

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

Information bulletin on the state of the Caspian Sea level

#3

10 January 2012

The 16th Session of Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea (CASPCOM) which took place on 23-24 November 2011 in Baku, the Republic of Azerbaijan, came to a decision to go on with the preparation and displaying at CASPCOM website of Bulletins on the state of the Caspian Sea level twice a year. The bulletins are to contain the assessment of actual and expected seasonal changes of the sea level taking into account the annual forecast issued by the Hydrometeorological Center of Russia.

In accordance with the forecast by Hydrometeorological Center of Russia, the seasonal (June – November) fall of the sea level measured at six posts used to calculate the average level of the Caspian Sea was to make 26 cm in 2011 (table 1). This value exceeds the average value for the period 1961 – 2008 by 3 cm. In 2011, the seasonal maximum was registered in July at most posts. Actual seasonal fall of the sea level throughout July- November made 29 cm, which exceeds the forecasted values by 3 cm and the long-term average by 6 cm.

Table 1 Description of the seasonal fall of the Caspian Sea level in 2011 as compared to long-term data

Names of the posts	Seasonal fall of the sea level, cm		
	Forecasted	Actual	Long-term average
Neft Dashlary*	-31	-24	-23
Makhachkala	-18	-36	-18
Fort-Shevchenko	-24	-27	-24
Guvlymayak**	-25	-27	-23
Turkmenbashi***	-31	-26	-27
Garabogaz****	-26	-35	-25
Average value	-26	-29	23

Note: former names *Oil Rocks; **Kuuli-Mayak; ***Krasnovodsk; ****Kara-Bogaz-Gol

According to Azhydromet data, seasonal fall of the sea level at Azerbaijani coast made 27 cm, according to Kazhydromet data the decrease at the Kazakh coast made 26 cm, according to Roshydromet data it made 36 cm at the Russian coast and Turkmenhydromet reports the fall of 32 cm at the Turkmen coast. The seasonal fall of the sea level in the North Caspian, where peak-to-peak values of seasonal sea level fluctuations are higher than in the deep water sea sector, made 43 cm (according to observations data at marine hydrometeorological stations Tyuleniy, Kulaly, Peshnoy). According to the data provided by Iran sea level at the southern coast fell by 18 cm throughout the period July – September.

While preparing this issue of the bulletin the data on the sea level for the period from January to November 2011 have been used. In the first half of 2011 the sea level was by 20-25 cm less than in the same period of the previous year (see previous issue of the CASPCOM bulletin). Taking into account the sharp seasonal fall of the level in July-

November 2011 we can expect that the average level in 2011 will be by 24-26 cm less than in 2010. The absolute mark of the sea level will be -27.5 B.S.

According to the forecast of Hydrometeorological Center of Russia, the sea level in 2011 was projected to decrease by 20-23 cm as compared to the previous year. This forecast has been based on the estimation of the runoff of the Volga River which was anticipated close to its long-term average values. However the actual runoff of the Volga River to the Caspian Sea in 2011 was as low as in 2010, judging by the volume of water discharge from Volgograd HPS which is estimated at 200 km³. It is obvious that the observed greater seasonal decrease in the sea level was caused by the lesser water volume in the Volga than it had been anticipated.

As such a drastic seasonal fall of the sea level can't be compensated for by the river runoff, which volume is close to the average long-term value (250 km³), the average annual level of the Caspian Sea is expected to decrease by 5-10 cm in 2012 as compared to 2011. If the current year is even poorer in water volume, the sea level can decrease by 10-15 cm. The sea level can get stable only if the Volga runoff exceeds 275 km³. However the first scenario is more likely (sea level fall by 5-10 cm).

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.