

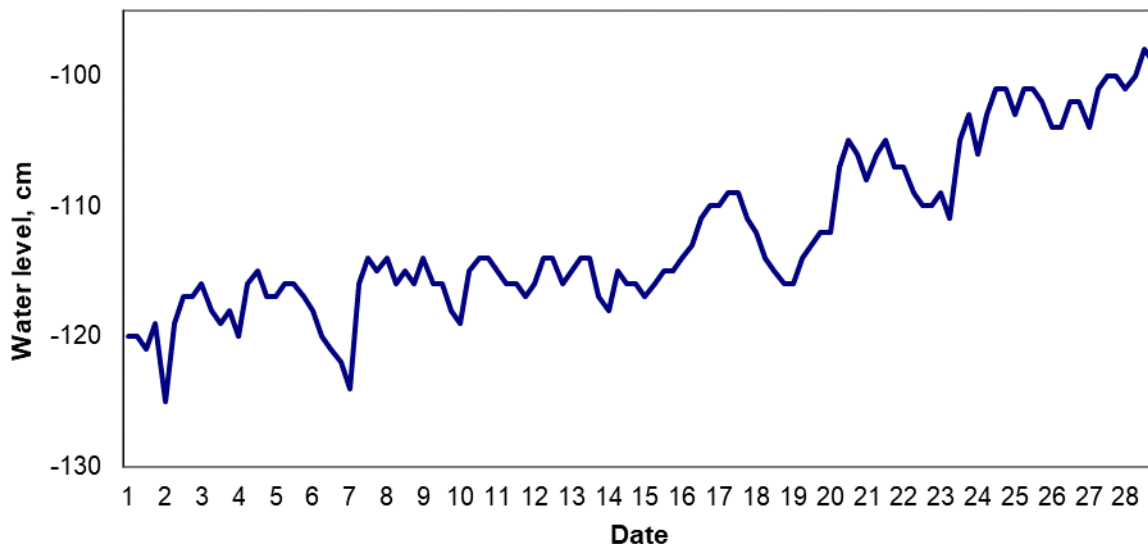


**MINISTRY OF ECOLOGY AND NATURAL RESOURCES  
OF THE REPUBLIC OF KAZAKHSTAN  
RSE «KAZHYDROMET»**

**RESEARCH CENTER**

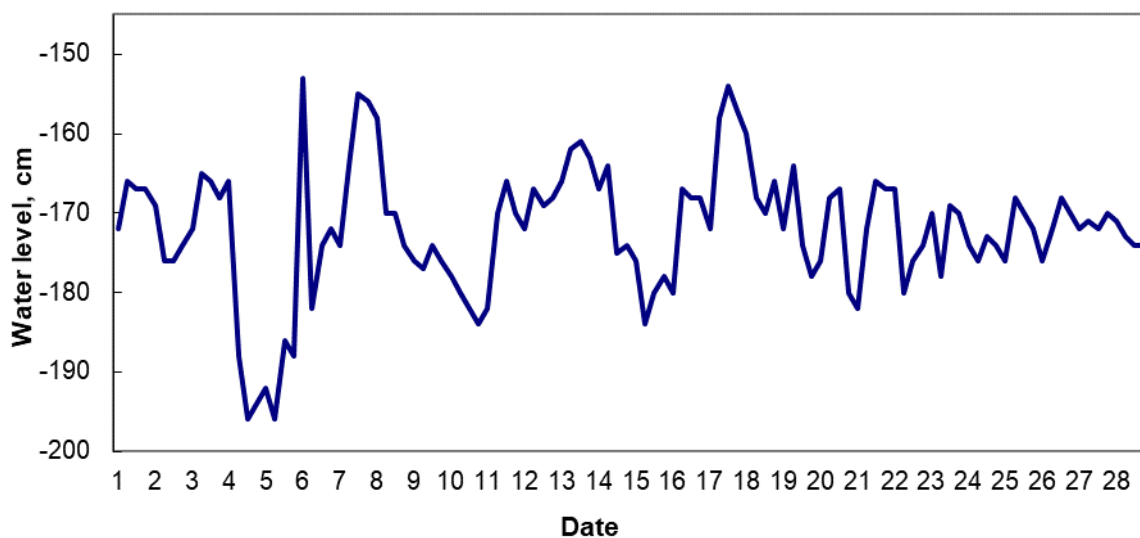
**OVERVIEW OF UP SURGE AND DOWN SURGE EVENTS  
in February 2026**

**Peshnoy**



The runup and surge phenomena were not recorded. The sea level change during the month fluctuated from minus 29.25 m BS to minus 28.98 m BS.

