COORDINATING COMMITTEE
ON HYDROMETEOROLOGY OF THE CASPIAN SEA (CASPCOM)

Information bulletin on the state of the Caspian Sea level
No.16
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In accordance with the data received from the National Hydrometeorological Organizations of the Caspian littoral states (NMHS) the mean level of the Caspian Sea in 2017 did not change as compared to 2016 and measured -27.99 m abs[1] (Fig 1).

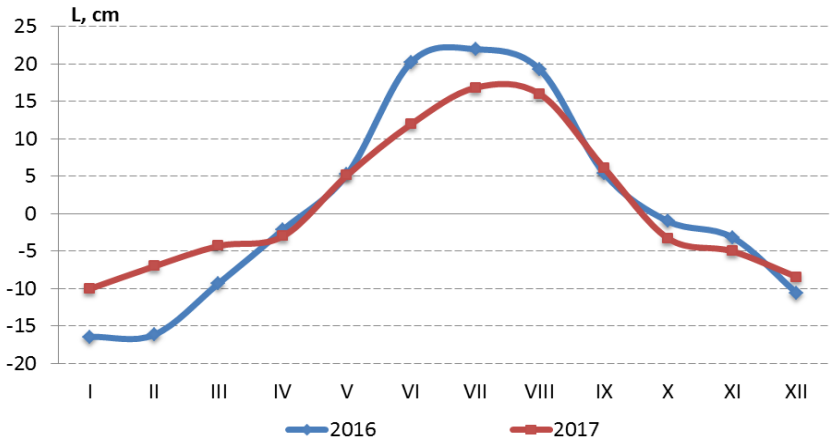

Fig. 1. Seasonal run of the mean Caspian Sea level in 2016 and 2017

According to the forecast of the Hydrometeorological Centre of Russia published in the Bulletin No. 36 of 26 April 2018, it was expected that the mean level of the Caspian Sea in the first half of 2018 would be by 2 cm higher[2] than in the same period of the previous year. Actually, it was higher by 1.2 cm. Seasonal increase in the mean level from January to June was projected to be 24 cm, actually, it was 17 cm. The main reason was shorter flooding period of the Volga River in 2018, than expected, though it started earlier due to extensive precipitation in the Volga Basin during the spring.

By the forecast of the Hydrometeorological Centre of Russia, the mean Caspian Sea level in 2018 will remain at the same elevation as in 2017 ± 5 cm that will measure approximately -28.0 m abs. The data received from the NMHSs for the preparation of this Bulletin show that the mean sea level run in the first half of 2018 is very similar to that of 2017[3] (Fig. 2). The sea level in the second half of 2018 may be dropping faster than in 2017 because the Volga discharges are lower this year (Fig. 3).

[1] To calculate the mean value of the sea level for the whole sea water area we have used observations data at "century" posts: Baku, Neft Dashlary (Oil Rocks), Makhachkala, Fort-Shevchenko, Guvlymayak (Kuuli-Mayak), Turkmenbashi (Krasnovodsk), Garabogaz (Kara-Bogaz-Gol).

[2] To calculate the mean level in this case we have used observations data at 4 posts: Baku, Neft Dashlary (Oil Rocks), Makhachkala, Fort-Shevchenko.

[3] To calculate the mean level in this case we have used observations data at 4 posts: Baku, Neft Dashlary (Oil Rocks), Makhachkala, Fort-Shevchenko.

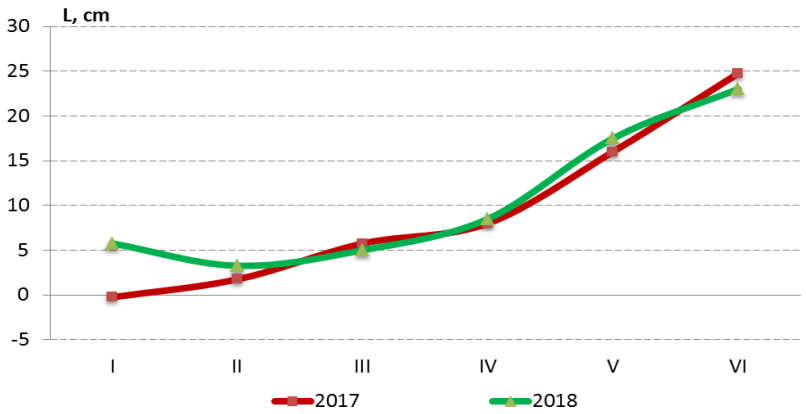

Fig. 2. Mean level of the Caspian Sea in the first halves of 2017 and 2018

2016 and 2017 were high-water years, the Volga discharge at its delta top measured 261 and 272 cub. km accordingly and were higher than the mean value for 1961-2016. The Volga discharge for the first half of 2018 consisted of 175 cub. km that is also higher than the mean value for 1961-2016.

