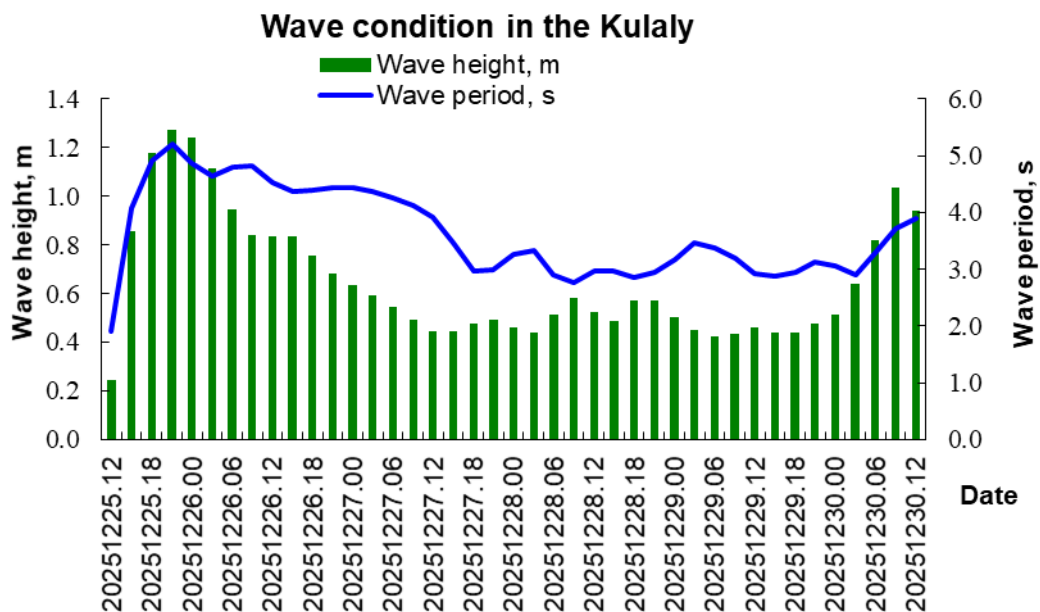
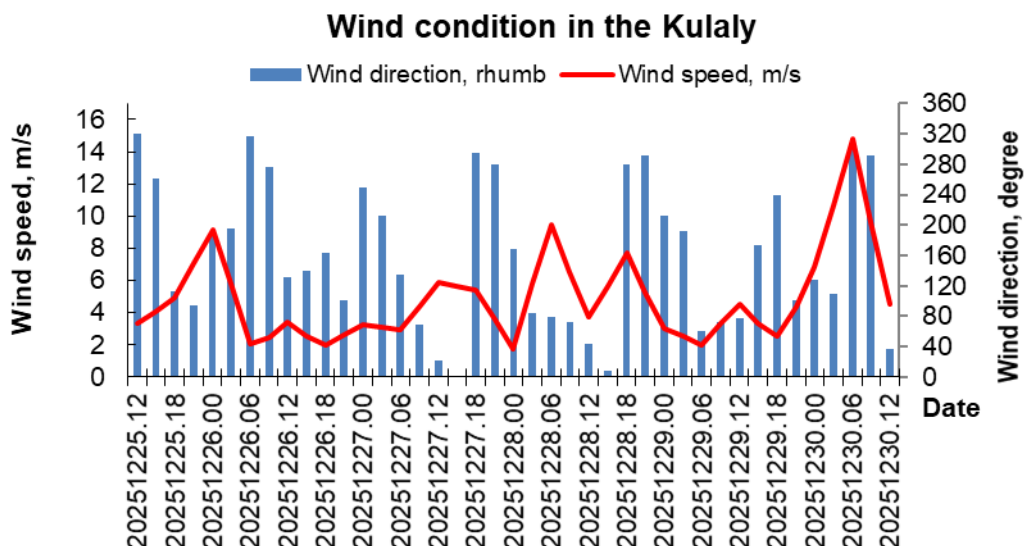




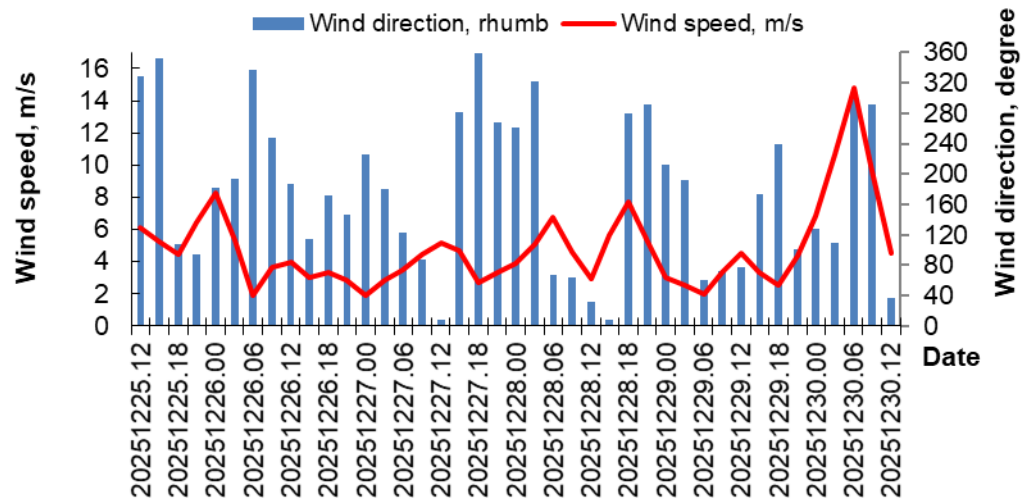
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**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 25 – 30, 2025.**

