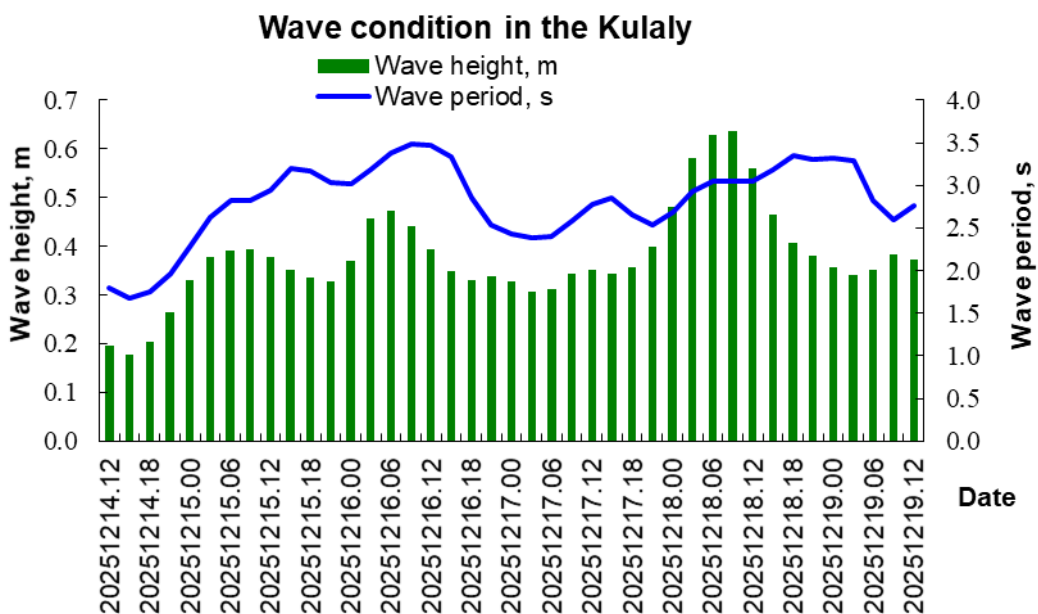
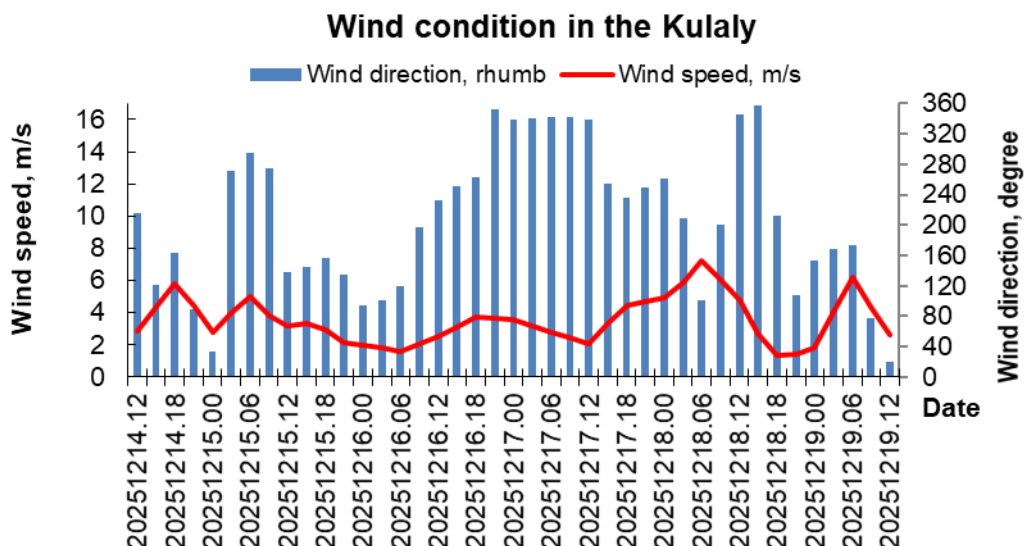




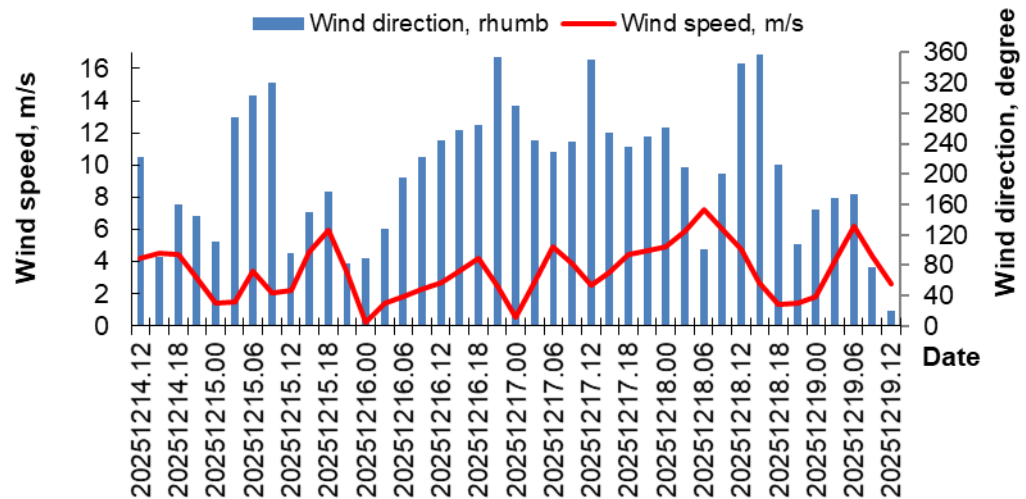
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**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 14 – 19, 2025.**

