

REPORT OF THE EXECUTIVE COMMITTEE

INTRODUCTION

Since 1932 when the ITTC, an international non-governmental organization was founded, scientists in ship hydrodynamics from all over the world have been provided with ample opportunity to meet periodically at the ITTC sessions, for discussion of the most complicated problems of hydrodynamic experiment and to formulate recommendations stimulating shipbuilding progress in the member countries.

The present 16th Conference, on the eve of the ITTC's fiftieth anniversary, offers grounds for making a short review of the general characteristics of the ITTC's activities which enhance its role among the shipbuilders of the whole world. Suffice it to say in this connection that at the first Conference twenty-three delegates from nine countries were present, while the 16th Conference will be attended, it is anticipated, by two hundred and two hundred and twenty delegates and observers from thirty countries. The sphere of the ITTC's activities has been continuously enlarged. This process reflects the general tendencies in world shipbuilding, consisting of increasing the speed and displacement of existing ship types and the creation of ships of new types as well. At the same time quite a new field of marine technics - ocean engineering - has been developed

during the last decade. It has entailed the extension and development of the experimental facilities. In particular, in a number of countries, new seakeeping and manoeuvring tanks equipped with carriages with traversing secondary carriages, wave and current basins, depressurised towing tanks, manoeuvring simulators and computer systems for control of experiment and data processing have been built and are now widely used.

The general tendency of the hydrodynamic investigations consists at present in taking the maximum account of factors determining the qualities of ships and other ocean constructions under actual service and environmental conditions. Accordingly, the interests of the ITTC extend not only to problems of model experiment but also to computer-based theoretical investigations and full scale trials.

Organizationally the efforts in adaptation to the new activities in the field of maritime research entailed the appointment of new committees by the 15th ITTC: these were the Performance in Ice-Covered Waters Committee, the Ocean Engineering Committee and the Panel on High-Speed Marine Vessels.

It can be said with confidence that during the period between the 15th and 16th

sessions the ITTC's prestige and general recognition have increased.

I. STRUCTURE OF THE ITTC

Neither the general structure nor the guiding principles have changed essentially during the last decade. According to the Rules of the ITTC the following bodies have been established for the period 1978-1981.

I.1. Executive Committee

The Executive Committee elected by the 15th ITTC consisted of the following persons:

- | | |
|---------------------------|-------------------|
| Prof. Dr. G. A. Matveyev | - USSR |
| (Chairman) | |
| Prof. Dr. J. D. van Manen | - The Netherlands |
| (Vice-Chairman) | |
| Dr. J. Breslin | - USA |
| Ing. Gen. A. Castera | - France |
| Mr. W. A. Crago | - United Kingdom |
| Dr. K. M. Gisvold | - Norway |
| Prof. S. Motora | - Japan |
| Mr. M. Rakamarić | - Yugoslavia |

The Committee appointed Dr. V. N. Treshchevsky (USSR) and Dr. M. W. C. Oosterveld (The Netherlands) as secretaries.

Following the retirement of Ing. Gen. A. Castera the Executive Committee decided at its Tokyo meeting to co-opt Ing. Gen. M. Aucher, Ing. Gen. A. Castera's successor in the post of the Director of Bassin d'Essais des Carenes, as a member of the Committee. Mr. M. Nielsen, director of Skibsteknisk Laboratorium in Denmark, was also co-opted instead of Dr. K. Gisvold, who resigned from Norwegian Hydrodynamic Laboratories.

