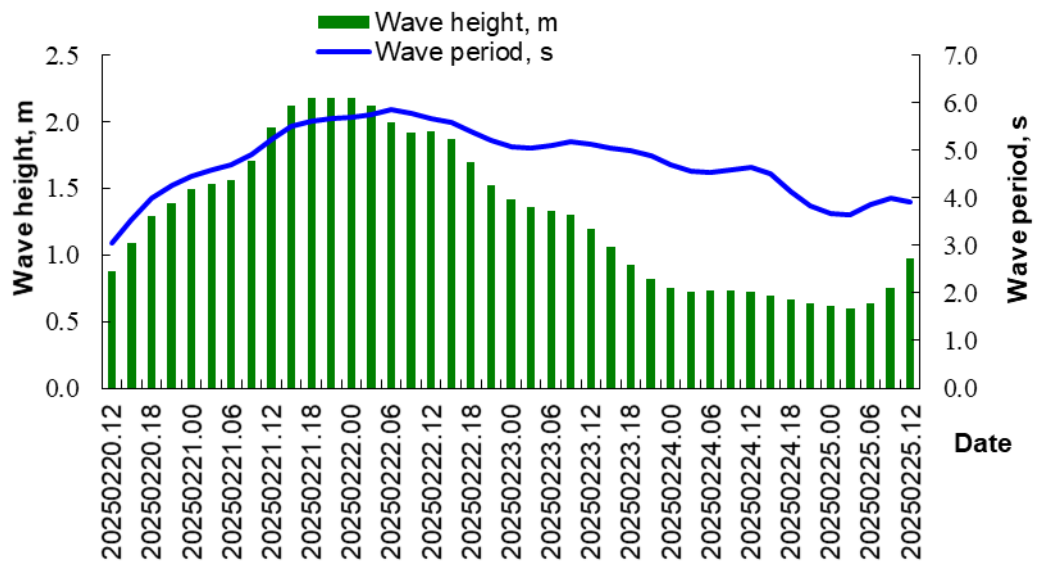


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250220.12	0.81	W	2.9	9	S
20250220.15	1.03	W	3.4	9	S
20250220.18	1.22	W	3.9	9	S
20250220.21	1.29	W	4.2	9	E
20250221.00	1.38	W	4.3	10	E
20250221.03	1.45	W	4.5	10	E
20250221.06	1.51	W	4.5	10	E
20250221.09	1.67	W	4.7	11	E
20250221.12	1.92	NW	5.0	12	SE
20250221.15	2.10	NW	5.3	12	SE
20250221.18	2.15	NW	5.4	12	SE
20250221.21	2.14	NW	5.4	12	SE
20250222.00	2.15	NW	5.4	12	SE
20250222.03	2.13	NW	5.5	11	SE
20250222.06	2.04	NW	5.4	11	SE
20250222.09	1.96	NW	5.4	10	SE
20250222.12	1.87	NW	5.2	10	SE
20250222.15	1.77	NW	5.1	9	SE
20250222.18	1.67	NW	5.0	9	SE
20250222.21	1.62	NW	5.0	9	SE
20250223.00	1.60	NW	5.0	9	SE
20250223.03	1.56	NW	4.9	9	SE
20250223.06	1.46	NW	4.8	8	SE
20250223.09	1.31	NW	4.7	7	SE
20250223.12	1.15	NW	4.6	6	SE
20250223.15	1.03	NW	4.5	7	S
20250223.18	0.96	NW	4.4	7	S
20250223.21	0.95	NW	4.4	7	S
20250224.00	0.98	N	4.2	8	S
20250224.03	0.97	N	4.1	7	S
20250224.06	0.93	N	4.0	7	S
20250224.09	0.86	N	4.0	6	S
20250224.12	0.77	N	4.1	5	S
20250224.15	0.70	N	3.9	6	E
20250224.18	0.69	N	3.5	7	E
20250224.21	0.77	N	3.3	7	E
20250225.00	0.90	N	3.4	7	S
20250225.03	1.00	N	3.6	8	S
20250225.06	1.08	N	3.8	8	S
20250225.09	1.17	N	4.0	8	S
20250225.12	1.24	N	4.2	8	S

