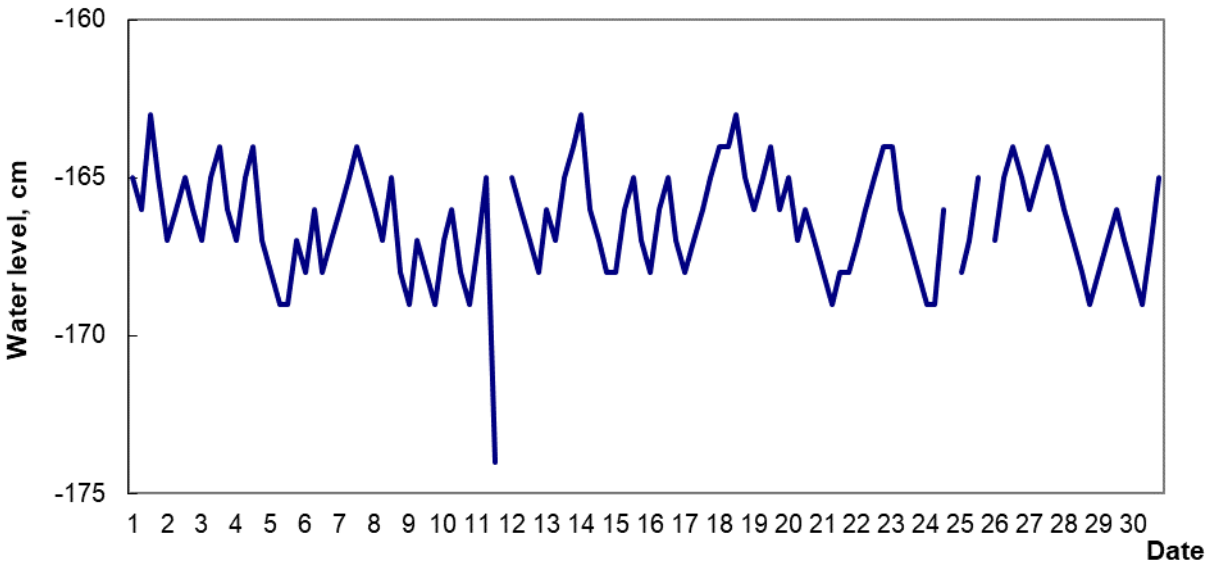
MINISTRY OF ECOLOGY AND NATURAL RESOURCES OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»

RESEARCH CENTER

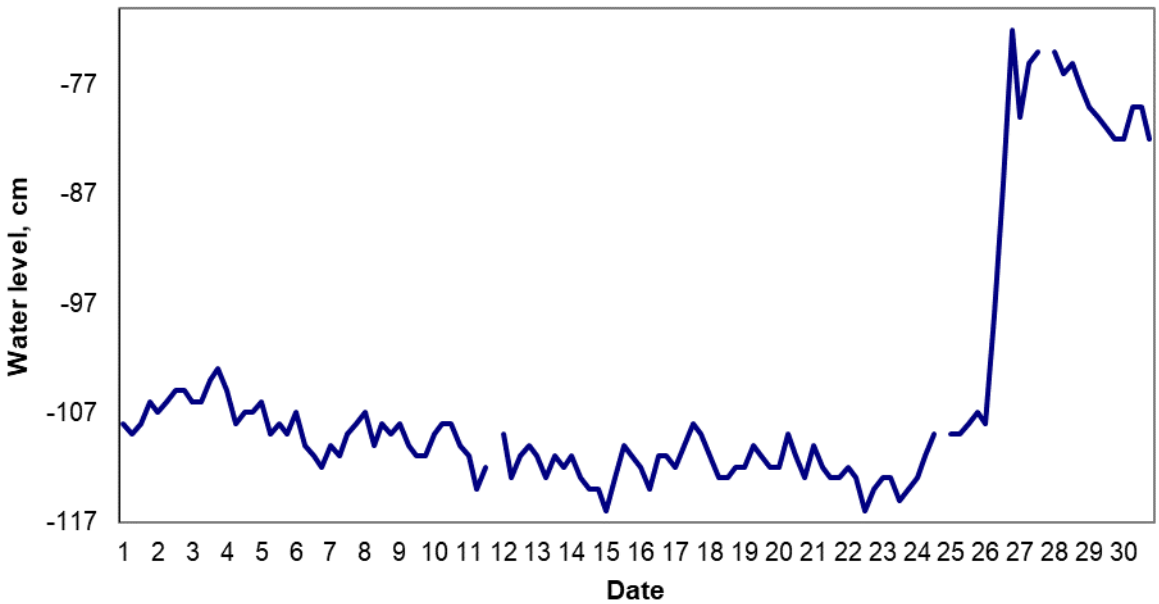
OVERVIEW OF UP SURGE AND DOWN SURGE EVENTS in April 2026

