PART II

The Hydrologic System

Earth's hydrologic system is composed of all the paths through which water moves around and through the outer layers of the planet. In this part of the book, we explore not only the complex paths that water follows on the continents, but we will also consider the nature and dynamics of the atmosphere and the ocean. The sources of energy that drive these systems are the same–a combination of heat energy from the Sun and gravitational energy from the Earth. Solar heat, created in a vast nuclear furnace suspended in space, causes evaporation of seawater, makes some air masses more buoyant than adjacent ones, and speeds up chemical reactions–among a host of other effects. The relentless effect of gravity causes stream water, hillsides, glaciers, and air masses to move in a ceaseless effort to reach equilibrium. The surface features of the Earth, which supply us with so much scenic beauty, are all sculpted by the hydrologic system.

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