

1 Public Meeting/Webinar for

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National Oceanic and Atmospheric Administration

5

Draft Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammals

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Acoustic Threshold Levels for Onset of Permanent and Temporary Threshold Shifts

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Tuesday January 14, 2014

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Silver Spring, Maryland

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Moderator: Nicole LeBoeuf

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Presenter: Amy Scholik-Schlomer

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1 This transcript only covers the public comment portion of the public meeting/webinar. Meeting materials,
2 including the presentation given during the public meeting/webinar can be found at :
3 <http://www.nmfs.noaa.gov/pr/acoustics/guidelines.htm>

4

5 **PUBLIC COMMENT:**

6 SCOTT SLAUGHTER: I am Scott Slaughter, and I am commenting today on behalf of The Center
7 for Regulatory Effectiveness. CRE wishes to briefly make two important points. First, there is no evidence
8 of any physical harm from oil and gas seismic, as currently and historically regulated. Second, the
9 government should perform a cost-benefit analysis of its draft acoustic criteria, if the government intends
10 to use it any rules. In regards to the first point, the government has repeatedly and correctly stated that oil
11 and gas seismic does not harm marine mammals in current long-standing regulations. For example,
12 BOEM recently stated in an Environmental Impact Statement that within the Gulf of Mexico quote “there is
13 a long-standing and well-developed OCS Program (more than 50 years); there are no data to suggest
14 that activities from the preexisting OCS Program are significantly impacting marine mammal populations.”
15 As another example, the National Academy of Sciences agreed with the Department of Interior that quote
16 “there are no documented or known population-level effects due to sound” and concluded with regards to
17 the outer continental shelf quote “there have been no known instances of injury, mortality, or population-
18 level effects to marine mammals from seismic exposure.” As a final example, NMFS itself agreed that
19 quote “to date, there is no evidence of serious injury, death, or stranding by marine mammals to occur
20 from exposure to airgun pulses, even in the case of large airguns arrays.” Given this absence of harm in
21 the real world, the government should carefully consider the benefits and costs of regulating oil and gas
22 seismic. In particular, the government should consider the requirements of Executive Orders 12866 and
23 13563 when regulating oil and gas seismic. Under Executive Order 12866, the Guidance should go to
24 OMB to review standards that require a benefit-cost analysis be performed. Suggest that the government
25 solicit public input performing cost-benefit analysis. We thank you for the opportunity to present these
26 comments, and we look forward to the government’s response.

27

28 NICOLE LEBOEUF: Thank you, sir.

29

30 KAREN MATHIS: This is Karen Mathis. K-A-R-E-N M-A-T-H-I-S from Anchorage, Alaska. I work
31 for ASRC Energy Services. It is a wholly owned subsidiary of Arctic Slope Regional Corporation, and I
32 have a question. In the short presentation and overview of the acoustic guidelines, it is mentioned that
33 these new thresholds are based on the most recent science. My question is was there any outreach to
34 subsistence groups, the Alaska Eskimo Whaling Commission, Whaling Captains Association. I am
35 speaking from the context of Alaska and the Arctic. I’m curious as to if there were outreach on traditional
36 ecological knowledge. I am aware there are some studies going on, at least one by industry on traditional
37 ecological knowledge.

38

39 AMY SCHOLIK-SCHLOMER: Thanks for your comment. No, we didn’t reach out to any specific
40 groups, but if you do have studies that would be applicable to our guidance, we definitely encourage you
41 to submit that during public comment because we want to be inclusive of all available data that is out
42 there. So, thank you.

1 KAREN MATHIS: You are welcome.

2

3 JOE WILSON: Good afternoon, this is Joe Wilson from the Army Corps of Engineers. I have four
4 questions. The first: Will there be implementing regulations?

5

6 NICOLE LEBOEUF: Just to make sure I understood you..just to confirm. This is Joe Wilson from
7 the Army Corps of Engineers?

8

9 JOE WILSON: That is correct.

10

11 NICOLE LEBOEUF: OK. Thank you, sir. There will not be implementing regulations in association
12 with this document. This document will be implemented through authorizing actions for various activities.

