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Message from the Chairman

Year 2001 is coming to end, and we hope it will take away the escalation of terrible events, which characterised the last few months. I wish all members and families a happy 2002, and I hope they will enjoy the ITTC conference in Venice next September.

We had fruitful EC and AC meetings last October in Washington, DC perfectly arranged by Dr. William Morgan and the DTMB team. Many thanks to all of them for the organisation and kind hospitality.

All Committees are working hard, to submit results within April 15, for publication in the proceedings. On our site, we are working to organise the Venice meeting, and hope to offer participants and accompanying persons the chance of a pleasant and interesting stay.

Ulderico Grazioli, Chairman
23rd ITTC Executive Committee

News from the Executive Committee

The Executive Committee and the ITTC Community have lost a valuable representative and a good friend. Prof. José A. Aláez passed away on November 20, 2001. He was for many years director of the Canal de Experiencias Hidrodinámicas de El Pardo, which he represented also within the Advisory Council. At the last Conference, Prof. Aláez was elected Area Representative for Southern Europe, thus entering the Executive Committee. He retired from his office at El Pardo Model Basin in March 2000. However, as a professor of the ETSIN – Universidad Politécnica de Madrid, he was re-elected Representative for Southern Europe, thus remaining in the Executive Committee.

Newsletter editor:

Dr. Enrico De Bernardis
Istituto Nazionale per Studi ed Esperienze
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Via di Vallerano 139
I-00128 Roma, ITALY

The 3rd meeting of the Executive Committee was held in Washington, DC, at the US National Academy of Sciences, on October 23, 2001.

Adm. Ulderico Grazioli informed the EC that he retired from his office as President of INSEAN. He will continue to represent INSEAN within the Advisory Council and, of course, as chairman of the Executive Committee.

The EC also welcomed Ir. George F.M. Remery, President of MARIN. He replaced Dr. Gerhard Jensen, who left the EC having resigned from HSVA. The EC wishes the best success to Dr. Jensen and expresses to him the gratitude of the ITTC community for the valuable work he did as a member of the EC.

The main topics discussed during the EC meeting are reported in the following.

Arrangements for the 23rd ITTC in 2002

The EC Chairman gave an outlook of the current status, based on the following issues:

1. the meeting will be held 8-14 September 2002;
2. the Conference site will be the "F. Morosini" Navy School, Venice;
3. the preliminary plan presented at the 2nd meeting last year (*ittc - news* no. 43, December 2000), is basically confirmed, although the time schedule will undergo some changes to allow additional EC and AC meetings to be held.

The EC secretary proposed that a preliminary list of delegates and observers to be invited to the Conference be collected by each Area Representative and submitted to the secretary by January 31, 2002. The list should include:

- the delegate of each member organisation;
- all members of TCs and QSG, AC and EC;
- observers from shipbuilding and shipping industries and institutions, and young researchers.

Invitation to host the 24th ITTC in 2005

Prof. Atilla Incecik presented a proposal from the University of Newcastle to host the 24th Conference in Edinburgh, on 5-10 September 2005.

The Executive Committee will recommend the Conference to accept the proposal.

Published by:

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Review of Advisory Council Membership

According to the Rules, 17 Advisory Council Member Organisations replied to the questionnaire for membership review. The replies and qualifications to be confirmed as AC members were reviewed by the EC. The report with review results will be presented at the next meeting of the Advisory Council.

Membership of Technical Committees

The EC accepted the resignation of Prof. Kazuhiko Hasegawa (Osaka University, Japan) from the Manoeuvring Committee. It has been also approved the policy proposed by the Committee chairman, Dr. Cordier, and the Area Representative of the Pacific Islands, Prof. Kato, not to replace Prof. Hasegawa, because his task has already been done by Dr. Hirano, committee member during the 22nd term.

The EC already approved, in July, the replacement of Mr. Mo-Qin He (CSSRC, China), who resigned from the Committee on Procedures for Resistance, Propulsion and POW Tests, with Mr. Han Ji (e-mail: ttank@public1.wx.js.cn), also from CSSRC.

