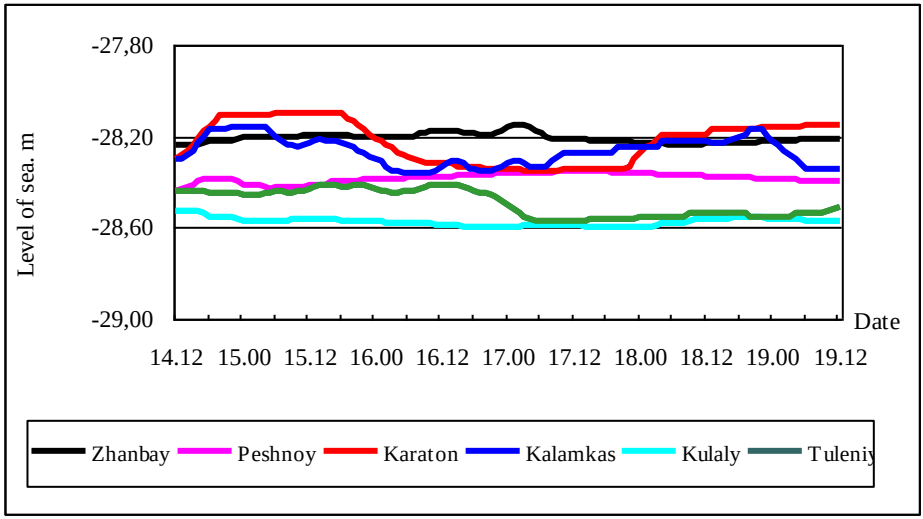


*Fig .2 Forecast of the Caspian Sea (Northern part)*

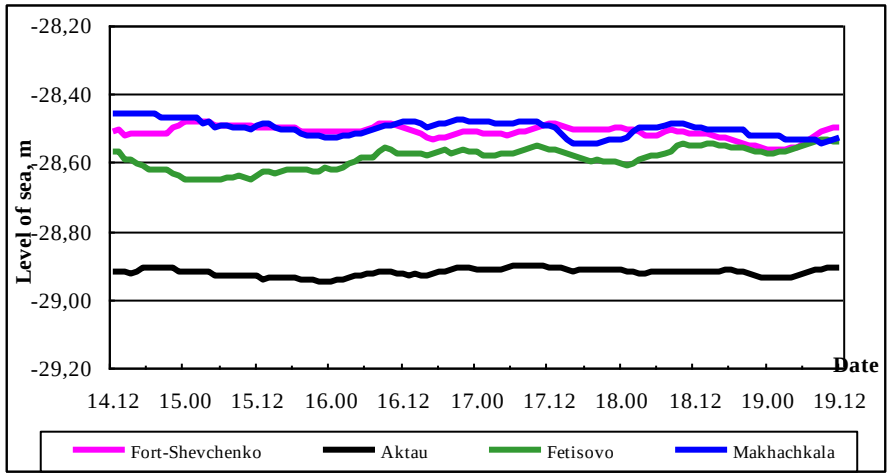


*Fig .2 Forecast of the Caspian Sea (Middle part)*

It is created by Vasenina E.I.
It is checked by Ivkina N.I.
*When using materials of the bulletin*
*the link to RSO "Kazhydromet" is obligatory*

**Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan**

**«Kazhydromet», RSE**

**Scientific Research Center**
**Caspian Sea Weekly Bulletin №28**

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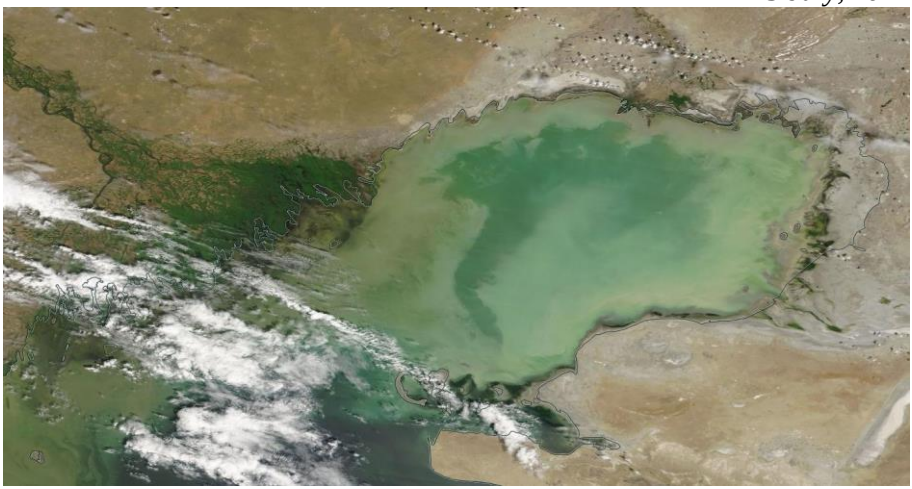

*Fig.1 Space images of the Caspian Sea, 11 July, 2022,NAGA/GSFC*

# Review

***Position of the water level from, 07-13 July, 2022***

Average value of the Caspian Sea level in its northern part according to marine stations and posts of the Kazhydromet: Peshnoy, Zhanbay, Kulaly Island corresponded to a mark minus 28,45m, maximum - a minus of 28,16m, minimum – a minus of 28,61m.

