

Jump Driver:



*Flying the
Twelve Minute
Roller Coaster*



Jump Driver: Flying the Twelve-Minute Roller Coaster

By Mike Jones

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Catawba County Airport (KDCM) is a tired G.A. airport in Chester, SC, just under the outermost edge of the Charlotte Class Bravo wedding cake. Three WWII-era runways trisect the tobacco fields into a giant equilateral triangle with a grassy centerfield. The north-south runway is well-maintained; fresh tarmac and crisp paint denote generous funding from the county commissioners.

However, Runway 5/23 is semi-abandoned. Thousands of sun-baked concrete slabs sprout a vigorous beard of weeds from each and every seam. Surprisingly, a modern hangar at the eastern end of the runway punctuates the desolation as unexpectedly as the black monolith in *2001: A Space Odyssey*. Welcome to Skydive Carolina.

My good friend and long-time aviation inspiration is a slender grey-beard named Rudy Ribbeck. Now in his sixth flying career, he is the chief “jump driver” for Skydive Carolina. I landed my Centurion on the grassy Runway 5 and parked near a handsome blue-and-white Cessna Caravan which was thirstily sucking Jet A from the fuel farm. Ribbeck was beside my plane in a flash and whisked me into the Caravan. Skydive Carolina had a full roster today, he said, and they needed to keep the Caravan on schedule. “You’re only making money when the plane is in the air,” he said.

We buckled in as Ribbeck ran through his checklists while a handsome fellow with a bristling black beard loaded jumpers in the back. Ribbeck explained how this Cessna Caravan 208 had been modified for skydiving. It sports a Texas Turbines' firewall-forward conversion. This features a TPE331 Honeywell turboprop with 900+ horsepower on the nose, an enormously fat, four-bladed carbon-fiber prop, and a giant roll-up garage door on the pilot's side. The only seating was a pair of stainless steel benches which looked



Rudy Ribbeck has 21,000 hours in his logbook. He flew for the Army for 20 years, then the airlines, then corporate, and now is on his sixth career flying with Skydive Carolina.

shockingly uncomfortable. Non-slip flooring replaced Cessna's standard carpeting. There were hand-grips on the ceiling and a small diving platform on the outside of the fuselage. It was as utilitarian as a subway turnstile: everything you needed, but not an ounce more.

Jumpers loaded, Ribbeck started the engine, made a cursory radio call and we were rolling over the grass on Runway 23. Yep, a tail-wind take-off minimizes unprofitable taxi-time.

The Caravan, as big as it is, handles like a Cessna 182. Thrust back into our seats by the acceleration, Ribbeck rotated at 65 knots and floated off the runway at 75 knots. Then I was shocked: Ribbeck pulled the nose high. Really high. Higher than I have ever been in an airplane that wasn't stalling. But the Caravan *accelerated*. At 90 knots and 3,000 feet per minute we raced skyward with a dozen jumpers on-board. The HSI showed the nose 17° in the air. I'm lovin' this 900 horsepower.

90 seconds after lifting off, another surprise: the “Low Fuel – Left Tank” annunciator flashed. This was doubly-alarming because I climbed into this airplane while it was being refueled — had somebody just made a horrible miscalculation? Were we the next “Gimli Glider?” Ribbeck laughed. They prefer to fly a lightly-loaded plane, he said. “There’s no need to carry buckets of fuel when you’re never more than ten minutes from base.”

Ribbeck made a lazy 180° turn and we lined up for the first drop, two jumpers at 3,500 feet. He added flaps and slowed to 80 knots as he used the GPS to align the plane with the drop zone below us. The garage door opened and the slipstream howled through the cabin. Ribbeck flicked a switch ominously labeled “Exit.” A light in the back of the plane turned green and two people disappeared out the door.

“Sure, we've had some students who decided not to jump. But you're not paying for the skydive, you're paying for the plane ride. Your jump is free.”

— Jorge Alonzo, General Manager, Skydive Carolina

Power up, jump door closed, flaps up and nose trimmed impossibly high, we spiraled skywards. Ribbeck called Charlotte Approach for our clearance into the Class Bravo. Three minutes later we were approaching 14,000 feet and turning towards the drop

zone (14,000 feet is the maximum altitude for skydivers not equipped with oxygen). To save time and fuel, it’s a point of pride for Ribbeck to arrive at the magic altitude exactly as he reaches the drop point, but sometimes crossing traffic adds an extra mile to the route or requires a brief delay in his climb.

