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# Obituaries

# Seiji Takezawa

Seiji Takezawa ,Professor Emeritus of Yokohama National University Japan, passed away by cerebral infraction on Sep. 5, 2010, aged 82. He served as the member of ITTC : 15<sup>th</sup>,16<sup>th</sup> and 17<sup>th</sup> ITTC Seakeeping Committee and 19<sup>th</sup> and 20<sup>th</sup> ITTC Executive Committee . He was one of the leader of the seakeeping research field and made outstanding contributions to ITTC activities.

After he graduated from University of Tokyo at the Department of Naval Architecture in March 1951 he proceeded to the post graduate course of the same university and finally entered in the Defence Agency of Japan on September 1954. He moved to the Department of Naval Architecture of Yokohama National University (YNU) on October 1963, as the associate professor. He became the professor of YNU on April 1974, and retired on March 1993. INTERNATIONAL TOWING TANK CONFERENCE

# No. 60

In the maritime field in Japan he was a leader especially in the field of seakeeping research having the base of ship resistance field. He served many chairmen of the technical committees in the Ship Building Society of Japan and served the President of the Society of Naval Architects of Japan during 1989-1991.

He started his research work in the field of ship resistance as a student of Professor Emeritus Takao Inui at the University of Tokyo. In the day of the Defence Agency, he developed many experimental facilities and carried out series tests of radio-controlled large-scaled running model ship in the outside pond including ship manoeuvrability . He got the title of doctor of engineering by the research about the large bulbous bow of high speed ship.

During the professor of Yokohama National University, he constructed 100-meter length towing tank and developed many epoch making facilities and techniques for experiments. Firstly he developed the hi-precision wave generator and completed the method of so called Transient Techniques using the Transient Water Waves.

He also developed multi directional wave generator for long tank utilizing side wall reflection , developing the laser beam type directional wave probe and carried out many experiments about ships and offshore structures in directional waves for the evaluation of related theories.

Other than tank experiments, he carried out on board measurements developing the "measuring container" .This will be the memorial large project in the world. By the research publication he received awards from the Society of Naval Architects of Japan

Newsletter editor: Mr Aage Damsgaard FORCE Technology Hjortekaersvej 99 2800 Kgs. Lyngby, Denmark Published by: ITTC Secretariat 26th International Towing Tank Conference Tel.: +45 72 15 77 00 Fax: +45 72 15 77 01 E-mail: aad@force.dk Web Site http://ittc.sname.org. (SNAJ), and also received Yoshiki Award for long-term contributions to the development of shipbuilding technologies. Furthermore he received the awards "Transportation and Culture" from the Minister of Transportation of Japan.

Professor emeritus Seiji Takezawa was also a man of encouraging and educated about one thousand of students.

## **George Remery**

After a period of illness, George Remery, the former President of MARIN, sadly passed away on September 20<sup>th</sup> 2010.

In the early seventies, George started his career at MARIN working in the Offshore Department for a period of nine years. In this pioneering stage of offshore hydrodynamics, he performed groundbreaking research on wave drift forces. He later left MARIN to work for SBM in Monaco, but MARIN always remained in his heart. George was a member of MARIN's Supervisory Board from 1993 until he became President of MARIN from 2000 until 2005. In this difficult period for MARIN, George, with great enthusiasm and entrepreneurship, turned MARIN into a more professional organisation and firmly positioned MARIN in both the national and international maritime industry. The MARIN Stakeholders Association, initiated by George, is still a unique public-private cooperation that promotes links between government, industry and MARIN. Under his leadership, the foundation for the strong and modern MARIN seen today was laid.

Arne Hubregtse.

#### Dr. Nils Norbin

Dr Nils H. NORRBIN died on April 18, 2011 at the age of almost 85. After graduating from the Chalmers University of Technology in 1949, he was first employed in the marine division of the Swedish Defence Material Administration. In 1955, he moved to SSPA, where he stayed until his retirement in 1991, except for one year (1971-1972) as visiting professor at MIT. After retirement, he continued to do some consulting work on ship manoeuvring.



