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

SCIENTIFIC RESEARCH CENTER

CASPIAN SEA WEEKLY BULLETIN №47

20.11.2026

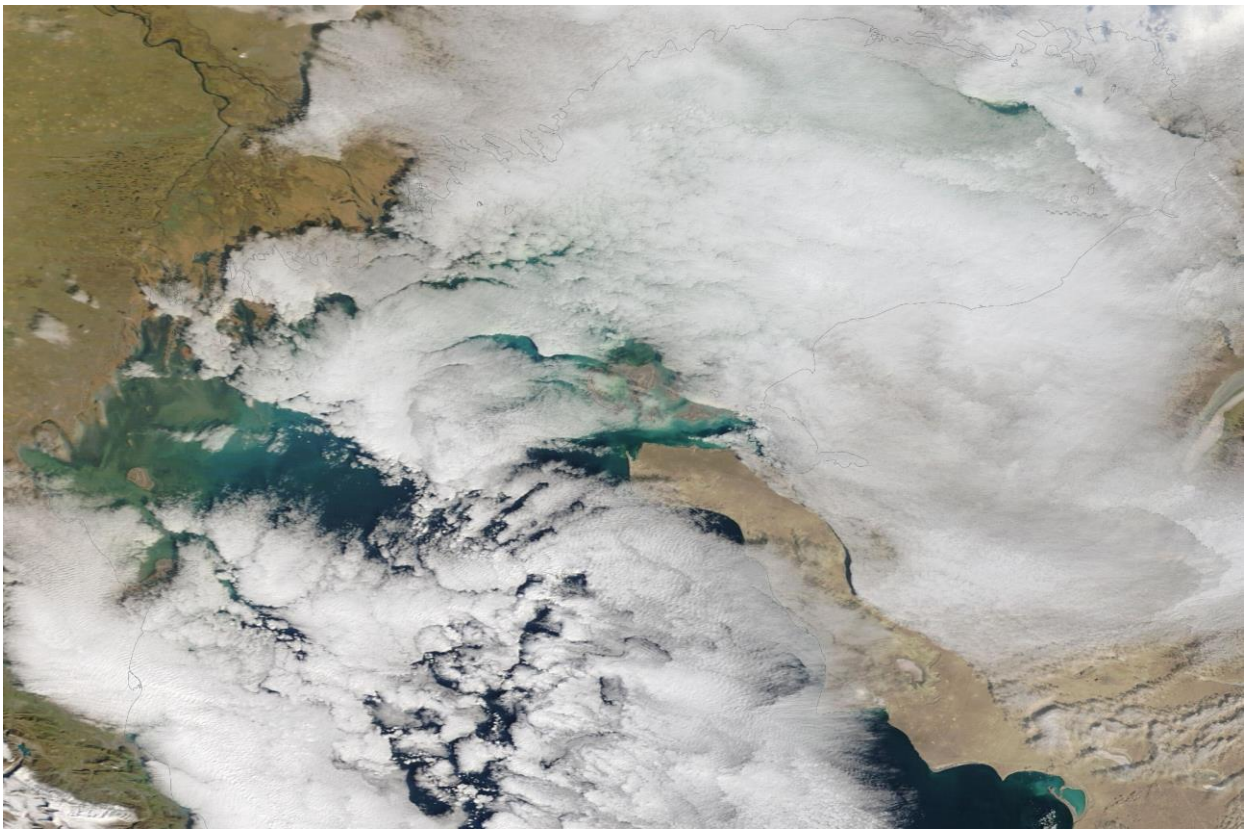


Fig.1 Space image of the Caspian Sea, November 17, 2026 (NASA/GSFC)

FORECAST OF LEVEL AND SURGE PHENOMENA IN THE CASPIAN SEA ON NOVEMBER 19 - 24, 2026

SURGERY PHENOMENA

In the Middle Caspian Sea, wind setdown and surge phenomena are expected at Kuryk and Fetisovo stations: sea-level fluctuations of up to 18 cm at ***Kuryk****, ranging between −29.64 and −29.82 m; up to 17 cm at* ***Fetisovo****, ranging between −29.22 and −29.39 m in the Baltic height system.*

In the Northern Caspian Sea, wind setdown and surge phenomena are ***not expected.***

MIDDLE PART OF THE CASPIAN SEA

SEA LEVEL

In the period on November 19-24, the sea level is expected to fluctuate around the mark of minus 29.49 m BS. The range of fluctuations in sea level is from minus 29.01 m BS to minus 29.82 m BS. In the area of Fort Shevchenko, Aktau, Saura, Peschanyi, Makhachkala sea level fluctuations will not exceed **14 cm** (Figure 2).

