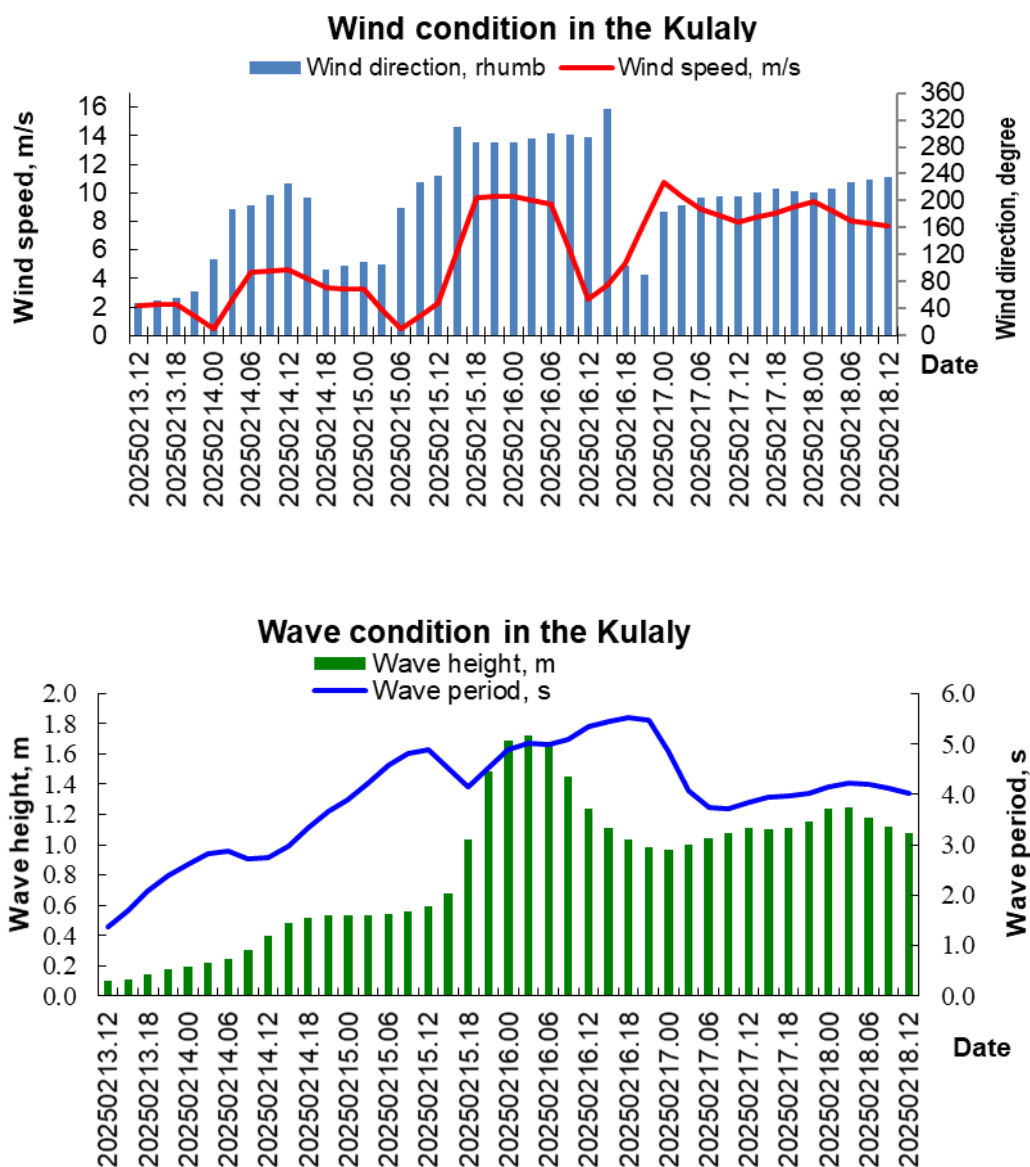




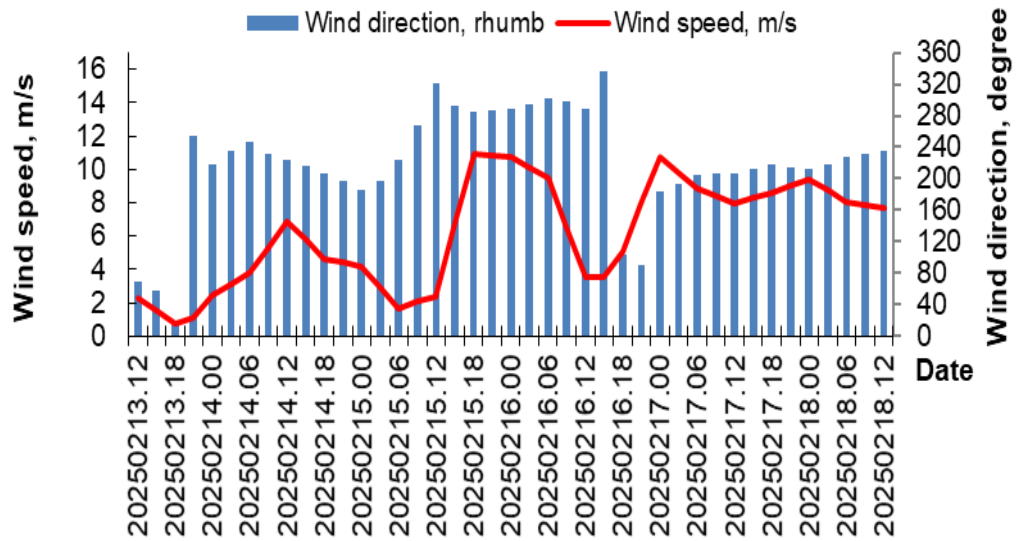
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**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 13 - 18, 2025.**

