3rd Global Test Facility Forum

Istanbul, 24-25 October 2011

MINUTES OF THE MEETING

Summary

The organizations involved in testing and data generation for approval and certification of Ballast Water Management (BWM) Treatment Technologies met for a 3rd Global Test Facility Forum, on 24 and 25 October 2011, in Istanbul, Turkey. The meeting was hosted by the GloBallast Partnerships project, back-to-back with the Global R&D Forum on Ballast Water Management.

The main focus of the meeting was to progress towards the finalization of an Memorandum of Understanding between the test facility operators, which would set out the minimum quality standards that the members of the group would agree to adhere to. Furthermore, the group discussed the possibilities for a harmonized QA/QC protocol, as well as various issues related to the biology of testing, such as class sizes, viability assessments, and sampling. In this respect, a draft MOU was developed, which was circulated among the Test Facilities. Other, more specific issues for harmonization were also discussed during break-out sessions, although priority was given to the finalization of the MOU at this meeting.

The group selected a new Interim Steering Committee, comprising KORDI (representing Asia), MERC (representing North America) and NIOZ (representing Europe). A new Interim Chairman was also selected, Dr. Mario Tamburri (MERC), and GloBallast Partnerships PCU agreed to continue as the Interim Secretariat at least until next meeting.

For any questions regarding the Global Network of Ballast Water Test Facilities, please contact

Dr. Mario Tamburri, Interim Chairman
Alliance for Coastal Technologies
Maritime Environmental Resource Center
Chesapeake Biological Laboratory
University of Maryland Center for Environmental Science

Mr. Fredrik Haag, GloBallast Partnerships PCU, International Maritime Organization
Interim Secretariat
fhaag@imo.org

MINUTES OF THE MEETING

Day 1 – 24 October

Welcome, opening of meeting and selection of chairman

The meeting was opened at 10:00 am at the Point Hotel Barbaros, Istanbul, Turkey. After welcoming remarks from the Chairman, all participants introduced themselves briefly.

Update from IMO

Dandu Pughiuc, Head of the Biosafety Section, IMO, provided an update on the latest developments at IMO, in particular regarding the latest ratifications of the Ballast Water Management Convention and the latest approvals of treatment technologies.

Formalisation of the network of test facilities: consideration of the draft MOU

The Chairman introduced the draft MOU, which had been circulated to all test facilities. After an initial round of comments, the discussion was referred to the break-out group to be convened on the second day.

Proposal from DHI Singapore regarding amendments to the Guidelines G8

Martin Anderson presented conclusions from studies at DHI regarding the influence of temperature during testing of systems.

After some discussion, the group agreed that since the proposal referred to circumstances that do not directly apply to all facilities, this particular issue may best be left to those that are directly affected by it, in particular since the test facility network has not been formally established yet.

Open session: Dialogue with Administrations and Class.

As agreed during the 2nd meeting of test facilities held in Singapore in October 2010, the test facilities had invited Administrations and Classification Societies for an open discussion session. This was arranged as an opportunity for dialogue and to get the view on harmonization needs from these key stakeholders. The session was moderated by Mario Tamburri.

After an introduction by Sjur Tveite, Kai Truempler from the German Maritime Administration (BSH) gave a presentation on his views of the testing and approval process. This was followed by a presentation by Line Svedrup from DNV regarding the role and experiences of classification societies.

Day 2 – 25 October

On the second day, the participants were divided into three break-out groups, in order to progress with the most pressing issues. At the end of day two, these reported back to the plenary.

Break-out group 1: Finalising the MOU

Based on a text that had been circulated to all test facilities prior to the meeting, a new draft of the MoU was developed by the group. The new draft was then discussed in plenum, and it was agreed that all test facilities would review the version with a view to signing as soon as possible after returning home. The text of the MOU is attached as annex 3 to these minutes.

