PREPRINTS OF THE SIXTEENTH CANADIAN SYMPOSIUM ON AIR CUSHION TECHNOLOGY

CHARLOTTETOWN
PRINCE EDWARD ISLAND
OCTOBER 19–21, 1982

Sponsored by the
AIR CUSHION TECHNOLOGY SOCIETY
of the
CANADIAN AERONAUTICS AND SPACE INSTITUTE

Co–sponsored by
THE HOVERCRAFT SOCIETY

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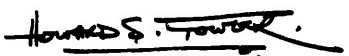
FOREWORD

This volume presents preprints of the papers to be delivered at the 16th Annual Canadian Symposium on Air Cushion Technology, to be given at the Rodd Royalty Inn, Charlottetown, Prince Edward Island, October 19-21, 1982.

This year's Symposium is marked by several important developments. In the first place, it is the first time that the meeting has been held east of Montreal. At the request of the Maritime Provinces Transportation Commission, and Chambers of Commerce, we are paying our first visit to Canada's Maritime Provinces, to discuss the potential applications of our technology to requirements specific to this region. In order to do this, we have added two Workshop Sessions to our program, wherein Maritimes operators will present their requirements for discussion. A report on these discussions will be published later.

In addition to this new location, and new feature of our Symposium, we have been joined, as cosponsors, by the Hovercraft Society. This British-based society, with its American Chapter, joined hands with us late last year, on the occasion of their 3rd International Conference, and we look forward to continuing and increasing cooperation with them.

Finally, this is the first year in which we have been able to present the papers as preprints, instead of publishing them after the event. This is due to the initiative of our vice-chairman Dr. Roger Amyot, and should add considerably to the value of the meeting.



Howard S. Fowler

Chairman
CACTS, 1981/1982.

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SESSION 4: Operations and Economics

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The world-wide recession has produced a period of difficulty for everyone, not least for those who work in industries which involve the design and export of manufactured products. However, difficult times can often point to a need for change, a turning point, and I believe that this stage has been reach in many industries, including those of us in the so called "advanced marine vehicle" industry.

The highly efficient, technically innovative and relatively expensive hovercraft of the early days of the industry have become progressively more difficult to sell as the market has hardened and become more competitive and also, perhaps, as the novelty has worn off. Furthermore, even our reference to our work as "advanced marine vehicles" or "high technology" implies technical risk which is counter-productive in prospective sales.

The experience gained over the last twenty-five years has been invaluable because it has enabled us to progressively understand and develop the cushion system, which is the essence of the hovercraft, to a standard of cushion efficiency and total power requirement which no longer limits us to expensive structures and power sources. It is my belief that there is still much room for further development of our technology and we must not let our success lead to complacency.

We are now at the crucial stage where we are turning our minds to simplicity and cheapness rather than technical elegance. We are now beginning to produce the craft the market badly needs - simple, rugged, go anywhere, do anything, basic hovercraft which cost no more to purchase and operate than competing vehicles. We must continue to offer the advantages of the fully amphibious hovercraft, including its ability to operate over water at high speeds with relatively low motion levels, to take the direct route without concern as to what may lie beneath the surface and to operate over a wide variety of land surfaces inaccessible to other forms of surface transport.

These trends are visible in both the civil and military fields. The requirement for cheapness and ruggedness and low technical risk applies to both markets. The U.S. Navy L.C.A.C. requirement exemplifies this trend as does their interest in the Bell BH.110 sidewall craft. The energy with which these programmes are being pursued shows that the case has been successfully made to at least one section of the military world and one hopes that this will lead to as great an awareness of the possibilities in other directions, such as the fast attack vehicle. In the case of the M.C.M. role, I believe the hovercraft can make perhaps its greatest contribution in the military field. The combination of high speed transit, low signature hunting and sweeping, and virtual invulnerability to underwater explosions, make the theoretical argument conclusive. Work which we have carried out over the years, both in the design and trials areas, has demonstrated that the theory can be turned into reality.

At B.H.C. we believe this so strongly that we have, at our own expense and with a great deal of practical assistance from the Navy, converted the BH.7 Mk.2 craft into a fully operational mine hunter over a period of less than one year.

However, the reality of the M.C.M. case is far from accepted by naval staffs as it does demand some changes in the thought processes, a flexibility of approach and a real desire to embrace

new concepts.

In Great Britain, this year is known as I.T. 82, I.T. being short for Information Technology, and it is in this field that we need now to turn our full attention. We need to convince our potential customers that we really have accepted the challenge of the market place and can produce cost effective, low risk, craft which should no longer be regarded as a technological gimmick. Whilst a forum such as this Conference is invaluable not only in the exchange of ideas but also in providing an opportunity to reach the wider market, and for this I and all the other delegates are most grateful to the organisers, there are many other methods of dissemination of information and we must take advantage of all of them. Let us make I.T. 82 the year in which we redouble our efforts to sell the capability of our industry.