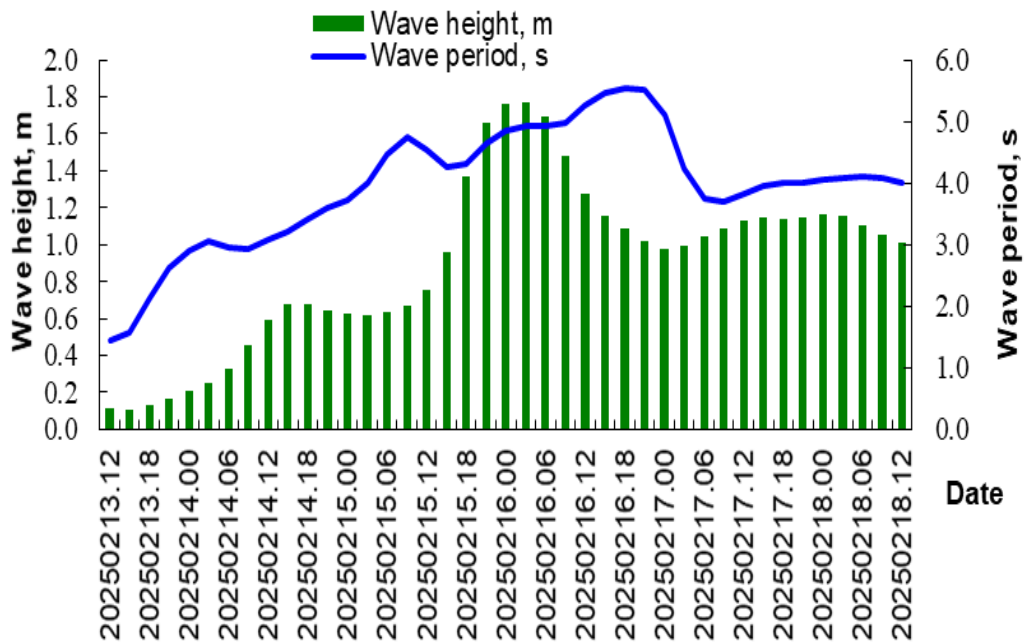


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250213.12	0.10	NE	1.4	2	NE
20250213.15	0.11	NE	1.7	2	NE
20250213.18	0.14	E	2.1	2	NE
20250213.21	0.17	E	2.4	1	NE
20250214.00	0.20	E	2.6	0	E
20250214.03	0.21	E	2.8	2	S
20250214.06	0.24	E	2.9	4	S
20250214.09	0.31	SE	2.7	5	SW
20250214.12	0.40	SE	2.7	5	SW
20250214.15	0.48	SE	3.0	4	SW
20250214.18	0.52	SE	3.3	3	E
20250214.21	0.53	SE	3.7	3	E
20250215.00	0.53	SE	3.9	3	E
20250215.03	0.53	SE	4.2	2	E
20250215.06	0.54	SE	4.6	1	S
20250215.09	0.56	SE	4.8	1	SW
20250215.12	0.59	SE	4.9	2	SW
20250215.15	0.68	SE	4.5	6	NW
20250215.18	1.03	SE	4.1	10	W
20250215.21	1.48	SE	4.5	10	W
20250216.00	1.69	SE	4.9	10	W
20250216.03	1.72	SE	5.0	9	NW
20250216.06	1.66	SE	5.0	9	NW
20250216.09	1.45	SE	5.1	6	NW
20250216.12	1.24	SE	5.3	3	NW
20250216.15	1.11	SE	5.5	4	NW
20250216.18	1.04	SE	5.5	5	E
20250216.21	0.99	SE	5.5	8	E
20250217.00	0.97	SE	4.9	11	S
20250217.03	1.00	SE	4.1	10	S
20250217.06	1.04	S	3.7	9	SW
20250217.09	1.08	S	3.7	8	SW
20250217.12	1.11	SW	3.8	8	SW
20250217.15	1.10	SW	3.9	8	SW
20250217.18	1.11	SW	4.0	9	SW
20250217.21	1.15	SW	4.0	9	SW
20250218.00	1.24	SW	4.1	9	SW
20250218.03	1.24	SW	4.2	9	SW
20250218.06	1.17	SW	4.2	8	SW
20250218.09	1.12	SW	4.1	8	SW
20250218.12	1.08	SW	4.0	8	SW

