



Hangar Partners: King Air 200XP and Cirrus SR22

by Matt McDaniel

n an almost eerie example of foreshadowing, his mother told him, "Everything is expensive at the airport." Of course, at the time, she was only talking about the airport's pay-toilets which fascinated her young son! How could she have known that someday he would own and fly a hangar full of beautiful aircraft and know all too well about the expenses associated with aviation?

Once upon a time, Mike Murdock was a workaholic software entrepreneur, building a company and making it into something that would fund his retirement. When that mission was accomplished, he needed something to fill the void. Being a planner, Mike took an introductory flight lesson in a C-172 before making any decisions about actually pursuing a pilot's certificate. But, once he was convinced that flying would be both enjoyable and a worthy challenge, he plunged straight into the deep end and still hasn't come up for air. In less than a year he'd earned his PPL and instrument rating and had already bought his first two airplanes (a C-182 and his first Cirrus SR22). From there, he rapidly progressed through multi-engine, commercial, ATP, turboprops and two jet type-ratings.

Enter the King Air

In the midst of all that training and constant flying, Mr. Murdock bought a variety of aircraft. In 2005, he stumbled upon an opportunity to become a 50-percent partner in a Super King Air 200. That aircraft was purchased in July 2005 and is still flown regularly by Mike and the coowner. They had their King Air extensively upgraded with multiple Raisbeck enhancements,

a full-glass instrument panel (including dual Avidyne PFDs) and several interior enhancements, transforming their bird into a 200XP. Purchasing the King Air made it necessary for Murdock to sell his extensively refurbished C-T310R. Mike does not envision the King Air leaving his inventory of aircraft anytime soon, as its capabilities are just too versatile. Blackhawk upgraded engines give it better climb and cruise performance and more available power at altitude. The advanced glass cockpit and WAAS-enabled GPS's provide the very latest in IFR technologies and the advanced autopilot greatly reduces pilot workload. One of the many annual trips Murdock uses the 200XP for is a multi-family ski trip to Telluride, where the extended wing lockers and copious baggage space demonstrate their value. Of course, the passengers are pampered too, with the latest in noise-reduction technology and personal entertainment systems.

In real-world operations, Murdock typically operates the 200XP between FL240 and FL260 at mid-weights. On such flights, at near-ISA temps, he sees 285 KTAS and 780 degrees Celsius ITTs, at 1,600 RPM (100 RPM lower than the original three-blade props allowed).



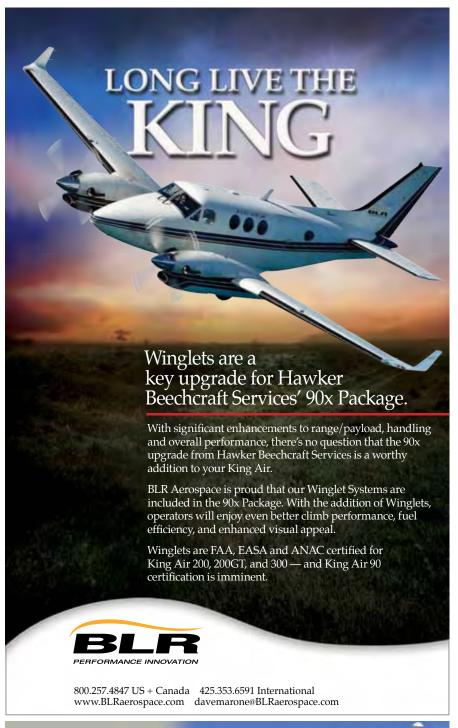
Add in the Cirrus

While Mike has previously owned an Eclipse-500 jet and now owns/flies a Cessna Mustang, he still gets a special charge out of the Cirrus SR22 he purchased new, as his third aircraft, in March 2003. The Cirrus holds a special place in Mike's heart. As a software/computer guru, the Cirrus' highly automated and computerized nature appealed to him almost as much as its speed did. He bought a very early model SR22 in 2001. He liked the airplane so much that, in 2003, he bought his second new Cirrus. This time he got one of the first models equipped with the Avidyne Entegra all-glass avionics suite. Many other aircraft have come and gone since, but Mike's Cirrus has always commanded its space in his roomy hangar.

Retrofit. Rebuild. Renew.



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So, why hang on to a Cirrus when you've got such traveling machines as a King Air and Citation Mustang at your disposal? First, the SR22 is as versatile as any aircraft in its category, and faster than most (cruising at up to 180 KTAS). While he can certainly use his other aircraft to complete nearly any mission he might choose the Cirrus for, it continues to prove itself to be both more efficient and more fun in many respects.