13

14 JOE WILSON: OK. Second question: The development plan is to identify specifically those
15 activities intended for regulations, for lack of a better word?

16

17 AMY SCHOLIK-SCHLOMER: Well, the document doesn't identify which activities this pertains to
18 because as I mentioned before how we regulate sounds is not changing. This just updating the best
19 available science. So how we've..the sound sources we have regulated in the past..it's the same. Yeah,
20 the goal of the document is not to identify particular sources but to just identify the science we are using
21 to update our thresholds.

22

23 JOE WILSON: OK. Third question: So will there be a plan to identify geographic scope of the
24 activity proposed for regulation? That is how far inland do you plan to go?

25

26 NICOLE LEBOEUF: As Amy indicated, the way we regulate marine mammal impacts on sound
27 will not change. But to the extent that the geographic scope need be clarified in the document, we would
28 certainly appreciate your comments and input on that.

29

30 JOE WILSON: OK. Final question: How will you know if a marine mammal is within the necessary
31 range for a project? For example, we make the Coast Guard to install piles to support navigation markers
32 How will you know if there are marine mammals within miles of the location?

33

1 AMY SCHOLIK-SCHOLMER: So that is dealing more with the actual mitigation that is used when
2 the activity is occurring. These thresholds are to be used more before the activity occurs. So when
3 applicants come and they have to estimate how many marine mammals are going to be harassed...this
4 more of a tool to be used beforehand rather than out in the field. Though, these thresholds could be used
5 to help inform mitigation that is not their intent.

6

7 JOE WILSON: Of course for us, the answer is you're never going to get an impact. It just seems
8 awful vague in trying to figure out an activity..and how proximity of that activity to marine mammals.

9

10 NICOLE LEBOEUF: Right. So whatever process applicants are undergoing now in order to
11 estimate the distribution or presence of marine mammals when they come in for authorizations under the
12 MMPA would be the same using these thresholds. It is just that the science used in calculating these
13 thresholds is different. So on a case-by-case basis, I would assume that applicants are doing the best
14 they can to estimate the distribution and presence of marine mammals, but there is no guidance
15 additional within this document for that kind of estimation.

16

17 JOE WILSON: OK. Thank you.

18

19 NICOLE LEBOEUF: Thank you.

20

21 JESSICA LEFEVRE: Hi. Thanks. I am Jessica LeFevre with Alaska Eskimo Whaling
22 Commission. I got a couple questions and I am bringing questions from others, as well.

23

24 NICOLE LEBOEUF: Could you repeat your name, please?

25

26 JESSICA LEFEVRE: Jessica LeFevre, Alaska Eskimo Whaling Commission.

27

28 NICOLE LEBOEUF: Spell your last name, please.

29

30 JESSICA LEFEVRE: L-E-F-E-V-R-E. First question is: Are you going to have another discussion
31 of the guidelines at the Open Water Meeting this year?

32

33 AMY SCHOLIK-SCHLOMER: At this time, we weren't planning on doing so.

1 JESSICA LEFEVRE: I think we might encourage you to do that, if it is possible, and we also will
2 put in a request for an extension. This is pretty important and a lot of information to get on top of.

3 Those are procedural questions. My substantive question is: Could you talk a little bit how the cumulative
4 SEL can be used to account for multiple, repeated exposures, where you've got an animal going past one
5 site and then moving along encountering a second site? It just we have not had a lot of time to spend with
6 this and that is one of the questions we're trying to wrap our heads around. Thanks.

7

8 NICOLE LEBOEUF: I think terms of the nature of that comment, what I would suggest is that you
9 provide information that you think it is not clear how we are proceeding in accumulating sound from
10 multiple exposures, and we will make sure we clarify that in the final document. Thank you.

