

## INFORMATION REQUIRED FOR EA AND IHA NOAA FISHERIES PERMITS

Under the terms of the Marine Mammal Protection Act (MMPA) of 1972, an Incidental Harassment Authorization (IHA) <http://www.nmfs.noaa.gov/pr/> is required for each seismic program conducted on the R/V *Marcus G. Langseth*. In order to initiate the application process the Chief Scientist is asked to provide the following information pertinent to the cruise.

1. Name of Project and Proposal Number
2. Name and address(es) of PI(s)
3. Designated contact for further information if needed.
4. Ship and sailing dates
5. Overview of Activity. A short description of the activity.
6. Source array(s) that will be used during the seismic survey. If more than one is to be used, (eg: 9 airguns for reflection and 18 airguns for refraction) it is essential to define exactly which lines will be shot with each array.
7. Length and number of Streamers to be used. Estimate of the time the streamer will be deployed. Please note that the streamer is not considered as a source of harassment but it does limit the maneuverability of the vessel among other factors.
8. Track Charts (If you have a digital file overlaid on bathymetry, this is ideal). The more detail that can be provided will make the computation of the “take” estimates easier. If the lines are to be shot at close spacing, this can serve to reduce the take estimates since there is an assumption that some of the overlapping safety zones will actually result in reduced numbers of different individuals being taken.
9. Track lines totals **MUST** include turns as well as survey lines since we do not shut down the guns for turns. (A shutdown of more than approx 7 minutes will require a 30 minute prestart visual observation period followed by a gun ramp up period). The number of guns may be reduced in turns (in fact several recent IHA’s have required that the guns be powered down during turns) but the array is not shut down completely (unless there is a problem with the guns). In some cases (3-D multiple streamer surveys) the gun array may be shut down but a single “Mitigation Source” will continue to be operated so that it will not be necessary to initiate the “Ramp-up” period prior to resumption of the full array.
10. Estimated days (or hours) of seismic shooting. Please include turns. This number should **reflect total shooting times, not just the anticipated data acquisition hours.**

11. We need to provide the total seismic track kilometers (including turns) in three water depths. **These are very important numbers because the sound propagation varies with water depths and thus affects the safety radius and takes estimates:**
  - >1,000m
  - 100-1,000m
  - <100m
12. If you have contingency lines/times, please provide this but make sure they are separate from the primary lines and specifically noted as contingencies.
13. Please estimate your transit times from the scheduled port of departure to the science area and the transit from the science area to the scheduled port of arrival (Transit @ 10 knots average should be used).
14. If OBS instruments will be deployed and recovered from the *Langseth*, please estimate these times which will not be included in the total air gun shooting times. Generally it is better to overestimate the shooting times if there is some uncertainty.
15. If OBS instruments are to be deployed by a second vessel, there may be a requirement, especially in near-shore waters, for observers to be placed on the second vessel and the vessel assigned – on a not to interfere with the science mission basis- to survey along recently shot tracks to check for injured mammals.
16. Multibeam and 3.5 sub bottom profiler. Although there is no requirement for a permit specifically for multibeam or profilers, we have been requested to provide the information on the use of this equipment since they do put sound in the water. Please advise if you will use either of these equipment items and for how long each will be used (if not for the entire cruise).
17. Purpose and Need. The objective of this section is to justify the harassment of marine mammals. This is actually an important section for the Environmental Assessment and it is best completed by the PI since he is the person most familiar with the overall program objectives.
18. Please request an exemplary IHA and EA application for a previous L-DEO cruise from the Marine Safety and Environmental Coordinator as guidance to completing this information.

Please do not hesitate to call or write if there are any questions on this process.