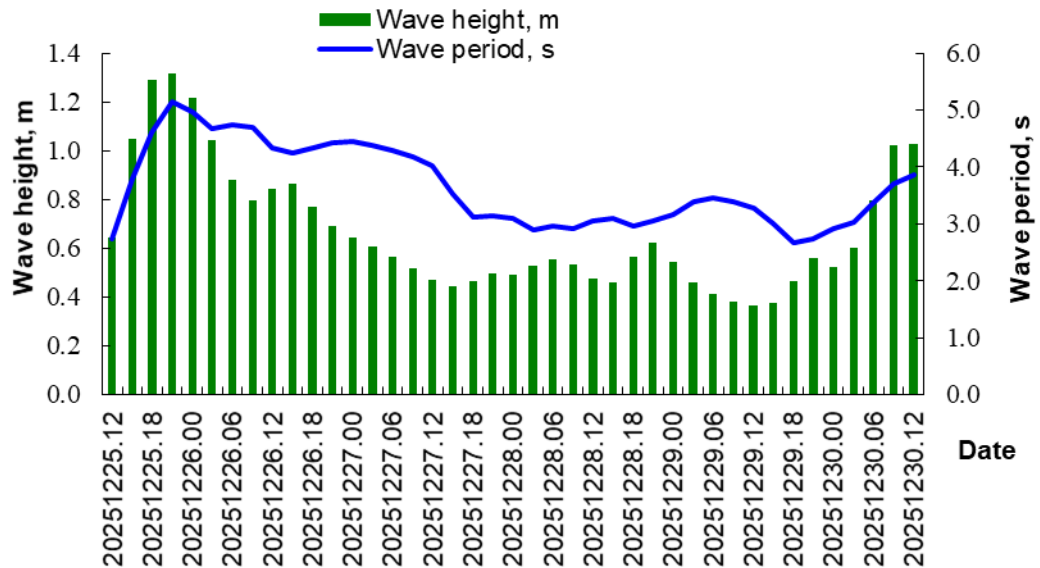


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251225.12	0.25	SE	1.9	3	NW
20251225.15	0.86	S	4.1	4	W
20251225.18	1.18	S	4.9	5	E
20251225.21	1.27	S	5.2	7	E
20251226.00	1.24	S	4.9	9	S
20251226.03	1.11	S	4.6	6	S
20251226.06	0.95	S	4.8	2	NW
20251226.09	0.84	S	4.8	2	W
20251226.12	0.83	S	4.5	3	SE
20251226.15	0.83	SW	4.4	3	SE
20251226.18	0.75	SW	4.4	2	S
20251226.21	0.68	SW	4.4	3	E
20251227.00	0.63	SW	4.4	3	W
20251227.03	0.59	SW	4.4	3	SW
20251227.06	0.54	SW	4.3	3	SE
20251227.09	0.49	SW	4.1	4	E
20251227.12	0.45	SW	3.9	6	N
20251227.15	0.44	SW	3.5	6	N
20251227.18	0.48	S	3.0	5	NW
20251227.21	0.49	S	3.0	4	W
20251228.00	0.46	S	3.3	2	S
20251228.03	0.44	SE	3.3	6	E
20251228.06	0.51	E	2.9	9	E
20251228.09	0.58	N	2.8	7	E
20251228.12	0.52	N	3.0	4	NE
20251228.15	0.49	N	3.0	6	N
20251228.18	0.57	E	2.9	8	W
20251228.21	0.57	E	3.0	5	W
20251229.00	0.50	E	3.2	3	SW
20251229.03	0.45	E	3.5	3	S
20251229.06	0.43	E	3.4	2	NE
20251229.09	0.43	NE	3.2	3	E
20251229.12	0.46	NE	2.9	5	E
20251229.15	0.44	NE	2.9	3	S
20251229.18	0.44	NE	3.0	3	SW
20251229.21	0.48	E	3.1	4	E
20251230.00	0.51	E	3.1	7	SE
20251230.03	0.64	NW	2.9	11	E
20251230.06	0.82	SE	3.3	15	NW
20251230.09	1.03	E	3.7	10	W
20251230.12	0.94	E	3.9	5	NE

