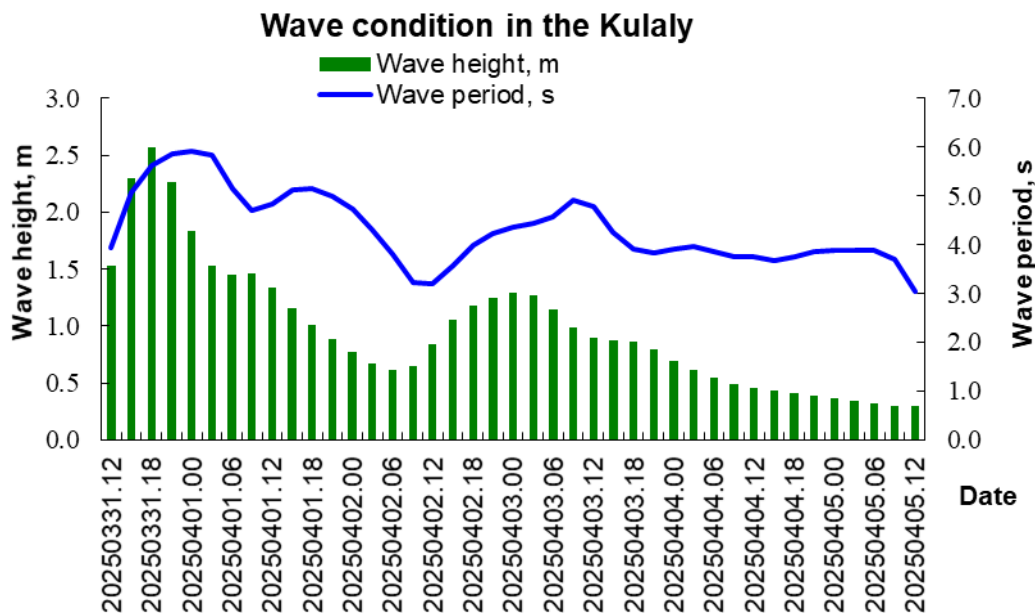
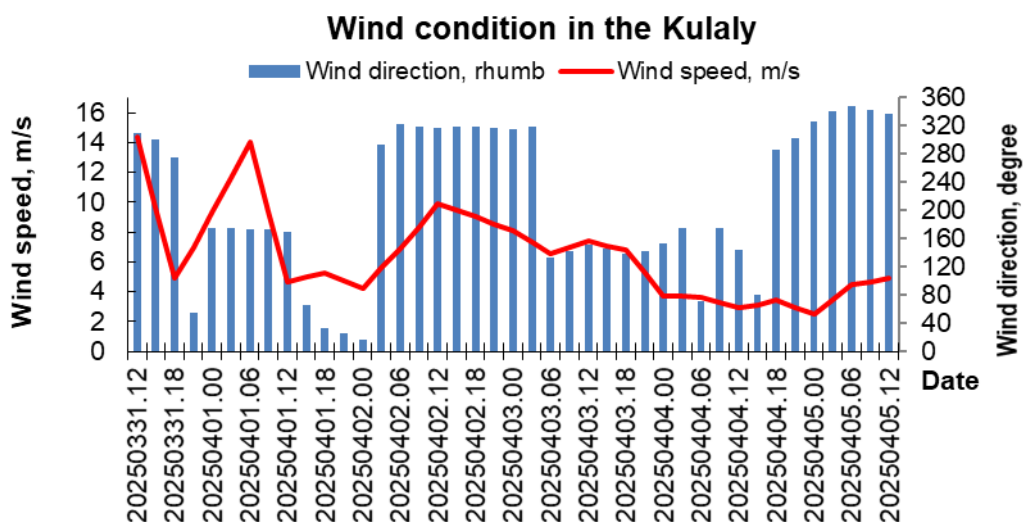




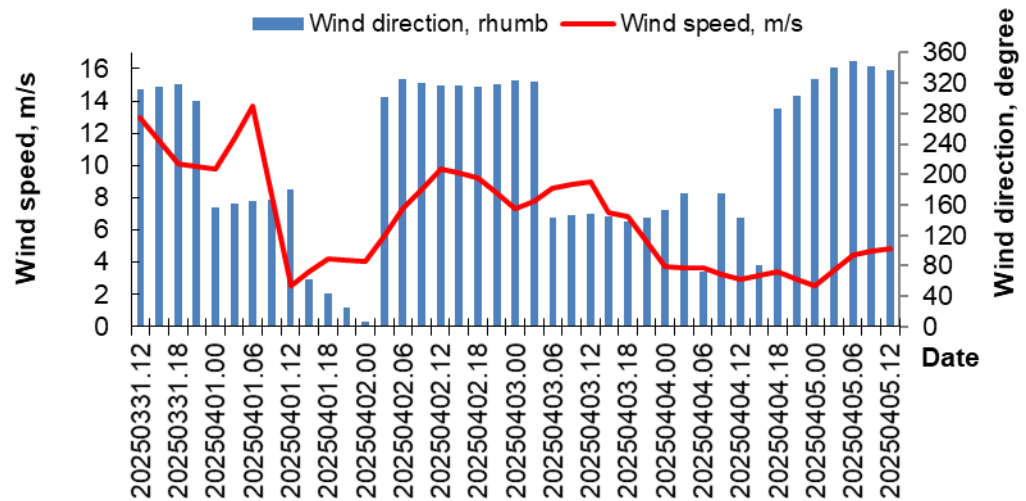
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**Wave and wind forecast for the Kazakhstan part of the Caspian Sea with a 5-day advance
using SWAN spectral model for the period March 31 – April 05, 2025.**

