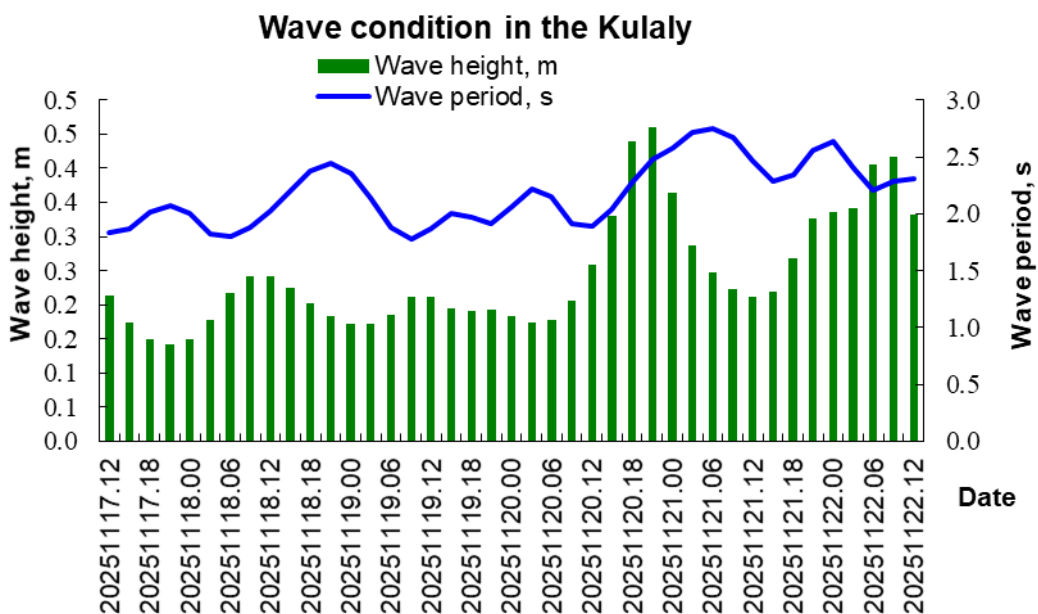
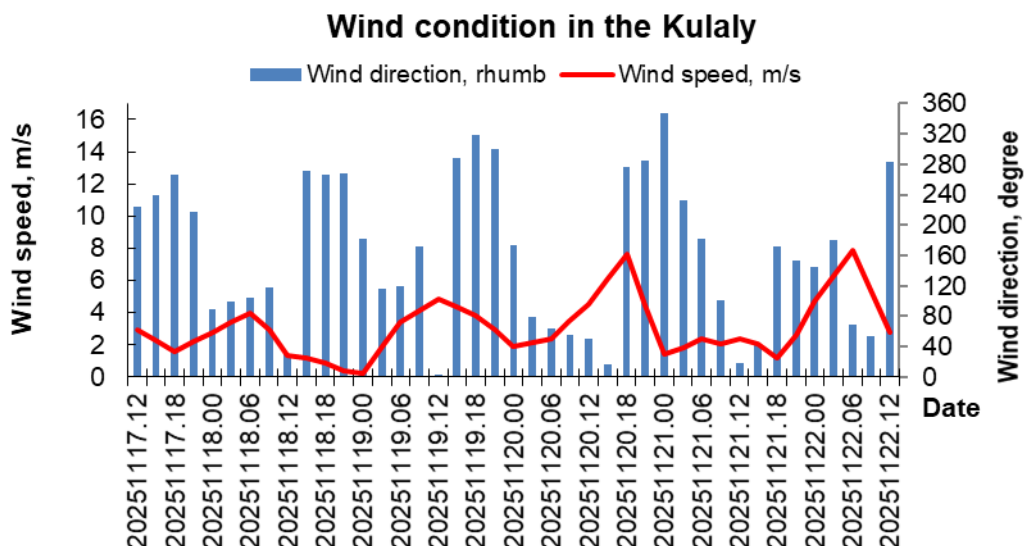




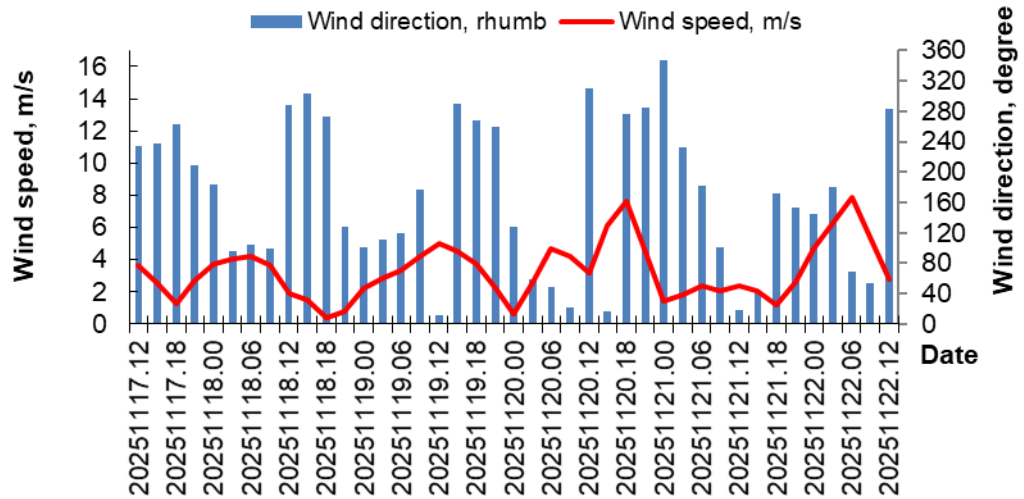
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**Wave and wind forecast for the Kazakhstan part of the Caspian Sea with a 5-day advance
using SWAN spectral model for the period November 17 – 22, 2025.**