11

12 ROGER GENTRY: I'm Roger Gentry..G-E-N-T-R-Y. I'm with ProScience Consulting and the Joint
13 Industry Program. I'm going to read my statement. I think I speak for the whole noise exposure panel
14 when I say "thank you" NOAA for adopting most of Southall et al. 2007 for your new draft guidelines. We
15 wrote it to address NOAA's needs, and it is gratifying to see much of our approach has been adopted. It is
16 an encyclopedic review of all published data available for this task and bases most of its decisions on
17 those data. It was a good decision not to attempt numerical guidelines for behavioral responses using
18 existing data because it may not be adequate. For the final version, I recommend adding a list of needed
19 research at the end. This will forecast NOAA's intentions for the future and give guidance to funding
20 groups who are trying to get data that NOAA needs.

21 My written comments covers three pages, but I'll just here discuss the guidelines for low-frequency
22 cetaceans. The frequency weighting function shown in Figure 2 are basically invented because there are
23 no empirical data to support them. It is probably invalid to use mid-frequency cetacean equal loudness
24 contours to set points "a" and "b" on that graph. The overall effect of this weighting function is much more
25 aggressive than the approach presently in place, especially in the Arctic guidelines. It implies that low-
26 frequency cetaceans are much more sensitive to acoustic exposure than is formally believed, and it does
27 so with supporting data. This leads me to ask "what problem is NOAA trying to solve by this aggressive
28 approach?" Is there any evidence at all that the present guidelines leave whales with hearing loss from
29 shipping, low-frequency active sonar, seismic arrays, and others? Have whale populations declined in
30 areas where these sources are used? Unless there is evidence of either effect, then it is best to discard
31 this graph and continue to use the present guidelines until empirical data become available on hearing in
32 low-frequency cetaceans. Several funding groups are interested in obtaining these data, and current
33 development suggests they will be available in five to six years when the next version of these guidelines
34 should appear. NOAA wisely declined to set guidelines for behavioral effects due to poor data and should
35 make an equally wise decision to not to set guidelines for low-frequency cetaceans in total absence of
36 data. Thank you.

37

38 NICOLE LEBOEUF: Thank you.

39

40 DAVID ZEDDIES: Hi. David Zeddies. Last name Z-E-D-D-I-E-S. I'm at JASCO Applied Sciences.
41 I want to make a quick technical comment on the 24-hour integration period, and it starts with..we have a

1 pretty good idea why you want to do that. There are natural breaks in the operations or you want to give
2 some sort of method for allowing recovery to occur, but 24 hours is an arbitrary number that is really not
3 based in any type of biology that I am aware of. There is some scant studies on that, but basically there
4 are better ways of doing it. Agent-based models we have will give you a natural indication of how long the
5 animals..you expect the animals to be in that area. So instead of setting a guideline that strictly writes
6 down the number ..in a 24-hour period, you could ask people to estimate the time the animals would be in
7 that area, and there are also better ways of allowing for recovery periods. That would be as part of the
8 cumulative SEL measurement. You could integrate..you could use a function that would allow for some
9 recovery period.

10

11 NICOLE LEBOEUF: Are there any comments on the phone?

12

13 BRETTNY HARDY: I just wanted to ask really quickly: You mentioned that the peer review report
14 would be available, and you seemed to indicate it would be available before the comment period ends. Is
15 that correct? Do you have an anticipated date as to when that will be available?

16

17 NICOLE LEBOEUF: Yes, just for the record, can you please state your name?

18

19 BRETTNY HARDY: Oh sure. It is Brettny Hardy.

20

21 NICOLE LEBOEUF: Your last name?

22

23 BRETTNY HARDY: Hardy H-A-R-D-Y.

24

25 NICOLE LEBOEUF: OK. Thank you. We will provide the peer reviewers' comments in short
26 order. We asked the peer reviewers to consider both the PTS/TTS but also the behavioral aspects of an
27 earlier draft of the document. So we are separating those out, so we can continue to consider the
28 behavioral comments and as soon as we have those comments divided, we will provide them online.