**Fort-Shevchenko**



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
04.02.2026		30	N	9
05-06.02.2026	35		NE,E	3
07.02.2026	19		SE	9
17.02.2026	18		SE	9
20-21.02.2026		15	SE	6

- On 04 February, a sea level fall by 30 cm was observed from minus 29.66 m BS to minus 29.96 m BS. The wind speed reached 9 m/s, predominantly from the north;

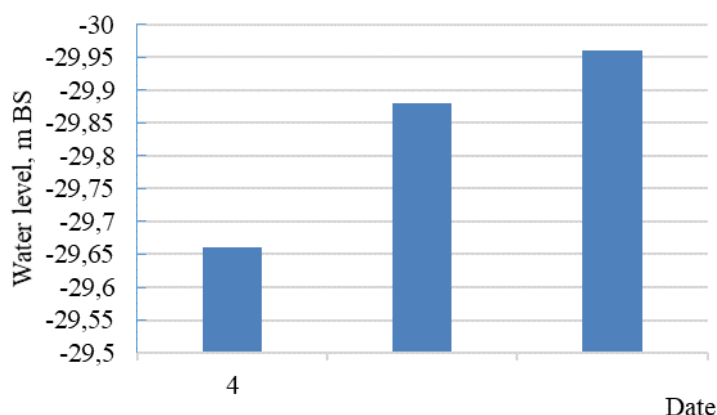


Figure. Graph of sea level changes in Fort-Shevchenko on February 04, 2026.

- On 05-06 February, a sea level rise by 35 cm was observed from minus 29.88 m BS to minus 29.53 m BS. The wind speed reached 3 m/s, predominantly from the northeast, east;

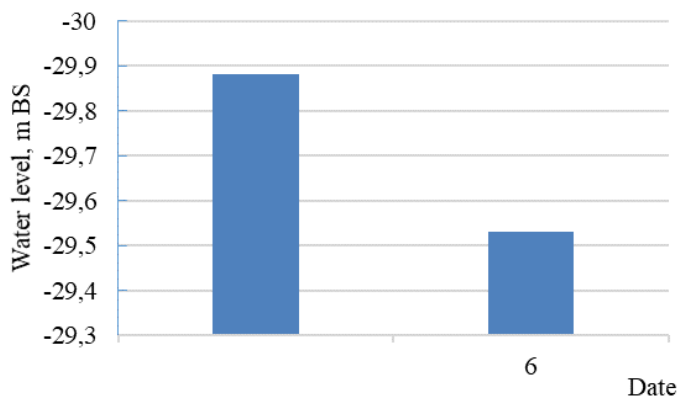


Figure. Graph of sea level changes in Fort-Shevchenko on February 05-06, 2026.

- On 07 February, a sea level rise by 19 cm was observed from minus 29.74 m BS to minus 29.55 m BS. The wind speed reached 9 m/s, predominantly from the southeast;

- On 17 February, a sea level rise by 18 cm was observed from minus 29.72 m BS to minus 29.54 m BS. The wind speed reached 9 m/s, predominantly from the southeast;

- On 20-21 February, a sea level rise by 15 cm was observed from minus 29.67 m BS to minus 29.82 m BS. The wind speed reached 6 m/s, predominantly from the southeast;

