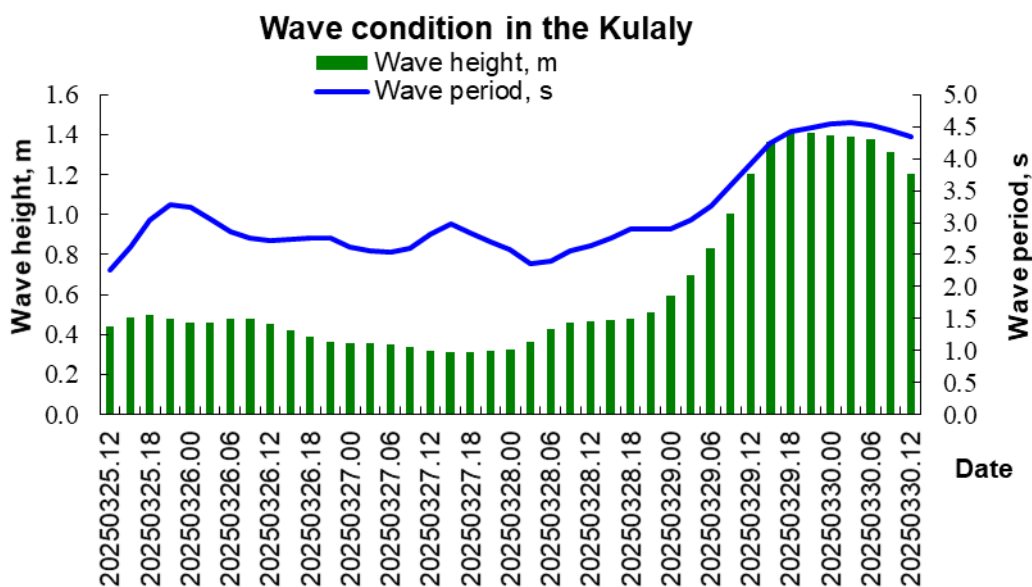
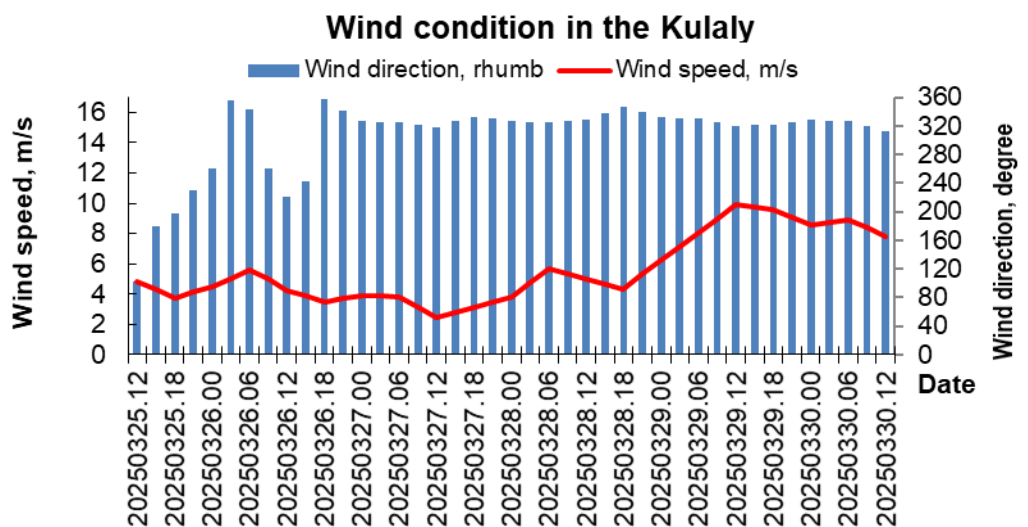




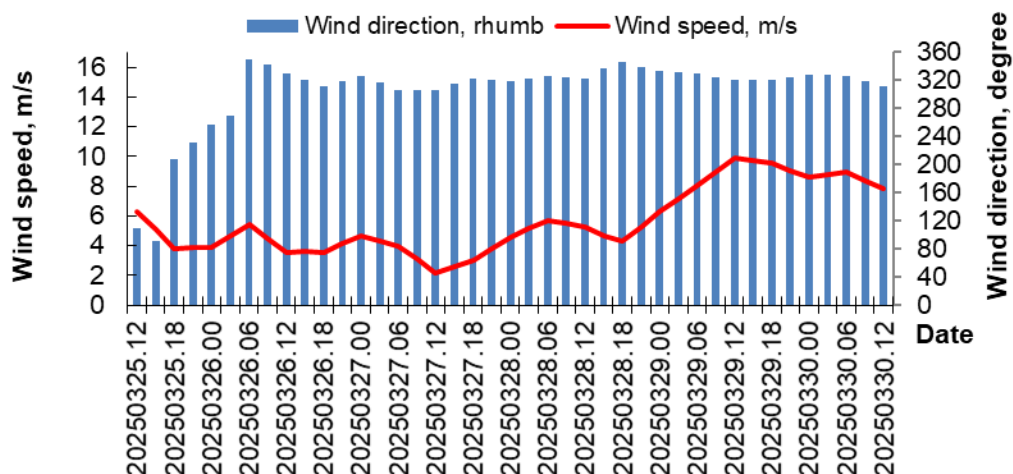
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**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 25 – 30 , 2025.**