ITTC Web Site

The EC accepted the recommendation of the AC to go on with the arrangement of the two web sites (one permanent ITTC web site and one dedicated to the next conference), which will be developed according to the pattern illustrated below within the section "News from the Advisory Council". The Executive Committee will check the status of the two web sites at the next meeting.

Next Meeting

The next meeting of the Executive Committee will be held in Gothenburg (Sweden), on March 13, 2002.

News from the Advisory Council

A meeting of the Advisory Council was held in Washington on October 22 and 23 2001. At the beginning of the meeting, the chairman informed the Council that Prof. Juhani Sukselainen passed away on September 7, 2001. Prof. Sukselainen was a member of the Advisory Council for two terms, since 1993 to 1999, representing VTT (Finland).

The main items discussed at the meeting were as follows.

The ITTC Web Site

ITTC will have two web sites, one permanent and one that will be linked to the Conference and the arranging institution.

The permanent website will include as main items:

- General information on ITTC
- Proceedings of earlier Conferences
- Symbols and Terminology
- Quality Systems Manual
- ITTC Recommended Procedures

The Conference website will include

- Arrangements for the full Conference
- Technical Committees and Groups within the Conference
- Proceedings for the Conference

Both web sites will include

- ITTC News
- Executive Committee and Advisory Council

Technical committees of the 23rd ITTC

The Council observed that the committees in general had made good progress. The chairmen of all the technical committees and groups should observe that the draft conclusions, recommended procedures and recommendations for future work proposed by them should reach the secretary Willem van Berlekom not later than on February 15, 2002. These drafts will be reviewed by the Council on its next meeting, on March 11-13, 2002.

Specialist Committees of the 24th ITTC

The Council started at this meeting a discussion on the tasks for the Specialist Committees of the 24th ITTC. The discussion included also which Specialist Committees should continue and the need for new committees. A main point is that the tasks to be performed shall direct the formation of the specialist committees. It is thus important that member organisation as soon as possible and not later than February 15, 2002 send their proposals for tasks to be performed by ITTC 24. The proposals should be sent to the AC secretary.

News from the Technical Committees

Resistance Committee

The fourth RC meeting was held on 8, 9 and 10 October 2001 at CTO, Gdansk, Poland and hosted by Prof. Tomasz Bugalski. All members attended.

All Section leaders presented summaries of the progress made. Group meetings were held for all Sections to analyse the work to be done and to fix the time schedule. Since time is running out, emphasis has been put in the verification of the material already collected for the final report. Hence, a detailed list of action items and time schedules for each Section has been produced: prepare the complete draft, modify for some of the Section material, introduce new papers, etc.

In particular, all Sections have to prepare a preliminary draft of the report by December 15th, while a complete draft will be circulated for January 15th 2002, including conclusions and recommendations for each Section.

The RC will recommend for adoption by the 23rd ITTC the following QM Procedures for towing tank tests:

4.9-03-02-03. Uncertainty analysis spreadsheet for resistance measurements.

4.9-03-02-04. Uncertainty analysis spreadsheet for speed measurements.

4.9-03-02-05. Uncertainty analysis spreadsheet for sinkage and trim measurements.

4.9-03-02-06. Uncertainty analysis spreadsheet for wave profile measurements.

Progress on use of the spreadsheets amongst the RC, for preparation of a co-operative example, may not be fully completed in time for the final report.

The RC will also recommend for interim adoption by the 23rd ITTC a revised QM Procedure for uncertainty analysis in CFD:

4.9-04-01-01. Verification and Validation methodology and procedures for CFD simulations.

The revisions are based on recent experience within ITTC Community as well as recent developments within European Community, ASME, AIAA, and other professional organisations.

Plans were made for inclusion in RC final report of a summary including conclusions and recommendations of the Gothenburg 2000 Workshop on CFD in Ship Hydrodynamics.

The web site (<http://www.ittc-rc.insean.it>) of the Committee has been updated with the new material, including QM Procedures, lists of references, drafts of section reports, list of action items and schedules of each section. An additional meeting will be held on

February at Inha University, Department of Naval architecture & Ocean Engineering, Korea and hosted by Prof. Seung-Hee Lee.

Loads and Responses Committee

The 23rd ITTC Loads and Responses Committee had its third meeting at 15 and 16 September 2001 in Wuxi (China) under the chairmanship of Prof. Wataru Koterayama (e-mail: Kotera@riam.kyushu-u.ac.jp).

