

My Other Plane  
is a

# J-3 Cub

by Matthew McDaniel



*Dave flies his J-3 over a Pella, Iowa landmark; the mile-long bridge across Lake Red Rock.*

*Dave Barnes and his youngest passenger, three-year-old Kaylee, just before her "Teddy Bear flight."*

Little Kaylee was only three-years-old and her hair was as blond as the pilot's beard was white. It was her first airplane ride ever and she'd been nearly silent the whole flight. That is, until the descent for landing, when she asked the man seated in front of her, "Are we going to crash now?" Suppressing his laughter, the man responded, "No honey, we're going to land now and it's going to be a lot of FUN!" Kaylee smiled.

That man was Dr. David Barnes and he was seated in front of Kaylee, piloting his 1946 Piper J-3 Cub, giving yet another ride to a local child. Around Pella, Iowa, it seems like almost everyone knows about the little yellow plane that's always buzzing around. They know it's Dr. Barnes' Cub and that pretty much anyone can get a ride in it just by asking. A classic yellow Cub is hard enough to miss, but when the owner/pilot is as enthusiastic as Dave is, it's nearly impossible to ignore.

Ignored, this Cub is not. It flies 150-200 hours per year and Barnes has given "first Cub rides" to scores of people from ages three years (Kaylee) to 85½ years (his father).

Like so many future pilots, Dave Barnes spent many hours as a kid building model airplanes and dreaming about flying. In the 60s, he attended the annual airshows at the SAC Base in Omaha. When Dave was 10, he saw the Blue Angels perform, and there the seeds were sown. Yet, it wasn't until he bought his teenage daughter a demo flight that they would germinate. That happened in the late 90s and Dave went along with his daughter and the CFI. Little did he know, he'd be the one sucked in and subsequently signing up for flying lessons. On New Year's Eve, 1999, he became a private pilot and in 2003, he purchased his J-3. The following year, he added an instrument rating. While flying his Cub was never boring, it couldn't take him very far. Motivated by his aging parents living four hours away,

## Step in. Step up.

Climbing through the flight levels in cabin class comfort has never been easier.

Your Piper dealer can help you decide.



### PIPERJET REVOLUTIONARY

360 KTAS. 35,000 FT.  
1,300 NM. 14 Machs!



### MERIDIAN EXHILARATING

260 KTAS. 30,000 FT.  
1,000 NM. Turboprop. Pressurized.



### MIRAGE SOPHISTICATED

213 KTAS. 25,000 FT.  
1,000 NM. Turbocharged. Pressurized.



### MATRIX EMPOWERING

213 KTAS. 25,000 FT.  
1,000 NM. Cabin-class. Six seats.

piper.com  
866.FLY.PIPER

**Piper**  
Fly Wise

Not pictured – Seneca V, Seminole, Warrior III

*Barnes uses his 2006 SR20 GTS when his mission is to travel.*



and his daughters heading off to distant colleges, Dave purchased a new SR20 in February 2006. While you can tell that Dave is excited about his Cirrus and all the places it takes him, it is the Cub that makes him positively giddy. There's a reason, in airplane-speak anyway, that "Cub" is synonymous with FUN!

Barnes might not have the most dramatic aviation background or fly a flashy G3 Turbo. What he *does* have is a love of aviation, a love of kids and charitable work and a passion for making those loves intertwine whenever possible. He has a unique commitment for using his Cub. He wants others to get as much pleasure from it as he does; particularly kids. If there is a way to use the dangling carrot of a Cub ride to motivate a child to study or an adult to give to a good cause, Dave will exploit those opportunities. That's exactly how many of the kids in his town "earned" their Cub ride. The local elementary school's Summer Reading Program needed rewards to motivate students to read books during summer vacation. A big supporter of the program, Dr. Barnes offered rides in his Cub as a reward. The kids read and the kids flew. Then, a local EMT group came up with the idea of stocking ambulances with a few teddy bears. They could offer one to kids during a scary trip to the hospital to ease their fears. But, who would pay for all the bears? Dave went out and bought a pile of them. He then spread the word; anyone who bought one for five dollars could take a ride in his Cub. Plus, they'd get to throw the bear out of the Cub, at a target on the ground. The EMTs would rescue it and take it to an ambulance where it would wait to comfort the next sick, scared child. Soon, the "teddy bear drops" became a well-known community event. Finally, Dr. Dave, the dentist, is not above bribing young patients to be brave in exchange for a ride in the Cub!