Wind condition in the Fort-Shevchenko

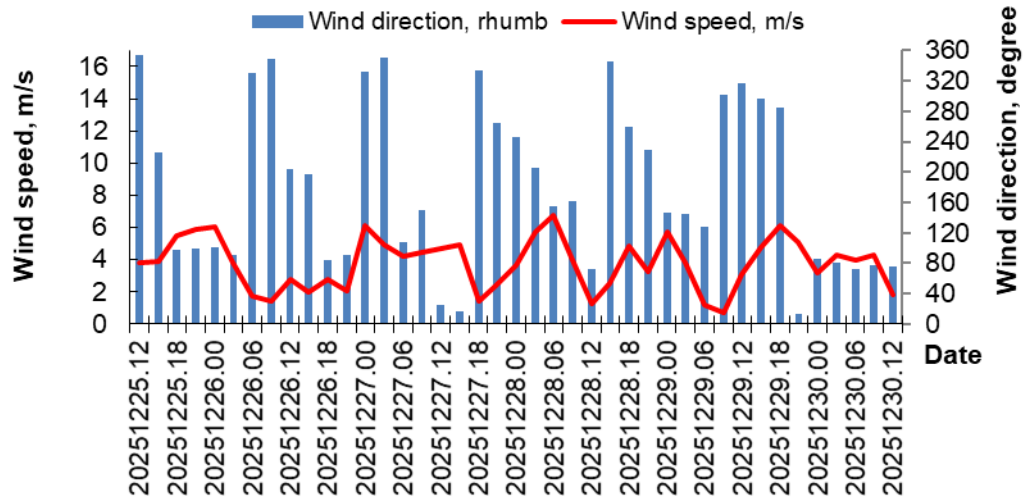


Wave condition in the Fort-Shevchenko

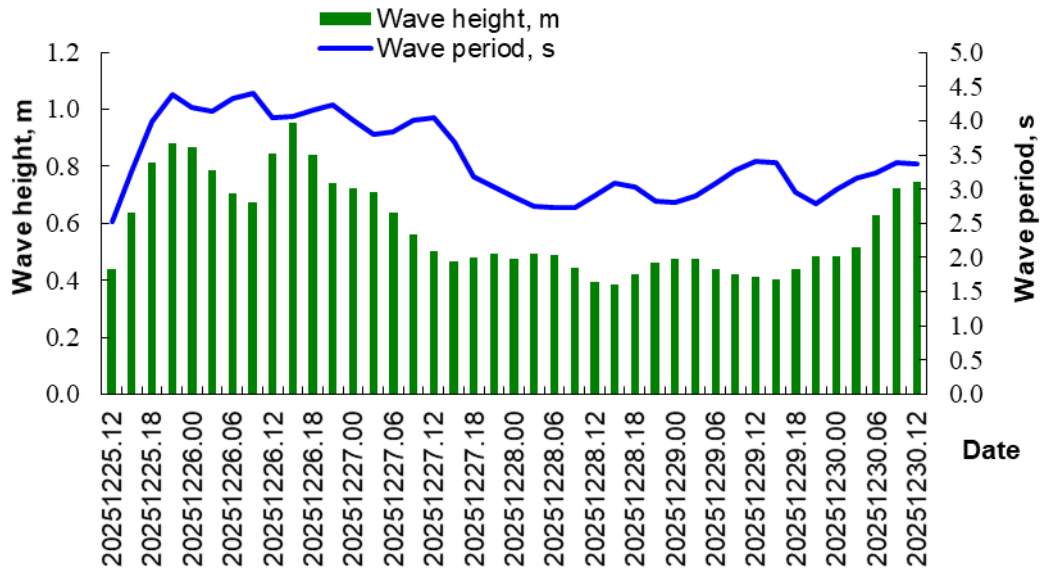


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251225.12	0.64	SE	2.7	6	NW
20251225.15	1.05	S	3.8	5	N
20251225.18	1.29	S	4.6	4	E
20251225.21	1.31	S	5.1	6	E
20251226.00	1.22	S	5.0	8	S
20251226.03	1.04	S	4.7	5	S
20251226.06	0.88	S	4.7	2	NW
20251226.09	0.79	S	4.7	4	W
20251226.12	0.85	SW	4.3	4	S
20251226.15	0.86	SW	4.3	3	SE
20251226.18	0.77	SW	4.3	3	S
20251226.21	0.69	SW	4.4	3	SE
20251227.00	0.65	SW	4.4	2	SW
20251227.03	0.61	SW	4.4	3	S
20251227.06	0.57	SW	4.3	4	SE
20251227.09	0.52	SW	4.2	4	E
20251227.12	0.47	SW	4.0	5	N
20251227.15	0.45	S	3.5	5	W
20251227.18	0.47	S	3.1	3	N
20251227.21	0.50	SE	3.1	3	W
20251228.00	0.49	SE	3.1	4	W
20251228.03	0.53	SE	2.9	5	NW
20251228.06	0.55	SE	3.0	7	NE
20251228.09	0.53	E	2.9	5	NE
20251228.12	0.48	N	3.0	3	NE
20251228.15	0.46	N	3.1	6	N
20251228.18	0.57	E	3.0	8	W
20251228.21	0.62	E	3.0	5	W
20251229.00	0.54	E	3.2	3	SW
20251229.03	0.46	E	3.4	3	S
20251229.06	0.41	E	3.5	2	NE
20251229.09	0.38	E	3.4	3	E
20251229.12	0.37	NE	3.3	5	E
20251229.15	0.37	NE	3.0	3	S
20251229.18	0.47	E	2.7	3	SW
20251229.21	0.56	E	2.7	4	E
20251230.00	0.52	E	2.9	7	SE
20251230.03	0.60	NE	3.0	11	E
20251230.06	0.80	E	3.4	15	NW
20251230.09	1.02	E	3.7	10	W
20251230.12	1.03	E	3.9	5	NE

