

FAO; Simon Brockington
Department for Environment, Food and Rural Affairs

Thursday, 11 July 2019

RE: UK Stakeholder Forum on Underwater Noise Disturbance within UK SACs for harbour porpoise

Dear Mr Brockington,

I am writing on behalf of the International Association of Geophysical Contractors (IAGC). IAGC is the international trade association representing the industry that provides geophysical services (geophysical data acquisition, processing and interpretation, geophysical information ownership and licensing, and associated services and product providers) to the oil and natural gas industry. IAGC member companies play an integral role in the successful exploration and development of offshore hydrocarbon resources through the acquisition and processing of geophysical data.

Overview

IAGC is headquartered in Houston, in the United States of America. IAGC has more than 80 member companies in nearly 50 countries, comprised of a wide range of geophysical survey companies, equipment manufacturers, consultancies and providers of support services. Those companies represented by the IAGC carry out geophysical operations on behalf of oil and gas companies, governments and renewable energy developers. Geophysical surveys are undertaken to assist that broad range of clients in understanding the subsurface of the ocean in order to make decisions about resource development, the safe location of infrastructure and decisions relating to the delineation of exclusive economic zones.

UK Stakeholder Forum on Underwater Noise

IAGC appreciates the opportunity to have attended the meeting planned for July 12th, and regrets that attendance is not possible on this occasion. We would like to take the opportunity to provide some comments on the draft Noise Disturbance Guidance.

In relation to exposure metrics and consequences, we would like to highlight that the approach taken is more speculative than that of verifiable behavioural and, or physical effects such as Permanent Threshold Shift (PTS).

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We note the reference to work carried out by Pirota et al., and encourage application of suitable models such as PCoD (Population Consequences of Disturbance) in attempting to demonstrate consequences to energy budgets from any apparent reduction in foraging.

Page 3, Back & Development, Paragraph 2 & Page 4, Definition of 'significant portion of the site for a prescribed period of time', Paragraph 2. While the importance of the relevant Marine Protected Areas is acknowledged, we would like to highlight that mobile species such as the harbour porpoise will continue to have access to foraging opportunities both within and outwith that area. The presence of a species does not always demonstrate that the habitat within which it is found is of the best quality, and we note that there are studies highlighting where species are regularly found in areas assumed as being non-optimal habitat. Furthermore, we query the extent to which changes in conservation status will be attributed to factors such as underwater noise, without consideration of other factors such as prey distribution which will be heavily influenced by physico-chemical changes as a result of climate change. The conclusions drawn with regard to whether porpoises are tied to a single site, and whether displacement results in serious foraging and health concerns are inadequately referenced in our view and therefore the conclusions on which the risk criteria are based are more speculative than supported by the full body of relevant literature. We would like to draw attention to a number of relevant articles for consideration;

Hoekendijk, J.P.A., Spitz, J., Read, A.J., Leopold, M.F. & Fontaine, C. (2018) Resilience of harbour porpoises to anthropogenic disturbance: Must they really feed continuously? *Marine Mammal Science*, 34(1): 258-264.

Southall, B.L., Benoit-Bird, K.J., Moline, M.A., & Moretti, D. (2018) Quantifying deep-sea predator-prey dynamics: Implications of biological heterogeneity for beaked whale conservation. *Journal of Applied Ecology*, 2019;00: 1-10.

Wisniewska, D.M., Johnson, M., Teilmann, J., Siebert, U., Galatius, A., Dietz, R. & Madsen, P.T. (2018) High rates of vessel noise disrupt foraging in wild harbour porpoises (*Phocoena phocoena*). *Proceedings of the Royal Society B*, 285: 20172314.

Page 8, Geophysical surveys in the Southern North Sea SAC example, paragraph 1. We would like to understand further details about the derivation of Effective Deterrent Radii (EDRs). The distances seem highly precautionary, and based on limited literature relating to the responses of harbour porpoise to piling activity. Specifically, in relation to the EDR for the seismic survey, we note that it is based on a particular size source from one study. Clearly geophysical surveys will employ different types of source and different sizes of array where compressed air sources are utilised, depending upon the geophysical objectives. Therefore, we assume that a range of EDRs will need to be considered.

Page 9, Geophysical surveys in the Southern North Sea SAC example, paragraph 2. The use of a buffer as an EDR for seismic surveys is inappropriate in our view. The seismic source is transitory through the environment, rather than static as with the construction piling event. While there will be exposure along the transect and through the zone identified by the buffer, that exposure is brief before the source moves on. This means that animals are not excluded from the whole area used in the example for an entire 24 hour period. A temporal factor needs to be built into any calculation of an EDR, otherwise the percentage exclusion is significantly skewed.

Page 9, Geophysical surveys in the Southern North Sea SAC example, paragraph 4. There is a suggestion of planning of activities in order that geophysical operations, construction piling and so forth do not overlap in time. 'Timeshare' agreements are commonplace within the geophysical industry when surveys are taking place in close proximity to one another, in order to allow operators to gather data without interference and the consequent reduction in data quality. However, they can be costly and difficult to manage due to the extension of survey time, and the requirement for close collaboration. IAGC has produced guidelines relating to timeshare among seismic contractors. To what extent are industry bodies such as RenewableUK engaged on topics such as this? We encourage early engagement in order to ensure conflicts do not occur in the pursuit of noise reduction objectives. Further, arrangements among concurrent or overlapping activities are best decided among the permitted entities rather than through arbitrary and strict regulations.

There is a further suggestion that surveys could be undertaken during months when the area/time threshold approach does not apply to the given area. We would like to highlight that conducting surveys during sub-optimal times of the year in terms of weather windows is problematic in a number of ways. Due to the reduction in available operational time, the cost of surveys can increase dramatically. More importantly, the increased exposure to poor weather increases the risk to the vessel crew and environment from potential incidents, as well as increasing overall levels of noise in the ocean due to the increased duration of the operation when compared to conducting it during optimal weather conditions.

We would be pleased to arrange a future meeting in order to understand the outcomes of the planned meeting of July 12th, and to discuss our feedback in more detail. Thank you for the opportunity of providing these comments, which we hope are of use in understanding the perspective of the geophysical industry.

Yours faithfully,



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