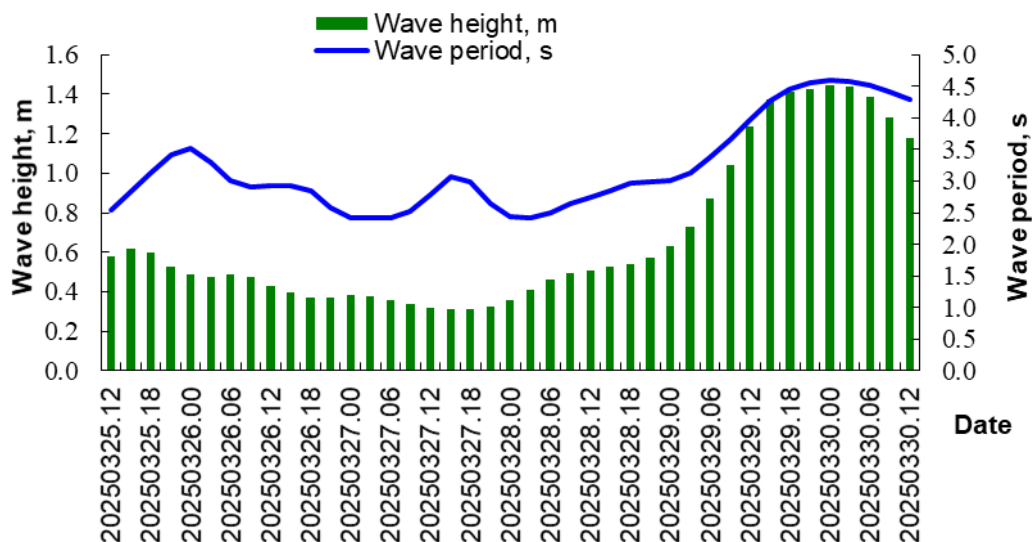


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250325.12	0.44	W	2.3	5	E
20250325.15	0.48	W	2.6	4	S
20250325.18	0.50	W	3.0	4	S
20250325.21	0.48	SW	3.3	4	SW
20250326.00	0.46	SW	3.2	4	W
20250326.03	0.46	SW	3.1	5	N
20250326.06	0.48	S	2.9	6	N
20250326.09	0.48	S	2.8	5	W
20250326.12	0.46	S	2.7	4	SW
20250326.15	0.42	S	2.7	4	SW
20250326.18	0.39	S	2.8	3	N
20250326.21	0.36	S	2.8	4	N
20250327.00	0.36	S	2.6	4	NW
20250327.03	0.36	S	2.5	4	NW
20250327.06	0.35	S	2.5	4	NW
20250327.09	0.34	SE	2.6	3	NW
20250327.12	0.32	SE	2.8	2	NW
20250327.15	0.31	SE	3.0	3	NW
20250327.18	0.31	SE	2.8	3	NW
20250327.21	0.32	SE	2.7	3	NW
20250328.00	0.32	SE	2.6	4	NW
20250328.03	0.36	SE	2.4	5	NW
20250328.06	0.43	SE	2.4	6	NW
20250328.09	0.46	SE	2.6	5	NW
20250328.12	0.47	SE	2.6	5	NW
20250328.15	0.47	SE	2.8	5	NW
20250328.18	0.48	SE	2.9	4	N
20250328.21	0.51	SE	2.9	5	N
20250329.00	0.59	SE	2.9	6	NW
20250329.03	0.70	SE	3.0	7	NW
20250329.06	0.83	SE	3.3	8	NW
20250329.09	1.00	SE	3.6	9	NW
20250329.12	1.21	SE	3.9	10	NW
20250329.15	1.36	SE	4.2	10	NW
20250329.18	1.41	SE	4.4	10	NW
20250329.21	1.41	SE	4.5	9	NW
20250330.00	1.40	SE	4.6	9	NW
20250330.03	1.39	SE	4.6	9	NW
20250330.06	1.38	SE	4.5	9	NW
20250330.09	1.31	SE	4.4	8	NW
20250330.12	1.20	SE	4.3	8	NW