Following its former practice the Executive

Committee appointed members responsible for the relevant geographical areas as follows:

- | | |
|---------------------------|---|
| Prof. Dr. G. A. Matveyev | - USSR, Bulgaria, GDR, Poland |
| Prof. Dr. J. D. van Manen | - Austria, FRG, The Netherlands |
| Dr. J. Breslin | - The Northern and Southern Americas |
| Ing. Gen. A. Castera | - Belgium, France, Spain |
| Mr. W. A. Crago | - Australia, India, UK |
| Dr. K. M. Gisvold | - Denmark, Finland, Norway, Sweden |
| Prof. Dr. S. Motora | - China, Japan, South Korea |
| Mr. M. Rakamarić | - Greece, Israel, Italy, Turkey, Yugoslavia |

I.2. Advisory Council

Prof. Dr. J. D. van Manen (The Netherlands) was elected Chairman and Dr. G. Edstrand (Sweden) Vice-Chairman. The Advisory Council, as formed at the 15th ITTC, included representatives of the following organizations:

Bulgaria Ship Hydrodynamic Centre,
Varna, Bulgaria

National Research Council,
Marine Dynamics & Ship Laboratory,
Ottawa, Canada

China Ship Scientific Research Center,
Wusih, People's Republic of China

Danish Ship Research Laboratory,
Lyngby, Denmark

Hamburg Ship Model Basin,
Hamburg, Federal Republic of Germany

Bassin d'Essais des Carenes
Paris, France

Institut für Schiffbau,
Rostock, German Democratic Republic

Instituto Nazionale per Studi ed
Esperienze di Architettura Navale,
Rome, Italy

Ship Research Institute,
Tokyo, Japan

Meguro Model Basin,
The Ist Research Centre
Technical Research and Development
Institute, Japan Defence Agency,
Tokyo, Japan

Mitsubishi Heavy Industries Ltd.,
Nagasaki Technical Institute,
Nagasaki, Japan

Shipbuilding Research Centre of Japan
Tokyo, Japan

Netherlands Ship Model Basin,
Wageningen, The Netherlands

Norwegian Hydrodynamic Laboratories,
Trondheim NTH, Norway

Ship Design and Research Centre,
Gdansk, Poland

Canal de Experiencias Hidrodinamicas,
Madrid, Spain

Swedish Maritime Research Centre, SSPA,
Gothenburg, Sweden

British Hovercraft Corp.Ltd.,
Experimental and Electronic Laboratories,
Isle of Wight, United Kingdom

Admiralty Marine Technology Establishment,
Teddington, United Kingdom

Ship Model Experiment Tank,
Vickers Ltd.,
Herts, United Kingdom

National Maritime Institute,
Ship Division,
Feltham, United Kingdom

Davidson Laboratory,
Stevens Institute of Technology,
Hoboken, USA

David W.Taylor Naval Ship Research &
Development Center,
Bethesda, USA

Hydronautics Incorporated,
Laurel, USA

Krylov Shipbuilding Research Institute,
Leningrad, USSR

Versuchsanstalt fur Wasserbau und
Schiffbau,
West Berlin

Brodarski Institute,
Zagreb, Yugoslavia

I.3. Technical Committees

Subsequent to the I5th ITTC's decision in
respect of the expansion of the field of
the ITTC's activities, the following new
Technical Committees were established:
Performance in Ice-Covered Waters Committee,
Ocean Engineering Committee and High-Speed
Vessel Panel.

Thus the following Technical Committees
and the Panel functioned during the period
between the I5th and the I6th ITTC, their
Chairmen being elected by the I5th ITTC
and their Secretaries being appointed by
the Committees themselves:

Resistance	Dr.J.McCarthy - Chairman
Committee	Dr.L.Larsson - Secretary
	Dr.G.Collatz
	Mr.M.Hoekstra
	Mr.V.C.Patel
	Prof.Dr.S.D.Sharma
	Prof.Dr.I.Tanaka
	Prof.Dr.J.I.Vojtkunsky