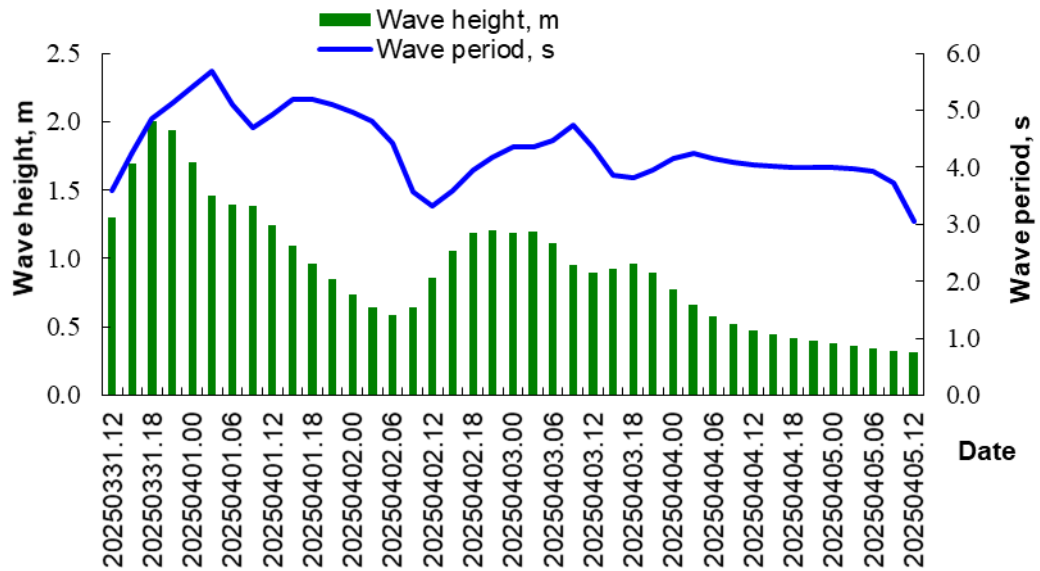


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250331.12	1.53	SE	3.9	14	NW
20250331.15	2.30	SE	5.1	10	NW
20250331.18	2.57	SE	5.6	5	W
20250331.21	2.26	E	5.9	7	NE
20250401.00	1.83	E	5.9	9	S
20250401.03	1.53	SE	5.8	12	S
20250401.06	1.45	E	5.1	14	S
20250401.09	1.46	E	4.7	9	S
20250401.12	1.33	NE	4.8	5	S
20250401.15	1.15	NE	5.1	5	NE
20250401.18	1.01	NE	5.1	5	NE
20250401.21	0.88	NE	5.0	5	NE
20250402.00	0.77	NE	4.7	4	N
20250402.03	0.68	NE	4.3	6	NW
20250402.06	0.62	NE	3.8	7	NW
20250402.09	0.65	E	3.2	8	NW
20250402.12	0.84	SE	3.2	10	NW
20250402.15	1.05	SE	3.6	9	NW
20250402.18	1.18	SE	4.0	9	NW
20250402.21	1.25	SE	4.2	9	NW
20250403.00	1.29	SE	4.4	8	NW
20250403.03	1.27	E	4.4	7	NW
20250403.06	1.14	E	4.6	7	SE
20250403.09	0.99	E	4.9	7	SE
20250403.12	0.90	E	4.8	7	SE
20250403.15	0.88	E	4.3	7	SE
20250403.18	0.86	NE	3.9	7	SE
20250403.21	0.79	NE	3.8	5	SE
20250404.00	0.70	N	3.9	4	SE
20250404.03	0.61	N	4.0	4	S
20250404.06	0.55	N	3.9	4	E
20250404.09	0.49	N	3.8	3	S
20250404.12	0.46	NW	3.8	3	SE
20250404.15	0.43	NW	3.7	3	E
20250404.18	0.41	NW	3.8	3	W
20250404.21	0.39	N	3.9	3	NW
20250405.00	0.36	N	3.9	3	NW
20250405.03	0.34	NE	3.9	3	N
20250405.06	0.32	NE	3.9	4	N
20250405.09	0.30	NE	3.7	5	N
20250405.12	0.30	E	3.0	5	NW