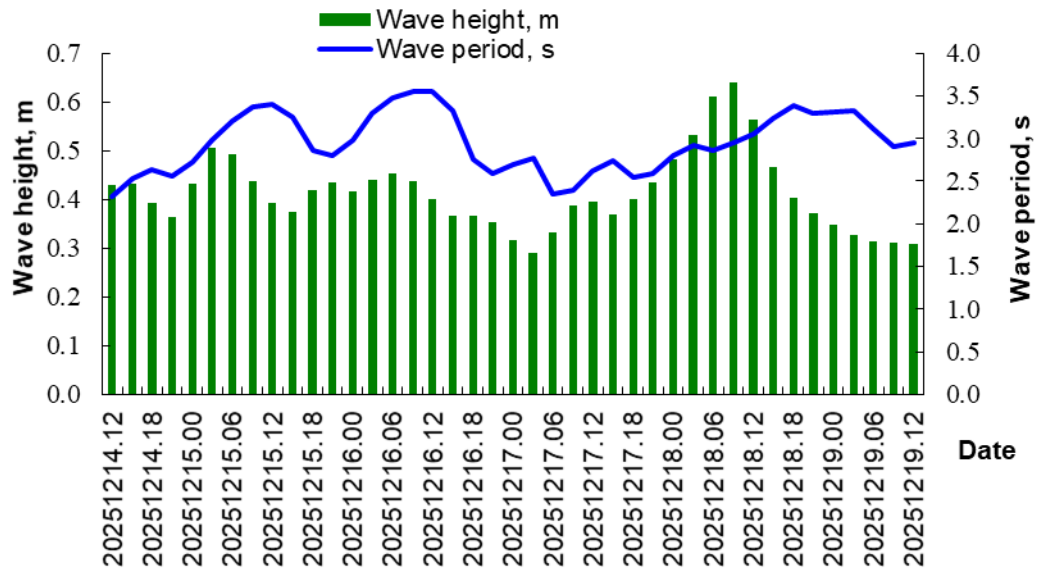


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251214.12	0.20	SW	1.8	3	SW
20251214.15	0.18	W	1.7	4	SE
20251214.18	0.20	W	1.8	6	S
20251214.21	0.27	NW	2.0	4	E
20251215.00	0.33	NW	2.3	3	NE
20251215.03	0.38	NW	2.6	4	W
20251215.06	0.39	NW	2.8	5	NW
20251215.09	0.39	NW	2.8	4	W
20251215.12	0.38	NW	2.9	3	SE
20251215.15	0.35	NW	3.2	3	SE
20251215.18	0.33	NW	3.2	3	SE
20251215.21	0.33	NW	3.0	2	SE
20251216.00	0.37	NW	3.0	2	E
20251216.03	0.46	W	3.2	2	E
20251216.06	0.47	W	3.4	2	SE
20251216.09	0.44	W	3.5	2	S
20251216.12	0.39	W	3.5	3	SW
20251216.15	0.35	W	3.3	3	W
20251216.18	0.33	SW	2.9	4	W
20251216.21	0.34	SW	2.5	4	N
20251217.00	0.33	S	2.4	4	N
20251217.03	0.31	S	2.4	3	N
20251217.06	0.31	SW	2.4	3	N
20251217.09	0.34	SW	2.6	2	N
20251217.12	0.35	SW	2.8	2	N
20251217.15	0.34	SW	2.8	3	W
20251217.18	0.36	SW	2.7	4	SW
20251217.21	0.40	SW	2.5	5	W
20251218.00	0.48	S	2.7	5	W
20251218.03	0.58	S	2.9	6	SW
20251218.06	0.63	SW	3.1	7	E
20251218.09	0.64	SW	3.0	6	S
20251218.12	0.56	SW	3.0	5	N
20251218.15	0.47	SW	3.2	3	N
20251218.18	0.41	SW	3.3	1	SW
20251218.21	0.38	SW	3.3	1	E
20251219.00	0.36	SW	3.3	2	SE
20251219.03	0.34	SW	3.3	4	S
20251219.06	0.35	SW	2.8	6	S
20251219.09	0.38	SW	2.6	4	E
20251219.12	0.37	SW	2.8	3	N