29

30 BARBARA NAPOLES: My last name is spelled N-A-P-O-L-E-S. I have a question: Why is NOAA
31 giving authorization to sonar testing or seismic testing when we know that this really actually harms and
32 kills dolphins and whales, and I want to know if this is granted, who is going to police the oceans or police
33 these permits to make sure that the loss of cetacean life is not a huge amount, as we have seen many
34 cetaceans showing up on the shores?

35

1 NICOLE LEBOEUF: Thank you. We are not taking questions other than clarifying question at this
2 time, but we appreciate your comment.

3

4 BARBARA NAPOLES: OK.

5

6 DARLENE KETTEN: Yes, thank you. Actually, the last name is Ketten. K-E-T-T-E-N. I'm from
7 Woods Hole Oceanographic Institute and Harvard Medical School and Curtin University in Perth,
8 Australia. I wanted to say that first of all, I am very impressed with the document. I know how hard it is to
9 put anything like this together. I would like to note that I agree with the majority of comments by Dr.
10 Gentry and want underscore what he said about needing suggestions or a section at the end for
11 suggested research. That would be of considerable use for most active researchers. I also would like to
12 suggest that NOAA consider trying to set up a pipeline or system that reports...they amount to gray
13 literature but as new data are coming out, if we can feed that information to you and particularly get
14 feedback from NOAA about how this would work to assist your goals, I think this would improve the
15 output rate and the appropriateness of the work we are all doing on research. So if you could take that
16 into consideration. Also there are some new updates that I would like to provide to you concerning baleen
17 whales, and I assume the best way to do that would be through the comment period before January 27 or
18 is there another mechanism that should be considered to provide new data to you?

19

20 NICOLE LEBOEUF: Thank you for your comments, Dr. Ketten. At this time, as I indicated earlier,
21 it is not clear if we are going to be able to extend the public comment period for this particular document,
22 but of course any new information you have at any time would be welcome by us and you should feel free
23 to contact Amy at any time with that. Thank you.

24

25 NICOLE LEBOEUF: If there is anyone here or in the room or on the webinar that is thinking of
26 giving their comments later, please let me encourage you to do that now. Yes, sir? Thank you.

27

28 TIM GATES. Hi. I am Tim Gates from ManTech, and I have a general question or comment: It
29 appears that the study places a lot of emphasis on whether a species can actually hear the noise when
30 you develop your thresholds. Is there a way that you are going to determine whether they hear it or
31 whether it produces a negative response?

32

33 AMY SCHOLIK-SCHLOMER: So our thresholds are for hearing impacts of noise. So you are
34 asking? Sorry.

35

36 TIM GATES: If you are creating a noise and they hear it, it may not be a negative impact on the
37 species. Is there a way or are you going to try to develop a way to determine if the noise is actually
38 creating a negative impact or just that they hear it?

1 AMY SCHOLIK-SCHLOMER: Well, the specific thresholds are for noises that cause hearing loss,
2 either temporary or permanent, so that would be the impact we are specifically addressing with these
3 guidelines.

4

5 TIM GATES: You are not addressing migratory impacts?

6

7 AMY SCHOLIK-SCHLOMER: No.

8

9 TIM GATES: Just for hearing loss?

10

11 AMY SCHOLIK-SCHLOMER: This particular guidance is just for updating our thresholds for
12 hearing impacts, yes.

13

14 TIM GATES: OK. Thank you.

15

16 NICOLE LEBOEUF: Again, I want to encourage anyone that is waiting for just the right moment
17 either in the room or on the webinar to come forward and provide us with comment. I have been advised
18 by Counsel that we don't have to sit here until 5:00, but I also don't want to rush you.

19

20 ROBERT SUYDAM: Thank you. My name is Robert Suydam. My last name is spelled S-U-Y-D-A-
21 M. First, I would like to kinda re-emphasize what Dr. Ketten and Dr. Gentry mentioned about a section on
22 needed research I think would be helpful in the document and then a couple of other points. One that
23 Jessica LeFevre mentioned, the cumulative impacts issue of multiple operations that I know that
24 frequently in the past NOAA has not ..dealt with each operation separately and not really addressed
25 cumulative impacts from multiple operations on individual animals. So adopting new guidance criteria, I
26 think needs to figure out how to address that issue of multiple operations that are occurring in one
27 location. So, I think additional guidance is needed there. I would also like to comment on the guy from
28 JASCO, sorry I didn't catch his name that the 24 hour integration period for cumulative SEL seems a bit
29 arbitrary and some additional support is needed for..in the document for why the 24 hour integration
30 period is the appropriate one and not either a greater period or shorter period. So that would be helpful.