Wind condition in the Fort-Shevchenko

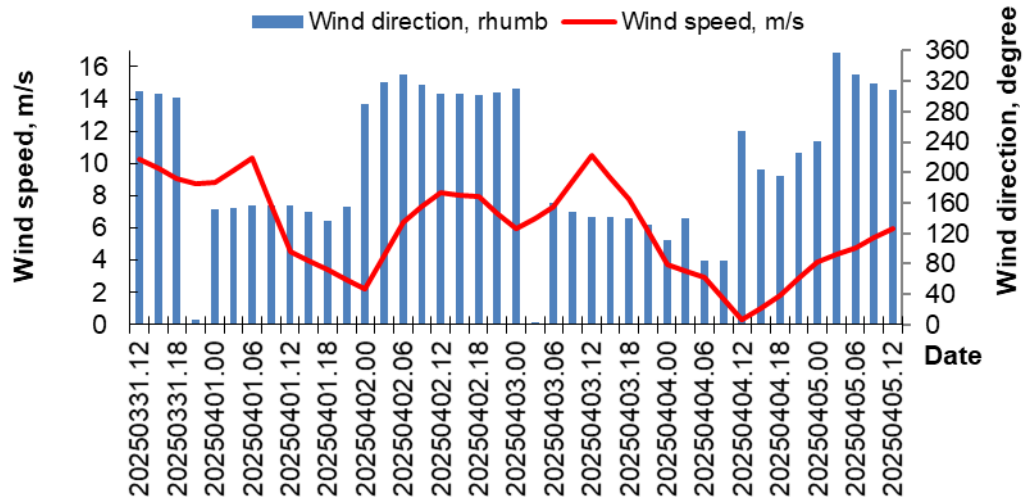


Wave condition in the Fort-Shevchenko

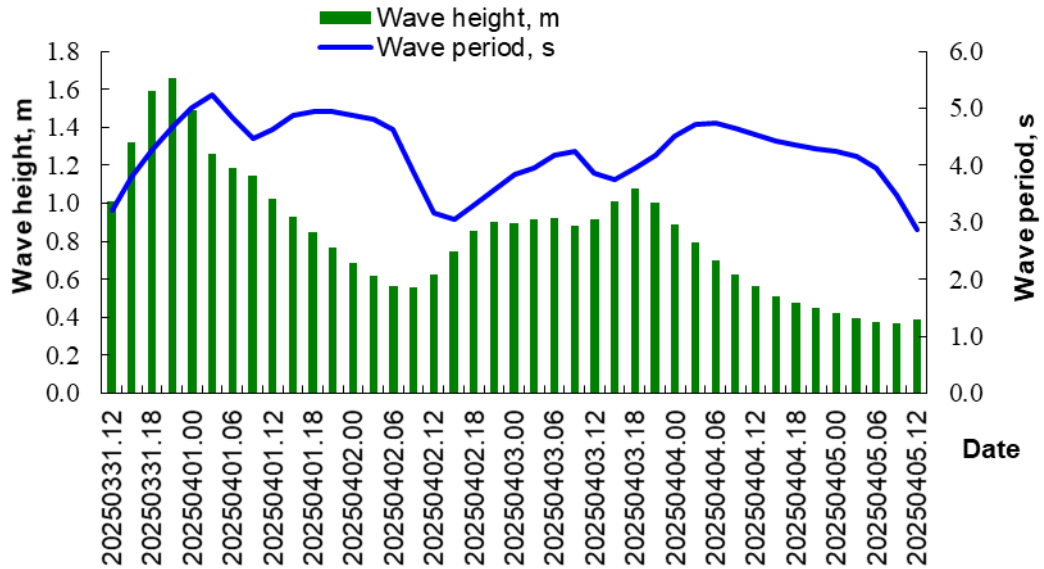


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250331.12	1.30	SE	3.6	13	NW
20250331.15	1.70	SE	4.3	12	NW
20250331.18	2.01	SE	4.8	10	NW
20250331.21	1.94	SE	5.1	10	NW
20250401.00	1.70	SE	5.4	10	SE
20250401.03	1.46	SE	5.7	12	S
20250401.06	1.39	E	5.1	14	S
20250401.09	1.39	NE	4.7	8	S
20250401.12	1.25	NE	4.9	3	S
20250401.15	1.09	NE	5.2	3	NE
20250401.18	0.97	NE	5.2	4	NE
20250401.21	0.85	NE	5.1	4	NE
20250402.00	0.74	NE	5.0	4	N
20250402.03	0.64	NE	4.8	6	NW
20250402.06	0.58	NE	4.4	7	NW
20250402.09	0.64	E	3.6	9	NW
20250402.12	0.86	SE	3.3	10	NW
20250402.15	1.05	SE	3.6	10	NW
20250402.18	1.19	SE	4.0	9	NW
20250402.21	1.21	SE	4.2	8	NW
20250403.00	1.19	E	4.4	7	NW
20250403.03	1.20	E	4.3	8	NW
20250403.06	1.11	E	4.5	9	SE
20250403.09	0.95	E	4.7	9	SE
20250403.12	0.89	E	4.4	9	SE
20250403.15	0.92	NE	3.9	7	SE
20250403.18	0.96	N	3.8	7	SE
20250403.21	0.89	N	3.9	5	SE
20250404.00	0.77	N	4.2	4	SE
20250404.03	0.66	N	4.2	4	S
20250404.06	0.58	N	4.2	4	E
20250404.09	0.52	N	4.1	3	S
20250404.12	0.47	NW	4.0	3	SE
20250404.15	0.44	NW	4.0	3	E
20250404.18	0.42	NW	4.0	3	W
20250404.21	0.40	N	4.0	3	NW
20250405.00	0.38	N	4.0	3	NW
20250405.03	0.36	N	4.0	3	N
20250405.06	0.34	N	3.9	4	N
20250405.09	0.32	NE	3.7	5	N
20250405.12	0.32	E	3.1	5	NW