Kulaly



The runup and surge phenomena were not recorded. The sea level change during the month fluctuated from minus 29.74 m BS to minus 29.63 m BS.

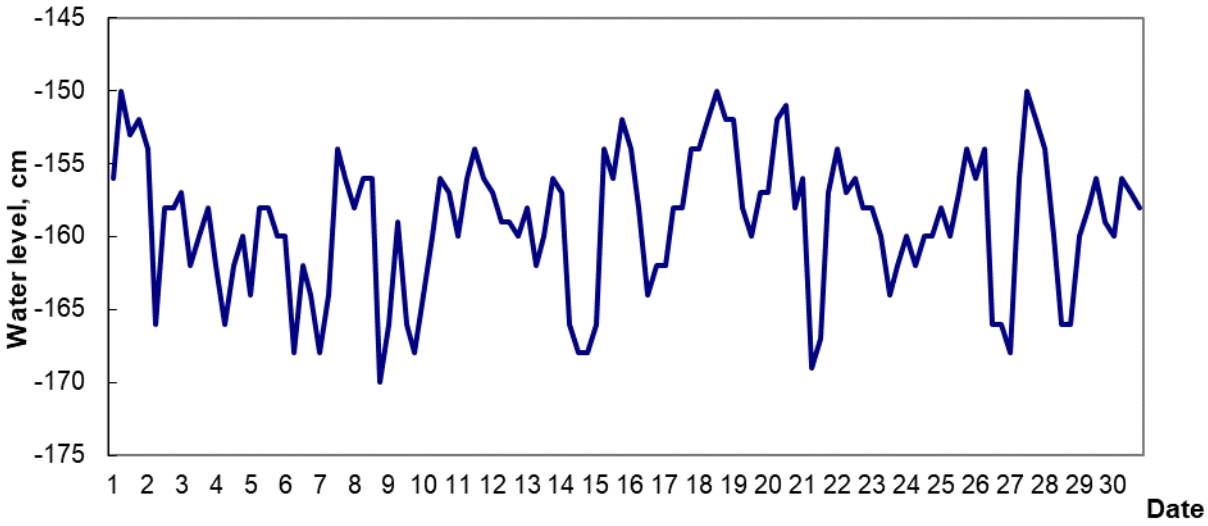
Peshnoy



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
26.04.2026	36		WSW	10

- On 26 April, a sea level rise by 36 cm was observed from minus 29.08 m BS to minus 28.72 m BS. The wind speed reached 10 m/s, predominantly from the west, southwest;

Fort-Shevchenko



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
21-22.04.2026	15		N	8
27.04.2026	16		SE	3

- On 21-22 April, a sea level rise by 15 cm was observed from minus 29.69 m BS to minus 29.54 m BS. The wind speed reached 8 m/s, predominantly from the north;

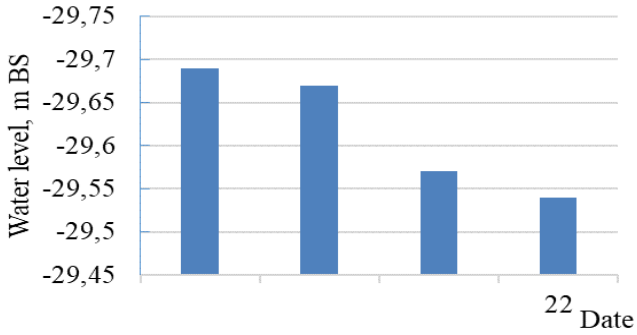


Figure. Graph of sea level changes in Fort-Shevchenko on April 21-22, 2026.

