COORDINATING COMMITTEE
ON HYDROMETEOROLOGY AND POLLUTION MONITORING
OF THE CASPIAN SEA (CASPCOM)

Information bulletin on the state of the Caspian Sea level
No.8
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In accordance with the data received from the national hydrometeorological organizations of the Caspian littoral states (NMHSs) and the data published in Bulletin No.36 from 28 April 2014 issued by Hydrometeorological Center of Russia, the average level of the Caspian Sea in 2013 fell by 5 cm as compared to 2012 and measured -27.62 m B.S[1].

According to the forecast published in the abovementioned bulletin of Hydrometeorological Center of Russia, the average level of the Caspian Sea was expected to rise by 18 cm throughout January - June 2014, and be by 5 cm lower than in the same period of the last year.

The data for the preparation of this bulletin, received from NMHSs for 20 stations covering the entire sea coastline, show that the seasonal (January - June 2014) sea level rise made 1-30 cm. The level fell by 1-8 cm as compared to the first half of the previous year. The mean seasonal rise of the sea level at century posts amounted to 10 cm, down by 4 cm against the last year average level[2].

According to the forecast issued by Hydrometeorological Centre of Russia, the average level of the Caspian Sea in 2014 will drop by 5-10 cm against 2013, which can be explained by the low water content in the Volga River in 2014. In fact, water discharges from Volgograd HPS throughout the flooding period (in the 2nd quarter) stood at just 86 cubic km, or 70% of the normal[3] (Fig.1).

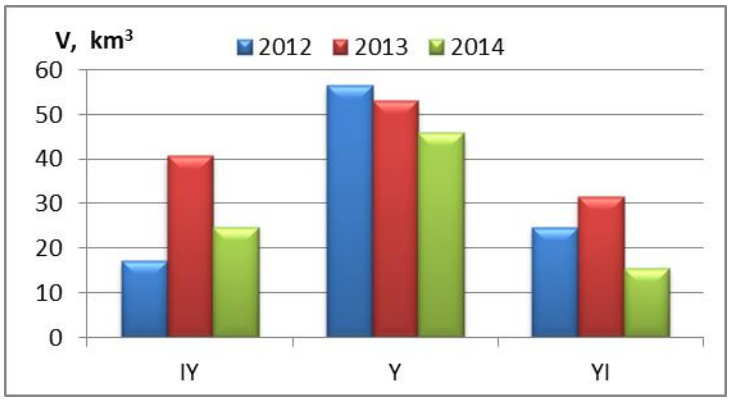

Fig. 1. Water discharges from Volgograd HPS (V, km^3) throughout April - June 2012 - 2014.

The trend of the Caspian Sea level fall can be clearly traced starting from 2006. Throughout 2006 - 2013 the rate of sea level fall (cm per month) in the second year half

[1] To calculate the average 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 average level in this case we have used the observations data at 3 "century" posts: Makhachkala, Fort-Shevchenko, Turkmenbashi (Krasnovodsk)

[3] The normal value was calculated for the period 1961 - 1990.

was higher in its absolute value than the rate of sea level rise in the first year half. In 2011 the rate of sea level fall in the period July - December made 5 cm per month, in 2012 - 4 cm per month, and in 2013 - 5 cm per month (Fig. 2).

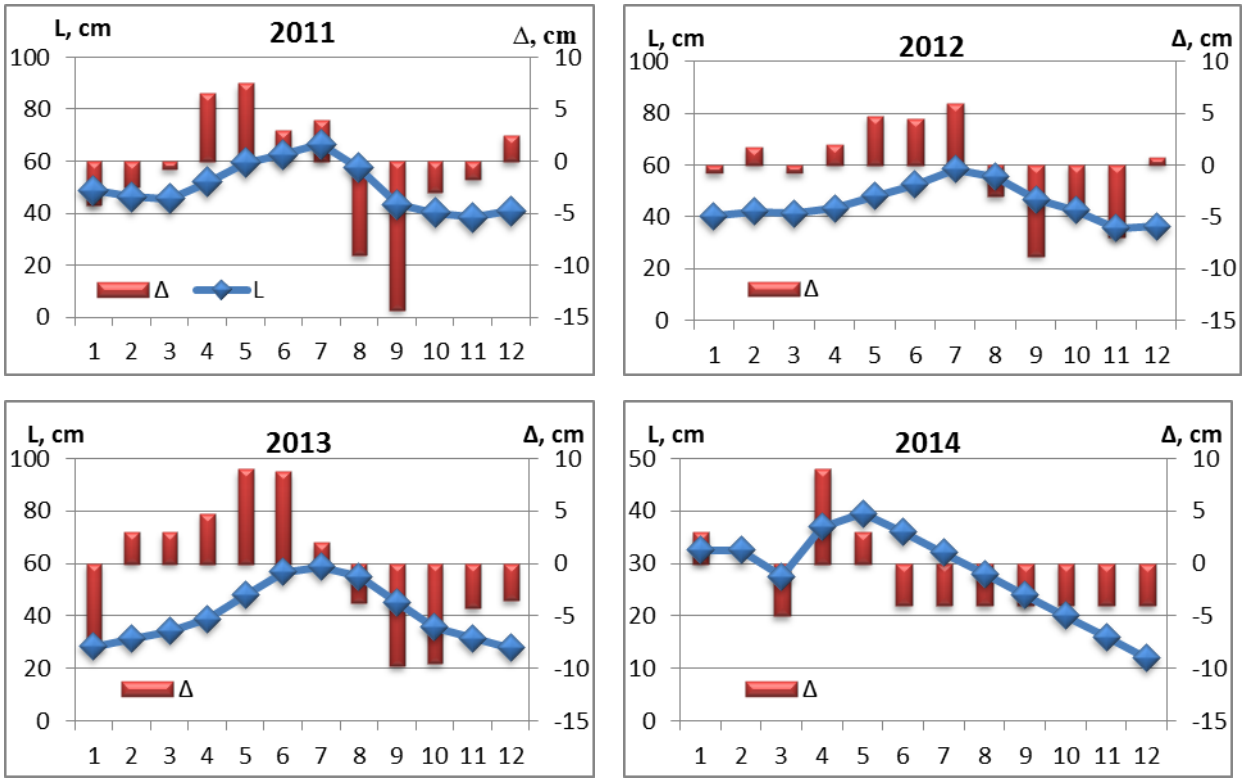

Fig.2. Seasonal changes of the average Caspian Sea level (L, cm) and its monthly increment (Δ, cm) in 2011 -2014. The expected sea level change for the 2nd half of 2014 is predicted based on the assumption that the average rate of sea level decrease would amount to 4 cm a month.

If one takes into account the actual water content in the Volga river in the first half of 2014 one could suppose that the rate of sea level fall in the second half of 2014 will be at least 4 -5 cm a month (Fig. 2). If we base upon these figures, then the average level of the Caspian Sea in 2014 will fall by 8-14 cm as compared to the previous year and will make -27.70 cm B.S.

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 only 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