Propeller Committee	Dr.W.B.Morgan - Chairman Mr.C.Wills - Secretary Dr.G.Dyne Dr.W.van Gent Prof.E.Huse Prof.Dr.H Jarzyna Dr.K.Sugai Prof.I.A.Titov	Mr.P.Blume Mr.J.C.Dern Mr.S.Rowe Mr.K.G.Suvorov Mr.A.Torum Mr.G.Wahl
Performance Committee	Mr.D.C.Murdey - Chairman Mr.J.J.Muntjewerf - - Secretary Mr.M.Aucher Mr.B.S.Bowden Mr.A.Gross Dr.P.Lih Mr.K.Minsaas Mr.K.Tamura	Performance in Ice-Covered Waters Committee Mr.G.E.Frankenstein - Chairman Prof.G.P.Vance - Secretary Dr.Y.N.Aleksejev Mr.E.Makinen Dr.D.D.Maksutov Mr.S.T.Mathews Dr.J.Schwarz Mr.H.Takahashi
Cavitation Committee	Dr.F.B.Peterson - Chairman Dr.J.H.J.van der Meulen - - Secretary Mr.K.P.Fleischer Dr.A.Gorshkoff Prof.H.Kato Prof.B.R.Parkin Mr.K.Suhrbier Dr.E.A.Weitendorf	Information Committee Dr.M.W.C.Oosterveld - Chairman Mr.M.D.Miles - Secretary Prof.B.Johnson Mr.G.Knight Mr.K.Koyama Dr.E.Nikolaev Prof.Dr.M.Schmiechen Mr.H.Sierra
Seakeeping Committee	Mr.M.F.van Sluijs - Chairman Mr.G.G.Cox - Secretary Mr.N.Andrew Prof.O.Faltinsen Prof.Gu Mao-Xiang Mr.K.Lau Dr.T.Takaishi Prof.Dr.S.Takezawa	Panel on High Speed Vessels Dr.D.Savitsky - Chairman Mr.M.J.Stevens - Secretary Mr.R.J.Balquet Mr.T.Murakami Dr.P.van Oossanen Dr.S.D.Prohorov Mr.B.Muller-Graf
Ship Handling Committee	Dr.D.Clarke - Chairman Mr.M.S.Chislett - Secretary Mr.L.Bystrom Dr.H.Eda Dr.H.Fujii Mr.A.Goodman Dr.Y.A.Netsvetaev Mr.A.Postuma	The Executive Committee appointed Dr.R.Barr of Hydronautics, USA, as an extraordinary member of the Ocean Engi- neering Committee. Following the resignation of Mr.H.Sierra from the Information Committee, Prof.S. Marsich of the University of Genova, Italy, was appointed as a member of the Committee.
Ocean Engineering Committee	Mr.Y.Yamanouchi - Chairman Dr.G.van Oortmerssen - - Secretary	Because of a change of Mr.H.Takahashi's official position, Mr.H.Kitagawa of the same organization, Ship Research Institute

of Japan, replaced him in the Performance in Ice Committee.

2. BRIEF INFORMATION ON THE ACTIVITIES OF ITTC'S ADMINISTRATION AND ITS TECHNICAL COMMITTEES

2.1. Executive Committee

During the period under review the Executive Committee held meetings in The Netherlands (September 1978), USSR (May 1979), Japan and China (May 1980), The Netherlands (January 1981) and Bulgaria (May 1981). The main items discussed at the meetings are given below.

2.1.1. Procedure of Presentation of Questions for the Executive Committee's Consideration

Based on the experience gained, the Executive Committee found it reasonable to follow the procedure which requires that the most important matters, before being submitted for consideration by the Executive Committee, should firstly be discussed with the member organizations of the respective area under the guidance of the Executive Committee member responsible for that area. These matters are as follows:

- Applications for membership of the ITTC
- Suggestions with respect to delegates, observers and guests of President
- Suggestions on the changes in the membership of the Technical Committees and so on

2.1.2. New ITTC Member Organizations

At Prof. Matora's suggestions, and after examining the experimental facilities as well as the research levels of two Japanese organizations which had applied for the ITTC membership, these were accepted as

ITTC member organizations. They are:

- Tsu Research Laboratories, Technical Research Center, Nippon Kokan K.K. (NKK), Tsu City, Japan
- Akishima Laboratories, Mitsui Engineering and Shipbuilding Co.Ltd., Tokyo, Japan

At Mr. Rakamaric's suggestion CETENA was also accepted as ITTC member organization:

- Centro per gli studi tecnica navale, CETENA, Genova, Italy

2.1.3. Organizational Issues Connected with the 16th ITTC

In accordance with the decision taken at the 15th ITTC the 16th ITTC will be held in Leningrad, USSR, 1981. It was decided that the duration of this session should be extended to ten days (31st August to 9th September 1981), so that every Technical Committee has one plenary meeting of no less than three hours for careful consideration of each Committee Report.