Wind condition in the Fort-Shevchenko

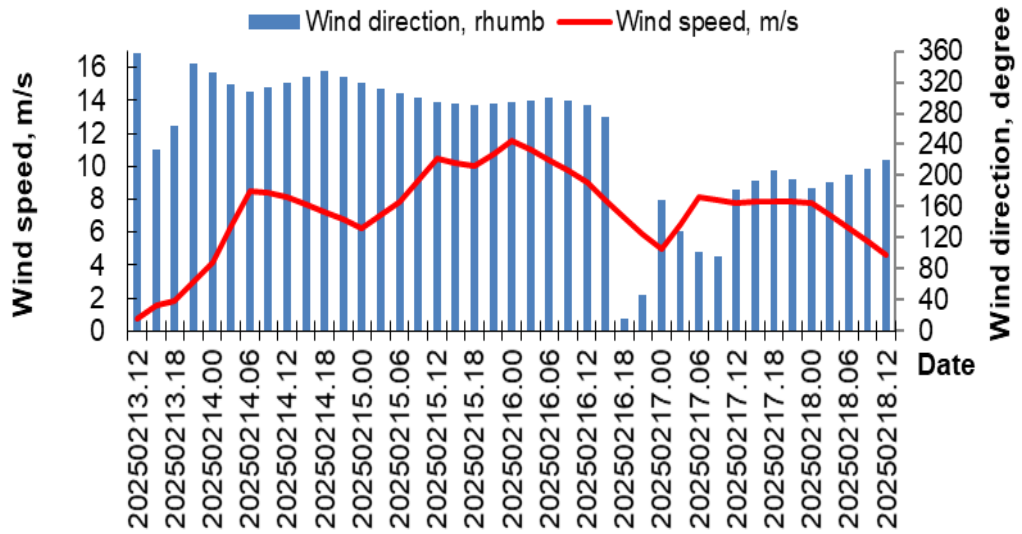


Wave condition in the Fort-Shevchenko

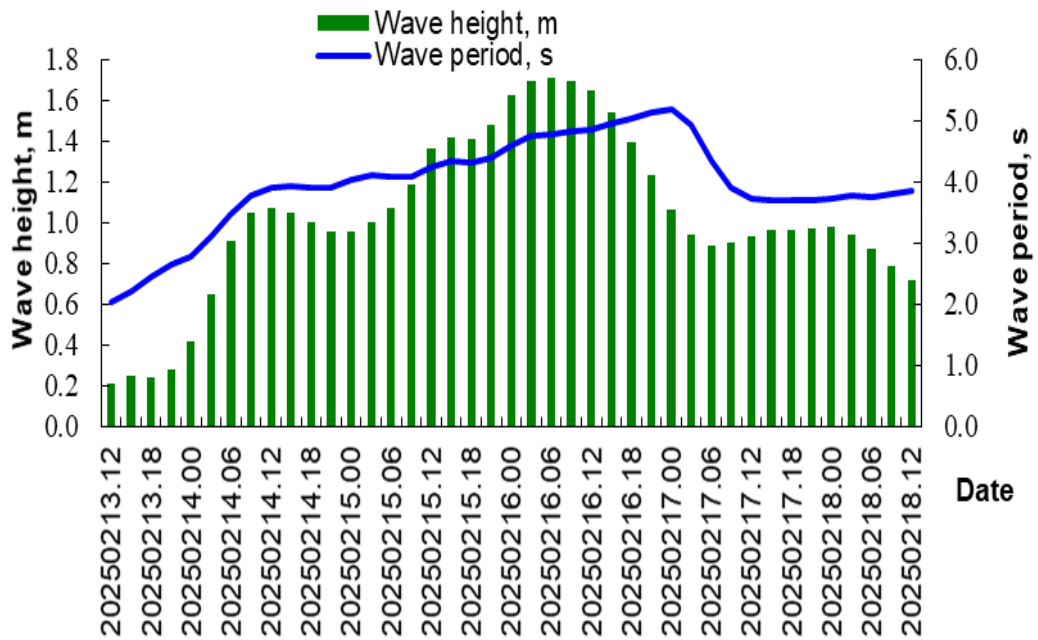


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250213.12	0.11	N	1.4	2	E
20250213.15	0.10	N	1.6	2	NE
20250213.18	0.13	NE	2.1	1	N
20250213.21	0.17	NE	2.6	1	W
20250214.00	0.21	NE	2.9	2	SW
20250214.03	0.25	E	3.0	3	SW
20250214.06	0.33	SE	2.9	4	SW
20250214.09	0.46	SE	2.9	5	SW
20250214.12	0.59	SE	3.1	7	SW
20250214.15	0.67	SE	3.2	6	SW
20250214.18	0.67	SE	3.4	5	SW
20250214.21	0.65	SE	3.6	4	S
20250215.00	0.63	SE	3.7	4	S
20250215.03	0.62	SE	4.0	3	S
20250215.06	0.64	SE	4.5	2	SW
20250215.09	0.67	SE	4.8	2	W
20250215.12	0.75	SE	4.5	2	NW
20250215.15	0.96	SE	4.3	7	NW
20250215.18	1.37	SE	4.3	11	W
20250215.21	1.66	SE	4.7	11	W
20250216.00	1.77	SE	4.9	11	W
20250216.03	1.77	SE	4.9	10	NW
20250216.06	1.69	SE	4.9	9	NW
20250216.09	1.48	SE	5.0	7	NW
20250216.12	1.27	SE	5.3	4	W
20250216.15	1.16	SE	5.5	4	NW
20250216.18	1.09	SE	5.5	5	E
20250216.21	1.02	SE	5.5	8	E
20250217.00	0.97	SE	5.1	11	S
20250217.03	0.99	SE	4.2	10	S
20250217.06	1.05	S	3.8	9	SW
20250217.09	1.09	SW	3.7	8	SW
20250217.12	1.13	SW	3.8	8	SW
20250217.15	1.15	SW	4.0	8	SW
20250217.18	1.14	SW	4.0	9	SW
20250217.21	1.15	SW	4.0	9	SW
20250218.00	1.17	SW	4.1	9	SW
20250218.03	1.15	SW	4.1	9	SW
20250218.06	1.11	SW	4.1	8	SW
20250218.09	1.05	SW	4.1	8	SW
20250218.12	1.01	SW	4.0	8	SW

