Public comments by Lindy Weilgart, Ph.D.
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There has been talk today in the Committee that we don't know what would make our sounds more safe for marine mammals, that we need more research done to identify those aspects or characteristics of noise to make it less harmful, and that noise producers would be more than willing to mitigate against them, once such threats are identified. It has also been mentioned that we have gone as far as we can to make the sound signals as efficient and as low intensity as possible, that the promise of quieting technologies has been exhausted in what can be provided to help solve this problem. I disagree. Certainly industry and the Navy will ensure that their signals are as efficient as possible for THEIR purposes, but I am not convinced that technological advances have focused on making sounds safe for marine mammals to the maximum extent possible, especially given that the underwater noise issue really has only gained prominence in the last few years.

It is true that more information would be helpful in determining how to change noise characteristics to benefit marine mammals. However, we DO know something about how to improve the sound and make it safer. We know that the mid frequencies and perhaps low frequencies are worse than the high frequencies, we know that short-rise times should be avoided, omni-directionality is worse and that it is probably better to direct a signal downward in a focused way, high intensity is worse than low intensity, long durations are worse than short, lower duty cycles are better, and to avoid large scale impacts in both space and time. We know that it would be safer to keep noise away from whales and productive habitats and especially areas of known beaked whale abundance. So, we know enough to make improvements NOW. And these are not just hunches. For instance, the oil and gas industry could make their seismic signals more coherent, using fewer mid frequencies, as these are of no use to their purposes.

Also, we can do a lot of noise impact studies on fish, for instance, that we can't do on whales and that could tell us more about broad ecological effects and perhaps population dynamics. Whales, which are more intractable study animals and present more ethical issues, may not be the best animals to focus on initially.

Chip Gill mentioned that there is a middle ground that we can get to in this Committee. I would like to see that middle ground.