The group agreed to refer to this initiative as the **Global Ballast Water Test Facility Network - GloBal TestNet.**

Break-out group 2: Finalising the QA/QC annex to the MOU

The QA/QC Break-Out Group was led by Allegra Cangelosi (Great Ships Initiative, GSI), and members included: Kelsey Prihoda (GSI), Martin Andersen (DHI-Singapore), Matthew First (United States Naval Research Laboratory), Seongjin Seo (Korean Register of Shipping, and Kyoungsoon Shin (Korean Ocean and Research Development Institute, KORDI). The members of the QA/QC Break-Out Group were able to improve upon the "Draft Minimum Guidelines for QA/QC at Land-Based Test Facilities" (to be included in the MOU as Annex 5), which was initially drafted during the Second Global Test Facility Harmonization Workshop in Singapore. The objective of Annex 5 is that all members of the GloBal TestNet will agree to maintain the level of quality assurance and quality control described in this guidance document, and all new members will commit to the establishment of these minimum guidelines upon joining the network. It was agreed that the draft guidelines document should continue to be edited by the members of the break-out group until it is ready for peer review by the entire GloBal TestNet. The draft guidelines document was not edited any further after the adjournment of the Third Test Facility Workshop, and can be found in annex 4 of this report.

Break-out group 3: Progressing with biology aspects

In parallel with the discussions on the MOU and the QA/QC aspects, a break-out group led by Stephan Gollasch (GoConsult) continued the discussions on the biology aspects of testing.

Work plan

It was agreed that the focus for the time being should be to conclude on the MOU and formalization of the network, before agreeing on a more detailed work plan.

Election of Chairman

The meeting elected a new Interim Steering Committee, comprising Dr. Kyoungsoon Shin, KORDI (representing Asia), Dr. Mario Tamburri, MERC (representing North America) and Dr. Jan Boon, NIOZ (representing Europe). Dr. Mario Tamburri (MERC), and GloBallast Partnerships PCU agreed to continue as the Interim Secretariat at least until next meeting

Next meeting

It was agreed that the highest priority at the moment is for the Interim Steering Committee to make progress on the issues related to the MOU and formalisation of the network and that this will be the focus, by correspondence, until next meeting. The ISC will suggest a suitable time and venue for the next meeting, tentatively back-to-back with the next 6th International Conference and Exhibition on BWM, to be held in Singapore in November 2012.

In the interim, the issues identified by the other break-out groups should continue to be addressed by the lead organisations.

The meeting was closed at 17:30 on 25 October 2011.

Annex 1

3rd GLOBAL TEST FACILITY FORUM

Istanbul, 24-25 October 2011

DRAFT AGENDA

Sunday, 23 October

Arrival of participants

Day 1: Monday, 24 October

Coffee to be served before the meeting starts

10:00	Welcoming remarks from the hosts	TUBITAK
	Objectives of the meeting	Steering Committee
	Update from the test facilities and introduction of new members	All
11:00	Update from IMO	IMO-GloBallast
11:15	Finalisation of the MOU	
11:45	Proposal for amendments to Guidelines G8	DHI Singapore
12:15	*Lunch*	

Dialogue with administrations/class

A dialogue with administrations and classification societies will be organized, in order to get the view on harmonization needs from these key stakeholders. This will allow the Test Facility Network to discuss how this could be taken into consideration in its work plan.

13:30	Introduction	IMO/GloBallast
13:35	Presentation of the Test Facility Forum (Members, History and Mission, Aims and objectives, Planned activities)	Chairman/Moderator
14:00	The Administrations' view	Representative from an Administration
14:30	Classifications Societies' view	Representative from a Classification Society
15:00	*Coffee break*	
15:30	**Open discussion: How can the Test Facilities respond to the needs of**	

	Administrations and Class, and vice versa?	
16:30	Conclusions and recommendations	Chairman/Moderator
17:00	End of day 1	