Wind condition in the Fort-Shevchenko

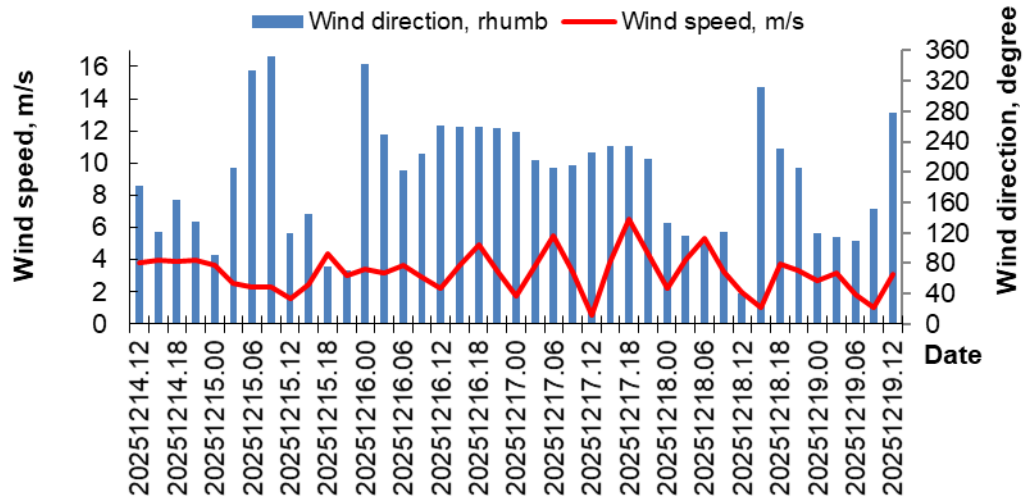


Wave condition in the Fort-Shevchenko

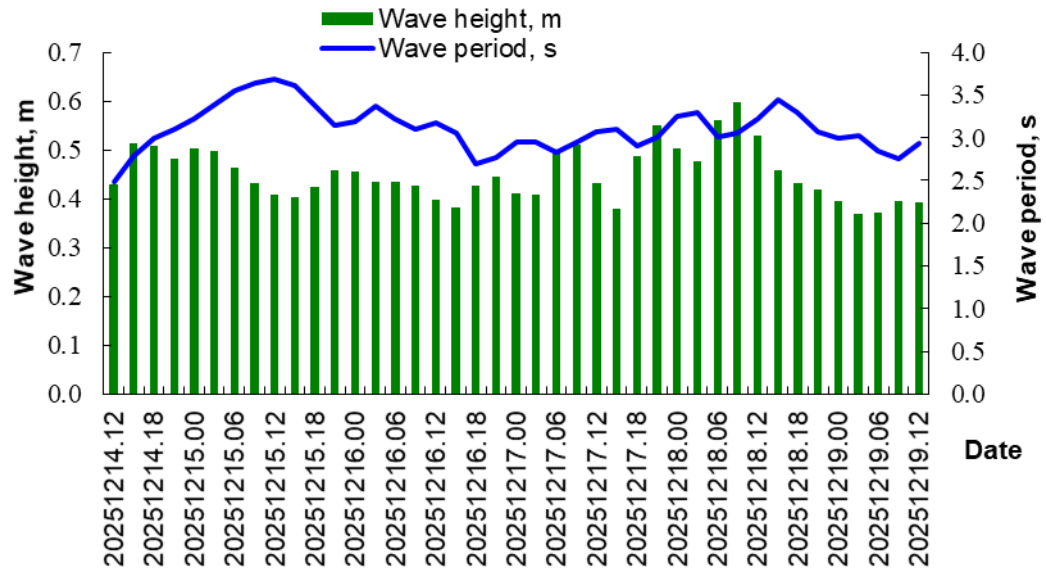


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251214.12	0.43	SW	2.3	4	SW
20251214.15	0.43	SW	2.5	5	E
20251214.18	0.39	SW	2.6	4	S
20251214.21	0.36	W	2.6	3	SE
20251215.00	0.43	W	2.7	1	E
20251215.03	0.51	W	3.0	2	W
20251215.06	0.49	W	3.2	3	NW
20251215.09	0.44	W	3.4	2	NW
20251215.12	0.39	NW	3.4	2	E
20251215.15	0.38	NW	3.2	5	SE
20251215.18	0.42	NW	2.9	6	S
20251215.21	0.43	N	2.8	3	E
20251216.00	0.42	NW	3.0	0	E
20251216.03	0.44	NW	3.3	1	SE
20251216.06	0.45	W	3.5	2	S
20251216.09	0.44	W	3.6	2	SW
20251216.12	0.40	W	3.6	3	SW
20251216.15	0.37	W	3.3	3	W
20251216.18	0.37	SW	2.8	4	W
20251216.21	0.35	SW	2.6	2	N
20251217.00	0.32	SW	2.7	1	W
20251217.03	0.29	SW	2.8	3	SW
20251217.06	0.33	SW	2.3	5	SW
20251217.09	0.39	SW	2.4	4	SW
20251217.12	0.40	SW	2.6	3	N
20251217.15	0.37	SW	2.7	3	W
20251217.18	0.40	SW	2.6	4	SW
20251217.21	0.44	SW	2.6	5	W
20251218.00	0.48	SW	2.8	5	W
20251218.03	0.53	SW	2.9	6	SW
20251218.06	0.61	SW	2.9	7	E
20251218.09	0.64	W	3.0	6	S
20251218.12	0.56	W	3.1	5	N
20251218.15	0.47	SW	3.2	3	N
20251218.18	0.40	SW	3.4	1	SW
20251218.21	0.37	SW	3.3	1	E
20251219.00	0.35	SW	3.3	2	SE
20251219.03	0.33	SW	3.3	4	S
20251219.06	0.31	SW	3.1	6	S
20251219.09	0.31	SW	2.9	4	E
20251219.12	0.31	SW	3.0	3	N