Wind condition in the Aktau

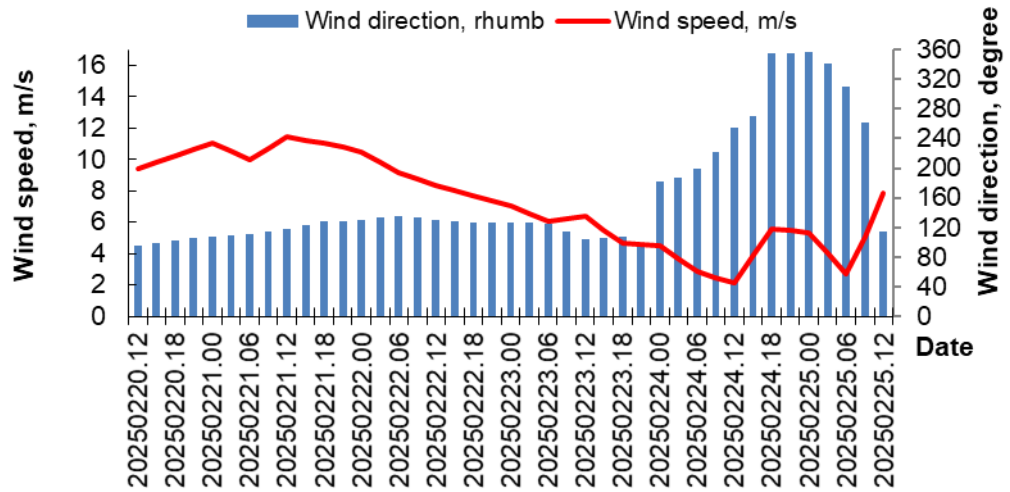


Wave condition in the Aktau

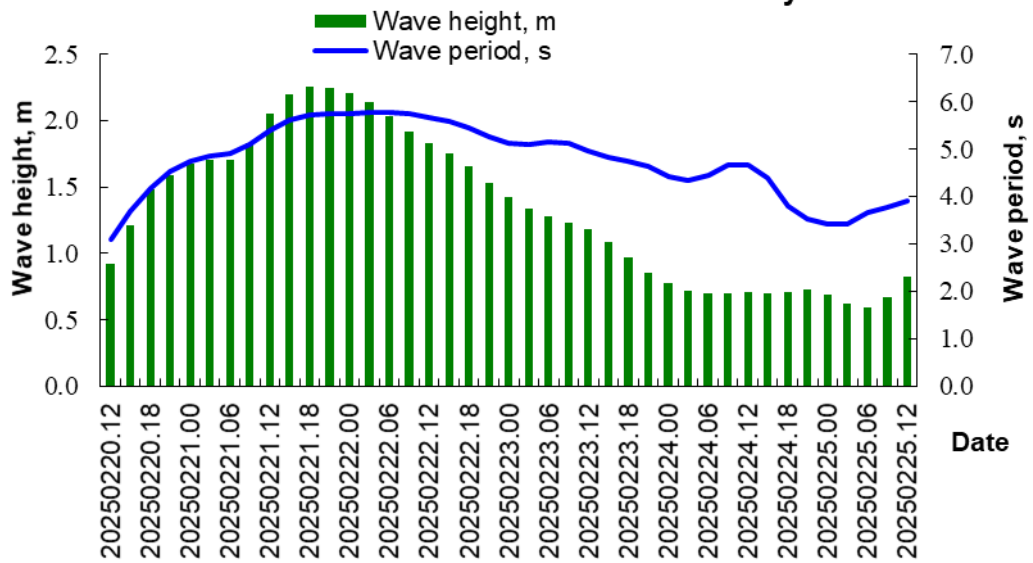


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20250220.12	0.88	W	3.0	9	E
20250220.15	1.09	W	3.5	9	E
20250220.18	1.30	W	4.0	10	E
20250220.21	1.39	W	4.3	10	E
20250221.00	1.49	W	4.5	11	E
20250221.03	1.53	W	4.6	10	E
20250221.06	1.56	NW	4.7	10	E
20250221.09	1.71	NW	4.9	10	E
20250221.12	1.96	NW	5.2	11	SE
20250221.15	2.12	NW	5.5	11	SE
20250221.18	2.18	NW	5.6	11	SE
20250221.21	2.18	NW	5.7	11	SE
20250222.00	2.18	NW	5.7	10	SE
20250222.03	2.12	NW	5.7	9	SE
20250222.06	1.99	NW	5.9	7	SE
20250222.09	1.92	NW	5.8	8	SE
20250222.12	1.93	NW	5.7	9	SE
20250222.15	1.87	NW	5.6	9	SE
20250222.18	1.69	NW	5.4	8	SE
20250222.21	1.52	NW	5.2	8	SE
20250223.00	1.42	NW	5.1	7	SE
20250223.03	1.36	NW	5.0	7	SE
20250223.06	1.33	NW	5.1	6	SE
20250223.09	1.30	NW	5.2	6	SE
20250223.12	1.20	NW	5.1	6	SE
20250223.15	1.06	NW	5.0	5	SE
20250223.18	0.92	NW	5.0	4	SE
20250223.21	0.82	NW	4.9	4	SE
20250224.00	0.76	NW	4.7	4	SE
20250224.03	0.73	NW	4.6	4	SE
20250224.06	0.73	NW	4.5	4	SE
20250224.09	0.74	NW	4.6	4	S
20250224.12	0.72	NW	4.6	4	SW
20250224.15	0.69	NW	4.5	4	SW
20250224.18	0.66	NW	4.1	4	SW
20250224.21	0.64	NW	3.8	4	W
20250225.00	0.61	NW	3.7	4	N
20250225.03	0.60	NW	3.7	3	N
20250225.06	0.63	NW	3.9	1	E
20250225.09	0.75	NW	4.0	5	SE
20250225.12	0.98	NW	3.9	8	SE