Nils had a profound knowledge of ship hydrodynamics and his main interest was the manoeuvring of ships. His contributions in this topic was both on the theoretical development of mathematical models and experimental work to gain further insight of the manoeuvring characteristics of ships. He was deeply involved in the development of both building up computing and experimental facilities at SSPA. The first manoeuvring simulatorbased on analogue computers - was thus on his initiative set up at SSPA in 1964 and included also a front view from the bridge (albeit a rather simplified), which was one of the first dedicated for ships. As the reliability of using simulations for predicting ship's manoeuvring behaviour is crucially dependent on the formulation of the mathematical model and the coefficients in the model, Nils early saw the necessity of having experimental facilities adapted for establishing these coefficients in model tests, but also the importance of relating such test results with full scale results. The Maritime Dynamics Laboratory (MDL) at SSPA owes much of its design to Nils as he also advocated the importance of establishing the influence of restricted waters (depth and width) on the manoeuvring characteristics. Thus MDL (completed in 1980) was adapted both for testing in shallow water and restricted fairways – and in addition also suitably for manoeuvring tests in waves. Nils' theoretical and experimental work on ship manoeuvring resulted in a Ph D dissertation in 1971.

Nils had many international contacts and was an established authority on manoeuvrability, and his expertise was utilized in international context by for example IMO, PIANC and ITTC. In 1960, he was one of the founder members of the ITTC manoeuvrability committee where he stayed until 1975, 1969-1972 as secretary and 1972 – 1975 as chairman.

Nils also educated several new-comers to SSPA on both theoretical and experimental ship hydrodynamics, especially as regards manoeuvrability and his legacy is still an important foundation for manoeuvrability studies at SSPA. Personally, I will remember his kind way of giving me advice and criticism when I was a "youngster" at SSPA in the 1960s.

Willem van Berlekom

#### Japan earthquake and tsunami

The huge earthquake called as the Great East Japan Earthquake occurred at 14:46 JST on Friday, 11 March 2011 and lasted five minutes due to the long continuous plate boundary rupture in the north-south direction. It was a magnitude 9.0 undersea megathrust earthquake with the epicenter approximately 70km east of the Oshika Peninsula of Tohoku and the hypocenter at an underwater depth of approximately 32km. It was the most powerful known earthquake to have hit Japan. The earthquake triggered extremely destructive tsunami waves of up to 38.9m that struck Japan, in some cases traveling up to 10 km inland. By those earthquake and tsunami, over 15,000 deaths, over 7,000 missing and over 125,000 building damage are reported. The Fukushima Daiichi power plant disabled the cooling system by this huge earthquake and Tsunami.

The ITTC membership organizations in Japan received many sincere messages and prayers from ITTC members in all over the world after the earthquake and tsunami. We are very grateful from the bottom of our hearts to all of our friends around the world. In the members of JTTC, we didn't have any human damage, but the some facilities had damages. The followings are the report on the damages to the experimental facilities from the JTTC.

In Kanto area near Tokyo,350km south from the hypocenter, the huge sloshing wave occurred and the water overflow from the wall top was observed. Fig.1 shows the sloshing wave in the towing tank of Yokohama National University. The wave direction is northsouth direction. They also had damages on the side wall wave dumper and circulating water channel resistance dynamometer due to the overflow. The video file of sloshing wave is available in

http://www.naoe.eng.osakau.ac.jp/~toda/ynu/00005.wmv

National Research Institute of Fisheries Engineering(NRIFE) is the closest facility to the earthquake hypocenter. They had a large quakes and the large sloshing wave in the towing tank, so they had rust on the rail(Fig.2) due to the overflow. They also had damages on the side wall wave dumper driving systems due to the large wave load. The overflow from the trimming tank of wave basin, leaking from the tank and the ground crack around the wave basin building were observed (Fig.3).

In Meguro Model Basin, they had overflow from the tank wall that is 1.2m high from the usual free surface. Due to the large wave load, the half of side wall wave dumper fell down into the water and was broken. They were doing the resistance test and they had a large trouble in the resistance dynamometer.

The University of Tokyo had a similar trouble in the towing tanks. They had a leaking (14.6t/day) from the wave basin in Chiba prefecture.

In IHI, National Maritime Research Institute and Shipbuilding Research Centre of Japan, they had a similar sloshing wave (over 1m amplitude) and damage on the equipment.

They fix the trouble except for the leaking and do the tests as usual. For the leaking, they will fix soon.

