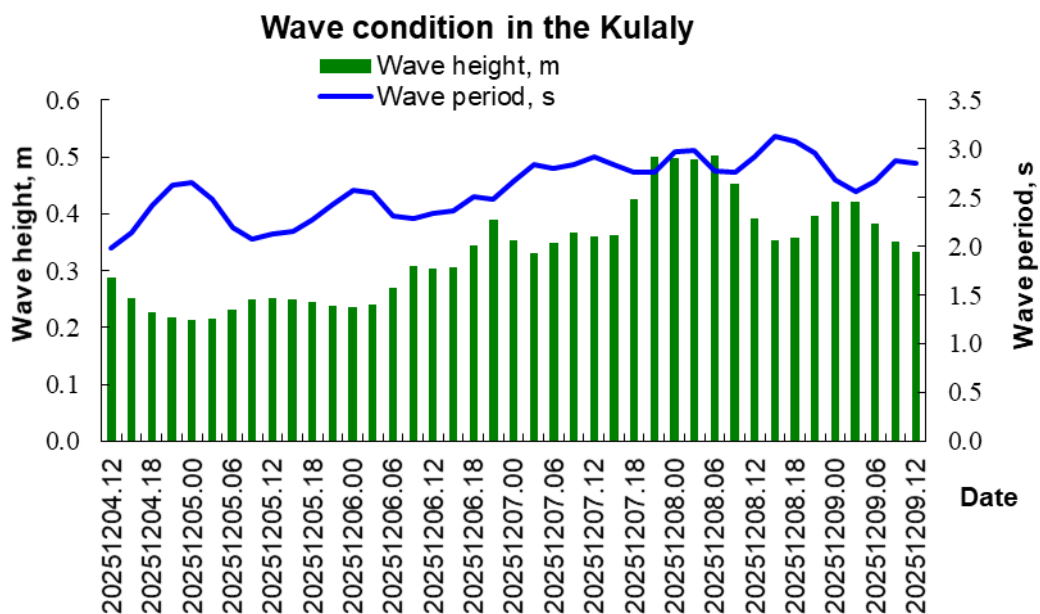
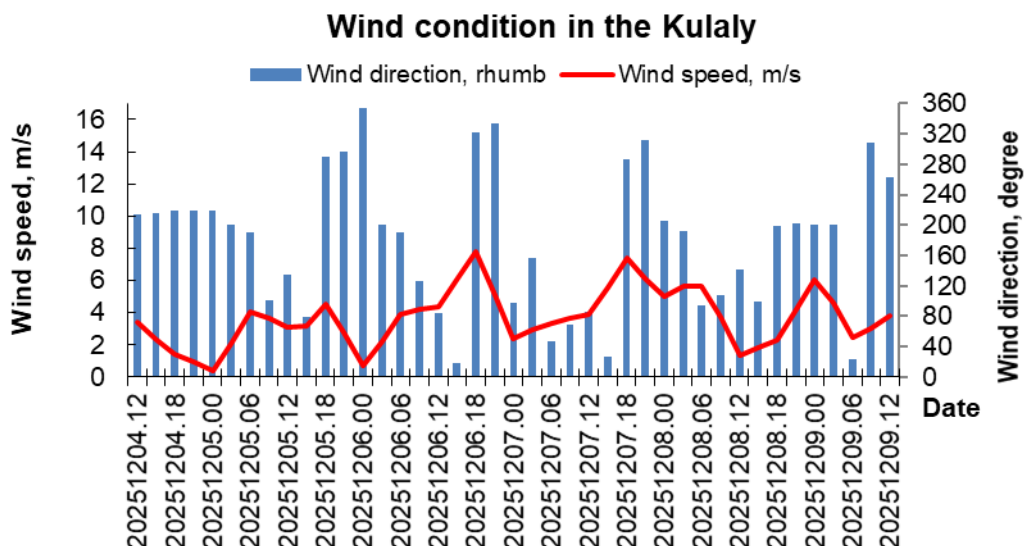




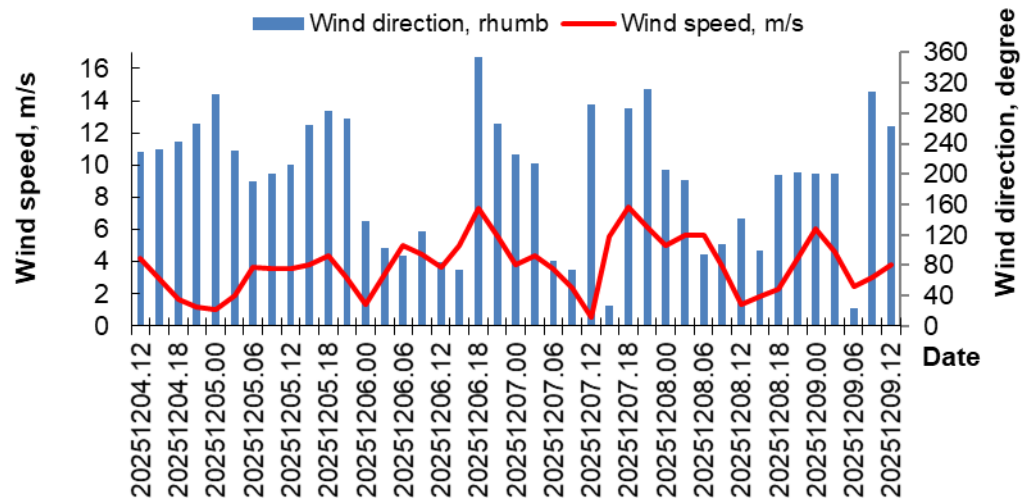
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**Wave and wind forecast for the Kazakhstan part of the Caspian Sea with a 5-day advance
using SWAN spectral model for the perio December 04 – 09, 2025.**