Wind condition in the Peschanyi

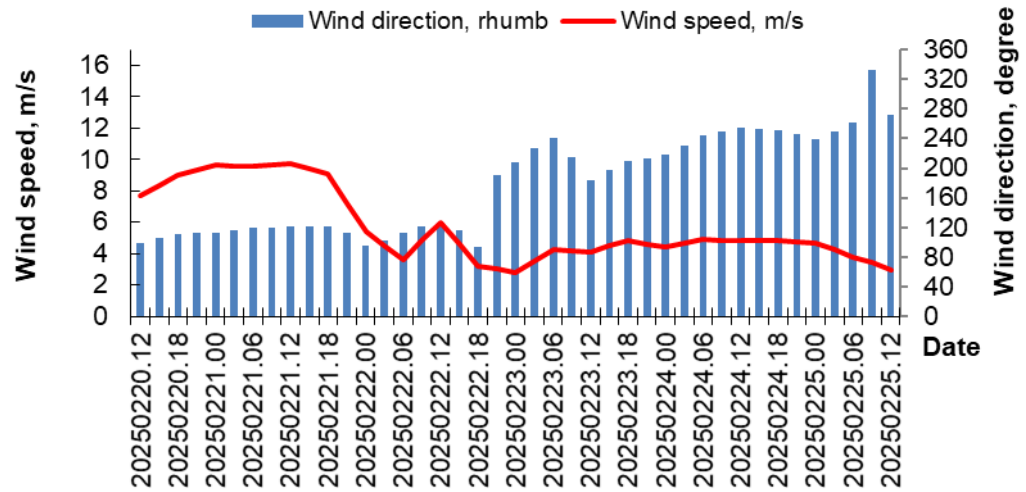


Wave condition in the Peschanyi

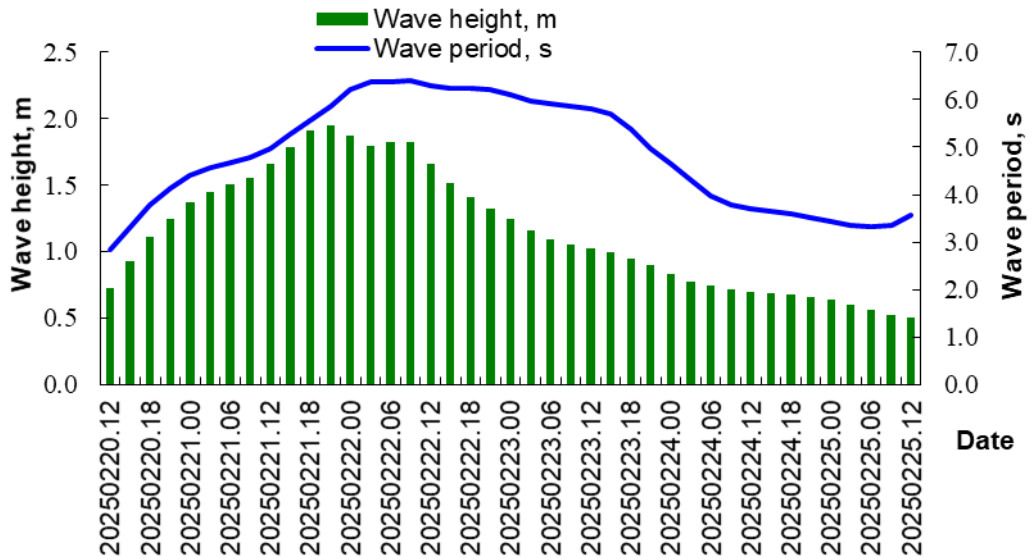


Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250220.12	0.92	W	3.1	9	E
20250220.15	1.21	W	3.7	10	E
20250220.18	1.48	W	4.2	10	E
20250220.21	1.59	W	4.5	11	E
20250221.00	1.68	W	4.7	11	E
20250221.03	1.71	NW	4.8	11	E
20250221.06	1.71	NW	4.9	10	E
20250221.09	1.83	NW	5.1	11	SE
20250221.12	2.05	NW	5.4	11	SE
20250221.15	2.20	NW	5.6	11	SE
20250221.18	2.26	NW	5.7	11	SE
20250221.21	2.24	NW	5.8	11	SE
20250222.00	2.20	NW	5.8	10	SE
20250222.03	2.14	NW	5.8	10	SE
20250222.06	2.03	NW	5.8	9	SE
20250222.09	1.92	NW	5.7	9	SE
20250222.12	1.83	NW	5.7	8	SE
20250222.15	1.75	NW	5.6	8	SE
20250222.18	1.65	NW	5.4	8	SE
20250222.21	1.53	NW	5.3	7	SE
20250223.00	1.43	NW	5.1	7	SE
20250223.03	1.34	NW	5.1	7	SE
20250223.06	1.28	NW	5.1	6	SE
20250223.09	1.23	NW	5.1	6	SE
20250223.12	1.18	NW	5.0	6	E
20250223.15	1.09	NW	4.8	6	E
20250223.18	0.97	NW	4.7	5	E
20250223.21	0.86	NW	4.6	5	E
20250224.00	0.77	NW	4.4	5	S
20250224.03	0.72	NW	4.3	4	S
20250224.06	0.70	NW	4.4	3	S
20250224.09	0.70	NW	4.7	2	SW
20250224.12	0.71	NW	4.7	2	W
20250224.15	0.70	NW	4.4	4	W
20250224.18	0.71	NW	3.8	6	N
20250224.21	0.73	W	3.5	5	N
20250225.00	0.69	SW	3.4	5	N
20250225.03	0.62	W	3.4	4	N
20250225.06	0.60	NW	3.7	3	NW
20250225.09	0.67	NW	3.8	5	W
20250225.12	0.83	NW	3.9	8	SE