### The History of the Cub

The Piper J-3 Cub is the quintessential "classic" small aircraft. Arguably, no other small airplane is as recognizable or as nostalgic. If your mission is fun and not much else, C-u-b spells "desire." The Cub's history began in the late 20s, with a plane called the Taylor E-2 Tiger Kitten, designed by C.G. Taylor and funded by William T. Piper. With only 20hp, the E-2 could barely fly in ground effect. Piper bought the assets of the bankrupt Taylor Co. in 1931. Fortunately, Continental also released the 37hp A-40 engine that year. With the A-40, the renamed E-2 Cub went into production and 22 were sold that first year.

In 1936, the completely redesigned Taylor J-2 Cub was introduced with a much-improved engine and Taylor parted ways with Piper to establish Taylorcraft. Thus, the first true Piper Cub was sold in 1937 and the first J-3 model (40hp) was introduced in 1938. Taking a page from Henry Ford's playbook, Piper began offering the J-3 in any paint scheme the buyer wanted, as long as it was bright yellow with a black lightning-bolt stripe! By 1940, the J-3 boasted a whopping 65hp.

World War II thrust the Cub into massive production for both the Civilian Pilot Training Program, as well as for a number of military applications. At its peak, World War II Cub production was one completed aircraft **every 20 minutes!** In 1947, when production ended, 14,125 Cubs had been built. Piper would build thousands more of the subsequent models (such as the J-4, J-5 and Super Cub). Plus, the design has been copied and produced by a variety of ultra light, LSA and kit plane manufactures for decades.

Dave's Cub was never a warbird, but it's seen its fair share of rough duty. Its early life was spent in Minnesota, then on floats in North Dakota. Climates not conducive to lazy sightseeing with the door open, but quite appropriate for extracting every ounce of power from the little Continental A-65 engine! Eventually, a United pilot in Illinois acquired the plane and babied it for years before Dave took possession in 2003. The airplane is still true to its roots with only minor concessions to modern flight. Disc brakes were installed (via STC) to replace the marginally-effective, failureprone original expander-tube type. A battery-powered intercom, handheld transceiver and dual PTTs allow easier cockpit conversation and ATC communications. Otherwise, it's all 1946; hand-propping included.



*Dr. Barnes' Cub over its home turf of Pella, Iowa.*

# EMPOWERING MATRIX RUN WITH THE BIG BOYS.



## MATRIX™

The airstair welcomes your passengers to cabin-class comfort while you settle into one of the most capable flight decks in the air. The Piper™ Matrix has more room. More payload. More luxury. And more of every reason you fly. Contact your Piper dealer, or visit [piper.com](http://piper.com).



Six seats, cabin class  
350 Horsepower  
Cruise speed: 213 KTAS  
Range: 1,000 NM  
Operating ceiling: 25,000 ft



[piper.com](http://piper.com) 866.FLY.PIPER

*Dr. Barnes breaking formation with the Cessna 120 camera ship, over Lake Red Rock, Iowa.*



### Taking Flight

What's it like to fly a J-3 Cub? Unfortunately, January in Iowa is not exactly ideal Cub weather and I was not able to fly Dave's Cub before writing this. I do, however, have many memorable and pleasurable hours of J-3 time in my logbook from my early CFI days. The Cub I flew then was also a 1940's vintage, 65hp version and it was the first taildragger I ever taught in.

The Cub is a truly docile animal, but like any creature, it will bite if provoked. It does nothing fast, so don't rush it. Pilot errors in a Cub are usually due to over-controlling, not under-controlling. If you can memorize one speed, you can probably fly a Cub. It can safely climb out, cruise and approach at 60 mph. Sure, it will go a little faster, but does it matter? Chances are you're never going to outrun the traffic on the interstate below.

