

**U.S. GOVERNMENT AGENCIES CANNOT USE
AN IWC SCIENTIFIC COMMITTEE REPORT BECAUSE
IT DOES NOT MEET DATA QUALITY ACT STANDARDS**

I. Acknowledgment

The Center for Regulatory Effectiveness could not have prepared this white paper on the International Whaling Commission's ("IWC") Scientific Committee without the prior report prepared by the International Association of Geophysical Contractors.¹ We also acknowledge the prior work of the Institute of Cetacean Research regarding the IWC Scientific Committee.²

II. Executive Summary

The IWC Scientific Committee has a Standing Working Group on Environmental Concerns ("SWG"). The IWC recently published an SWG report on the effects of anthropogenic sound on cetaceans and other marine life such as fish and pinnipeds ("*IWC Report*"). The *IWC Report* concluded that the oil and gas industry's use of seismic airguns caused humpback whales to strand on the Abrolhos Bank of Brazil in 2002.³ The *IWC Report* based this conclusion on a Brazilian study ("*Engel Study*") that does not support the IWC's conclusion.⁴

The *IWC Report's* misuse of the Brazilian *Engel Study* renders the *IWC Report* inaccurate and unreliable. These flaws prevent the United States Government's use of the *IWC Report*. The US Government's federal agencies must comply with statutory science and data quality standards before they can use or rely on international scientific studies. These US quality standards include accuracy and reliability. The *IWC Report* does not meet these standards.

¹ The IAGC report is entitled *Further Studies of 2002 Abrolhos Bank, Brazil Humpback Whale Strandings Coincident with Seismic Studies*. See *infra*, page 3 & footnote 6.

² See, e.g., <http://www.icrwhale.org/eng/RoleandProb.pdf>, and <http://www.icrwhale.org/responsibility.htm>.

³ *Report of the Scientific Committee, Annex K, "Report of the Standing Working Group on Environmental Concerns,"* pages 2 and 9 (IWC 2004) ("*IWC Report*"), published in *J. Cetacean Res. Manage.* 7 (Suppl.): 267-305.

⁴ The Brazilian study, *Are Seismic Surveys Responsible for Cetacean Strandings? An Unusual Mortality of Adult Humpback Whales in Abrolhos Bank, Northeastern Coast of Brazil* (Engel et al. 2004) ("*Engel Study*"), is available online at <http://thecre.com/pdf/SC-56-E28.pdf>.

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The *IWC Report* should be withdrawn and corrected to accurately state the Brazilian *Engel Study* results and to accurately state the science and facts about seismic operations and whale strandings. Unless and until this correction occurs, US Government agencies cannot use or rely on the *IWC Report*.

US Government agencies like the National Oceanic and Atmospheric Administration (“NOAA”) and the National Marine Fisheries Service (“NMFS”) should encourage the IWC to modify its review procedures to ensure that its published reports conform to US Government quality standards.

III. The Brazilian *Engel Study* Does Not Show That Seismic Air Guns Cause Whale Strandings

The *Engel Study* was presented to the SWG in 2004. It was the basis for the SWG’s conclusion that oil and gas seismic operations caused humpback whale strandings.⁵ The *Engel Study* does not support the SWG’s conclusion.

The authors’s abstract for the *Engel Study* summarizes its subject and conclusions as follows:

Humpback whales (Megaptera novaeangliae) aggregate at Abrolhos Bank, Bahia and Espírito Santo States, during spring-winter season for breeding and calving. The Instituto Baleia Jubarte/Humpback Whale Institute – Brazil maintains a permanent marine mammal rescue program along the coast adjacent to the Abrolhos Bank, aiming to register the strandings of humpback whales and to identify their probable cause of death. Since 2001 aerial surveys were also undertaken in order to evaluate the population size and distribution along the Bahia and Espírito Santo States coasts. During the 2002 breeding season, 3D seismic surveys were conducted in the Southern portion of the area, licensed by the Brazilian Environmental Agency/IBAMA. These surveys were coincident with an unusual increase in the strandings rate of adult humpback whales in this region. Some change was observed in the distribution of humpbacks, comparatively to 2001 and 2003 aerial survey data.

The abstract is accurate in that it does not state that there is any demonstrable connection between oil and gas seismic surveys in the area and humpback whale strandings.

