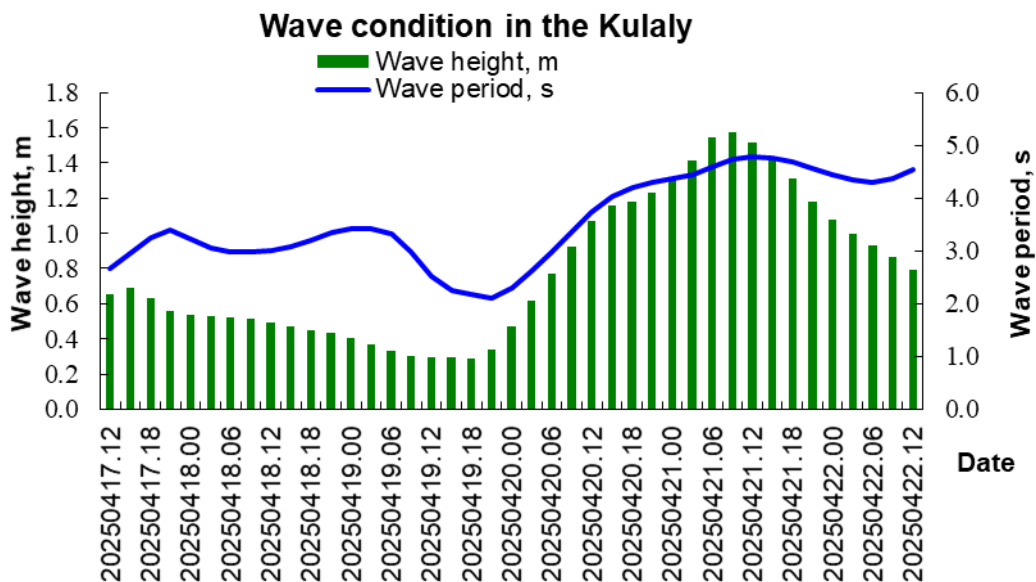
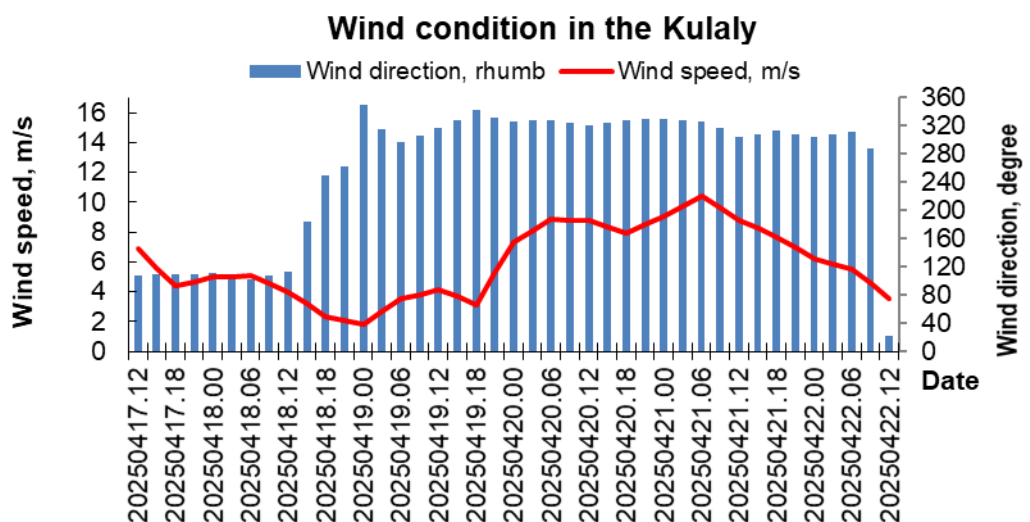




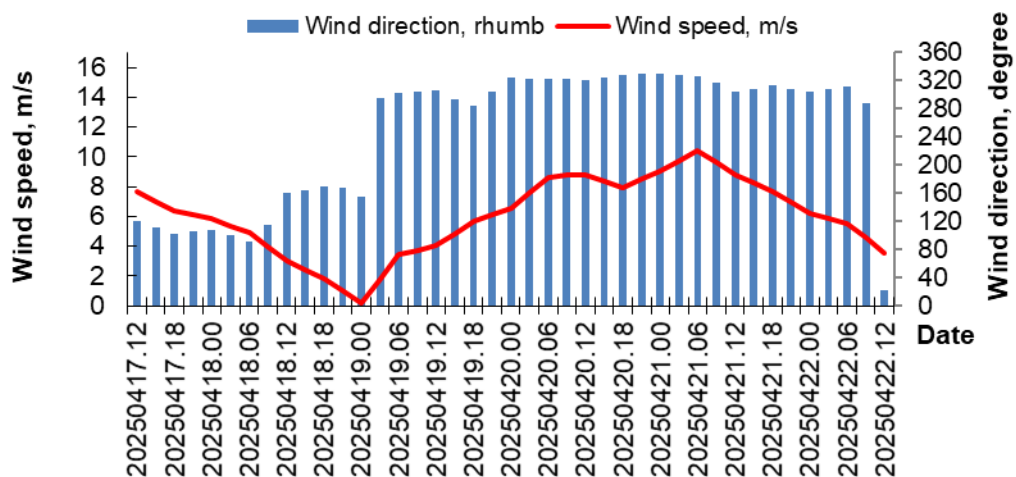
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**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 17 –22, 2025.**