Trust your aircraft maintenance to  
**RONSON AVIATION**



**Ronson Aviation is now a Factory Authorized CIRRUS SERVICE CENTER**

**Ronson Aviation has been maintaining Beechcraft, Cessna and Piper aircraft since 1977**

**Our mechanics average 22 years of experience**

**Safety, quality, attention to detail are Ronson Aviation's foremost priorities**

**CONTACT:** Phil Baier  
Aviation Maintenance Dept. Manager  
(609) 771-9500, ext. 308  
PBaier@ronsonaviation.com  
www.ronsonaviation.com



**RONSON AVIATION INC.**  
AT THE TRENTON-MERCER AIRPORT (KTTN)



**TRUST THE ORIGINAL EQUIPMENT AIRCRAFT BATTERY WHEN IT COUNTS...**



P.O. Box 7950  
REDLANDS, CA 92375  
(800) 456-0070  
(909) 793-3131



**TELEDYNE CONTINENTAL MOTORS**  
Battery Products  
A Teledyne Technologies Company

[WWW.GILLBATTERIES.COM](http://WWW.GILLBATTERIES.COM)

Slow flight and stalls, you ask? Cubs have a big clam-shell door that no self-respecting Cub pilot would close in-flight unless he's threatened with frostbite. If you get the Cub too slow, the bottom of the door will "float" as the airplane begins to mush along. It's the only "stall warning device" installed! If the door rises, you might want to lower the nose and/or add a little power. Breaking the stall is almost as hard as breaking a dead twig! A Cub will enter a spin quite nicely if you tell it to. It will also exit the spin in about a half-turn, if asked correctly.

Now, don't get me wrong. A Cub is a taildragger and if you've never flown with a tailwheel before, it can be a humbling experience. Any airplane with a wing loading as light as a J-3's is going to handle very kite-like. It's not meant for windy days – a lesson I learned when I made a successful landing in a 26-knot wind, only to discover the airplane REALLY wanted to fly again during every second of the taxi to the hangar.

**The Cub is a truly docile animal,  
but like any creature, it will  
bite if provoked.**

I'd have to summarize by saying that flying the J-3 is a lot like running in place. All the sensations are there, but you don't really seem to be going anywhere! In a Cub, you can become an instant philosopher, discovering that, like life itself, the experience is not about the destination, its all about the journey. 

*Author's Note: With this third installment of the series, we continue to introduce Cirrus Pilot readers to some of the many COPA members who own and fly multiple aircraft. If you know a COPA member who owns/flyes multiple aircraft types and wish them to be considered for inclusion in this series, please drop me an email at [matt@progaviation.com](mailto:matt@progaviation.com).*

About the Author: *Matthew McDaniel is a Master & Gold Seal CFII, ATP, MEI, AGI, IGI and CSIP. In 19 years of flying, he has logged over 10,000 hours total and over 4,000 hours of instruction-given. As owner of Progressive Aviation Services, LLC ([www.progaviation.com](http://www.progaviation.com)), he has specialized in Cirrus instruction since 2001 and has held the CSIP credential since the first day it was available in late 2003. Currently, he's teaching Cirrus clients nationwide via personal flight training and seminars. He's also been an airline and corporate pilot, having flown a wide variety of airliners and corporate jets and holds four turbine aircraft type-ratings. Matt can be reached at [matt@progaviation.com](mailto:matt@progaviation.com) or (414) 339-4990.*

About the Photographer: *Megan Vande Voort is an amateur photographer who enjoys shooting aerial photos from her husband's C-120 (with the windows removed). Photos such as those seen here have earned her top honors in the Iowa Dept. of Aviation's annual photo contest for two years running.*



Dave with is his 1946 Piper J-3 Cub. She's no hangar queen.

### 1946 Piper J3-C65 Cub

Engine	Continental C-65-8, 65 hp @ 2,350 rpm
Propeller	Sensenich 11-laminate wooden
Seats	Two, in tandem. Solo flight from rear seat only.
Wingspan	35 feet, 3 inches
Length	22 feet, 5 inches
Height	6 feet, 8 inches
Wing Area	178.5 sq. ft.
Max Gross Weight	1,320 lbs.
Wing Loading (1g)	7.395 lbs./sq. ft.
Power Loading (@ MGW)	20.31 lbs./hp
Baggage Capacity	20 lbs.
Fuel Capacity (usable)	12.0 gal.
Wheels/Tires/Brakes	800 x 6 Michelin tires Disc brakes via STC mod
Landing Gear	Conventional
Cockpit Flight Controls	Dual stick with PTT
Stall in Landing Config ( $V_{SO}$ )	39
Stall – Clean ( $V_S$ )	No flaps installed. Therefore, $V_S = V_{SO}$
Rotation ( $V_r$ )	40
Best Angle of Climb ( $V_x$ )	53
Best Rate of Climb ( $V_y$ )	57
Typical Climb	300 fpm
Cruise Climb	150 fpm
Economy Cruise	75
Max Cruise	87
Max Normal Operating ( $V_{no}$ )	81
Never Exceed ( $V_{ne}$ )	120
Maneuvering Speed at MGW ( $V_a$ )	70
Final Approach Clean ( $V_{ref}$ )	60
$V_{ref}$ for Wheel Landing	60
$V_{ref}$ for 3-Point Landing	48
All Speeds in mph.	