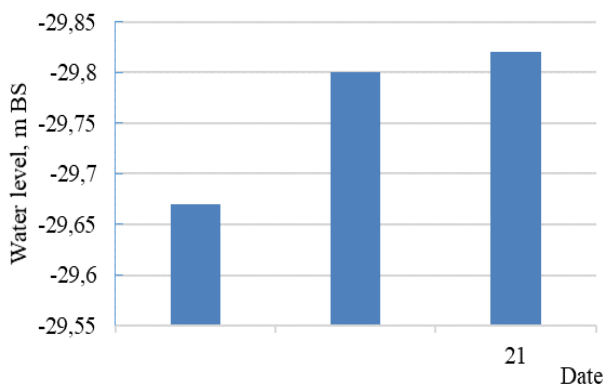
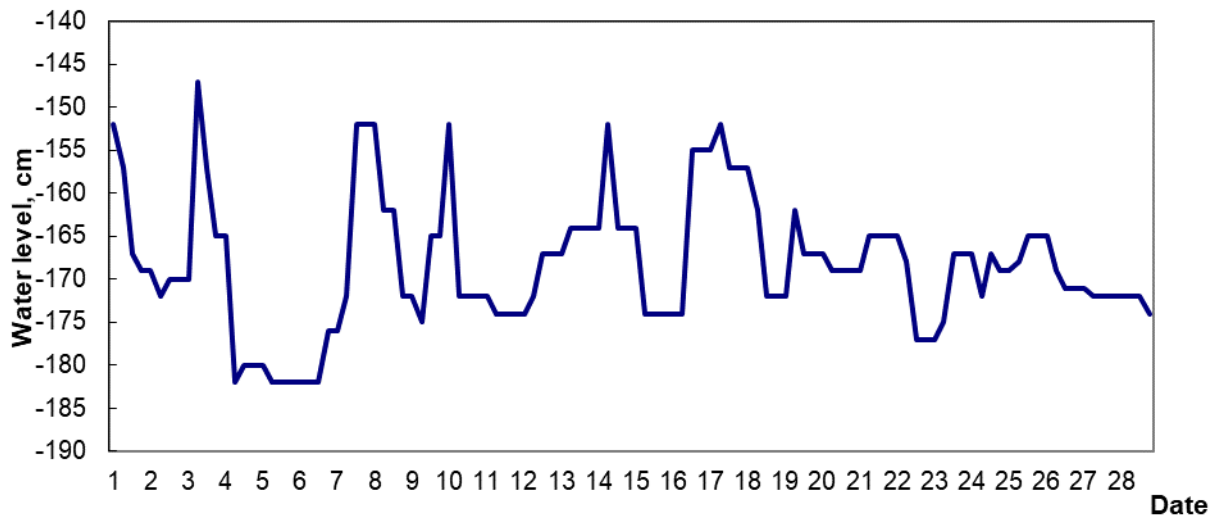


Figure. Graph of sea level changes in Fort-Shevchenko on February 20-21, 2026.

## Saura



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
01.02.2026		17	N	3
03.02.2026	23		E, SSE	10
04.02.2026		17	N	9
07.02.2026	20		SE	9
10.02.2026		20	NW	10
16.02.2026	19		SE	12
18.02.2026		15	N	6

- On 01 February, a sea level fall by 17 cm was observed from minus 29.52 m BS to minus 29.69 m BS. The wind speed reached 3 m/s, predominantly from the north;

- On 03 February, a sea level rise by 23 cm was observed from minus 29.70 m BS to minus 29.47 m BS. The wind speed reached 10 m/s, predominantly from the east, south southeast;

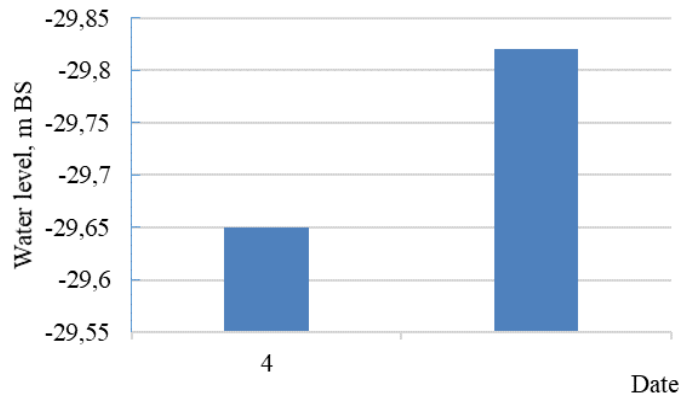


Figure. Graph of sea level changes in Saura on February 03, 2026.