Day 2: Tuesday, 25 October

09:00	Outcomes of the Dialogue Session with Administrations and Class: What does this mean for the Test Facilities and how can it be taken onboard by the Test Facility Network?	All
10:30	*Coffee break*	
11:00	Progress with other joint activities and possible new activities as iden tified during Day 1	All
12:30	*Lunch*	
14:00	Progress with joint activities, cont'd	All
15:30	*Coffee break*	
16:00	Work plan for the next intersessional period	All
16:30	Agreement on: - next meeting - election of chairman for the next intersessional period - election of steering committee for the next intersessional period	All
17:00	End of day 2	

Annex 2

3rd Global Test Facility Harmonization Workshop

24-25 October, Istanbul, Turkey
List of Participants

DHI

G. Pettersen	gip@dhigroup.com
T. Madsen	tma@dhigroup.com

DHI Singapore

M. Andersen	maa@dhi.com.sg
Edina Chua	ecl@dhi.com.sg
Guillaume Drillet	gdr@dhi.com.sg

Great Ships Initiative, Northeast-Midwest Institute, US

A. Cangelosi	acangelo@nemw.org

IMARES, Institute for Marine Resources and Ecosystem Studies

Andrea Sneekes	Andrea.Sneekes@wur.nl

KOMERI (Korea Marine Equipment Research Institute)

Youngsoo Kim	catenatum@komeri.re.kr
Soo-Yeon Im	sylim@komeri.re.kr

KORDI (Korea Ocean Research & Development Institute)

Kyoungsoon Shin	ksshin@kordi.re.kr

Korean Register of Shipping

Seongjin Seo	sjseo@krs.co.kr

Korean Ship Safety Technology Authority, Rep. of Korea

Cheol Ho Baek	chbaek@kst.or.kr

Kyung Hee University, Rep. of Korea

Eun Joo CHOI	ejejej@khu.ac.kr

Kitae RHIE	rhiekt@khu.ac.kr

Lake Superior Research Institute and Great Ships Initiative (GSI)

K.Prihoda	kprihoda@uwsuper.edu

Maritime Environmental Resource Center

M. Tamburri	tamburri@umces.edu

Ministry of Land, Transport and Maritime Affairs, Rep of Korea

Myung Hwan Do	dmh2941@korea.kr

Naval Research Laboratory, US

Matt First	matthew.first.ctr@nrl.navy.mil

NIOZ – Royal Netherlands Institute for Sea Research

Cato ten Hallers – Tjabbes	Cato.ten.hallers@nioz.nl
Jan Boon	jan.boon@nioz.nl

NIOZ – Royal Netherlands Institute for Sea Research

Etienne J. Brutel de la Rivière	ebrutel@planet.nl
Isabel van der Star	Isabel.van.der.Star@nioz.nl

NIVA

Stephanie Delacroix	Stephanie.Delacroix@niva.no
Sjur Tveite	<sjur.tveite@niva.no>

The Glosten Associates

Kevin Reynolds	kjreynolds at glosten.com

The California Maritime Academy

William Davidson	bdavidson@csum.edu

U.S. Naval Research Laboratory

L. Drake	Lisa.drake@nrl.navy.mil

U.S. Coast Guard Research and Development Center

Gail Roderick	Gail.E.Roderick@uscg.mil

Adviser to Test facilities in Japan

Shinichi Hanayama	s-hanayama@sof.or.jp

GESAMP-BWWG

Jan Linders	Jan@familielinders.nl

GoConsult

S. Gollasch	sgollasch@aol.com

BSH

Kai Truempler	kai.truempler@bsh.de
Nina Tavakkoli	Nina.tavakkoli@bsh.de

DNV

Jad Mouawad	jad.mouawad@dnv.com
Line Sverdrup	Line.Sverdrup@dnv.com

IMO

F. Haag	fhaag@imo.org
D. Pughiuc	dpughiuc@imo.org
J. Matheickal	jmatheic@imo.org
A. Cherif	acherif@imo.org

Annex 3

FINAL DRAFT

MEMORANDUM OF UNDERSTANDING

ON

THE GLOBAL BALLAST WATER TEST ORGANIZATIONS NETWORK

"GloBal TestNet"

Establishing a Global Ballast Water Test Organizations Network

1 There is a need within the shipping industry for development of cost effective and environmentally friendly ballast water management systems, as required by the 2004 International Convention for the Control and Management of Ships Ballast Water and Sediments (The Ballast Water Management Convention). Driven by this need, the technology development community is actively developing various ballast water management systems ("BWMS") to cater to the emerging ballast water treatment market. Such treatment technologies are required to undergo rigorous testing and a thorough approval processes, as per the 2004 IMO Ballast Water Management Convention.

