

Prospects for 1973

AS was announced in our July issue, this Journal returns to quarterly publication this year. It may be recalled that a year ago the decision of the Publications Committee (reluctantly made) to cut the *Journal of Hydronautics* back to a semi-annual basis was relayed in our editorial. While the pressures which brought about that move are generally still acting, namely, revenue loss and small backlog of manuscripts, the Publications Committee has recognized the need for quarterly appearances and, in addition, has also moved to preserve the printing procedures which give all the AIAA publications a format suitable to their professional status.

On the matter of backlog of appropriate manuscripts, we are pleased to report a definite upturn. Most significant in this regard are the contributions which emanated from the Advanced Marine Vehicles Conference at Annapolis, Md., July 17-19, 1972, jointly sponsored by the American Institute of Aeronautics and Astronautics, the Society of Naval Architects and Marine Engineers, and the United States Navy. This Conference, widely regarded as an unqualified success (a response rare in these multi-meeting days!), included a large number of presentations of an engineering nature on a wide variety of marine craft and ships. While half of these papers are now in process, it is hoped that the authors of all those papers will soon elect to submit their manuscripts as candidates for publication in our April and July issues.

We are particularly interested in publishing articles treating *engineering* aspects of fixed and movable structures and processes connected with development of all the ocean resources. Our desire in seeking papers of an engineering nature stems from a recognition of the needs of the majority of our readers. In addition, the scope of this Journal embraces relevant areas of fluid dynamics; surface and submerged vessel hydro- and structural mechanics; applied and theoretical aspects of the stability and control of propelled and towed bodies; the static and dynamic behavior of cables in water; chemical phenomena connected with sea water, particularly in connection with corrosion; and, in general, all topics relatable to the emerging needs of the engineer and scientist involved with the ocean environment.

It may be of interest to invite our readers' attention to some evolving changes on the national scene which should (or could) have significant impact on their ocean-related activities. It is expected by many that President Nixon, subsequent to his re-election will, by executive order, establish a Department of Natural Resources which will probably embrace management of water resources and oceanic, atmospheric, and Earth sciences, as well as programs in energy conservation, minerals, Indian and territorial affairs, and recreation. This department would include among its components the National Oceanic and Atmospheric Administration, Bureau of Reclamation, Agri-

tural Soil Conservation and Forest Service, Geological Survey, Army Corps of Engineers, to name a few! (One can only hope that the ocean-connected programs will not "drown" by being immersed in such a sea of agencies.)

The National Science Foundation (NSF) Science Policy Act, passed by the Senate in August (70 to 8) authorizes a very broad program in science, research, and engineering for nonmilitary projects. The purpose of this far-reaching act is to engage engineers and scientists in work connected with civil problems with funding in excess of current levels being expended by the Department of Defense on military research and engineering. Aerospace industries seeking to diversify should take note of this very encouraging development.

The U.S. Navy is embarking on several exploratory or developmental programs to accelerate the evolution of high-speed surface craft. Among these are larger and faster hydrofoil craft, much larger and faster surface effect ships, and multihulled, low-waterplane ships. Developments in these areas were well delineated at the aforementioned Advanced Marine Vehicles Conference. The hull design and marine engineering of all these craft operating in the hostile interface should be challenges to the entire aerospace industry with its extensive history of evolution of design techniques to provide strength and high power at low unit weights. Indeed, several aerospace companies have been involved for several years in the expensive process of developing reliable hydrofoil vessels and, more lately, in the evolution of surface effect ships. As higher speeds are sought, the problems of control and structural integrity (to name only two) grow exponentially, so much so that more serious attention ought to be given to a new look at the problems associated with a large step forward in the size of water-based aircraft.

In any event, these Navy-sponsored programs, hopefully augmented by new ones associated with nonmilitary needs, will give rise to accelerated R&D which it would be our pleasure to report to you.

I wish to thank most heartily our reviewers, cited below, for their painstaking work during the past year. The diligent assistance of Dr. Lincoln Cathers, Associate Editor, as well as the untiring aid rendered by Ruth Bryans, Director, Scientific Publications, and Anne Huth, Managing Editor, Scientific Publications, together with their staff, are very gratefully acknowledged. Particular thanks are due Dr. Gordon Dugger, Vice-President, Publications, for his long hours of assistance in evaluation of potential manuscripts and his over-riding interest in supporting the continuance of this Journal.

To our authors, readers, and subscribers, thank you for your forbearance during the past year of cutbacks. We need you to read and write. With your continued assistance, we shall be able to give you a better Journal in '73.

John P. Breslin
Editor-in-Chief