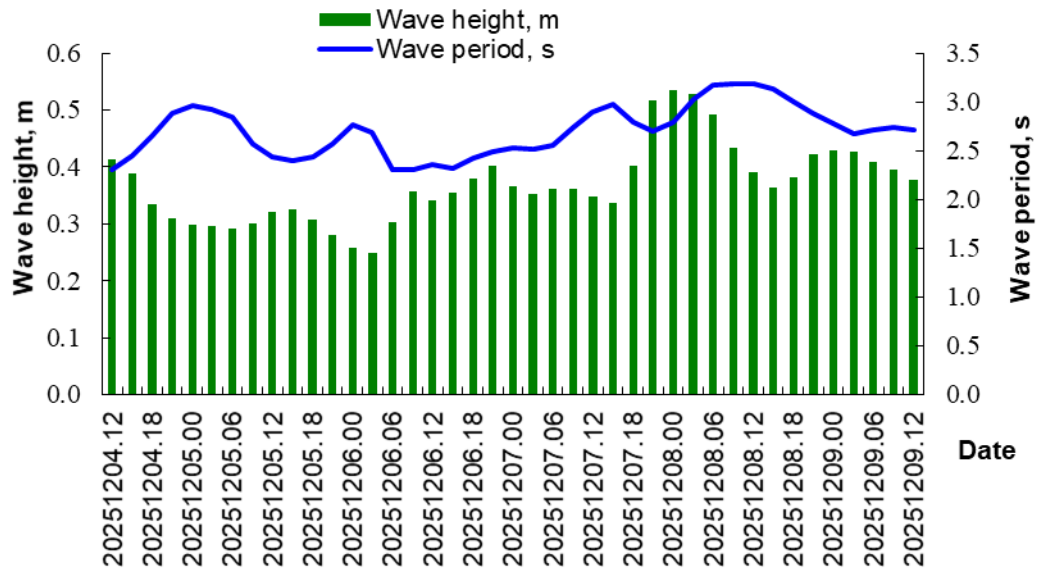


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251204.12	0.29	SW	2.0	3	SW
20251204.15	0.25	SW	2.1	2	SW
20251204.18	0.23	SW	2.4	1	SW
20251204.21	0.22	SW	2.6	1	SW
20251205.00	0.21	SW	2.7	0	SW
20251205.03	0.21	S	2.5	2	S
20251205.06	0.23	S	2.2	4	S
20251205.09	0.25	SW	2.1	4	E
20251205.12	0.25	SW	2.1	3	SE
20251205.15	0.25	SW	2.2	3	E
20251205.18	0.24	SW	2.3	5	W
20251205.21	0.24	S	2.4	3	NW
20251206.00	0.24	S	2.6	1	N
20251206.03	0.24	S	2.6	2	S
20251206.06	0.27	SW	2.3	4	S
20251206.09	0.31	SW	2.3	4	SE
20251206.12	0.30	W	2.3	4	E
20251206.15	0.31	W	2.4	6	N
20251206.18	0.34	SW	2.5	8	NW
20251206.21	0.39	S	2.5	5	NW
20251207.00	0.35	S	2.7	2	E
20251207.03	0.33	S	2.8	3	SE
20251207.06	0.35	SW	2.8	3	NE
20251207.09	0.37	SW	2.8	4	E
20251207.12	0.36	SW	2.9	4	E
20251207.15	0.36	W	2.8	6	NE
20251207.18	0.43	SW	2.8	7	W
20251207.21	0.50	S	2.8	6	NW
20251208.00	0.50	S	3.0	5	SW
20251208.03	0.50	SW	3.0	6	S
20251208.06	0.50	SW	2.8	6	E
20251208.09	0.45	SW	2.8	4	E
20251208.12	0.39	SW	2.9	1	SE
20251208.15	0.35	SW	3.1	2	E
20251208.18	0.36	SW	3.1	2	S
20251208.21	0.40	S	3.0	4	SW
20251209.00	0.42	S	2.7	6	S
20251209.03	0.42	SW	2.6	5	S
20251209.06	0.38	SW	2.7	2	NE
20251209.09	0.35	SW	2.9	3	NW
20251209.12	0.33	SW	2.8	4	W

