

PREFACE

17-th International Symposium on Ice 2004 Saint-Petersburg will be held once again from the 21-st up to 25-th of June in after a great interval.

The Symposium is sponsored by International Association of Hydraulic Engineering (IAHR), the co-sponsors – Russian National Committee of IAHR, company RAO “EES Russia” and All-Russian Research Institute of Hydraulic Engineering (VNIIG) named after B.Ye.Vedenev.

The following actual topics are suggested to be considered at the Symposium: ice hydraulics and thermal regime of reservoirs and water currents, ice strength, navigation in ice-covered waters, environment protection at catastrophic floods as a result of ice jams and at natural disasters in ice conditions, ecological problems in winter.

The experience and the scientific results of the specialists in ice technology all over the world are of great value for seamen, specialists of hydraulic engineering and shelf structures and the specialists on extreme situations in the countries where the ice regime determines the conditions of constructions maintenance.

Traditionally the Proceedings of the Symposium-2004 are published in three volumes.

The first volume contains the materials of the following special lectures: M.A.Shahramanjan “Ice Jam Forecast and Technologies of Their Destruction on the Rivers of the Russian Federation”, D-r.Ye.N.Bellendir and prof. M.G.Gladkov “Considering Ice Conditions During Construction of Sleet Proof Oil Producing Platforms on the Continent Arctic Shelf” and the results of reports discussions presented at the main scientific sessions:

Session A. Ice mechanics and forces

Session B. Ice in rivers, lakes, reservoirs and seas

Session C. Ice-water-atmosphere interactions

Session D. Ice ecology and management

Session E. Navigation in ice-covered waters

The second volume contains the reports discussing at special sessions and workshops:

Session F. Baltic sea ice

Session G. Ice engineering issues for offshore structures

Session H. Escape, evacuation and rescue in ice

Session I. Numerical modeling of ice processes

Session J. A workshop of ice crushing

Session K. A workshop on methods of calculations of thermal regimes in
upstream and downstream of hydropower stations

The third volume contains the following lectures: prof. George D.Ashton “Unresolved River Ice Questions” and prof. Hiroshi Saeki “Mechanical Properties between Ice and Materials Used in Hydraulic Structures – Ad-Freeze Bond Strength and Abrasion Rate”, discussions, speeches of welcome of the Symposium members and honourable guests at the ceremonies of opening and closing of the Symposium and also the reports not included in the first two volumes.

The papers included in the program of the 17-th Symposium on Ice were published after preliminary editing as they had been presented by the authors.

All the participants of the Symposium, the members of Organizing and Scientific Committes have been working to make the Symposium successful. We would like to thank all keynote lectors, authors of the reports and all the participants for the interest to the Symposium.