Your Source for  
**CIRRUS**  
Training &  
Services

Matthew McDaniel  
Owner/Chief Instructor



Master & Gold  
Seal Instructor & ATP



Over 10,000-hour Former  
Cirrus Factory Instructor



Professional Pilot with  
thousands of hours of  
training in Cirrus aircraft.

Phone: 414-339-4990

E-mail: Matt@progaviation.com

Visit our recently updated &  
expanded web site at:

[www.progaviation.com](http://www.progaviation.com)

# Cirrus Authorized Service Center

Garmin & Avidyne Dealer

## FAA Repair Station

Located at the San Antonio  
International Airport

- Avionics Upgrades
- Composite Repair
- Air Conditioning installations
- Parts Center
- 50 hour/100 hour Annual Inspections



### LONE STAR AERO

477 Sandau, Hangar F  
San Antonio, Texas 78216

888-566-3781

[www.lonestaraero.com](http://www.lonestaraero.com)

## Dr. David D. Barnes

### PERSONAL DATA:

Age: 55

Born: New Hampton, Iowa

Living: Pella, Iowa

Status: Married, two adult daughters.

### Education and Training:

■ College: Iowa State University, Ames, Iowa – 1971-1975

■ Grad School: University of Iowa, College of Dentistry, Iowa City, Iowa – 1975-1978

Occupation: Owns and operates a private family dentistry practice (30 years).

Hobbies: Racquetball (for 35 years), fishing (including annually in Canada), whitewater rafting and kayaking, camping, caving, rappelling, and rock climbing. Playing handbells in community choir (locally, throughout the Midwest, and as far away as Romania).

### AVIATION DATA:

Earliest Aviation Memory: Seeing the Blue Angels perform at age 10.

First Flight: Airline flight to California at age 26.

Mentors: My primary instructor, Joel Buseman.

First Solo: June 1999, C-172.

Initial Training: March-December 1999, Pella, Iowa (KPEA), C-172

Private Certificate: 12/31/99

Instrument Training: March 2003 - January 2004, KPEA, S35 Bonanza (V-Tail BE-35).

Aircraft Owned: 1946 Piper J3-C65 Cub (since 7/03) and 2006 Cirrus SR20 (since 2/06). Both aircraft are also on leaseback to a local flight school.

### Proudest Accomplishments in Aviation:

- Each pilot certificate, rating and endorsement I've earned, especially the instrument rating, which was almost more difficult than getting my dental degree!
- Flying my Cirrus to both coasts and Florida.
- The many fun introductory flights to my patients, school students, and any and all kids I can talk into flying with me.

All-time Favorite Flight: In the fall of 2004 (in a C-172), to commemorate the 200th anniversary of the Lewis and Clark Expedition. I made a trip from the source of the Missouri, following the river downstream, in reverse of Lewis and Clark. I first flew IFR to Billings, Mont., then VFR while following the river back. I stopped at St. Joe, Mo., and flew home to Pella after five days of flying. I was solo and saw a lot of the Midwest, flying the furthest distance (at the time) that I ever had. I have entertained the idea of doing it again in my Cub (if I get an aux. tank installed when I re-cover and refurbish it).

Total Time: ~1,000 TT, with about 300 hrs. in the Cub and 300 hrs. in the Cirrus.



## EXPERIENCED CIRRUS AIRCRAFT UPDATES

High-quality extensive avionics sales and service for all aircraft; single-engine piston, high-performance twin, and medium size business class jets.



**R.C. AVIONICS**  
Exceeding the standards. ∞

1-800-383-0281 [www.rcavionics.com](http://www.rcavionics.com)  
ruscc@rcavionics.com

• Anoka County • Rochester • New Richmond