In the Middle part of the Caspian Sea, according to Fort Shevchenko, Aktau, Fetisovo and Makhachkala (Roshydromet) average value of the sea level corresponded to a mark minus 28,55m, maximum – a minus of 28,36m, minimum - a minus of 28,98m.

The bulletin was compiled by the Department of the Caspian sea Hydrometeorological Research
Address: 050022, Almaty, Abay Ave. 32, Tel. 2 55 84 06;
*e-mail:* caspian_almaty@mail.ru, kaspy@meteo.kz

# *FORECAST**

***of the water level, 14-19 July, 2022***

In the Northern part of the Caspian Sea level fluctuation about a mark a minus 28,36m is expected. At the storm surges sea level increasing to a mark minus 28,10m and its decrease to a mark minus 28,60m is possible**.**

In the Middle part of the Caspian Sea level fluctuation about a mark minus 28,63m with the maximum increasing to a mark minus 28,46m and the minimum recession to a mark minus 28,95m is expected.

**Criteria of danger of the storm surges in the northeast coast**

| | Water Level, | | Characte-ristic*** | Consequences |
|---|---|---|---|---|
| | m** | sm, above sea level minus of 28,00 m | | |
| | -27,50 | 50 | Critical | Flooded coast area to 10 km |
| | -27,35 | 65 | Danger | Flooded and waterlogged dams and constructions |
| | -26,90 | 110 | Especially danger | More than 15 km flooded coastal area, destroyed dams and constructions |
| | -28,50 | -50 | Critical | Worsening of navigation conditions |
| | -28,65 | -65 | Danger | Worsening of navigation conditions for not great ships |
| | -29,00 | -100 | Especially danger | Ships would be aground |

** The characteristics were computed by Hydrodynamic module MIKE 21 of Danish Hydraulic Institute. RSE "KAZHYDROMET" has the module adapted to Caspian Sea conditions. Data of sea level measurements (Fig.1) 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 1940-2020 according to the data of Peshnoy station.*

## *Forecast values of the sea level for various region of the Caspian Sea, 14-19 July, 2022*

| Name point | Maximum | | Minimum | | Average |
|---|---|---|---|---|---|
| | Level, sm (m BS) | date, time, GMT* | Level, sm (m BS) | дата, время, СГВ* | Level, sm (m BS) |
| ***Northern Part*** | | | | | |
| Zhanbay | **-15 (-28,15)** | 2022/07/17 01:00:00 | **-24 (-28,24)** | 2022/07/14 12:00:00 | **-21 (-28,21)** |
| Peshnoy | **-35 (-28,35)** | 2022/07/17 09:00:00 | **-44 (-28,44)** | 2022/07/14 12:00:00 | **-38 (-28,38)** |
| Karaton | **-10 (-28,10)** | 2022/07/15 06:00:00 | **-35 (-28,35)** | 2022/07/17 03:00:00 | **-22 (-28,22)** |
| Kalamkas | **-16 (-28,16)** | 2022/07/14 22:00:00 | **-36 (-28,36)** | 2022/07/16 05:00:00 | **-26 (-28,26)** |
| Kulaly Island | **-53 (-28,53)** | 2022/07/14 12:00:00 | **-60 (-28,60)** | 2022/07/16 16:00:00 | **-57 (-28,57)** |
| Tyuleny Island | **-41 (-28,41)** | 2022/07/15 14:00:00 | **-57 (-28,57)** | 2022/07/17 05:00:00 | **-49 (-28,49)** |
| ***Middle Part*** | | | | | |
| Fort-Shevchenko | **-48 (-28,48)** | 2022/07/15 00:00:00 | **-56 (-28,56)** | 2022/07/18 23:00:00 | **-51 (-28,51)** |
| Aktau | **-90 (-28,90)** | 2022/07/17 06:00:00 | **-95 (-28,95)** | 2022/07/15 21:00:00 | **-92 (-28,92)** |
| Fetisovo | **-53 (-28,53)** | 2022/07/19 09:00:00 | **-65 (-28,65)** | 2022/07/15 00:00:00 | **-59 (-28,59)** |
| Makhachkala | **-46 (-28,46)** | 2022/07/14 12:00:00 | **-55 (-28,55)** | 2022/07/17 19:00:00 | **-50 (-28,50)** |

GMT* - Greenwich Mean Time