

Management

A large subset of all American commercial ships fall under the U.S. Merchant Marines, which is managed by the U.S. Marine Administration, an agency of the U.S. Department of Transportation. These ships are in charge of the transportation of commercial goods and services. These ships (tugboats, merchant ships, towboats, ferries, dredges, and excursion vessels) are included in the commercial fleet as well as the federal fleet. The federal fleet is governed by the Military Sealift Command, an arm of the Navy. During times of peace, these ships are used to carry material (<http://www.msc.navy.mil/inventory/>). This section focuses on the commercial segment of the fleet.

Classification

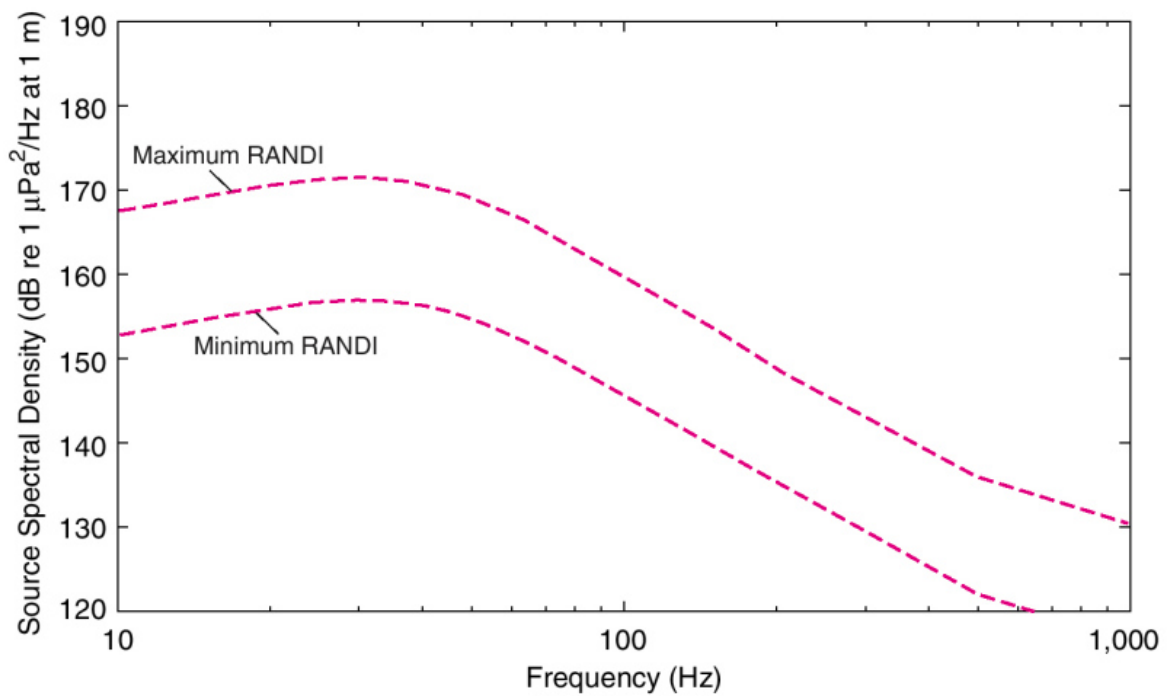
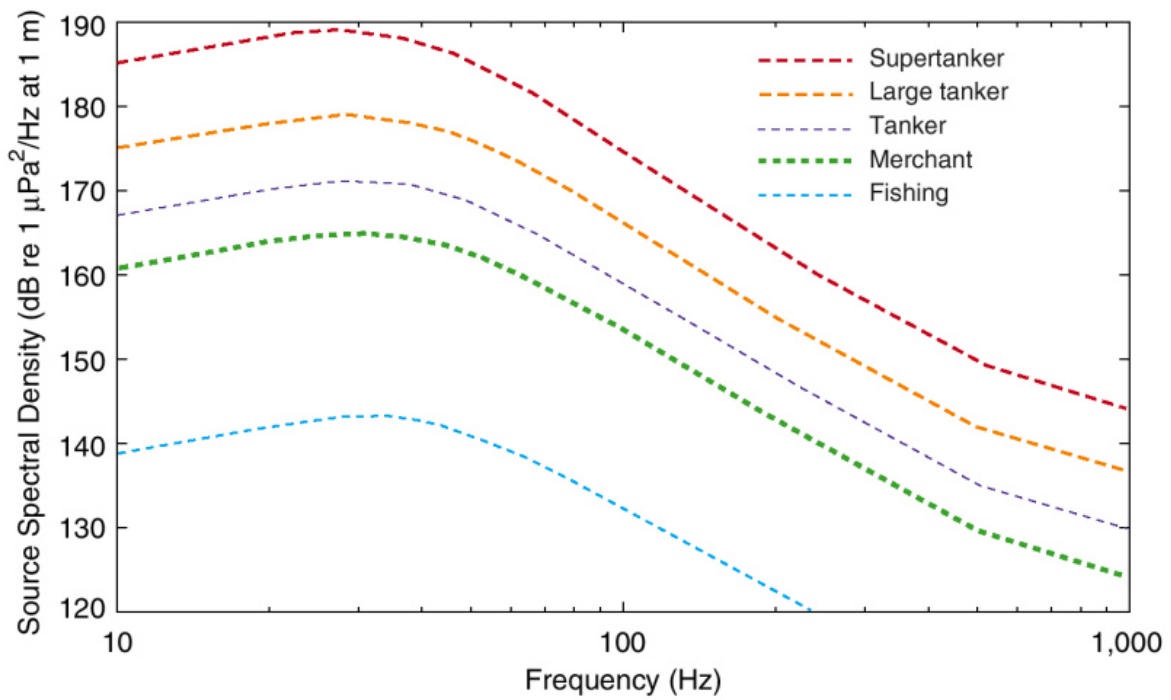
Each cargo ship is categorized according to its purpose and dead weight tonnes (DWT). There are many types of ships but according to the Bureau of Transportation Statistics (https://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/html/table_01_24.html_mfd), they fall under the categories of:

- Tankers: Petroleum Tankers, Chemical Carriers, LNG Carriers, LNG/LPG Carriers, LPG Carriers.
- Container: Fully Cellular Containerships.
- Dry Bulk: Bulk Vessels, Bulk Containerships, Cement Carriers, Wood Chip Carriers, Ore/Bulk/Oil Carriers, Bulk/Oil Carriers.
- Ro-Ro: Ro-Ro Vessels, Ro-Ro/Containerships, Vehicle Carriers.
- General Cargo: General Cargo Carriers, Partial Containerships, Refrigerated Ships.
- ITB: Integrated Tug/Barge

Each of these categories have their own subcategories as well, according to their cargo type and size. This document (<http://hb.hr/wp-content/uploads/2014/12/tankers.pdf>) provides the specs of most common types of tankers ranging from the 166,300 DWT Suezman Oil Tanker to the 9,200 DWT Asphalt Carrier.

This document (<http://www.marine.man.eu/docs/librariesprovider6/test/propulsion-of-vlcc.pdf?sfvrsn=26>) details Very Large Crude Carriers, which falls in the range of 250,000 to 300,000 DWT.

This document (<http://marine.man.eu/docs/librariesprovider6/technical-papers/propulsion-of-46000-50000-dwt-handymax-tanker.pdf?sfvrsn=16>) provides more specs about smaller carriers of 46,000 to 50,000 DWT.



This image from (<https://www.ncbi.nlm.nih.gov/books/NBK221253/>) figure 2.2 shows the spectral densities of surface ships. This would be useful for categorizing different types of ships and their corresponding sounds.