- On 27 April, a sea level rise by 16 cm was observed from minus 29.68 m BS to minus 29.52 m BS. The wind speed reached 3 m/s, predominantly from the southeast;

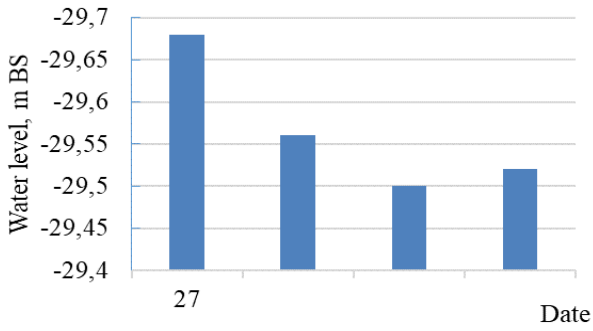
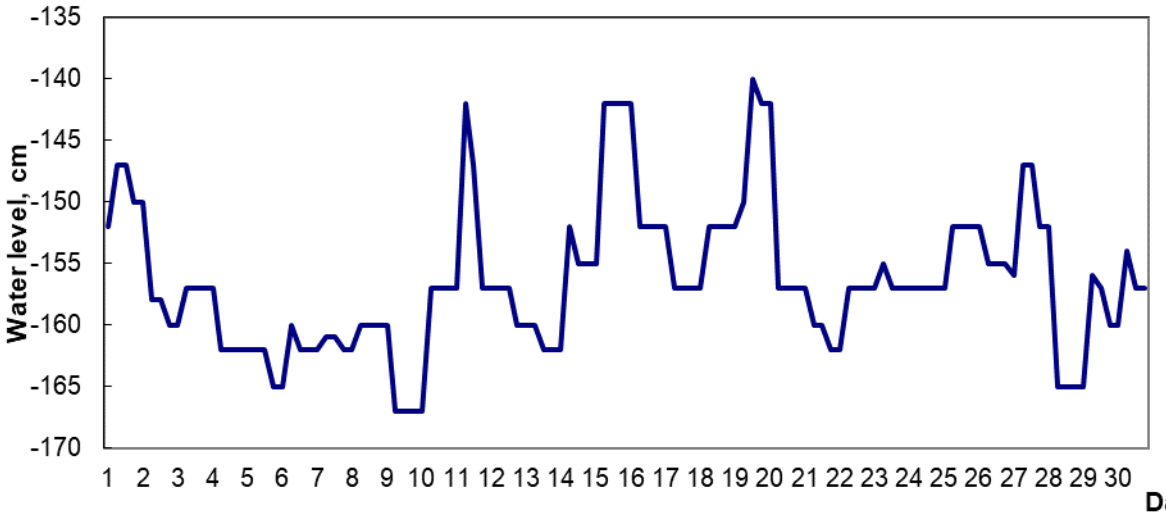


Figure. Graph of sea level changes in Fort-Shevchenko on April 27, 2026.

