



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

October 18, 2022

Dear Selected Peer Reviewer:

On behalf of National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS), we thank you for agreeing to participate as a peer reviewer of our draft Updated Technical Guidance document entitled *Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 3.0): Underwater and In-Air Thresholds for Onset of Auditory Injury/Permanent and Temporary Threshold Shifts*. NMFS is requesting your expertise to evaluate this document. We appreciate your willingness to help with this important effort to update our national guidance based on the best available science.

Please note the specific requirements below. First and foremost, you must complete a conflict of interest disclosure form (attached) and provide your curriculum vitae (CV) to NMFS for our files as soon as possible. These tasks must be completed before the review begins.

Draft Updated Technical Guidance Background:

The U.S. Navy recently provided NMFS with a technical report describing their proposed methodology for updating marine mammal acoustic criteria and auditory weighting functions. Their technical report describes the rationale and steps used to define updated auditory weighting functions and numeric thresholds for predicting auditory effects (temporary and permanent thresholds shifts (TTS and PTS, respectively)/Auditory Injury (AUD INJ)) on marine animals exposed to active sonars and other active acoustic sources. NMFS regards the U.S. Navy technical report as the best available science on this topic, and we plan to adopt it to update our current 2018 Technical Guidance (i.e., U.S. Navy methodology is included in Appendix A of our draft Updated Technical Guidance document).

Note: The methodology provided in the U.S. Navy technical report is very similar to the methodology used in their previous technical report, which NMFS adopted for our current 2018 Technical Guidance via a peer review and public comment process.¹

¹ For more information on NMFS's current Technical Guidance and/or our previous peer review and public comment processes, please see: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance>

Note: You are not being asked to review our current 2018 guidance document.





The draft NMFS Updated Technical Guidance is being considered as a Highly Influential Scientific Assessment. As such, independent peer review is required prior to broad public dissemination by the Federal Government.

General Directives for Peer Review:

NMFS is responsible for conducting this peer review. Any questions about this process or necessary follow-up with the U.S. Navy should proceed through NMFS's Point of Contact (Amy Scholik-Schlomer). Please do not contact the U.S. Navy separately.

Please provide comments on the scientific information and data contained within the draft Updated Technical Guidance.

- A. If you believe that technical and/or scientific justification or conclusions are lacking or specific information was applied incorrectly in reaching conclusions, please be specific in your comments.
- B. If you believe critical data sets or publications are missing from consideration, please identify them.
- C. If there are any other factors that would significantly improve this document (i.e., organization, technical considerations, etc.), please let NMFS know.
- D. If you require access to documents or information used in the preparation of the draft Updated Technical Guidance, please let NMFS know.
- E. Please provide your comments no later than **30 days after receipt of the draft Updated Technical Guidance from NMFS**. However, if you identify major concerns, please let NMFS know as soon as possible.

Specific Topics of Interest for Consideration during the Peer Review:

During your review of the draft Updated Technical Guidance, please consider whether the proposed auditory weighting functions and onset of PTS/AUD INJ and TTS threshold levels appropriately account for uncertainty and variability associated with these datasets and hearing groups. Specifically:

- Whether the draft Updated Technical Guidance represents the best available science and a reasonable interpretation of the current studies/datasets. Is this approach consistent with previous proposed marine mammal auditory weighting functions (e.g., NMFS 2018; Southall et al. 2019)? If not, then what is a better approach?





2. Whether the datasets for both marine mammal hearing capabilities and noise-induced threshold shifts are accurately summarized and complete. If not, then what is missing?
3. Whether extrapolations are appropriate based on available datasets.
 - In particular, whether low-frequency cetacean (mysticetes) composite audiogram/auditory weighting function, where direct data on hearing is nonexistent, is appropriate based on available knowledge (e.g., anatomical data). If not, then what is a better approach?
 - Whether low-frequency cetacean TTS and PTS/AUD INJ onset thresholds are appropriate based on available knowledge (i.e., surrogate species' data). If not, what is a better approach?
4. Whether all aspects of the methodology are scientifically supported, as well as transparent and reproducible. Please also consider if the methodology clearly supports a means to incorporate updates as the science advances and new datasets become available.
 - Note: As mentioned earlier, the methodology in this updated document is very similar to the methodology in NMFS's current 2018 Technical Guidance that underwent previous peer review and public comment. Thus, the focus of this peer review should be on the incorporation of new data and whether this method is still valid vs. suggesting an entirely different methodology.
5. Note: You are **not** being asked to comment on any potential policy or legal implications of the application of the draft Updated Technical Guidance, or on the amount of uncertainty that is acceptable or the amount of precaution that should be embedded in any regulatory analysis of impacts. The focus of the peer review is on the scientific aspects of this document/

In considering these specific questions, please consider recommendations A-C above in providing feedback and recommending better approaches.

Requirements of the Peer Review:

- The President's Office of Management and Budget's Peer Review Bulletin requires online posting of this peer review.
 - To ensure that we have a transparent process for public disclosure, names and affiliations of each peer reviewer are posted online, as well as all comments. We are required to identify peer reviewers by name and affiliation, but NMFS has the ability to post a compilation of reviewer comments. Therefore, we will not





associate individual comments with a reviewer's name; rather we will compile the unabridged comments and organize by a review number.

- As an example, the previously submitted peer review reports for our Technical Guidance are available at: <https://www.noaa.gov/information-technology/national-oceanic-and-atmospheric-administration-guidance-for-assessing-effects-of-anthropogenic>
- The Peer Review Bulletin further requires that non-Federal peer reviewers complete a "Confidential Conflict of Interest Disclosure" form.
 - This form is attached, and we request that you complete this disclosure form and provide your CV for our files as soon as possible. These tasks must be completed before the review begins to ensure there are no issues with you participating in this review.
 - When completing the conflict of interest form, please consider and note any potential conflicts with both NMFS and U.S. Navy.
- Notably, if NMFS receives a Freedom of Information Act request, anonymity of peer reviewers' comments cannot be guaranteed.
- Finally, the information provided in this draft Updated Technical Guidance is distributed solely for the purpose of pre-dissemination peer review under applicable Information Quality Guidelines. It has not been formally disseminated by NMFS. It does not represent and should not be construed to represent any agency determination or policy.
 - All information associated with the review document is to remain strictly confidential until NMFS releases the draft Updated Technical Guidance document to the public.

Peer Review Logistics:

- NMFS anticipates that the review will begin before the end of October.
- NMFS will hold an introductory teleconference for the peer reviewers to introduce the peer review charge and provide an overview of the draft Updated Technical Guidance. You will be contacted soon regarding your availability for this teleconference, if interested.
- Please provide your comments to NMFS in an electronic form. If there is something NMFS can do to help facilitate you providing comments, please let us know.





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- Please forward your comments to NMFS by no later than **30 days after receipt of the draft Updated Technical Guidance from NMFS**. Again, if you identify major concerns, we would appreciate it if you let NMFS know as soon as possible.

Unfortunately, due to federal budget constraints, NMFS will not be able to compensate you for your time. Nevertheless, the NMFS Office of Protected Resources appreciates your time and effort in completing this review and would not be able to produce a scientifically robust acoustic guidance document without your valuable input. If there are technical questions, please feel free to contact Amy Scholik-Schlomer, at (301) 427-8449 (Amy.Scholik@noaa.gov), who will serve as the liaison between NMFS and the Navy's subject matter experts.

Attachment:

1. Conflict of Interest Form