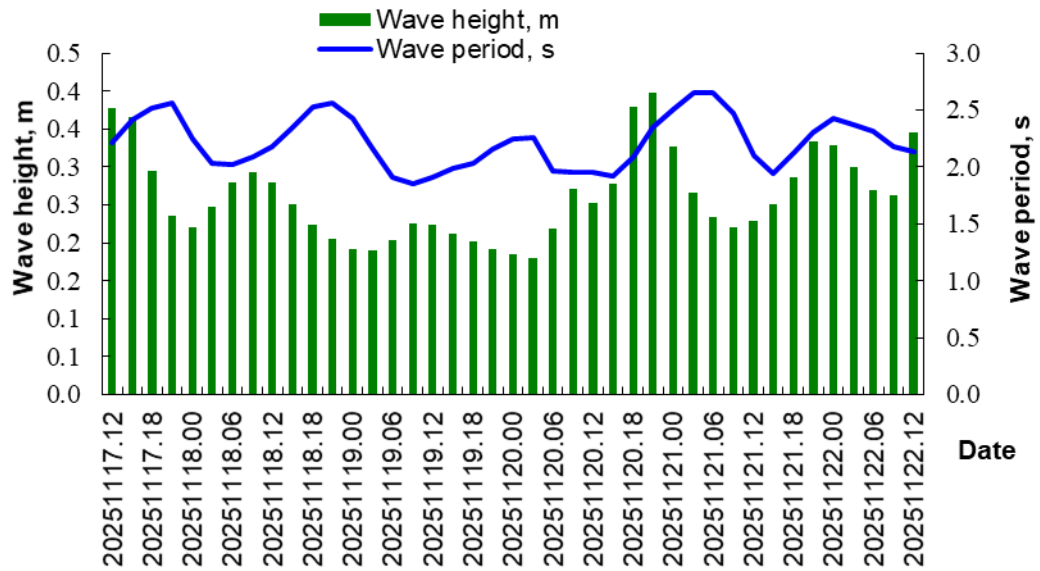


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251117.12	0.21	SW	1.8	3	SW
20251117.15	0.17	SW	1.9	2	SW
20251117.18	0.15	SW	2.0	2	W
20251117.21	0.14	S	2.1	2	SW
20251118.00	0.15	S	2.0	3	E
20251118.03	0.18	SW	1.8	3	E
20251118.06	0.22	SW	1.8	4	E
20251118.09	0.24	SW	1.9	3	SE
20251118.12	0.24	SW	2.0	1	NE
20251118.15	0.22	SW	2.2	1	W
20251118.18	0.20	SW	2.4	1	W
20251118.21	0.18	SW	2.4	0	W
20251119.00	0.17	SW	2.4	0	S
20251119.03	0.17	SW	2.1	2	SE
20251119.06	0.18	W	1.9	3	SE
20251119.09	0.21	NW	1.8	4	S
20251119.12	0.21	NW	1.9	5	N
20251119.15	0.19	NW	2.0	4	W
20251119.18	0.19	N	2.0	4	NW
20251119.21	0.19	NE	1.9	3	NW
20251120.00	0.18	NE	2.1	2	S
20251120.03	0.17	NE	2.2	2	E
20251120.06	0.18	NE	2.1	2	NE
20251120.09	0.21	NE	1.9	4	NE
20251120.12	0.26	NE	1.9	5	NE
20251120.15	0.33	NE	2.0	6	N
20251120.18	0.44	E	2.3	8	W
20251120.21	0.46	E	2.5	4	W
20251121.00	0.36	E	2.6	1	N
20251121.03	0.29	E	2.7	2	SW
20251121.06	0.25	E	2.8	2	S
20251121.09	0.22	E	2.7	2	E
20251121.12	0.21	E	2.5	2	N
20251121.15	0.22	E	2.3	2	NE
20251121.18	0.27	E	2.3	1	S
20251121.21	0.33	E	2.6	3	SE
20251122.00	0.34	E	2.6	5	SE
20251122.03	0.34	E	2.4	6	S
20251122.06	0.41	NE	2.2	8	E
20251122.09	0.42	NE	2.3	5	NE
20251122.12	0.33	NE	2.3	3	W