Following the recommendations of the Advisory Council the Executive Committee proposed that the general scope of the 16th ITTC should be devoted to the following topics:

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|----------------------|---|
| Flow around the Hull | - Resistance Committee |
| Power Prediction | - Performance Committee |
| | - Performance in Ice-Covered Waters Committee |
| | - High-Speed Vessel Panel |
| Propulsion | - Propeller Committee |
| | - Cavitation Committee |
| Motions of the Hull | - Seakeeping Committee |

	- Ship Handling Committee
Ocean Engineering	- Ocean Engineering Committee
Towing Tank Systems and Techniques	- Information Committee

It was decided that the Executive Committee members would act as Session Chairmen and Liaison Officers. The following division has been made:

General Session	- Matveyev
Flow around the Hull	- Matveyev
Propulsion. Propellers	- Breslin
Propulsion. Cavitation	- Aucher
Performance	- van Manen
Motions of the Hull. Ship Handling	- Motora
Motions of the Hull. Seakeeping	- Breslin
Performance in Ice	- Crago
Hydrodynamics of High-Speed Vessels	- Crago
Ocean Engineering	- Nielsen
Towing Tank Systems and Techniques	- van Manen

2.1.4. Delegates, Observers, Guests of Honour and Guests of President

It was agreed to keep to the general principle of representation at the Conference as adopted earlier with addition of category "E" delegates:

- A - Representative of a Member Organization,
- B - Member of Committee or Panel,
- C - Senior members retired or not active in the field any more and who contributed significantly to the aims of the Conference,
- D - Representatives of countries not otherwise represented in the ITTC,

- E - Representative invited by Technical Committee to present a paper at Technical Session.

As to observers it was found reasonable that the practice of inviting five representatives from each area should be followed.

The countries organizing the 16th ITTC and 17th ITTC will be given preference and allowed to appoint eight observers each. Concerning the status of observers, they will be allowed to make only technical (not organizational) comments at the Technical Sessions. The final decision on giving the floor to observers will be taken by Chairmen of the Sessions.

The Executive Committee approved the list of Guests of President who are mainly delegates of "C" category. These are retired members who will be invited to attend the Conference and released from paying a Registration Fee. Their number is not expected to exceed ten. The right to prepare the List of Guests of Honour was left to the 16th ITTC President, and does not need discussion with the Executive Committee.

2.1.5. Reports of Technical Committees and Discussions

It was decided that the general principles adopted at the 15th ITTC in respect of the Committee Reports would be followed during the 16th ITTC. This means that each Committee Report must be an entity and must reflect the thoughts and the opinion of the complete Committee.

The Reports must consist of three parts:

- General
- Review on researches of importance to the ITTC
- Pre-Conference remarks and recommendations of the Committee

The full text of each Committee Report, including illustrations, should not exceed 15,000 words.

It was considered reasonable that the time for presentation of the Technical Committee Report should be limited to thirty minutes, so that enough time is left for discussion.

The form of presentation will be chosen by Chairmen of the Committees together with the Session Chairmen.

2.I.6. Selection of Members of Technical Committees

The Executive Committee attaches great importance to the procedure of careful selection of the members of the Technical Committees.

It was found advisable to have information presented in written form about each potential candidate for membership of the Technical Committees, taking into account the proposals from the geographical areas. Particularly it refers to the candidates for the Chairmanship. All the candidates must be considered and approved by the Executive Committee and then submitted to the Advisory Council for the preparation of Recommendations for the Conference. Consideration should also be given to the activities of the Technical Committees, as well as to the scientific level of their Reports.