Wind condition in the Aktau

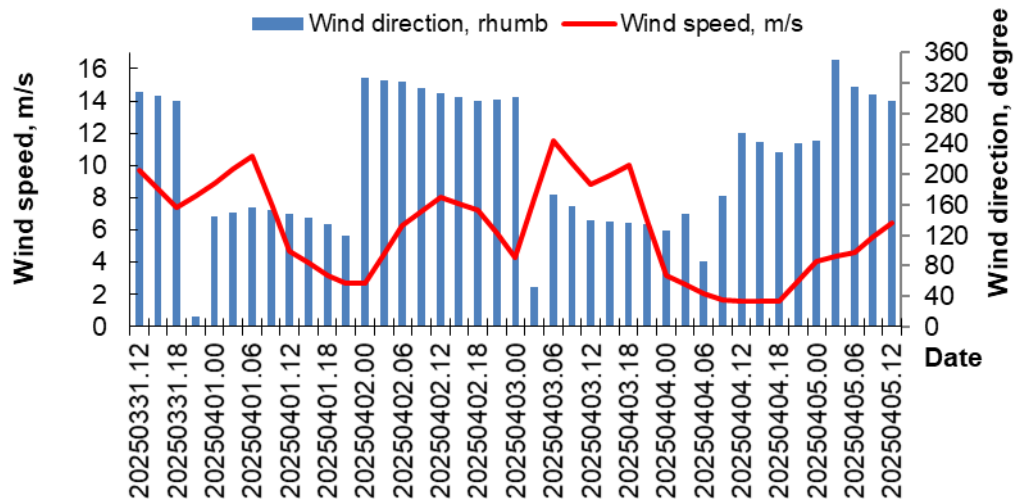


Wave condition in the Aktau

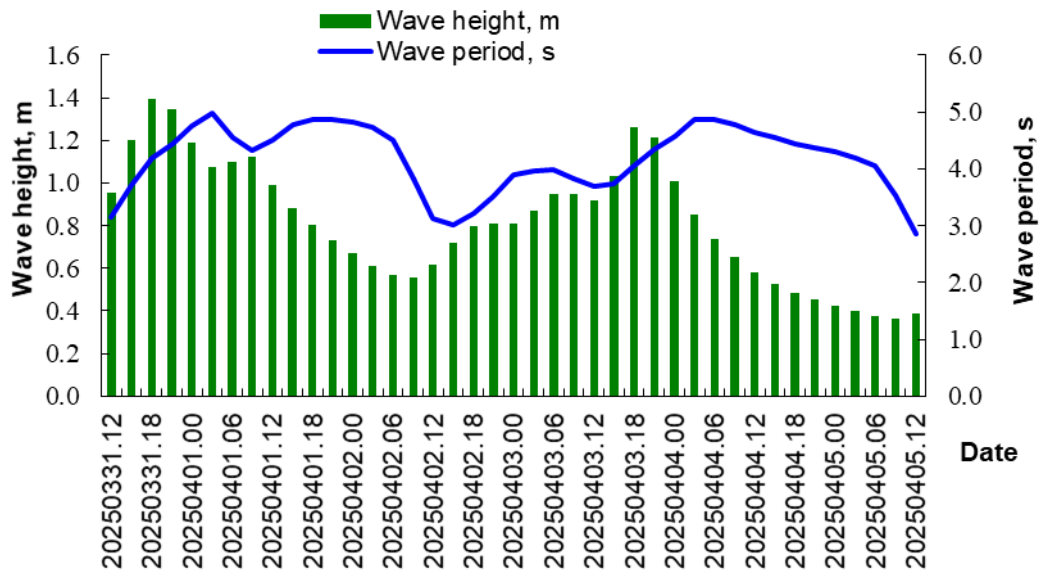


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20250331.12	1.01	SE	3.2	10	NW
20250331.15	1.32	SE	3.8	10	NW
20250331.18	1.59	SE	4.3	9	NW
20250331.21	1.66	SE	4.7	9	N
20250401.00	1.49	SE	5.0	9	SE
20250401.03	1.26	SE	5.2	10	SE
20250401.06	1.18	SE	4.8	10	SE
20250401.09	1.14	E	4.5	7	SE
20250401.12	1.03	NE	4.6	5	SE
20250401.15	0.93	N	4.9	4	SE
20250401.18	0.85	N	5.0	3	SE
20250401.21	0.76	N	4.9	3	SE
20250402.00	0.69	N	4.9	2	W
20250402.03	0.62	N	4.8	4	NW
20250402.06	0.56	N	4.6	6	NW
20250402.09	0.55	N	3.9	7	NW
20250402.12	0.63	E	3.2	8	NW
20250402.15	0.75	E	3.0	8	NW
20250402.18	0.86	E	3.3	8	NW
20250402.21	0.90	E	3.6	7	NW
20250403.00	0.90	E	3.8	6	NW
20250403.03	0.92	E	4.0	7	N
20250403.06	0.92	E	4.2	7	S
20250403.09	0.88	E	4.2	9	SE
20250403.12	0.91	NE	3.9	10	SE
20250403.15	1.01	N	3.8	9	SE
20250403.18	1.08	N	4.0	8	SE
20250403.21	1.00	N	4.2	6	SE
20250404.00	0.89	N	4.5	4	E
20250404.03	0.79	N	4.7	3	SE
20250404.06	0.70	N	4.7	3	E
20250404.09	0.62	N	4.6	2	E
20250404.12	0.56	N	4.5	0	W
20250404.15	0.51	N	4.4	1	SW
20250404.18	0.48	N	4.4	2	S
20250404.21	0.45	N	4.3	3	SW
20250405.00	0.42	N	4.2	4	SW
20250405.03	0.40	N	4.2	4	N
20250405.06	0.37	N	4.0	5	NW
20250405.09	0.36	N	3.5	5	NW
20250405.12	0.39	SE	2.9	6	NW