Wind condition in the Fort-Shevchenko

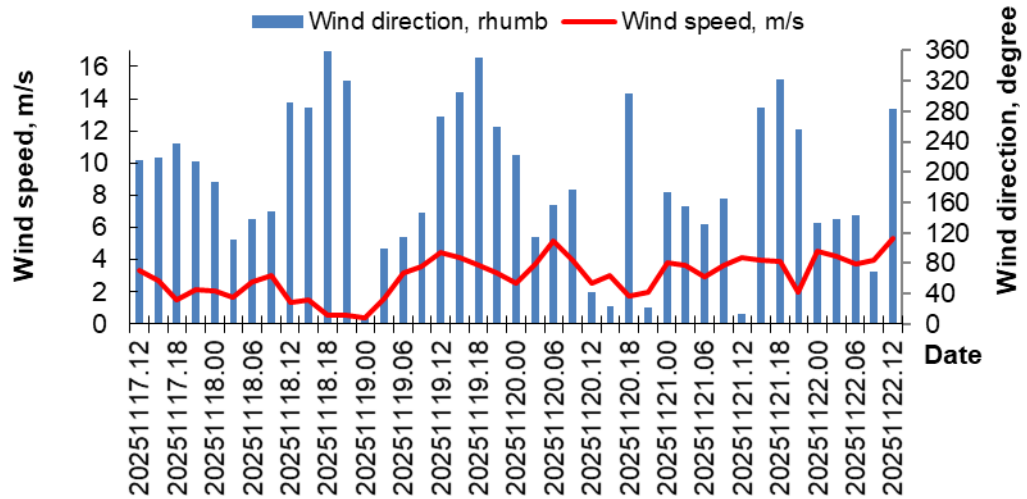


Wave condition in the Fort-Shevchenko

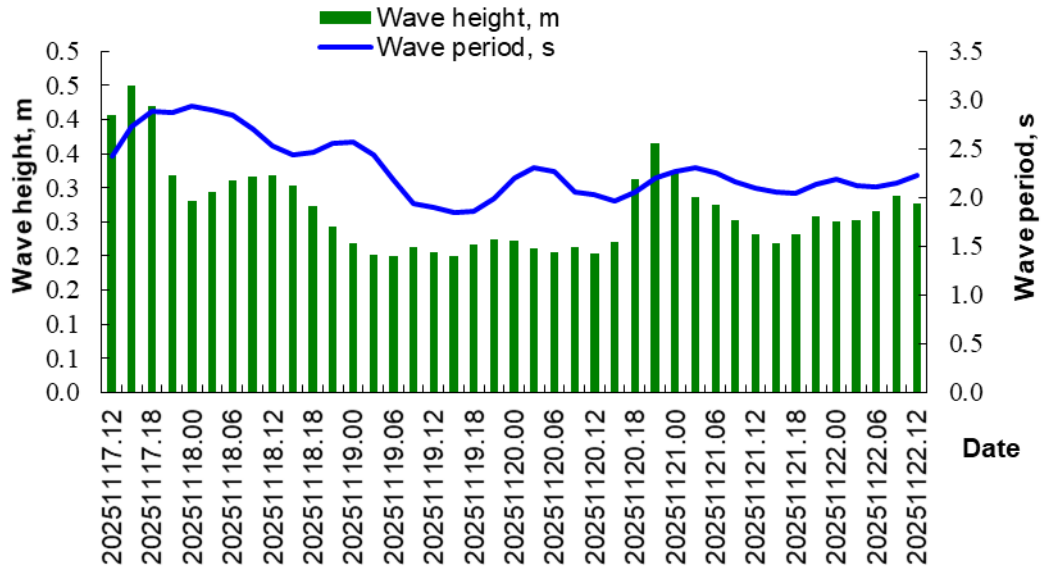


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251117.12	0.38	SW	2.2	4	SW
20251117.15	0.37	SW	2.4	3	SW
20251117.18	0.29	S	2.5	1	W
20251117.21	0.24	S	2.6	3	SW
20251118.00	0.22	SW	2.3	4	S
20251118.03	0.25	SW	2.0	4	E
20251118.06	0.28	SW	2.0	4	E
20251118.09	0.29	SW	2.1	4	E
20251118.12	0.28	SW	2.2	2	W
20251118.15	0.25	SW	2.4	1	NW
20251118.18	0.22	SW	2.5	0	W
20251118.21	0.20	SW	2.6	1	SE
20251119.00	0.19	SW	2.4	2	E
20251119.03	0.19	SW	2.2	3	E
20251119.06	0.20	W	1.9	3	SE
20251119.09	0.23	W	1.9	4	S
20251119.12	0.22	NW	1.9	5	N
20251119.15	0.21	NW	2.0	5	W
20251119.18	0.20	N	2.0	4	W
20251119.21	0.19	NE	2.2	2	W
20251120.00	0.18	NE	2.2	1	SE
20251120.03	0.18	E	2.3	3	NE
20251120.06	0.22	NE	2.0	5	NE
20251120.09	0.27	NE	2.0	4	N
20251120.12	0.25	E	2.0	3	NW
20251120.15	0.28	E	1.9	6	N
20251120.18	0.38	E	2.1	8	W
20251120.21	0.40	SE	2.4	4	W
20251121.00	0.33	SE	2.5	1	N
20251121.03	0.27	SE	2.7	2	SW
20251121.06	0.23	E	2.7	2	S
20251121.09	0.22	E	2.5	2	E
20251121.12	0.23	E	2.1	2	N
20251121.15	0.25	E	1.9	2	NE
20251121.18	0.29	E	2.1	1	S
20251121.21	0.33	E	2.3	3	SE
20251122.00	0.33	E	2.4	5	SE
20251122.03	0.30	E	2.4	6	S
20251122.06	0.27	E	2.3	8	E
20251122.09	0.26	NE	2.2	5	NE
20251122.12	0.35	E	2.1	3	W