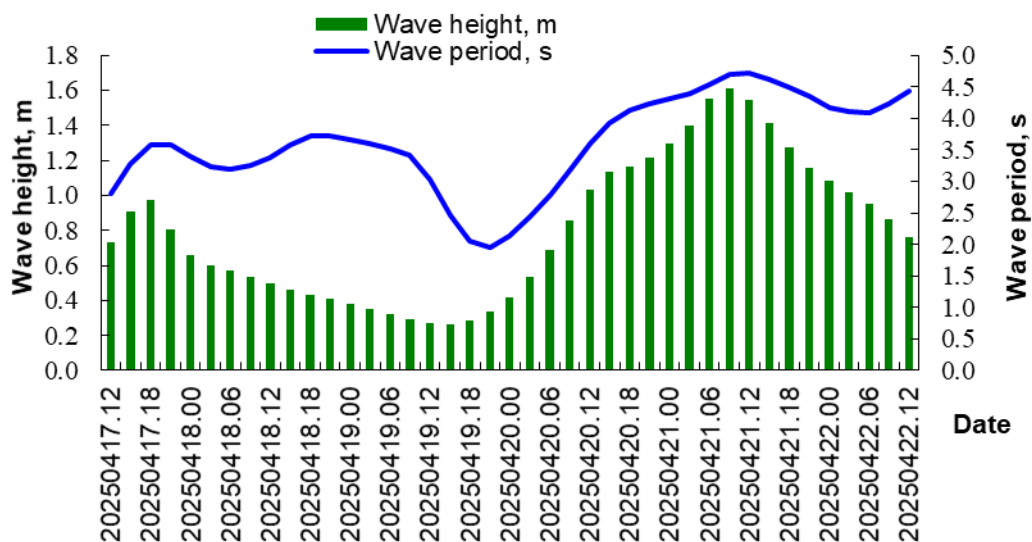


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250417.12	0.65	W	2.7	7	E
20250417.15	0.69	W	3.0	6	E
20250417.18	0.64	W	3.3	4	E
20250417.21	0.56	W	3.4	5	E
20250418.00	0.53	W	3.2	5	E
20250418.03	0.53	SW	3.1	5	E
20250418.06	0.52	SW	3.0	5	E
20250418.09	0.51	SW	3.0	5	E
20250418.12	0.49	SW	3.0	4	SE
20250418.15	0.47	SW	3.1	3	S
20250418.18	0.45	SW	3.2	2	W
20250418.21	0.43	SW	3.3	2	W
20250419.00	0.40	SW	3.4	2	N
20250419.03	0.37	SW	3.4	3	NW
20250419.06	0.33	SW	3.3	4	NW
20250419.09	0.30	S	3.0	4	NW
20250419.12	0.29	S	2.5	4	NW
20250419.15	0.30	S	2.2	4	NW
20250419.18	0.29	S	2.2	3	N
20250419.21	0.34	SE	2.1	5	NW
20250420.00	0.47	SE	2.3	7	NW
20250420.03	0.62	SE	2.6	8	NW
20250420.06	0.77	SE	3.0	9	NW
20250420.09	0.93	SE	3.4	9	NW
20250420.12	1.07	SE	3.7	9	NW
20250420.15	1.16	SE	4.0	8	NW
20250420.18	1.18	SE	4.2	8	NW
20250420.21	1.23	SE	4.3	8	NW
20250421.00	1.31	SE	4.4	9	NW
20250421.03	1.41	SE	4.5	10	NW
20250421.06	1.55	SE	4.6	10	NW
20250421.09	1.58	SE	4.7	10	NW
20250421.12	1.52	SE	4.8	9	NW
20250421.15	1.43	SE	4.8	8	NW
20250421.18	1.31	SE	4.7	8	NW
20250421.21	1.18	SE	4.6	7	NW
20250422.00	1.08	SE	4.4	6	NW
20250422.03	1.00	SE	4.4	6	NW
20250422.06	0.93	SE	4.3	6	NW
20250422.09	0.87	SE	4.4	5	W
20250422.12	0.79	SE	4.5	4	N