Wind condition in the Aktau

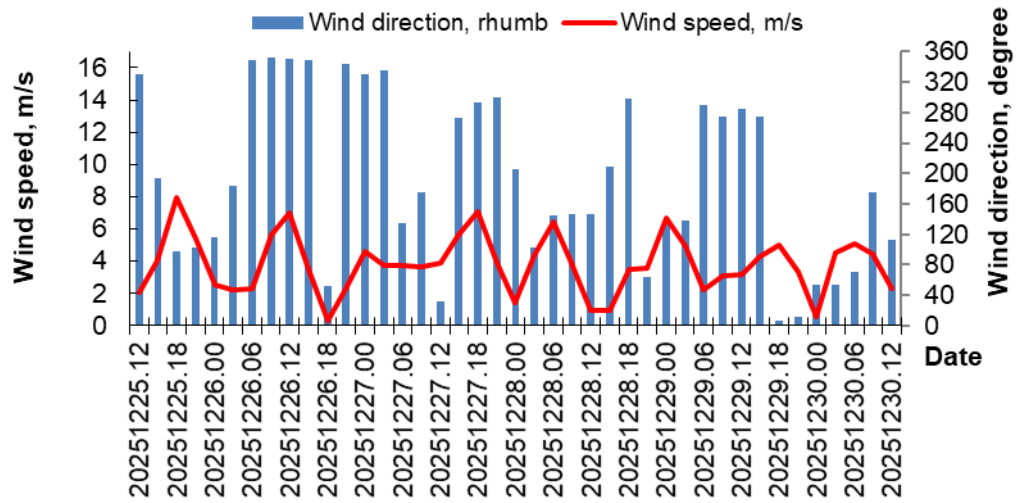


Wave condition in the Aktau

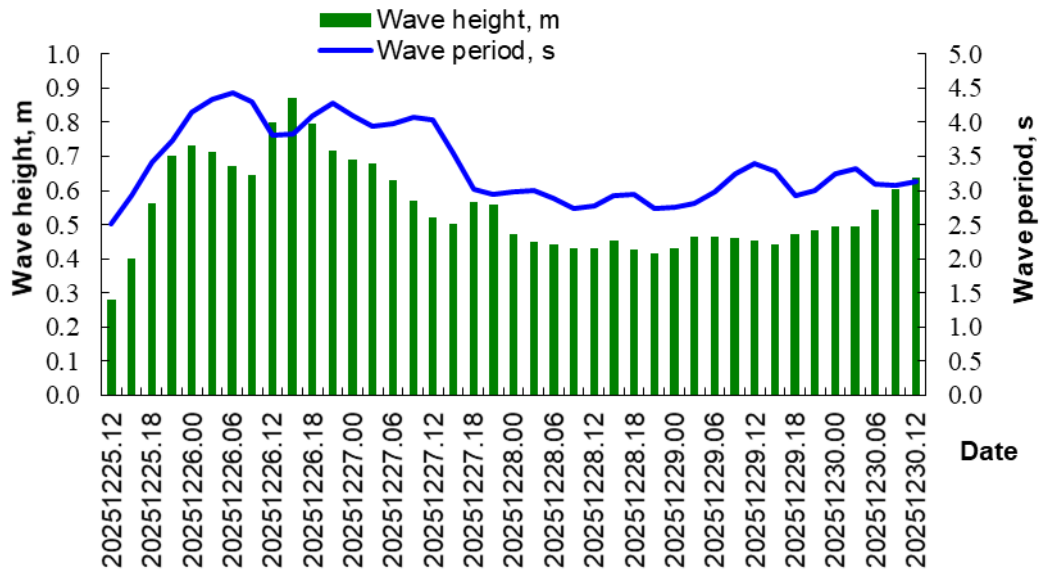


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20251225.12	0.44	S	2.5	4	N
20251225.15	0.64	S	3.3	4	SW
20251225.18	0.81	S	4.0	5	E
20251225.21	0.88	S	4.4	6	E
20251226.00	0.87	SW	4.2	6	E
20251226.03	0.79	SW	4.1	4	E
20251226.06	0.71	S	4.3	2	NW
20251226.09	0.67	SW	4.4	1	N
20251226.12	0.85	SW	4.0	3	SW
20251226.15	0.95	SW	4.1	2	S
20251226.18	0.84	SW	4.2	3	E
20251226.21	0.74	SW	4.2	2	E
20251227.00	0.72	SW	4.0	6	NW
20251227.03	0.71	SW	3.8	5	N
20251227.06	0.64	SW	3.8	4	E
20251227.09	0.56	SW	4.0	4	SE
20251227.12	0.50	SW	4.0	5	NE
20251227.15	0.47	SW	3.7	5	N
20251227.18	0.48	S	3.2	1	NW
20251227.21	0.49	SE	3.0	3	W
20251228.00	0.47	S	2.9	4	SW
20251228.03	0.49	S	2.7	6	SW
20251228.06	0.49	SW	2.7	7	SE
20251228.09	0.44	W	2.7	4	S
20251228.12	0.39	W	2.9	1	E
20251228.15	0.39	N	3.1	3	N
20251228.18	0.42	E	3.0	5	W
20251228.21	0.46	S	2.8	3	SW
20251229.00	0.48	W	2.8	6	SE
20251229.03	0.47	NW	2.9	4	SE
20251229.06	0.44	NW	3.1	1	SE
20251229.09	0.42	NW	3.3	1	NW
20251229.12	0.41	N	3.4	3	NW
20251229.15	0.40	N	3.4	5	NW
20251229.18	0.44	NE	3.0	6	W
20251229.21	0.49	E	2.8	5	N
20251230.00	0.48	NE	3.0	3	E
20251230.03	0.52	NE	3.2	4	E
20251230.06	0.63	NE	3.2	4	E
20251230.09	0.72	NE	3.4	4	E
20251230.12	0.75	N	3.4	2	E