Nevertheless, as the rest of the *Engel Study* abstract correctly notes, the relevant Brazilian regulatory agency, the Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (“IBAMA”), relied on the *Engel Study* to restrict oil and gas seismic activity in the area. IBAMA is also relying on the study in developing seismic restrictions in other areas:

⁵ The *Engel Study* has IWC Scientific Committee reference number SC/56/E28. The IWC Report at page 2 cites this reference number as support for its conclusion that seismic airguns caused the Brazilian whale strandings.

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In 2003, due to uncertainties regarding the relationship between these seismic activities and strandings, using the precautionary principle IBAMA agreed to incorporate in its recent guidelines for licensing the oil activities the prohibition of seismic surveys during the whale breeding season, from July to November. IBAMA is currently discussing and establishing rules and procedures for seismic surveys off the Brazilian coast, including the prohibition of these activities during the reproductive season in important areas for cetaceans as Abrolhos Bank.

The *Engel Study*'s data provide no scientific basis for these current and contemplated future restrictions. The *Engel Study* was reviewed in an August report by the International Association of Geophysical Contractors entitled *Further Analysis of 2002 Abrolhos Bank, Brazil Humpback Whale Strandings Coincident with Seismic Studies* ("IAGC Report").⁶ The IAGC Report explained that the *Engel Study*, which was:

*presented to the 2004 International Whaling Commission Scientific Committee, concludes that a scientific correlation between increased adult humpback strandings and seismic surveys along the east coast of Brazil **can not be established**. Nevertheless, based on the outside possibility of such a relationship, the authors suggest that seismic surveys be suspended offshore from the Abrolhos Bank region (Bahia and Espírito Santo States) during the humpback whale breeding season from July to November.*

Measured precaution in the face of uncertainty is an accepted environmental management tool when based on accurate risk assessment. However, in this case there is no credible scientific evidence to support the speculation that increased adult humpback strandings were caused by seismic activity. In fact, the available evidence indicates that there is no relationship between the strandings and seismic activities.

The IAGC Report includes "a detailed analysis of the 2002 humpback whale stranding events cited in [the *Engel Study*] relative to all seismic surveys that were conducted in proximity to the stranding sites." This analysis leads to the following inevitable conclusions:

no reasonable association can be drawn between the seismic surveys and the strandings. Further, based on this analysis and results from research studies designed to investigate the effects of seismic sound on humpback whales, there is no scientific basis to associate anomalous adult whale stranding rates with seismic activity. This finding is consistent with industry experience where, in over three decades of industry seismic surveying activity, there is no evidence to suggest that

⁶ A copy of the IAGC Report is available online at http://therecre.com/pdf/IAGC_paper_Further_Analysis_Abrolhos_Bank.pdf.

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sound from seismic airguns has resulted in any physical or auditory injury, or stranding event for any marine mammal species, including numerous operations in humpback whale habitats such as Australia, NE Canada, Alaska, West Africa, West Coast U.S., etc.

The science does not support the ‘strong belief’ expressed in Engel (2004) that seasonal restrictions should be imposed on seismic surveys in the Abrolhos Bank, northeast coast of Brazil, restrictions which will seriously limit operations critical to the Brazilian oil and gas industry.

In sum, the *Engel Study* does not demonstrate that oil and gas seismic airgun activities caused the humpback whale strandings on the Abrolhos Bank. Instead, it and the *IAGC Report* support the conclusion that they did not. Consequently, the *Engel Study* does not support the *IWC Report’s* conclusion that seismic airgun activities cause whale strandings. Nor does the *Engel Study* support IBAMA’s restrictions on oil and gas activities off the coast of Brazil. The IWC’s and IBAMA’s reliance on and use of the *Engel Study* is bad science. Their reliance also violates US government quality standards.

IV. The IWC Report Could Not be Used by US Federal Government Agencies Because It Does Not Meet Government-Wide Quality Standards

A US federal statute called the Data Quality Act (“DQA”) requires that most federal government agencies meet specified quality standards before they make scientific or other information publicly available. This statutory requirement means that federal government agencies must ensure that all scientific information they use or rely on meets the DQA standards.⁷

These quality standards are implemented first by government-wide guidelines developed and published by the federal government’s Office of Management and Budget (“OMB”).⁸ The DQA requires that the other federal government agencies develop and publish their own, agency- specific quality guidelines. The agency-specific guidelines must be approved by OMB and must be consistent with OMB’s government-wide guidelines. For example, NOAA has developed and published DQA guidelines that

⁷ The text of the DQA is available online at <http://www.fas.org/sgp/crs/RL32532.pdf>. The Act begins on page 5 of your computer counter, which is page 2 of the document set forth at this site.