- On 04 February, a sea level fall by 17 cm was observed from minus 29.65 m BS to minus 29.82 m BS. The wind speed reached 9 m/s, predominantly from the north;

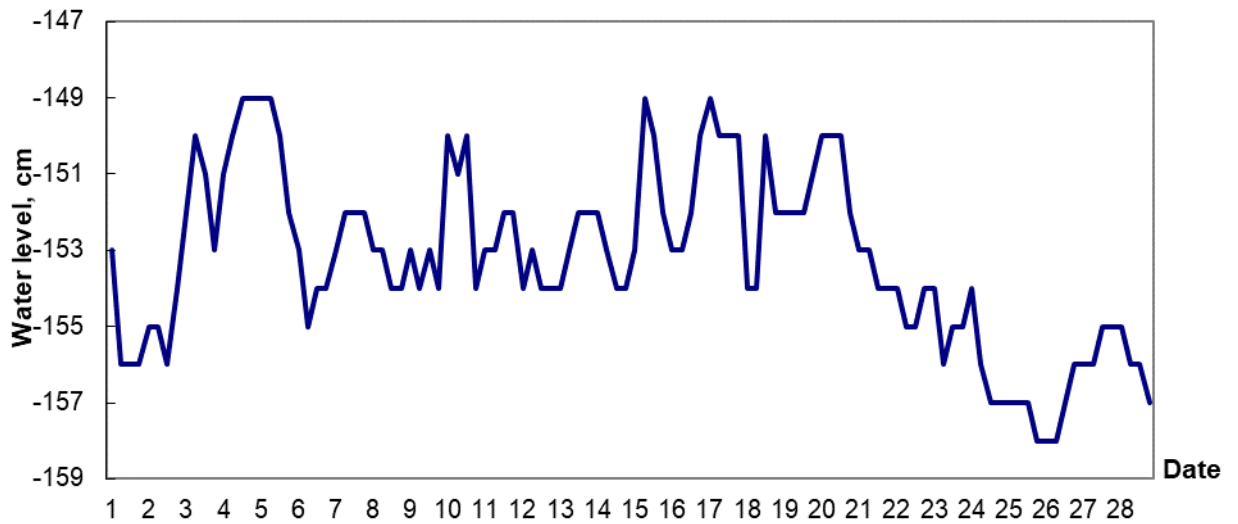
- On 07 February, a sea level rise by 20 cm was observed from minus 29.72 m BS to minus 29.52 m BS. The wind speed reached 9 m/s, predominantly from the southeast;

- On 10 February, a sea level fall by 20 cm was observed from minus 29.52 m BS to minus 29.72 m BS. The wind speed reached 10 m/s, predominantly from the northwest;

- On 16 February, a sea level rise by 19 cm was observed from minus 29.74 m BS to minus 29.55 m BS. The wind speed reached 12 m/s, predominantly from the southeast;

