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Equation; 2.6 THE THERMODYNAMIC ENERGY EQUATION; 2.7 THERMODYNAMICS OF THE DRY ATMOSPHERE; 2.7.1 Potential Temperature; 2.7.2 The Adiabatic Lapse Rate; 2.7.3 Static Stability; 2.7.4 Scale Analysis of the Thermodynamic Energy Equation; PROBLEMS 2; MATLAB EXERCISES 2; Suggested References 2; 3. Elementary Applications of the Basic Equations; 3.1 BASIC EQUATIONS IN ISOBARIC COORDINATES; 3.1.1 The Horizontal Momentum Equation; 3.1.2 The Continuity Equation; 3.1.3 The Thermodynamic Energy Equation; 3.2 BALANCED FLOW
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Sommario/riassunto

This revised text presents a cogent explanation of the fundamentals of meteorology, and explains storm dynamics for weather-oriented meteorologists. It discusses climate dynamics and the implications posed for global change. The Fourth Edition features a CD-ROM with MATLAB® exercises and updated treatments of several key topics. Much of the material is based on a two-term course for seniors majoring in atmospheric sciences. * Provides clear physical explanations of key dynamical principles * Contains a wealth of illustrations to elucidate text and equations, plus end-of-chapter pr