Wind condition in the Aktau

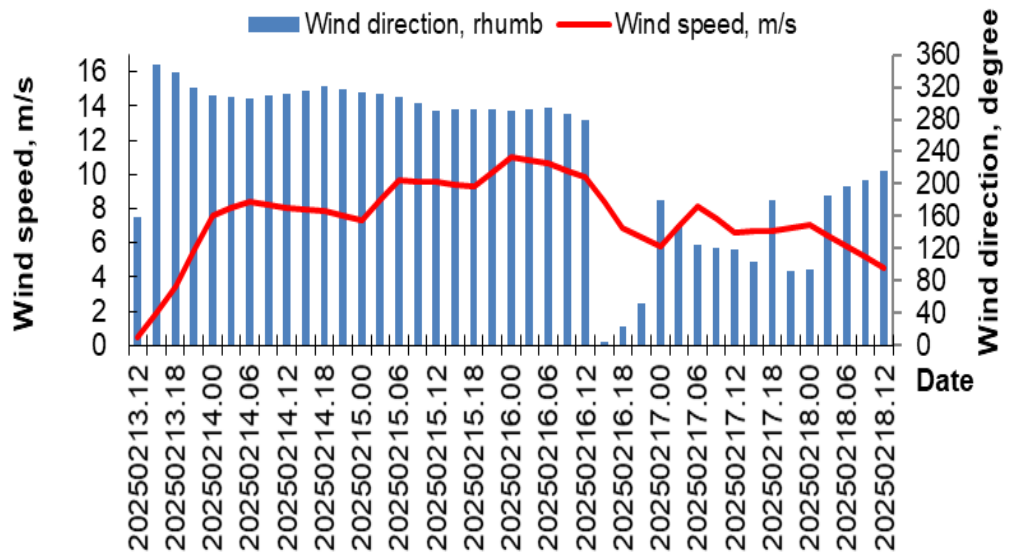


Wave condition in the Aktau

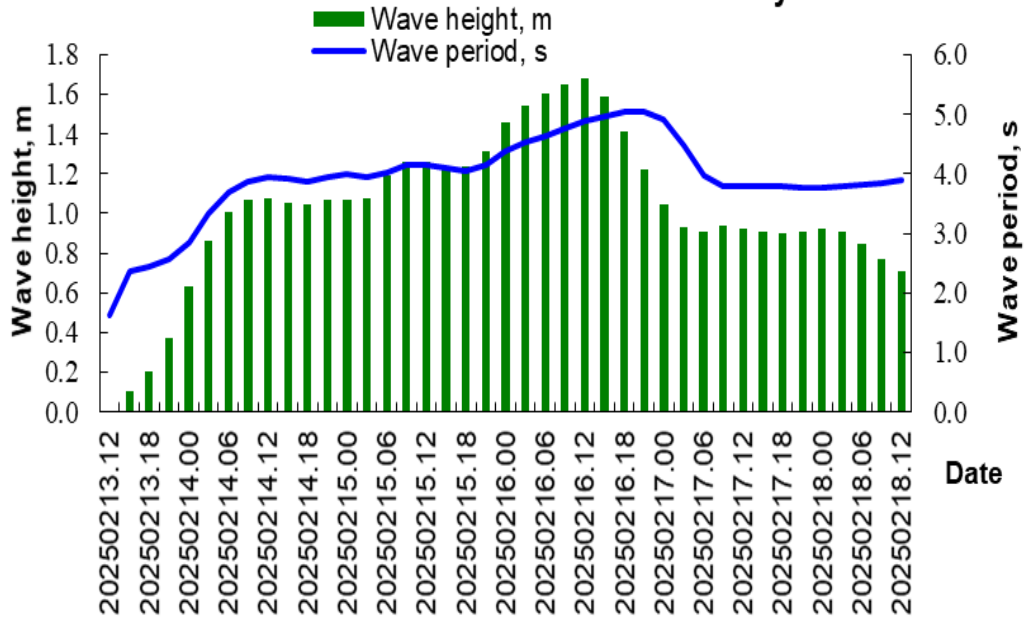


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20250213.12	0.21	S	2.0	1	N
20250213.15	0.25	S	2.2	2	SW
20250213.18	0.24	S	2.4	2	W
20250213.21	0.28	SE	2.6	3	N
20250214.00	0.42	SE	2.8	4	NW
20250214.03	0.65	SE	3.1	6	NW
20250214.06	0.91	SE	3.5	9	NW
20250214.09	1.04	SE	3.8	8	NW
20250214.12	1.07	SE	3.9	8	NW
20250214.15	1.05	SE	3.9	8	NW
20250214.18	1.00	SE	3.9	7	NW
20250214.21	0.96	SE	3.9	7	NW
20250215.00	0.95	SE	4.0	6	NW
20250215.03	1.00	SE	4.1	7	NW
20250215.06	1.07	SE	4.1	8	NW
20250215.09	1.19	SE	4.1	9	NW
20250215.12	1.36	SE	4.2	10	NW
20250215.15	1.42	SE	4.3	10	W
20250215.18	1.41	SE	4.3	10	W
20250215.21	1.48	SE	4.4	11	W
20250216.00	1.63	SE	4.6	12	NW
20250216.03	1.69	SE	4.7	11	NW
20250216.06	1.71	SE	4.8	10	NW
20250216.09	1.69	SE	4.8	10	NW
20250216.12	1.65	E	4.9	9	W
20250216.15	1.54	E	5.0	8	W
20250216.18	1.39	E	5.0	7	N
20250216.21	1.23	E	5.1	6	NE
20250217.00	1.06	E	5.2	5	S
20250217.03	0.94	E	4.9	7	SE
20250217.06	0.89	E	4.4	8	E
20250217.09	0.91	NE	3.9	8	E
20250217.12	0.94	NW	3.7	8	S
20250217.15	0.97	W	3.7	8	S
20250217.18	0.97	W	3.7	8	SW
20250217.21	0.97	W	3.7	8	S
20250218.00	0.98	W	3.7	8	S
20250218.03	0.94	W	3.8	7	S
20250218.06	0.87	W	3.8	6	S
20250218.09	0.79	W	3.8	5	SW
20250218.12	0.72	W	3.8	5	SW