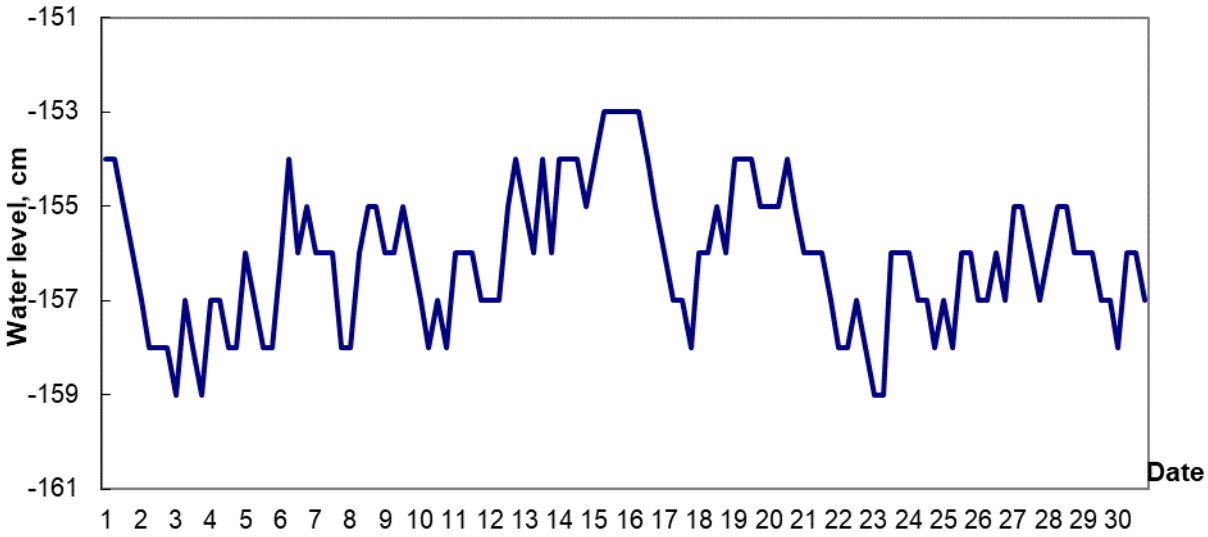
Saura



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
11.04.2026	15		S	4

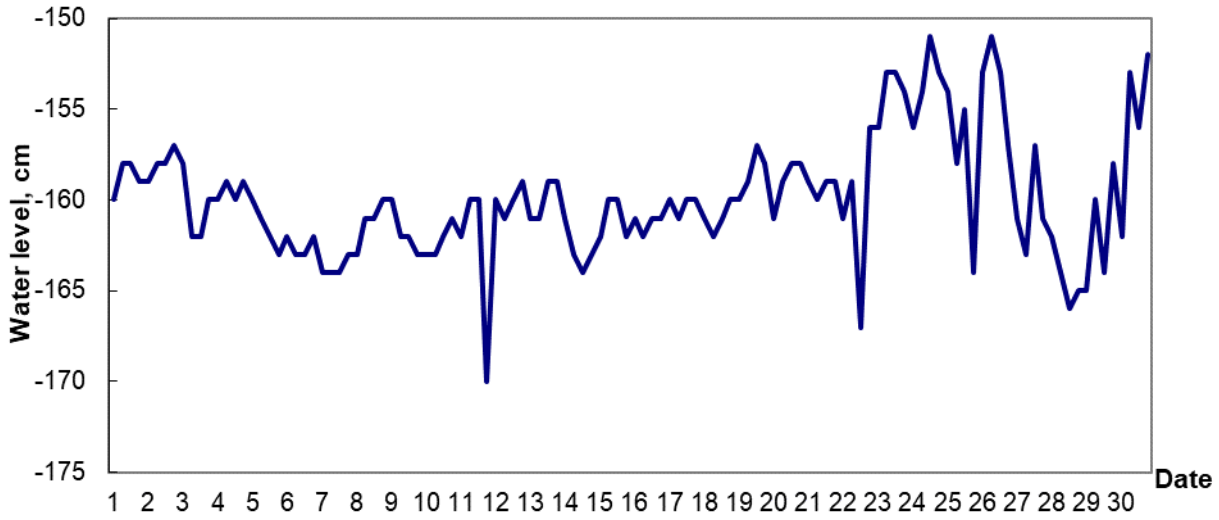
- On 11 April, a sea level rise by 15 cm was observed from minus 29.57 m BS to minus 29.42 m BS. The wind speed reached 4 m/s, predominantly from the south;