Wind condition in the Fort-Shevchenko

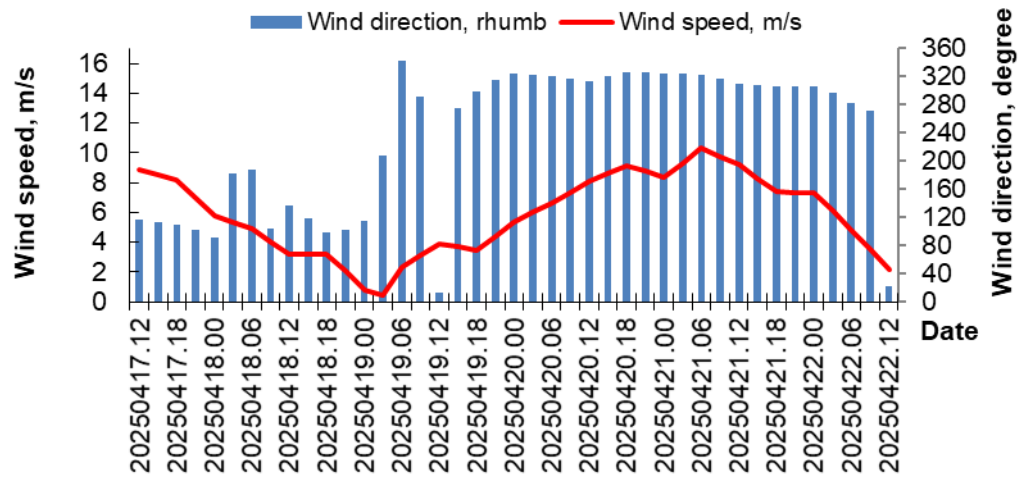


Wave condition in the Fort-Shevchenko

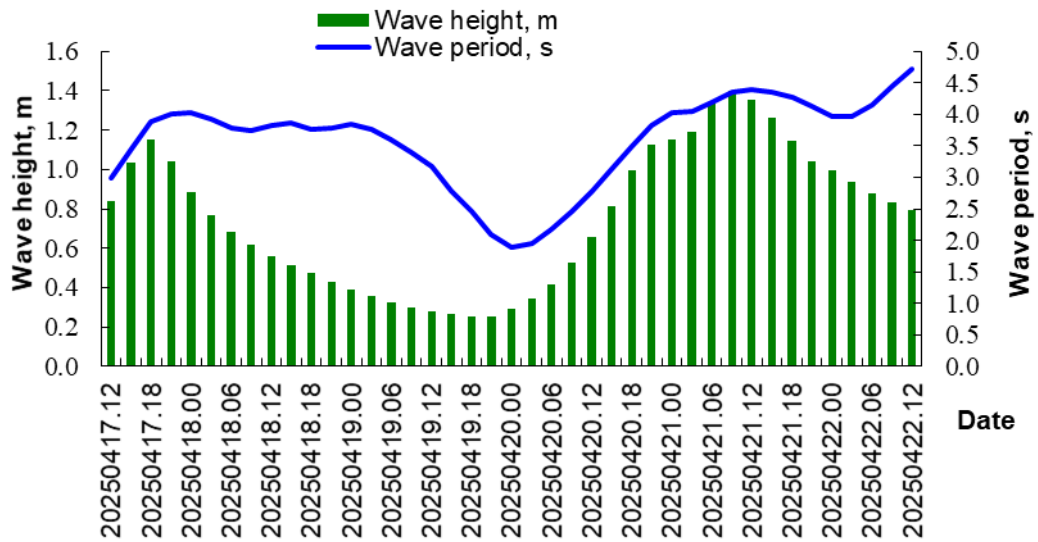


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250417.12	0.73	NW	2.8	8	SE
20250417.15	0.91	NW	3.3	7	E
20250417.18	0.98	NW	3.6	6	E
20250417.21	0.80	W	3.6	6	E
20250418.00	0.66	W	3.4	6	E
20250418.03	0.60	W	3.2	5	E
20250418.06	0.57	W	3.2	5	E
20250418.09	0.53	SW	3.2	4	SE
20250418.12	0.50	SW	3.4	3	S
20250418.15	0.46	SW	3.6	2	S
20250418.18	0.43	SW	3.7	2	S
20250418.21	0.41	SW	3.7	1	S
20250419.00	0.38	SW	3.7	0	SE
20250419.03	0.35	SW	3.6	2	NW
20250419.06	0.32	SW	3.5	3	NW
20250419.09	0.29	SW	3.4	4	NW
20250419.12	0.27	SW	3.0	4	NW
20250419.15	0.26	S	2.5	5	NW
20250419.18	0.28	S	2.1	6	W
20250419.21	0.34	SE	1.9	6	NW
20250420.00	0.42	SE	2.1	7	NW
20250420.03	0.53	SE	2.4	8	NW
20250420.06	0.69	SE	2.8	9	NW
20250420.09	0.85	SE	3.2	9	NW
20250420.12	1.03	SE	3.6	9	NW
20250420.15	1.14	SE	3.9	8	NW
20250420.18	1.16	SE	4.1	8	NW
20250420.21	1.22	SE	4.2	8	NW
20250421.00	1.29	SE	4.3	9	NW
20250421.03	1.40	SE	4.4	10	NW
20250421.06	1.55	SE	4.5	10	NW
20250421.09	1.61	SE	4.7	10	NW
20250421.12	1.54	SE	4.7	9	NW
20250421.15	1.41	SE	4.6	8	NW
20250421.18	1.27	SE	4.5	8	NW
20250421.21	1.16	SE	4.3	7	NW
20250422.00	1.08	SE	4.2	6	NW
20250422.03	1.02	SE	4.1	6	NW
20250422.06	0.95	SE	4.1	6	NW
20250422.09	0.86	SE	4.2	5	W
20250422.12	0.76	SE	4.4	4	N