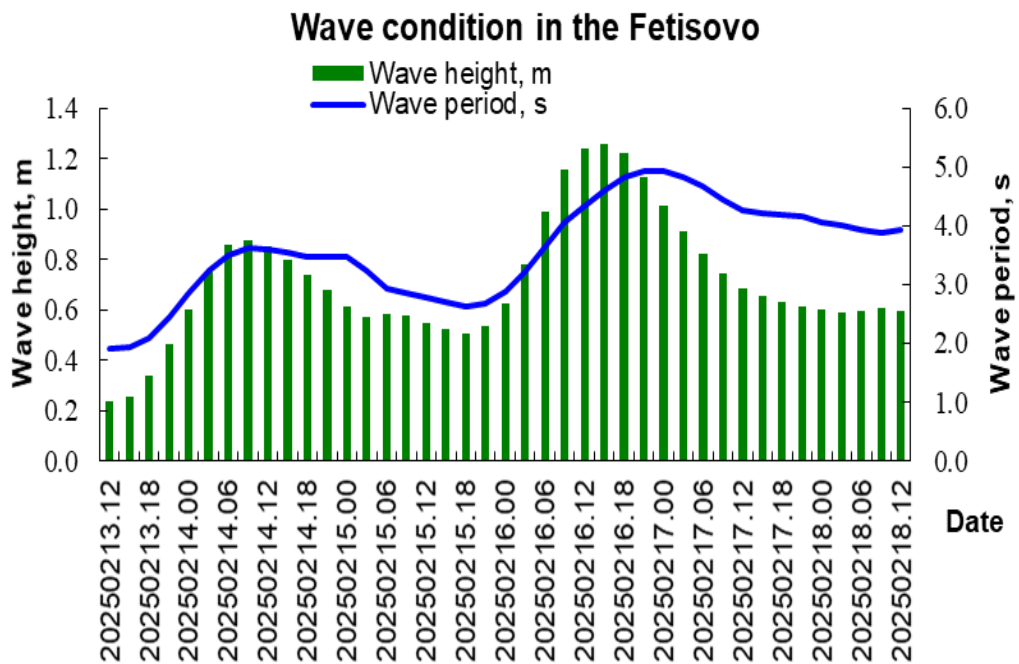
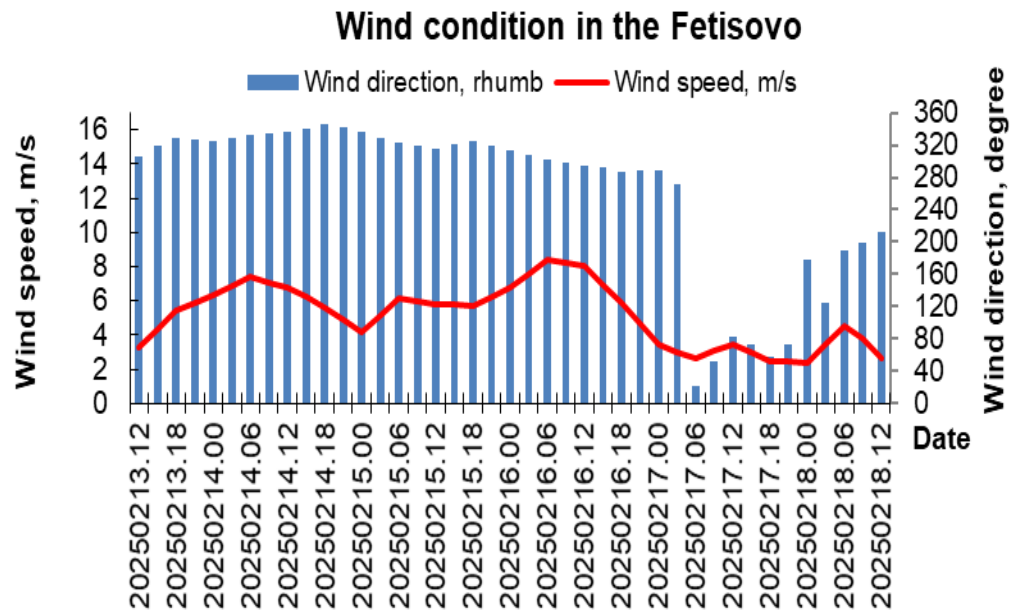
Wind condition in the Peschanyi