2 Having met at several occasions, a number of organizations involved in the ship-based and land-based testing of BWMS, (hereinafter called "the Members"), agree that it would be mutually beneficial to establish a global network to promote co-operation, consistency and comparability of test results and set minimum standards for conducting testing and reporting of test results.

3 This Memorandum of Understanding (hereinafter called 'the MoU') is made between the
Members for the establishment of a Global Ballast Water Test Organizations Network (hereinafter called 'GloBal TestNet).

Definitions

4 *Test Organizations* include land-based, shipboard and other related BWMS evaluation efforts and facilities (including QMP and QAPP), in development or currently conducting tests of BWMS.

4.1 *Members* - see paragraph 12

4.2 *Independence* - see paragraph 15 on conflict of interest

4.3 *Transparency* is the disclosure of all type approval testing information to the greatest extent possible. It includes at least the disclosure of standard operating procedures, generic test protocols, specific test plans and the full disclosure of all type approval testing results to Recognized Organizations and Administrations upon request (including failed tests if requested), as well as the participation in peer-review and audits by third parties. Details on the method of disclosure, information to be shared, the peer review process and the audits will be included in separate Annexes.

Mission and functions

5 GloBal Test Net's mission is:

"To work towards transparency and harmonization of test conditions and procedures, and generating comparable, accurate test results by setting minimum testing standards by means of mutual recognition, and strengthening cooperation and exchange of information"

6 The Members agree to work cooperatively towards:

6.1 generation of independent and transparent land-based and ship-based data for the certification of BWMS and to set minimum testing standards and implement them;

6.2 standardization, to the extent possible, of test and analytical methods and approaches, to increase the comparability and accuracy of results among tests conducted by various Members;

6.3 cross-training among the Members to ensure high reliability within GloBal TestNet;

6.4 encouraging input from scientific experts including those outside the ballast water testing community.

6.5 performing other actions necessary to fulfill GloBal TestNet's mission.

6.6 Quarterly correspondence by each member via website, email list, conference call, etc. Participation in annual meetings is required but representatives are not required to attend in person.

7 The MoU consists of this Memorandum and the Annexes thereto. New annexes to the MoU can at any time be adopted or existing Annexes be amended by a four fifths majority. For the procedure of the adoption of a new Annex or amending an existing Annex, paragraph 28 shall apply mutatis mutandis.

8 The Annexes to the MoU are binding for all members. If Members disagree with the adoption of new Annexes or amendments to existing Annexes agreed on by majority in accordance with the paragraph 28, they may withdraw from the MoU within 30 days after the adoption of the Annex or Amendment has been disseminated to all Members by submitting a written notice to the Secretariat. The withdrawal shall be effective upon receipt of the notification by the Secretariat.

9 Annexes and amendments to existing Annexes shall enter into force 30 days after their adoption has been disseminated to all members.

Minimum standards

10 The Members signing this MoU agree to carry out the testing and the reporting of test results of BWMS in accordance with the standards set out in this MoU and its Annexes. Hereunder, the Members further accept to submit to external third party audit for the sole purpose of ensuring that the Member complies with the standards. The procedures for such external audit shall be set out in a separate Annex to this MoU.

11 Nothing in this MoU shall prevent a Member from applying, individually or jointly with other parties, additional testing protocols.

Membership

12 The Network is open to any organization involved in the generation of data from land-based and/or ship-based testing for the certification of BWMS under 2004 IMO Ballast Water Management Convention and relevant Guidelines or other test protocols.

