

International Airgun Modelling Workshop: Validation of Source Signature and Sound Propagation Models

The Alexander Hotel (Aston Suite 1 & 2), Dublin, Ireland

16 July 2016

Final Programme

WORKSHOP OBJECTIVE:

The purpose is to meet the demand for increasingly precise assessments of environmental impacts, requiring accurate characterization of the airgun array sound field. We choose to start with the shallow water case because for a model comparison we can eliminate uncertainties in model inputs by specifying these inputs carefully. The specified scenarios for shallow water will include propagation distances from the near field up to a few tens of kilometres from the array.

The specific workshop goals are:

- To provide well-specified biologically relevant scenarios for acoustic propagation, involving received sound pressure and particle motion at pre-specified distances from an airgun array in shallow water;
- to obtain a set of solutions to these scenarios by combining airgun signature and sound propagation models;
- to provide a comparison of the various model results;
- to identify and understand any significant differences.

Introduction (Chair: René Dekeling)

08:30	Welcome/coffee	
09:00	René Dekeling	Opening by organizing committee
09:05	David Zeddies	Background: the need for accurate predictions
09:30	Michael Ainslie	Clarification of the objective, description of the specified problem

Part 1. The Source (Chair: Kevin Heaney / Rapporteur: Halvorsen)

09:45	Kevin Heaney	Source modelling introduction
09:50	Robert Laws	Source modelling solution (Gundalf)
10:05	Alex MacGillivray	Source modelling solution (AASM)
10:20	Özkan Sertlek	Source modelling solution (Agora)
10:35	Alec Duncan	Source modelling solution (CAGam)
10:50	Robert Laws	Source modelling summary (10 min)
11:00		Source modelling discussion (20 min)
11:20		----- Coffee break (20 min) -----

Part 2. Propagation (Chair: Robert Laws / Rapporteur: Halvorsen)

11:40	Robert Laws	Propagation modelling introduction
11:45	Kevin Heaney	Propagation modelling solution #1
12:00	Elizabeth Küsel	Propagation modelling solution #2
12:15		Propagation modelling discussion (20 min)
12:35		----- Lunch Break (60 min) -----

Part 3. The Interface: Connecting Source and Propagation Models (Chair: Amy Scholik-Schlomer/Rapporteur: Halvorsen & Ainslie)

13:35 Amy Scholik-Schlomer Connecting models introduction
13:40 Adam Frankel Connecting models solution #1
13:55 Mark Prior Connecting models solution #2
14:10 General discussion (20 min)

Part 4. Results and Conclusions (Chair: David Zeddies / Rapporteur: Lubbe & Van den Bosch)

14:30 David Zeddies Results and conclusions introduction
14:35 Questions from the audience to speakers (30 min)
15:05 ----- **Tea-break** (30 min)-----
15:35 Halvorsen/Ainslie Report main areas of agreement / disagreement between models (25 min)
16:00 Structured discussion (30 min): Including themes for future workshop;
animals vs measurements vs realism
16:30 René Dekeling Wrap up/ conclusions and reporting/way ahead
16:45 ----- **Adjourn for drinks** -----

ORGANISING COMMITTEE

Michael A. Ainslie, TNO (michael.ainslie@tno.nl)

Michele B. Halvorsen, CSA Ocean Sciences Inc. (mhalvorsen@conshelf.com)

René P. A. Dekeling, Netherlands Ministry of Infrastructure and Environment (rene.dekeling@minienm.nl)

SCIENTIFIC COMMITTEE

Robert M. Laws PhD CEng, Schlumberger Gould Research

Kevin D. Heaney PhD FASA, OASIS Inc.

Michele B. Halvorsen PhD FASA, CSA Ocean Sciences Inc.

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