Wind condition in the Aktau

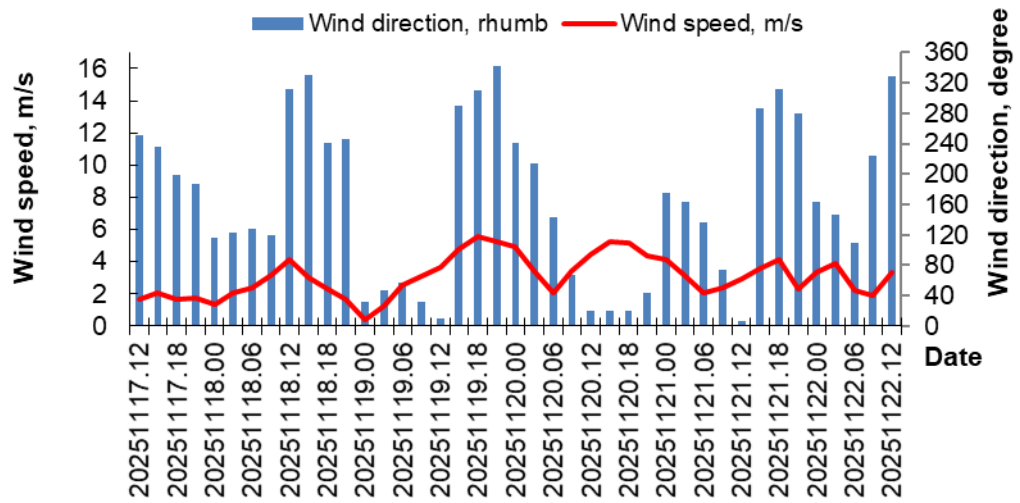


Wave condition in the Aktau

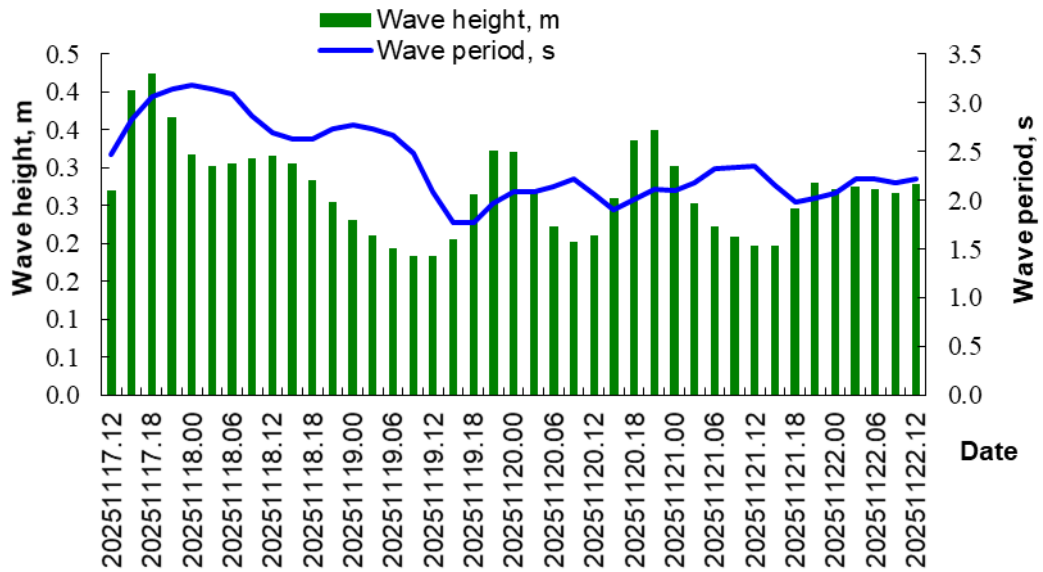


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20251117.12	0.41	SW	2.4	3	SW
20251117.15	0.45	SW	2.7	3	SW
20251117.18	0.42	SW	2.9	2	SW
20251117.21	0.32	SW	2.9	2	SW
20251118.00	0.28	SW	2.9	2	S
20251118.03	0.29	SW	2.9	2	E
20251118.06	0.31	SW	2.8	3	SE
20251118.09	0.32	SW	2.7	3	SE
20251118.12	0.32	SW	2.5	1	W
20251118.15	0.30	SW	2.4	1	W
20251118.18	0.27	SW	2.5	1	N
20251118.21	0.24	SW	2.6	1	NW
20251119.00	0.22	SW	2.6	0	N
20251119.03	0.20	SW	2.4	2	E
20251119.06	0.20	SW	2.2	3	SE
20251119.09	0.21	W	1.9	4	SE
20251119.12	0.21	W	1.9	4	W
20251119.15	0.20	S	1.9	4	NW
20251119.18	0.22	SE	1.9	4	N
20251119.21	0.23	SE	2.0	3	W
20251120.00	0.22	SE	2.2	3	SW
20251120.03	0.21	SE	2.3	4	SE
20251120.06	0.21	SE	2.3	5	SE
20251120.09	0.21	NE	2.1	4	S
20251120.12	0.20	NE	2.0	3	NE
20251120.15	0.22	NE	2.0	3	NE
20251120.18	0.31	E	2.1	2	NW
20251120.21	0.37	E	2.2	2	N
20251121.00	0.33	NE	2.3	4	S
20251121.03	0.29	NE	2.3	4	SE
20251121.06	0.27	NE	2.2	3	SE
20251121.09	0.25	N	2.2	4	S
20251121.12	0.23	NE	2.1	4	N
20251121.15	0.22	NE	2.1	4	W
20251121.18	0.23	E	2.0	4	NW
20251121.21	0.26	E	2.1	2	W
20251122.00	0.25	E	2.2	5	SE
20251122.03	0.25	NE	2.1	4	SE
20251122.06	0.26	N	2.1	4	SE
20251122.09	0.29	N	2.1	4	E
20251122.12	0.28	N	2.2	5	W

