

Notes on 2nd meeting of the Underwater Sound Forum
Tuesday, 27 March 2007
IMarEST, London

In attendance:

Richard Bowles (RBo)	MOD
Ian Boyd (IB)	University of St Andrews
John Campbell (JC)	OGP
Gaynor Evans (GE)	BODC
Trevor Guymer (TG)	IACMST
Dick Hazelwood (DHa)	R & V Hazelwood
Paul Leonard (PLe)	Defra (attended for items 4 onwards)
Peter Liss (PLi)	UEA
Bev MacKenzie (BM)	IMarEST
Kevin O'Carroll (KO)	Dti
Rolly Rogers (RR)	QinetiQ
Liz Sandeman (LZ)	Marine Connection
Andrew Tate (AT)	FCO
Andrew Wither (AW)	EA

Apologies:

David Bingham (DB)	BP Exploration
Lez Hardy (LH)	MOD
Sam Healy (SH)	QinetiQ
David Hedgeland (DHe)	IACC
Mary Lou Lauria (ML)	Worley, Parsons, Komex
Neil MacPherson (NM)	DfID
Matt Summers (MS)	Dstl
Elaine Tooth (ET)	SEERAD
Geraint West (GW)	NOCS

Note: Stephen Spall has left the Met Office who will be represented at future meetings by Rosa Barciela.

1. Actions from previous meeting

These had been completed apart from writing an article on the Forum for *Marine Scientist*. Olive Heffernan no longer worked for IMarEST. BM will investigate to see whether sufficient material exists to write the article (**Action BM**).

Funding. TG had recently sent a letter requesting financial assistance in the form of a £500 one-off payment. Several positive indications had been received already and others were anticipated.

2. European Science Foundation Marine Board Report

IB briefly outlined how the report had developed from a workshop in October 2005 and gave its main conclusions; he then focused most of his remarks on tables in the report which listed priority research questions and their interdependence. The document was less a strategy and more a list of things to be done within a risk assessment framework. The resulting discussion covered several points:

- controlled exposure experiments (this term covers a wide spectrum of activities and is probably better avoided);
- the need to have a UK ethical review procedure covering experiments involving the use of marine mammals (there was a possible role for IACMST in bringing this about);
- the difference between biological and economic significance (the ESF report could only deal with the former);
- management of risks (one example is the lack of sufficient evidence to determine whether ramp-up procedures are effective).

The report is due to be published soon by ESF and is relevant to where funding is directed within the new EU Framework Programme and in guiding responses to the EU Maritime Policy consultation.

3. Joint Industry Programme – Exploration and Production (E&P) Sound and Marine Life Programme

In introducing this item, JC pointed out that a research programme focused on the needs of the E&P sector had been developed against the background of a number of reports and directives and establishment of Marine Protected Areas. Its overarching objective is to identify specific, operationally focused questions that relate to the effects of sound generated by the offshore E&P industry on marine life, and to pursue a research programme that will test scientific hypotheses and produce the data needed to address these questions. The present three-year execution phase which had begun in May 2006 had \$8M per year available. 15 companies were involved with a geographically diverse base. The programme included external peer review and was based around the following six research topics: sound source characterisation and propagation; physiological effects (auditory and non-auditory); behavioural reactions and biologically significant effects; mitigation and monitoring; research tools; and, cumulative and long-term effects.

Those who received JIP funding were encouraged to publish their results in the peer-reviewed literature and after two years open access would be given to the data by placing it in an archive such as BODC.

Discussion points included the difficulty in obtaining a ship for the Gulf of Mexico experiment and the use of data from Marine Mammal Observers. These were thought to be potentially very valuable for JIP in providing additional insight to the distribution of marine mammals and their reaction to anthropogenic noise. The project was aimed at seeing how the usefulness of such data could be improved by

standardising procedures. It was noted that the way that 15 companies had joined forces in mounting a significant research programme set a good example for government departments to follow.

4. Tools and protocols

In GW's absence, RR explained the contents of a draft paper that had been produced listing the different tools he was aware of. He suggested this should be sent out to all members of the Forum for comments and additions and GW should then take it forward with the intention of circulating it more widely. The main purpose was to identify gaps. This led to a discussion in which the availability of the tools needed to be set alongside the requirements of different organisations so that a better gap analysis could be conducted. It was thought that 'noise budgets' should be a priority.

It was decided that the form of the document should be agreed by the next Forum (see item 7 below) and then sent out externally (**Action RR/TG**). Strawman requirements will also be drafted in the same time frame (**Action RR/IB**).

5. Existing conventions

AT reported that he had received RR's list of potentially relevant legislation and, following consultation with his legal adviser colleagues in FCO had produced a note summarising their applicability to the issue of underwater sound. It was probably useful to preserve a distinction between noise and sound, the former implying nuisance. However, it was pointed out that OSPAR took the view that sound being a form of energy could itself be regarded as a form of pollution. Getting an international consensus, as done for climate by the IPCC process would be a good aim but he questioned whether we had agreement in the UK and whether there was a willingness to push at the international level. He noted that at its last General Assembly the UN had set the ball rolling by requesting information from Member States on peer review publications on the topic. RR also suggested that the UN may be moving towards expansion of Part XII of UNCLOS to include underwater sound.

The meeting approved AT's paper subject to adding a sentence or two to paragraph 3 and agreed that it should be sent out with RR's list as an annex to other members of the Forum for comment (**Action RR/TG**).

6. AOB

Meetings. RR had produced a list of those relevant to the Forum and some additions were made to this.

The Marine Bill White Paper which was out for consultation until early June provided an opportunity to inject some of the Forum's thinking. As IACMST was planning to make a submission this would be the appropriate route (**Action TG**).

Additional members. The following should be invited: Mike Cowling (Crown Estate), Theresa Crossley (DfT), Chris Biggins (CEFAS), Keith Henson (Natural England). (**Action TG**)

Provisional agenda for next meeting to include:

- Requirements and tools
- Update on existing conventions
- Guest presentation
- Other recommendations from IACMST WG Report
- Practicality of establishing noise budgets (**Action KO/RR to identify someone from BGS** – *did we decide against this later on?*)

7. Date of Next Meeting

10.30 Tuesday 3 July 2007, at IMarEST, 80 Coleman Street, London.
(coffee from 10.00).