13 Organizations fulfilling the criteria set out in this MoU and its Annexes may become a member by applying to the Secretariat. In their application they have to state their willingness to agree to this MoU and all of its annexes in force at the time of signature upon acceptance of their application. The Secretariat will then circulate the intention of the applicant organization to all members. If four fifths of existing Members express their disagreement to the new organization becoming a member within 60 days of circulation to the Secretariat in written, the application for Membership is turned down. Otherwise the application is accepted.

14 Any member not abiding by these minimum standards may be excluded from GloBal TestNet. Procedures for suspension and withdrawal of membership will be detailed in a separate Annex to this MoU.

15 To be included as a Member of GloBal TestNet, testing organizations and their staff cannot have conflicts of interest that could affect personal judgments or results of treatment evaluations.

For example:

16 The loss or award of a specific contract to test a treatment system must not be a substantial factor in the financial well-being of a Member of GloBal TestNet.

17 A Member of GloBal TestNet must be free of influence and control of the manufacturers and suppliers of the equipment.

18 Staff members of Members shall not be actively associated with the management of, or hold a financial interest in, any profit-making, business or other concern, if it were possible for the staff member or the profit-making, business or other concern to benefit from such association or financial interest by reason of his or her position within the type approval process. Members should require their staff members to file a declaration to this extent.

19 Members should require their staff members to declare any financial interest their household members (i.e. spouse, partner or child) may have regarding the type approval of a specific system.

Observers and advisers

20 GloBal Test Net welcomes observers to their meetings. The Steering Committee will invite observers and advisers from all stakeholders to meetings on a regular basis. Interested stakeholders can apply to the Steering Committee to take part in meetings. The Steering Committee will decide on this application by majority.

Financial arrangements

21 Each Member is responsible for its own costs associated with activities under this MoU.

Confidentiality and sharing of data

22 It is understood that if necessary, confidentiality should be maintained by the members of GloBal TestNet. All confidential data need to be marked as such. Each Member undertakes that it shall not at any time during this MoU, and for a period of 3 years after termination of/withdrawal from this MoU, disclose to anyone any confidential information concerning the business, affairs, customers, clients or suppliers of GloBal TestNet or another party. However, each Member may disclose another Member's confidential information to those of its employees, officers, representatives or advisers who need to know such information for the purpose of carrying out the Members' obligations under this MoU. Each Member shall ensure that its employees, officers, representatives or advisers to whom it discloses the other Member's confidential information comply with this clause 12; and as may be required by law, court order or any governmental or regulatory authority.

23 No Member shall use any other Member's confidential information for any purpose other than to perform its obligations under this MoU.

24 No Member to whom any details are disclosed will acquire any rights to intellectual property.

Organization

25 GloBal TestNet will be led and coordinated by a Steering Committee, which will be established, ideally with one representative from each continent active in certification testing (at the moment of signing this MoU this being North America, Asia and Europe). The Steering Committee will be assisted by a Secretariat.

25.1 The representatives from the test facilities of each continent will elect their representative on the steering committee by four fifths majority, using a procedure of their choice, by the end of November of each year for the following calendar year. If no majority decision has been taken by the end of November, the previous representative is replaced by a representative chosen by the test facility the name of which is following - if arranged in alphabetical order by the name registered with the GloBal TestNet - the name of the test facility the existing representative belongs to.

25.2 The members of the Steering Committee elect their chair unanimously by correspondence. If no unanimous decision can be reached, the position of chair rotates in the following order: Europe - Asia - North America.

25.3 The Steering Committee should meet quarterly in person or by teleconference, and the minutes of the meeting should be circulated to all other members. Steering Committee meetings are open to all Members.

Entry into force

26 This MoU shall enter into force when signed at least by a Test Organization from each continent.

Withdrawal from the MoU by a Member

27 Any Member can withdraw from the MoU upon 60 days written notice served the Steering Committee and, on expiry of such notice, will cease to be a party to this MoU.

