



**Patterns from the Sky: How Hot Air Balloons Teach Systems Thinking**  
**By Marty Jacobs**  
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Recently, my husband and I celebrated our 50th birthdays with a hot air balloon ride. Although the intent was for pure fun, systems thinking crept into my experience. How? To be honest, I saw systems everywhere I looked: in the patterns on the ground, the reflections in the bodies of water, and the interconnectedness of the natural environment. Here are some of the “Aha!” moments from our flight.

**Seeing Whole Systems:** As we lifted off and floated over very familiar terrain, we were struck by how little we actually see while driving in a car. There were wetlands, streams, roads, and buildings we never knew existed. The experience reminded me of the famous Einstein quote, “The problems we have created in the world today will not be solved by the level of thinking that created them.” Why? Because we cannot see the whole system unless we rise to a new level of understanding.

**Discerning Patterns:** At the altitude of a balloon ride, the patterns of the land stand out in utter clarity. The evening was perfect for flight—warm with no wind. Shortly after takeoff, our pilot dipped us into Lake Fairlee, taking on several inches of water in the basket. As we lifted off again, he asked us to stand at one end to help the water drain. A column of water droplets drained from the corner in a pattern that defies description. Our pilot used those drops throughout the flight to identify imperceptible patterns in the air current that gently pushed us along.

**Changing Perspectives to Identify New Leverage Points:** One of the most challenging aspects of hot air balloon flight is locating a safe and appropriate place to land that is convenient for the chase crew. As we crossed the Connecticut River into New Hampshire, our pilot had an idea of where we might land, but the air current moved us in a different direction. However, as we moved farther away from the river, the cooler air flowing downhill pushed us back, and we ultimately landed where he had originally expected. He just kept responding to the feedback from the system.

**Understanding Delays in the System:** Hot air balloon flight is completely based on physics: the movement of air currents, the pull of gravity, and the fact that hot air rises. The propane burner, of course, provides the heat to create the hot air for lift.

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However, the lift is not immediate. As the pilot maneuvered to land in what appeared to be a fairly tight spot surrounded by trees, he would apply heat to just barely carry us up and over those trees. I kept thinking we would crash into the treetops because I didn't understand the delay in the lift. I was impressed with our pilot's patience and deft choreography.

My recommendation? Take a hot air balloon ride some day. It is a concrete and visceral example of systems thinking in action, and it will create a powerful metaphor for what is required to truly be a systems thinker.

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