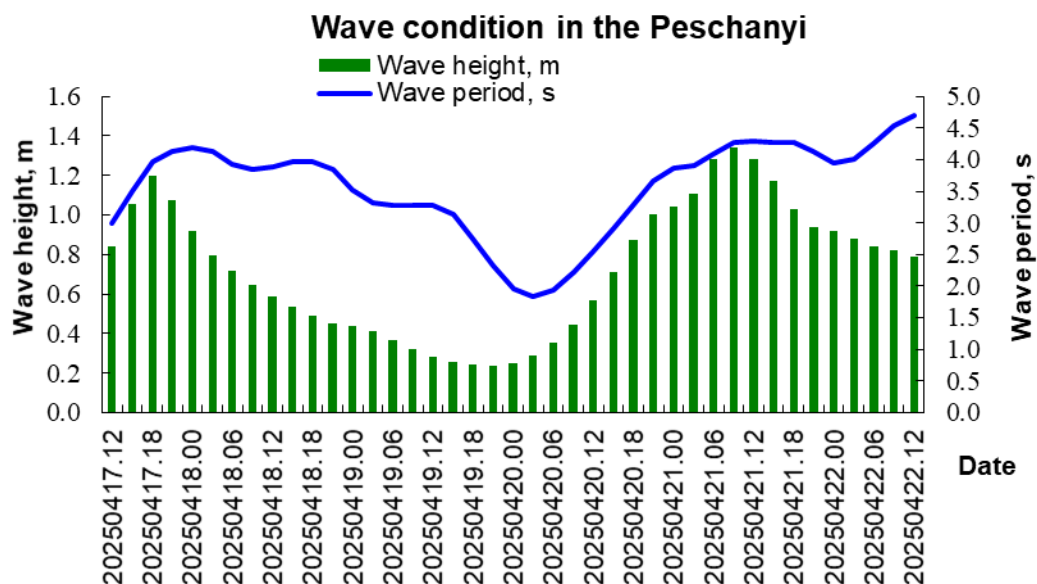
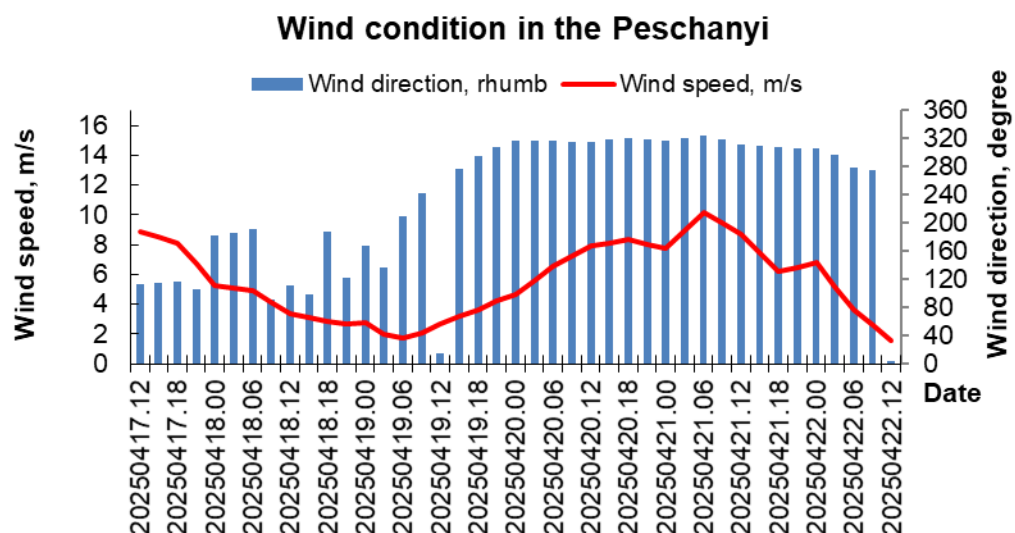
Wind condition in the Aktau