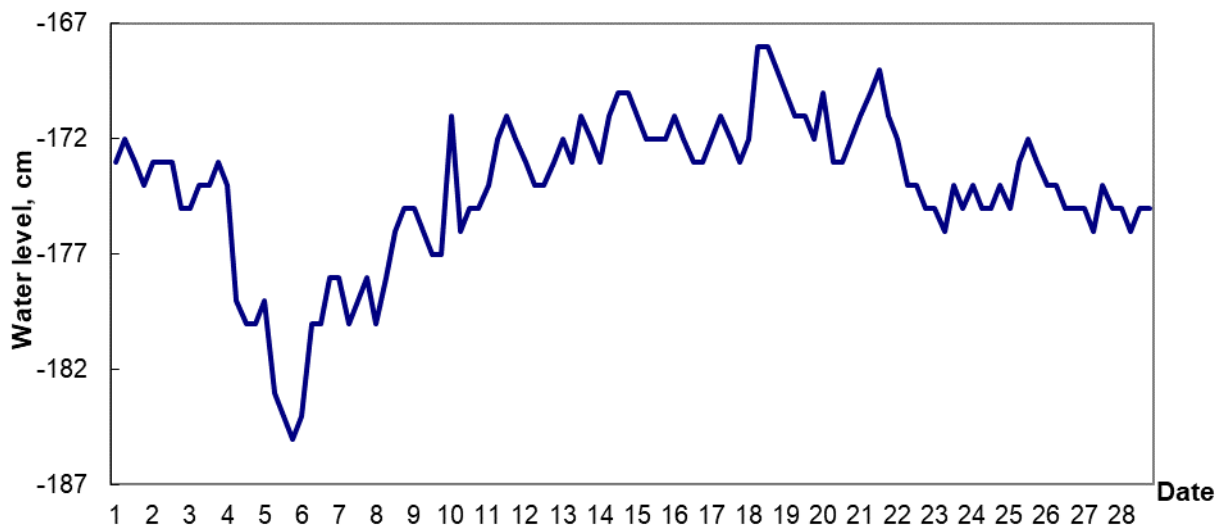
- On 18 February, a sea level fall by 15 cm was observed from minus 29.57 m BS to minus 29.72 m BS. The wind speed reached 6 m/s, predominantly from the north.

### Peschany



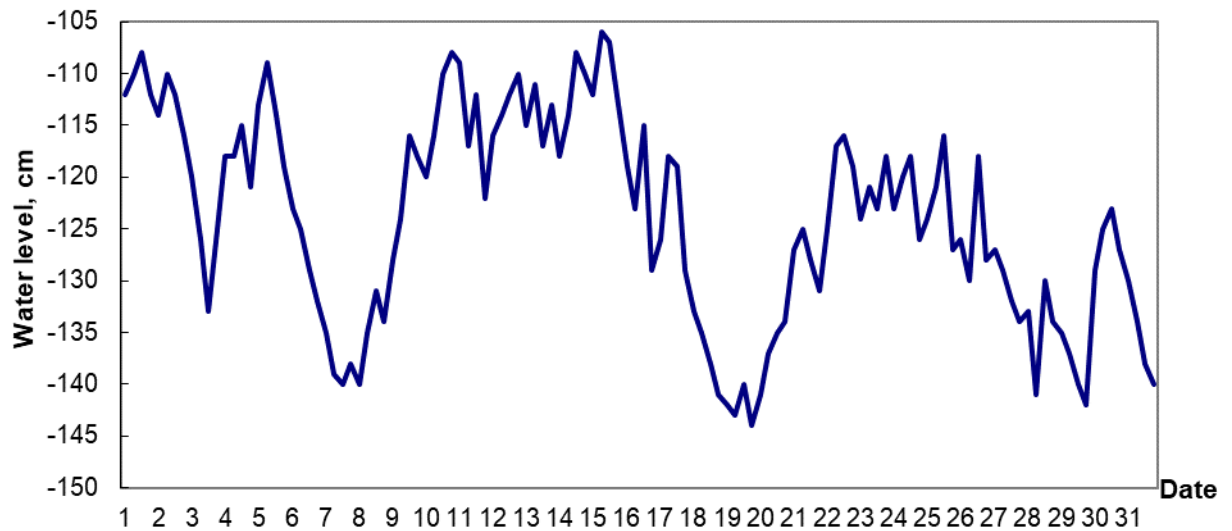
The runup and surge level fluctuations did not exceed 9 cm. The sea level change during the month varied from minus 29.58 m BS to minus 29.49 m BS.

### Aktau



The runup and surge level fluctuations did not exceed 12 cm. The sea level change during the month varied from minus 29.85 m BS to minus 29.68 m BS.

