



# CIRRUS APPROACH RETHINKING TRANSITION TRAINING

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SPECIALIZED FLIGHT TRAINING HAS LONG BEEN PART OF THE TYPICAL TRANSITION PROCESS FOR PILOTS MOVING UP TO EVER-FASTER AND MORE CAPABLE AIRPLANES. A RASH OF FATAL SR22 CRASHES IN 2012, HOWEVER, FORCED CIRRUS AIRCRAFT TO GO BACK TO THE DRAWING BOARD AND COMPLETELY RETHINK ITS APPROACH TO TRAINING.

Nothing was out of bounds, from the extra emphasis Cirrus decided to place on flying technique, to the greater attention to operations that demand special attention, such as engine management, to the way pilots are taught to react to emergencies.

The result of this shift in thinking is called Cirrus Approach, the manufacturer's series of highly specialized transition training courses introduced three years ago that aim to ensure SR series pilots are safe and competent masters of their domains.

The success of the program speaks for itself. The Cirrus line of airplanes today enjoys one of the best safety records in the industry. It has been a dramatic turnaround. A decade ago, the Cirrus fatal-accident rate, at about 2.6 fatal crashes per 100,000 flight hours, was nearly twice the industry average. Today the figure, less than one fatal accident per 100,000 flight hours, is just half the industry average.

How did Cirrus achieve such dramatic results so quickly? One of the big changes was a renewed emphasis on training to use the SR series' standard full-airframe BRS parachute, known as CAPS or Cirrus Airframe Parachute System.

"When we looked at the accident data, we were surprised to find that pilots who should have pulled the chute never did," Cirrus co-founder Dale Klapmeier says. Why not? "The best we can tell is that it never occurred to them in an emergency to use the one piece of safety equipment that could have saved their lives."

That's a sobering thought. But, thankfully, it was also an easy problem to fix. Cirrus Approach focuses on CAPS use on every training flight, as well as in dedicated simulator sessions where pilots are put into hopeless situations that require CAPS deployment to survive. The message leaves no doubt in the pilot's mind: CAPS saves lives.

I recently went through the transition training course at Cirrus' headquarters in Duluth, Minnesota, and came away a bigger believer in CAPS than I already was. While online dissenters continue to debate the safety advantages of parachutes and cling to nonsense such as "real pilots don't need parachutes," Cirrus SR22 owners who've been through the training know better. Unless you're 100 percent certain you can get your airplane back on the ground in one piece in an emergency, Cirrus pilots are taught to pull the chute and live to fly another day.

In the turbocharged SR22T I trained in, that meant calling out "CAPS available" on every takeoff passing through 580 feet agl, the minimum height deemed

necessary in this model to successfully pull the chute and safely float back to terra firma. The sim sessions were the real eye-openers. They transformed emergencies, such as engine failure in IMC and loss of control due to severe icing, from potentially deadly events to controlled descents under the BRS parachute canopy after pulling the big red handle in the ceiling.

I headed up to Duluth for the three-day Cirrus Approach course for the SR22 in late January. Not only did it give me the chance for a proper introduction to the Cirrus and the new training concepts, but I'd also be flying in challenging conditions, including snow, icing, strong crosswinds and operations from iced-over runways.

When I arrived at the Cirrus headquarters at Duluth International Airport to meet my instructor, Nigel Beaulieu, I was already well-acquainted with the SR22 from an academic standpoint. Before starting flight training, Cirrus provides students with a comprehensive online training course, covering performance, aircraft systems, avionics, instrument procedures, CAPS use and much more. There's even a



Pilots who come to Duluth for transition training spend time in the simulator, honing their reflexes to deal with emergency scenarios that require deployment of the full-airframe parachute.

THE TRAINING

01

The factory transition course starts with online home study.

02

Pilots start flying almost as soon as they arrive in Duluth.

03

One-on-one ground school reinforces pilot knowledge.

04

An avionics procedures "hot bench" lets students explore.

05

Simulator sessions focus on use of the CAPS parachute.

06

Refresher training is part of the standard curriculum.





helpful module on how to properly land a Cirrus.