Wind condition in the Peschanyi

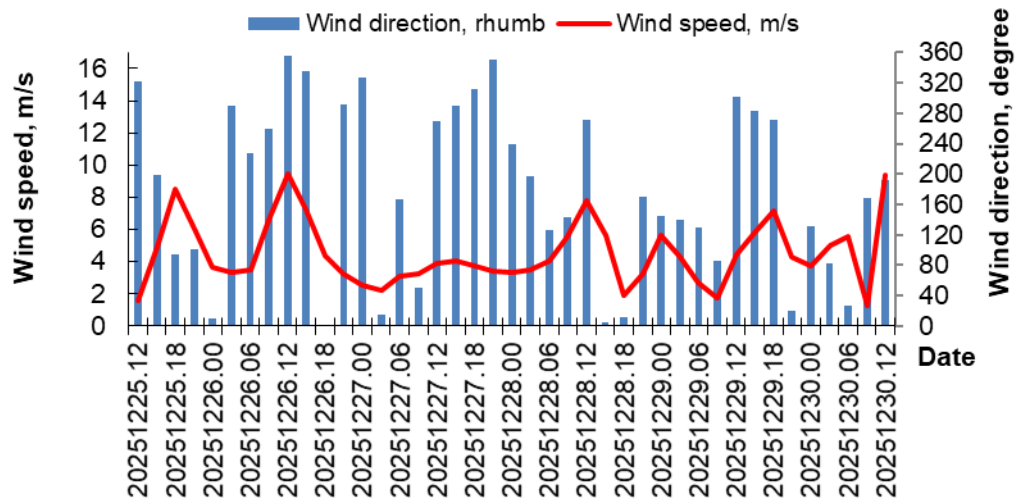


Wave condition in the Peschanyi

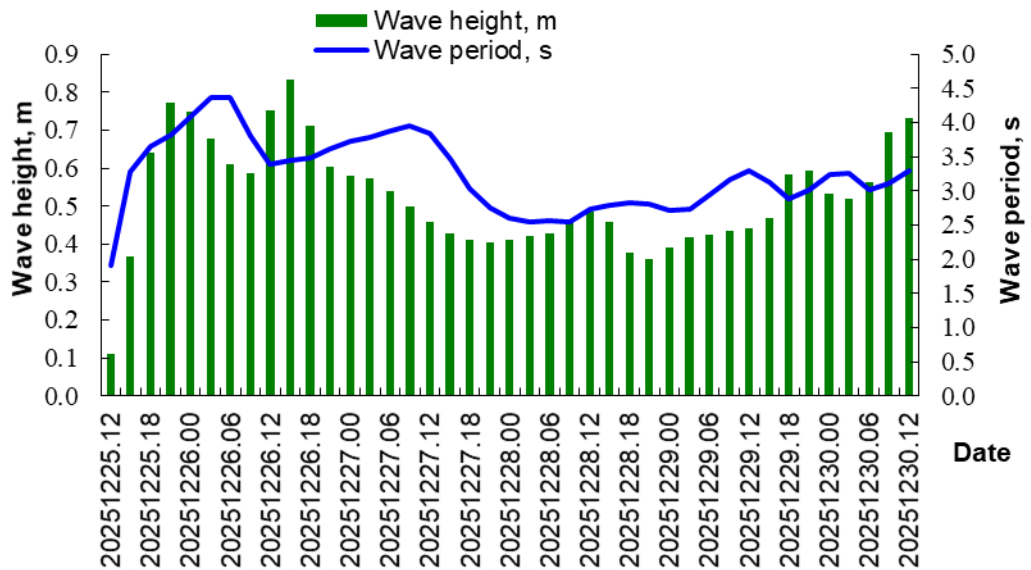


Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251225.12	0.28	S	2.5	2	NW
20251225.15	0.40	S	2.9	4	S
20251225.18	0.56	S	3.4	8	E
20251225.21	0.70	SW	3.7	5	E
20251226.00	0.73	SW	4.1	3	SE
20251226.03	0.71	SW	4.3	2	S
20251226.06	0.67	SW	4.4	2	N
20251226.09	0.65	S	4.3	6	N
20251226.12	0.80	S	3.8	7	N
20251226.15	0.87	S	3.8	4	N
20251226.18	0.79	S	4.1	0	NE
20251226.21	0.72	SW	4.3	2	N
20251227.00	0.69	SW	4.1	5	NW
20251227.03	0.68	SW	3.9	4	NW
20251227.06	0.63	SW	4.0	4	SE
20251227.09	0.57	SW	4.1	4	S
20251227.12	0.52	SW	4.0	4	NE
20251227.15	0.50	SW	3.5	6	W
20251227.18	0.57	SE	3.0	7	NW
20251227.21	0.56	SE	2.9	4	NW
20251228.00	0.47	SE	3.0	1	SW
20251228.03	0.45	S	3.0	4	E
20251228.06	0.44	SW	2.9	6	SE
20251228.09	0.43	W	2.7	4	SE
20251228.12	0.43	NE	2.8	1	SE
20251228.15	0.45	NE	2.9	1	SW
20251228.18	0.43	E	2.9	3	NW
20251228.21	0.41	NE	2.7	4	NE
20251229.00	0.43	N	2.8	7	SE
20251229.03	0.47	NW	2.8	5	SE
20251229.06	0.46	NW	3.0	2	W
20251229.09	0.46	N	3.3	3	W
20251229.12	0.45	N	3.4	3	W
20251229.15	0.44	N	3.3	4	W
20251229.18	0.47	NE	2.9	5	N
20251229.21	0.49	NE	3.0	3	N
20251230.00	0.49	NE	3.3	1	NE
20251230.03	0.50	NE	3.3	5	NE
20251230.06	0.55	NE	3.1	5	E
20251230.09	0.60	NE	3.1	4	S
20251230.12	0.64	NE	3.1	2	SE

