

## A Romantic Story that Ends with Winter Tire Advice

By Kate McLeod

It's the late 1950s. A six-year old girl stands in an empty field in a small town in southeastern Massachusetts. A shadow engulfs her. She looks up. There's a giant watermelon-shaped balloon soundlessly gliding through the air. It says Goodyear on it. Without hesitation the girl says to herself, I want to go up in that and one day I'm going to. She runs home as fast as she can. Look up. Look up. Look what's up there she tells her sister. "Oh that," says her sister, "that's just the Goodyear blimp."

I never forgot the first time I saw the Goodyear Blimp: The thought that I would one day be aloft never left me. That day came on October 9, 2013, a letter-perfect day for cruising the skies of Akron.

When I arrived at the hangar in Suffield, Ohio, I learned that this would be the last media ride for the current model blimp, known as a GZ20. Spiritually, I am in the company of NASA astronaut, Sally Ride, who christened this airship in 2000.

The Spirit of Goodyear, as it is known to the public, will be replaced in early 2014 by the NT, a new high tech semi-rigid airship under construction at Goodyear's Wingfoot Lake hangar. Goodyear has blimps in three other locations; Pompano Beach, Florida hosts the Spirit of Innovation and Carson, California is home to the Spirit of America. Another blimp, the Navigator, is based in China.

We stand on the tarmac waiting for the ship to land. It is stunning to see this marvel of inflation heading right for us like an oversized alien ship in a Hollywood disaster movie. At least a dozen members of the ground crew wait for the ship to bounce to earth on its one little, untenably proportioned landing wheel. As soon as it touches down they dash toward it, grabbing the ropes hanging loose from front and sides of the airship and then steady the blimp by grabbing the handrails on either side. Once it is secure, a stepladder allows the five passengers and captain to deplane from the gondola.

There are only six seats in the gondola, limiting access to media, some celebrities, former presidents. The five reporters here for this flight are free to move around. No seatbelts are required. As we take off, Captain Pappenhouse is moving the blimp up into the sky operating the wooden elevator wheel to the right of his seat. The engines provide the power for forward motion and thrust during take off and landing. Rudders at the back of the blimp help control the direction of the flight. The blimp takes off into the wind—headwinds give the pilot better control. As we level off, the elevator wheel is in continuous motion adjusting our altitude. We ascend up over a beautiful lake on a day when the landscape is painted in the muted colors of this particular fall. In the first moments of this dream come true, I realize that it isn't going to be in the least bit disappointing. We're floating at an altitude of about 1,000 feet. The cruising speed of the airship is 35 mph. The maximum speed with engines is 55 mph, which increases with a tailwind. There is the sound of the

two turbine engines but the noise is off my radar. There's too much wonderment going on. Akron has a low skyline—if you even want to call it a skyline. Ground control instructs the pilot to fly over Goodyear's new headquarters, possibly the largest structure in downtown Akron. The employees are coming out to say a final farewell to the old GZ20 model. (The citizens of Akron have deep emotional ties to the Goodyear Blimp.)

As we travel, the pilot points out the Akron Airdock, formerly owned by Goodyear and now owned by Lockheed-Martin. It was Goodyear's contract to build the USS Akron and Macon that resulted in the famed Zeppelin Airdock. A building had to be constructed in which the Navy's giant rigid airships could be assembled. Completed in 1929, the structure is the largest in the world without interior support. Often referred to as one of the "seven wonders of the modern world", the massive structure is 1,175 feet long, 325 feet wide and 211 feet high. It served as an airship production facility until 1960, when it was converted to other manufacturing use.

As we cruise, the pilot talks excitedly about his job. It's an excitement that makes you think it's his first day on the job but he's been flying for Goodyear for 14 years with many prior years of flight training.

Even with a sophisticated instrument panel in front of the pilot, there's something so "Around the World in 80 Days" about this blimp with its wooden wheel and two foot pedals that turn the airship left or right. The LED messages displayed on the sides of the blimp are only visible inside the gondola on a tiny TV screen. These LED messages are computer generated using close to 4,000 boards that hold more than 82,000 LEDs. Over 1,000 configure to be seen from the ground during the day.

If there weren't another scheduled flight, I'd be happy to stay in the blimp indefinitely, but we have to head back towards the hangar. After one magical hour it's time for descent and landing.

