

Joint Industry Programme on E&P Sound and Marine Life - Phase III

Request for Proposals Number: JIP III-15-05

Marine Mammal Observer / Protected Species Observer Data Analysis

Release Date: 26th November 2015

Introduction

This Request for Proposals (RFP) seeks proposals to conduct studies that will evaluate existing available marine mammal observation data (including MMO/PSO data and PAM data) collected during offshore E&P related activities such as seismic surveys to identify distribution and movements of marine mammal species relative to offshore activities. The proposals should also identify how data gaps will be filled, describe additional data collection needs, and make recommendations for improving current MMO/PSO practices in order to strengthen data quality to optimize the potential use of MMO/PSO data for research purposes while maintaining the primary purpose of providing a mitigation monitoring capability.

The research called for in this RFP is required to meet the information needs of the above JIP, specifically Research Category 3 *Behavioural Reactions & Biological Significance* - see www.soundandmarinelife.org website.

The Proposals being requested must address the Proposal Description, Proposal Features and Project Deliverables detailed below.

Organisations submitting Proposals should also adhere to the Application Procedure and Critical Dates set out below. In addition, the Terms & Conditions referred to in the RFP shall apply.

Application procedure

To respond to this RFP, please follow the relevant instructions given on the **Funding** page of the JIP website. Proposals should refer to the above RFP number and should be submitted electronically to info@soundandmarinelife.org.

Those organisations submitting Proposals should refer to the **outline contract** on the JIP website. This sets out the terms & conditions under which any contract will be carried out under the management of the International Association of Oil & Gas Producers (IOGP). In particular, attention is drawn to the specific term relating to management of health, safety, security and environment aspects of a contract. All IOGP contracts have such a section, but the specific wording that will appear in this section depends on the type of activity (desk-top study, field work, etc.) to be conducted. Please also note the guiding principles on the *Policy on the use of live animals in experiments* on the website.

Critical dates

Proposals are due by: **Thursday, 7th January 2016.**

We will confirm receipt of proposals. If you have not received confirmation of receipt of your proposal within 1 week of the above deadline, please contact John Campbell at IOGP (Tel +44 (0) 20 3763 9700; e-mail info@soundandmarinelife.org). The review of proposals will conclude within 2 months of the submission deadline, after which applicants will be notified by the JIP.

Background

It is common practice during seismic data acquisition programmes to collect data sets of marine mammal observations as part of mitigation monitoring efforts. On completion of a field programme, such data are typically either submitted to a regulatory agency (which may also host the data via a national marine mammal observation database) or are archived internally by the individual company that commissioned the survey, either at a project, region or global level. These data may offer a source of important information regarding the presence, and broad scale response patterns, of marine mammal species to offshore activities, as well as high-level species information such as habitat use, migratory patterns, and population levels. In the UK, multi-year data from the Joint Nature Conservation Committee (JNCC) database has been used to describe effects of seismic activity on marine mammals in UK waters¹. Other MMO/PSO datasets, however, are rarely systematically assessed in this way.

It is widely recognised that as the data are collected primarily for mitigation purposes, there are limitations to how the data can be used from a marine mammal research perspective. Therefore, potential improvements in data gathering, alternative data gathering, and complementary data gathering technologies to ensure better data quality, reliability and consistency may strengthen the value of MMO/PSO data to industry and the broader scientific community.

Availability of information based on MMO/PSO data may help inform environmental impact assessment (EIA) or similar studies that are commonly conducted to support project permit or licence applications. Quality observation data could be employed in targeting and focusing mitigation measures across a wide range of industry offshore activities not limited to seismic acquisition. Observation data could be put to use to better map species distribution and possibly to develop protection or mitigation strategies for different species in different environments. Significant data mining opportunities could arise, should observation data be collated and made available as an accessible database. Improving and standardising data collection methods should facilitate great use and application of this type of data. The keys to improved data collection, processing, or utilisation, however, must address some of the recognised limitations on observational data that are gathered during an activity that may, through impacts, alter distribution and behaviour of marine mammals in the area.

Description of proposals being requested

The IOGP E&P Sound and Marine Life JIP is requesting proposals that address all of the following:

Replicate a JNCC (Stone and Tasker, et seq.) type study to evaluate existing available MMO/PSO data (including PAM data) to identify potential distribution and movements of marine mammal species relative to offshore activities with consideration given to other variables and possible life history/ecological inferences for selected geographies where reliable quality data exist (e.g., Brazil, Gulf of Mexico, Greenland, Norway, West Africa or elsewhere).

The objective of this project is to improve the collection, management and analyses of MMO data, by identifying and addressing the following questions and any additional questions proposed in response to this RFP:

- What are the general trends in survey effort and species distribution?