Wave condition in the Peschanyi

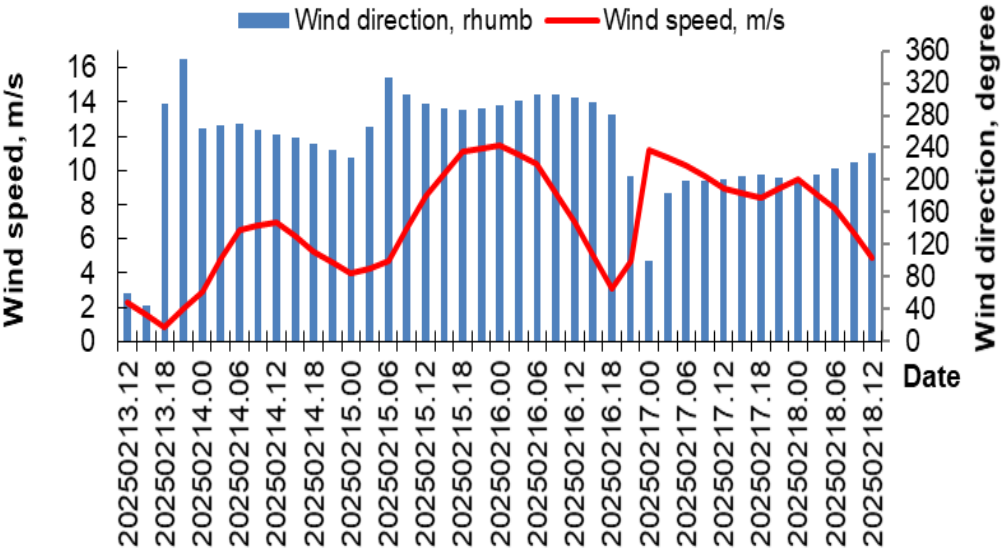


Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250213.12	0.01	N	1.6	0	S
20250213.15	0.11	S	2.4	2	N
20250213.18	0.20	SE	2.4	3	NW
20250213.21	0.37	SE	2.6	6	NW
20250214.00	0.63	SE	2.9	8	NW
20250214.03	0.86	SE	3.3	8	NW
20250214.06	1.01	SE	3.7	8	NW
20250214.09	1.07	SE	3.9	8	NW
20250214.12	1.08	SE	3.9	8	NW
20250214.15	1.05	SE	3.9	8	NW
20250214.18	1.04	SE	3.9	8	NW
20250214.21	1.07	SE	4.0	8	NW
20250215.00	1.07	SE	4.0	7	NW
20250215.03	1.08	SE	4.0	9	NW
20250215.06	1.19	SE	4.0	10	NW
20250215.09	1.26	SE	4.2	10	NW
20250215.12	1.26	SE	4.1	10	W
20250215.15	1.24	SE	4.1	9	W
20250215.18	1.23	SE	4.1	9	NW
20250215.21	1.32	SE	4.2	10	W
20250216.00	1.46	SE	4.4	11	W
20250216.03	1.54	SE	4.5	11	W
20250216.06	1.60	SE	4.6	11	NW
20250216.09	1.65	E	4.8	10	W
20250216.12	1.68	E	4.9	10	W
20250216.15	1.59	E	5.0	8	N
20250216.18	1.41	E	5.0	7	NE
20250216.21	1.22	E	5.0	6	NE
20250217.00	1.05	E	4.9	6	S
20250217.03	0.93	E	4.5	7	SE
20250217.06	0.90	E	4.0	8	SE
20250217.09	0.94	N	3.8	7	SE
20250217.12	0.92	NW	3.8	7	SE
20250217.15	0.91	NW	3.8	7	E
20250217.18	0.90	NW	3.8	7	S
20250217.21	0.91	W	3.8	7	E
20250218.00	0.92	W	3.8	7	E
20250218.03	0.91	W	3.8	6	S
20250218.06	0.84	W	3.8	6	S
20250218.09	0.77	W	3.8	5	SW
20250218.12	0.71	W	3.9	5	SW