Wind condition in the Fort-Shevchenko

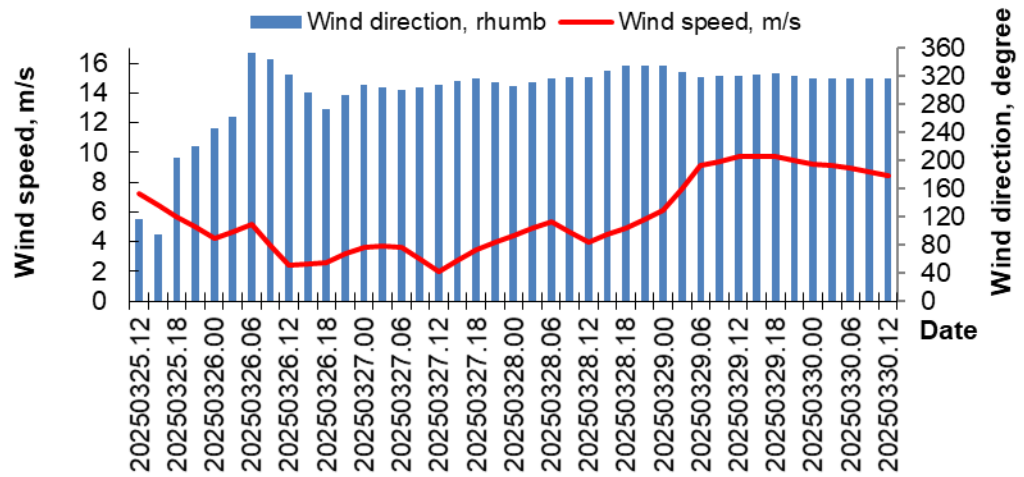


Wave condition in the Fort-Shevchenko

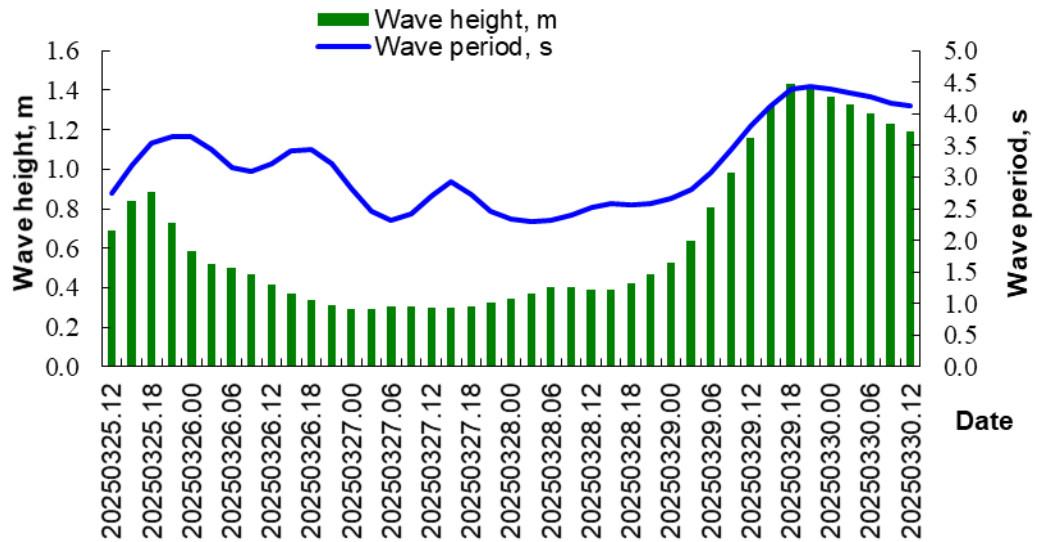


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250325.12	0.58	W	2.5	6	E
20250325.15	0.62	W	2.8	5	E
20250325.18	0.60	W	3.1	4	SW
20250325.21	0.53	W	3.4	4	SW
20250326.00	0.49	SW	3.5	4	W
20250326.03	0.48	SW	3.3	5	W
20250326.06	0.49	SW	3.0	5	N
20250326.09	0.47	SW	2.9	4	N
20250326.12	0.43	SW	2.9	4	NW
20250326.15	0.40	S	2.9	4	NW
20250326.18	0.37	S	2.8	4	NW
20250326.21	0.37	S	2.6	4	NW
20250327.00	0.38	S	2.4	5	NW
20250327.03	0.38	S	2.4	4	NW
20250327.06	0.36	S	2.4	4	NW
20250327.09	0.34	SE	2.5	3	NW
20250327.12	0.32	SE	2.8	2	NW
20250327.15	0.31	SE	3.1	3	NW
20250327.18	0.31	SE	3.0	3	NW
20250327.21	0.33	SE	2.7	4	NW
20250328.00	0.36	SE	2.4	5	NW
20250328.03	0.41	SE	2.4	5	NW
20250328.06	0.46	SE	2.5	6	NW
20250328.09	0.49	SE	2.6	5	NW
20250328.12	0.51	SE	2.7	5	NW
20250328.15	0.53	SE	2.9	5	NW
20250328.18	0.54	SE	3.0	4	N
20250328.21	0.57	SE	3.0	5	N
20250329.00	0.63	SE	3.0	6	NW
20250329.03	0.73	SE	3.1	7	NW
20250329.06	0.87	SE	3.4	8	NW
20250329.09	1.04	SE	3.7	9	NW
20250329.12	1.24	SE	4.0	10	NW
20250329.15	1.38	SE	4.3	10	NW
20250329.18	1.41	SE	4.5	10	NW
20250329.21	1.43	SE	4.5	9	NW
20250330.00	1.45	SE	4.6	9	NW
20250330.03	1.44	SE	4.6	9	NW
20250330.06	1.38	SE	4.5	9	NW
20250330.09	1.28	SE	4.4	8	NW
20250330.12	1.18	SE	4.3	8	NW

