Gas Ballooning

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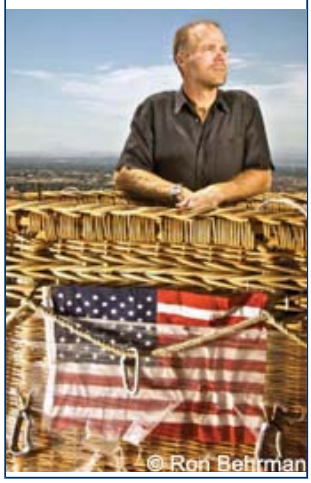
Richard Abruzzo



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Clinging to a big bubble of helium or hydrogen, gas balloonists fly for days nonstop, crossing continents. That is, unless they hit something, get shot down or explode

The accident that befell Richard Abruzzo wasn't the worst in the history of gas ballooning, but you can see why he's not eager to repeat it: At 4 p.m. on Oct. 2, 2005 he and copilot Carol Rymer Davis were flying at 7,000 feet over Kendall, Kans. in a 35,000-cubic-foot helium balloon, heading toward the Great Lakes. They were one in a field of 14 competitors in that year's James Gordon Bennett Race, the America's Cup of gas ballooning.

"Our flight had gone extremely well," recalls Abruzzo, 45. The two had been aloft 21 hours, having ascended from Albuquerque, N.M., where Abruzzo owns a ski resort and tramway company. The sun beat down on him and Davis, 63, a retired Army colonel and Denver radiologist. "We were very hot and had removed our shirts, socks and shoes," says Abruzzo. "The aluminum sides of the basket were too hot to touch."

A severe downdraft seized them.

They threw out sandbags to lighten the balloon, but still the current sucked them down. Near the ground, winds were gusting to 40 knots. "We looked downwind," recalls Davis, "and could see power lines along a dirt road."

They hit the top wire.

Abruzzo: "We were hung up for a fraction of a second before the line snapped. The gondola pitched violently--as much as 60 degrees. Carol was thrown against the side rail and hit her head, and I was ejected from the gondola at a height of 50 or 60 feet."

The balloon, minus Abruzzo's weight, shot skyward with Davis still aboard, unconscious.

An hour and a half later Abruzzo woke up in a farmer's field. He had no recollection of what had happened. He got to his feet, feeling not quite right, and started gathering up scattered pieces of balloon equipment. Dragging them, he walked barefoot toward a farmhouse but was intercepted by power company linemen who were checking on the broken line. At a local hospital doctors found a fractured wrist, fractured pelvis, internal bleeding, fractured ribs, severe whiplash to the neck, blood clots and a head injury.

A quarter-mile away Davis, too, had regained consciousness. She valved gas and descended from 14,000 feet, hitting the ground at 600 feet per minute. The gondola flipped, dragging her underneath it and giving her what she calls a "prairie rash" on her arms and legs. She and Abruzzo recovered from their injuries and will be flying this month

in a different race called America's Challenge.

Brutal though their experience was, there have been far worse in the 102-year history of the Gordon Bennett. In 1995 an entrant approached the airspace of Belarus. Though the country had been notified of the race months in advance, a military helicopter intercepted the balloon and fired tracer bullets, exploding its hydrogen and killing both pilots.

Gee. Isn't ballooning supposed to be about morning mists and lovers looking deep into each other's eyes? If the lifting agent is hot air, then, yes, it usually is. But if gas, then not so much. Besides thick skins, gas ballooning demands, if not billionairedom, fairly deep pockets. Bennett, the gas balloon fancier of the early 20th century for whom the race is named, owned the *New York Herald*, among other cash-spewing assets.

Hot air, generated by a propane burner, is cheap. To fill a balloon big enough to carry two people and to keep it hot costs $100. Filling a comparable balloon with hydrogen, however, costs $2,500; and with helium, $12,000. People have experimented with less expensive alternatives--even steam. Methane and ammonia are cheap but have little lift. Ammonia is so astringent that pilots must wear respirators. Release of it on landing can kill a farmer's crop. Not everybody is happy to see you when you use ammonia.

Add to this that hot air balloons, not needing to be impermeable, are cheaper to build than gas balloons, plus easier to inflate and deflate, and you begin to appreciate why gas balloonists are such a small fraternity. Balloon maker Albert Padelt estimates there are no more than 30 gas balloons in the U.S. and not more than 100 licensed pilots, of whom perhaps 40 are active. (Numbers for Europe are higher.) There are more active astronauts in the U.S. than active gas balloonists.

So what's the appeal--besides exclusivity? Silence, for one. Hot air balloon burners make a lot of noise. For another, endurance. Hot air balloons typically stick close to home and seldom fly longer than an hour or two. Gas balloons, requiring no fuel, can stay aloft for days. Catch the right current and you literally can fly coast-to-coast or cross an ocean. Because you're in the air so long, and because meteorology remains an art, it's hard to know for sure where you'll land. Uncertainty is part of the appeal.

Richard Randolph Woods, 62, a real estate investor from St. Louis, says he likes this "wild card" aspect to the sport. The difference between gas ballooning and hot air he calls logarithmic: "Much more daring is involved. Sometimes the adventure comes after you land."

He tells of the time he and his co-pilot had to find their way out of Mexico, after they had been blown out of Palm Springs, Calif. and landed on the Colorado River estuary. "This was in the days before cell phones. We walked several miles to a camp that I think to this day was occupied by drug dealers. They offered to give us a ride up the river to where we could get a bus to Mexicali and cross the border." Later he had to hire a helicopter to extract his balloon.

Since then family and business obligations have curtailed his gas flying, but he looks forward to the day he can resume. "Everything about it excites me--the smell of the fabric, the feel of the sand." On takeoffs, he says, he always savored the feeling of having the earth simply fall away. There was peace and perfect silence. Until fate dealt the next wild card.

Forbes Life

Wafting 101

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Helium balloons can be had from U.S. maker Albert Padelt, whose company, Best Aviation Services in Bally, Pa., has supplied many of the ones used in races, including the Gordon Bennett (the next one of which will be run Oct. 4, out of Albuquerque, N.M.). Cost: about $30,000.

Hydrogen balloons are common in Europe, where they have been flown safely for generations. Helium's high price promises to make them more common in the U.S.

The German company Ballonbau Wörner has the manufacture of hydrogen balloons pretty much sewn up. Price: around $100,000. Complexity of manufacture has partly to do with the higher cost: Hydrogen balloons must be made fully conductive with a film of carbon to prevent the buildup of static charges that could ignite the combustible gas.

But Padelt and many U.S. gas balloonists wonder if lack of competition isn't a bigger reason for Wörner's lofty price tag. Padelt has been working for two years to develop and manufacture his own hydrogen balloon and aims to fly a prototype next spring. The price, he thinks, would be, at most, $50,000.

Though you can get trained as a gas pilot in the U.S., going to Europe may be a better option. Gas balloon clubs in Germany fly often, and hydrogen is cheap and readily available. Some balloon grounds are next to chemical or other industrial plants that give away hydrogen as a by-product of their operations.

For further information on getting started, contact the Balloon Federation of America (Gas Division).