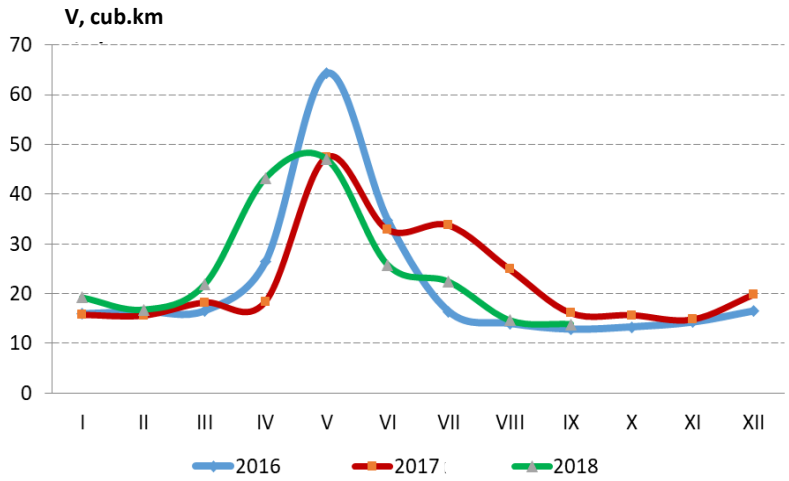

Fig. 3. Mean monthly discharge of the Volga River in 2016-2018

The seasonal run of the Caspian Sea level in 2013-2017 (Fig. 4) shows that the tendency to fall of the level, which was observed in 2013-2015, has changed and this may be a sign of shifting to a different trend. Nowadays, stabilization of the level is certainly observed that is resulted from higher water discharge of the Volga River during the last three years.

Time shows if this trend would start a new tendency to the sea level rise, though three high-water years in line speak up for this conjecture. In addition, it can be noted, that seasonal differences between the lowest and the highest points in the Caspian Sea level are going lesser during these years. This is also characteristic for the Volga River discharge rates (Fig. 3).

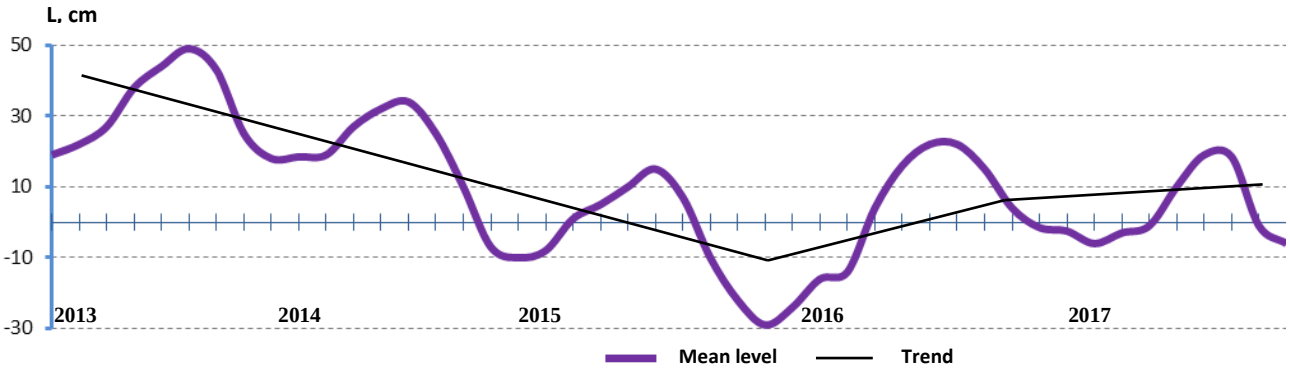

Fig. 4. The seasonal run of the Caspian Sea level in 2013-2017

This bulletin is intended for the authorities, enterprises and organizations and coastal communities as well as for all whose activities are connected with the Caspian Sea. Its preparation became possible exclusively due to the cooperation of hydrometeorological organizations of the Caspian littoral states. The data of the General Catalogue of the Caspian Sea level elaborated under CASPCOM umbrella were used to compile the bulletin