Wind condition in the Aktau

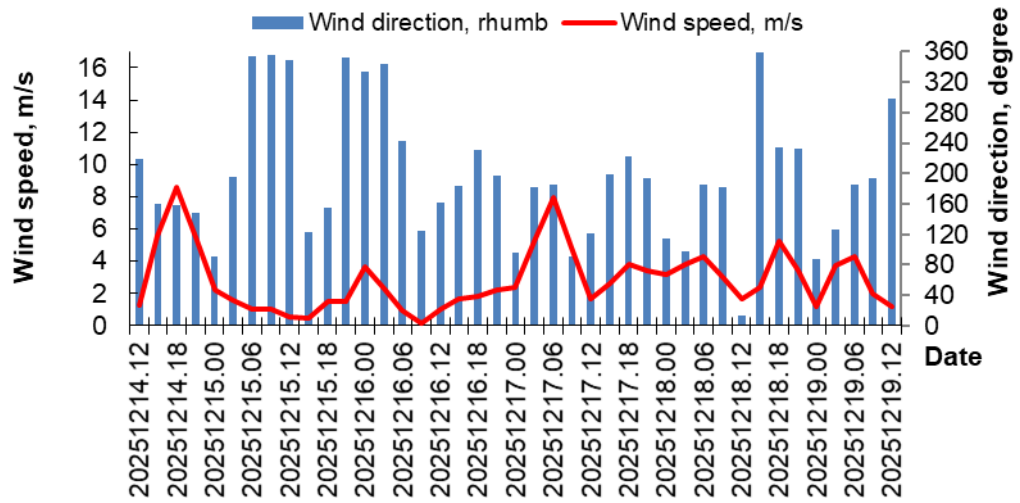


Wave condition in the Aktau

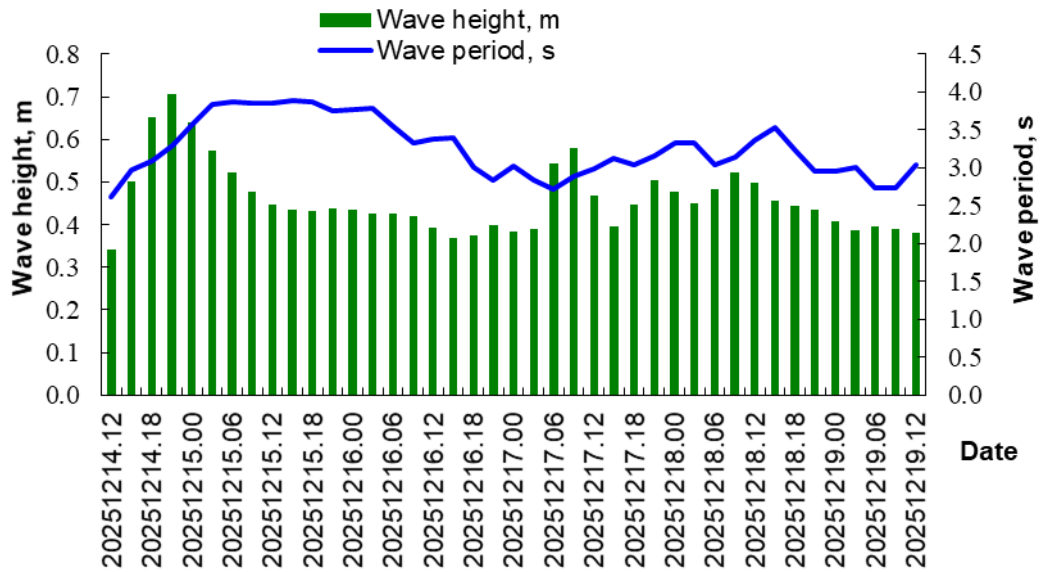


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20251214.12	0.43	W	2.5	4	S
20251214.15	0.51	W	2.8	4	SE
20251214.18	0.51	W	3.0	4	S
20251214.21	0.48	W	3.1	4	SE
20251215.00	0.50	NW	3.2	4	E
20251215.03	0.50	NW	3.4	3	SW
20251215.06	0.46	NW	3.5	2	NW
20251215.09	0.43	NW	3.6	2	N
20251215.12	0.41	N	3.7	2	SE
20251215.15	0.40	N	3.6	2	SE
20251215.18	0.42	N	3.4	4	E
20251215.21	0.46	N	3.1	3	E
20251216.00	0.46	N	3.2	3	N
20251216.03	0.43	N	3.4	3	W
20251216.06	0.44	N	3.2	4	S
20251216.09	0.43	NW	3.1	3	SW
20251216.12	0.40	NW	3.2	2	W
20251216.15	0.38	NW	3.1	4	W
20251216.18	0.43	SW	2.7	5	W
20251216.21	0.45	SW	2.8	3	W
20251217.00	0.41	S	3.0	2	W
20251217.03	0.41	SW	2.9	4	SW
20251217.06	0.50	SW	2.8	5	SW
20251217.09	0.51	SW	3.0	3	SW
20251217.12	0.43	SW	3.1	1	SW
20251217.15	0.38	SW	3.1	4	SW
20251217.18	0.49	SW	2.9	7	SW
20251217.21	0.55	SW	3.0	4	SW
20251218.00	0.50	SW	3.2	2	SE
20251218.03	0.48	SW	3.3	4	SE
20251218.06	0.56	SW	3.0	5	E
20251218.09	0.60	W	3.1	3	SE
20251218.12	0.53	W	3.2	2	NE
20251218.15	0.46	SW	3.4	1	NW
20251218.18	0.43	SW	3.3	4	SW
20251218.21	0.42	SW	3.1	3	SW
20251219.00	0.39	SW	3.0	3	SE
20251219.03	0.37	SW	3.0	3	SE
20251219.06	0.37	W	2.8	2	E
20251219.09	0.39	W	2.7	1	SE
20251219.12	0.39	SW	2.9	3	W