Firstly, the tasks and workloads of the LRC have been evaluated. Since the merger of Seakeeping Committee and Ocean Engineering Committee of five years ago, the LRC has been burdened with too many tasks. Even though the Specialist Committee on Waves and the Specialist Committee on Stationary Floating Systems have shared some work, reviewing the state of the arts and updating the quality manuals of the whole study area are far beyond the capacity of one Committee.

Having few specialists in Ocean Engineering, the LRC sometimes had to give up to review some important subjects. It is the feeling of the LRC members that a re-establishment of the Seakeeping Committee and the Ocean Engineering Committee would solve these problems.

Nevertheless these restrictions, a lot of work has been carried out and progress has been made. New developments in the field of facilities and experimental techniques, such as new and unmanned tank facilities, have been discussed and will be described.

Four ITTC procedures (applied to experiments on seakeeping, rarely occurring events, analysis of regular wave tests and power increase in irregular waves) have been discussed in detail and reviewed. An intended review of the ITTC procedure applied to model testing on tanker-turret systems has been skipped, because of a lack of expertise on this topic in the Committee.

Concepts of two new procedures (one on model testing of offshore structures and one on the validation of seakeeping computer codes in the frequency domain) have been developed and are discussed now. Much attention will be paid to the collection of reliable benchmark data for seakeeping computer codes. An extensive "quasi-uncertainty-analyses" procedure for the experimental data of vertical motions was carried out for this. The Quality Systems Group has been contacted for an inclusion of preliminary comments and advises of the Group on these two new procedures.

A lot of attention has been paid to the reviewing of the progress in experimental and numerical hydro-elastic problems. This study includes vortex-induced

vibrations of marine risers and hydro-elastic responses of very large floating structures and high speed marine vehicles.

The preparation of an up-to-date bibliography on new information about loads and responses is still in progress. However, publications on very specific topics are limited and the state-of-the-art technologies are still sometimes corporate confidential. Proposals of this Committee for Recommendations and the Future Tasks of the 24th ITTC L&R Committee are in preparation.

The 4th and last meeting of the L&R Committee will be held at January 2002 in Helsinki (Finland) for the discussion and preparation of the final Report.

Committee for Validation of Waterjet Test Procedures

Preparations for the standardisation tests are nearing completion and the moment that participants to the standardisation tests can launch the jet propelled models approaches. A letter of intent with detailed information on the models and the requested results was sent on October 5 of this year to those members that had shown an interest. By signing the letter of intent, the participant commits itself to do all that is possible to maintain the time schedule, agreed with participant, and agrees not to publish any data prior to the 24th ITTC Conference, scheduled for 2005. Time schedules for model delivery and testing will now be negotiated with the participants.

The letter of intent was dispatched to ITTC members and jet manufacturers that had shown an interest based on an earlier invitation. The number of interested participants and the aspiration level set by the Committee are listed below.

Type of test	Number of interested institutes	Aspiration level: number of institutes required
self propulsion	12	7
waterjet system	5	5
pump loop	3	5
CFD analysis	9	

Due to the fact that the ship models and stock jets were only ready for shipment after March 1, 2002, the most important part of the Committee's work is yet to be done. This work consists of collection of experimental and computational data, data analysis, evaluation of procedure proposals and a global uncertainty analysis.

As pointed out in the Report of the 22nd Specialist Committee on Waterjets, the standardisation tests consist of three types of tests:

- Self propulsion tests with a model of a high speed displacement monohulls, driven by two waterjets
- Waterjet System tests with the aim to determine the system characteristics in terms of flow rate, head and torque, and in terms of thrust and required power.
- Pump tests with the aim to determine the hydraulic characteristics of the pump in an ideal flow.

Apart from the three types of standardisation tests, an important emphasis is put on the role of CFD in understanding details of the flow phenomena. A good knowledge of velocity and pressure distributions is necessary to support the underlying assumptions and neglects. The importance of CFD will be explained in more detail in section 4 on the problem definition.