⁸ The current OMB government-wide DQA guidelines are available online at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002_register&docid=R2-59-filed.pdf

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apply also to the NMFS, which has US federal government jurisdiction over many issues relevant to the conservation of cetaceans and other marine mammals.⁹

Like all other federal agency DQA guidelines, the NOAA/NMFS guidelines require that scientific studies used or relied on by the agencies must be accurate and reliable. The NOAA/NMFS guidelines discuss this requirement in part as follows:

*Objectivity ensures that information is accurate, reliable, and unbiased, and that information products are presented in an accurate, clear, complete, and unbiased manner. In a scientific, financial, or statistical context, the original and supporting data are generated, and the analytic results are developed, using commonly accepted scientific, financial, and statistical methods.*¹⁰

The NOAA/NMFS guidelines require that the agencies expressly explain the limitations of any third party studies (“interpreted products”) the agencies use or rely on:

*NOAA puts its interpreted products in context. Additional information that demonstrates the quality and limitations of the interpreted products helps the user assess the suitability of the product for the user’s application.*¹¹

The NOAA/NMFS guidelines expressly state that international reports must meet US DQA standards before NOAA/NMFS can use or rely on the reports:

Third-party Information. *Use of third-party information from both domestic and international sources, such as states, municipalities, agencies and private entities, is a common practice in NOAA. Collaboration on interjurisdictional studies and monitoring programs, incorporation of on-site observations into NOAA products, and utilization of global observation systems are just a few examples of when third-party information is used. NOAA’s information quality guidelines are reality-based, i.e. , not intended to prevent use of reliable outside information or full utilization of the best scientific information available. Although third-party sources may not be directly subject to Section 515, information from such sources, when used by NOAA to develop information products or to form the basis of a decision or policy, must be*

⁹ The current NOAA/NMFS DQA guidelines are available online at <http://www.noaaneews.noaa.gov/stories/iq.htm>.

¹⁰ NOAA/NMFS DQA guidelines, Part II, available online at <http://www.noaaneews.noaa.gov/stories/iq.htm>.

¹¹ *Id.*, Part II.C.

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*of known quality and consistent with NOAA's information quality guidelines. When such information is used, any limitations, assumptions, collection methods, or uncertainties concerning it will be taken into account and disclosed.*¹²

If NOAA/NMFS use or rely on studies that do not meet these and the other DQA quality standards, then any interested person can file a Request for Correction with the agency. The purpose of a correction request is to require the agency to correct the affected agency information so that it complies with the DQA standards.¹³

The US Department of Health and Humans Services (“HHS”) has correctly explained that it could not use a World Health Organization (“WHO”) and Food and Agriculture Organization (“FAO”) report on diet and nutrition because the report did not meet DQA quality standards. The HHS had earlier stated the agency’s intent to rely on the WH/FAO report in revising the US agency’s Dietary Guidelines.

The Center for Regulatory Effectiveness filed a Request for Correction of the WHO report, pointing out that the report did not meet DQA standards for various reasons; therefore, it could not be used by US agencies unless and until it was corrected to meet the DQA standards. In response, the HHS sent the WHO Director-General a lengthy letter explaining that many of the differences between the US Dietary Guidelines and the WHO report result from the fact that the WHO report did not meet DQA standards.¹⁴

Similarly, the *IWC Report* does not meet the DQA quality standards and cannot be used by US agencies because the *IWC Report* is not accurate and reliable. Relying inappropriately on the *Engel Study*, the *IWC Report* without qualification concludes that oil-and-gas seismic operations can cause and have caused whale strandings. The *Engel Study* itself does not reach this conclusion. The *IAGC Report* discussed above further demonstrates that the *Engel Study* does not and could not support that conclusion.

V. Recommendations

- ▶ The *IWC Report* should be withdrawn and corrected to accurately state the *Engel Study* results and to accurately state the facts and science about seismic operations and whale strandings.

¹² *Id.*, Part II.

¹³ *Id.*, Part III.

¹⁴ The HHS letter to the WHO Director-General is available online at <http://thecre.com/pdf/HHS-WHO.Letter.pdf>. Various documents related to the WHO Report and the DQA Request for Correction are available online at http://www.thecre.com/quality/20030908_who.html.

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Unless and until this correction occurs, US government agencies cannot use or rely on the *IWC Report*.

- ▶ The NOAA/NMFS and other appropriate US Government agencies should explain the US Government quality standards to the IWC. These US agencies should recommend that the IWC modify its review procedures and its reports to ensure that they conform to the US standards.