We move slowly toward the short landing strip from where we took off. The pilot is tilting the elevator wheel dramatically and as we careen down over the lake I have momentary anxiety, imagining a water landing. The engines reverse, slowing the airship—and it is at that moment when I am again conscious of sound, conscious of the airship's size, conscious of the ground we are heading towards. Like all flights, it is the landing that is the most energized. I have a front row seat, next to the pilot, for the final moments of my airship dream turned reality.

Until my ascendance in the Spirit of Goodyear, I knew very little about blimps. Airships have three classifications: rigid, semi-rigid and non-rigid. The Goodyear blimp is a non-rigid model in which the shape of the envelope is maintained entirely by the internal pressure of the lifting gas, which thanks to Goodyear is Helium, not the explosive Hydrogen that destroyed the Hindenburg. (Goodyear pioneered the use of helium in 1925 when the first of its commercial airships, the Pilgrim, was inflated with the nonflammable gas.)

Rigid airships, such as the Graf Zeppelin, the Hindenburg and the Goodyear-built USS Akron and Macon, had metal frameworks within their envelopes to maintain their shape. The lifting gas was contained in a series of separate cells within these frameworks. In semi-rigid construction, the airship had a rigid or jointed keel, which ran the length of the envelope. This keel and the pressure of the lifting gas gave the envelope its shape.

Our captain reminded us that even with all the weight on the airship, we weigh less than the air we are displacing. Lighter-than-air craft work on a buoyancy principle. The density of ship is less than that of the air that surrounds it. The density of air does decrease with altitude, but it continues to rise until the air outside of the balloon is of the same density as the air inside.

But what, you might ask, do helium blimps have to do with tires, Goodyear's business. Well, you can argue that they both inflate but in corporate America, that's hardly a case for financing a blimp program. To cover sporting events networks hire out Goodyear blimps. In fact, they provided the first nationally televised aerial coverage of the 1955 Rose Bowl Parade. They are also goodwill ambassadors raising millions of dollars through charity auctions for disaster relief and community support. The blimp, in effect, isn't just a part of the company culture, it is worth its weight in gold for the PR it provides to Goodyear.

Goodyear tires have been developed through a century of research and development to accommodate driving conditions and driving styles. While in Akron, we talked with experts about the pros and cons of outfitting vehicles in the Snow Belt with winter tires. It's a tough sell. People see the holiday and end of year bills coming and they don't want to spend \$4-500 to buy tires.

Brandy Gadd, Goodyear brand marketing manager, makes a case for buying winter tires. If the temperature consistently drops to 45 degrees or more, it's better to have tires whose compounds maintain their flexibility. The compounds in all season tires aren't as flexible as winter tires. A more flexible compound gives the tire a greater contact patch, and, especially under winter conditions, the contact patch is critical. In cold weather, the tire's PSI drops. In cold weather, check the PSI more often. Properly inflated tires give you a greater contact patch and also preserve good fuel economy."

Design in tires isn't a topic one will see on the nightly news or in the fashion pages. Tire designers aren't going to show up on Jon Stewart or other late night shows. But, there's a tremendous amount of design work that goes into keeping cars on the road—the sipes, cuts in the tires are strategic in their angles and the depth. Siping is a process of cutting thin slits across a rubber surface to improve traction in wet or icy conditions. "Winter tires," says Gadd, "have more siping than all-season tires."

Reporters often get questions about whether or not one can get away with buying only two tires. "Four is better than two," says Gadd. "In the long run that decision to

save money can result in greater costs. In an emergency you need all four tires for good balance. It's cheaper than calling your insurance company."

A proper set of tires may help you stop shorter and faster. "We do understand that these are tough times," says Gadd. "If consumers can only buy two tires, they should always put the tires with the deeper tread cut on the rear. Consumers will usually do the opposite thinking they need extra traction on the front so they can climb up out of a situation. They get overly confident if they have the tires in the front. Put the two newer tires on rear. If you get too confident you can spin out."

Canada now mandates that all vehicles have winter tires. Since the law was passed there has been a 17% decrease in winter accidents since they and a 36% decrease in accidents causing death or serious injuries.

Goodyear also has the following recommendations for winter driving:

Have a winter safety kit in the car that includes road flares, a blanket, candles and matches. A little candle can generate a surprising amount of heat.

Fit your windshield with new wiper blades and make sure you top off your wiper fluid.

Make sure your battery is fully charged.

Change your driving habit to avoid sudden braking. Signal earlier and keep your car at a good distance from the car in front of you.

Once your car is warmed up, take off the bulky coat so you can steer better. Replace big, heavy boots with shoes so you can better operate the foot pedals.