Committee on Water Quality and Cavitation

The committee had their 3rd meeting, with full attendance of the members, at California Institute of Technology in Pasadena on 23-24 June 2001 in conjunction with the CAV2001 Symposium.

In the third meeting the Committee welcomed to Dr. In Haeng Song for the vacant membership position of Samsung HI Co. Ltd. The continuing work on the four main tasks of the Committee was reviewed including early results of two groups of questionnaire.

The members agreed on a set of draft recommendations and conclusions, which were sent to the Executive Committee for review. Appropriate sections, for the ITTC Quality Manual regarding the water quality during the cavitation tests, were drafted to meet the requests from the Propulsion Committee and the Specialist Committee on Cavitation Induced Pressures.

The Committee decided to have a fourth and final meeting to review the final written contribution to the report at the Royal Institution of Naval Architects (RINA) in London, on 6-7 December 2001.

Cavitation Induced Pressures Fluctuations

The fourth Committee meeting was held in Tokyo, Japan during 31 October through 2 November hosted by Dr. N. Sasaki of Sumitomo Heavy Industries. Five members attended the meeting. Two European members (Prof. G. Bark and Dr. F. Di Felice) were not able to join the meeting. Chairman will plan to meet with

the two members individually to go over the discussions that took place in Japan.

The major focus of this meeting was to review a draft report and two procedures (experimental and numerical one). Chairman developed a draft report and two procedures based on the contributions from each member since the last meeting in Pasadena in June 2001. Extensive review and discussions took place during the two-and-half day meeting.

The two procedures will be part of the main report as appendices. Based on the discussions in Japan, a revised version of the report and the procedures were developed and distributed to the members for a final review. The report is in good shape addressing the tasks assigned by the 22nd ITTC: Develop and validate practical experimental and numerical prediction procedures for unsteady hull pressure, including the method using propeller cavitation volume time-variation.

The Committee is sure to keep the February 15 deadline for the final report.

Committee on Procedures for Resistance, Propulsion and POW Tests

The fourth meeting of the specialist Committee was held on the 5th, 6th and 7th November 2001 at the Vienna Model Basin and hosted by Dipl.-Ing. Richard Anzbock. Four members of the Committee attended. Three members had been unable to attend as a result of the tragic events in New York and Washington on the 11th September and another member had to withdraw due to illness just before the meeting.

The meeting reviewed the progress of the tasks of the committee and it was noted that satisfactory progress had been made. Drafts of the proposed recommended procedures for model manufacture, resistance tests, propulsion tests, propeller open water tests and resistance tests on HSMVs had been completed by the end of July 2001.

These draft procedures had then been sent to selected tanks representing a cross-section of the tank testing community, in order to invite comments and feedback on the proposals. The Committee has received comments from twenty-one tanks. These are, where possible and appropriate, being incorporated in the updated versions of the test procedures. The Committee would wish to extend its sincere thanks to all the tanks and research establishments that have responded with comments and other relevant information.

A further task of the Committee is to establish uncertainty analysis examples for the various tests. It was agreed by the Committee that it would review and cor-

rect where necessary the existing resistance example and establish examples for self propulsion tests and for propeller open water tests. Due to time and available resources an example would not be created for HSMVs. However, the Committee felt that, in this case, similarities to the resistance test procedure would allow reference to be made to the resistance uncertainty example. Currently, drafts of the self propulsion and open water uncertainty examples have been established and were discussed at the Vienna meeting. It is expected that final versions will be completed by about the end of January 2002.

The Committee has liaised with the Resistance and Propulsion Committees on areas of mutual interest. It will continue to liaise with these, other committees and the Quality Systems Group regarding the content, structure and final layouts of the recommended test procedures and uncertainty examples.

Committee for Prediction of Extreme Ship Motion and Capsizing

The committee met twice since the last newsletter. The first of these was held in Trieste in association with the International Workshop on Stability and Operational Safety of Ships. Copies of the proceedings of this very interesting workshop are available from Professor Francescutto at: francesc@univ.trieste.it. The other meeting was held in Crete in association with a number of stability related meetings. Details of these can be obtained from Professor Vassalos at: d.vassalos@strath.ac.uk.

As a result of these two meetings the guidelines for model testing for both the intact ship and the damage ship have been finalised and are currently being prepared in the correct format for publication.