Wind condition in the Peschanyi

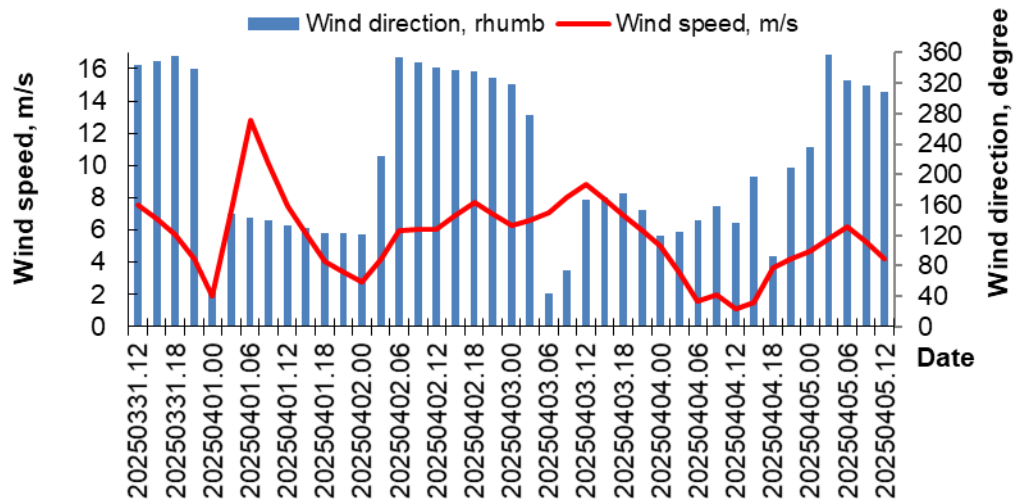


Wave condition in the Peschanyi

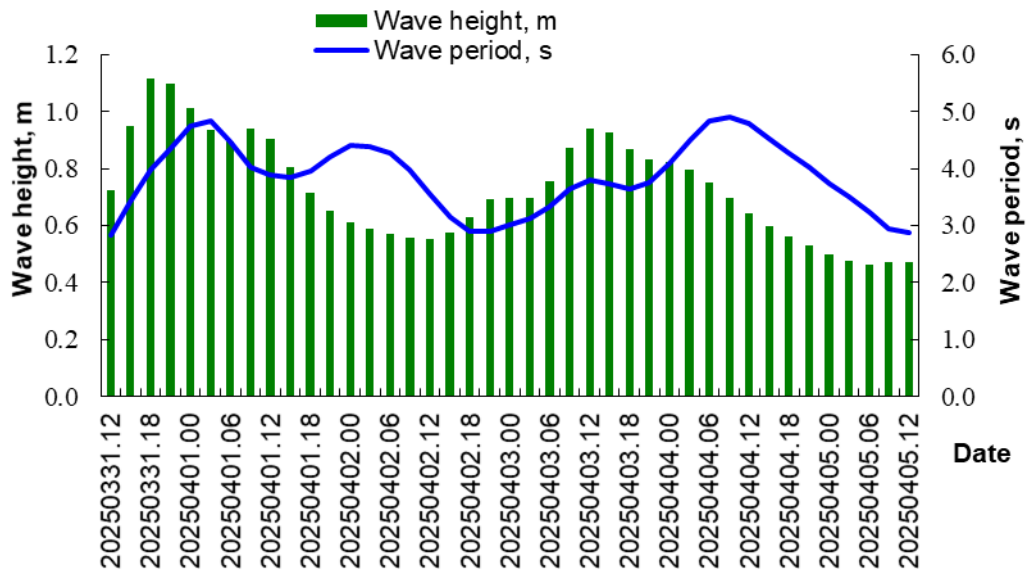


Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250331.12	0.95	SE	3.1	10	NW
20250331.15	1.20	SE	3.7	9	NW
20250331.18	1.40	SE	4.2	7	NW
20250331.21	1.34	SE	4.4	8	N
20250401.00	1.19	SE	4.8	9	SE
20250401.03	1.08	SE	5.0	10	SE
20250401.06	1.10	SE	4.5	11	SE
20250401.09	1.12	NE	4.3	8	SE
20250401.12	0.99	N	4.5	5	SE
20250401.15	0.88	N	4.8	4	SE
20250401.18	0.80	N	4.9	3	SE
20250401.21	0.73	N	4.9	3	SE
20250402.00	0.67	N	4.8	3	NW
20250402.03	0.61	N	4.7	5	NW
20250402.06	0.57	N	4.5	6	NW
20250402.09	0.56	N	3.8	7	NW
20250402.12	0.62	E	3.1	8	NW
20250402.15	0.72	E	3.0	8	NW
20250402.18	0.80	E	3.2	7	NW
20250402.21	0.81	E	3.5	6	NW
20250403.00	0.81	E	3.9	4	NW
20250403.03	0.87	E	4.0	8	NE
20250403.06	0.95	NE	4.0	12	S
20250403.09	0.95	NE	3.8	10	S
20250403.12	0.92	N	3.7	9	SE
20250403.15	1.03	N	3.7	9	SE
20250403.18	1.26	NW	4.1	10	SE
20250403.21	1.22	NW	4.3	7	SE
20250404.00	1.01	NW	4.6	3	SE
20250404.03	0.85	NW	4.9	3	SE
20250404.06	0.74	NW	4.9	2	E
20250404.09	0.65	N	4.8	2	S
20250404.12	0.58	N	4.7	2	W
20250404.15	0.53	N	4.5	2	SW
20250404.18	0.49	N	4.4	2	SW
20250404.21	0.45	N	4.4	3	SW
20250405.00	0.42	N	4.3	4	SW
20250405.03	0.40	N	4.2	4	N
20250405.06	0.37	N	4.0	5	NW
20250405.09	0.36	N	3.5	6	NW
20250405.12	0.39	E	2.9	6	NW