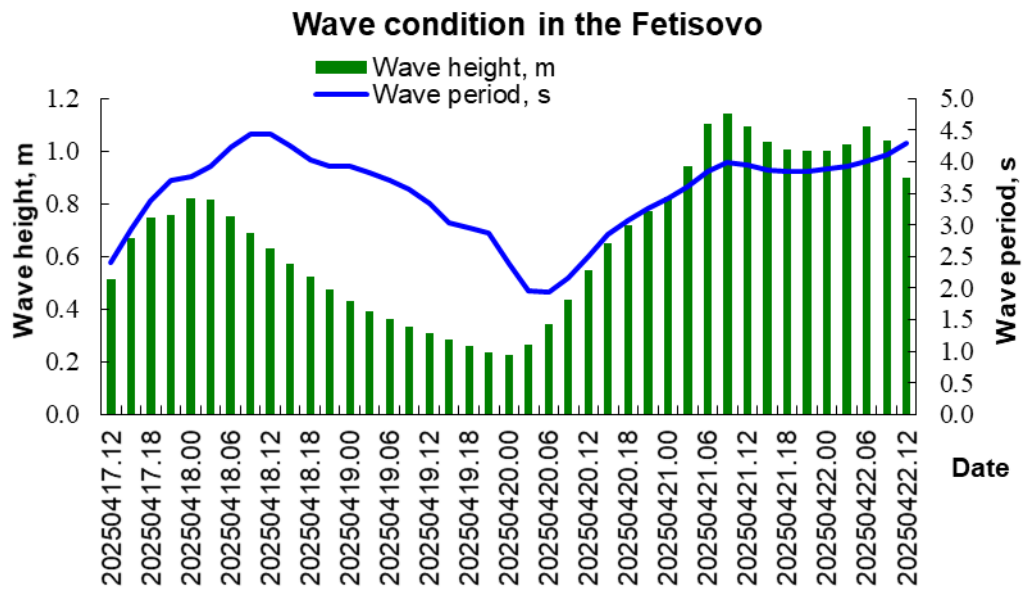
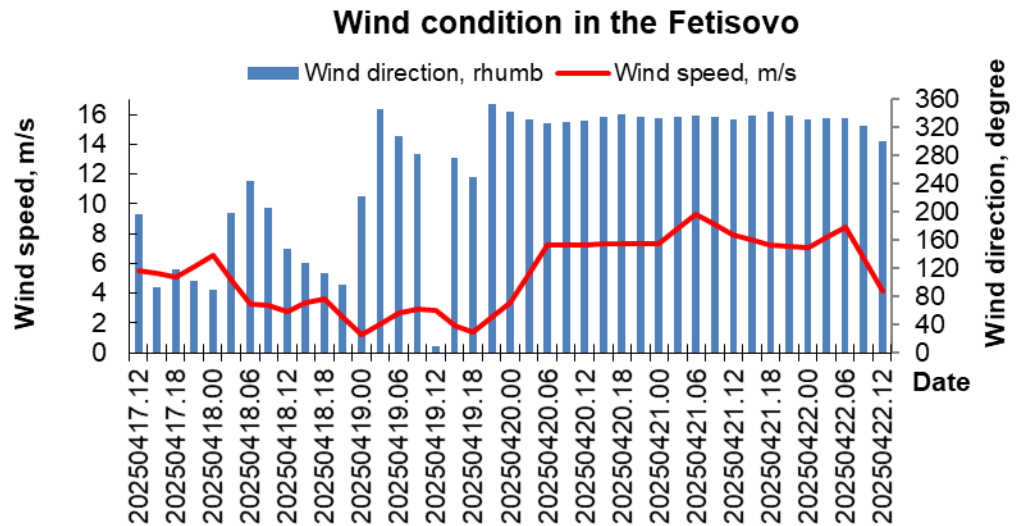
Wave condition in the Aktau



