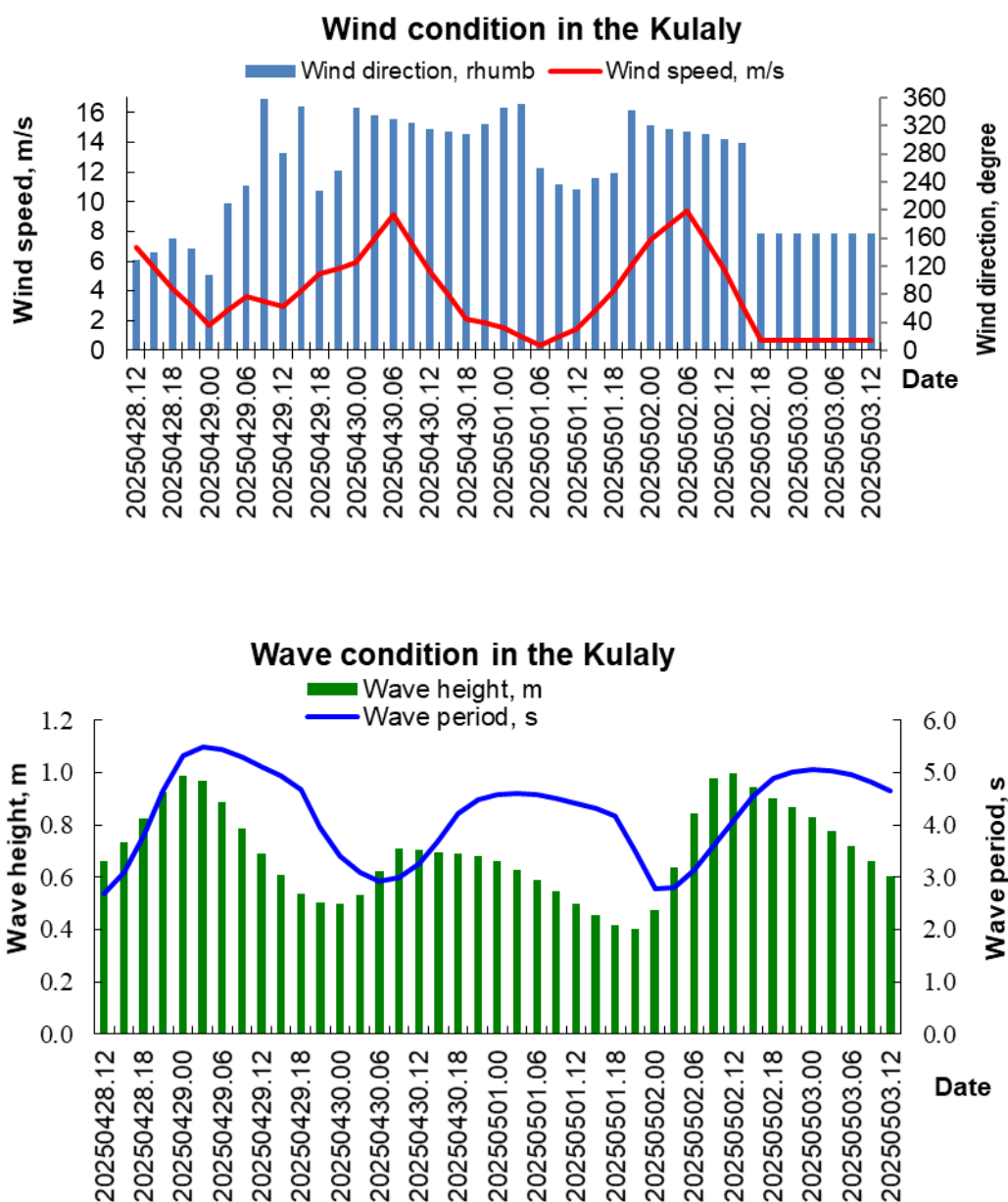




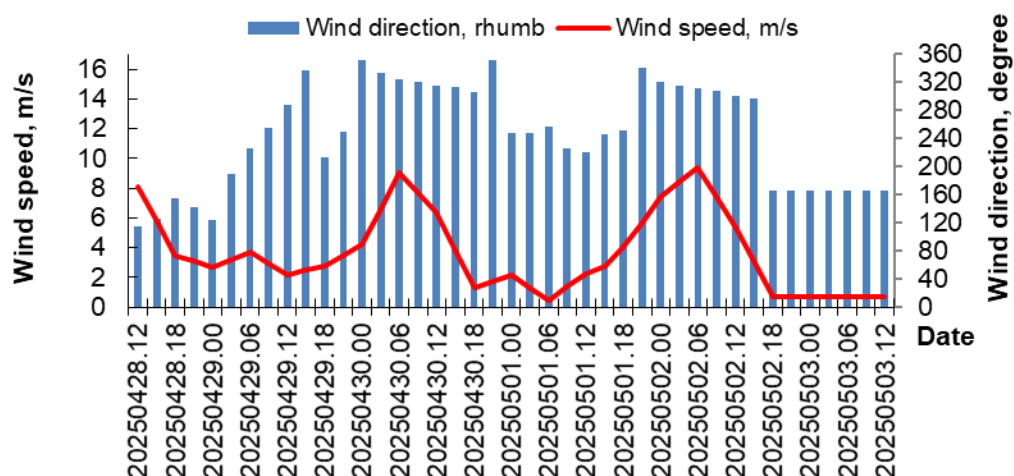
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**Wave and wind forecast for the Kazakhstan part of the Caspian Sea with a 5-day advance
using SWAN spectral model for the period April 28 – May 03, 2025.**