Wind condition in the Fetisovo

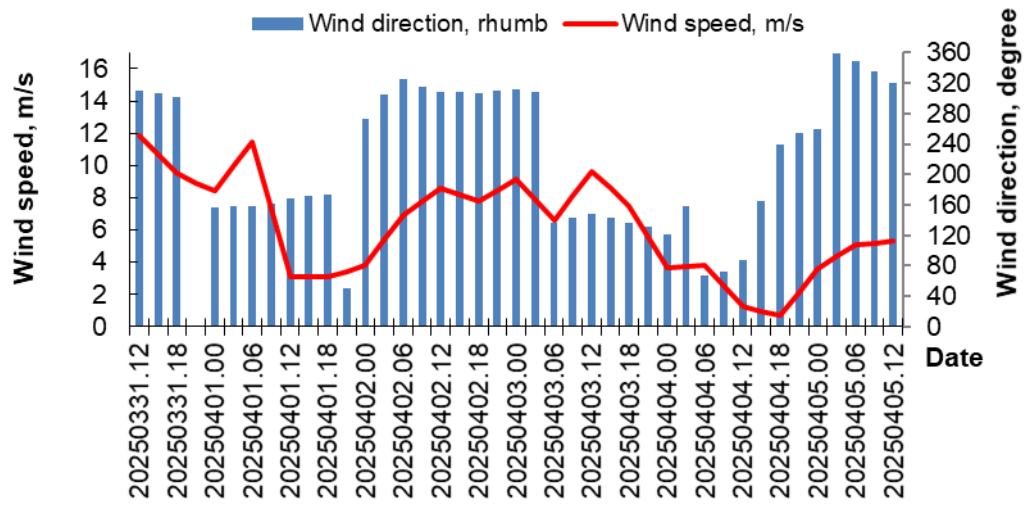


Wave condition in the Fetisovo

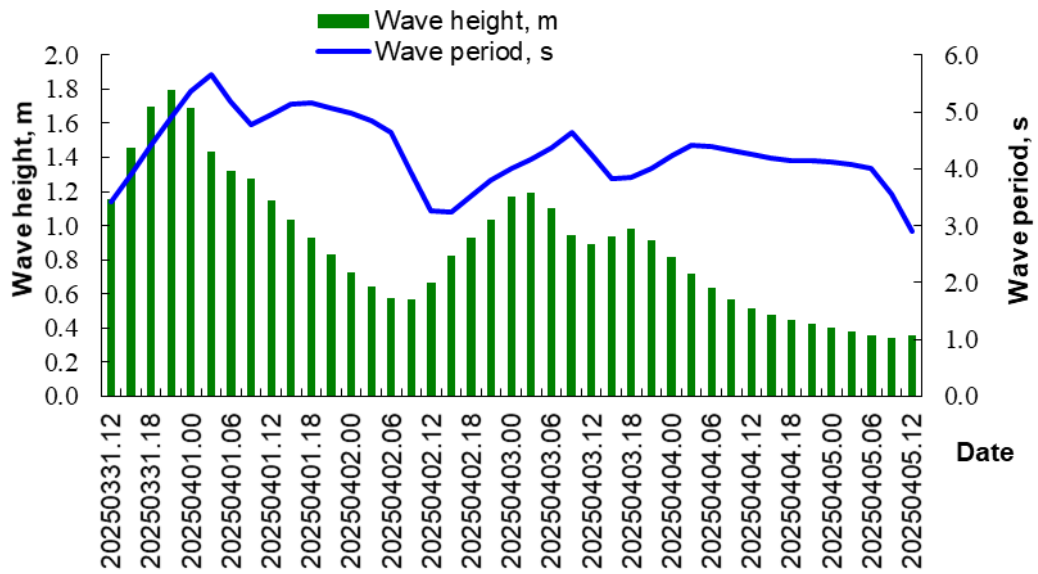


Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250331.12	0.72	S	2.8	8	N
20250331.15	0.95	SE	3.4	7	N
20250331.18	1.11	SE	4.0	6	N
20250331.21	1.10	SE	4.4	4	N
20250401.00	1.01	S	4.7	2	NE
20250401.03	0.93	S	4.8	7	SE
20250401.06	0.90	SE	4.5	13	SE
20250401.09	0.94	NE	4.0	10	SE
20250401.12	0.91	N	3.9	7	SE
20250401.15	0.81	N	3.8	6	SE
20250401.18	0.71	N	4.0	4	SE
20250401.21	0.65	N	4.2	3	SE
20250402.00	0.61	N	4.4	3	SE
20250402.03	0.59	N	4.4	4	SW
20250402.06	0.57	N	4.3	6	N
20250402.09	0.56	N	4.0	6	N
20250402.12	0.55	N	3.6	6	N
20250402.15	0.58	N	3.1	7	NW
20250402.18	0.63	SE	2.9	8	NW