The information from the benchmark testing has been collated and will form part of the final report, which will be ready early in the new year.

The 8th International Conference on the Stability of Ships and Ocean Vehicles will be held in Madrid in 2003. Tentatively, this is scheduled for September, however the exact date is currently being finalised. A call for papers will be issued shortly, however in the meantime further details can be obtained from Professor Luis Perez Rojas at: lperezr@etsin.upm.es.

News from Member Organisations

As announced in the last issue of *itc - news*, big changes were going on at DERA, which actually disappeared, giving rise to two different organisations. One of these, named QinetiQ, will take the place of DERA as member of the ITTC, as well keep their role within the Advisory Council.

Dr. Martin Renilson, who will be ITTC delegate from QinetiQ, and will represent them within the Advisory Council, has kindly provided the short note reported below, where some details of this important reorganisation process are illustrated.

QinetiQ born

On 1 July 2001 the UK's Defence Evaluation and Research Agency (DERA) ceased to exist. As part of the UK Government's policy that wherever possible work should be carried out in the commercial sector, the majority of this organisation was privatised and the resulting company, QinetiQ – pronounced 'Kinetic', commenced trading on 1 July. Shares in QinetiQ will be available shortly.

The work that must be done by Government will be conducted by a new organisation that will continue to be wholly owned by the Ministry of Defence – the Defence Science and Technology Laboratory (DSTL).

Almost all the hydrodynamic activities are now being conducted by QinetiQ, which is based at Haslar on the well known Froude site. These form part of the Centre for Marine Technology, based at the Haslar marine Technology Park. Although still conducting hydrodynamic research for the British navy, QinetiQ now has a strong mandate to carry out commercial work.

Most of the staff and facilities that were formerly DERA on this site have been transferred to QinetiQ.

Martin Renilson,
Technical Manager, Hydrodynamics,
Centre for Marine Technology,
QinetiQ

According to the above, the reference for QinetiQ in the ITTC Member Organisations list is as follows:

QinetiQ*
Centre for Marine Technology
Haslar Marine Technology Park
Haslar Road, Gosport
Hampshire PO12 2AG
UNITED KINGDOM
Attn.: Dr. Martin Renilson
Tel.: +44 23 9233 5048; Fax: +44 23 9233 5196
E-mail: mrrenilson@QinetiQ.com
URL: <http://www.QinetiQ.com>

As mentioned in section "News from the Executive Committee", Dr. Gerhard Jensen left HSVA. He has been replaced, as ITTC delegate and Advisory Council representative from HSVA, by Dr. Dietrich Wittekind. According to this, the new reference of HSVA in the list of Member Organisations is updated as follows:

Hamburgische Schiffbau Versuchsanstalt GmbH (HSVA)*

Bramfelder Strasse 164
D-22305 Hamburg
GERMANY
Attn.: Dr.-Ing. Dietrich K. Wittekind
Tel.: +49 40 6920 3216; Fax: +49 40 6920 3345
E-mail: Wittekind@hsva.de
URL: <http://www.hsva.de>

Another change within the Advisory Council concerns Ishikawajima-Harima Heavy Industries. Mr. Fujino has replaced Dr. Mizoguchi, also as ITTC delegate. Thus, the complete reference of IHI in the list of Member Organisations is updated as follows:

Ishikawajima-Harima Heavy Industries Co. Ltd.*

Research Institute
1 Shin-Nakahara-cho, Isogo-ku
Yokohama 235-8501
Attn.: Mr. Ryosuke Fujino
Tel.: +81 45 759 2101; Fax: +81 45 759 2154
E-mail: ryosuke_fujino@ihi.co.jp
URL: <http://www.ihi.co.jp>

Address Corrections

In the "Member Organisations Overview", published in *ittc - news* no. 43 (December 2000), URL addresses of the web sites of Brodarski Institut (Croatia) and Kyushu University – Department of Naval Architecture and Marine Systems Engineering (Japan) were missing. The complete references are updated as follows:

Brodarski Institut*
Av. V. Holjevca 20
P.O. Box 237
41000 Zagreb
CROATIA
Attn.: Mr. Zeljko Digas
Tel.: +385 1 650 4102; Fax: +385 1 650 4230
E-mail: djigas@brod.hrbi.hr
URL: <http://www.hrbi.hr>