Wind condition in the Peschanyi

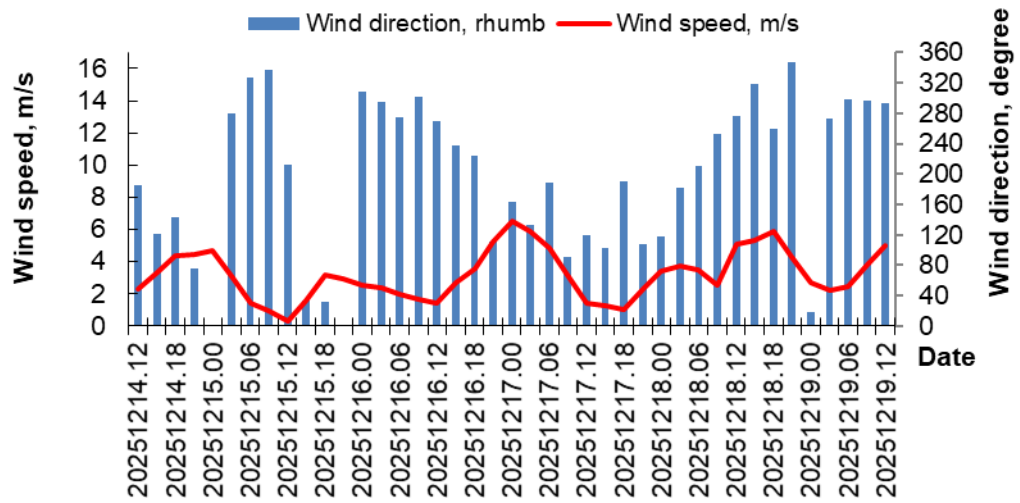


Wave condition in the Peschanyi

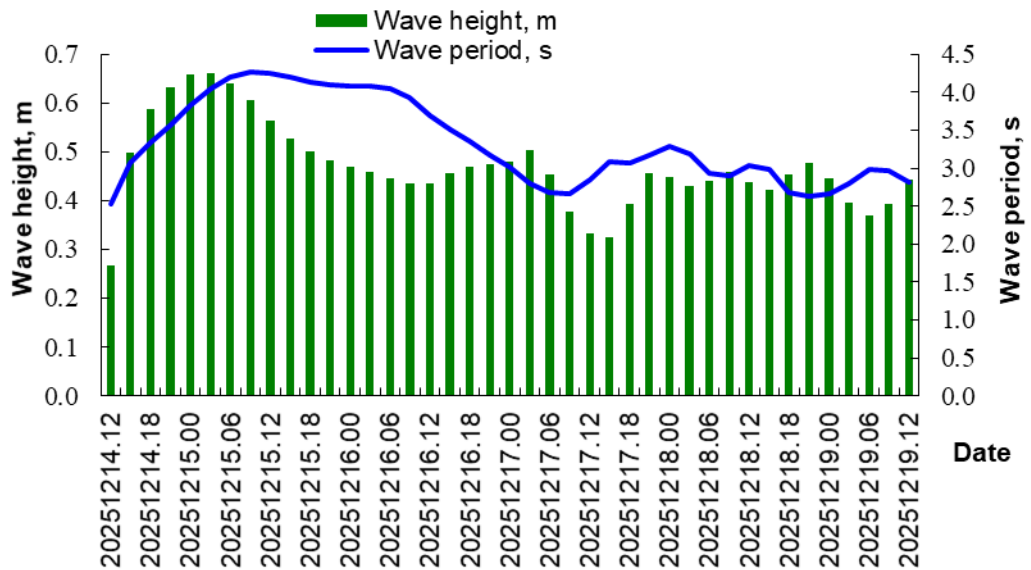


Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251214.12	0.34	W	2.6	1	SW
20251214.15	0.50	W	3.0	6	S
20251214.18	0.65	NW	3.1	9	S
20251214.21	0.71	NW	3.3	6	SE
20251215.00	0.64	NW	3.6	2	E
20251215.03	0.57	NW	3.8	2	S
20251215.06	0.52	NW	3.9	1	N
20251215.09	0.48	N	3.9	1	N
20251215.12	0.45	N	3.9	1	N
20251215.15	0.43	N	3.9	0	SE
20251215.18	0.43	N	3.9	2	SE
20251215.21	0.44	N	3.7	1	N
20251216.00	0.44	N	3.8	4	NW
20251216.03	0.43	N	3.8	2	N
20251216.06	0.43	N	3.6	1	SW
20251216.09	0.42	N	3.3	0	SE
20251216.12	0.39	N	3.4	1	S
20251216.15	0.37	N	3.4	2	S
20251216.18	0.38	NW	3.0	2	SW
20251216.21	0.40	W	2.8	2	S
20251217.00	0.38	SW	3.0	2	E
20251217.03	0.39	SW	2.8	5	S
20251217.06	0.54	W	2.7	8	S
20251217.09	0.58	W	2.9	5	E
20251217.12	0.47	W	3.0	2	SE
20251217.15	0.40	W	3.1	3	S
20251217.18	0.45	SW	3.0	4	SW
20251217.21	0.50	SW	3.2	3	S
20251218.00	0.48	SW	3.3	3	SE
20251218.03	0.45	SW	3.3	4	E
20251218.06	0.48	SW	3.0	4	S
20251218.09	0.52	SW	3.1	3	S
20251218.12	0.50	W	3.4	2	N
20251218.15	0.45	W	3.5	2	N
20251218.18	0.44	SW	3.2	5	SW
20251218.21	0.44	SW	3.0	3	SW
20251219.00	0.41	SW	3.0	1	E
20251219.03	0.39	SW	3.0	4	SE
20251219.06	0.40	W	2.7	4	S
20251219.09	0.39	W	2.7	2	S
20251219.12	0.38	SW	3.0	1	NW

