			the significance level when considering all species across 10 years.
6	2-35	Impact to MPAs… from active acoustic sound sources range from nominal to moderate for all alternatives except Alternative G	Why would impacts reach the level of moderate for Marine Mammals inside MPAs when MPAs represent a pretty small area inside the AOI? Some might argue that MPAs contain unusual densities of species of concern or contain critical habitat, but neither of these assertions are supported by the best available data (e.g. Duke density maps or what data we have from tags and surveys concerning breeding, foraging and other vital activities).
6a	3-18 and D-25	8000 cubic inch array with 72 elements used as standard	Actual distribution of array sizes ranges from 8400-less than 2000 with a mean value of 5600 cubic inches. Assuming the use of an 8000 cubic inch array overestimates reasonably expected source energy for a typical year or decade of effort. Additionally, using an excessively high number of elements in the array (the PEIS assumes the 8,000 cubic inch array is composed of 72 elements, when it would more likely be composed of 48 to 60 elements) further overestimates the expected source amplitude.
9	4-54	**Fitness level Consequences of level A and Leve B Exposures**	The analysis of fitness level consequences in this section involves comparing the number of total animals in a hypothetical 7,000 km^2 survey area to the number animals that would be within the acoustic threshold distance at any one time. This seems to have been done to compensate for the fact that exposure modeling was conducted for a 24hr period and discusses the probability of an animal experiencing multiple exposures to Level A acoustic energy, but the logic behind this approach is not at all clear. This should be more fully explained.
10	4-56	There is still a very small potential for an animal to be in the acoustic footprint, thus an even smaller probability of experiencing multiple exposure to Level A acoustic energy. It is not anticipated that any animal would experience fitness-level impact from level A exposures.	The argument made here that seems to be predicated on fitness level consequences coming from multiple exposures of the same individual above Level A criteria is not clear. There is not support for the final sentence and there is not an initial logical argument made for how multiple exposures and not a single exposure would lead to fitness level consequences or why the traditional density x area calculation was used for this assessment rather than the results of exposure modeling.
11	4-57	Minimum survey spacing will ensure that marine mammals will have areas where sound levels will not meet the threshold of harassment…	No support for this is provided in the document and, to our knowledge, none exists in the scientific literature.
12	4-124	"In March 2015, NMFS published a proposed rule to	The final rule was published April 6, 2016 (81 FR 20058). The North Atlantic DPS is listed as

		remove the current range-wide listing for green sea turtles and to replace it with eight DPSs as threatened and three as endangered. Green sea turtles found in the GOM are part of the threatened North Atlantic DPS (80 FR 15272). The NMFS is currently compiling comments on the proposed rule, with a final rule expected to be published in late 2016."	threatened. Critical habitat is not determinable at this time but will be proposed in a future rulemaking.
13	D-25	For geotechnical source propagation modeling, a fixed +10 dB factor was used to convert SEL to rms SPL.	Although a 10 dB adjustment is common, there is insufficient detail provided here to support that it is appropriate for the HRG sources. This is especially true at greater ranges where the impulse shape of the signal is changed to an amplitude modulated signal over a variable time window.
14	D-35	Exposure estimates for cSEL metric were based on the exposure history of the animats (this is appropriate). Exposure estimates for peak SPL were based simply on the how many animats came within the range of the threshold	Using only the range value would appear to neglect the depth of the animat at the time it was within the (assumed maximum-over-depth) range. If slant range and 3D peak SPL sound field were used, this should be specified.
14a	D-42	Max value in the downward direction is used to estimate exposure	AASM generates a vector-specific level at any angle and in fact downward energy does not make a substantial reflective or refractive contribution to the longer range propagated signal, so this use of the downward maximum overestimates exposure.
15	D-44 D-45	red boxes in Figures 13 and 14 within which densities are calculated from the NODES database	These boxes do not appear to show the same geospatial shift as shown for the two survey areas in Figure 10.
17	D-49	Animats coming within the 230 dB (18.7 m) and 200 dB (575.4 m) isopleths were counted as exposed	Not enough detail is provided, but if the ranges to animats used were simply horizontal distance rather than slant-ranges, then this calculation assumes maximum over-depth, which would result in more exposures of deep-diving marine mammals than is realistic.
18	D-84	**Sound Speed Profile Analysis Results.**	There is insufficient description of how the Median and standard deviation values shown in Table 30 were calculated to interpret the results. Presenting differences between worst-case and median models in terms of dB at a maximum distance to a threshold is not as useful as showing actual variation in distances to that threshold or areas exposed above the threshold. Table 30 shows that the median difference between