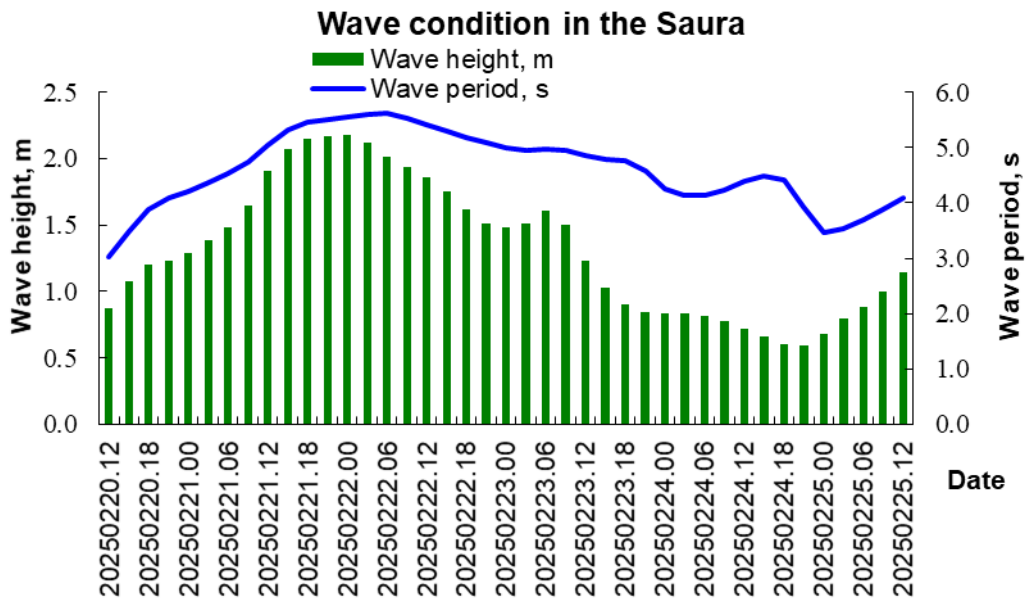
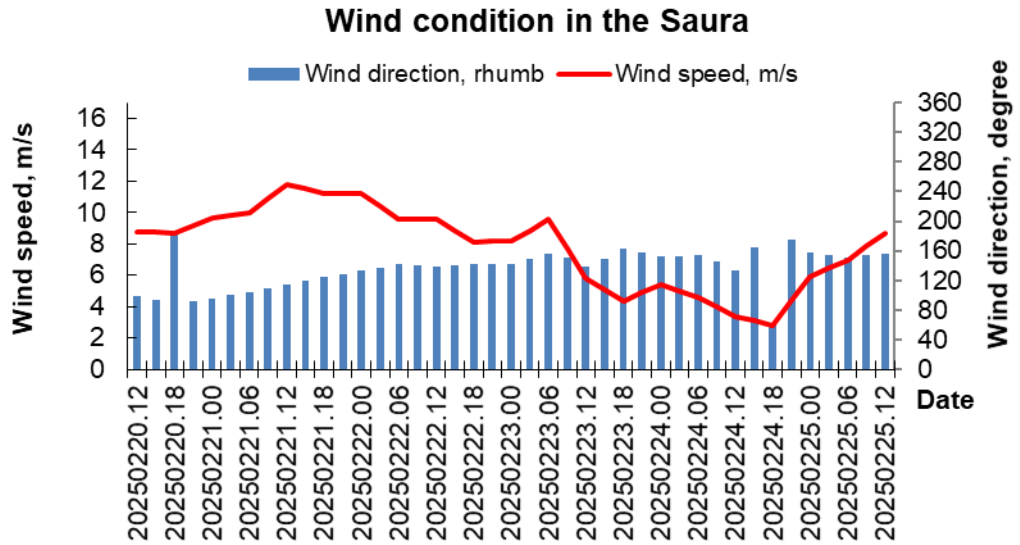
Wind condition in the Fetisovo



