

PREFACE

The Seventeenth General Meeting of the American Towing Tank Conference was held in Pasadena, California, from 18th to 20th June 1974, in Baxter Auditorium of the California Institute of Technology. The Conference consisted of Welcoming Messages, five Technical Sessions, a General Business Session and Closing Remarks. In addition, a reception-dinner program and a tour of several laboratories at the Institute were arranged for the participants and accompanying family members. The Conference was attended by about 90 delegates and observers, representing thirty-three different professional establishments and universities.

The five technical sessions were devoted to the subjects of Resistance and Performance, Cavitation and Propulsion, Seakeeping, Steering and Maneuvering, and Instrumentation. The technical program of these sessions was based on the material prepared and organized by five Technical Committees, including the Reports of the Committees with special articles and appendices, written contributions from various sources, and, when deemed ready and appropriate, the Decisions and Recommendations, all as listed in the Table of Contents. Each technical session was presided over by the respective Technical Committee Chairman who was assisted by the Committee Secretary as the reporter. All these Technical Committees worked with great effectiveness in bringing about a valuable exposition of the state of our knowledge, and in promoting penetrating discussion, both prepared and extemporaneously made from the floor. It is the contributions of this magnitude that constitute the necessary ingredient essential to a successful meeting. To the Chairmen, secretaries, as well as the members of the Technical Committees our warm thanks and gratitude are due for their dedicated efforts in helping our profession push forward the frontiers of knowledge. We hope these Proceedings will provide a record and source for further development of the subject.

The keen interest of the community in enhancing future growth was envisaged throughout the Conference and during the Business Session in which new thoughts were explored for improving efficiency of information exchange and work distribution. We would like to join the Conference participants to express our profound gratitude to the California Institute of Technology and the Naval Undersea Center for continuing encouragement and support, and to the Office of Naval Research for its generous financial contribution and sponsorship, all of which has made the 17th ATTC and the publishing of these Proceedings possible. We are especially indebted to Mr. Ralph D. Cooper, Fluid Dynamics Program Director of the Office of Naval Research, for his valuable advice and leadership that have played an important role in bringing about this Conference to fruition.

Finally, we wish to take this opportunity to convey our deepest appreciation to the other members of the Local Organizing Committee, especially Dr. Chris Brennen, Secretary of the Committee and Mr. Ben Cagle of ONR, Pasadena, and to Mr. Jim Shields of NUC, without whose kind efforts the meeting could not have been accomplished to the fullest magnitude as was noted. Special thanks are also due to Helen Burrus, Caltech, for help in the organization of the Conference and whose perseverance and administrative skill, with the assistance of Shirley Tucker, proved to be an essential factor in making the preparation of this volume a successful as well as delightful assignment for all concerned.

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