HOT AIR TO SPARE

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by Floyd Gomez

How much hot air does it take to fly a hot air balloon? Floyd Gomez, 12, and Tricia Tercero, 8, joined the crew of OWL I at the Taos Balloon Rally in New Mexico to find out. Here's Floyd's account of the day...

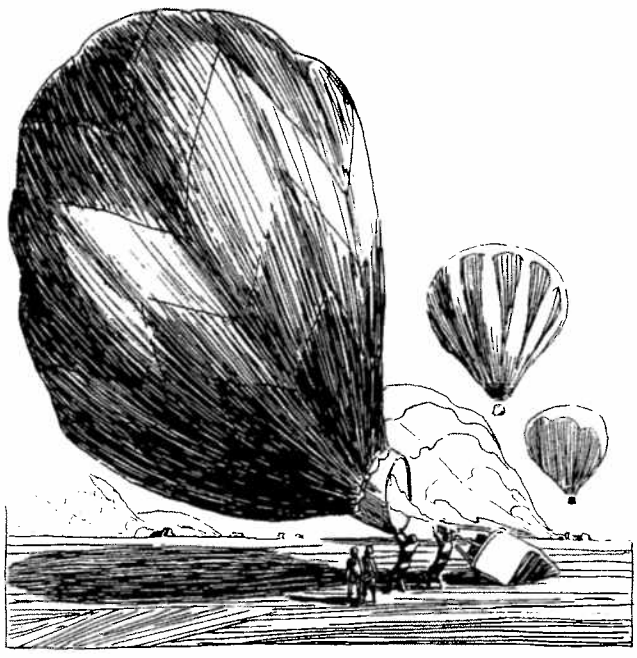
6 a.m. When the captain of OWL I, John Sena, said he'd meet us at the rally field at 6:00 a.m., I thought he was joking. But he was deadly serious. That's the best time to ride a balloon. The air is cool and calm before the sun has a chance to heat it and stir up some air turbulence. The cooler the air, of course, the greater the difference between the air temperature and the hot air inside the balloon so the easier it is for the balloon to rise. This morning the temperature registers a cool 0°C (32°F). "Perfect," says John. "Brrr," say Tricia and me.

6:10 a.m. We spend the first ten minutes at the field looking for a clear area about the size of a pro hockey rink. It gives us an excuse to stamp our feet and get warm. The crew needs such a large clear space so they can unfold the seven-storey-high nylon balloon on the ground and check it for rips and holes. Luckily we don't find any or we wouldn't be able to go up.

6:20 a.m. You've got to be careful to unfold the balloon—or the envelope as it's called in balloon circles—downwind of the basket. Otherwise the wind could flip it back over the basket while it's being filled with air. Wrestling a huge, out-of-control nylon bag back down to the ground isn't anyone's idea of a fun way to start the day.

6:30 a.m. Nick and Paul hook the basket—or the gondola—to the envelope. Then they hold the bottom of the balloon open while Sandy switches on the gas engine inflator. The inflator sucks the cold morning air into the envelope and fills it until it's lying on its side like a big, beached whale.

6:45 a.m. Finally, things start to heat up! John connects the propane fuel supply to the burner assembly in the gondola. Then he lights the fuel and up from the burner's blast valves shoots a column of blue flame...right up the middle of the envelope.



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6:50 a.m. The "whale" starts to stand on its tail.

6:55 a.m. John gives the envelope a few more blasts of hot air and the balloon strains at its cables as if it's alive.

7:00 a.m. Finally, Tricia and I get the word to climb into the basket. John quickly runs through safety instructions one last time, then does a final check while the ground crew make sure there are no other balloons around. Then—lift off!

7:15 a.m. I thought flying was fun, but, believe me—there's nothing quite like going up in a balloon. It's so peaceful and quiet—when the gas burner isn't roaring above your head—that I want to just keep on going up, up. I have to snap out of the daydream, however, because Tricia and I are supposed to be keeping a watch for power lines, other balloons, that sort of thing.

7:45 a.m. I wonder how you control the direction of a balloon? Going up is easy. Just burn off some gas—seven or eight blasts a minute—to make more hot air. But going sideways is another matter. I notice that John takes the balloon up until he finds a layer of air that's moving in the direction he wants to go. Then he lets the balloon ride along this wind as if it were on a conveyer belt. When he wants to change direction again, he goes up or down until he finds another wind, then lets it carry us along.

8:30 a.m. How to get safely down again, is something that interests me more the longer we stay up. Do we wait until the envelope loses its heat? I hope not, otherwise we'd need parachutes to land. I figure it out while watching John take us down to a lower wind level to change direction. I always thought the balloon's envelope was all one piece, but at the top it's got a hole and a huge round plug to cover it. The plug, known as a parachute top, is attached to the envelope by lines, which in turn are attached to a long rope—the red line or rip line—that hangs down into the gondola. Each time John pulls on the rip line, the parachute top drops a little and hot air escapes out the top of the envelope. I guess a parachute does have something to do with landing a balloon!

8:45 a.m. Fuel is getting low so John radios his ground crew, who are racing along in the pickup far below. He instructs them to meet us in a clear field ahead.

8:50 a.m. After some expert work with the parachute top and rip line, John positions us over the field. The ground crew are there, ready to grab the sides and back of the gondola. No one ever gets in front of a moving gondola—it would hit you with a force of about three times its weight. With a yell to us to hang on, John lands the balloon with a bump. Immediately, the crew grabs hold of the gondola while John burns off the leftover fuel and opens the parachute top to let all the hot air out of the envelope.

9:00 a.m. The ride is over and we are sorry to be down. What a morning—and it's hardly begun!