Wind condition in the Fetisovo

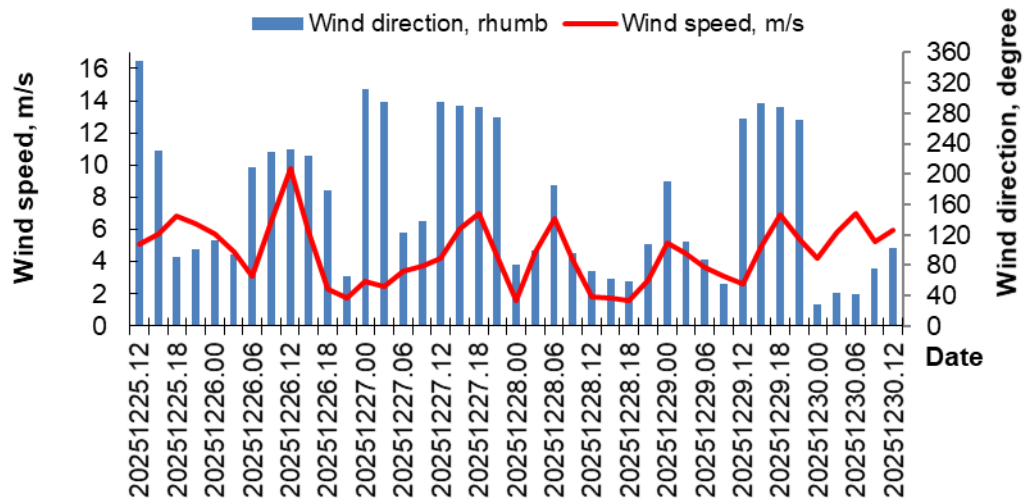


Wave condition in the Fetisovo

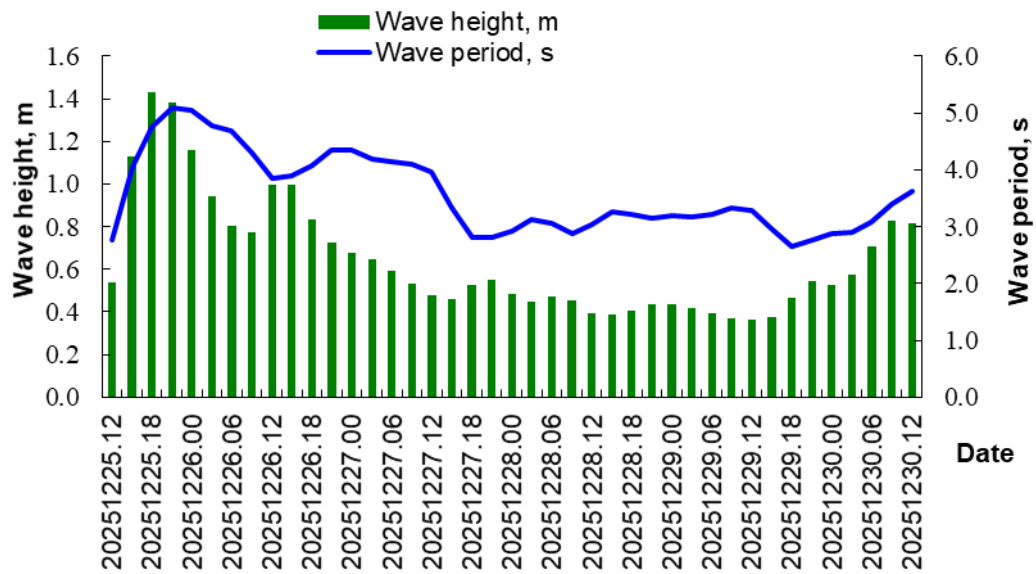


Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251225.12	0.11	SE	1.9	2	NW
20251225.15	0.37	S	3.3	5	S
20251225.18	0.64	S	3.7	9	E
20251225.21	0.77	SW	3.8	6	E
20251226.00	0.75	S	4.1	4	N
20251226.03	0.68	S	4.4	3	W
20251226.06	0.61	S	4.4	4	SW
20251226.09	0.59	SW	3.8	7	W
20251226.12	0.75	S	3.4	9	N
20251226.15	0.83	S	3.4	7	NW
20251226.18	0.71	S	3.5	4	N
20251226.21	0.60	SW	3.6	3	W
20251227.00	0.58	SW	3.7	3	NW
20251227.03	0.57	SW	3.8	2	N
20251227.06	0.54	SW	3.9	3	S
20251227.09	0.50	SW	4.0	3	NE
20251227.12	0.46	SW	3.8	4	W
20251227.15	0.43	SW	3.5	4	W
20251227.18	0.41	SW	3.0	4	NW