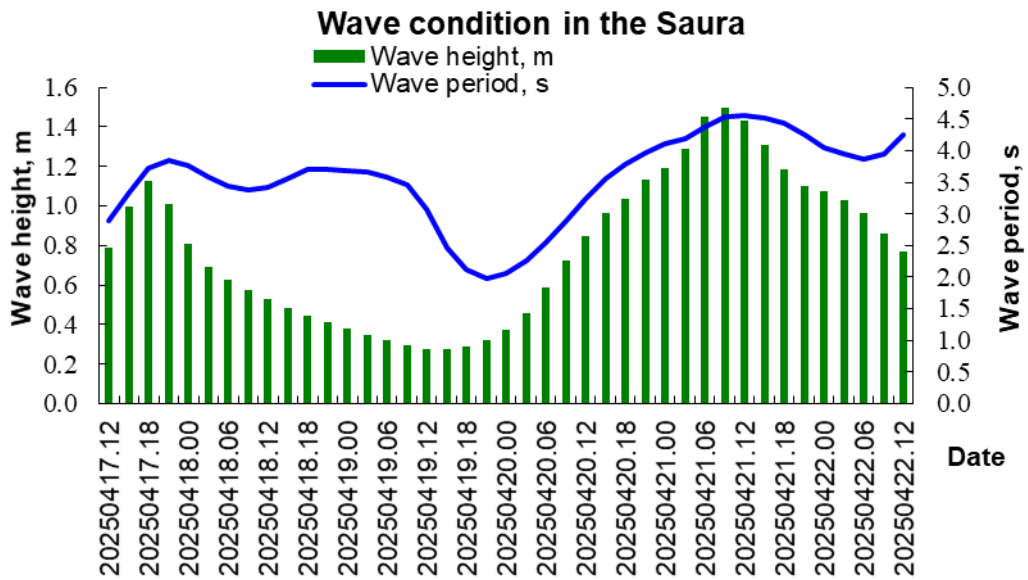
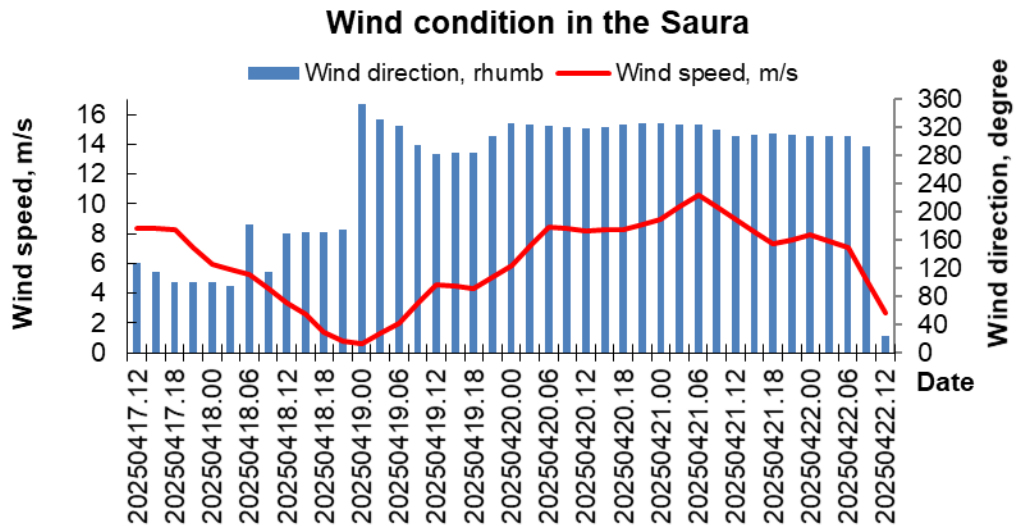
Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20250417.12	0.84	NW	3.0	9	SE
20250417.15	1.03	NW	3.5	9	SE
20250417.18	1.15	NW	3.9	8	E
20250417.21	1.04	NW	4.0	7	E
20250418.00	0.89	NW	4.0	6	E
20250418.03	0.77	W	3.9	5	S
20250418.06	0.68	W	3.8	5	S
20250418.09	0.62	W	3.7	4	E
20250418.12	0.56	W	3.8	3	SE
20250418.15	0.51	W	3.9	3	SE
20250418.18	0.47	W	3.8	3	E
20250418.21	0.43	W	3.8	2	E
20250419.00	0.39	W	3.8	1	SE
20250419.03	0.35	W	3.8	0	SW
20250419.06	0.33	W	3.6	2	N
20250419.09	0.30	SW	3.4	3	W
20250419.12	0.28	SW	3.2	4	N
20250419.15	0.26	SW	2.8	4	W
20250419.18	0.25	SW	2.5	3	NW
20250419.21	0.26	S	2.1	4	NW
20250420.00	0.29	S	1.9	5	NW
20250420.03	0.34	SE	2.0	6	NW
20250420.06	0.42	SE	2.2	7	NW
20250420.09	0.53	SE	2.5	7	NW
20250420.12	0.65	SE	2.8	8	NW
20250420.15	0.81	SE	3.1	9	NW
20250420.18	1.00	SE	3.5	9	NW
20250420.21	1.13	SE	3.8	9	NW
20250421.00	1.15	SE	4.0	8	NW
20250421.03	1.19	SE	4.1	9	NW
20250421.06	1.34	SE	4.2	10	NW
20250421.09	1.40	SE	4.4	10	NW
20250421.12	1.35	SE	4.4	9	NW
20250421.15	1.26	SE	4.3	8	NW
20250421.18	1.14	SE	4.3	7	NW
20250421.21	1.04	SE	4.1	7	NW
20250422.00	1.00	SE	4.0	7	NW
20250422.03	0.94	SE	4.0	6	NW
20250422.06	0.88	SE	4.1	5	W
20250422.09	0.83	SE	4.5	4	W
20250422.12	0.80	SE	4.7	2	N