Those familiar with the world of experimental aireraft mav remember that Cirrus started as a small kit plane manufacturer in the 1980s. Its first production kit was a five-seat pusher-prop design (the VK-30), but soon enough the company had designed a more traditional looking aircraft with the intention of seeking FAA Part 23 certification and production. It took many years, but Cirrus did achieve their certification and production goals. The SR20 was certified in 1998 and the aircraft went into full production the following year. By 2001, they had certified a follow-up model, the SR22, which featured additional power (310 hp versus 200 hp), about 25 knots additional speed and nearly 50 percent better climb performance. Only a few short years into the SR22's production run, it became the bestselling single-engine-piston aircraft in the world.

One of the many innovative safety features incorporated into the Cirrus' design was also responsible, in large part, for its market success. The Cirrus models were the first certified production aircraft to come equipped with a whole-aircraft parachute system. Termed "CAPS" (Cirrus Airframe Parachute System), the system is standard equipment on every one of the nearly 5,000 Cirrus aircraft produced to date. While CAPS did not enter into Murdock's decision to buy his first Cirrus, it has greatly influenced his opinion of the aircraft since. Mike says, "I'm a big fan of CAPS and think its worth its extra weight and maintenance.

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Data Chart – Cirrus SR22 (Generation One)		
Engine	Continental IO- 550-N, 310hp	
Propeller	Hartzell 3-blade constant-speed	
Seats	4	
Wingspan	38.3 ft.	
Length	26.0 ft.	
Height	8.8 ft.	
Wing Area	144.7 sq. ft.	
Max Gross Weight	3400 lbs.	
Wing Loading (1g)	23.5 lbs/sq. ft.	
Power Loading (@MGW)	10.97 lbs./hp	
Baggage Capacity	130 lbs.	
Fuel Capacity (usable)	81 gal.	
Wheels/Tires/Brakes	15 x 6.00 x 6 Mains, 15 x 5.00 x 5 Nose	
Hydraulic Single Disc Brakes		
Landing Gear	Tricycle, Fixed	
Cockpit Flight Controls	Dual Side Yokes	
Stall in Landing Config (Vso)	59	
Stall – Clean (Vs)	70	
Rotation (Vr)	70	
Best Angle of Climb (Vx)	78 @ S.L.	
Best Rate of Climb (Vy)	101 @ S.L.	
Typical Climb	115-120	
Cruise Climb	125-135	
Economy Cruise	165 (KTAS)	
Max Cruise	180 (KTAS)	
Max Normal Operating (Vno)	178	
Never Exceed (Vne)	201	
Flaps Extended (Vfe)	119 – 50% 104 - 100%	
Maneuvering Speed (Va-MGW)	133	
Final Approach (Vref)-Clean	90	
Vref – Flaps 100%	80	
All speeds in KIAS, unless otherwise noted.		

All speeds in KIAS, unless otherwise noted.

KING AIR NOTES

NOTE 1: The Raisbeck 4-blade props allow operation at 1600 RPM. The original 3-blade props minimum RPM was 1700 RPM.

NOTE 2: This plane is equipped with high flotation main landing gear. As originally delivered, the tires protrude below the closed main gear doors, and impose a performance penalty. The plane is now equipped with Raisbeck fully enclosed main gear doors, which erases the performance penalty.