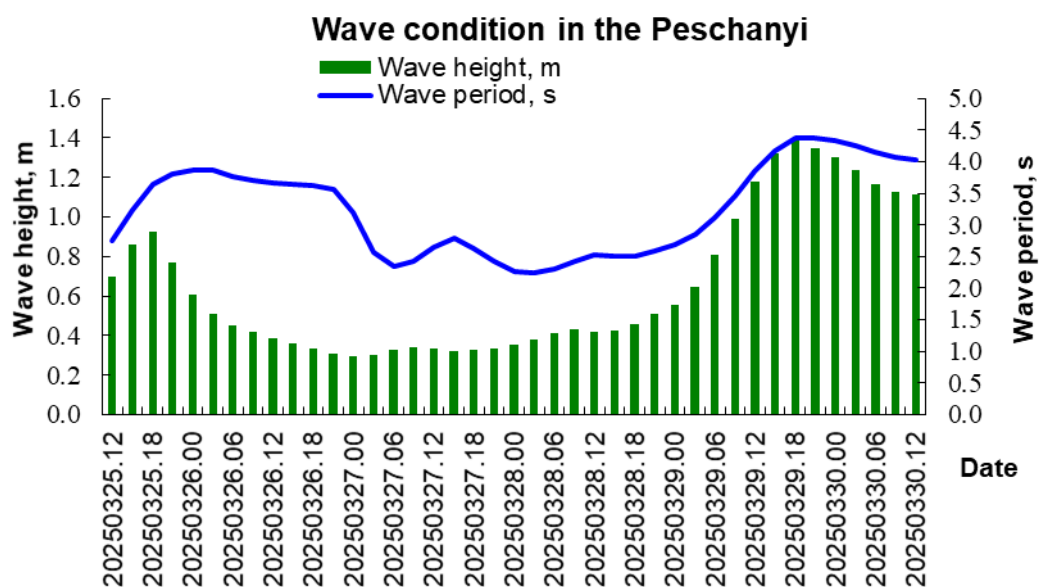
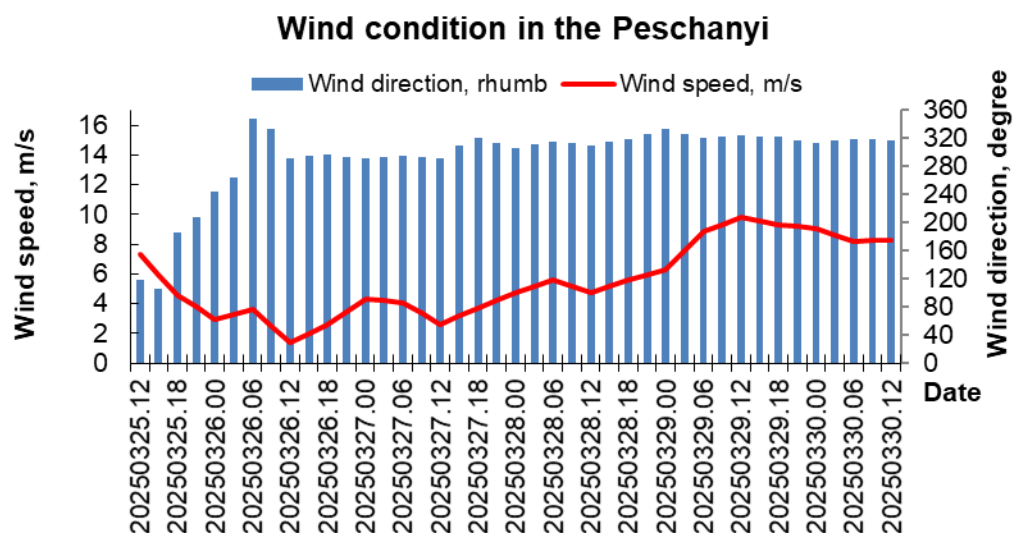
Wind condition in the Aktau