Wind condition in the Fort-Shevchenko

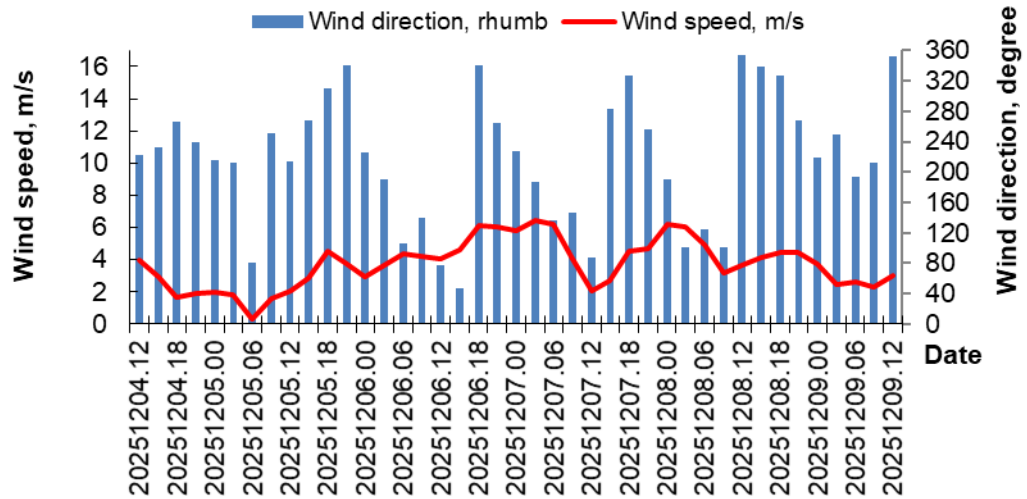


Wave condition in the Fort-Shevchenko

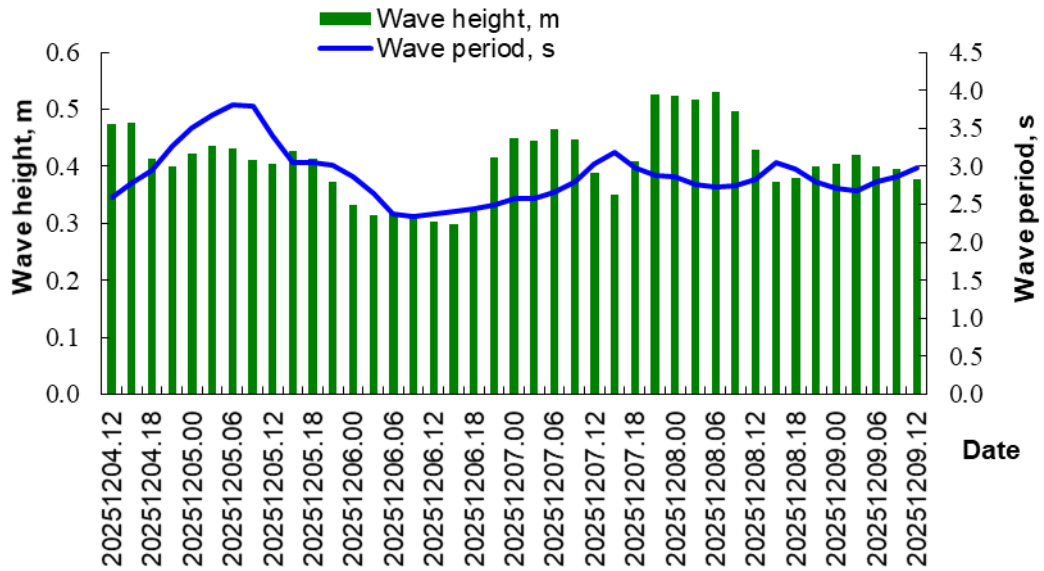


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251204.12	0.41	SW	2.3	4	SW
20251204.15	0.39	SW	2.4	3	SW
20251204.18	0.33	SW	2.6	2	SW
20251204.21	0.31	SW	2.9	1	W
20251205.00	0.30	SW	3.0	1	NW
20251205.03	0.30	S	2.9	2	SW
20251205.06	0.29	S	2.8	4	S
20251205.09	0.30	SW	2.6	4	S
20251205.12	0.32	SW	2.4	4	SW
20251205.15	0.33	SW	2.4	4	W
20251205.18	0.31	SW	2.4	4	W
20251205.21	0.28	S	2.6	3	W
20251206.00	0.26	S	2.8	1	SE
20251206.03	0.25	SW	2.7	3	E
20251206.06	0.30	SW	2.3	5	E
20251206.09	0.36	W	2.3	4	SE
20251206.12	0.34	W	2.4	4	E
20251206.15	0.35	NW	2.3	5	E
20251206.18	0.38	NW	2.4	7	N
20251206.21	0.40	S	2.5	6	W
20251207.00	0.37	S	2.5	4	SW
20251207.03	0.35	S	2.5	4	SW
20251207.06	0.36	SW	2.6	4	E
20251207.09	0.36	SW	2.7	2	E
20251207.12	0.35	SW	2.9	1	W
20251207.15	0.34	SW	3.0	6	NE
20251207.18	0.40	S	2.8	7	W
20251207.21	0.52	S	2.7	6	NW
20251208.00	0.53	S	2.8	5	SW
20251208.03	0.53	SW	3.0	6	S
20251208.06	0.49	SW	3.2	6	E
20251208.09	0.43	SW	3.2	4	E
20251208.12	0.39	SW	3.2	1	SE
20251208.15	0.36	SW	3.1	2	E
20251208.18	0.38	SW	3.0	2	S
20251208.21	0.42	S	2.9	4	SW
20251209.00	0.43	S	2.8	6	S
20251209.03	0.43	SW	2.7	5	S
20251209.06	0.41	SW	2.7	2	NE
20251209.09	0.40	SW	2.7	3	NW
20251209.12	0.38	SW	2.7	4	W