Peschany



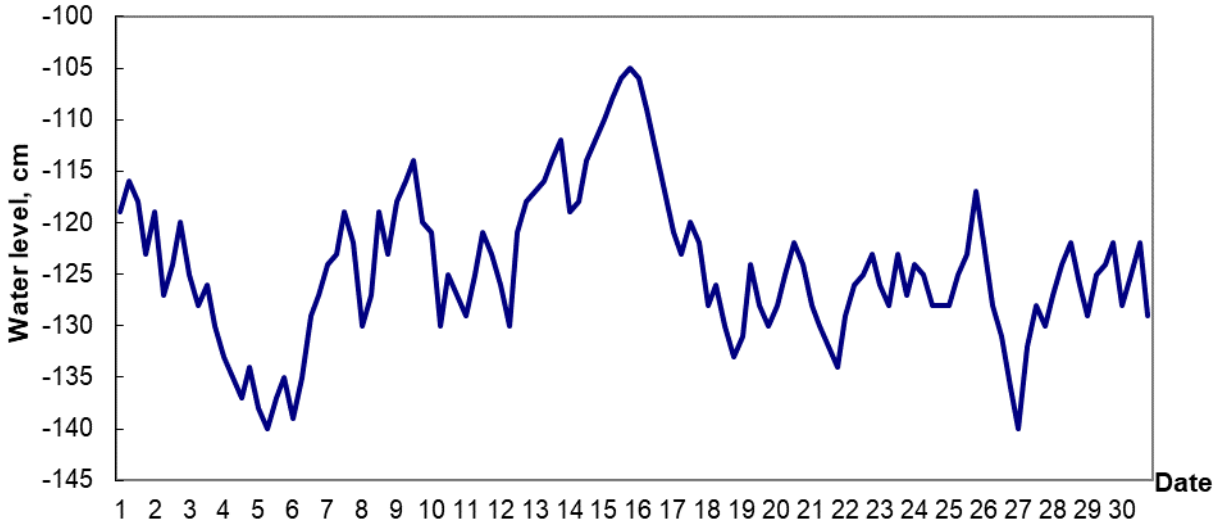
The runup and surge level fluctuations did not exceed 6 cm. The sea level change during the month varied from minus 29.59 m BS to minus 29.53 m BS.

Aktau



The runup and surge phenomena were not recorded. The sea level change during the month fluctuated from minus 29.70 m BS to minus 29.51 m BS.

Fetisovo



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
06-07.04.2026	20		N	9
09-10.04.2026		16	E	8
12-13.04.2026	18		N	10
15-17.04.2026		18	NW	13
26-27.04.2026		18	E	9

- On 06-07 April, a sea level rise by 20 cm was observed from minus 29.39 m BS to minus 29.19 m BS. The wind speed reached 9 m/s, predominantly from the north;

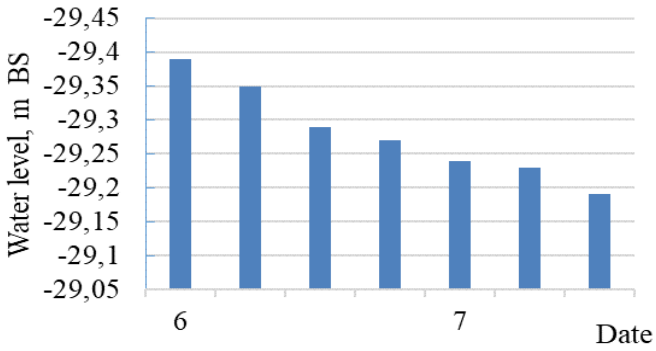


Figure. Graph of sea level changes in Fetisovo on April 06-07, 2026

- On 09-10 April, a sea level fall by 16 cm was observed from minus 29.14 m BS to minus 29.30 m BS. The wind speed reached 8 m/s, predominantly from the east;