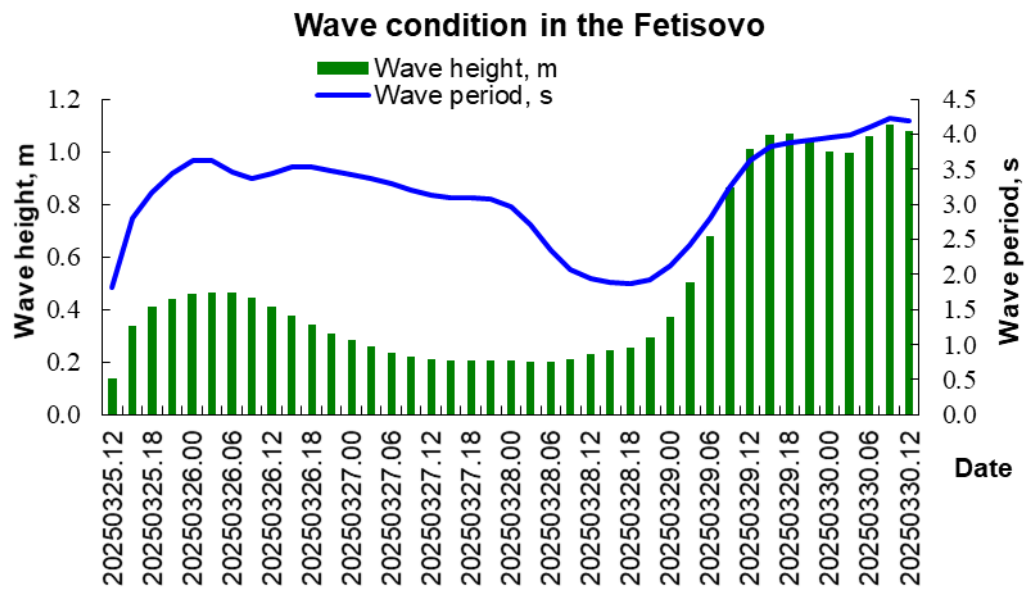
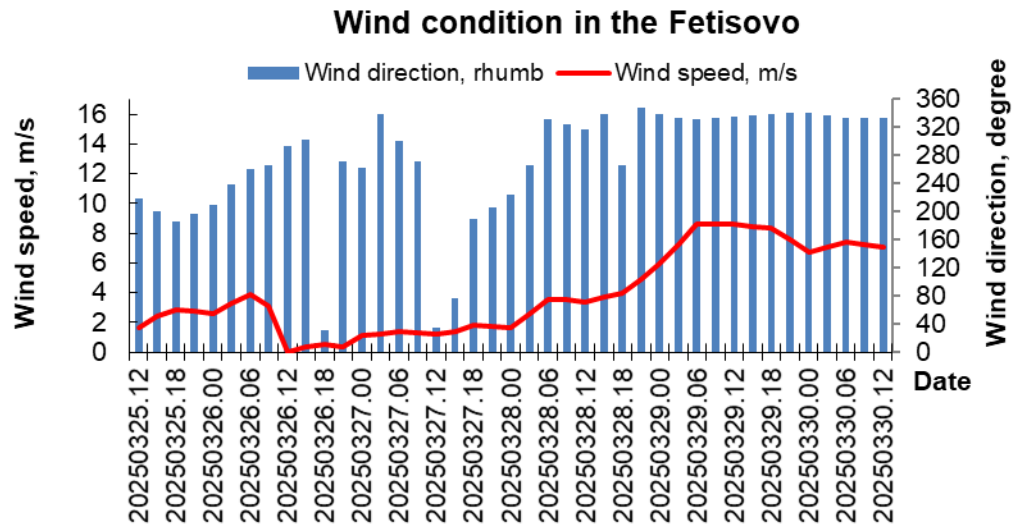
Wave condition in the Aktau