Wind condition in the Peschanyi

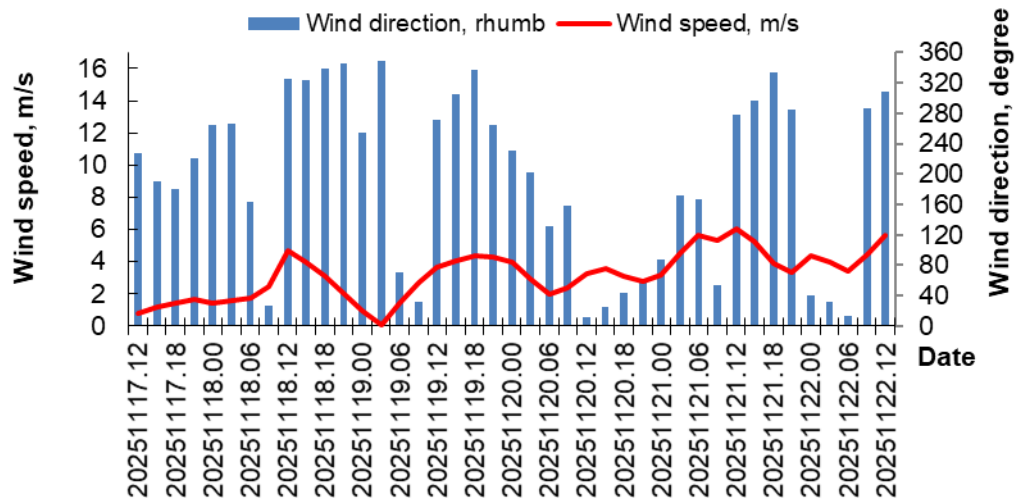


Wave condition in the Peschanyi

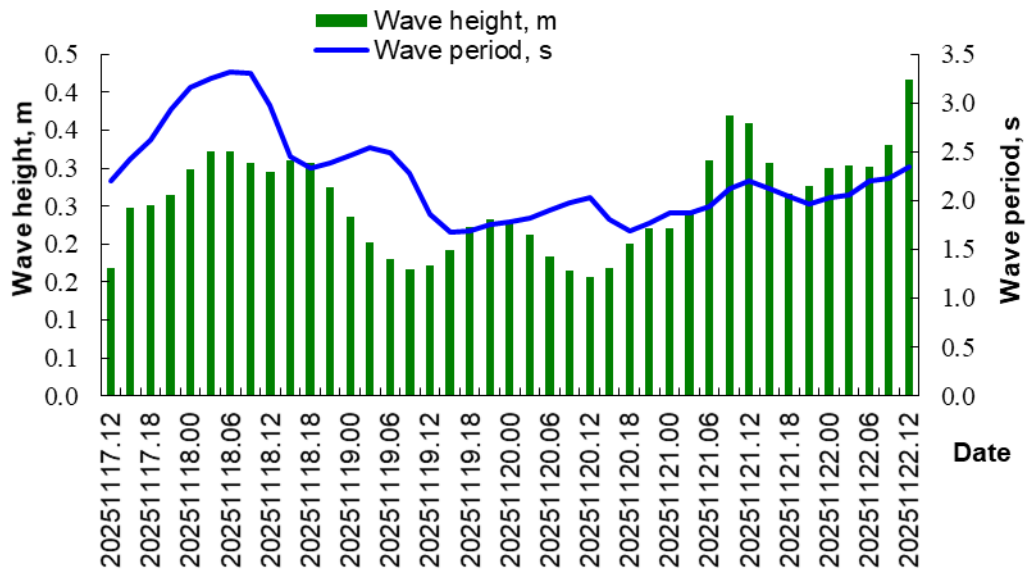


Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251117.12	0.27	SW	2.5	2	W
20251117.15	0.40	SW	2.8	2	SW
20251117.18	0.43	SW	3.1	2	S
20251117.21	0.37	SW	3.1	2	S
20251118.00	0.32	SW	3.2	1	SE
20251118.03	0.30	SW	3.1	2	SE
20251118.06	0.31	SW	3.1	2	SE
20251118.09	0.31	SW	2.9	3	SE
20251118.12	0.32	SW	2.7	4	NW
20251118.15	0.31	SW	2.6	3	NW
20251118.18	0.28	SW	2.6	2	SW
20251118.21	0.26	SW	2.7	2	SW
20251119.00	0.23	SW	2.8	0	NE
20251119.03	0.21	SW	2.7	1	NE
20251119.06	0.19	SW	2.7	3	NE
20251119.09	0.18	SW	2.5	3	NE
20251119.12	0.18	SW	2.1	4	N
20251119.15	0.21	SE	1.8	5	W
20251119.18	0.27	SE	1.8	6	NW
20251119.21	0.32	SE	2.0	5	N
20251120.00	0.32	SE	2.1	5	SW
20251120.03	0.27	S	2.1	3	SW
20251120.06	0.22	S	2.1	2	SE
20251120.09	0.20	S	2.2	3	E
20251120.12	0.21	E	2.1	4	N
20251120.15	0.26	NE	1.9	5	N
20251120.18	0.34	NE	2.0	5	N
20251120.21	0.35	NE	2.1	4	NE
20251121.00	0.30	NE	2.1	4	S
20251121.03	0.25	NE	2.2	3	S
20251121.06	0.22	E	2.3	2	SE
20251121.09	0.21	E	2.3	2	E
20251121.12	0.20	E	2.3	3	N
20251121.15	0.20	E	2.2	4	W
20251121.18	0.25	E	2.0	4	NW
20251121.21	0.28	E	2.0	2	W
20251122.00	0.27	E	2.1	3	S
20251122.03	0.28	NE	2.2	4	SE
20251122.06	0.27	N	2.2	2	E
20251122.09	0.27	N	2.2	2	SW
20251122.12	0.28	NE	2.2	3	NW