Wind condition in the Aktau

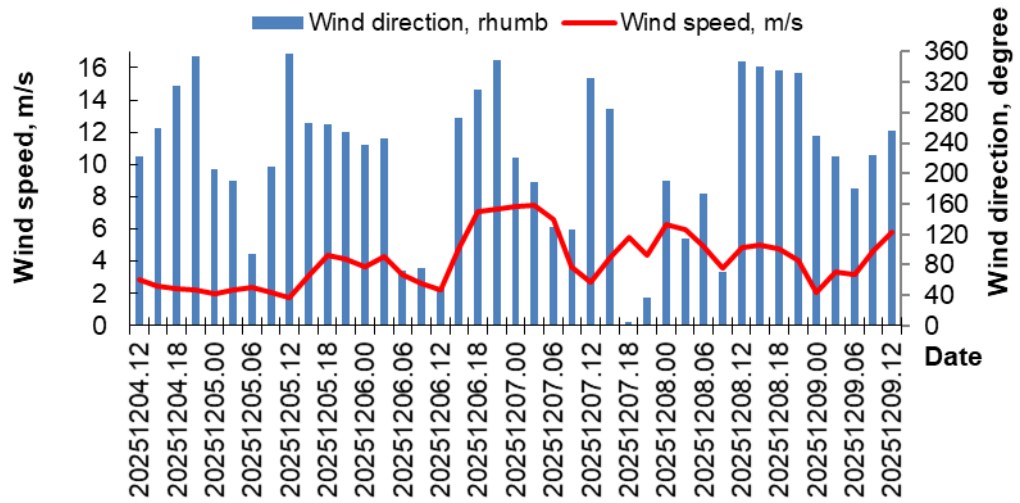


Wave condition in the Aktau

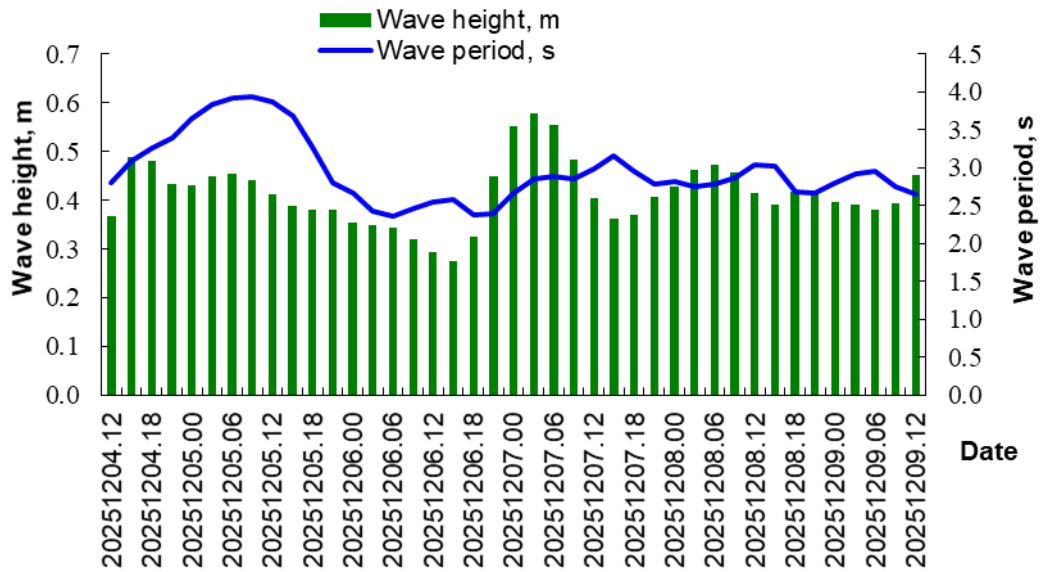


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20251204.12	0.47	SW	2.6	4	SW
20251204.15	0.48	SW	2.8	3	SW
20251204.18	0.41	SW	3.0	2	W
20251204.21	0.40	SW	3.3	2	SW
20251205.00	0.42	SW	3.5	2	SW
20251205.03	0.44	SW	3.7	2	SW
20251205.06	0.43	S	3.8	0	E
20251205.09	0.41	S	3.8	2	W
20251205.12	0.40	SW	3.4	2	SW
20251205.15	0.43	SW	3.1	3	W
20251205.18	0.41	SW	3.1	4	NW
20251205.21	0.37	SW	3.0	4	N
20251206.00	0.33	SW	2.9	3	SW
20251206.03	0.31	SW	2.6	4	S
20251206.06	0.32	SW	2.4	4	E
20251206.09	0.32	SW	2.3	4	SE
20251206.12	0.30	W	2.4	4	E
20251206.15	0.30	W	2.4	5	NE
20251206.18	0.32	W	2.4	6	N
20251206.21	0.42	S	2.5	6	W
20251207.00	0.45	S	2.6	6	SW
20251207.03	0.44	SW	2.6	6	S
20251207.06	0.46	SW	2.7	6	SE
20251207.09	0.45	W	2.8	4	SE
20251207.12	0.39	SW	3.0	2	E
20251207.15	0.35	SW	3.2	3	W
20251207.18	0.41	S	3.0	5	NW
20251207.21	0.53	S	2.9	5	W
20251208.00	0.52	S	2.9	6	S
20251208.03	0.52	SW	2.8	6	E
20251208.06	0.53	W	2.7	5	SE
20251208.09	0.50	W	2.7	3	E
20251208.12	0.43	W	2.8	4	N
20251208.15	0.37	W	3.0	4	N
20251208.18	0.38	SW	3.0	4	NW
20251208.21	0.40	SW	2.8	4	W
20251209.00	0.40	SW	2.7	4	SW
20251209.03	0.42	SW	2.7	2	W
20251209.06	0.40	SW	2.8	3	S
20251209.09	0.39	SW	2.9	2	SW
20251209.12	0.38	SW	3.0	3	N