## Fetisovo



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
02-03.2026	15		SE	13
05.02.2026		17	NW	10
07-08.02.2026	25		SE	13
10-12.02.2026		33	E	10
16-17.02.2026		19	S	12

- On 02-03 February, a sea level rise by 15 cm was observed from minus 29.31 m BS to minus 29.16 m BS. The wind speed reached 13 m/s, predominantly from the southeast;
- On 05 February, a sea level fall by 17 cm was observed from minus 29.07 m BS to minus 29.24 m BS. The wind speed reached 10 m/s, predominantly from the northwest;
- On 07-08 February, a sea level rise by 25 cm was observed from minus 29.39 m BS to minus 29.14 m BS. The wind speed reached 13 m/s, predominantly from the southeast;

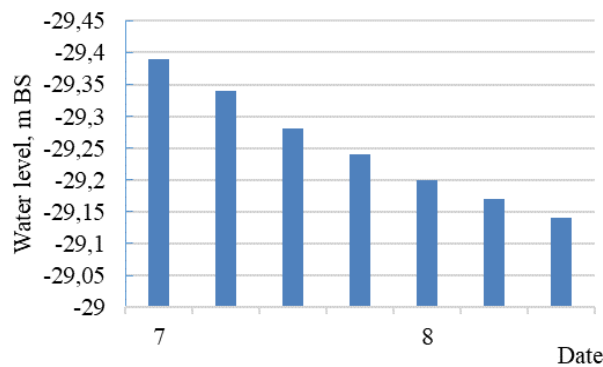


Figure. Graph of sea level changes in Fetisovo on February 07-08, 2026

- On 10-12 February, a sea level fall by 33 cm was observed from minus 29.13 m BS to minus 29.46 m BS. The wind speed reached 10 m/s, predominantly from the east;

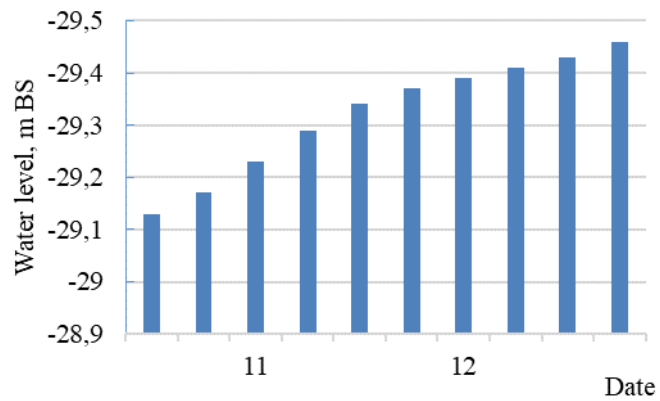


Figure. Graph of sea level changes in Fetisovo on February 10-12, 2026

- On 16-17 February, a sea level fall by 19 cm was observed from minus 29.13 m BS to minus 29.32 m BS. The wind speed reached 12 m/s, predominantly from the south;

*Note:*

*Analysis of the Zhanbay upsurge and downsurge events was not performed due to the receipt of hydrometeorological data with gaps.*

*From January 22, 2026, starting at 12:00 GMT (UTC), meteorological and hydrological observations at the Kulaly island have been temporarily suspended (Order No. 01-04/15 dated January 23, 2026).*

## STORM SURGE HAZARD CRITERIA FOR THE NORTHEASTERN COASTLINE

	<b>Rise/Fall, cm**</b>	<b>Characteristic***</b>	<b>Consequences</b>
<b>up surge</b>	49	Critical	flooded coast area to 5 km
	60	Danger	flooding and flooding of dams and buildings up to 10 km
	109	Especially danger	flooding of the coast for more than 10 km, destruction of dams and buildings
<b>down surge</b>	-46	Critical	worsening navigation conditions for small ships
	-60	Danger	worsening of navigation conditions for small and medium-sized ships
	-104	Especially danger	ships would be aground

*Note:*

*The calculated characteristics were obtained using the hydrodynamic module of the MIKE 21 Flow Model, adapted in RSE "Kazhydromet" to the conditions of the Caspian Sea.*

*\*\*At definition of characteristic marks local conditions were considered.*

*\*\*\*Critical – 50 % frequency, danger – 25 % frequency, especially danger– 2 % frequency. The calculation was carried out for the period 1940-2024 according to the data of Peshnoy station.*

*BS – Baltic System*

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The bulletin was compiled by the Department of Hydrometeorological Research of the Caspian Sea

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*When using materials of the bulletin the link to RSE "Kazhydromet" is obligatory*