Again, he slowed, added flaps, and hit the “Exit” light. About ten seconds apart, the jumpers nonchalantly stepped outside. A couple of times a videographer climbed into the slipstream and stood on the ledge on the side of the plane, capturing the moment a novice jumper exited the plane. Those

videographers then chased their targets downhill, helmet-mounted GoPros capturing every moment of the descent. They fall 1,000 feet every 20 seconds and most deploy their chutes between 6,000 to 4,000 feet, riding the air for 5-6 minutes.

At this point, I relaxed because I thought our work was done. I was wrong; Ribbeck's job was to get back on the ground. He pulled the power back, trimmed the nose down and dove for the trees. My ears popped and popped again. I literally was hanging from my shoulder harness, staring at the forests racing towards us at 155 knots. I felt like a dive-bomber at the Battle of Midway.



When the airplane is loaded photography is impossible because the jumpers face the back of the plane. As the plane empties it becomes more spacious. Here, a novice is strapped to a professional instructor for a tandem jump. Notice the hand and knee of the videographer, hanging outside the plane.

Below 6,000 feet, Ribbeck deployed a Vietnam-era trick. He pulled the nose up temporarily to slow the plane and put the prop in “beta” mode — *putting the prop into reverse while airborne*. He then dropped the nose and the plane stabilized at 100 knots, falling out of the sky at 4,000 fpm. The plane was under perfect control; the runway never budged in the windscreen. But damn, those trees were getting close!

Just when I was so puckered my vision was turning brown, Ribbeck flared. The draggy giant raced across the intersecting runway but slowed to 75 knots just as he touched down on the grass adjacent to Runway 5 (sparing the tires

and minimizing ground-time). Within sixty seconds we were back at the gate. The bearded guy loaded another dozen eggs into our crate. Gotta get the plane back into the air!

0.2 hours on the Hobbs meter; exactly twelve minutes. We made the trip four more times before stopping for fuel and lunch, each time dropping one lady at 3,500 feet before climbing high for the rest. After a while, even flashing “Low Fuel” annunciators become old news.

Ribbeck's Story

I met Ribbeck years ago when he taught me to fly a World War II taildragger. Now grey-haired, lean, and sporting a movie-star quality tan, he's a



The Caravan is perfectly equipped for skydiving. The left display shows Ribbeck is at 5,100 feet and 91 knots, in a gentle left-hand turn to track towards the drop zone. He's climbing at 3,000 fpm. The right display shows the magenta track towards the drop zone, which is located on the eastern edge of the runways at Chester Airport (white triangle, left). Ribbeck minimizes wasted time or fuel by arriving exactly at 14,000 feet at the drop zone. Notice the “low fuel” alarm.

Southern-gent who literally grew up in aviation. His grandfather started flying in the 1930s and flew with the Civil Air Patrol in WWII. Rudy's father was the youngest licensed A&P mechanic in the US at the time and spent most of his career working for Eastern Airlines. Rudy's first flight was while he was still in diapers.

Now with 21,000 hours

in his logbook, he says the excitement really began at age 19 when he was drafted into the Army.

He qualified for both Officer Candidate School and Flight School but naturally chose the latter. After a year of training he was in Vietnam flying Huey helicopter gunships. He returned stateside to serve as a Cobra gunship instructor, transitioned to fixed wing aircraft and was sent back to Vietnam. Surviving that excitement, he returned to MacDill Air Force Base in Tampa, FL where he became serious about skydiving after jump-driving for the local parachute club. Later in his career he was assigned to the Army's Golden Knights skydiving demonstration team. He retired from the Army after 20 years and 1,200 jumps.



Here's a picture you don't often see in your run-of-the-mill Cessna approach: the Caravan is on short final exactly two miles from the airport and passing 5,000 feet. Once the "beta approach" is initiated, the plane will descend at 4,000 fpm and 100 knots. While it looks alarming it's actually very stable and controlled.

As a civilian, he wanted to stay in the air. He flew for Northwest Airlines (now Delta) and then moved to Singapore as an international corporate pilot in the Asia-Pacific region. Years later, he returned to Charlotte to fly news

helicopters for the local TV station which ballooned into a much larger job as the chief pilot for a company with a fleet of fifty news helicopters.