2.I.7. Liaison with Technical Committees

The members of the Executive Committee worked in close contact with the Technical Committees.

In setting up new Committees the attention of their Chairmen was called to the necessity to establish and maintain rational co-operation with the earlier established Committees in handling the allied problems of Ship Hydrodynamics.

2.I.8. ITTC Newsletter Publication

The initiative of the Information Committee to publish the ITTC Newsletter was welcomed. It has been very much appreciated that the NSMB undertook to cover the expenses of this Newsletter for the period up till the 16th ITTC. The Executive Committee and the Technical Committees readily responded to the initiative by preparing materials for the first issues of the Newsletter. The member organizations, however, were not so active and need to be encouraged to contribute in the future. It was considered reasonable to review the structure of the Newsletter and continue with its publication for the next Conference period.

The Executive Committee also emphasises the successful work of the Information Committee on the compilation and publication of the Catalogue of Experimental Facilities, which is of great interest to the ITTC members, and expresses its gratitude to the USA Department of the Navy for sponsoring this work.

2.2. Activity of the Advisory Council

A meeting of the Advisory Council was held in Goteborg on September 15 and 16, 1980. The goal of the meeting was to discuss the most essential matters with regard to the future goals of the ITTC and the tasks and general recommendations for the 16th ITTC.

Twenty members of the Advisory Council were present at the meeting which was outspoken and fruitful. It was the opinion of the members of the Advisory Council that the Council should play a more active role in the process of adapting the ITTC to the new activities of towing tanks and of strengthening the organization of the ITTC. Meetings of the Advisory Council between the Conferences will therefore be needed.

The discussion on the future goals of the

ITTC was summarized in a number of items. Based on these items, five small working groups were appointed to prepare memoranda on different topics for discussion at the next Advisory Council Meeting.

The following topics will be covered by these working groups:

- PROCEDURE FOR THE SELECTION OF TECHNICAL COMMITTEES; Dr.Wm.B.Morgan, Mr.S.T.Mathews
- GEOGRAPHICAL AREAS; Dr.H.Edstrand; Mr.D.I.Moor, Mr.M.Molnar
- FUTURE SCOPE OF ITTC; Mr.P.Eisenberg, Mr.M.Aucher, Mr.M.Munk Nielsen
- RULES EVALUATION AND REVISION; Mr.W.A.Crago, Prof.Dr.G.A.Matveyev
- NEWSLETTER DEVELOPMENT; Dr.M.W.C. Oosterveld

The members of the Advisory Council were invited to inform the working groups about their ideas and comments with respect to the different topics.

The next meeting of the Advisory Council will be held on June 15 and 16, 1981 in Ottawa.

2.3. Activities of Technical Committees

The basic criterion for the assessment of the activities of a Technical Committee is the completeness and the scientific level of the report prepared by the Committee. Such an assessment will be made during the 16th ITTC.

Of great importance is the nomenclature of Technical Committees. The appointment by the 15th ITTC of the Committee on Performance in Ice-Covered Waters, the Ocean Engineering Committee and the Panel on High-Speed Vessels seems to be quite justified. The distinguishing feature of the latter two is their specialization according to type of vehicle, while the earlier appointed Committees (except for the Information Committee) are concerned

with the particular problems of ship hydrodynamics relating to all types of ship. Therefore, in summarizing the results of their first period of activity, it follows that the tasks and the scientific contributions of other Technical Committees to the High-Speed Vessels Panel and the Ocean Engineering Committee should be determined more exactly. The Panel's future status should also be specified. It appears that the activities of the Technical Committees should be considered as a whole, following the recommendation of the Advisory Council to keep the number of the Committees more or less the same, thus maintaining the scope of the Conference itself within reasonable limits.

PRE-CONFERENCE RECOMMENDATIONS OF THE COMMITTEE

The Pre-Conference Recommendations of the Executive Committee regarding the future goals of the ITTC, will be formulated on the basis of the Advisory Council discussions at the meetings in Gothenburg and Ottawa.