¹ JNCC Report 463a, Marine mammal observations during seismic surveys from 1994-2010, Stone 2015 -- http://jncc.defra.gov.uk/pdf/JNCC%20Report%20463a_Final.pdf

- What are the detection rates relative to survey activity (source active vs not active, during soft-starts), relative proximity to activity, and environment conditions (sea state, visibility)?
- What are the detection rate trends throughout the duration of surveys?
- Closest distance of approach to the airguns (source active vs not active, during soft-starts)?
- How do animals respond/move relative to survey activities?
- How do animals respond/move relative to the soft start?
- What are general trends in compliance relative to relevant national/project guidelines or requirements?
- What QA/QC will be performed on the data reported and used for the analysis?
 - What is needed for a quality data set?
 - What is the quality of observer data entered/how complete is data entry?
 - What QA/QC should be conducted on future data?
- How “detectable” are different species by MMOs?
- Which species of marine mammals stand-off at a greater distance when airguns are operating vs when they are not?
- How many outliers are there in the data (i.e., for species that stand off at greater distances when airguns are on, how many approach the airguns within 500 m, 100 m etc.)? What is the distribution of the outliers? What is the distribution of the closest approach?
- What trends can be discerned from these data with respect to response of marine mammal species to industry activities?
- What trends can be discerned from these data with respect to the relative efficacy of mitigation measures (ramp up, shut downs, power downs, etc)?

Additionally, the contractor will:

- Assemble the data from the marine mammal observation databases; and
- Analyse the data in these databases with particular attention, but not limited, to the effectiveness of MMOs, taking into account differences in quality, e.g. non-dedicated versus dedicated MMOs, assess effectiveness of data collection and observer qualifications versus data collected/sighting rate and make recommendations for improvement.

Desirable features of proposals

Responses to this RFP should address each of the following (see also **RFP Response Format** page of website):

Project proponents should demonstrate a knowledge and understanding of or detail response to the following elements:

- MMO/PSO data collection methods. How to address the various data requirements, assumptions and uncertainties, and the implementation issues related to collecting the required data.
- Describe any known limitations on the quality of data to be used
- What basins, regions, country/countries are covered by the proposed data? Temporal-spatial component coverage assessment - from where data has come
- What species are proposed to be used in the analysis?
- How data from disparate sources and regions will be acquired and accessed.
- How data quality will be assessed and managed.
- Analytical approach
- Among the outputs, the JIP is seeking a consolidated data set and scientific paper(s) on the methodology & findings. Please describe final products to be delivered.
- A detailed scope of work to prepare and provide the deliverables detailed below.
- A detailed work plan to review E&P industry needs.
- Timeframe for completion of project and significant milestone events during the project.
- A detailed cost estimate in US dollars, which includes:

- Support for travel in order to interface with related company representatives or others with expertise in this subject area;
- Assumptions to support the cost estimate; and
- Any contingencies to address unknowns.
- A list of personnel to be involved in the project and their qualifications, their proposed role in this project and associated cost/time allocation throughout the project.
- Researcher experience in this area and previous work.
- Operational HSE considerations during offshore activities, as appropriate.
- Where appropriate to the project, a discussion on how you manage animal care and use in your proposed work (see also Application Procedure above)
- An overall proposal summary (one paragraph).

Project deliverables

Project deliverables shall include:

- a) **Monthly Progress Reports** that summarise the work conducted, tasks planned for the coming month, amount spent (vs budget), and forecasts a spend plan for the duration of the project. The specific reporting formats will be determined following contract award.
- b) **Draft and Final Project Reports** to include:
 - A detailed description of the overall study, results and recommendations
 - A consolidated data set and scientific paper(s) on the methodology & findings.
 - Recommendations for updated MMO/PSO data collection
- c) **One or more Manuscripts submitted for publication** in a peer-reviewed journal, describing methods and results.

Terms & Conditions

By submitting a proposal to the JIP, the potential contractor accepts the terms and conditions set out in this RFP. This RFP does not commit the JIP, through IOGP, to contract for any supply or service and the JIP shall not be deemed to have accepted any proposal submitted by any potential contractor unless and until a duly executed written agreement is in place and then only for such scope as specifically identified in the written agreement. The potential contractor acknowledges that IOGP and the JIP participants may accept or reject any proposal for any reason whatsoever. The JIP may decide to fund a study in part or as a whole.

Those responding to this RFP are advised that the JIP will not pay for any costs incurred in preparation of a response to this invitation, including without limitation costs and expenses of attending meetings and worksite visits related to this RFP. All correspondence and documentation associated with this invitation will be in English. Submissions and information will not be shared with other potential contractors.