Wind condition in the Peschanyi

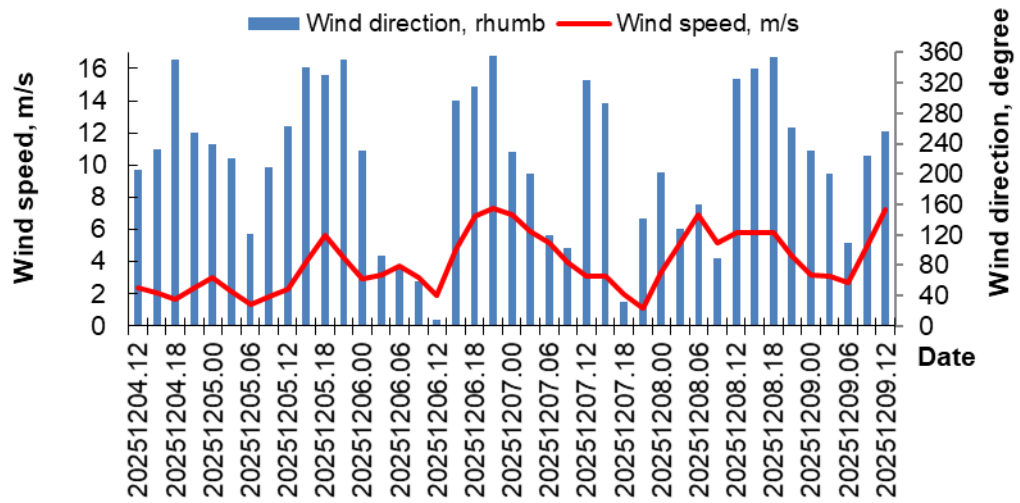


Wave condition in the Peschanyi

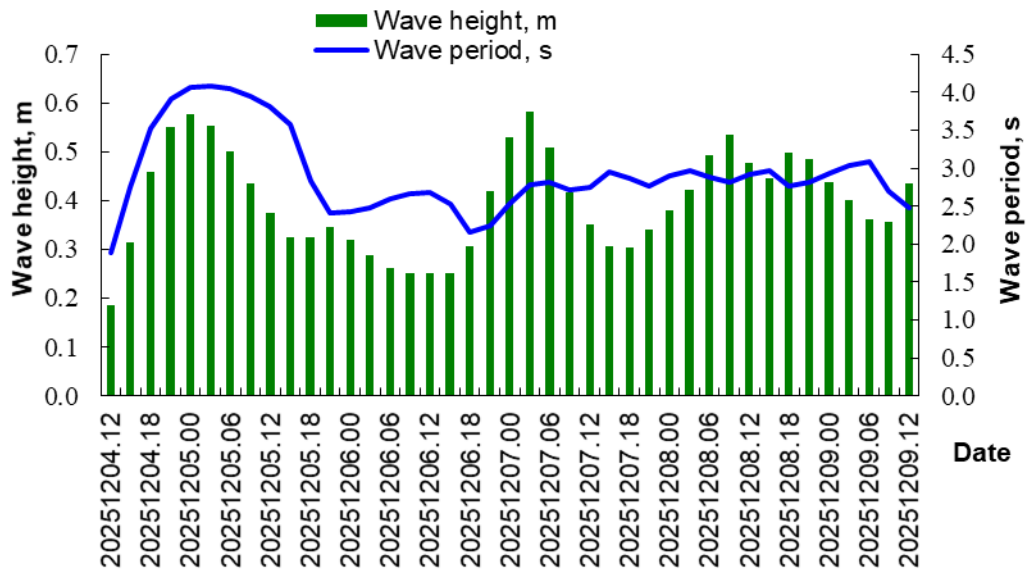


Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251204.12	0.37	SW	2.8	3	SW
20251204.15	0.49	SW	3.1	2	W
20251204.18	0.48	SW	3.3	2	NW
20251204.21	0.43	SW	3.4	2	N
20251205.00	0.43	SW	3.6	2	SW
20251205.03	0.45	SW	3.8	2	S
20251205.06	0.46	SW	3.9	2	E
20251205.09	0.44	S	3.9	2	SW
20251205.12	0.41	S	3.9	2	N
20251205.15	0.39	SW	3.7	3	W
20251205.18	0.38	SW	3.3	4	W
20251205.21	0.38	SW	2.8	4	W
20251206.00	0.36	SW	2.7	4	SW
20251206.03	0.35	SW	2.4	4	SW
20251206.06	0.34	SW	2.4	3	E
20251206.09	0.32	SW	2.5	3	E
20251206.12	0.29	W	2.5	2	NE
20251206.15	0.28	W	2.6	5	W
20251206.18	0.33	S	2.4	7	NW
20251206.21	0.45	S	2.4	7	N
20251207.00	0.55	S	2.7	7	SW
20251207.03	0.58	SW	2.9	7	S
20251207.06	0.56	SW	2.9	7	SE
20251207.09	0.48	SW	2.9	4	SE
20251207.12	0.41	SW	3.0	3	NW
20251207.15	0.36	SW	3.2	4	W
20251207.18	0.37	SW	3.0	5	N
20251207.21	0.41	S	2.8	4	NE
20251208.00	0.43	S	2.8	6	S
20251208.03	0.46	SW	2.8	6	SE
20251208.06	0.47	W	2.8	5	S
20251208.09	0.46	W	2.9	4	E
20251208.12	0.42	W	3.0	5	N
20251208.15	0.39	SW	3.0	5	N
20251208.18	0.42	SW	2.7	5	NW
20251208.21	0.42	S	2.7	4	NW
20251209.00	0.40	SW	2.8	2	W
20251209.03	0.39	SW	2.9	3	SW
20251209.06	0.38	SW	3.0	3	S
20251209.09	0.39	SW	2.7	5	SW
20251209.12	0.45	SW	2.6	6	W