Wind condition in the Fetisovo

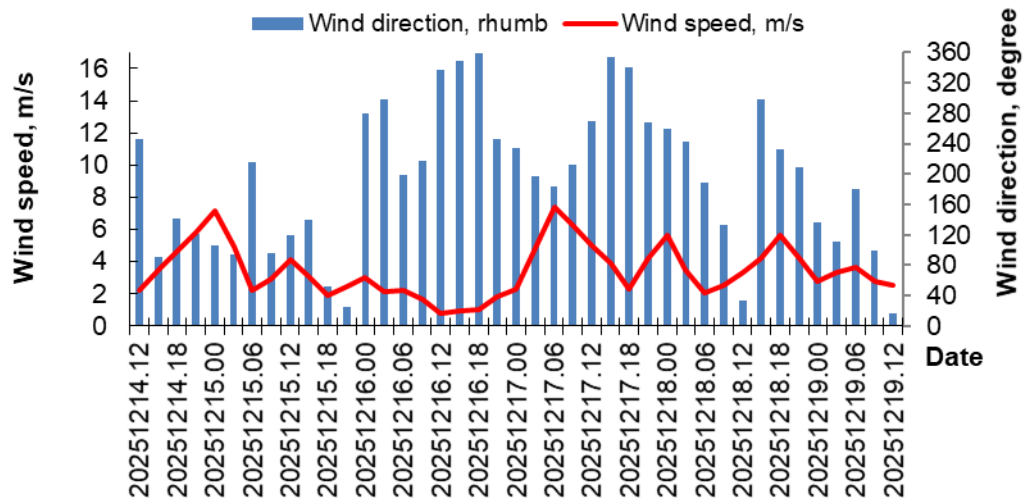


Wave condition in the Fetisovo

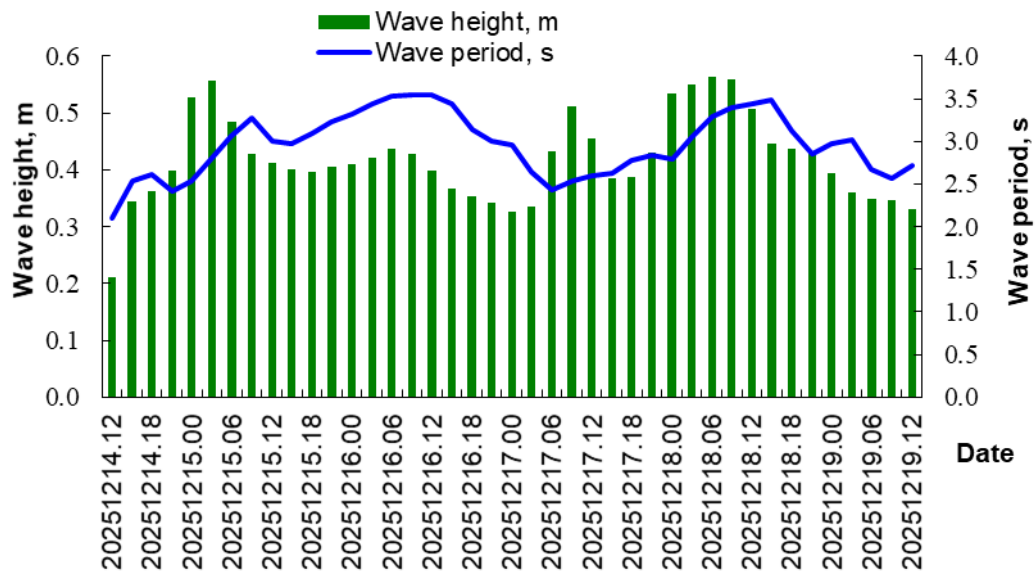


Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251214.12	0.27	W	2.5	2	S
20251214.15	0.50	W	3.1	3	SE
20251214.18	0.59	W	3.3	4	SE
20251214.21	0.63	NW	3.6	4	E
20251215.00	0.66	NW	3.8	5	N
20251215.03	0.66	N	4.0	3	W
20251215.06	0.64	N	4.2	1	NW
20251215.09	0.61	N	4.3	1	NW
20251215.12	0.57	N	4.3	0	SW
20251215.15	0.53	N	4.2	2	NE
20251215.18	0.50	N	4.1	3	NE
20251215.21	0.48	N	4.1	3	N
20251216.00	0.47	N	4.1	3	NW
20251216.03	0.46	N	4.1	2	NW
20251216.06	0.45	N	4.0	2	W
20251216.09	0.43	N	3.9	2	NW
20251216.12	0.44	N	3.7	1	W
20251216.15	0.46	NW	3.5	3	SW
20251216.18	0.47	W	3.4	4	SW