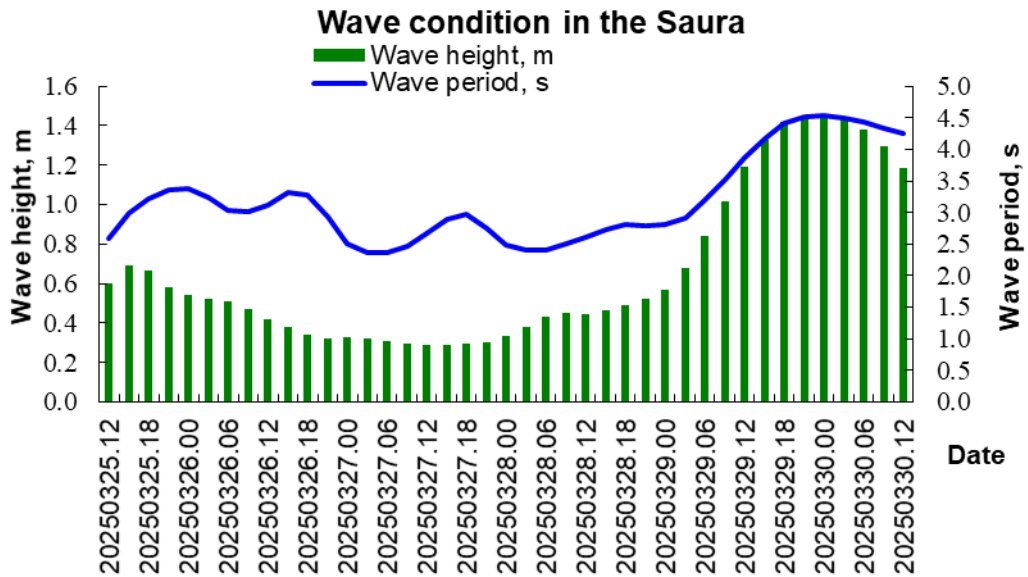
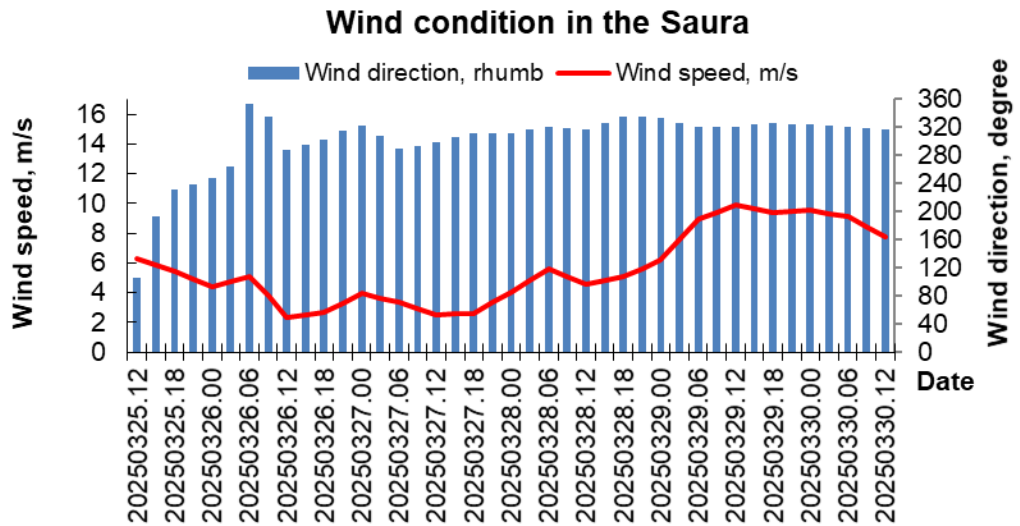
Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20250325.12	0.69	NW	2.7	7	SE
20250325.15	0.84	NW	3.2	6	E
20250325.18	0.89	NW	3.5	6	SW
20250325.21	0.73	NW	3.6	5	SW
20250326.00	0.59	W	3.6	4	SW
20250326.03	0.52	W	3.4	5	W
20250326.06	0.50	SW	3.2	5	N
20250326.09	0.47	SW	3.1	4	N
20250326.12	0.42	SW	3.2	2	NW
20250326.15	0.37	SW	3.4	3	NW
20250326.18	0.34	SW	3.4	3	W
20250326.21	0.31	SW	3.2	3	NW
20250327.00	0.30	SW	2.8	4	NW
20250327.03	0.29	SW	2.5	4	NW
20250327.06	0.30	S	2.3	4	NW
20250327.09	0.30	SE	2.4	3	NW
20250327.12	0.30	E	2.7	2	NW
20250327.15	0.30	E	2.9	3	NW
20250327.18	0.30	E	2.7	3	NW
20250327.21	0.32	E	2.5	4	NW
20250328.00	0.35	E	2.3	4	NW
20250328.03	0.37	E	2.3	5	NW
20250328.06	0.41	E	2.3	5	NW
20250328.09	0.41	E	2.4	5	NW
20250328.12	0.39	E	2.5	4	NW
20250328.15	0.39	E	2.6	4	NW
20250328.18	0.42	E	2.6	5	NW
20250328.21	0.47	SE	2.6	6	NW
20250329.00	0.53	SE	2.7	6	NW
20250329.03	0.64	SE	2.8	8	NW
20250329.06	0.81	SE	3.1	9	NW
20250329.09	0.98	SE	3.4	9	NW
20250329.12	1.16	SE	3.8	10	NW
20250329.15	1.32	SE	4.1	10	NW
20250329.18	1.43	SE	4.4	10	NW
20250329.21	1.41	SE	4.4	9	NW
20250330.00	1.37	SE	4.4	9	NW
20250330.03	1.33	SE	4.3	9	NW
20250330.06	1.28	SE	4.3	9	NW
20250330.09	1.23	SE	4.2	9	NW
20250330.12	1.19	SE	4.1	8	NW