Engine P&V Propeller Hart Seats 2 cr Wingspan 54 f Length 43 f Height 14 f Wing Area 302 Max Gross Weight 12,5 Wing Loading (1g) 41.3 Power Loading at T/O (MGW) 7.4 Baggage Capacity 410	AC PT6A-41, 850shp Itzell 3-blade rew, 8 passenger ft., 6 in. ft., 9 in. ft., 0 in. 2.7 sq. ft. 500 lbs. 3 lbs/sq. ft. lbs/hp 0 lbs. internal, 54 cu. ft.	Current Configuration BE-200XP P&WC PT6A-42, 850shp Hartzell 4-blade (Raisbeck Quiet Turbofan) Same Same
Propeller Harr Seats 2 cr Wingspan 54 f Length 43 f Height 14 f Wing Area 302 Max Gross Weight 12,5 Wing Loading (1g) 41.3 Power Loading at T/O (MGW) 7.4 Baggage Capacity 410	rew, 8 passenger ft., 6 in. ft., 9 in. ft., 0 in. 2.7 sq. ft. 500 lbs. 3 lbs/sq. ft. lbs/hp 0 lbs. internal, 54 cu. ft.	Hartzell 4-blade (Raisbeck Quiet Turbofan) Same Same Same Same Same Same Same Same
Seats 2 cr Wingspan 54 f Length 43 f Height 14 f Wing Area 302 Max Gross Weight 12,5 Wing Loading (1g) 41.3 Power Loading at T/O (MGW) 7.4 Baggage Capacity 410	rew, 8 passenger ft., 6 in. ft., 9 in. ft., 0 in. 2.7 sq. ft. 500 lbs. 3 lbs/sq. ft. lbs/hp 0 lbs. internal, 54 cu. ft.	(Raisbeck Quiet Turbofan) Same Same Same Same Same Same Same Same
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Power Loading at T/O (MGW) 7.4 Baggage Capacity 410	lbs/hp O lbs. internal, 54 cu. ft.	
Baggage Capacity 410) lbs. internal, 54 cu. ft.	Same
Fuel Capacity (usable) 544		410 lbs. internal (54 cu. ft.) 600 lbs. external (2 wing lockers, 17 cu. ft. total)
	l gal.	Same
Wheels/Tires/Brakes 22 x	x 6.75-10 (1 nose, 4 main)	Same
Landing Gear Retr	ractable Tricycle	Same
Cockpit Flight Controls Dua	al Yokes	Same
Stall in Landing Config (Vso) 80		76
Stall – Clean (Vs) 102	2	94
Rotation (Vr) 95		94
Best Angle of Climb (Vx) 100)	Same
Best Rate of Climb (Vy) 126	3	Same
) to 10,000 ft., 140 to 000 ft., 130 above 20,000 ft.	Same
Cruise Climb 180)	Same
12K	00 RPM, FL240, ISA, (lbs.: 224 KTAS, ? lbs/hr.	1600 RPM, FL240, ISA, 12K lbs.: 225 KTAS, 463 lbs/hr.
12K	(lbs.: 271 KTAS,	800 RPM, FL240, ISA, 12K lbs.: 297 KTAS, 698 lbs/hr.
Never Exceed (Vne) 259	9/.52 Mach	Same
Flaps Extended (Vfe) 146	3	Same
, ,	extension 3 retraction	Same
Maneuvering Speed @ MGW (Va) 181		Same
Final Approach (Vref)-Clean 132)	122
Vref for Wheel (or Float) Landing 103		

Major differences between original and current configurations shown in blue.





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MIKE MURDOCK

Aviation Data:

Earliest Aviation Memory:

In the early 60s, visiting an airport with my mom to pick up my dad. I don't remember seeing any airplanes, but I was amazed by the pay toilets. My Mom told me, "Everything is expensive at the airport."

First Flight:

April 2000, an introductory flight lesson in a C-172. I wanted to start taking flight lessons, but needed to make sure I would enjoy it before committing. I did, and I did.

Aviation Mentors:

My first flight instructor, Mike Martin. He took me from private pilot's license through ATP, from single engines to multi-engines, and from pistons to turboprops. We transitioned to jets together. He's now one of my best friends, and we fly together often. I continue to benefit from his aviation wisdom.

First Solo:

August 2, 2000 at Madison County Executive Airport (MDQ), in Meridianville, Ala., in an elderly Cessna 172.

Initial Training:

At Madison County Executive, all in Cessna 172s of varying vintages.

Private Certificate:

December 8, 2000.

Instrument Training:

March through May of 2001, in a 1997 C-182 (my first aircraft).

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Aircraft Owned:

1997 Cessna 182, March 2000 through July 2002; 2001 Cirrus SR22, June 2001 through March 2003; 2003 Cirrus SR22, March 2003 through present; 1975 Cessna Turbo 310R, March 2004 through May 2005; 1979 Beechcraft Super King Air 200 (with one partner), July 2005 through present; 2008 Eclipse 500, May 2008 through January 2009; 2008 Glasair Sportsman 2+2 (Experimental Amateur Built), July 2008 through present (and he built it too); 2009 Cessna Citation Mustang, April 2009 through present.

Proudest Accomplishments in Aviation:

Getting both my private and my ATP certificates.

All-time Favorite Flight:

The week of Thanksgiving in 2003, my family rented a beach house in North Carolina. I volunteered to ferry people back and forth in my SR22 among Alabama, Tennessee and North Carolina. Over the next week, I made 10 flights, totaling about 20 hours of flight time. All that flying during my vacation got a bit tiresome, but I'll always remember one of those flights. I was cruising over Charlotte, N.C. at 9,000 feet on a beautiful, clear night. The stars and the moon were out, the city lights spread out before me, and it seemed like you could see forever. I was taking in this incredible scene when I suddenly realized that I was living what I had dreamed and worked toward for so many years. I was flying! I almost had to pinch myself to prove that it was real life and not a dream. Sometimes when the flying is less than fun, I'll think back to that night and remind myself how much it has enriched my life, and the lives of my family members.