The transition course that I took, focusing on the Garmin Perspective avionics system and SR22T turbocharged model, included about 10 hours of at-home study, including quizzes at the end of each section. The modules and accompanying course material and videos are well-done, and, surprisingly, the online course is a pretty enjoyable experience overall.

Of course, nothing compares to going out and actually flying, and that's what I was looking forward to when I arrived in Duluth. Heavy snow was falling and winds gusted to 40 knots out of the north. Mercifully, the airplane I'd be flying, a 2012 model SR22T, was inside a heated hangar, which made the preflight easier than it would have been out in the elements.

We departed into the snow from Duluth International's Runway 27 and were enveloped by the ice-laden clouds at 400 feet. The SR22's TKS weeping-wing ice protection system did its job to 8,500 feet where we broke out into glorious blue skies that are the special reward of IFR-rated pilots and, in this case, those flying a FIKI-equipped airplane.

We requested VFR on top so I could accomplish the usual dance card of

flight maneuvers, including slow flight, stalls and steep turns, before we headed back into the murk to shoot approaches. Descending into the tops of the clouds, we experienced extreme icing conditions — at least, extreme for a piston single. The TKS system could not keep up with the ice accumulation, which built rapidly despite the flow of deicing fluid over the wings being set on maximum. At lower altitudes conditions became less severe and we started shedding our ice load.

By the next day the snow had pushed east, but freezing rain the night before left a sheet of ice on the runway at Richard I. Bong Airport in Superior, Wisconsin, where we headed to do

takeoffs and landings. I didn't realize just how icy the runway was until I was rolling out after a no-flap landing that followed several touch-and-goes. Attempting to make a slow-speed 180 on the runway, I was no longer in control as the Cirrus began sliding sideways. On the next departure, I tried in vain to demonstrate a short-field takeoff, but we began sliding on the ice the moment I applied power, even with my toes pressing firmly into the brake pedals.

Crosswind landings on the iced-over runway were interesting. My track was straight on touchdown, but, as soon as all three wheels were planted, I could feel the strong wind pushing the Cirrus sideways across what might as well have been an ice rink. Full power from the SR22T's beefy Continental TSIO-550-K engine ensured we were airborne

again in seconds flat. A real crosswind landing on that iced-over runway would not have been advisable.

All told, I spent about six hours flying the Cirrus (including an evaluation flight in a brand new — and very nice — 2016 SR22T) and came away with a certificate of completion for the VFR SR22T transition course with Garmin Perspective avionics, plus a fresh instrument proficiency check. I also spent a morning in the SR22 Frasca sim, practicing emergency scenarios, some of which required parachute deployment and others a return to the airport. I had the chance to pull the chute a half-dozen times, once in severe icing when I ran out of TKS deicing fluid. I pulled the chute at 2,000 feet agl when I realized that maintaining altitude was impossible. A minute or so later, I ended up safe and sound, resting in a snowy field.

The Cirrus Approach factory transition training curriculum includes a mix of real-world flying, online learning and simulator time, including use of the Garmin Perspective avionics procedures trainer, below.



he gained maximum value out of his course, which he said included 10 hours of flying, lots of ground work in the classroom and on the Garmin "hot bench" procedures trainer, two written exams, and a fresh flight review and IPC, all for the price of around \$4,600.

Now he'll be able to pass along his knowledge to local pilots in North Carolina. Once Cirrus opens its new customer center later this year in Knoxville, Tennessee, all customer training will move there. It means Cirrus owners won't get to experience the ice and snow in Duluth, but, for a great number of SR pilots, I'm sure that will suit them just fine.

As part of the training, I will undergo a refresher flight with a CSIP instructor in 90 days to ensure I haven't forgotten what I learned, plus recurrent



training every six months. My main takeaway after completing the Cirrus Approach course is that every GA aircraft manufacturer ought to be offering this kind of transition program or, at the very least, teaching factory-approved instructors to a common standard that is this thorough and rigorous. There's no doubt in my mind this is the right way to train GA pilots flying today's high-performance piston airplanes. 🍷