

**Russian Academy of Sciences
Water Problems Institute**

Research Council RAS “Water Resources of Land”

**Russian National Committee of
International Association of Hydrological Sciences**

**Russian Ministry of Natural Resources
Federal Agency of Water Resources**

EXTREME HYDROLOGICAL EVENTS IN ARAL AND CASPIAN SEA REGION



**The proceedings of International Scientific Conference
Moscow, 18-21 October 2006**

**Moscow
2006**

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**The proceedings of International Scientific Conference
Moscow, 19-20 October 2006**

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The Proceeding includes the reports of the International scientific conference «Extreme hydrological events in Aral and Caspian Sea region» organized by Water Problems Institute of Russian Academy of Sciences in Moscow in October 19-20, 2006.

The reports are distributed into the sections:

- 1. Hydrological problems of closed seas (lakes).**
- 2. Stochastic models of hydrological processes.**
- 3. Prediction of snow and rain runoff by the condition of climate changes.**
- 4. Extreme hydrological events near the coasts of inner water bodies.**
- 5. Low-water periods on the rivers.**
- 6. Water management problems in the Central Asia.**

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Introduction

Extreme hydrological events are the traditional objects of numerous researches both in scientific, and in applied projects. Significant growth of interest to this theme is connected both with the cases of outstanding (concerning the scale of runoff and damages) flooding of various genesis observed in last years, and with changes taking place in spheres of water legislation, technical regulation, standardization and occurrence of new legal, social, economic, ecological, etc. problems.

At the conference, it is supposed to discuss the broad range of the hydrological and water-economic problems connected with occurrence and development of extreme phenomena. Alongside with consideration of methods and models of hydrological forecasting (stochastic and genetic ones), great attention will be paid to regional water problems. Among the latter, it is necessary to note the problem of forecasting of the level of Caspian Sea and dangerous processes associated with it on its coast and in deltas of rivers flowing into it, as well as hydrological aspects of the Aral crisis.

This scientific conference represents the third action on the theme of the extreme hydrological events spent by Water Problem Institute of the Russian Academy of Sciences. At the conference, the results of various international projects are widely represented, among which it is necessary to note the program of researches of the Aral Sea basin supported by the European Union. The international project "Jauhun" begun in 2006 initiated a number of publications of this collection. The subjects connected with water problems of the Caspian Sea basin is supported by Federal Agency of Water Resources of the Ministry of Natural Resources of Russia. Fundamental hydrological and climatic researches are financed by programs of the Russian Academy of Sciences, the Russian Fund of Basic Researches and other organizations.

Publications of this collection certainly do not cover all the aspects of the problem of the description and forecasting of extreme hydrological events. However, the authors of reports and the organizers of the Conference hope that this action will be rather useful for the exchange of experience of the analysis of extreme events and will promote expansion of researches in this field of hydrometeorology.

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