

| POTENTIAL DATA SOURCES FOR SOUND-PRODUCING ACTIVITIES | | | | | | |
|--|--|-------------------------|--|--|---|--|
| | Subcategory | Chronic vs acute | Temporal aspects | Source of spatial data | Source of acoustic characterization data | Comments |
| Shipping | Large, ocean-going | Chronic | Annual averaging (no seasonal component) | AIS (coastal) and HITS (pelagic) data | Generic sound profile data for a large ship plus propagated noise field, e.g. Scrimger & Heitmeyer, JASA. 1991. | |
| Ice breakers | | Chronic | Seasonal | Canadians track of ice breakers in Arctic; Antarctic - use base locations | Consultants* can provide average operating profile | |
| Small to mid-sized vessels | Fishing | Chronic | Seasonal | MA: NMFS and MA DMF; Global, CA: spatial fishing data from Halpern et al. 2008, 2009 | Generic sound profile data for small/mid-sized vessels | |
| | Recreational | Chronic | Seasonal | Port or harbor size as a proxy for source and diffuse away from port. Number of boat licenses (not boat driver licenses) from county office. | Generic sound profile data for small/mid-sized vessels | Could Google Earth be used to count boats in harbor? Diffusive path may be linear along coast rather than radiating from port. Majority of boats stay within a few nm from harbor. |
| | Whale-watching | Chronic | Seasonal | Average across a localized area of regional activity based on number of boats or number of operator licenses | Generic sound profile data for small/mid-sized vessels. Consultants* could provide data. | May need to consider correction to source level to reflect the fact that noise is not distributed randomly with respect to animals. |
| | Law enforcement | Chronic | No seasonal component | | Generic sound profile data for small/mid-sized vessels | |
| | Research | Chronic | Seasonal | | Generic sound profile data for small/mid-sized vessels | |
| | Support vessels for construction/maintenance | Chronic | No seasonal component | | Generic sound profile data for small/mid-sized vessels | |

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| Seismic exploration | | Chronic | Seasonal in some regions (Arctic) | Global database of seismic vessels by region (World Geophysical News): # vessels/mo | Use acoustic signature of “average” industry vessel ; signatures of seismic arrays from consultants* | |
| Military sonar | Mid Frequency Active | Acute | No seasonal component | Hours of use of 53C (NOAA permitting) | Navy propagation models | |
| | Low Frequency Active | Acute | No seasonal component | Extrapolate from pattern of historical use | Navy propagation models | |
| Explosions | Military | Acute | No seasonal component | NOAA permitting has data on ordinances used per exercise | | No propagation model probably needed |
| | Dynamite fishing | Acute | No seasonal component | Scientists* map for Indian Ocean | | |
| | Rig de-commissioning | Acute | No seasonal component | | | |
| Mobile bottom gear | Trawling | Chronic | Seasonal | Use data from Halpern et al. from logbook reports/NMFS information for MA | Acoustic signature can come from scientists*, could then be translated into global context | |
| Aquaculture | Acoustic harassment | Acute | No seasonal component | MA and CA: Halpern et al. 2009 data from Google Earth combined with town data | Acoustic signature from manufacturer | |

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| Construction/ industrial activities | Liquefied Natural Gas | Chronic | No seasonal component | Permitting agency -- Army Corps? | | |
| | Wind energy | Chronic | No seasonal component | State permitting/coastal planning. CA - wind E potential map; MA - Ocean Mgt Plan wind E areas | Generic sound profile data for turbines | |
| | Tidal energy | Chronic | No seasonal component | State permitting/coastal planning. MA - Ocean Mgt Plan proposed tidal energy locations | | |
| | Wave energy | Chronic | No seasonal component | State permitting/coastal planning. CA - wave energy potential map | | |
| | Dynamic positioning | Chronic | No seasonal component | | | |
| | Land-based construction | Chronic | No seasonal component | NOAA Environmental Sensitivity Index (hardened shoreline). | | |
| | Drilling (fixed and mobile) | Acute | No seasonal component | NOAA oil & gas permitting; World Geophysical News | | |
| | Pile-driving | Acute | No seasonal component | Presence of large harbors/ports and assume some level of periodic pile driving. | Consultants* | Use mean spectrum and attach some information on duty cycle. Keep track of peak levels in addition to averaging out. |
| | Dredging | Acute | No seasonal component | Presence of large harbors/ports and assume some level of dredging | | |
| *Have specific people in mind | | | | | | |