Wind condition in the Fetisovo

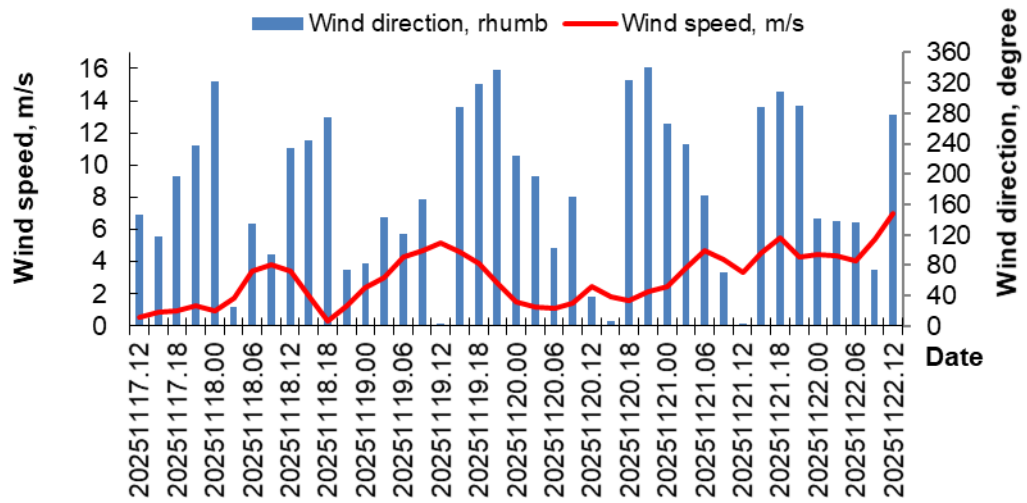


Wave condition in the Fetisovo

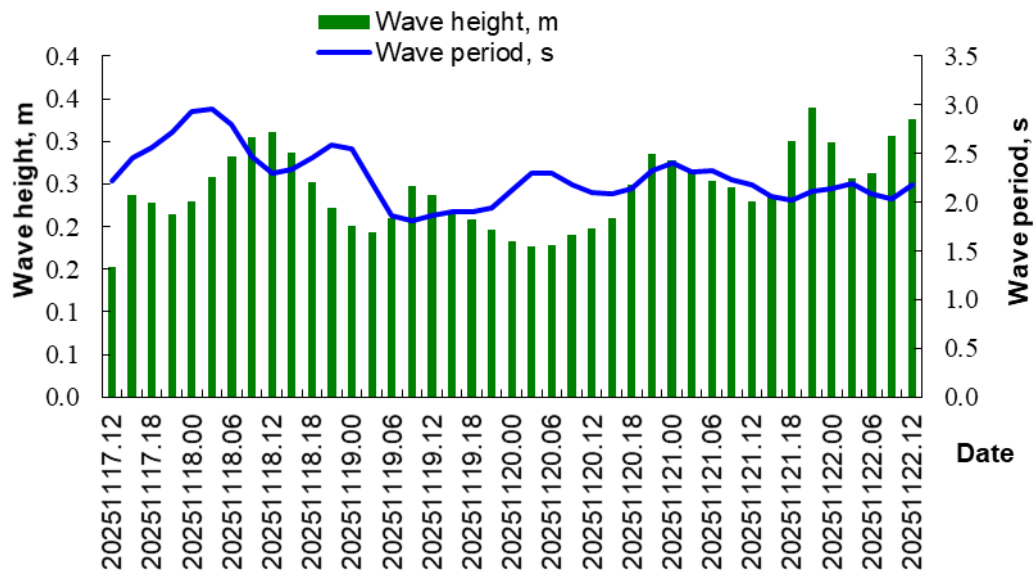


Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251117.12	0.17	SW	2.2	1	SW
20251117.15	0.25	SW	2.4	1	S
20251117.18	0.25	SW	2.6	1	S
20251117.21	0.26	SW	2.9	2	SW
20251118.00	0.30	SW	3.2	1	W
20251118.03	0.32	SW	3.3	2	W
20251118.06	0.32	SW	3.3	2	S
20251118.09	0.31	SW	3.3	2	NE
20251118.12	0.29	SW	3.0	5	NW
20251118.15	0.31	SW	2.5	4	NW
20251118.18	0.31	S	2.3	3	N
20251118.21	0.27	S	2.4	2	N
20251119.00	0.24	S	2.5	1	W
20251119.03	0.20	S	2.5	0	N
20251119.06	0.18	S	2.5	1	E
20251119.09	0.17	SW	2.3	3	NE
20251119.12	0.17	S	1.9	4	W
20251119.15	0.19	SE	1.7	4	NW
20251119.18	0.22	SE	1.7	4	N