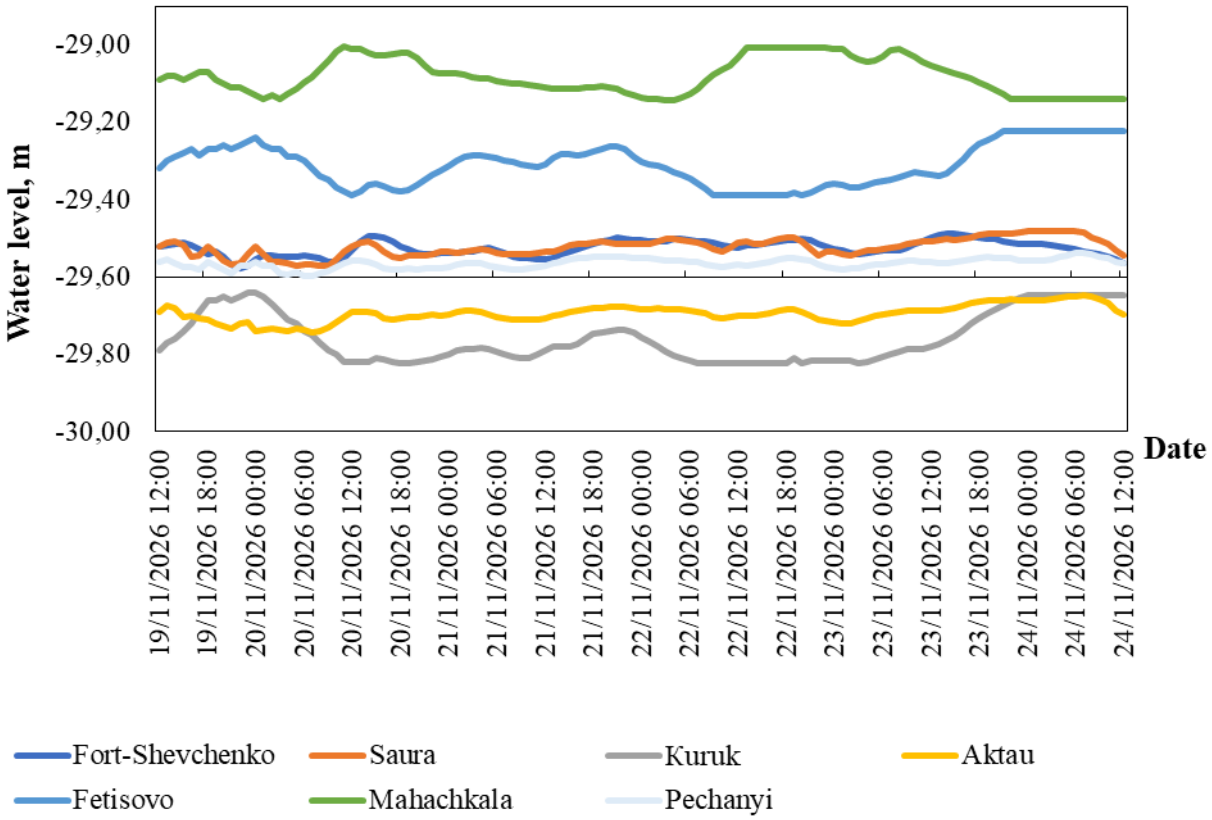


Fig .2 Forecast of sea level in the points of the Middle Caspian

NORTHERN PART OF THE CASPIAN SEA

SEA LEVEL

In the period the sea level is expected to fluctuate around the mark of minus 29.29 m BS. The range of fluctuations in sea level is from minus 29.14 m BS to minus 29.53 m BS. In the area of Peshnoy, Kulaly, Tyuleniy sea level fluctuations will not exceed **14 cm** (Figure 3).

