

TUESDAY 3RD DECEMBER 2002

18:00 – 21:00 REGISTRATION AND OPENING COCKTAIL FUNCTION
New Zealand National Maritime Museum, Hobson Wharf, Auckland City

WEDNESDAY 4TH DECEMBER 2002

08:00 – 09:00 REGISTRATION
University of Auckland Conference Centre, Symonds Street, Auckland City

09:00 – 10:30 OPENING SESSION
Conference Opening and Official Welcome
Welcome - Michael Eaglen, President, Royal Institution of Naval Architects- NZ Division
Message from NZ Government – Rt. Hon. Mr Jim Anderton MP
Opening Address
Tom Schnackenberg, Syndicate Head and Design Coordinator, Team New Zealand

10:30 – 11:00 MORNING BREAK

11:00 – 12:30 SESSION 1: COMPUTATIONAL METHODS FOR HULL DESIGN – I
Chair: Prof Lars Larsson
K. Graf & E. Wolf
CFD investigations and design integration for IACC yachts
R. Azcueta
RANSE simulations for sailing yachts including dynamic sinkage & trim and unsteady motions in waves
J. García-Espinosa, R. Luco-Salman, M. Salas, M. López-Rodríguez & E. Oñate
An advanced finite element method for fluid dynamic analysis of Americas Cup boats

12:30 – 13:30 LUNCH

13:30 – 15:30 SESSION 2: COMPUTATIONAL METHODS FOR SAIL DESIGN
Chair: Prof Peter Jackson
D. P. Coiro, F. Nicolosi, F. Scherillo & U. Maisto
Numerical and experimental aeroelastic analysis of sails
S. Collie, P. Jackson, M. Gerritsen
Validation of CFD methods for downwind sail design
S. Shankaran, T. Doyle, M. Gerritsen, G. Iaccarino, A. Jameson
Improving the design of sails using CFD and optimization algorithms
P. Heppel
Accuracy in sail simulation: Growing fast sails

15:30 – 16:00 AFTERNOON BREAK

16:00 – 17:00 SESSION 3: TANK TESTING
Chair: Mr Andrew Cloughton
C. Fassardi
Tank testing and data analysis techniques for the assessment of sailboat hydrodynamic characteristics
M. Brown, I. Campbell, J. Robinson
The accuracy and repeatability of tank testing, from experience of IACC yacht development

17:00 – 17:30 LIGHT REFRESHMENTS

17:30 – 18:30 PUBLIC LECTURE
R. Holland & G. Firth
Mirabella V: The world's largest high performance sloop

THURSDAY 5TH DECEMBER 2002

09:00 – 10:30 SESSION 4: HULL & RIG STRUCTURES – I
Chair: Dr Mark Battley
G. Grabe
The rig of the research sailing yacht "DYNA"; measurements of forces and FEA
D. Campbell & B. Jones
Finite element analysis of composite boats
S. Edinger & G. Moltschaniwskyj
Shear of solid composite stiffener webs

10:30 – 11:00 MORNING BREAK

11:00 – 12:30 SESSION 5: HULL & RIG STRUCTURES – II
Chair: Mr Michael Eaglen
G. Belgrano & L. McEwen
Working load to break load: Safety factors in composite yacht structures
M. Battley, A. Skeates & R. Simpkin & A. Holmqvist
Non-destructive inspection of marine composite structures
G. Finch & K. Thorandt
Measurement of wake crossing motions and loads

12:30 – 13:30 LUNCH

13:30 – 15:30 SESSION 6: WIND TUNNEL TESTING OF SAILS
Chair: Prof Richard Flay
R. Ranzenbach & J. Kleene
Utility of flying shapes in the development of offwind sail design databases
H. Hansen, P. Jackson & K. Hochkirch
Comparison of wind tunnel and full-scale aerodynamic sail force measurements
D. Le Pelley, P. Ekblom & R. Flay
Wind Tunnel Testing of Downwind Sails
R. Ranzenbach & J. Teeters
Enhanced depowering model for offwind sails

15:30 – 16:00 AFTERNOON BREAK

16:00 – 17:00 SESSION 7: STANDARDS AND REGULATIONS
Chair: Mr Trevor Blakeley
A. Reay & G. Kerr
Achieving high performance within the restrictions of EU recreational craft directive
R. Downs-Honey
Regulatory constraints on the structural design of high performance yachts

19:30 – 22:30 CONFERENCE DINNER
Royal New Zealand Yacht Squadron, Westhaven Marina, Auckland City
Guest Speaker: Peter Hillary, adventurer, mountaineer, author and speaker

FRIDAY 6TH DECEMBER 2002

09.00 – 10.30 SESSION 8: COMPUTATIONAL METHODS FOR HULL DESIGN – II

Chair: Mr David Lepelley

K. Hochkirch, K. Röder, C. Abt & S. Harries

Advanced parametric yacht design

E. Jacquin, B. Alessandrini, D. Bellevre & S. Cordier

Yacht optimisation based on genetic algorithm using RANSE solver

C. Barry, D. Ghosh, R. Akers & A. Ulak

Implementation, application and validation of the Zarnick strip theory analysis technique for planing boats

10.30 – 11.00 MORNING BREAK

11.00 – 12.30 SESSION 9: ASPECTS OF PERFORMANCE PREDICTION – I

Chair: Mr Burns Fallow

Y. Roux, S. Huberson, F. Hauville, J-P. Boin, M. Guilbaud & M. Ba

Yacht performance prediction: towards a numerical VPP

J. Binns, F. Bethwaite & N. Saunders

Development of a more realistic sailing simulator

A. Mason & A. Philpott

Optimisation in yacht performance analysis

12.30 – 13.30 LUNCH

13.30 – 15.30 SESSION 10: ASPECTS OF PERFORMANCE PREDICTION – II

Chair: Mr Graeme Finch

I. Dand

The effect of water depth on the performance of high speed craft

P. Ottosson, M. Brown & L. Larsson

The effect of pitch radius of gyration on sailing yacht performance

S. Day, L. Letizia & A. Stuart

VPP vs PPP: challenges in the time-domain prediction of sailing yacht performance

J. Teeters, R. Pallard & C. Muselet

Rudder span effects on IMS hydrodynamic induced drag

15.30 – 15.45 CLOSING SESSION

16.00 – 18.00 TECHNICAL VISIT

University of Auckland Twisted Flow Wind Tunnel, East Tamaki, Auckland



PROGRAMME

4 - 6 December 2002

Auckland, New Zealand

ORGANISING COMMITTEE:

Dr Mark Battley, Industrial Research Limited
Mr Michael Eaglen, Royal Institution of Naval Architects
Mr Graeme Finch, Industrial Research Limited
Prof. Richard Flay, University of Auckland

Prof. Peter Jackson, University of Auckland
Mr David Lepelley, University of Auckland
Mr John Thorn, Massey University
Mr Bruce Woods, Massey University

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