

Glossary

acoustic impedance property of medium that makes the propagation of sound waves more difficult

antinode point of maximum displacement

bow wake V-shaped disturbance created when the wave source moves faster than the wave propagation speed

Doppler effect an alteration in the observed frequency of a sound due to motion of either the source or the observer

Doppler shift the actual change in frequency due to relative motion of source and observer

Doppler-shifted ultrasound a medical technique to detect motion and determine velocity through the Doppler shift of an echo

fundamental the lowest-frequency resonance

harmonics the term used to refer collectively to the fundamental and its overtones

hearing the perception of sound

infrasound sounds below 20 Hz

intensity the power per unit area carried by a wave

intensity reflection coefficient a measure of the ratio of the intensity of the wave reflected off a boundary between two media relative to the intensity of the incident wave

loudness the perception of sound intensity

node point of zero displacement

note basic unit of music with specific names, combined to generate tunes

overtones all resonant frequencies higher than the fundamental

phon the numerical unit of loudness

pitch the perception of the frequency of a sound

sonic boom a constructive interference of sound created by an object moving faster than sound

sound a disturbance of matter that is transmitted from its source outward

sound intensity level a unitless quantity telling you the level of the sound relative to a fixed standard

sound pressure level the ratio of the pressure amplitude to a reference pressure

timbre number and relative intensity of multiple sound frequencies

tone number and relative intensity of multiple sound frequencies

ultrasound sounds above 20,000 Hz