Now he's deep into his sixth career at Skydive Carolina. "Flying with these people is such a pleasure," he said. "After almost 50 years as a both a pilot and jumper, I have never been associated with a finer group of professionals. They love this sport, and it's a first-class operation."

Jump Talk

After a light lunch, Ribbeck took me around the facility. Ribbeck explained that skydiving is not as simple as it looks; "it is an unforgiving sport" he said dryly. To ensure safety, it's highly structured and procedure-oriented. For example, jumpers are not allowed to intentionally skydive through clouds, and most clubs won't jump with winds over 15 knots.

There are five grades of licenses: A through D, plus the Pro level. At each level the jumper is required to demonstrate proficiency in different phases of skydiving. An "A" license requires 50 jumps, stability in the air and landing within a 65-meter zone. Higher ratings have tougher requirements. Special training is required for the professionals handling novice tandem jumps; a lot can go wrong with a terrified rookie in the air.



A group of six jumpers practice their "dirt dive" before boarding the Caravan for their jump. Notice the flared "stripes" on the legs of their jumpsuits. Those actually are thick padded handholds which allow other jumpers to hang on to each other when jumping in formation.

The first group I met were six people practicing a "dirt dive." They were jumping as a team and were rehearsing the intricate ballet they would perform

as they fell through the sky: move in, move out, turn to the right, move back in. They cycled through it perhaps twenty times as I watched.



The Skydive Carolina hangar is the hub of the jumping activity. The blue “pack mats” are to protect the rigging while the chutes are re-packed. There also is a rigging loft, a video editing center, a training center, an admin facility, a fuel farm and other necessities.

I chatted with three of the jumpers in the group: Paul from Indianland, SC., Micky from Spartanburg, SC, and Mike from Ashville, NC. I asked about the danger, and they were nonplussed.

“I don't even think of it as being

risky,” Paul said (2,300 jumps). “It's a stress reliever, a way to come out here and enjoy your friends, working together in the air. Building formations is the thrill for us. The jump itself is just incidental.” Micky agreed, adding “It's just like anything else; once you get in the plane, they open the door, you crawl out, it's just a fun ride after that.”

Certainly, they must have endured some close calls, some scary experiences?

“Oh, yeah, everybody gets one sooner or later,” Mike (1,700 jumps) said modestly. “Once I had a line-over. That's when one of your lines goes over the top of the parachute, makes it like a bow tie. You cut it away and use your reserve. Something you practice over and over again. When it happens, it's kinda anti-climactic.”

There is a degree of camaraderie in skydiving that is inspiring; this isn't merely a business, it's a way of life. Lee Cole is from Spartanburg, SC and

volunteers at Skydive Carolina. “The owners of the business [Danny Smith and Jorge Alonso] are some of my best friends,” he said. “I’ve been jumping since I was 16, and I’m 61 now. This sport has been good to me.”



Eli Hyatt has been a professional rigger for six months. Here he's smoothing the rigging lines that connect to the cells of the parachute. He then folds and smooths each cell by wrapping them around his torso.

The actual drop-zone is the huge field of grass in the center of the three runways. A multi-colored windsock shows the surface winds. I watched as a half-dozen jumpers gracefully landing in the tight-mowed grass; their chutes made gentle flapping noises as they flared and touched down. I spoke with Anna-Carol Landry from Walterboro, SC, as she collected her chute. “I’m a nurse, and I work at an emergency room in Charleston,” she said. “This keeps my sanity. It’s my peace.”

One of the other jumpers interrupted to ask her about her new canopy, a Saber2 parachute borrowed from a friend. She liked her new ride very much. “I’m trying to go down a size and see how it feels before I buy one,” she explained to me. “A smaller canopy gives you more speed and more maneuverability since I’m not such a light-weight feather underneath it. I can move it instead of it moving me.”

Scheryl Stearns is in a class of her own. She earned her living for 34 years as an airline captain but jumping is her passion. She currently holds the world

record with 22,000 jumps. She's been the U.S. national champion multiple times; twice the world champion, five times the world military champion, and (if that's not enough) holds 35 skydiving world records.