In Kansai area near Osaka, 800km south west from the hypocenter, the large damages were not observed, but the 10-30cm amplitude sloshing wave in the longitudinal (east-west) direction was observed and last for a long time in Osaka University and Universal Shipbuilding Corporation towing tanks. In USC, they had a trouble on the resistance test system due to the large motion of the model.

We didn't have any other damage reports from Kyusyu and Hiroshima area.

#### JTTC Yasuyuki Toda



#### News from the Executive Committee

The 26<sup>th</sup> Executive Committee held its second meeting in Istanbul, Turkey, on 13<sup>th</sup> October 2009, in connection with the IMAM Conference.

The meeting approved the final accounts for the 25<sup>th</sup> ITTC Secretariat, which showed a profit of 9,053 USD, primarily due to the high financial income of 10,924 USD. Since then, the interest rate has decreased considerably, so a similar financial income may not be expected for the next period.

20 members had still not paid the ITTC fee, and the area representatives were urged to pursue the members who had not yet paid. The number has since been reduced to three, of which one is an Advisory Council member. EC approved a few proposed changes in the technical committees. Dr. Valle had changed from CEHIPAR to ETSIN (also ITTC member), and Prof. Mehmet Atlar replaces Dazheng Wang, who had resigned from Newcastle University.

The three working groups established by the EC (future committee structure, ice and global warming had given their presentation in the preceeding AC meeting. It was decided that a 90 minutes slot shall be allocated in the programme for the 26<sup>th</sup> Conference for presentation and discussion of the working group reports.

Arrangements for the 26<sup>th</sup> Conference were discussed, and the organisers were requested to present a draft programme at the next EC meeting.

The 27<sup>th</sup> Conference in 2014 will be held in Northern Europe, and two organisations had presented their candidature, CTO of Poland and FORCE Technology of Denmark. The two organisations shall give a presentation at the next EC meeting of their proposed arrangement.

EC discussed a number of additional items under miscellaneous:

- Demolishment of the Balard rotating arm facility
- William Froude anniversary
- Appointment letter to all TC members
- Financial support to Seakeeping Committee workshop
- Membership application from TU Berlin
- CESA request regarding joint EEDI submission to IMO
- Request from NOAA regarding shipping noise

The action to be taken on these matters was decided.

The third meeting was held in Rio de Janeiro on 21<sup>st</sup> September, 2010, in connection with the PRADS meting.

As the EC Chairman was absent due to illness, the meeting was chaired by the Vice Chairman, Antonio Fernandes.

The committee overheard the presentations given by the two candidates for the ITTC 2014 Full Conference and decided to recommend to the 2011 Full Conference that FORCE Technology, Denmark, shall be selected as the next host.

Some further changes to technical committees were reported. The Chairman of the OEC,

Martin Downie, Newcastle University, had had to resign due to work load, and the secretary of the same committee, Rolf Baarholm, Marintek, had withdrawn because he had left the company. Dr. Wei Qiu, Memorial University, was appointed new Chairman and Dr. Ole David Økland new member of the committee.

The Executive Committee met again in Vienna, Austria, on 30<sup>th</sup> March 2011. Since the previous meeting, Stuart Jessup had resigned and new chair was Mary Williams, NRC, Canada. The EC endorsed the recommendations given by the AC regarding new and revised ITTC procedures, structure and tasks for the committees under the 27<sup>th</sup> ITTC, group discussions at the next conference, and the selection of the ITTC Secretary for the next period.

The regular process of evaluating the eligibility for AC membership was undertaken. Responses were missing from two AC members which will be contacted again by the Secretary.

The progress of the EC working groups was reviewed. The Ice Group has developed a proposal for work to be assigned to a future committee, and its work can therefore be considered as concluded. The Committee Structure Group had concluded its work for this period but suggested that the work should be continued with a new round of questionnaires to the members during the next period. This was agreed by the EC. Members of the group will be Gerhard Strasser, Bas Buchner and Mary Williams. The name of the group was changed to Working Group on Technical Committee Planning.