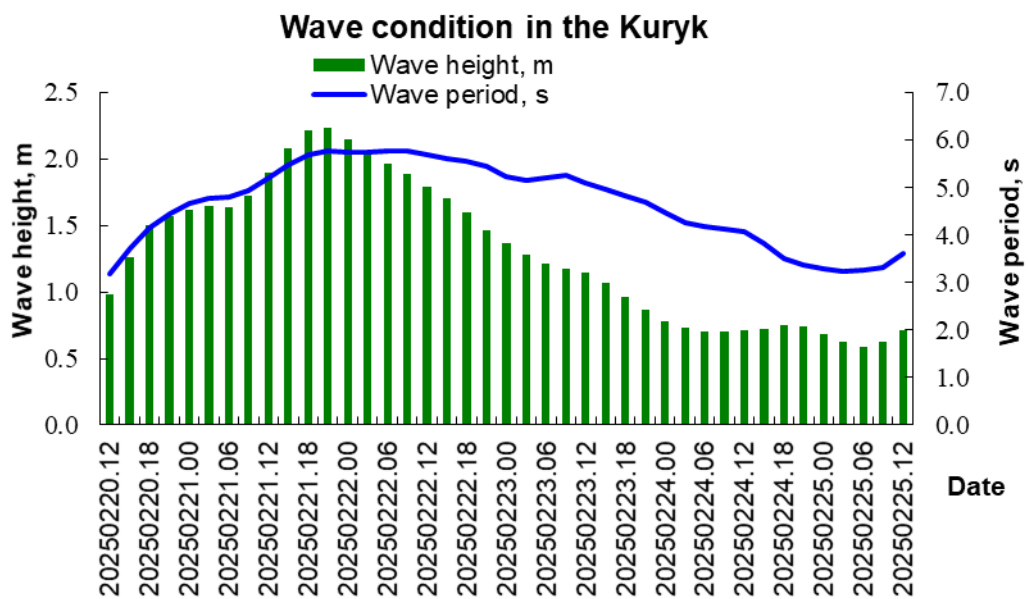
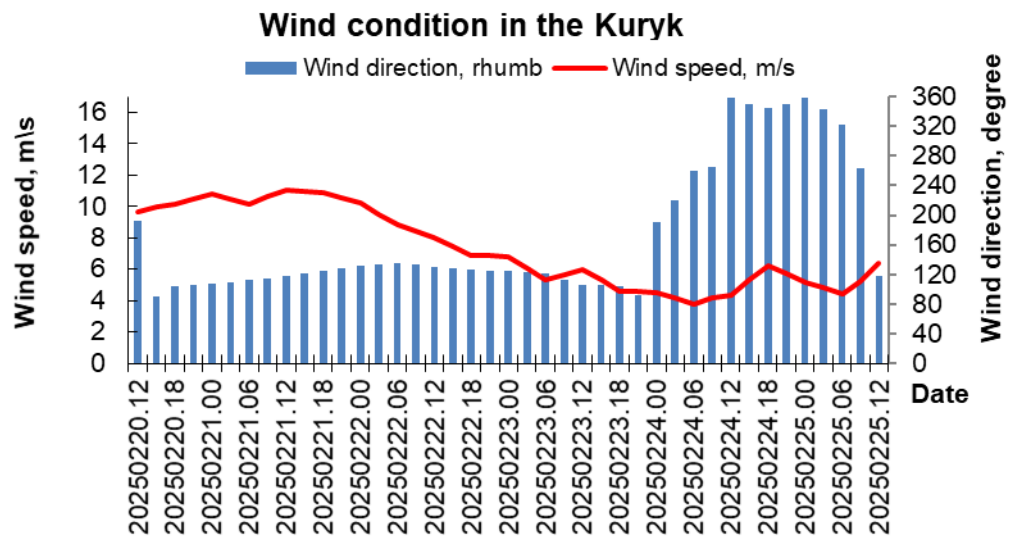
Wave condition in the Fetisovo



Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250220.12	0.73	W	2.8	8	E
20250220.15	0.93	W	3.3	8	E
20250220.18	1.11	W	3.8	9	E
20250220.21	1.25	NW	4.1	9	E
20250221.00	1.37	NW	4.4	10	SE
20250221.03	1.45	NW	4.6	10	SE
20250221.06	1.50	NW	4.7	10	SE
20250221.09	1.55	NW	4.8	10	SE
20250221.12	1.66	NW	5.0	10	SE
20250221.15	1.78	NW	5.3	9	SE
20250221.18	1.91	NW	5.6	9	SE
20250221.21	1.95	NW	5.9	7	E
20250222.00	1.87	NW	6.2	5	E
20250222.03	1.79	NW	6.4	5	E
20250222.06	1.83	NW	6.4	4	SE
20250222.09	1.82	NW	6.4	5	SE
20250222.12	1.66	NW	6.3	6	SE
20250222.15	1.51	NW	6.2	5	SE
20250222.18	1.41	NW	6.2	3	E
20250222.21	1.33	NW	6.2	3	S
20250223.00	1.24	NW	6.1	3	SW
20250223.03	1.16	NW	6.0	4	SW
20250223.06	1.10	NW	5.9	4	SW
20250223.09	1.05	NW	5.9	4	SW
20250223.12	1.02	NW	5.8	4	S
20250223.15	0.99	NW	5.7	4	S
20250223.18	0.95	NW	5.4	5	SW
20250223.21	0.89	NW	5.0	5	SW
20250224.00	0.83	NW	4.6	4	SW
20250224.03	0.78	NW	4.3	5	SW
20250224.06	0.74	NW	4.0	5	SW
20250224.09	0.71	NW	3.8	5	W
20250224.12	0.69	NW	3.7	5	W
20250224.15	0.68	NW	3.6	5	W
20250224.18	0.68	NW	3.6	5	W
20250224.21	0.66	NW	3.5	5	SW
20250225.00	0.64	W	3.4	5	SW
20250225.03	0.60	W	3.3	4	W
20250225.06	0.56	W	3.3	4	W
20250225.09	0.52	NW	3.3	3	NW
20250225.12	0.50	NW	3.6	3	W