Amendments

28 This MoU may be amended if 4/5 of the Members agree. Any Member of GloBal TestNet has the right to propose an amendment. Any amendment shall be submitted to the Steering Committee who shall circulate the proposal to all Members. Each Member shall have a period of 60 days to submit a vote in favour of or against the proposal. Members who do not submit a vote, shall be regarded as voting in favour of the proposal.

Miscellaneous

29 Except as expressly provided, nothing in this MoU is intended to, or shall be deemed to, establish any partnership or joint venture between the Members or other parties, constitute either Member the agent of another, nor authorise a Member to make or enter into any commitments for or on behalf of any other Member.

30 Upon establishment of GloBal TestNet, the function of the Steering Committee and Chair will be performed by the Chair and Steering Committee of the Test Facilities Forum, until the first regular election in 2012.

Member	**Name and title**	**Signature and date**
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Annex 4

Draft Minimum Guidelines for Quality Assurance/Quality Control at Land-Based Test Facilities

Objective: All members of the Global Test Facility Network will agree to maintain the level of quality assurance (QA) and quality control (QC) described in this guidance document. In addition, all new members will commit to the establishment of these minimum guidelines upon joining the network.

1. **Quality Management Plan (QMP), Publically Available**
    - Quality Management Plan should contain the following information:
        - Organization's commitment to quality in terms of staff and resources.
        - Description of roles and responsibilities of test facility staff.
        - Training of staff and demonstration of competency.
        - Description of independence between test facility and treatment develop and commitment to –
            1. Fiscal independence
            2. Operational independence
        - Communication with ballast water treatment system (BWTS) developer during testing.
        - Describe process for ensuring quality of data generated by subcontractors.
        - How to handle amendments (planned changes to QAPP) and deviations (unplanned changes due to unforeseen circumstances).
        - Corrective actions in response to deviations (i.e., process for quality improvement).
        - How to archive data and length of archive time.
        - Description of process for independent internal audits.
        - Description of process for external audits (either from administration, government agency, classification society, consultant, or another test facility)
            1. Define whether or not they happen, by whom
            2. Over time, we could do round robin audits among facilities
        - Continual Improvement: A repetitive, internal process within an organization to improve test procedures and QA/QC based on feedback and results of internal and external audits and data quality objectives.

2. **A Quality Assurance Project Plan (QAPP), Publically Available Whenever Possible:** Detailed, describes detailed methods, and specific data quality indicators and criteria, but not exhaustive information on each analysis method. That latter information is contained in the SOPs, which are not always publically available.
    - QAPP should include the following information:
        - Description of the use, implementation, and revision of standard operating procedures (SOPs) for routine procedures related to certification/verification testing (e.g., preparation of test water, sample collection, sample analysis, etc.) Referenced, not necessarily included.

- Documentation of why we chose the method we did, and how we validated it assuring independence of the validation, and the outcome of the validation exercise.
- Data quality indicators. Report the level they need to achieve and how the measurement is made. For example, operator bias, less than 20 percent. One per ten samples. Explicit in terms of Consequences and in terms of global criteria like standard for completeness
- Data Quality Criteria and Objectives
    1. Analyst (Operator) Bias: Conduct a second count of zooplankton, phytoplankton sample during certification/verification testing.
    2. Facility Bias: Identify sources of error that are attributed to the test facility, such as, dirty pipes, cross contamination, etc. Validate that facility bias is minimized to the greatest extent possible.
    3. Experiment Bias: Identify sources of error are attributed to sample handling, sampling methods, time from sample to analysis, preparation of source water, etc.. Validate that experiment bias is minimized to the greatest extent possible.
    4. Precision: Quantify variability among replicate samples (i.e., taken in triplicate) to ensure homogeneity of control and treatment water.
    5. Completeness: Quantify the number of samples that are valid versus the number of samples that were collected (recommend greater than 90%).

3. **Real time communications with IL or regulatory authorities (as a courtesy)**
    - Inform authorities as early as possible of major deviations and their possible impacts.

4. **Test reports (not necessarily public) will include:**
    - Documentation of all deviations and their impact on the study.
    - Analysis of data relative to data quality objectives.
    - Include data on all trials (including failed trials).