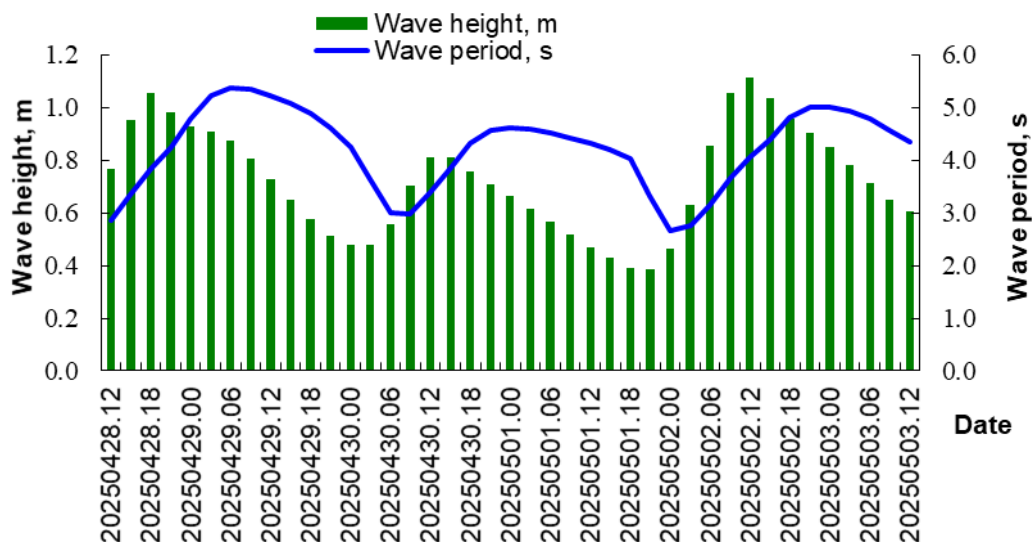


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250428.12	0.66	NW	2.7	7	SE
20250428.15	0.73	NW	3.1	6	SE
20250428.18	0.82	NW	3.8	4	S
20250428.21	0.93	NW	4.7	3	SE
20250429.00	0.99	NW	5.3	2	E
20250429.03	0.97	NW	5.5	3	SW
20250429.06	0.89	NW	5.4	4	SW
20250429.09	0.79	NW	5.3	3	N
20250429.12	0.69	NW	5.1	3	W
20250429.15	0.61	NW	4.9	4	N
20250429.18	0.54	NW	4.7	5	SW
20250429.21	0.50	NW	3.9	6	W
20250430.00	0.50	NW	3.4	6	N
20250430.03	0.53	SW	3.1	8	NW
20250430.06	0.62	S	2.9	9	NW
20250430.09	0.71	S	3.0	7	NW
20250430.12	0.70	SE	3.2	5	NW
20250430.15	0.70	SE	3.7	4	NW
20250430.18	0.69	SE	4.2	2	NW
20250430.21	0.68	SE	4.5	2	NW
20250501.00	0.66	SE	4.6	2	N
20250501.03	0.63	SE	4.6	1	N
20250501.06	0.59	SE	4.6	0	W
20250501.09	0.55	SE	4.5	1	SW
20250501.12	0.50	SE	4.4	1	SW
20250501.15	0.46	SE	4.3	3	SW
20250501.18	0.42	SE	4.2	4	W
20250501.21	0.40	SE	3.5	6	N
20250502.00	0.48	SE	2.8	7	NW
20250502.03	0.64	SE	2.8	8	NW
20250502.06	0.84	SE	3.1	9	NW
20250502.09	0.98	SE	3.6	7	NW
20250502.12	1.00	SE	4.1	5	NW
20250502.15	0.94	SE	4.5	3	NW
20250502.18	0.90	E	4.9	1	S
20250502.21	0.87	E	5.0	1	S
20250503.00	0.83	E	5.1	1	S
20250503.03	0.78	SE	5.0	1	S
20250503.06	0.72	SE	5.0	1	S
20250503.09	0.66	SE	4.8	1	S
20250503.12	0.61	SE	4.7	1	S