20251227.21	0.40	S	2.8	3	N
20251228.00	0.41	S	2.6	3	SW
20251228.03	0.42	SW	2.6	4	S
20251228.06	0.43	W	2.6	4	SE
20251228.09	0.47	NW	2.6	6	SE
20251228.12	0.48	N	2.7	8	W
20251228.15	0.46	NE	2.8	6	N
20251228.18	0.38	NE	2.8	2	N
20251228.21	0.36	NE	2.8	3	S
20251229.00	0.39	N	2.7	6	SE
20251229.03	0.42	NW	2.7	4	SE
20251229.06	0.42	NW	2.9	3	SE
20251229.09	0.43	NW	3.2	2	E
20251229.12	0.44	N	3.3	4	NW
20251229.15	0.47	N	3.1	6	W
20251229.18	0.58	E	2.9	7	W
20251229.21	0.59	E	3.0	4	N
20251230.00	0.53	E	3.2	4	SE
20251230.03	0.52	NE	3.3	5	E
20251230.06	0.56	NE	3.0	6	NE
20251230.09	0.69	NE	3.1	1	S
20251230.12	0.73	N	3.3	9	S

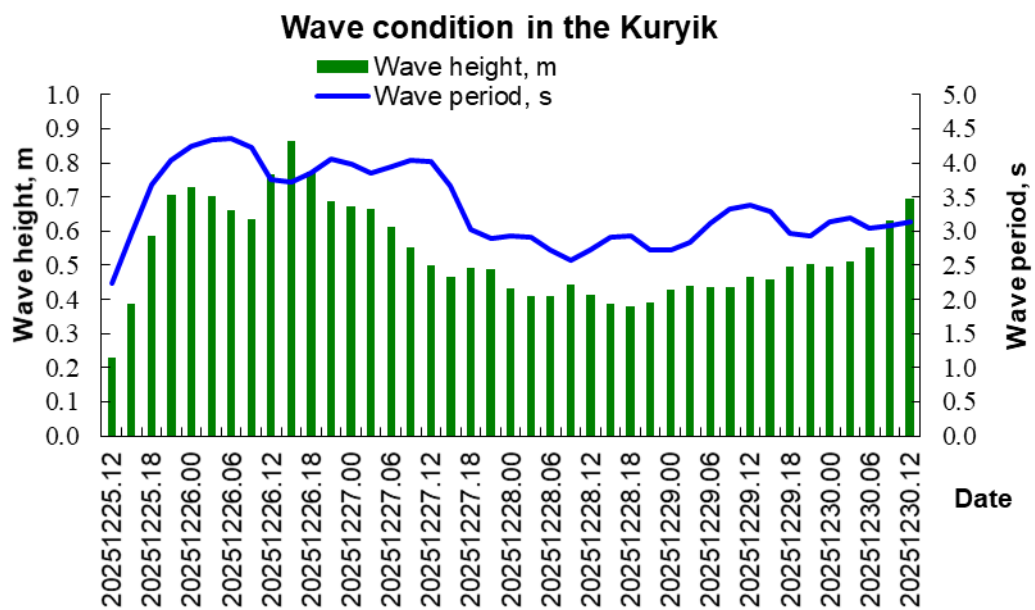
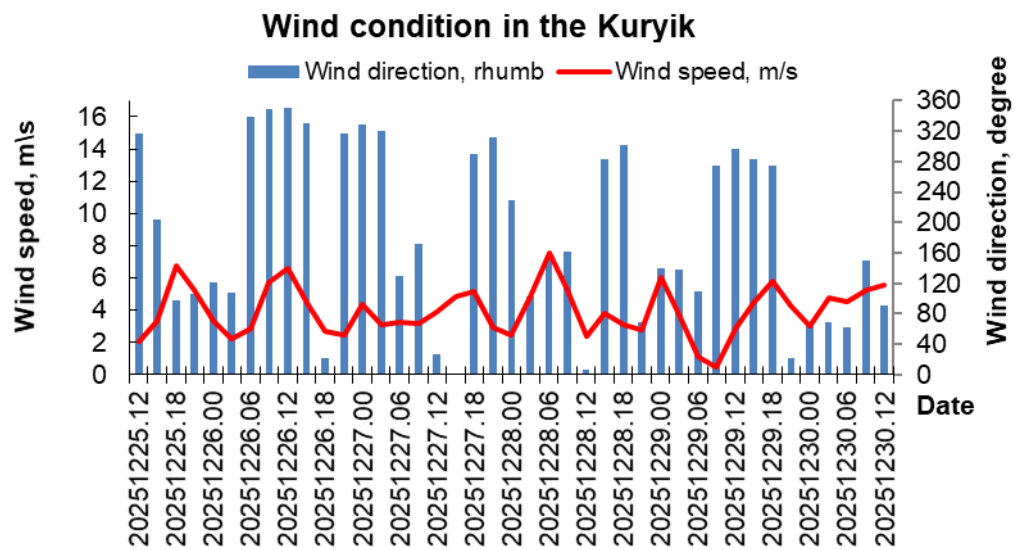
Wind condition in the Saura