Wind condition in the Fetisovo

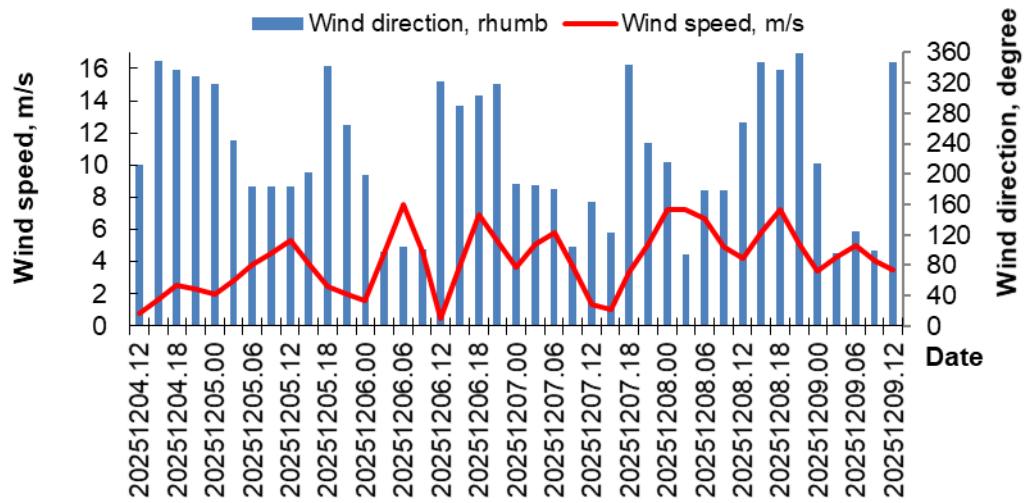


Wave condition in the Fetisovo

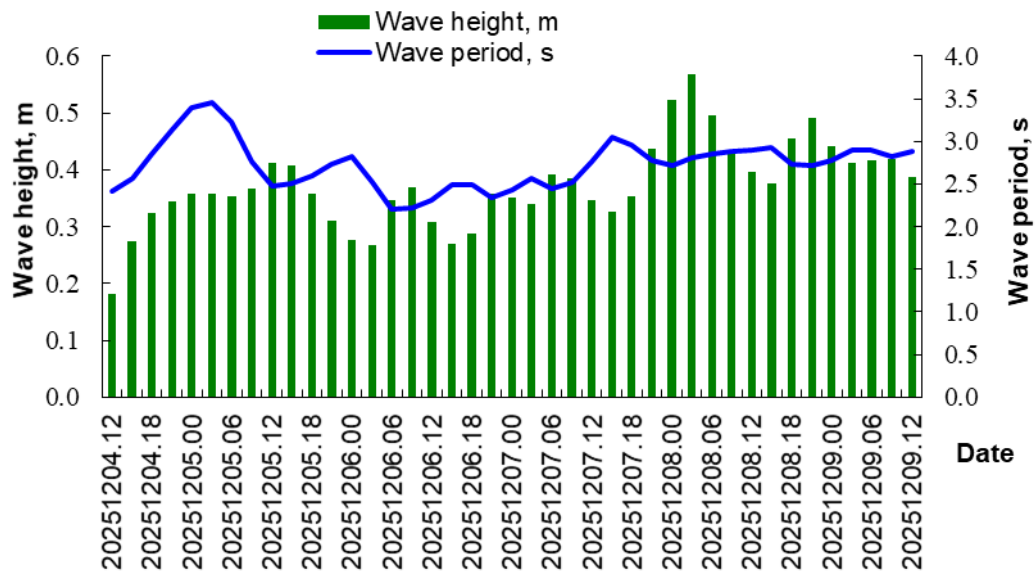


Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251204.12	0.19	SW	1.9	2	SW
20251204.15	0.32	SW	2.8	2	SW
20251204.18	0.46	S	3.5	2	N
20251204.21	0.55	S	3.9	2	W
20251205.00	0.58	SW	4.1	3	SW
20251205.03	0.55	SW	4.1	2	SW
20251205.06	0.50	SW	4.0	1	SE
20251205.09	0.44	SW	3.9	2	SW
20251205.12	0.37	SW	3.8	2	W
20251205.15	0.32	SW	3.6	4	N
20251205.18	0.32	SW	2.8	6	NW
20251205.21	0.35	S	2.4	4	N
20251206.00	0.32	SW	2.4	3	SW
20251206.03	0.29	SW	2.5	3	E
20251206.06	0.26	SW	2.6	4	E
20251206.09	0.25	SW	2.7	3	NE
20251206.12	0.25	SW	2.7	2	N
20251206.15	0.25	SW	2.5	5	NW
20251206.18	0.31	S	2.2	7	NW