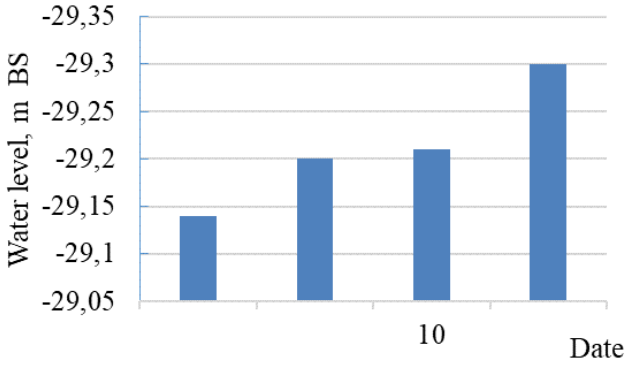


Figure. Graph of sea level changes in Fetisovo on April 09-10, 2026

- On 12-13 April, a sea level rise by 18 cm was observed from minus 29.30 m BS to minus 29.12 m BS. The wind speed reached 10 m/s, predominantly from the north;

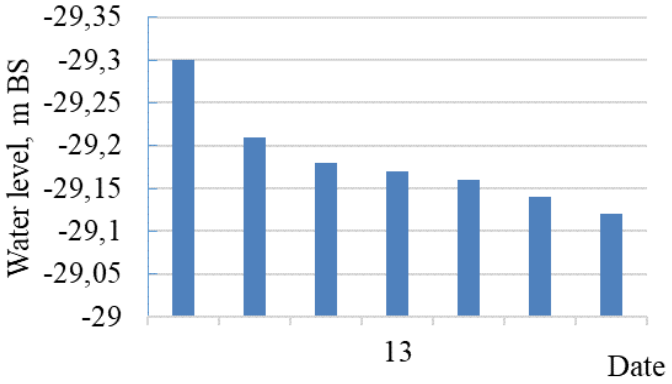


Figure. Graph of sea level changes in Fetisovo on April 12-13, 2026

- On 15-17 April, a sea level fall by 18 cm was observed from minus 29.05 m BS to minus 29.23 m BS. The wind speed reached 13 m/s, predominantly from the northwest;

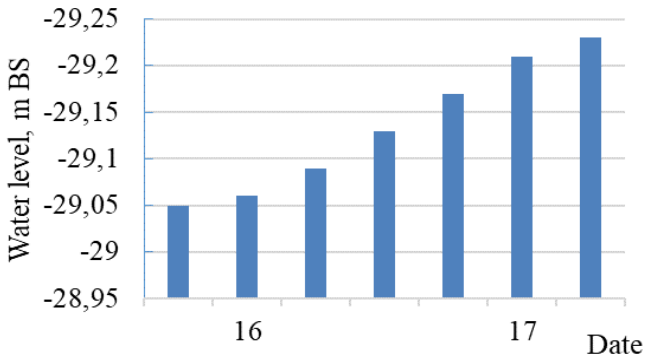


Figure. Graph of sea level changes in Fetisovo on April 15-17, 2026

- On 26-27 April, a sea level fall by 18 cm was observed from minus 29.22 m BS to minus 29.40 m BS. The wind speed reached 9 m/s, predominantly from the east;

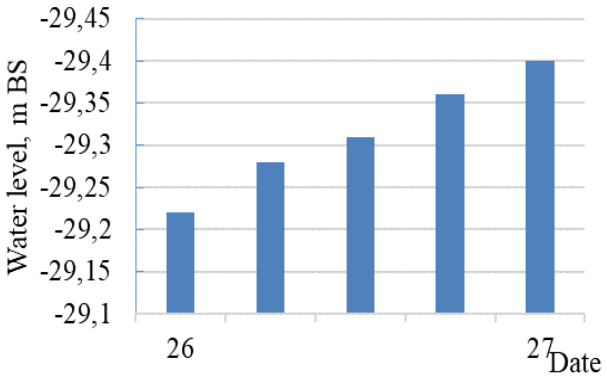


Figure. Graph of sea level changes in Fetisovo on April 26-27, 2026

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

	Rise/Fall, cm**	Characteristic***	Consequences
up surge	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
down surge	-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

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

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