20250402.21	0.69	SE	2.9	7	NW
20250403.00	0.70	SE	3.0	6	NW
20250403.03	0.70	SE	3.1	7	W
20250403.06	0.75	E	3.3	7	NE
20250403.09	0.87	NE	3.6	8	E
20250403.12	0.94	NE	3.8	9	S
20250403.15	0.92	N	3.7	8	S
20250403.18	0.87	N	3.6	7	S
20250403.21	0.83	N	3.8	6	SE
20250404.00	0.82	N	4.1	5	SE
20250404.03	0.80	N	4.5	3	SE
20250404.06	0.75	N	4.8	2	SE
20250404.09	0.70	N	4.9	2	S
20250404.12	0.64	N	4.8	1	SE
20250404.15	0.60	N	4.5	1	S
20250404.18	0.56	N	4.3	4	E
20250404.21	0.53	N	4.0	4	SW
20250405.00	0.50	N	3.7	5	SW
20250405.03	0.48	NW	3.5	5	N
20250405.06	0.46	NW	3.2	6	NW
20250405.09	0.47	N	2.9	5	NW
20250405.12	0.47	E	2.9	4	NW

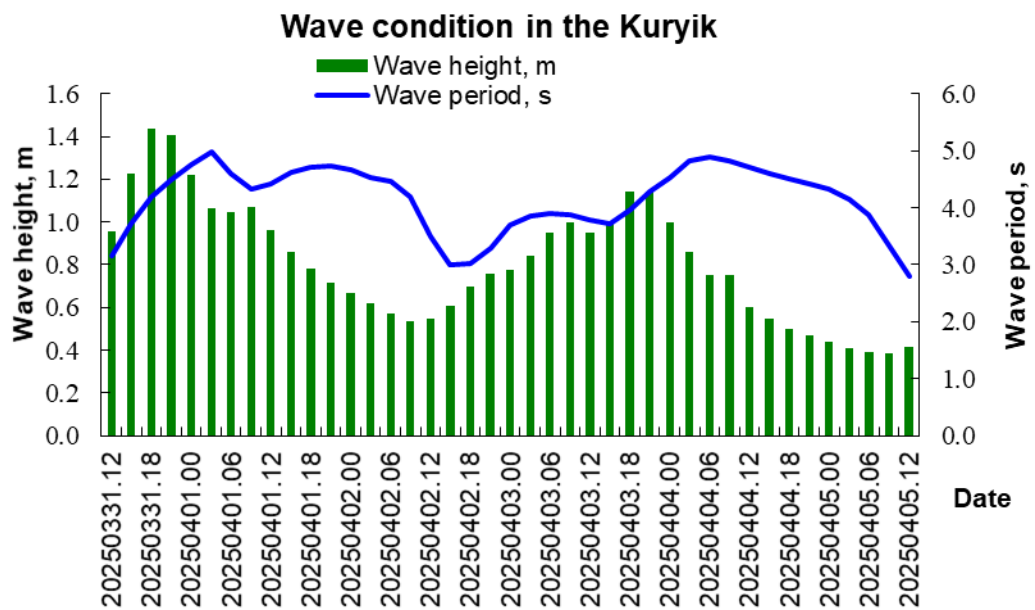
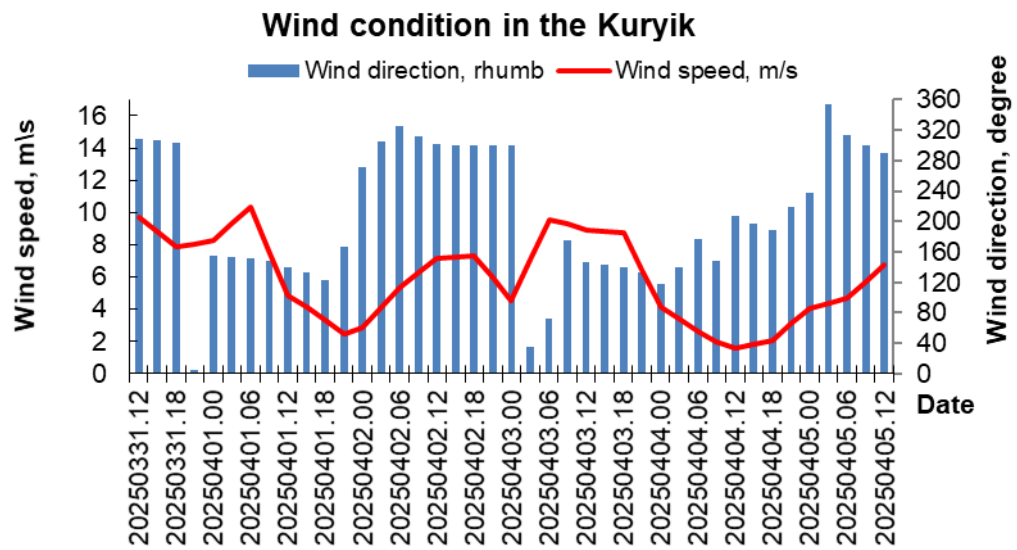
Wind condition in the Saura



