Foreword

CREAMS (Circulation Research of the East Asian Marginal Seas) is an international cooperative research program. It was initiated in 1993 by a group of scientists from Japan, Korea, and Russia who shared the same scientific interests in the Japan Sea and adjacent seas. The program’s goals for the first five years (Phase one) were to understand the circulation structure of the Japan Sea, to study the associated fundamental processes and to develop numerical models of ocean circulation for application to the Japan Sea and other marginal seas. Scientific activities included field observations, analyses of historical and remotely sensed data, numerical modeling and laboratory experiments.

CREAMS was unique in that it had neither formal agreements nor committees. It was no more than a group of scientists brought together by a strong desire to gain a thorough understanding of the circulation structure of the Japan Sea. Nevertheless, the CREAMS group successfully carried out a total of six multinational joint cruises in the Japan Sea, crossing the economic sea zones of each country involved. This field work provided important new insights into various oceanographic problems in the Japan Sea such as water mass structure, abyssal circulation, eddies, and particle fluxes. The CREAMS group also organized two international symposia and four workshops to discuss new contributions from the CREAMS efforts along with other related contributions to the oceanography of East Asian marginal seas.

Phase one of CREAMS concluded in 1997 and Phase two has just begun and will continue for the next five years. At the same time, the United States has initiated an ambitious new program (1999–2003) to support U.S. scientists who are interested in the Japan Sea as a “natural laboratory for marginal seas”. These new efforts will open a new era in the study of the Japan Sea, and it seems appropriate at this time to publish together the major contributions from CREAMS-I and other related studies. This is the main motive behind this special issue of the Journal of Oceanography.

In this issue, we publish 19 papers that were mostly presented at the CREAMS symposia and workshops. They cover water mass analyses, current measurements, wind waves and surface features, and numerical modeling in the Japan Sea and adjacent seas. I hope that each of the contributed papers will be often referred to in future studies of the East Asian marginal seas.

The reader might be confused in finding that several different names are used here to describe the same marginal sea: they are the Japan Sea, the East Sea, the Japan/East or East/Japan Sea and the Sea of Japan. The CREAMS group has been seriously concerned about this diversity in naming, but the matter still remains unresolved. Therefore, in this issue, we have left the choice of name for the sea to the individual author.

On behalf of the guest editors of this special issue, I wish to thank the Oceanographic Society of Japan for providing an opportunity to collectively publish the contributions from the CREAMS program. Thanks also go to Professor Masayuki Takahashi, the editor-in-chief of the Journal of Oceanography, for his invaluable help and enthusiasm.

Masaki Takematsu
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