1 Fundamental Acoustics: Some Background
2 Fluid Mechanics, Thermodynamics and the Acoustic Wave Equation
   2.1 Basic Equations of Fluid Mechanics
   2.2 Some Thermodynamics
   2.3 The Linear Wave Equation
3 Acoustic Waves
   3.1 Introduction
   3.2 Preliminaries: Complex Notation
   3.3 Acoustic Waves from Fluid Mechanics
   3.4 Wave Equation Solutions in Cartesian Coordinates
   3.5 Energy, Power and Intensity
   3.6 Energy
   3.7 Spherical Waves
   3.8 A Simple Source
   3.9 Dipole Source
   3.10 More on Units
4 Ocean Acoustics and More on Sound Transmission
   4.1 Bottom Loss: Reflection and Transmission
   4.2 Ocean Acoustic Environment
   4.3 Attenuation
   4.4 Scattering and Reverberation
   4.5 Ambient Noise Sound Propagation Models
5 Sonar Equation
   5.1 Introduction
   5.2 Detection Threshold and "ROC" Curves
   5.3 Sonar Equation
6 The Wave Equation for Sound Propagation in the Ocean
7 Some Simple Array Processing