20251119.21	0.23	SE	1.8	4	W
20251120.00	0.23	S	1.8	4	SW
20251120.03	0.21	S	1.8	3	SW
20251120.06	0.18	S	1.9	2	SE
20251120.09	0.17	S	2.0	2	S
20251120.12	0.16	SE	2.0	3	N
20251120.15	0.17	E	1.8	4	NE
20251120.18	0.20	NE	1.7	3	NE
20251120.21	0.22	NE	1.8	3	NE
20251121.00	0.22	NE	1.9	3	E
20251121.03	0.24	NE	1.9	5	S
20251121.06	0.31	N	1.9	6	S
20251121.09	0.37	N	2.1	5	NE
20251121.12	0.36	NE	2.2	6	W
20251121.15	0.31	NE	2.1	5	NW
20251121.18	0.27	E	2.0	4	NW
20251121.21	0.28	E	2.0	3	W
20251122.00	0.30	E	2.0	4	NE
20251122.03	0.30	NE	2.1	4	NE
20251122.06	0.30	NE	2.2	3	N
20251122.09	0.33	NE	2.2	4	W
20251122.12	0.42	E	2.3	6	NW

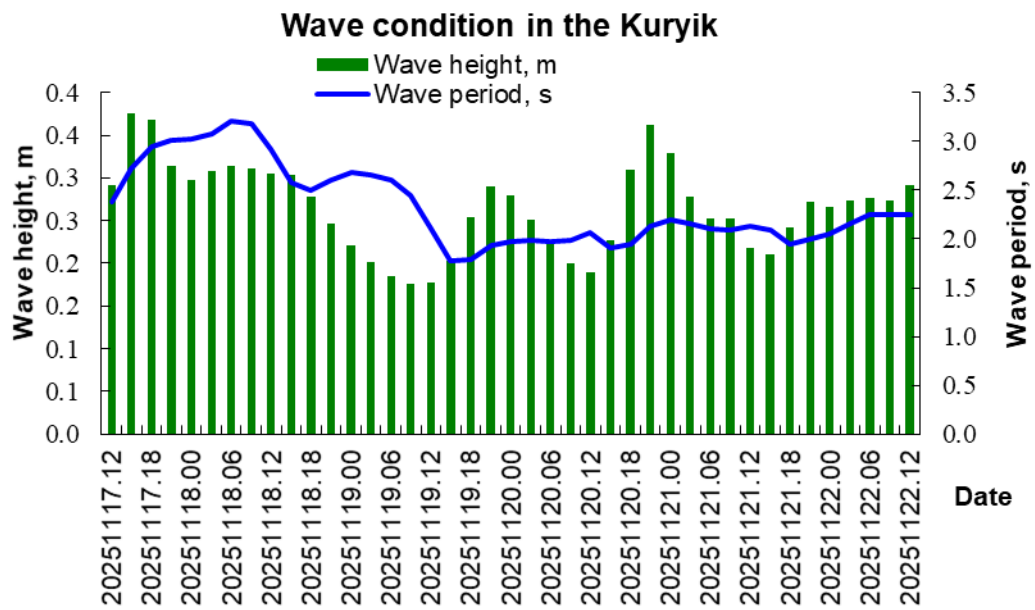
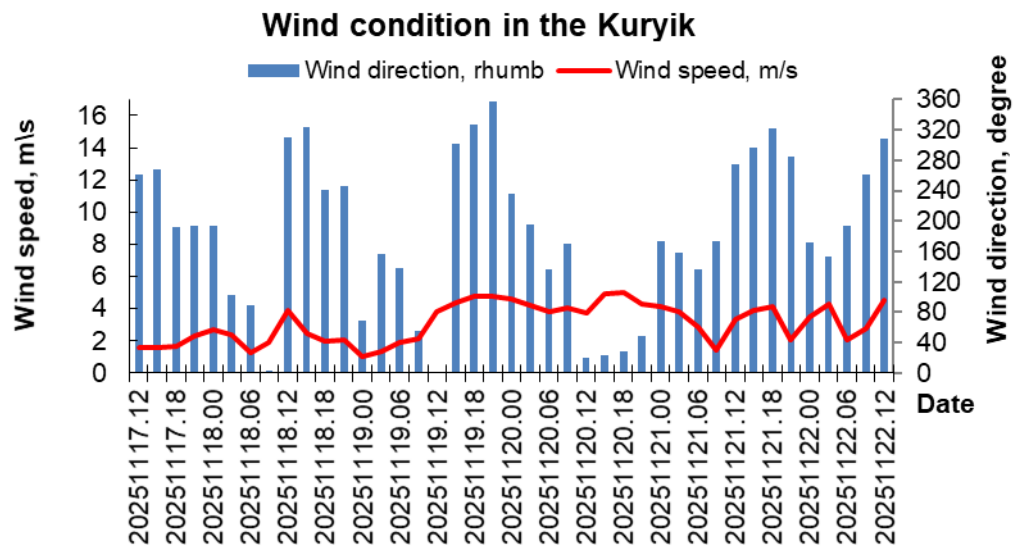
Wind condition in the Saura