20251206.21	0.42	S	2.2	7	N
20251207.00	0.53	S	2.5	7	SW
20251207.03	0.58	SW	2.8	6	S
20251207.06	0.51	SW	2.8	5	SE
20251207.09	0.42	SW	2.7	4	E
20251207.12	0.35	SW	2.7	3	NW
20251207.15	0.31	SW	2.9	3	W
20251207.18	0.30	SW	2.9	2	NE
20251207.21	0.34	SW	2.8	1	SE
20251208.00	0.38	SW	2.9	3	S
20251208.03	0.42	SW	3.0	5	SE
20251208.06	0.49	W	2.9	7	S
20251208.09	0.53	W	2.8	5	E
20251208.12	0.48	W	2.9	6	NW
20251208.15	0.45	SW	3.0	6	N
20251208.18	0.50	S	2.8	6	N
20251208.21	0.48	S	2.8	4	W
20251209.00	0.44	S	2.9	3	SW
20251209.03	0.40	SW	3.0	3	S
20251209.06	0.36	SW	3.1	3	E
20251209.09	0.36	SW	2.7	5	SW
20251209.12	0.44	SW	2.5	7	W

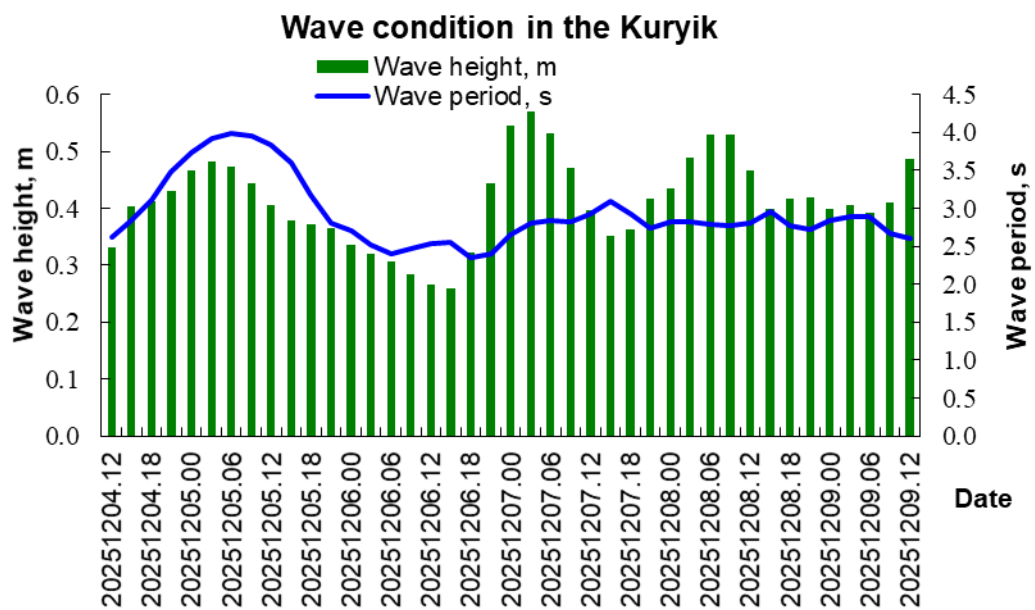
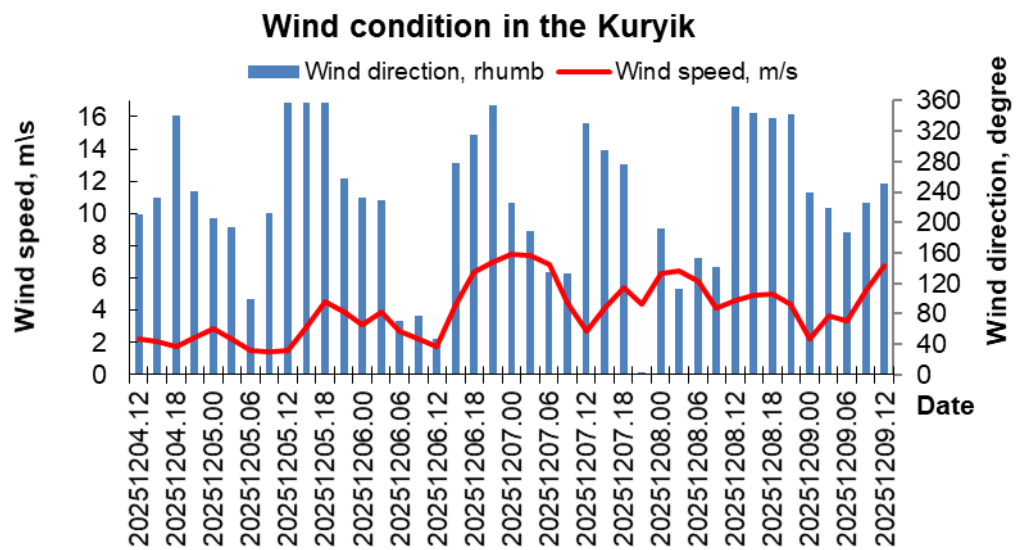
Wind condition in the Saura