20251216.21	0.47	W	3.2	5	E
20251217.00	0.48	W	3.0	7	S
20251217.03	0.50	NW	2.8	6	SE
20251217.06	0.45	NW	2.7	5	S
20251217.09	0.38	W	2.7	3	E
20251217.12	0.33	W	2.8	1	SE
20251217.15	0.32	W	3.1	1	E
20251217.18	0.39	SW	3.1	1	S
20251217.21	0.46	SW	3.2	2	E
20251218.00	0.45	SW	3.3	3	SE
20251218.03	0.43	SW	3.2	4	S
20251218.06	0.44	SW	2.9	3	SW
20251218.09	0.46	W	2.9	3	W
20251218.12	0.44	SW	3.0	5	W
20251218.15	0.42	SW	3.0	5	NW
20251218.18	0.45	SW	2.7	6	W
20251218.21	0.48	SW	2.6	4	N
20251219.00	0.45	SW	2.7	3	N
20251219.03	0.40	SW	2.8	2	W
20251219.06	0.37	SW	3.0	2	NW
20251219.09	0.39	SW	3.0	4	NW
20251219.12	0.44	SW	2.8	5	NW

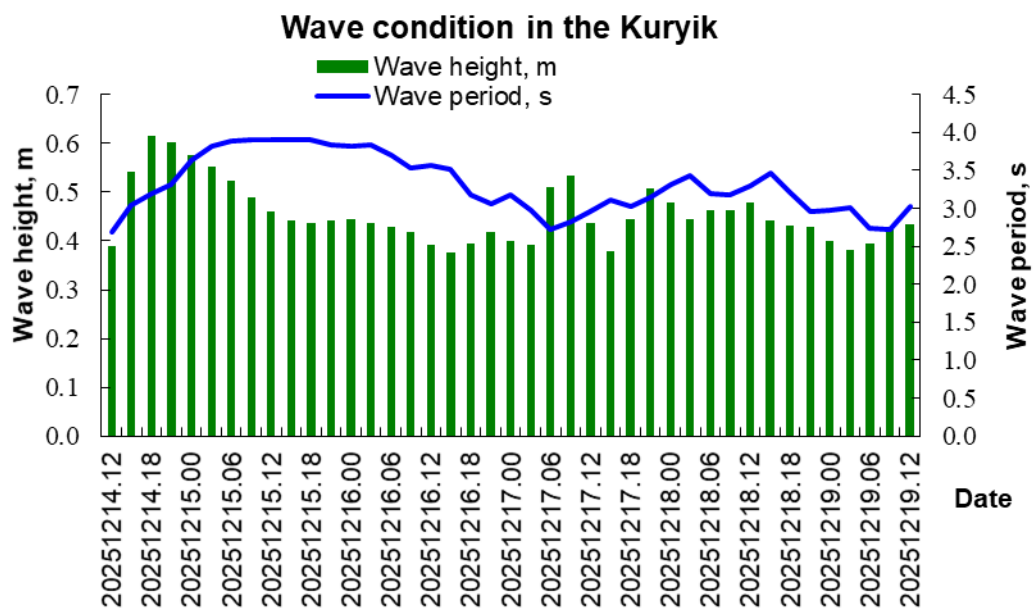
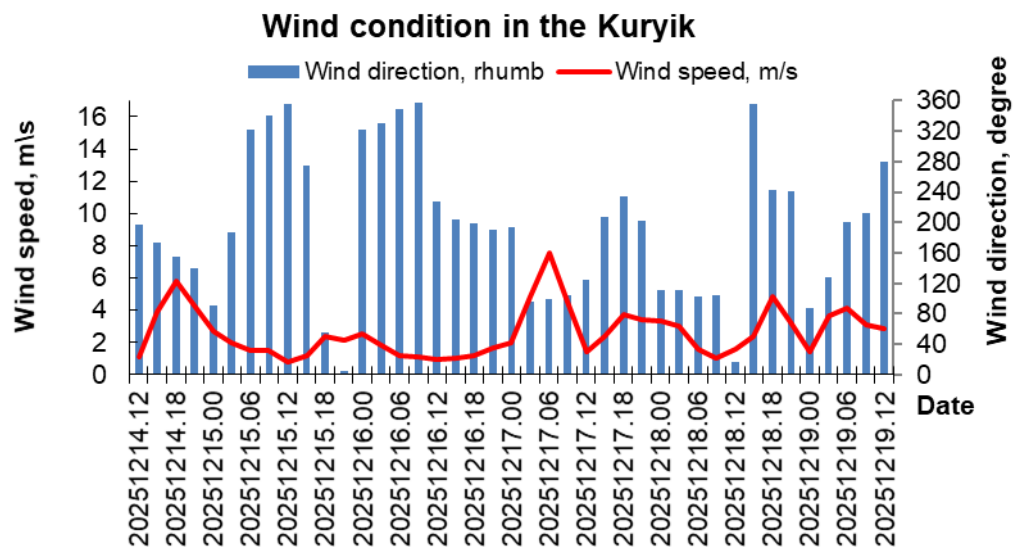
Wind condition in the Saura