Kyushu University
Department of Naval Architecture and Marine Systems Engineering
6-10-1 Hakozaki, Higashi-ku
Fukuoka 812-8581
JAPAN
Attn.: Prof. Kasturo Kijima
Tel.: +81 92 642 3679; Fax: +81 92 642 3719
E-mail: kijima@nams.kyushu-u.ac.jp
URL: <http://www.nams.kyushu-u.ac.jp>

After publishing the Member Organisations Overview in *ittc - news* no. 43, some changes and few errors were found, which are highlighted in the following:

Universiti Teknologi Malaysia

Marine Technology Laboratory
Karung Berkunci 791
80980 Johore Bahru
MALAYSIA
Attn.: Prof. Mohd Zamani Ahmad
Tel.: +60 755 76160/464
Fax: +60 755 66159
E-mail: zamani@fkm.utm.my
URL: <http://fkm.utm.my/marine>

Krylov Shipbuilding Research Institute*

44 Moskovskoye Shosse
196158 St. Petersburg
RUSSIA
Attn.: Dr. Evgeny P. Nikolaev
Tel.: +7 812 127 9596 (9647) (9348)
Fax: +7 812 127 9595 (9632) (9594)
E-mail: albert@krylov.spb.su
E-mail: ksri@pop3.rcom.ru
URL: <http://www.ksri.ru>

Central Aerohydrodynamic Institute (TsAGI)

1 Zhukovsky Street, TsAGI
Zhukovsky, Moscow Region, 140160
RUSSIA
Attn.: Mr. Vladimir Sokolyansky
Tel.: +7 095 261 1816 (556 4054)
Fax: +7 095 261 3818 (556 4337)
E-mail: slc@tsagi.rssi.ru
URL: <http://www.tsagi.rssi.ru>
<http://www.tsagi.rssi.ru>

Saint-Petersburg State Marine Technical University

3 Lotsmanskaya
St. Petersburg 190008
RUSSIA
Attn.: Prof. Kirill V. Rozhdestvensky
Tel.: +7 812 113 5227 (114 0761)
Fax: +7 812 113 8109
E-mail: xmas@peterlink.ru
URL: <http://www.smtu.ru/smtu/eng/intro.html>

While updating reference of Vosper Thornycroft Ltd., in *ittc - news* no. 44 (June 2001), a minor errors was made, which are corrected in the following:

Vosper Thornycroft (UK) Ltd.

Victoria Road, Woolston
Southampton SO19 9RR
UNITED KINGDOM
Attn.: Mr. Nick Ireland
Tel.: +44 23 8042 6000; Fax: +44 23 8042 6010
E-mail: nick.ireland@vosperthornycroft.com
URL: <http://www.vosperthornycroft.co.uk>

Executive Committee

As mentioned in section "News from the Executive Committee", a new EC member has been welcome, which replaces Dr. G. Jensen. The new Area Representative for Central Europe is Ir. George F.M. Remery from MARIN (The Netherlands), who already replaced Dr. S.G. Tan as ITTC delegate and Advisory Council representative of MARIN. However, the complete reference of Ir. Remery is repeated hereafter:

Ir. George F.M. Remery

Maritime Research Institute Netherlands (MARIN)*
P.O. Box 28
NL-6700 AA Wageningen
THE NETHERLANDS
Tel.: +31 317 493 219
Fax: +31 317 493 245
E-mail: G.F.M.Remery@marin.nl
URL: <http://www.marin.nl>

Loads and Responses Committee

It was noticed in *ittc - news* no. 44, that Prof. G.E. Hearn left the University of Newcastle upon Tyne, of which he was ITTC delegate. He moved to the University of Southampton. The complete reference is reported in the following:

Prof. Grant E. Hearn

University of Southampton
Southampton Oceanography Centre
Empress Dock
Southampton SO14 3ZH
UNITED KINGDOM
E-mail: G.E.Hearn@soton.ac.uk

Deadline of Next Newsletter

The deadline for submitting material to the June 2002 issue (No. 46) is 15 May 2002.