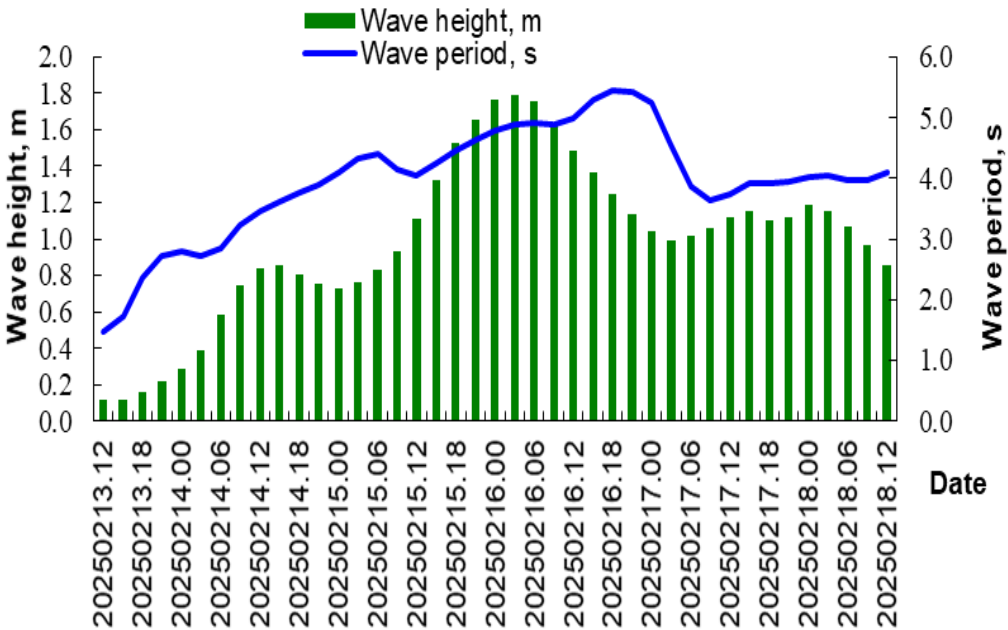


Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250213.12	0.24	SE	1.9	3	NW
20250213.15	0.26	SE	1.9	4	NW
20250213.18	0.34	SE	2.1	5	NW
20250213.21	0.46	SE	2.5	6	NW
20250214.00	0.60	SE	2.9	6	NW
20250214.03	0.75	SE	3.2	7	NW
20250214.06	0.86	SE	3.5	7	NW
20250214.09	0.88	SE	3.6	7	NW
20250214.12	0.85	SE	3.6	7	NW
20250214.15	0.80	SE	3.5	6	N
20250214.18	0.74	SE	3.5	6	N
20250214.21	0.68	SE	3.5	5	N
20250215.00	0.61	SE	3.5	4	NW
20250215.03	0.57	SE	3.2	5	NW
20250215.06	0.59	SE	2.9	6	NW
20250215.09	0.58	SE	2.8	6	NW
20250215.12	0.55	SE	2.8	6	NW
20250215.15	0.52	SE	2.7	6	NW
20250215.18	0.51	SE	2.6	6	NW
20250215.21	0.54	SE	2.7	6	NW
20250216.00	0.62	SE	2.9	7	NW
20250216.03	0.78	SE	3.2	8	NW
20250216.06	0.99	SE	3.6	8	NW
20250216.09	1.16	SE	4.1	8	NW
20250216.12	1.24	E	4.3	8	NW
20250216.15	1.26	E	4.6	7	W
20250216.18	1.22	E	4.8	6	W
20250216.21	1.13	E	4.9	5	W
20250217.00	1.01	E	4.9	3	W
20250217.03	0.91	E	4.8	3	W
20250217.06	0.82	E	4.7	3	N
20250217.09	0.74	E	4.5	3	NE
20250217.12	0.69	E	4.3	3	E
20250217.15	0.65	NE	4.2	3	E
20250217.18	0.63	N	4.2	2	NE
20250217.21	0.62	N	4.2	2	E
20250218.00	0.60	N	4.1	2	S
20250218.03	0.59	NW	4.0	3	SE
20250218.06	0.59	NW	3.9	5	S
20250218.09	0.60	NW	3.9	4	S
20250218.12	0.60	NW	3.9	3	SW

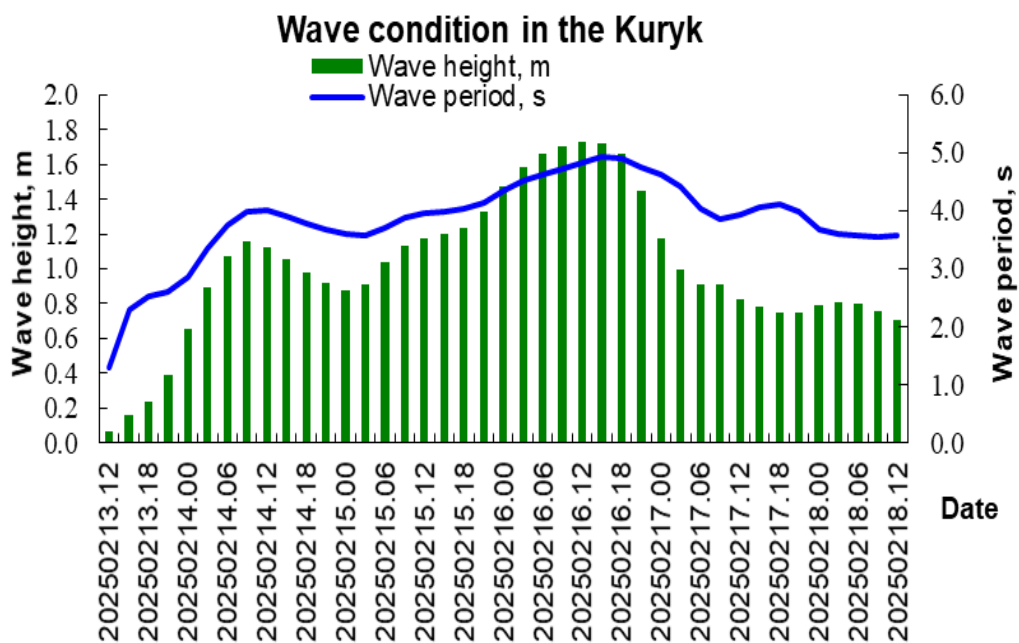
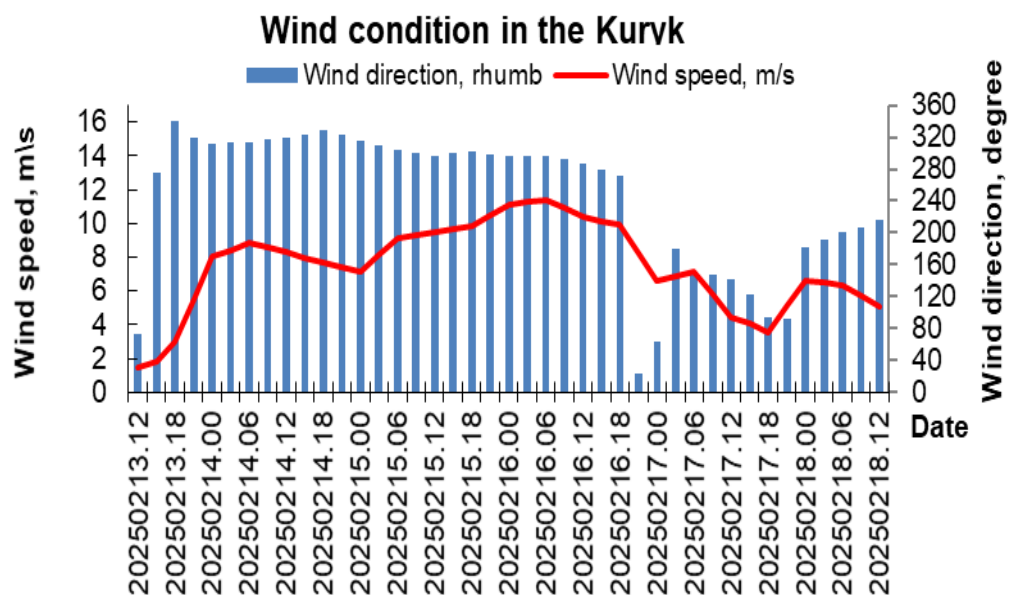
Wind condition in the Saura