Wind condition in the Fort-Shevchenko

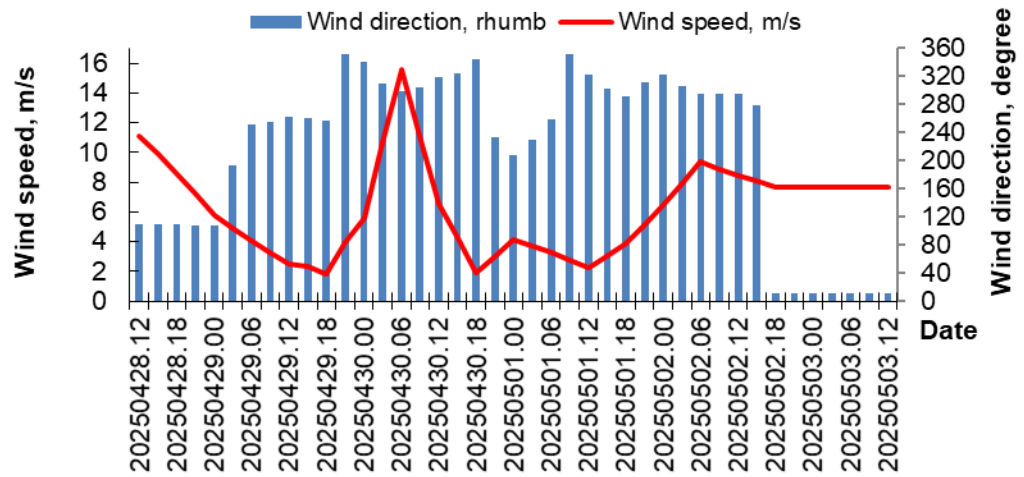


Wave condition in the Fort-Shevchenko

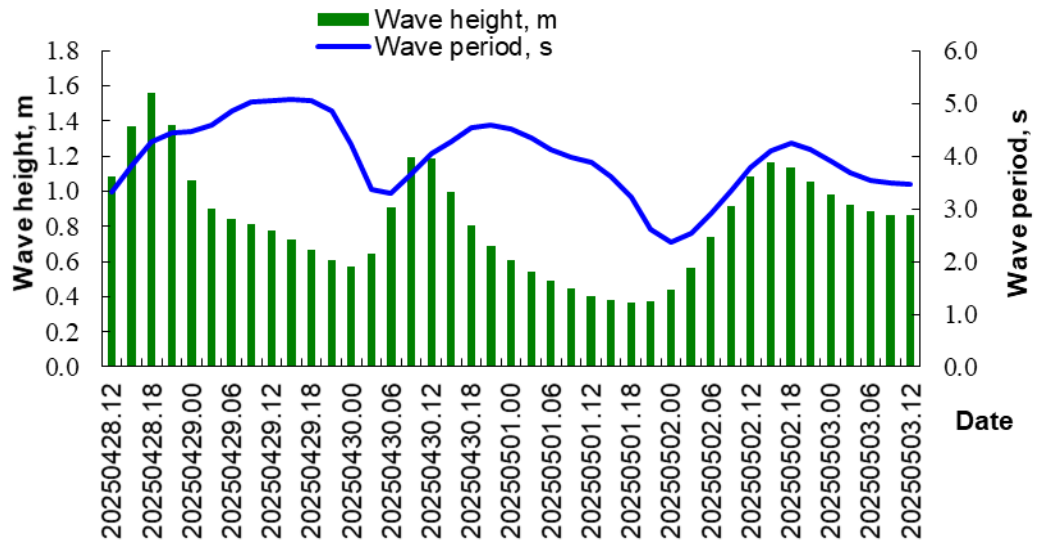


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250428.12	0.76	NW	2.9	8	SE
20250428.15	0.95	NW	3.3	6	SE
20250428.18	1.05	NW	3.8	3	SE
20250428.21	0.98	NW	4.2	3	SE
20250429.00	0.93	NW	4.8	3	SE
20250429.03	0.91	NW	5.2	3	S
20250429.06	0.87	NW	5.4	4	SW
20250429.09	0.80	NW	5.3	3	W
20250429.12	0.73	NW	5.2	2	W
20250429.15	0.65	NW	5.1	2	NW
20250429.18	0.57	NW	4.9	3	SW
20250429.21	0.51	NW	4.6	3	W
20250430.00	0.48	NW	4.3	4	N
20250430.03	0.48	N	3.6	7	NW
20250430.06	0.56	SE	3.0	9	NW
20250430.09	0.70	SE	3.0	8	NW
20250430.12	0.81	SE	3.4	6	NW
20250430.15	0.81	SE	3.8	4	NW
20250430.18	0.75	SE	4.3	1	NW
20250430.21	0.71	SE	4.6	2	N
20250501.00	0.66	SE	4.6	2	SW
20250501.03	0.61	SE	4.6	1	W
20250501.06	0.56	SE	4.5	0	W
20250501.09	0.52	SE	4.4	1	SW
20250501.12	0.47	SE	4.3	2	SW
20250501.15	0.43	SE	4.2	3	SW
20250501.18	0.39	SE	4.0	4	W
20250501.21	0.38	SE	3.3	6	N
20250502.00	0.46	SE	2.7	7	NW
20250502.03	0.63	SE	2.7	8	NW
20250502.06	0.85	SE	3.2	9	NW
20250502.09	1.06	SE	3.7	7	NW
20250502.12	1.11	SE	4.1	5	NW
20250502.15	1.03	E	4.4	3	NW
20250502.18	0.95	E	4.8	1	S
20250502.21	0.90	E	5.0	1	S
20250503.00	0.85	E	5.0	1	S
20250503.03	0.78	E	4.9	1	S
20250503.06	0.71	SE	4.8	1	S
20250503.09	0.65	SE	4.6	1	S
20250503.12	0.61	SE	4.4	1	S