Wave condition in the Saura



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251214.12	0.21	SW	2.1	2	SW
20251214.15	0.34	SW	2.5	4	E
20251214.18	0.36	W	2.6	5	SE
20251214.21	0.40	W	2.4	6	SE
20251215.00	0.53	W	2.5	7	E
20251215.03	0.56	W	2.8	5	E
20251215.06	0.48	NW	3.1	2	SW
20251215.09	0.43	NW	3.3	3	E
20251215.12	0.41	NW	3.0	4	SE
20251215.15	0.40	NW	3.0	3	SE
20251215.18	0.40	NW	3.1	2	NE
20251215.21	0.41	N	3.2	2	NE
20251216.00	0.41	N	3.3	3	W
20251216.03	0.42	N	3.4	2	NW
20251216.06	0.44	NW	3.5	2	S
20251216.09	0.43	NW	3.5	2	SW
20251216.12	0.40	NW	3.6	1	N
20251216.15	0.37	NW	3.4	1	N
20251216.18	0.35	W	3.1	1	N
20251216.21	0.34	SW	3.0	2	SW
20251217.00	0.33	SW	3.0	2	SW
20251217.03	0.33	SW	2.6	5	S
20251217.06	0.43	SW	2.4	7	S
20251217.09	0.51	SW	2.5	6	SW
20251217.12	0.46	SW	2.6	5	W
20251217.15	0.39	SW	2.6	4	N
20251217.18	0.39	SW	2.8	2	N
20251217.21	0.43	SW	2.8	4	W
20251218.00	0.53	S	2.8	6	W
20251218.03	0.55	S	3.0	4	SW
20251218.06	0.56	SW	3.3	2	S
20251218.09	0.56	SW	3.4	3	SE
20251218.12	0.51	SW	3.4	3	NE
20251218.15	0.45	SW	3.5	4	NW
20251218.18	0.44	SW	3.1	6	SW
20251218.21	0.43	SW	2.9	4	SW
20251219.00	0.39	SW	3.0	3	SE
20251219.03	0.36	SW	3.0	3	E
20251219.06	0.35	SW	2.7	4	S
20251219.09	0.35	SW	2.6	3	E
20251219.12	0.33	SW	2.7	3	N



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251214.12	0.39	W	2.7	1	S
20251214.15	0.54	W	3.0	4	S
20251214.18	0.61	W	3.2	6	SE
20251214.21	0.60	NW	3.3	4	SE
20251215.00	0.58	NW	3.6	3	E
20251215.03	0.55	NW	3.8	2	S
20251215.06	0.52	N	3.9	2	NW
20251215.09	0.49	N	3.9	1	N
20251215.12	0.46	N	3.9	1	N
20251215.15	0.44	N	3.9	1	W
20251215.18	0.44	N	3.9	2	NE
20251215.21	0.44	N	3.8	2	N
20251216.00	0.44	N	3.8	3	NW
20251216.03	0.44	N	3.8	2	NW
20251216.06	0.43	N	3.7	1	N
20251216.09	0.42	N	3.5	1	N
20251216.12	0.39	N	3.6	1	SW
20251216.15	0.38	N	3.5	1	SW
20251216.18	0.39	NW	3.2	1	S
20251216.21	0.42	W	3.1	2	S
20251217.00	0.40	SW	3.2	2	S
20251217.03	0.39	SW	3.0	5	E
20251217.06	0.51	W	2.7	8	E
20251217.09	0.53	W	2.8	5	E
20251217.12	0.44	W	3.0	1	SE
20251217.15	0.38	W	3.1	2	SW
20251217.18	0.44	SW	3.0	4	SW
20251217.21	0.51	SW	3.1	3	S
20251218.00	0.48	SW	3.3	3	E
20251218.03	0.44	SW	3.4	3	E
20251218.06	0.46	SW	3.2	2	E
20251218.09	0.46	SW	3.2	1	E
20251218.12	0.48	W	3.3	2	N
20251218.15	0.44	W	3.5	2	N
20251218.18	0.43	SW	3.2	5	SW
20251218.21	0.43	SW	3.0	3	SW
20251219.00	0.40	SW	3.0	1	E
20251219.03	0.38	SW	3.0	4	SE
20251219.06	0.40	W	2.7	4	S
20251219.09	0.42	W	2.7	3	SW
20251219.12	0.43	SW	3.0	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

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