Wave condition in the Saura



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250213.12	0.12	NE	1.5	2	NE
20250213.15	0.12	NE	1.7	2	NE
20250213.18	0.16	SE	2.4	1	NW
20250213.21	0.22	SE	2.7	2	N
20250214.00	0.28	SE	2.8	3	W
20250214.03	0.39	SE	2.7	5	W
20250214.06	0.58	SE	2.8	7	W
20250214.09	0.75	SE	3.2	7	W
20250214.12	0.84	SE	3.4	7	W
20250214.15	0.85	SE	3.6	6	W
20250214.18	0.80	SE	3.8	5	SW
20250214.21	0.75	SE	3.9	5	SW
20250215.00	0.73	SE	4.1	4	SW
20250215.03	0.76	SE	4.3	4	W
20250215.06	0.83	SE	4.4	5	NW
20250215.09	0.93	SE	4.1	7	NW
20250215.12	1.11	SE	4.0	8	NW
20250215.15	1.32	E	4.3	10	W
20250215.18	1.52	E	4.5	11	W
20250215.21	1.66	E	4.6	11	W
20250216.00	1.77	E	4.8	11	W
20250216.03	1.80	SE	4.9	11	NW
20250216.06	1.75	SE	4.9	10	NW
20250216.09	1.63	SE	4.9	9	NW
20250216.12	1.48	SE	5.0	7	NW
20250216.15	1.36	SE	5.3	5	NW
20250216.18	1.25	SE	5.5	3	W
20250216.21	1.14	SE	5.4	5	SW
20250217.00	1.04	SE	5.2	11	E
20250217.03	0.99	SE	4.6	11	S
20250217.06	1.02	SE	3.9	10	S
20250217.09	1.06	SW	3.6	10	S
20250217.12	1.12	SW	3.7	9	S
20250217.15	1.15	SW	3.9	9	SW
20250217.18	1.10	W	3.9	8	SW
20250217.21	1.12	W	3.9	9	SW
20250218.00	1.19	W	4.0	9	S
20250218.03	1.16	W	4.0	9	SW
20250218.06	1.07	W	4.0	8	SW
20250218.09	0.96	W	4.0	6	SW
20250218.12	0.85	W	4.1	5	SW



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250213.12	0.06	N	1.3	1	E
20250213.15	0.16	S	2.3	2	W
20250213.18	0.24	SE	2.5	3	N
20250213.21	0.39	SE	2.6	6	NW
20250214.00	0.66	SE	2.9	8	NW
20250214.03	0.89	SE	3.3	8	NW
20250214.06	1.07	SE	3.8	9	NW
20250214.09	1.15	SE	4.0	9	NW
20250214.12	1.13	SE	4.0	8	NW
20250214.15	1.05	SE	3.9	8	NW
20250214.18	0.98	SE	3.8	8	NW
20250214.21	0.92	SE	3.7	7	NW
20250215.00	0.88	SE	3.6	7	NW
20250215.03	0.91	SE	3.6	8	NW
20250215.06	1.04	SE	3.7	9	NW
20250215.09	1.13	SE	3.9	9	NW
20250215.12	1.18	SE	4.0	10	NW
20250215.15	1.20	SE	4.0	10	NW
20250215.18	1.23	SE	4.0	10	NW
20250215.21	1.32	SE	4.2	10	NW
20250216.00	1.48	SE	4.3	11	NW
20250216.03	1.58	E	4.5	11	NW
20250216.06	1.66	E	4.6	11	NW
20250216.09	1.70	E	4.7	11	W
20250216.12	1.73	E	4.8	10	W
20250216.15	1.72	E	4.9	10	W
20250216.18	1.66	E	4.9	10	W
20250216.21	1.44	E	4.8	8	NE
20250217.00	1.17	E	4.6	7	NE
20250217.03	0.99	E	4.4	7	S
20250217.06	0.91	E	4.0	7	SE
20250217.09	0.91	E	3.8	6	SE
20250217.12	0.83	N	3.9	4	SE
20250217.15	0.78	N	4.1	4	SE
20250217.18	0.75	NW	4.1	4	E
20250217.21	0.74	NW	4.0	5	E
20250218.00	0.79	W	3.7	7	S
20250218.03	0.81	W	3.6	6	S
20250218.06	0.80	W	3.6	6	S
20250218.09	0.76	W	3.5	6	SW
20250218.12	0.71	W	3.6	5	SW

**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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