Wind condition in the Aktau

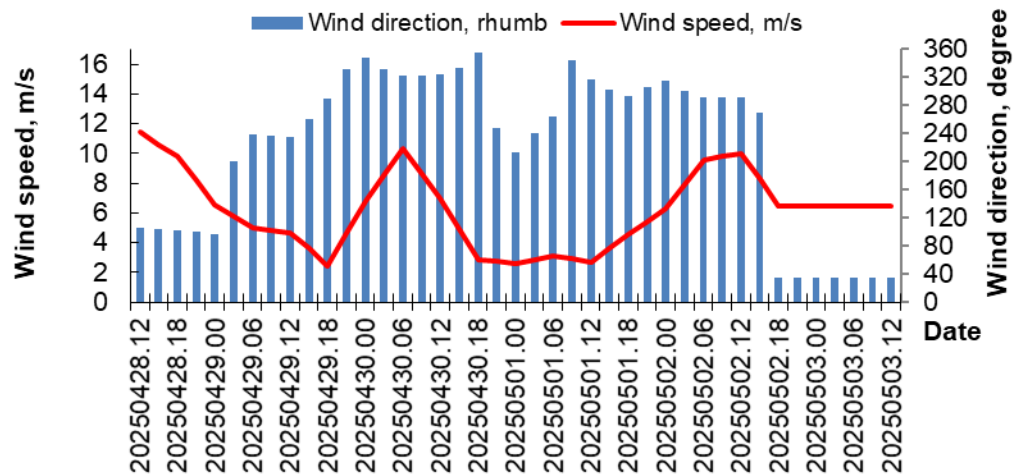


Wave condition in the Aktau

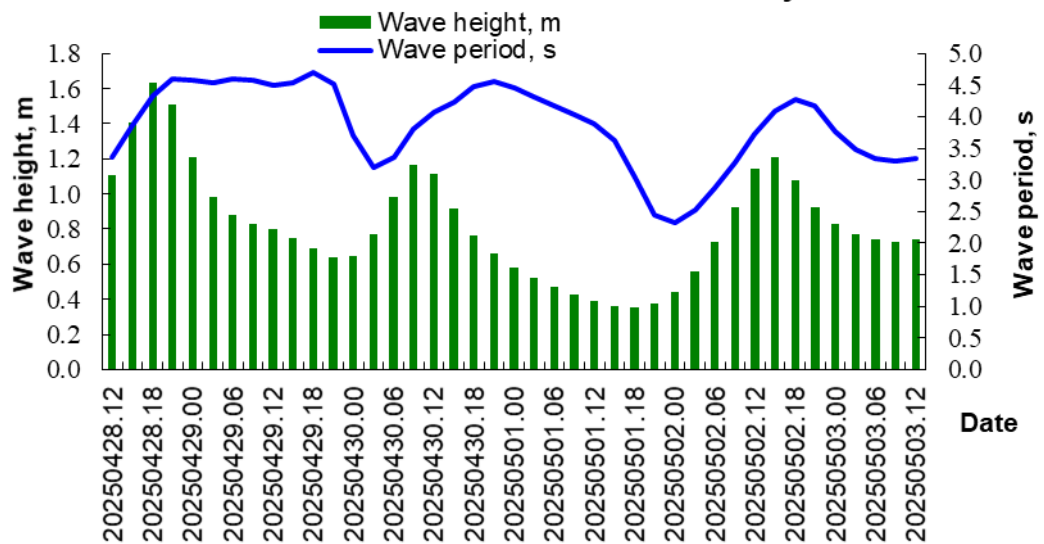


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20250428.12	1.08	W	3.3	11	E
20250428.15	1.37	W	3.8	10	E
20250428.18	1.56	W	4.3	9	E
20250428.21	1.37	W	4.4	7	E
20250429.00	1.06	W	4.5	6	E
20250429.03	0.90	W	4.6	5	S
20250429.06	0.84	NW	4.9	4	W
20250429.09	0.81	NW	5.0	3	W
20250429.12	0.78	NW	5.0	3	W
20250429.15	0.73	NW	5.1	2	W
20250429.18	0.67	NW	5.1	2	W
20250429.21	0.61	NW	4.9	4	N
20250430.00	0.57	NW	4.2	6	N
20250430.03	0.64	SW	3.4	11	NW
20250430.06	0.91	SE	3.3	16	NW
20250430.09	1.19	SE	3.7	11	NW
20250430.12	1.19	SE	4.0	7	NW
20250430.15	1.00	SE	4.3	4	NW
20250430.18	0.80	SE	4.5	2	N
20250430.21	0.69	SE	4.6	3	SW
20250501.00	0.61	SE	4.5	4	SW
20250501.03	0.54	SE	4.3	4	SW
20250501.06	0.49	SE	4.1	3	W
20250501.09	0.44	SE	4.0	3	N
20250501.12	0.41	SE	3.9	2	NW
20250501.15	0.38	SE	3.6	3	NW
20250501.18	0.36	SE	3.2	4	W
20250501.21	0.37	SE	2.6	5	NW
20250502.00	0.44	SE	2.4	6	NW
20250502.03	0.56	SE	2.5	8	NW
20250502.06	0.74	SE	2.9	9	NW
20250502.09	0.92	SE	3.3	9	NW
20250502.12	1.08	E	3.8	8	NW
20250502.15	1.16	E	4.1	8	W
20250502.18	1.13	E	4.2	8	N
20250502.21	1.06	E	4.1	8	N
20250503.00	0.98	E	3.9	8	N
20250503.03	0.93	E	3.7	8	N
20250503.06	0.88	E	3.5	8	N
20250503.09	0.87	E	3.5	8	N
20250503.12	0.86	E	3.5	8	N

