

# MINUTES OF MEETING

**SIMMAN 2007**

SIMMMAN 2007  
Meeting of organizers and co-organizers no. 5

Workshop on Verification and Validation of Manoeuvring Simulation Methods  
www.simman2007.dk

Participants  
Frans Quadvlieg (MARIN), Riccardo Broglia (INSEAN), Sun Young Kim (MOERI), Pierre Perdon (BEC), Zao-Jian Zou (SJTU), Hironori Yasukawa (Hiroshima University), Andres Cura (HSVA), Fred Stern (IIHR), Evgeni Milanov (BSHC), Paolo Bulgarelli (INSEAN), Kristian Agdrup (FORCE)

C.C. to  
Michio Ueno (NMRI), Takanori Hino (NMRI), Suak-Ho Van (MOERI), Joe Gorski (NSWC), David Hess (NSWC), In-Young Koh (NSWC), Serge Toxopeus (MARIN), Adolfo Marón (CEHIPAR), Key-Pyo Rhee (Seoul National University), Joe Longo (IIHR), Yasuo Yoshimura (Hokkaido University), Claus D. Simonsen (FORCE)

Date	Place
Apr 27, 2007	Bassin de Carénes, Val de Reuil, France

No. of pages	Minutes taken by
6	Kristian Agdrup (FORCE)

## Action items

No.	Responsible
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### **Agenda** (as distributed by Stern prior to meeting;

0. Introductory remarks
  - Overall status and timetable
  - ONRG funding
1. KVLCC Captive and Free Model Tests
  - MOERI
  - INSEAN
  - NMRI
  - HSVA
  - BSHC
2. KCS Captive and Free Model Tests
  - CEHIPAR
  - NMRI
  - BSHC
  - SVA
3. 5415 Captive and Free Model Tests
  - FORCE/DMI
  - MARIN
  - BEC
  - INSEAN
  - IIHR
4. Systems Based Simulation Methods Comparisons: Instructions and Questionnaire
  - KVLCC
  - KCS
  - 5415
5. CFD Based Simulation Methods Comparisons: Instructions and Questionnaire
  - KVLCC
  - KCS
  - 5415
6. Detailed Plan for Workshop
  - New date of workshop
  - Instructions for papers and posters
  - Status registration and 2<sup>nd</sup> call for participation
  - Workshop program
  - Other as needed

<p><b>0. Introductory Remarks</b>                  Stern welcomed attendees and reviewed Agenda. Agdrup presented overall status of which model test data was available on web site/FTP server to date and which data was still missing. This is summarized in the next sections separately for each hull with main focus on the "focus tests" i.e. deep water, appended hull PMM, CMT and free model tests.</p> <p>Agdrup mentioned that the executive committee has obtained funding for the workshop from ONR Global.</p>																								
<p><b>1. KVLCC1+2</b>                  The status of available data for KVLCC1+2 at the date of the meeting was as follows:</p> <table border="1"> <tr> <td colspan="2"><b>Model tests</b></td> </tr> <tr> <td>PMM app deep</td> <td>1. MOERI - done, data available 2. INSEAN - done, data available</td> </tr> <tr> <td>CMT app deep</td> <td>NMRI - done, data available</td> </tr> <tr> <td>free model tests</td> <td>1. HSVA – done, data to be sent(*) 2. CTO – scheduled for May 3. MARIN – scheduled for July</td> </tr> <tr> <td colspan="2"><b>Geometries (iges-files)</b></td> </tr> <tr> <td>hull</td> <td>OK</td> </tr> <tr> <td>rudder</td> <td>iges-file to be checked and sent(*)</td> </tr> <tr> <td>propeller</td> <td>1. MOERI – OK 2. INSEAN – data to be sent (*) 3. NMRI – data to be sent (*)</td> </tr> <tr> <td colspan="2"><b>Additional data</b></td> </tr> <tr> <td>openwater</td> <td>1. MOERI – data to be sent (*) 2. INSEAN – data to be sent (*) 3. NMRI – data to be sent (*)</td> </tr> <tr> <td>resistance &amp; self-propulsion</td> <td>OK (included in NMRI results) MOERI may have data also, to be checked</td> </tr> </table> <p>(*) All missing data should be sent to Agdrup for posting on web site/FTP server <b>by end of May 2007.</b></p> <p><b>Itinerary for KVLCC1+2 models:</b>                  HSVA; April -&gt; CTO; June -&gt; MARIN; Aug -&gt; BSHC</p> <p><b>Additionally:</b>                  - INSEAN and MOERI will do comparative analysis of PMM results and distribute results                  - Stern to contact CTO to discuss specific test program of free model tests including possible tests for system identification methods                  - Cura presented trends in results of HSVA free model tests and emphasized importance of controlling and recording initial conditions at time of executing manoeuvre.</p>		<b>Model tests</b>		PMM app deep	1. MOERI - done, data available 2. INSEAN - done, data available	CMT app deep	NMRI - done, data available	free model tests	1. HSVA – done, data to be sent(*) 2. CTO – scheduled for May 3. MARIN – scheduled for July	<b>Geometries (iges-files)</b>		hull	OK	rudder	iges-file to be checked and sent(*)	propeller	1. MOERI – OK 2. INSEAN – data to be sent (*) 3. NMRI – data to be sent (*)	<b>Additional data</b>		openwater	1. MOERI – data to be sent (*) 2. INSEAN – data to be sent (*) 3. NMRI – data to be sent (*)	resistance & self-propulsion	OK (included in NMRI results) MOERI may have data also, to be checked	<p>#1 Cura</p> <p>#2 Broglia</p> <p>#3 Broglia</p> <p>#4 Ueno/ Yasukawa</p> <p>#5 Kim</p> <p>#6 Broglia</p> <p>#7 Ueno/ Yasukawa</p> <p>#8 Kim</p> <p>#9 Broglia/Kim</p> <p>#10 Stern</p>
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<p>measurements of wave pattern are being analysed; UA work is in progress                  - MARIN has decided to perform bare hull PMM and CMT tests, which are scheduled to take place in Sept '07, date to be confirmed</p>	#24	Quadvlieg																																																																																	
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<p>Key: Fields in <b>green</b> are tests that have been finalized to date, in dark colour if test data is available for download. Columns headers in <b>grey</b> are "focus tests" that form the primary basis for comparison at the workshop.</p>																																																																																			
<p><b>4. Systems based simulation methods comparison</b></p>																																																																																			
<p>The proposal for <b>instructions</b> prepared by Quadvlieg will cover all hulls. It was agreed that this document should be revised before posting on web site. This was done directly after meeting by Quadvlieg, Perdon and Agdrup. The latter to write up final version and distribute to others before posting.</p> <p><b>Questionnaire:</b> To be prepared by Quadvlieg/Agdrup and distributed to others.</p> <p><b>Comparison:</b> The list of responsible persons is as follows:                  KVLCC1+2: KP Rhee                  KCS: Quadvlieg                  5415: Perdon and Hess                  coordination by Agdrup</p>			#25  #26	Quadvlieg/KP Rhee/Perdon/ Agdrup  Quadvlieg/ Agdrup																																																																															
<p><b>5. CFD based simulation methods comparison</b></p>																																																																																			
<p>As agreed earlier the <b>instructions</b> will be split up into separate guidelines for each hull:  <b>KVLCC1+2</b> – has been prepared by Hino, to be posted  <b>KCS</b> – test protocol from CEHIPAR PMM tests to be sent by Agdrup to Hino, who will prepare instructions for KCS similarly to KVLCC's</p>			#27 #28	Agdrup Hino/Agdrup																																																																															