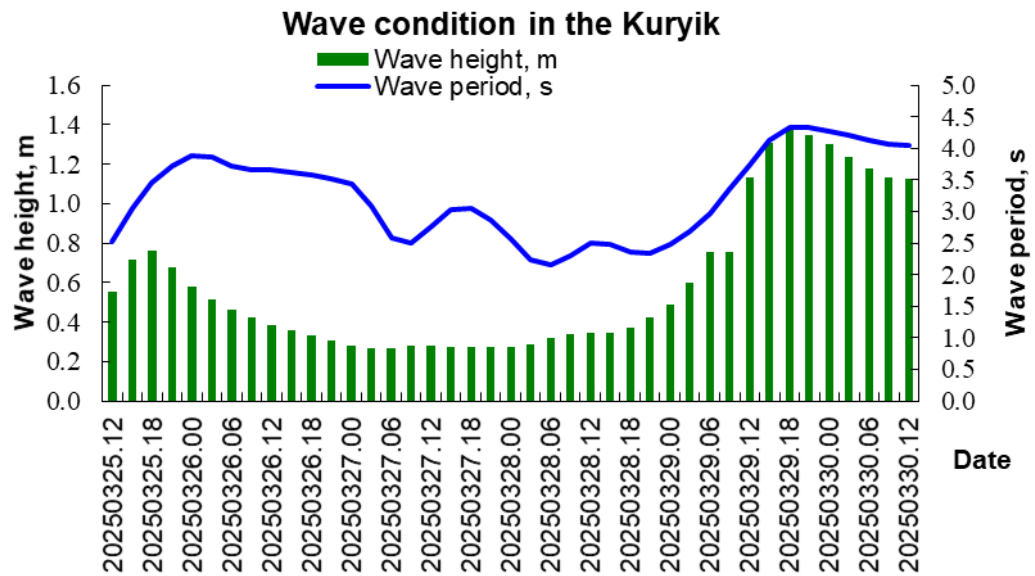
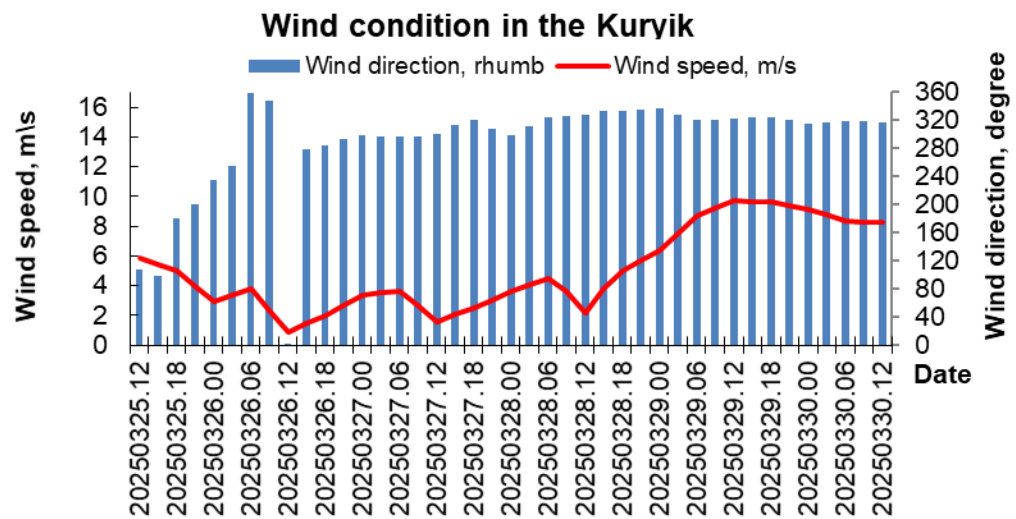
Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250325.12	0.70	NW	2.8	7	SE
20250325.15	0.86	NW	3.2	6	E
20250325.18	0.93	NW	3.6	5	S
20250325.21	0.77	NW	3.8	4	SW
20250326.00	0.61	W	3.9	3	SW
20250326.03	0.51	W	3.9	3	W
20250326.06	0.45	W	3.8	4	N
20250326.09	0.42	W	3.7	3	NW
20250326.12	0.39	W	3.7	1	W
20250326.15	0.36	W	3.7	2	NW
20250326.18	0.33	SW	3.6	3	NW
20250326.21	0.31	SW	3.6	3	NW
20250327.00	0.29	SW	3.2	4	W
20250327.03	0.30	SW	2.6	4	NW
20250327.06	0.33	S	2.3	4	NW
20250327.09	0.34	E	2.4	3	NW
20250327.12	0.33	E	2.6	3	NW
20250327.15	0.32	E	2.8	3	NW
20250327.18	0.32	E	2.6	4	NW
20250327.21	0.33	E	2.4	4	NW
20250328.00	0.35	E	2.3	5	NW
20250328.03	0.38	E	2.2	5	NW
20250328.06	0.41	SE	2.3	6	NW
20250328.09	0.43	E	2.4	5	NW
20250328.12	0.42	E	2.5	5	NW
20250328.15	0.43	E	2.5	5	NW
20250328.18	0.46	E	2.5	6	NW
20250328.21	0.51	SE	2.6	6	NW
20250329.00	0.56	SE	2.7	6	NW
20250329.03	0.65	SE	2.9	8	NW
20250329.06	0.81	SE	3.1	9	NW
20250329.09	0.99	SE	3.5	9	NW
20250329.12	1.18	SE	3.8	10	NW
20250329.15	1.32	SE	4.2	10	NW
20250329.18	1.38	SE	4.4	9	NW
20250329.21	1.35	SE	4.4	9	NW
20250330.00	1.30	SE	4.3	9	NW
20250330.03	1.24	SE	4.3	9	NW
20250330.06	1.17	SE	4.2	8	NW
20250330.09	1.12	SE	4.1	8	NW
20250330.12	1.11	SE	4.0	8	NW



Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250325.12	0.14	SW	1.8	2	SW
20250325.15	0.34	NW	2.8	2	S
20250325.18	0.41	NW	3.2	3	S
20250325.21	0.44	NW	3.4	3	S
20250326.00	0.46	NW	3.6	3	SW
20250326.03	0.47	NW	3.6	3	SW
20250326.06	0.47	NW	3.5	4	W
20250326.09	0.45	W	3.4	3	W
20250326.12	0.41	W	3.4	0	NW
20250326.15	0.37	W	3.5	0	NW
20250326.18	0.34	W	3.5	1	NE
20250326.21	0.31	W	3.5	0	W
20250327.00	0.28	W	3.4	1	W
20250327.03	0.26	W	3.4	1	N
20250327.06	0.24	W	3.3	1	NW
20250327.09	0.22	W	3.2	1	W
20250327.12	0.21	W	3.1	1	NE
20250327.15	0.21	W	3.1	1	E
20250327.18	0.21	NW	3.1	2	S
20250327.21	0.21	NW	3.1	2	SW
20250328.00	0.20	N	3.0	2	SW
20250328.03	0.20	N	2.7	3	W
20250328.06	0.20	N	2.3	4	NW
20250328.09	0.21	SE	2.1	4	NW
20250328.12	0.23	SE	1.9	3	NW
20250328.15	0.24	SE	1.9	4	N
20250328.18	0.26	SE	1.9	4	W
20250328.21	0.30	S	1.9	5	N
20250329.00	0.37	SE	2.1	6	N
20250329.03	0.50	SE	2.4	7	NW
20250329.06	0.68	SE	2.8	9	NW
20250329.09	0.86	SE	3.2	9	NW
20250329.12	1.01	SE	3.6	9	NW
20250329.15	1.07	SE	3.8	8	N
20250329.18	1.07	SE	3.9	8	N
20250329.21	1.04	SE	3.9	8	N
20250330.00	1.00	SE	4.0	7	N
20250330.03	1.00	SE	4.0	7	NW
20250330.06	1.06	SE	4.1	7	NW
20250330.09	1.10	SE	4.2	7	NW
20250330.12	1.08	SE	4.2	7	NW