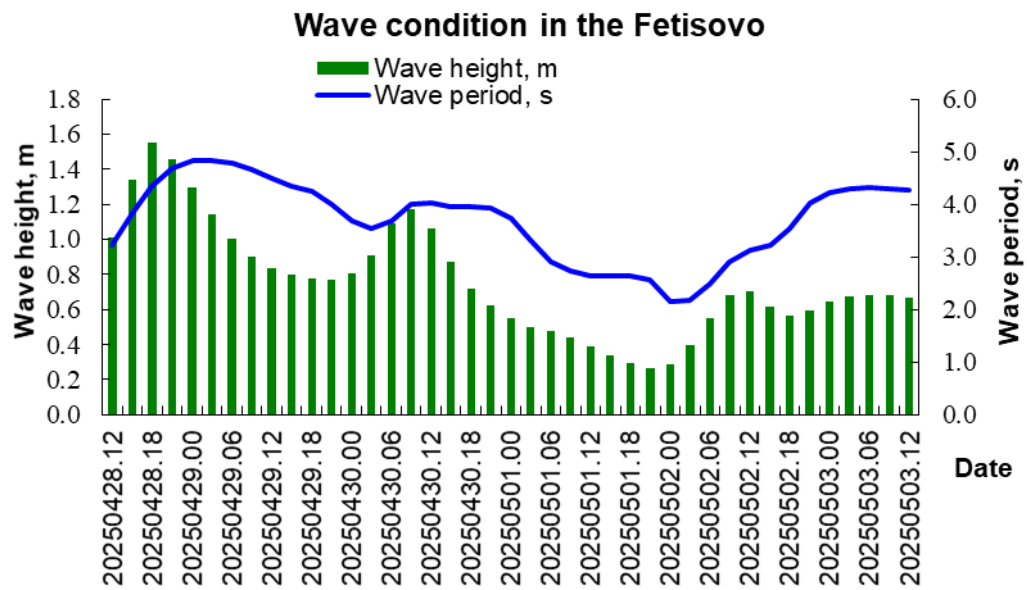
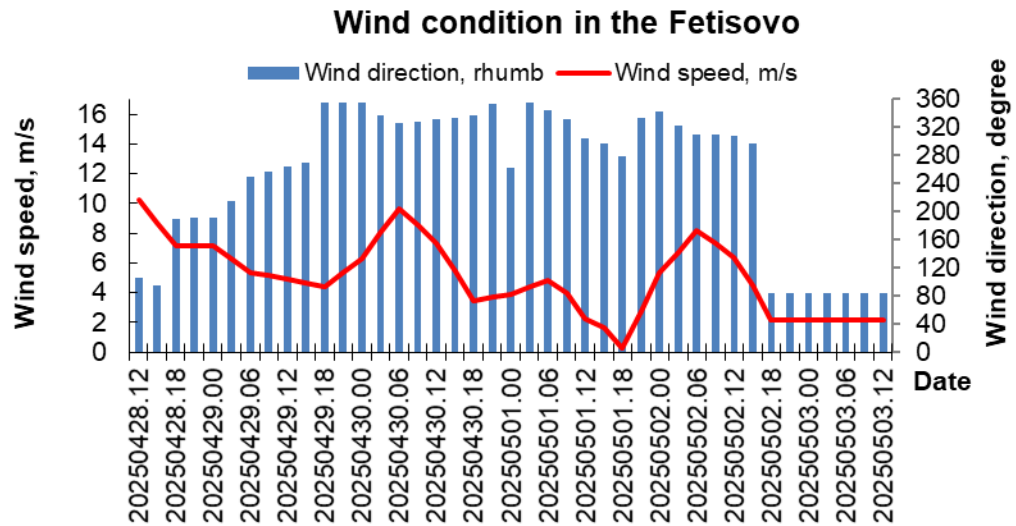
Wind condition in the Peschanyi