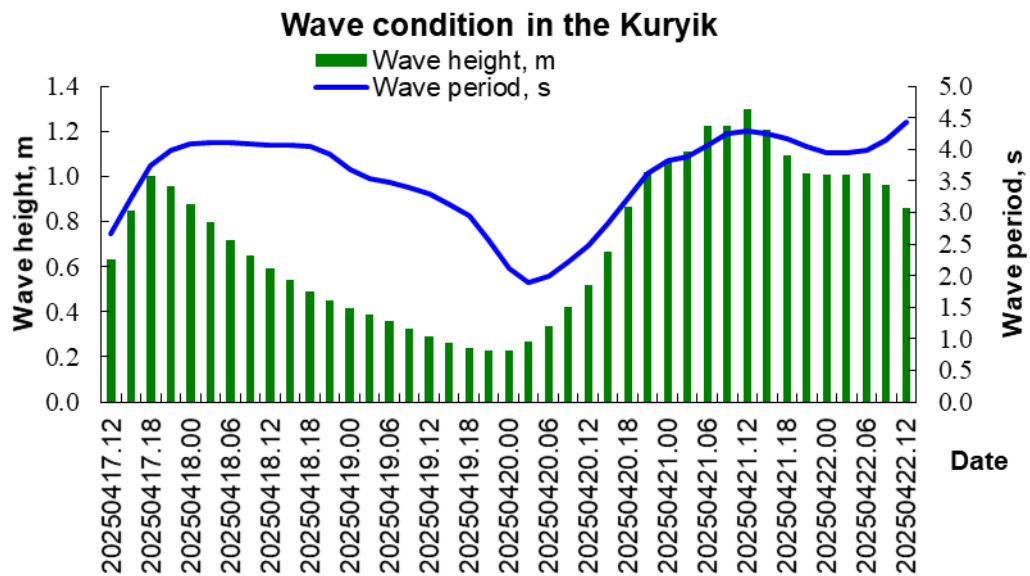
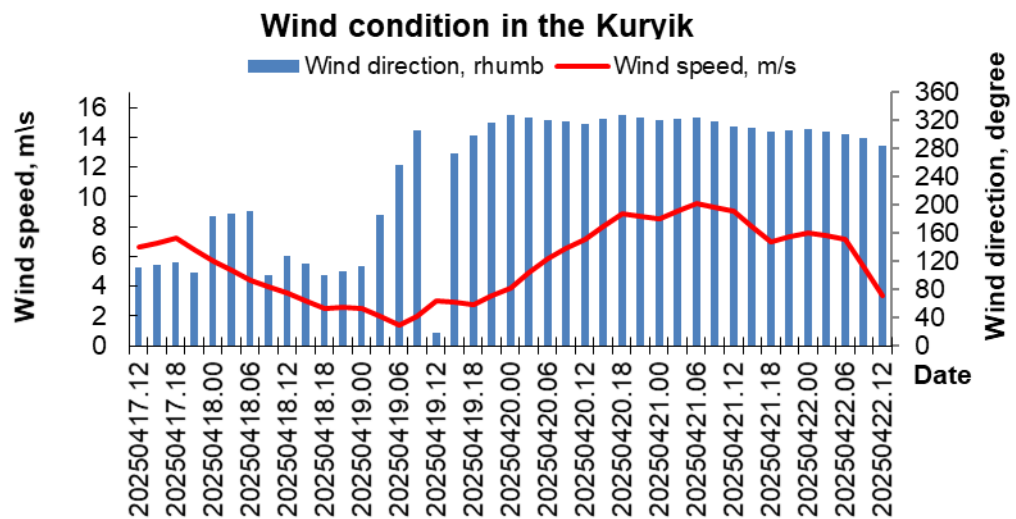
Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250417.12	0.84	NW	3.0	9	SE
20250417.15	1.06	NW	3.5	8	SE
20250417.18	1.20	NW	4.0	8	SE
20250417.21	1.08	NW	4.1	7	E
20250418.00	0.92	NW	4.2	5	S
20250418.03	0.80	NW	4.1	5	S
20250418.06	0.72	W	3.9	5	S
20250418.09	0.65	W	3.9	4	E
20250418.12	0.59	W	3.9	3	E
20250418.15	0.53	W	4.0	3	E
20250418.18	0.49	W	4.0	3	S
20250418.21	0.45	W	3.9	3	SE
20250419.00	0.43	W	3.5	3	S
20250419.03	0.42	W	3.3	2	SE
20250419.06	0.37	W	3.3	2	SW
20250419.09	0.32	W	3.3	2	SW
20250419.12	0.28	W	3.3	3	N
20250419.15	0.26	W	3.1	3	W
20250419.18	0.24	W	2.8	4	NW
20250419.21	0.24	SW	2.3	4	NW
20250420.00	0.25	S	2.0	5	NW
20250420.03	0.29	S	1.8	6	NW
20250420.06	0.35	SE	1.9	7	NW
20250420.09	0.45	SE	2.2	7	NW
20250420.12	0.57	SE	2.5	8	NW
20250420.15	0.71	SE	2.9	8	NW
20250420.18	0.88	SE	3.3	8	NW
20250420.21	1.00	SE	3.7	8	NW
20250421.00	1.04	SE	3.9	8	NW
20250421.03	1.11	SE	3.9	9	NW
20250421.06	1.28	SE	4.1	10	NW
20250421.09	1.34	SE	4.3	9	NW
20250421.12	1.29	SE	4.3	9	NW
20250421.15	1.17	SE	4.3	7	NW
20250421.18	1.03	SE	4.3	6	NW
20250421.21	0.94	SE	4.1	6	NW
20250422.00	0.92	SE	3.9	7	NW
20250422.03	0.88	SE	4.0	5	NW
20250422.06	0.84	SE	4.3	4	W
20250422.09	0.82	SE	4.5	3	W
20250422.12	0.79	SE	4.7	2	N



Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250417.12	0.51	W	2.4	6	S
20250417.15	0.67	W	2.9	5	E
20250417.18	0.75	W	3.4	5	SE
20250417.21	0.76	W	3.7	6	E
20250418.00	0.82	NW	3.8	7	E
20250418.03	0.81	NW	3.9	5	S
20250418.06	0.75	NW	4.2	3	SW
20250418.09	0.69	NW	4.4	3	SW
20250418.12	0.63	NW	4.4	3	SE
20250418.15	0.57	NW	4.3	3	SE
20250418.18	0.52	NW	4.0	4	SE
20250418.21	0.48	W	3.9	2	E
20250419.00	0.43	W	3.9	1	SW
20250419.03	0.39	W	3.8	2	N
20250419.06	0.36	W	3.7	3	NW
20250419.09	0.33	W	3.6	3	W
20250419.12	0.31	W	3.3	3	N
20250419.15	0.28	W	3.0	2	W
20250419.18	0.26	W	3.0	1	W
20250419.21	0.23	W	2.9	2	N
20250420.00	0.23	W	2.4	3	N
20250420.03	0.26	S	2.0	5	NW
20250420.06	0.34	S	1.9	7	NW
20250420.09	0.44	SE	2.2	7	NW
20250420.12	0.55	SE	2.5	7	NW
20250420.15	0.65	SE	2.8	7	NW
20250420.18	0.72	SE	3.1	7	N
20250420.21	0.77	SE	3.3	7	NW
20250421.00	0.83	SE	3.4	7	NW
20250421.03	0.94	SE	3.6	8	NW
20250421.06	1.10	SE	3.9	9	N
20250421.09	1.14	SE	4.0	9	NW
20250421.12	1.09	SE	4.0	8	NW
20250421.15	1.04	SE	3.9	8	NW
20250421.18	1.00	SE	3.8	7	N
20250421.21	1.00	SE	3.8	7	NW
20250422.00	1.00	SE	3.9	7	NW
20250422.03	1.03	SE	3.9	8	NW
20250422.06	1.09	SE	4.0	8	NW
20250422.09	1.04	SE	4.1	6	NW
20250422.12	0.90	SE	4.3	4	NW