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250220.12	0.87	W	3.0	9	E
20250220.15	1.07	W	3.5	9	E
20250220.18	1.20	W	3.9	9	S
20250220.21	1.23	W	4.1	9	E
20250221.00	1.29	W	4.2	10	E
20250221.03	1.38	W	4.4	10	E
20250221.06	1.48	W	4.5	10	E
20250221.09	1.65	NW	4.7	11	E
20250221.12	1.91	NW	5.0	12	SE
20250221.15	2.07	NW	5.3	12	SE
20250221.18	2.14	NW	5.5	11	SE
20250221.21	2.17	NW	5.5	11	SE
20250222.00	2.18	NW	5.6	11	SE
20250222.03	2.12	NW	5.6	10	SE
20250222.06	2.02	NW	5.6	10	SE
20250222.09	1.93	NW	5.5	10	SE
20250222.12	1.86	NW	5.4	10	SE
20250222.15	1.75	NW	5.3	9	SE
20250222.18	1.62	NW	5.2	8	SE
20250222.21	1.51	NW	5.1	8	SE
20250223.00	1.48	NW	5.0	8	SE
20250223.03	1.52	NW	4.9	9	SE
20250223.06	1.61	NW	5.0	10	SE
20250223.09	1.50	NW	5.0	8	SE
20250223.12	1.23	NW	4.8	6	SE
20250223.15	1.03	NW	4.8	5	SE
20250223.18	0.90	NW	4.8	4	S
20250223.21	0.84	NW	4.6	5	SE
20250224.00	0.84	NW	4.3	5	SE
20250224.03	0.83	NW	4.1	5	SE
20250224.06	0.81	NW	4.1	5	SE
20250224.09	0.77	NW	4.2	4	SE
20250224.12	0.72	NW	4.4	3	SE
20250224.15	0.66	N	4.5	3	S
20250224.18	0.61	N	4.4	3	NE
20250224.21	0.59	N	3.9	4	S
20250225.00	0.68	N	3.5	6	SE
20250225.03	0.80	NW	3.5	6	SE
20250225.06	0.88	NW	3.7	7	SE
20250225.09	1.00	N	3.9	8	SE
20250225.12	1.15	N	4.1	9	SE



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250220.12	0.98	W	3.2	10	S
20250220.15	1.27	W	3.7	10	E
20250220.18	1.50	W	4.2	10	E
20250220.21	1.57	W	4.5	10	E
20250221.00	1.62	W	4.7	11	E
20250221.03	1.64	NW	4.8	10	E
20250221.06	1.64	NW	4.8	10	E
20250221.09	1.72	NW	4.9	11	SE
20250221.12	1.90	NW	5.2	11	SE
20250221.15	2.08	NW	5.5	11	SE
20250221.18	2.22	NW	5.7	11	SE
20250221.21	2.24	NW	5.8	11	SE
20250222.00	2.15	NW	5.7	10	SE
20250222.03	2.05	NW	5.7	10	SE
20250222.06	1.96	NW	5.8	9	SE
20250222.09	1.88	NW	5.8	8	SE
20250222.12	1.79	NW	5.7	8	SE
20250222.15	1.70	NW	5.6	7	SE
20250222.18	1.60	NW	5.6	7	SE
20250222.21	1.47	NW	5.4	7	SE
20250223.00	1.36	NW	5.2	7	SE
20250223.03	1.28	NW	5.1	6	SE
20250223.06	1.22	NW	5.2	5	SE
20250223.09	1.18	NW	5.3	6	SE
20250223.12	1.14	NW	5.1	6	E
20250223.15	1.07	NW	5.0	5	E
20250223.18	0.97	NW	4.8	5	E
20250223.21	0.86	NW	4.7	5	E
20250224.00	0.78	NW	4.5	4	S
20250224.03	0.73	NW	4.3	4	SW
20250224.06	0.70	NW	4.2	4	W
20250224.09	0.70	NW	4.1	4	W
20250224.12	0.72	NW	4.1	4	N
20250224.15	0.72	NW	3.8	5	N
20250224.18	0.75	NW	3.5	6	N
20250224.21	0.74	W	3.4	6	N
20250225.00	0.69	W	3.3	5	N
20250225.03	0.62	W	3.2	5	N
20250225.06	0.59	W	3.3	4	NW
20250225.09	0.63	NW	3.3	5	W
20250225.12	0.71	NW	3.6	6	SE

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

Compiled by: Zhagparova N.N..

Checked by: Yeltay A.G.

RSE «Kazhydromet» – Caspian Sea Hydrometeorological Research Department

Phone. (717)2 79 83 12; E-mail: ugmikm@meteo.kz