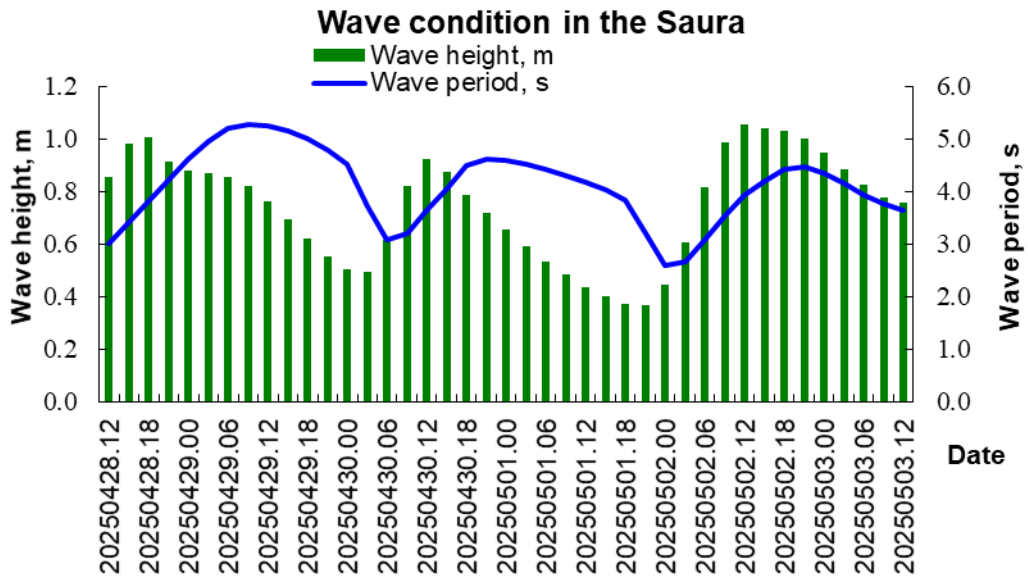
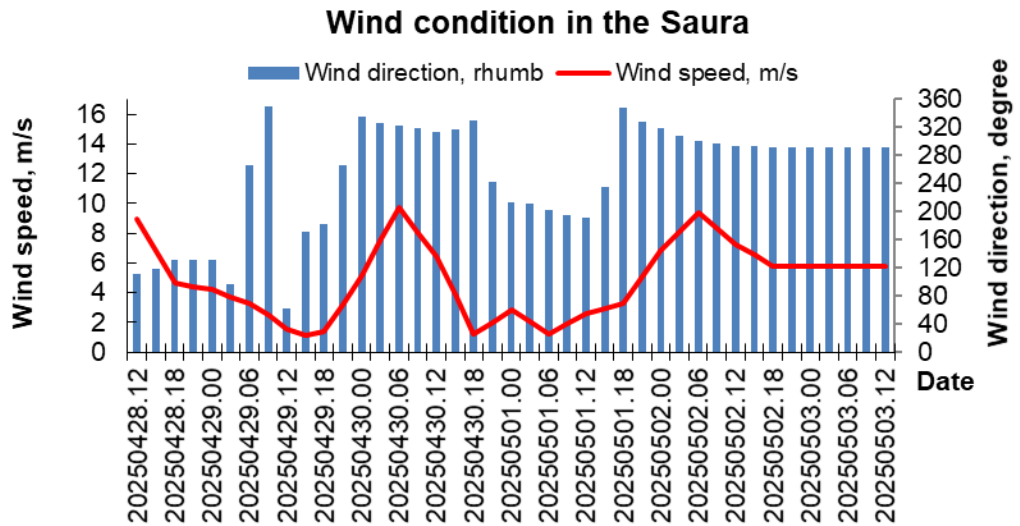
Wave condition in the Peschanyi