26<sup>th</sup> Conference Organisation



#### Join us at the 26th ITTC 2011

# Rio de Janeiro - Brazil, 28th August to 3rd September 2011

This year's conference already achieved 150 participants heading fast to the predicted 200. To register and information please visit our site <<u>http://ittc.sname.org</u> and click on the ITTC2011 title bar>. From there you will be able to

- Register for the Conference
- Get acquainted with the Technical Programme
- Download the Pre-Print Technical Proceedings (for those who register)
- Upload written discussions (likewise for those who register)
- *Book your hotel*
- Book for tours in the city of Rio de Janeiro as well as for several other cities in Brazil

Shuttle busses will be connecting all the hotels mentioned in the ITTC2011 site. During the conference week visits to LabOceano (the deepest Model Basin of the world with its 15m and a unique dry underwater point of view) at the UFRJ (Federal University of Rio de Janeiro) campus will be organized. After the Conference, by September 5th, there will be support to visit the IPT (Towing Tank, Wind Tunnel and Cavitation Tunnel) and USP (Numerical Simulator and Model Basin) facilities in the city of São Paulo. In the last case the contact should be directed to JAX TOURS (the event official tour agent jax@jaxtours.com.br).

Any further question and support ask <u>ittc2011@cmeventos.com.br</u>.

Hydrodynamics and Rio de Janeiro, the Marvelous City, are waiting for you.

Bring your bathing suit.

#### News from the Advisory Council

This spring the AC had their third meeting in Vienna. This meeting is quite important for the next conference in August /September 2011. The revision of the ITTC recommended procedures by the groups has to be completed. The themes of the group discussion sessions during the conference have to be fixed. It was decided to organize the following group discussions: "Green Ship and Noise", "Modelling of Extreme Waves", and "Renewable Energy Devices".

Another important decision to be made was the determination of the ITTC specialist committees for the next period. This enables the ITTC members to decide on the suggestions for delegates in the committees and also is the base for the terms of reference for the next ITTC 2014.

The decision for the new committees was based on the recommendations of the present ITTC committees for future work and on the results of a questionnaire which has been sent out to all members.

Discussions in the working groups and subsequent voting resulted in the following committees for the 27th ITTC:

#### **General Committees:**

Resistance

Propulsion

Manoeuvring

Seakeeping (include hydro elasticity) Ocean Engineering (include completion of VIV) Stability in Waves (observe interface to SC and OEC)

# **Specialist Committees:**

Ice

CFD in Marine Hydrodynamics (include hybrid methods)

Detailed Flow Measurement Techniques Performance of ships in Service (include EEDI, EEOI, surface roughness)

Hydrodynamic Noise (not including vibration)

It can be seen that the "Stability in Waves Committee" was made a General Committee for the time being until the numerous problems in this field have been settled. As for the Specialist Committees, it can be observed that two committees, "CFD in Marine Hydrodynamics (include hybrid methods)"," Detailed Flow Measurement Techniques" are to continue and the "Ice" committee has been resuscitated.

For one of the two new specialist committees the motivation has been that in the ITTC community there is a general demand for deeper knowledge of the different aspects of the behaviour of vessels in service. The development at IMO with regard to the energy efficiency design index (EEDI) was an additional impulse for the decision for the specialist committee "Performance of Ships in Service". Even if the principal decision for IMO's approach has been made there will many adjustments for any kind of special vessels necessary.

The motivation for the committee on "Hydrodynamic Noise" is to preventively be prepared for the expected next item considered by the IMO which could be of consequences to the activities of ITTC members. The objective of this committee should be exactly to identify what could be an issue to further be dealt with by the ITTC.

AC also discussed the apparent inability of many technical committees to follow the time schedule and plan for their work. In an attempt to improve the performance of the next committees, the AC will arrange a session with the new chairmen during the next conference and explain the work plan and liaison between the committees and the AC. AC will be represented by the chairman, the secretary and the four working group leaders.

## Updating of Catalogue of Facilities

The ITTC Catalogue of Facilities was initiated by the 21<sup>st</sup> ITTC and first issued in 1995. Sporadic updates have been made since then, but it is now time for a more systematic update as several new important facilities have been built and others have had major refurbishment. Members are advised to review their entry in the catalogue on the ITTC website and provide new entries, either using the forms also available on the website or any other suitable form giving the relevant information.

# ITTC website

The list of ITTC members and AC members has been updated with the latest known data. As member representatives change rather frequently and information about such changes is not always conveyed to the ITTC secretary there may still be unintentional mistakes in the lists. Members are advised to inform the ITTC secretary if such mistakes are found.

The ITTC website address is <u>http://ittc.sname.org</u>.