31 Another issue that really wasn't addressed in the Guidance is the issue of impulsive sound versus non-
32 impulsive sound. Of course with seismic sound, they are impulsive when they are close, when an animal
33 is close to the seismic source, but they become more non-impulsive the farther you are away from an
34 airgun. Of course, the loudness of the sounds changes, as well, but maybe trying to figure out if having
35 this dichotomy of impulsive vs. non-impulsive is really the best way to go or whether there needs to be
36 some other category in between there? And then, I guess a question that I had: I understand that the
37 Guidance is really about assessing what the effects are on the marine mammals prior to the operations

1 that I am at a loss to figure out at least how cumulative SEL is going to be actually monitored for what
2 animals are actually taken. So I think the Guidance, the new Guidance would really benefit by having a
3 section on how monitoring would occur to actually figure out if the projections of exposures to marine
4 mammals are realistic, and then my final comment is related to kinda the extension of the comment
5 period that given since this came out over the holidays, and there hasn't been a long period of time to
6 review it. Obviously, there is another week and a half left before the comment period finishes, but without
7 the peer review report available, it makes it even more difficult for the public and decision-makers to
8 comment on this Guidance. Because of those reasons, I strongly encourage the agency to extend the
9 comment period. Thanks for the opportunity to say a few words.

10

11 NICOLE LEBOEUF: Thank you very much. I would just like to reiterate that any input that
12 anyone may have on the accumulation duration, we would much appreciate that. Thank you.

13

14 ADAM FRANKEL: Good afternoon. I just wanted to ask a quick clarifying question.

15

16 NICOLE LEBOEUF: Affiliation?

17

18 ADAM FRANKEL: Oh, I am sorry. I am with Marine Acoustics, Inc. and the last name is F-R-A-N-
19 K-E-L.

20

21 NICOLE LEBOEUF: Thank you.

22

23 ADAM FRANKEL: At several points in the document, there is this statement..the phrase that the
24 thresholds are quote based on "characteristics defined at the source" and not the receiver..that was a little
25 confusing, and I am wondering if that is addressing the issue raised by Mr. Suydam about the
26 characteristics if seismic is impulsive as they propagate out from the source or if you could elaborate on
27 that, the intent about the phrase a bit?

28

29 AMY SCHOLIK-SCHLOMER: Yes, I can provide more information. So, yes how we are dividing
30 our sound sources are based on the characteristics at the source, so closer to the source. As was
31 mentioned, in the previous comment, obviously sound changes as it propagates through the water. So
32 when something goes from being impulsive to being non-impulsive, we acknowledge that happens. It is a
33 little bit hard to define exactly when that happens depending on the sound source, depending on the
34 environment, which is why we chose a simpler method to just define the sound sources and their
35 characteristics closer to the source.

36

1 ADAM FRANKEL: So my understanding is that phrase is specifically talking, specifically referring
2 to this issue?

3

4 AMY SCHOLIK-SCHLOMER: Yes.

5

6 ADAM FRANKEL: Temporal characteristics of the source...OK. Thank you.

7

8 AMY SCHOLIK-SCHLOMER: But we will be more clear obviously in the document because there
9 seems to be some confusion. So thanks for that comment.

10

11 NICOLE LEBOEUF: There appear to be no comments here in the room. Are there any additional
12 comments on the phone?

13

14 NICOLE LEBOEUF: My watch says it is 3:11 now. I would like to keep the phone line open until
15 3:15. If there are no further comments, we will close the phone line at 3:15. Please feel free to provide
16 any comments, not trying to rush you.

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