Wave condition in the Saura



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251204.12	0.18	SW	2.4	1	SW
20251204.15	0.27	SW	2.6	2	N
20251204.18	0.32	SW	2.9	3	NW
20251204.21	0.34	SW	3.1	2	NW
20251205.00	0.36	SW	3.4	2	NW
20251205.03	0.36	SW	3.5	3	SW
20251205.06	0.35	SW	3.2	4	S
20251205.09	0.37	SW	2.8	5	S
20251205.12	0.41	SW	2.5	5	S
20251205.15	0.41	SW	2.5	4	SW
20251205.18	0.36	SW	2.6	2	N
20251205.21	0.31	SW	2.7	2	W
20251206.00	0.28	SW	2.8	2	S
20251206.03	0.27	SW	2.5	5	E
20251206.06	0.35	W	2.2	8	E
20251206.09	0.37	W	2.2	5	E
20251206.12	0.31	W	2.3	1	NW
20251206.15	0.27	W	2.5	4	W
20251206.18	0.29	W	2.5	7	NW
20251206.21	0.36	S	2.3	5	NW
20251207.00	0.35	S	2.4	4	S
20251207.03	0.34	S	2.6	5	S
20251207.06	0.39	SW	2.5	6	S
20251207.09	0.39	SW	2.5	4	E
20251207.12	0.35	SW	2.8	1	S
20251207.15	0.33	SW	3.0	1	SE
20251207.18	0.35	SW	3.0	3	N
20251207.21	0.44	S	2.8	5	SW
20251208.00	0.52	S	2.7	7	SW
20251208.03	0.57	SW	2.8	7	E
20251208.06	0.50	SW	2.9	7	S
20251208.09	0.43	W	2.9	5	S
20251208.12	0.40	W	2.9	4	W
20251208.15	0.38	SW	2.9	6	N
20251208.18	0.45	S	2.7	7	NW
20251208.21	0.49	S	2.7	5	N
20251209.00	0.44	S	2.8	3	SW
20251209.03	0.41	SW	2.9	4	E
20251209.06	0.42	SW	2.9	5	SE
20251209.09	0.42	SW	2.8	4	E
20251209.12	0.39	SW	2.9	4	N



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251204.12	0.33	SW	2.6	2	SW
20251204.15	0.40	SW	2.8	2	SW
20251204.18	0.41	SW	3.1	2	N
20251204.21	0.43	SW	3.5	2	SW
20251205.00	0.47	SW	3.7	3	SW
20251205.03	0.48	SW	3.9	2	S
20251205.06	0.47	SW	4.0	2	E
20251205.09	0.44	SW	4.0	1	SW
20251205.12	0.41	SW	3.8	2	N
20251205.15	0.38	SW	3.6	3	N
20251205.18	0.37	SW	3.2	5	N
20251205.21	0.36	SW	2.8	4	W
20251206.00	0.34	SW	2.7	3	SW
20251206.03	0.32	SW	2.5	4	SW
20251206.06	0.31	SW	2.4	3	E
20251206.09	0.28	SW	2.5	2	E
20251206.12	0.27	SW	2.5	2	NE
20251206.15	0.26	W	2.6	4	W
20251206.18	0.32	S	2.3	6	NW
20251206.21	0.44	S	2.4	7	N
20251207.00	0.54	S	2.7	7	SW
20251207.03	0.57	SW	2.8	7	S
20251207.06	0.53	SW	2.8	7	SE
20251207.09	0.47	W	2.8	4	SE
20251207.12	0.40	SW	2.9	3	NW
20251207.15	0.35	SW	3.1	4	NW
20251207.18	0.36	SW	2.9	5	W
20251207.21	0.42	S	2.7	4	N
20251208.00	0.44	S	2.8	6	S
20251208.03	0.49	SW	2.8	6	E
20251208.06	0.53	W	2.8	6	SE
20251208.09	0.53	W	2.8	4	SE
20251208.12	0.47	W	2.8	5	N
20251208.15	0.40	W	3.0	5	N
20251208.18	0.42	SW	2.8	5	NW
20251208.21	0.42	SW	2.7	4	N
20251209.00	0.40	SW	2.8	2	SW
20251209.03	0.40	SW	2.9	4	SW
20251209.06	0.39	SW	2.9	3	S
20251209.09	0.41	SW	2.7	5	SW
20251209.12	0.49	SW	2.6	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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