## **Table of Contents**

## Volume I

**Preface** 

Table	e of Contents Volume I e of Contents Volume II mittees of the 25th ITTC	
	Advisory Council  Membership and Meetings	7
2.	Activities and Recommendation of the Advisory Council	7
3.	Officers for the 26th ITTC Advisory Council	9
The l	Executive Committee	11
1.	Introduction	11
2.	Obituaries	11
3.	Committee Membership	16
4.	Committee Meetings	16
5.	Committee Decisions	18
The 1	Resistance Committee	21
1.	Introduction	21
2.	Resistance Committee Questionnaire	22
3.	Trends in Experimental Fluid Dynamics	26
4.	Scaling and Extrapolation Methods	32
5.	Trends in Computational Fluid Dynamics	39
6.	Validation of Prediction Techniques	45
7.	Facility Bias World Wide Campaign	50
8.	Design References and Optimization	58
9.	Far Field Waves and Wash	60
10.	Airwakes	63
11.	Recommendations	68
12.	References	68
	Propulsion Committee	83
1.		83
2.	Update the State-of-the-Art for Propulsion Systems Emphasising Developments	85
2	Since the 2005 ITTC Conference	ns
3. 4.	Review ITTC Recommended Procedures Critically Review Examples of Validation of Prediction Techniques	98 109
4.	Identify and Specify Requirements for New Benchmark Data	105
5.	Review the Development and Progress in Unconventional Propulsors	112
5.	Such as Tip-rake, Trans-cavitating and Composite Propellers (Hydroelasticity and	112
	Cavitation Erosion Susceptibility Taken into Account	
6.	Review Propulsion Issues in Shallow Water and Formulate Recommendations for	117
0.	Research	117

7.	Review the Methods for Predicting the Performance of Secondary Thrusters and	120
8.	Compare with Operational Experience Finalise the Benchmark Tests for Waterjets and Analysis of the Data	125
9.	Conclusion	131
10.	References	134
	Manoeuvring Committee	143
1.	Introduction Overview of Managemains Production Mathada	143
2.	Overview of Manoeuvring Prediction Methods	145
3.	Progress in System Based Simulations  Progress in CED Based Managements Simulation Methods	150
4. 5	Progress in CFD Based Manoeuvring Simulation Methods Validation of Simulations & Benchmark Data: SIMMAN 2008	154
5.		161
6. 7	Manoeuvring and Course Keeping in Waves	171 176
7. 8.	New Experimental Techniques Shallow and Confined Waters and Ship-Ship Interactions	180
9.	Standards and Safety	184
9. 10.	Procedures	191
10.	Conclusions	191
12.	Recommendations to the ITTC	197
	Seakeeping Committee	209
1.	General	209
2.	Review of State-of-the-Art	211
3.	ITTC Recommended Procedures	244
4.	Conclusions and Recommendations	245
5.	References and Nomenclature	251
The (	Ocean Engineering Committee	263
1.	General	263
2.	Bottom-Founded Structures	265
3.	Predicting the Behaviour of Stationary Floating Structures and Ships	269
4.	Dynamically Positioned Ships, Mobs	276
5.	Wind, Waves and Current	278
6.	Hydroelasticity and Impact	280
7.	Renewable Energy Systems	283
8.	New Experimental Techniques	286
9.	Progress in CFD	290
10.	Existing Procedures	292
11.	Benchmark Data for Validation of CFD Codes	293
12.	Validation of Software for Predicting Wave Loads and Responses of	294
	Offshore Structures	
13.	Multiple-Scale Model Testing	294
14.	Modelling Wind in Model Basins	298
15.	Conclusions	301
16.	Recommendations	304
17.	Appendix: Benchmark Data for Validating CFD Codes	304
18.	References	308
The (	Quality Systems Group	325
1.	General	325
2	Tasks Performed	325

Proceedings of 25th ITTC - Volume III