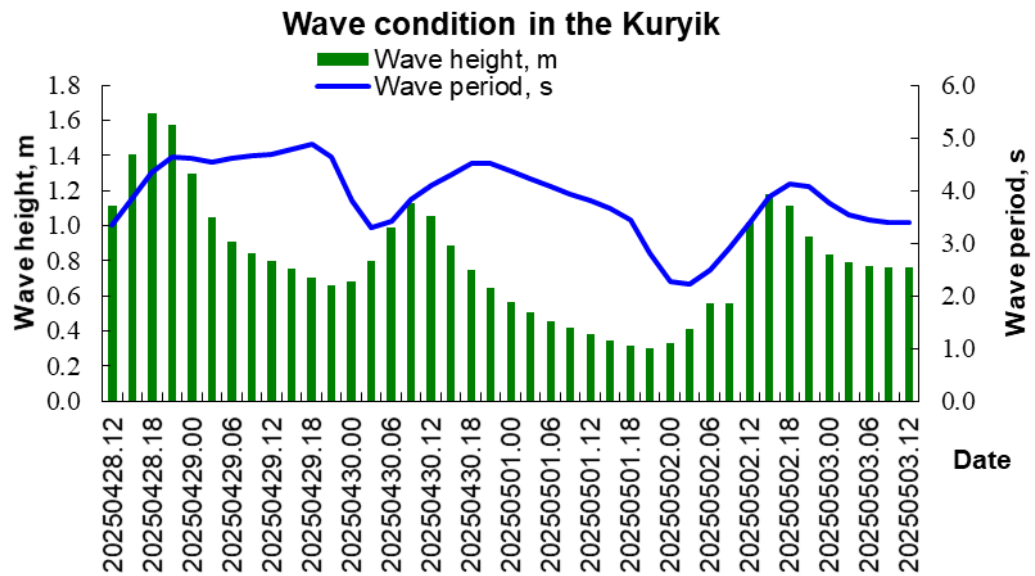
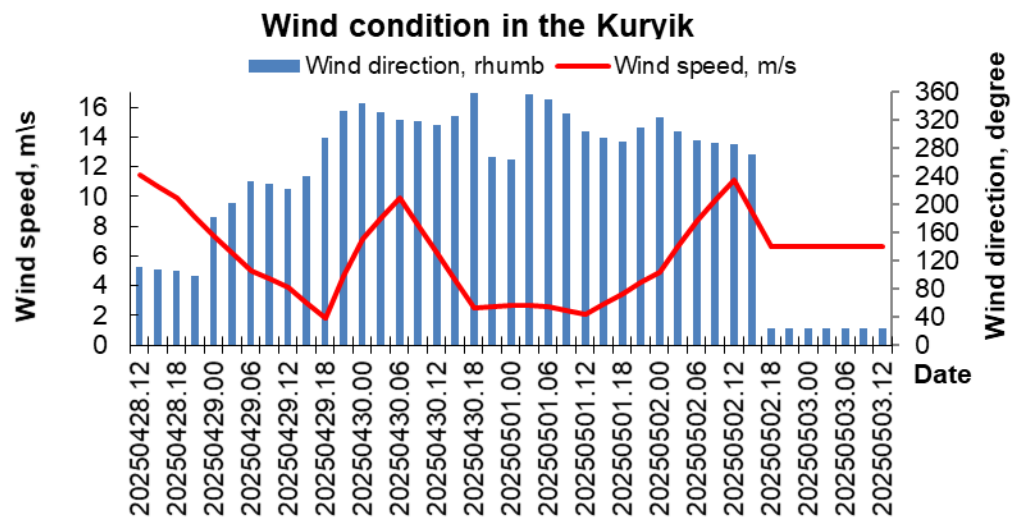
Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250428.12	1.11	W	3.3	11	E
20250428.15	1.41	W	3.9	11	E
20250428.18	1.63	W	4.3	10	E
20250428.21	1.51	W	4.6	8	E
20250429.00	1.21	W	4.6	7	E
20250429.03	0.98	W	4.5	6	S
20250429.06	0.88	W	4.6	5	SW
20250429.09	0.83	W	4.6	5	SW
20250429.12	0.80	W	4.5	5	SW
20250429.15	0.75	W	4.5	4	W
20250429.18	0.69	NW	4.7	2	W
20250429.21	0.64	NW	4.5	5	NW
20250430.00	0.65	W	3.7	7	N
20250430.03	0.77	S	3.2	9	NW
20250430.06	0.98	SE	3.4	10	NW
20250430.09	1.16	SE	3.8	9	NW
20250430.12	1.11	SE	4.1	7	NW
20250430.15	0.92	SE	4.2	5	NW
20250430.18	0.76	SE	4.5	3	N
20250430.21	0.66	SE	4.6	3	W
20250501.00	0.58	SE	4.5	3	SW
20250501.03	0.52	SE	4.3	3	SW
20250501.06	0.47	SE	4.2	3	W
20250501.09	0.43	SE	4.0	3	N
20250501.12	0.39	SE	3.9	3	NW
20250501.15	0.36	SE	3.6	4	NW
20250501.18	0.35	SE	3.0	5	NW
20250501.21	0.38	SE	2.4	5	NW
20250502.00	0.44	SE	2.3	6	NW
20250502.03	0.56	SE	2.5	8	NW
20250502.06	0.73	SE	2.9	10	W
20250502.09	0.92	E	3.3	10	W
20250502.12	1.14	E	3.7	10	W
20250502.15	1.21	E	4.1	8	W
20250502.18	1.08	E	4.3	6	NE
20250502.21	0.92	E	4.2	6	NE
20250503.00	0.83	E	3.8	6	NE
20250503.03	0.77	E	3.5	6	NE
20250503.06	0.74	E	3.3	6	NE
20250503.09	0.73	E	3.3	6	NE
20250503.12	0.74	NE	3.3	6	NE



Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250428.12	1.01	W	3.2	10	E
20250428.15	1.34	W	3.8	9	E
20250428.18	1.55	W	4.4	7	S
20250428.21	1.46	W	4.7	7	S
20250429.00	1.30	W	4.8	7	S
20250429.03	1.14	W	4.8	6	SW
20250429.06	1.00	W	4.8	5	W
20250429.09	0.90	W	4.7	5	W
20250429.12	0.84	W	4.5	5	W
20250429.15	0.80	W	4.4	5	W
20250429.18	0.78	W	4.2	4	N
20250429.21	0.77	W	4.0	5	N
20250430.00	0.81	SW	3.7	6	N
20250430.03	0.91	S	3.5	8	N
20250430.06	1.09	SE	3.7	10	NW
20250430.09	1.18	SE	4.0	9	NW
20250430.12	1.06	SE	4.0	7	NW
20250430.15	0.87	SE	4.0	5	NW
20250430.18	0.72	SE	4.0	3	N
20250430.21	0.62	SE	3.9	4	N
20250501.00	0.55	SE	3.7	4	W
20250501.03	0.50	SE	3.3	4	N
20250501.06	0.48	SE	2.9	5	N
20250501.09	0.44	SE	2.7	4	NW
20250501.12	0.39	SE	2.7	2	NW
20250501.15	0.34	SE	2.6	2	NW
20250501.18	0.30	SE	2.6	0	W
20250501.21	0.27	SE	2.6	3	NW
20250502.00	0.29	SE	2.2	5	N
20250502.03	0.40	SE	2.2	7	NW
20250502.06	0.55	SE	2.5	8	NW
20250502.09	0.69	SE	2.9	7	NW
20250502.12	0.70	SE	3.1	6	NW
20250502.15	0.62	SE	3.2	4	NW
20250502.18	0.56	SE	3.6	2	E
20250502.21	0.59	SE	4.0	2	E
20250503.00	0.64	SE	4.2	2	E
20250503.03	0.68	SE	4.3	2	E
20250503.06	0.68	SE	4.3	2	E
20250503.09	0.68	SE	4.3	2	E
20250503.12	0.67	SE	4.3	2	E