Wave condition in the Saura



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251225.12	0.54	S	2.8	5	N
20251225.15	1.13	S	4.1	6	SW
20251225.18	1.43	S	4.7	7	E
20251225.21	1.38	S	5.1	6	E
20251226.00	1.16	S	5.0	6	SE
20251226.03	0.94	S	4.8	5	E
20251226.06	0.81	S	4.7	3	SW
20251226.09	0.78	SW	4.3	7	SW
20251226.12	1.00	SW	3.9	10	SW
20251226.15	1.00	SW	3.9	6	SW
20251226.18	0.84	SW	4.1	2	S
20251226.21	0.72	SW	4.4	2	NE
20251227.00	0.68	SW	4.3	3	NW
20251227.03	0.65	SW	4.2	2	NW
20251227.06	0.59	SW	4.1	3	SE
20251227.09	0.53	SW	4.1	4	SE
20251227.12	0.48	SW	4.0	4	NW
20251227.15	0.46	S	3.3	6	W
20251227.18	0.53	S	2.8	7	W
20251227.21	0.55	SE	2.8	4	W
20251228.00	0.48	SE	2.9	2	E
20251228.03	0.45	S	3.1	5	E
20251228.06	0.47	SW	3.1	7	S
20251228.09	0.45	SW	2.9	4	E
20251228.12	0.40	W	3.0	2	E
20251228.15	0.39	NW	3.3	2	NE
20251228.18	0.41	N	3.2	2	NE
20251228.21	0.44	E	3.1	3	E
20251229.00	0.43	SE	3.2	5	S
20251229.03	0.42	SE	3.2	5	E
20251229.06	0.39	E	3.2	4	E
20251229.09	0.37	NE	3.3	3	NE
20251229.12	0.36	NE	3.3	3	W
20251229.15	0.37	NE	3.0	5	NW
20251229.18	0.47	E	2.7	7	W
20251229.21	0.55	E	2.8	5	W
20251230.00	0.53	E	2.9	4	NE
20251230.03	0.57	E	2.9	6	NE
20251230.06	0.71	NE	3.1	7	NE
20251230.09	0.83	NE	3.4	5	E
20251230.12	0.81	NE	3.6	6	E



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251225.12	0.23	SE	2.2	2	NW
20251225.15	0.39	S	3.0	3	SW
20251225.18	0.59	S	3.7	7	E
20251225.21	0.71	S	4.0	5	E
20251226.00	0.73	S	4.2	3	SE
20251226.03	0.70	S	4.3	2	E
20251226.06	0.66	S	4.4	3	N
20251226.09	0.63	S	4.2	6	N
20251226.12	0.77	S	3.8	7	N
20251226.15	0.86	S	3.7	4	NW
20251226.18	0.77	S	3.9	3	N
20251226.21	0.69	SW	4.1	2	NW
20251227.00	0.67	SW	4.0	4	NW
20251227.03	0.67	SW	3.9	3	NW
20251227.06	0.61	SW	3.9	3	SE
20251227.09	0.55	SW	4.0	3	S
20251227.12	0.50	SW	4.0	4	NE
20251227.15	0.47	SW	3.7	5	N
20251227.18	0.49	S	3.0	5	W
20251227.21	0.49	SE	2.9	3	NW
20251228.00	0.43	S	2.9	2	SW
20251228.03	0.41	S	2.9	5	E
20251228.06	0.41	SW	2.7	8	SE
20251228.09	0.44	NW	2.6	5	S
20251228.12	0.41	NW	2.7	2	N
20251228.15	0.39	N	2.9	4	W
20251228.18	0.38	NE	2.9	3	NW
20251228.21	0.39	NE	2.7	3	E
20251229.00	0.43	N	2.7	6	SE
20251229.03	0.44	NW	2.8	4	SE
20251229.06	0.44	NW	3.1	1	E
20251229.09	0.44	NW	3.3	0	W
20251229.12	0.47	N	3.4	3	NW
20251229.15	0.46	NE	3.3	4	W
20251229.18	0.50	NE	3.0	6	W
20251229.21	0.50	NE	2.9	4	N
20251230.00	0.50	NE	3.1	3	E
20251230.03	0.51	NE	3.2	5	E
20251230.06	0.55	NE	3.0	5	NE
20251230.09	0.63	N	3.1	5	SE
20251230.12	0.69	N	3.1	6	E

**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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