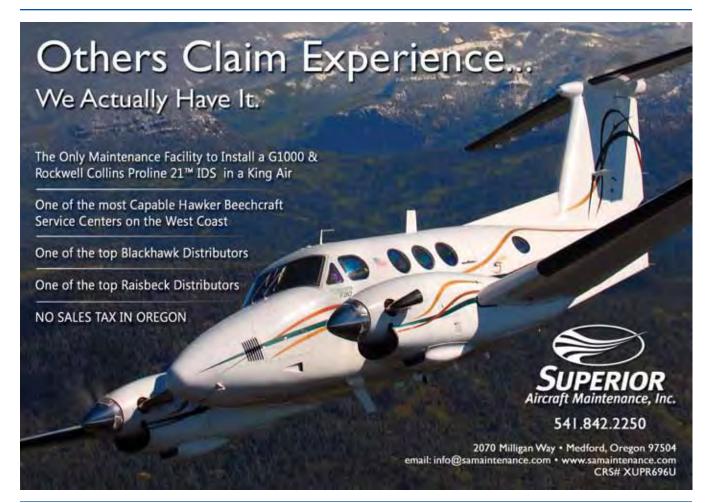
Total Time:

2,500-plus hours



I try to exercise good judgment to stay out of situations that might lead to a CAPS deployment. However, there will always be the rare possibility of mid-air collisions, structural failures, fires, or pilot incapacitations. In those cases, CAPS is an option in the Cirrus that does not exist in my other aircraft."

Few would argue that Cirrus aircraft have a very sports car-like-feel. Like the Mooneys of a generation earlier, Cirrus' are quick and responsive to control inputs, but are at the same time serious cross-country cruisers. Advanced glass-cockpit avionics and fully-coupled autopilot make the Cirrus a highly capable IFR •



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machine and its sleek composite construction and advanced airfoils give it uncommon speed for a fixed-geared, normally-aspirated, aircraft. Like all airplanes, the Cirrus is a compromise. It's not as rock-stable as a Bonanza or King Air, but it's far more maneuverable and responsive. It's not as maneuverable as a Pitts or Decathlon, but is far more stable than either. Cirrus seems to have found the right "happy medium" to satisfy most pilots, most of the time.

Mike Murdock will be the first to tell you that he is truly a lucky man. He's enjoying his retirement to the fullest. He's found a new passion that drives him just as much as his previous career did. Only this time, it's purely for the challenge, pleasure and enjoyment of it, without the stress (well, at least comparatively speaking). As his aviation experience has expanded and far surpassed the level of the Cirrus, he's not forgotten the passion that his Cirrus sparked in him. His SR22 may fly a little less now that he's got other aircraft competing for his attention. Yet, the time he does spend flying it is every bit as enjoyable as it was when he was a new pilot leaping into the whole new world of general aviation. I have a feeling that Mike will be flying his Cirrus for a long time to come and that one of the things he'll be doing with it is flying it to see other aircraft that might strike his buying fancy.

Everything else aside, it is obvious why Murdock holds on to his Cirrus. Because he's a pilot's pilot and he just loves airplanes. And who among us doesn't love stumbling upon a hangar full of toys like Mike's? Especially when you get invited right in, given the grand tour and treated like a guest he's been waiting all day to see. If you stumble upon Mike's hangar at Madison County Executive Airport (MDQ), that's how you can expect to be treated, and you'll likely walk away thinking that if anyone deserves to own such a bevy of cool airplanes, it's Mike Murdock.

About the Author: Matthew McDaniel is a Master and Gold Seal CFII, ATP, MEI, AGI, IGI and CSIP. In 20 years of flying, he has logged over 10,500 hours total, over 4,000 hours of instruction-given and over 2,500 hours in King Airs and the BE-1900D (and another 2,500 in Cirrus aircraft). As owner of Progressive Aviation Services, LLC (www.progaviation.com), he has specialized in Technically Advanced Aircraft and Glass Cockpit instruction since 2001. Currently, he's teaching clients nationwide, via personal flight training and seminars, providing a wide variety of contract pilot services, and flying a Lear 60 regularly. He's also an airline and corporate pilot, having flown a wide variety of airliners and corporate jets and holds five turbine aircraft type-ratings. Matt can be reached at: matt@ progaviation.com or (414) 339-4990.





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