Stearns was the jumper who kept leaving the plane at 3,500 feet because her goal was precision landing, not leisurely free-falls. Her target was a gently inflated balloon in the landing zone which featured a two-centimeter target in the middle. Let me be clear, dear reader: she's hitting a white dot *one inch in diameter* from 3,500 feet. How did she do today? "I was right on the zero," she said, confident and quick.

Under the Hood



Jake Herring uses fat rubber bands to hold the lines in the proper position before stuffing everything into the parachute case. Herring has been packing chutes for more than two decades and spoke knowledgeably about different techniques, canopies and procedures. His professionalism and confidence was reassuring.

I wanted to see the commercial side of the business, so Ribbeck took me back to the "packing mats" in the hangar. Any licensed jumper is allowed to pack their own rigs but many pass the task to professionals. Large mats on the floor protect the rigging and the knees of the packers. Wide rubber bands litter the floor. Chit-chat is muted as these experts focus on the perfection of their craft where a single mistake could cause a tragedy.

Jacob "Jake" Herring, from Rock Hill SC, is a master rigger who has been working on the pack-mat for 21 years while Eli Hyatt, from Monroe, NC has been packing for six months. Both gentlemen demonstrated the packing process which,

to my eyes, looked like a spaghetti-nest of ropes and nylon. Hyatt said he takes twelve minutes to pack a chute but real experts can finish in seven minutes.



Anna-Carol Landry is an emergency room nurse from Walterboro, SC. She had just landed and was collecting a new chute she had just tested for the first time. She's been jumping since 2017 and tries to make it to Chester every three weeks for a weekend of jumping.

Working on his knees, Hyatt laid out the “risers” (the ropes from the person to the chute) on the mat and separated them into left and right sides. Standing and lifting the floppy chute, he draped those lines over his shoulders. He then separately folded each cell of the chute around his torso, smooth and wrinkle free. He also checked the “slider” which slows and softens the opening of the canopy; at 120 mph an instant stop would be hard on both the rig and the jumper.

Herring has the long, elegant hands of a surgeon. I watched as he folded and squeezed a chute into its backpack. He carefully folded

the risers into loops about ten inches long and secured them with thick rubber bands which release when the chute opens. The whole package is remarkably compact for a device so large. Ribbeck explained that reserve chutes, unlike main chutes, must be inspected and re-packed every 180 days by specialists.

They also require auto-opening devices on the reserve in case of jumper incapacitation.



Kristie Earley, from Tampa, FL has been jumping for eleven years and accumulated 1,700 jumps. She's one of the videographers who fly around the novice jumpers, creating memorable videos for souvenirs. She also flies a wing-suit.

Ribbeck and I wandered into the video lab where Christina Murphy, of Chester, prepares the souvenir videos for jumpers at Skydive Carolina. Her work begins when the videographer comes in after the jump; about 60% of the students buy the souvenir video.

“We get the clips of the tandem students getting geared up, walking to the plane and an interview on the plane before they jump,” Murphy demonstrated. “We splice in their free-fall video and then a final interview when they’re on the ground. We dress it up, add some slow-mo and make them look good. It’s a great package.”

But the video isn’t just about money; it’s an important part of the total experience because the jump itself lasts just a few minutes. “We highly recommend it to our novice jumpers because, by definition, you can only do your first jump one time,” General Manager Jorge Alonzo explained to me. “That facial expression on that first tandem jump is priceless, and having the video memento is pretty neat. Some are funny; some are crying and some scream. It’s all part of the event.”

To Jump or Not?

Naturally, everybody at Skydive Carolina asked me if I was jumping that day. Sadly, I replied I was merely a reporter working a story, not a participant in that story. I was tempted, that is true. My mostly-sainted wife put her hand to skydiving on a vacation in Hawaii years ago. But in the end, I climbed back into old '91N for the ride home. Ribbeck style, I departed on Runway 23, with a tailwind, minimizing the taxi and maximizing airtime. You're only making money when the plane is in the air.



Sheryl Stearns demonstrates her award-winning technique as she sticks her landing in the center of the inflatable target. She currently holds the world record with 22,000 jumps and holds 35 skydiving world records.

About the Author

Mike Jones is a 4,000 hour commercial-rated pilot who has more than 50 aircraft types in his logbook. His pride and joy is a Cessna T210, which has carried him to every corner of the U.S. and Canada for more than twenty years. He's always accessible at PilotMike2012@gmail.com.