<p><b>5415</b> – has been prepared by Stern, to be posted</p> <p><b>Questionnaire:</b> has been prepared by Hino, to be posted</p> <p><b>Comparison:</b> Broglia offered to take the responsibility on comparison of CFD results for KCS. The list of responsible persons is thereby as follows:          KVLCC1+2: Hino          KCS: Broglia          5415: Gorski          coordination by Stern</p>	<p>#29</p> <p>#30</p>	<p>Agdrup</p> <p>Agdrup</p>
<p><b><u>6. Detailed plan for workshop</u></b></p> <p><b>New date of workshop</b>          As a consequence of the fact that not all model test data and most of the instructions for the participants was not available at the date of the meeting, the executive committee proposed to postpone the workshop and thereby the deadline for submittal of data and papers. There was general agreement to move the workshop to Spring 2008. This means that the workshop will take place on:</p> <p style="text-align: center;"><b>April 14<sup>th</sup>-16<sup>th</sup> 2008</b></p> <p>The new deadline for submittal of data and papers will be December 31<sup>st</sup> 2007. The web site will be updated accordingly. The new dates will be announced in the following ways:</p> <ul style="list-style-type: none"> <li>- e-mail call to participants (2<sup>nd</sup> Call for participation, see below)</li> <li>- ITTC News (next issue in June)</li> <li>- web site</li> </ul> <p><b>Instructions for papers and posters</b>          To be prepared. It was agreed to re-use procedures from other workshop/conference.</p> <p><b>Status registration and 2<sup>nd</sup> call for participation</b>          Agdrup presented a list of the replies to the first Call for participation. Generally the response has been satisfactory and a substantial number of persons have shown interest in the (new) workshop. At the date of the meeting, a total of 26 persons/groups have indicated that they definitely intend to participate and other 17 persons/groups have indicated that they may possibly participate. Most of these intend to participate using several hulls and many using more than one method. The estimated number of participants is still around 70 persons.</p> <p>The 2<sup>nd</sup> Call for participation will be sent out no later than June 30<sup>th</sup> and should include mention of new workshop date and deadlines.</p> <p><b>Update of web site and FTP server</b>          All test data as well as missing instructions should be available on web site/FTP server no later than June 30<sup>th</sup>.</p> <p><b>Workshop program</b>          The program for the 3-day workshop was revisited and discussed briefly with no substantial modifications. At present there is no person appointed to present the overview of model tests for KCS. Stern to ask Steinwand/SVA and/or Ueno/NMRI.</p>	<p>#31</p> <p>#32</p> <p>#33</p> <p>#34</p> <p>#35</p> <p>#36</p>	<p>Stern</p> <p>Agdrup</p> <p>Stern/Agdrup</p> <p>Stern/Agdrup</p> <p>Agdrup</p> <p>Stern</p>
<p><b><u>7. Action items from previous meeting</u></b>          The status of action items from Meeting No. 4 (see <a href="http://simman2007.dk">simman2007.dk</a>) was checked. Those items not finalized or covered elsewhere in these Minutes are as follows:          #21 – CFD instructions: propose plots to replace derivatives          #22 – CFD instructions: add background – skipped          #24 – INSEAN shallow water PMM problems – report almost ready          #25 – possible free model tests in Japan – skipped</p>	<p>#37</p> <p>#38</p>	<p>Cura</p> <p>Broglia</p>

<b>9. Next meetings</b> - Executive committee: June 25 <sup>th</sup> 2007 at FORCE, Denmark - Comparison subcommittees: Jan 19 <sup>th</sup> 2008 at MARIN, Holland (directly after ITTC MC meeting)		
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