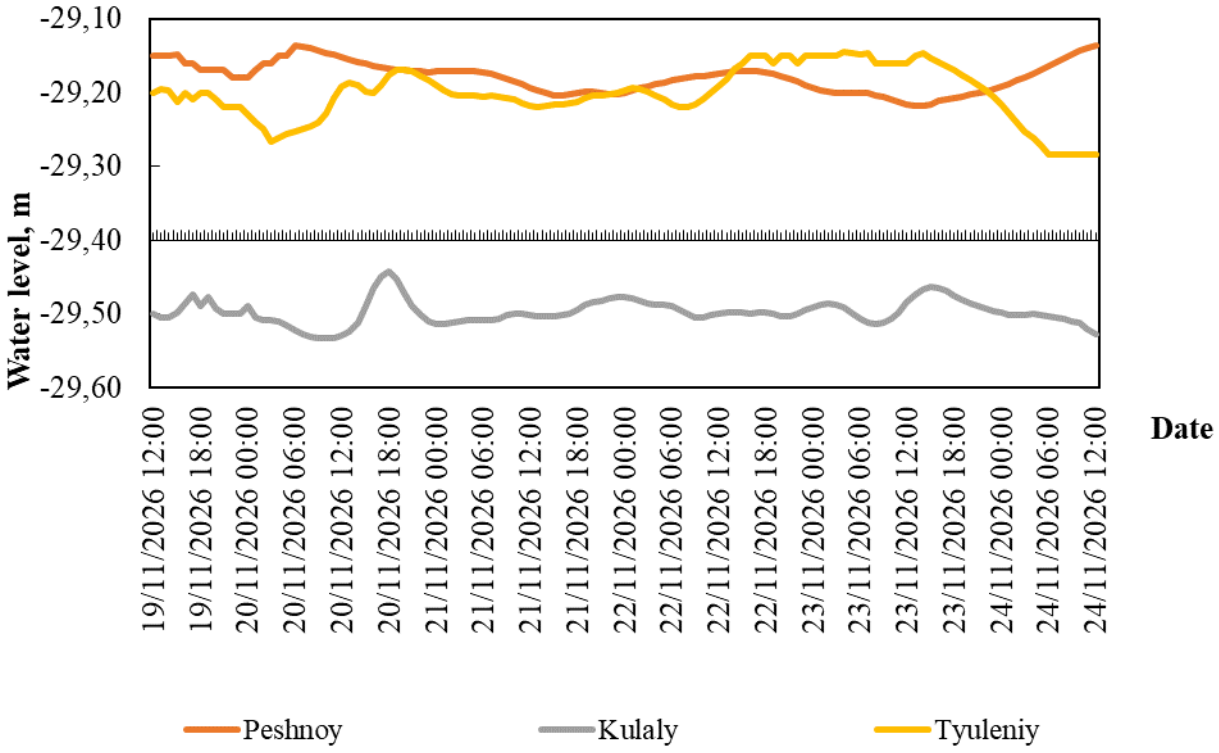


Fig .3 Forecast of sea level in the points of the North Caspian

FORECAST VALUES OF SEA LEVEL FLUCTUATIONS AT VARIOUS POINTS OF THE KAZAKHSTAN COASTLINE

Point name	Maximum		Minimum		Average
	Level, sm (m BS)	date, time, GMT*	Level, sm (m BS)	date, time, GMT*	Level, sm (m BS)
Middle Part					
Fort-Shevchenko	**-149 (-29,49)**	23/11/2026 14:00:00	**-158 (-29,58)**	19/11/2026 22:00:00	**-153 (-29,53)**
Saura	**-148 (-29,48)**	24/11/2026 02:00:00	**-157 (-29,57)**	20/11/2026 08:00:00	**-152 (-29,52)**
Kuryk	**-164 (-29,64)**	19/11/2026 23:00:00	**-182 (-29,82)**	23/11/2026 03:00:00	**-176 (-29,76)**
Aktau	**-165 (-29,65)**	24/11/2026 07:00:00	**-174 (-29,74)**	20/11/2026 07:00:00	**-169 (-29,69)**
Fetisovo	**-122 (-29,22)**	23/11/2026 21:00:00	**-139 (-29,39)**	20/11/2026 12:00:00	**-131 (-29,31)**
Peschanyi	**-154 (-29,54)**	24/11/2026 08:00:00	**-160 (-29,60)**	20/11/2026 08:00:00	**-157 (-29,57)**
Makhachkala	**-101 (-29,01)**	20/11/2026 11:00:00	**-114 (-29,14)**	22/11/2026 04:00:00	**-108 (-29,08)**
Northern Part					
Peshnoy	**-114 (-29,14)**	20/11/2026 06:00:00	**-122 (-29,22)**	23/11/2026 14:00:00	**-118 (-29,18)**
Kulaly	**-144 (-29,44)**	20/11/2026 18:00:00	**-153 (-29,53)**	20/11/2026 10:00:00	**-150 (-29,50)**
Tyuleniy	**-115 (-29,15)**	23/11/2026 04:00:00	**-128 (-29,28)**	24/11/2026 06:00:00	**-120 (-29,20)**

GMT - Greenwich Mean Time*

REVIEW
Caspian sea water stage from november 12 – 18, 2026

In the northern part of the Caspian Sea, according to operational data from marine stations of Kazhydromet: Peshnoy, Kulaly island and Roshydromet (isl. Tyuleniy), the average sea level corresponded to minus 28.84 m BS, the maximum minus 28.81 m BS, the minimum minus 29.63 m BS.

According to the operational data of the sea stations of Kazhydromet: Fort-Shevchenko, Aktau, Fetisovo, Saura, Kuryk, Peschanyi and Roshydromet (Makhachkala), the average value of the level of the Caspian Sea, in its deep part, corresponded to minus 29.53 m BS, the maximum minus 29.00 m BS, the minimum minus 29.95 m BS.

CRITERIA OF DANGER OF THE STORM SURGES IN THE NORTHEAST COAST

	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

** The calculated characteristics were obtained using the hydrodynamic module of the MIKE 21 Flow Model, adapted in RSE "Kazgidromet" to the conditions of the Caspian Sea. Data of sea level measurements and pressure field numerical forecasting for 24 –120 hours were used in computation.*

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