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250325.12	0.60	W	2.6	6	E
20250325.15	0.69	W	3.0	6	S
20250325.18	0.66	W	3.2	5	SW
20250325.21	0.58	W	3.4	5	SW
20250326.00	0.54	SW	3.4	4	W
20250326.03	0.52	SW	3.2	5	W
20250326.06	0.51	SW	3.0	5	N
20250326.09	0.47	SW	3.0	4	NW
20250326.12	0.42	SW	3.1	2	W
20250326.15	0.38	SW	3.3	3	NW
20250326.18	0.34	SW	3.3	3	NW
20250326.21	0.32	SW	2.9	3	NW
20250327.00	0.32	S	2.5	4	NW
20250327.03	0.32	S	2.4	4	NW
20250327.06	0.31	S	2.4	3	W
20250327.09	0.30	SE	2.5	3	NW
20250327.12	0.29	SE	2.7	3	NW
20250327.15	0.29	SE	2.9	3	NW
20250327.18	0.29	E	3.0	3	NW
20250327.21	0.30	E	2.7	3	NW
20250328.00	0.33	E	2.5	4	NW
20250328.03	0.38	E	2.4	5	NW
20250328.06	0.43	SE	2.4	6	NW
20250328.09	0.45	SE	2.5	5	NW
20250328.12	0.45	E	2.6	5	NW
20250328.15	0.46	E	2.7	5	NW
20250328.18	0.49	E	2.8	5	NW
20250328.21	0.52	E	2.8	6	NW
20250329.00	0.57	SE	2.8	6	NW
20250329.03	0.68	SE	2.9	8	NW
20250329.06	0.84	SE	3.2	9	NW
20250329.09	1.01	SE	3.5	9	NW
20250329.12	1.19	SE	3.9	10	NW
20250329.15	1.33	SE	4.2	10	NW
20250329.18	1.42	SE	4.4	9	NW
20250329.21	1.44	SE	4.5	9	NW
20250330.00	1.45	SE	4.5	10	NW
20250330.03	1.43	SE	4.5	9	NW
20250330.06	1.38	SE	4.4	9	NW
20250330.09	1.30	SE	4.3	8	NW
20250330.12	1.19	SE	4.3	8	NW



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250325.12	0.56	W	2.5	6	E
20250325.15	0.71	NW	3.0	5	E
20250325.18	0.76	NW	3.5	5	S
20250325.21	0.68	NW	3.7	4	S
20250326.00	0.58	NW	3.9	3	SW
20250326.03	0.51	W	3.9	3	W
20250326.06	0.46	W	3.7	4	N
20250326.09	0.42	W	3.7	2	N
20250326.12	0.39	W	3.7	1	N
20250326.15	0.36	W	3.6	1	W
20250326.18	0.33	W	3.6	2	W
20250326.21	0.31	SW	3.5	3	NW
20250327.00	0.28	SW	3.4	3	NW
20250327.03	0.27	SW	3.1	4	NW
20250327.06	0.27	SW	2.6	4	NW
20250327.09	0.28	SW	2.5	3	NW
20250327.12	0.28	NE	2.8	2	NW
20250327.15	0.28	NE	3.0	2	NW
20250327.18	0.27	NE	3.1	3	NW
20250327.21	0.27	NE	2.9	3	NW
20250328.00	0.27	E	2.6	4	NW
20250328.03	0.29	E	2.2	4	NW
20250328.06	0.32	E	2.2	4	NW
20250328.09	0.34	E	2.3	4	NW
20250328.12	0.35	E	2.5	2	NW
20250328.15	0.35	E	2.5	4	NW
20250328.18	0.37	E	2.4	5	NW
20250328.21	0.43	SE	2.3	6	NW
20250329.00	0.49	SE	2.5	6	NW
20250329.03	0.60	SE	2.7	8	NW
20250329.06	0.75	SE	3.0	9	NW
20250329.09	0.75	SE	3.4	9	NW
20250329.12	1.13	SE	3.7	10	NW
20250329.15	1.31	SE	4.1	10	NW
20250329.18	1.38	SE	4.3	10	NW
20250329.21	1.35	SE	4.3	9	NW
20250330.00	1.30	SE	4.3	9	NW
20250330.03	1.24	SE	4.2	9	NW
20250330.06	1.18	SE	4.1	8	NW
20250330.09	1.13	SE	4.1	8	NW
20250330.12	1.12	SE	4.0	8	NW

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

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Checked by: Shishkina G.M.

RSE «Kazhydromet» – Caspian Sea Hydrometeorological Research Department

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