Wave condition in the Saura



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251117.12	0.15	SW	2.2	1	SE
20251117.15	0.24	SW	2.5	1	SE
20251117.18	0.23	SW	2.6	1	S
20251117.21	0.21	SW	2.7	1	SW
20251118.00	0.23	SW	2.9	1	NW
20251118.03	0.26	SW	3.0	2	NE
20251118.06	0.28	SW	2.8	3	SE
20251118.09	0.30	SW	2.5	4	E
20251118.12	0.31	SW	2.3	3	SW
20251118.15	0.29	SW	2.3	2	SW
20251118.18	0.25	SW	2.5	0	W
20251118.21	0.22	SW	2.6	1	E
20251119.00	0.20	SW	2.5	2	E
20251119.03	0.19	SW	2.2	3	SE
20251119.06	0.21	W	1.9	4	SE
20251119.09	0.25	NW	1.8	5	S
20251119.12	0.24	NW	1.9	5	N
20251119.15	0.21	N	1.9	5	W
20251119.18	0.21	E	1.9	4	NW
20251119.21	0.20	E	1.9	3	NW
20251120.00	0.18	E	2.1	1	SW
20251120.03	0.18	E	2.3	1	S
20251120.06	0.18	E	2.3	1	E
20251120.09	0.19	E	2.2	1	S
20251120.12	0.20	E	2.1	2	NE
20251120.15	0.21	E	2.1	2	N
20251120.18	0.25	E	2.1	2	NW
20251120.21	0.29	E	2.3	2	N
20251121.00	0.28	E	2.4	2	W
20251121.03	0.26	E	2.3	4	SW
20251121.06	0.25	E	2.3	5	S
20251121.09	0.25	E	2.2	4	E
20251121.12	0.23	E	2.2	3	N
20251121.15	0.24	E	2.1	5	W
20251121.18	0.30	E	2.0	6	NW
20251121.21	0.34	E	2.1	4	W
20251122.00	0.30	E	2.1	4	SE
20251122.03	0.26	E	2.2	4	SE
20251122.06	0.26	NE	2.1	4	SE
20251122.09	0.31	N	2.0	5	E
20251122.12	0.33	NE	2.2	7	W



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20251117.12	0.29	SW	2.4	2	W
20251117.15	0.38	SW	2.7	2	W
20251117.18	0.37	SW	2.9	2	S
20251117.21	0.31	SW	3.0	2	S
20251118.00	0.30	SW	3.0	3	S
20251118.03	0.31	SW	3.1	2	E
20251118.06	0.31	SW	3.2	1	E
20251118.09	0.31	SW	3.2	2	N
20251118.12	0.31	SW	2.9	4	NW
20251118.15	0.30	SW	2.6	2	NW
20251118.18	0.28	SW	2.5	2	SW
20251118.21	0.25	SW	2.6	2	SW
20251119.00	0.22	SW	2.7	1	E
20251119.03	0.20	SW	2.7	1	SE
20251119.06	0.19	SW	2.6	2	SE
20251119.09	0.18	SW	2.4	2	NE
20251119.12	0.18	SW	2.1	4	N
20251119.15	0.20	SE	1.8	4	NW
20251119.18	0.25	SE	1.8	5	NW
20251119.21	0.29	SE	1.9	5	N
20251120.00	0.28	SE	2.0	5	SW
20251120.03	0.25	S	2.0	4	S
20251120.06	0.22	S	2.0	4	SE
20251120.09	0.20	S	2.0	4	S
20251120.12	0.19	E	2.1	4	N
20251120.15	0.23	NE	1.9	5	NE
20251120.18	0.31	NE	1.9	5	NE
20251120.21	0.36	NE	2.1	4	NE
20251121.00	0.33	NE	2.2	4	S
20251121.03	0.28	NE	2.2	4	S
20251121.06	0.25	NE	2.1	3	SE
20251121.09	0.25	NE	2.1	1	S
20251121.12	0.22	NE	2.1	3	W
20251121.15	0.21	E	2.1	4	NW
20251121.18	0.24	E	2.0	4	NW
20251121.21	0.27	E	2.0	2	W
20251122.00	0.27	E	2.1	4	S
20251122.03	0.27	NE	2.2	4	SE
20251122.06	0.28	N	2.2	2	S
20251122.09	0.27	N	2.2	3	W
20251122.12	0.29	NE	2.2	5	NW

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

Compiled by: Bazarbay L.B.

Checked by: Shishkina G.M.

RSE «Kazhydromet» – Caspian Sea Hydrometeorological Research Department

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