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250417.12	0.79	NW	2.9	8	SE
20250417.15	1.00	NW	3.3	8	SE
20250417.18	1.12	NW	3.7	8	E
20250417.21	1.01	NW	3.8	7	E
20250418.00	0.81	W	3.8	6	E
20250418.03	0.69	W	3.6	6	E
20250418.06	0.63	W	3.4	5	S
20250418.09	0.58	W	3.4	4	SE
20250418.12	0.53	W	3.4	3	S
20250418.15	0.49	W	3.6	3	S
20250418.18	0.45	SW	3.7	1	S
20250418.21	0.41	SW	3.7	1	S
20250419.00	0.38	SW	3.7	1	N
20250419.03	0.35	SW	3.7	1	NW
20250419.06	0.32	SW	3.6	2	NW
20250419.09	0.29	SW	3.5	3	NW
20250419.12	0.27	SW	3.1	5	W
20250419.15	0.27	S	2.5	4	W
20250419.18	0.29	SE	2.1	4	W
20250419.21	0.32	SE	2.0	5	NW
20250420.00	0.37	SE	2.1	6	NW
20250420.03	0.46	SE	2.3	7	NW
20250420.06	0.59	SE	2.5	8	NW
20250420.09	0.73	SE	2.9	8	NW
20250420.12	0.85	SE	3.2	8	NW
20250420.15	0.97	SE	3.6	8	NW
20250420.18	1.04	SE	3.8	8	NW
20250420.21	1.13	SE	4.0	9	NW
20250421.00	1.19	SE	4.1	9	NW
20250421.03	1.29	SE	4.2	10	NW
20250421.06	1.45	SE	4.4	11	NW
20250421.09	1.50	SE	4.5	10	NW
20250421.12	1.43	SE	4.5	9	NW
20250421.15	1.31	SE	4.5	8	NW
20250421.18	1.19	SE	4.4	7	NW
20250421.21	1.10	SE	4.3	8	NW
20250422.00	1.07	SE	4.1	8	NW
20250422.03	1.03	SE	4.0	8	NW
20250422.06	0.96	SE	3.9	7	NW
20250422.09	0.86	SE	3.9	5	NW
20250422.12	0.77	SE	4.3	3	NE



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20250417.12	0.63	W	2.7	7	E
20250417.15	0.85	NW	3.2	7	SE
20250417.18	1.00	NW	3.7	7	SE
20250417.21	0.96	NW	4.0	6	E
20250418.00	0.88	NW	4.1	6	S
20250418.03	0.80	NW	4.1	5	S
20250418.06	0.72	W	4.1	4	S
20250418.09	0.65	W	4.1	4	E
20250418.12	0.59	W	4.1	4	SE
20250418.15	0.54	W	4.1	3	SE
20250418.18	0.49	W	4.0	3	E
20250418.21	0.45	W	3.9	3	E
20250419.00	0.42	W	3.7	3	SE
20250419.03	0.39	W	3.5	2	S
20250419.06	0.36	W	3.5	1	W
20250419.09	0.32	W	3.4	2	NW
20250419.12	0.29	W	3.3	3	N
20250419.15	0.26	W	3.1	3	W
20250419.18	0.24	W	2.9	3	NW
20250419.21	0.23	W	2.6	3	NW
20250420.00	0.23	SW	2.1	4	NW
20250420.03	0.27	S	1.9	5	NW
20250420.06	0.33	S	2.0	6	NW
20250420.09	0.42	S	2.2	7	NW
20250420.12	0.52	SE	2.5	7	NW
20250420.15	0.67	SE	2.8	8	NW
20250420.18	0.86	SE	3.2	9	NW
20250420.21	1.02	SE	3.6	9	NW
20250421.00	1.07	SE	3.8	8	NW
20250421.03	1.11	SE	3.9	9	NW
20250421.06	1.23	SE	4.1	10	NW
20250421.09	1.23	SE	4.3	9	NW
20250421.12	1.30	SE	4.3	9	NW
20250421.15	1.21	SE	4.2	8	NW
20250421.18	1.09	SE	4.2	7	NW
20250421.21	1.02	SE	4.0	7	NW
20250422.00	1.01	SE	3.9	8	NW
20250422.03	1.01	SE	3.9	7	NW
20250422.06	1.01	SE	4.0	7	NW
20250422.09	0.96	SE	4.1	5	NW
20250422.12	0.86	SE	4.4	3	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

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