Wave condition in the Saura



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250331.12	1.16	SE	3.4	12	NW
20250331.15	1.46	SE	3.9	11	NW
20250331.18	1.69	SE	4.4	10	NW
20250331.21	1.80	SE	4.9	9	N
20250401.00	1.69	SE	5.4	8	SE
20250401.03	1.44	SE	5.7	10	S
20250401.06	1.32	SE	5.2	11	S
20250401.09	1.28	E	4.8	7	S
20250401.12	1.15	NE	5.0	3	S
20250401.15	1.04	NE	5.1	3	S
20250401.18	0.93	NE	5.2	3	S
20250401.21	0.83	N	5.1	3	NE
20250402.00	0.73	N	5.0	4	W
20250402.03	0.64	N	4.8	5	NW
20250402.06	0.57	N	4.6	7	NW
20250402.09	0.57	NE	3.9	8	NW
20250402.12	0.67	E	3.3	9	NW
20250402.15	0.82	SE	3.2	8	NW
20250402.18	0.93	SE	3.5	8	NW
20250402.21	1.03	E	3.8	8	NW
20250403.00	1.17	E	4.0	9	NW
20250403.03	1.19	E	4.2	8	NW
20250403.06	1.10	E	4.4	7	SE
20250403.09	0.95	E	4.6	8	SE
20250403.12	0.89	E	4.3	10	SE
20250403.15	0.93	NE	3.8	9	SE
20250403.18	0.98	N	3.9	7	SE
20250403.21	0.92	N	4.0	6	SE
20250404.00	0.82	N	4.2	4	SE
20250404.03	0.72	N	4.4	4	S
20250404.06	0.64	N	4.4	4	NE
20250404.09	0.57	N	4.3	3	E
20250404.12	0.52	N	4.3	1	E
20250404.15	0.48	N	4.2	1	S
20250404.18	0.45	N	4.2	1	SW
20250404.21	0.43	N	4.1	2	W
20250405.00	0.40	N	4.1	4	W
20250405.03	0.38	N	4.1	4	N
20250405.06	0.36	N	4.0	5	N
20250405.09	0.34	N	3.6	5	NW
20250405.12	0.35	E	2.9	5	NW



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250331.12	0.96	SE	3.1	10	NW
20250331.15	1.23	SE	3.7	9	NW
20250331.18	1.44	SE	4.2	8	NW
20250331.21	1.41	SE	4.5	8	N
20250401.00	1.22	SE	4.8	8	SE
20250401.03	1.07	SE	5.0	9	SE
20250401.06	1.05	SE	4.6	10	SE
20250401.09	1.07	NE	4.3	8	SE
20250401.12	0.96	NE	4.4	5	SE
20250401.15	0.86	N	4.6	4	SE
20250401.18	0.78	N	4.7	3	SE
20250401.21	0.72	N	4.7	2	S
20250402.00	0.67	N	4.7	3	W
20250402.03	0.62	N	4.5	4	NW
20250402.06	0.57	N	4.5	5	NW
20250402.09	0.54	N	4.2	6	NW
20250402.12	0.54	NE	3.5	7	NW
20250402.15	0.61	E	3.0	7	NW
20250402.18	0.70	E	3.0	7	NW
20250402.21	0.76	E	3.3	6	NW
20250403.00	0.78	E	3.7	5	NW
20250403.03	0.84	E	3.8	7	NE
20250403.06	0.95	E	3.9	10	E
20250403.09	1.00	NE	3.9	9	S
20250403.12	0.95	NE	3.8	9	SE
20250403.15	0.99	N	3.7	9	SE
20250403.18	1.14	N	4.0	9	SE
20250403.21	1.15	N	4.3	6	SE
20250404.00	1.00	N	4.5	4	SE
20250404.03	0.86	N	4.8	3	SE
20250404.06	0.75	N	4.9	3	S
20250404.09	0.75	N	4.8	2	SE
20250404.12	0.60	N	4.7	2	SW
20250404.15	0.55	N	4.6	2	S
20250404.18	0.50	N	4.5	2	S
20250404.21	0.47	N	4.4	3	SW
20250405.00	0.44	N	4.3	4	SW
20250405.03	0.41	N	4.1	4	N
20250405.06	0.39	N	3.9	5	NW
20250405.09	0.39	N	3.3	6	NW
20250405.12	0.42	SE	2.8	7	W

**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: Shishkina G.M.

RSE «Kazhydromet» – Caspian Sea Hydrometeorological Research Department

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