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250428.12	0.86	W	3.0	9	E
20250428.15	0.98	NW	3.4	7	SE
20250428.18	1.01	NW	3.8	5	SE
20250428.21	0.91	NW	4.2	4	SE
20250429.00	0.88	NW	4.6	4	SE
20250429.03	0.87	NW	5.0	4	E
20250429.06	0.86	NW	5.2	3	W
20250429.09	0.82	NW	5.3	2	N
20250429.12	0.76	NW	5.3	2	NE
20250429.15	0.69	NW	5.2	1	S
20250429.18	0.62	NW	5.0	1	S
20250429.21	0.55	NW	4.8	3	W
20250430.00	0.50	NW	4.5	5	NW
20250430.03	0.50	NW	3.7	7	NW
20250430.06	0.61	SE	3.1	10	NW
20250430.09	0.82	SE	3.2	8	NW
20250430.12	0.92	SE	3.6	7	NW
20250430.15	0.87	SE	4.1	4	NW
20250430.18	0.79	SE	4.5	1	NW
20250430.21	0.72	SE	4.6	2	SW
20250501.00	0.65	SE	4.6	3	SW
20250501.03	0.59	SE	4.5	2	SW
20250501.06	0.53	SE	4.4	1	SW
20250501.09	0.48	SE	4.3	2	S
20250501.12	0.44	SE	4.2	3	S
20250501.15	0.40	SE	4.0	3	SW
20250501.18	0.37	SE	3.8	3	N
20250501.21	0.37	SE	3.2	5	NW
20250502.00	0.44	SE	2.6	7	NW
20250502.03	0.61	SE	2.7	8	NW
20250502.06	0.82	SE	3.1	9	NW
20250502.09	0.99	SE	3.5	8	NW
20250502.12	1.06	E	3.9	7	NW
20250502.15	1.04	E	4.2	7	NW
20250502.18	1.03	E	4.4	6	W
20250502.21	1.00	E	4.5	6	W
20250503.00	0.95	E	4.3	6	W
20250503.03	0.88	E	4.1	6	W
20250503.06	0.83	E	3.9	6	W
20250503.09	0.78	E	3.8	6	W
20250503.12	0.76	E	3.6	6	W



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250428.12	1.11	W	3.3	11	E
20250428.15	1.41	W	3.8	11	E
20250428.18	1.64	W	4.3	10	E
20250428.21	1.57	W	4.6	9	E
20250429.00	1.29	W	4.6	7	S
20250429.03	1.05	W	4.5	6	S
20250429.06	0.91	W	4.6	5	SW
20250429.09	0.84	W	4.7	5	SW
20250429.12	0.80	W	4.7	4	SW
20250429.15	0.75	NW	4.8	3	SW
20250429.18	0.70	NW	4.9	2	NW
20250429.21	0.66	NW	4.6	5	NW
20250430.00	0.68	W	3.8	7	N
20250430.03	0.80	S	3.3	9	NW
20250430.06	0.99	SE	3.4	10	NW
20250430.09	1.13	SE	3.8	8	NW
20250430.12	1.05	SE	4.1	6	NW
20250430.15	0.89	SE	4.3	4	NW
20250430.18	0.75	SE	4.5	3	N
20250430.21	0.65	SE	4.5	3	W
20250501.00	0.57	SE	4.4	3	W
20250501.03	0.51	SE	4.2	3	N
20250501.06	0.46	SE	4.1	3	N
20250501.09	0.42	SE	3.9	2	NW
20250501.12	0.38	SE	3.8	2	NW
20250501.15	0.34	SE	3.7	3	NW
20250501.18	0.31	SE	3.4	3	W
20250501.21	0.30	SE	2.8	4	NW
20250502.00	0.33	SE	2.3	5	NW
20250502.03	0.41	SE	2.2	7	NW
20250502.06	0.56	SE	2.5	8	W
20250502.09	0.56	SE	2.9	10	W
20250502.12	1.01	E	3.4	11	W
20250502.15	1.18	E	3.9	9	W
20250502.18	1.11	E	4.1	7	NE
20250502.21	0.94	E	4.1	7	NE
20250503.00	0.84	E	3.8	7	NE
20250503.03	0.79	E	3.5	7	NE
20250503.06	0.77	E	3.4	7	NE
20250503.09	0.76	E	3.4	7	NE
20250503.12	0.76	E	3.4	7	NE

**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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