

# Katmais and Cubs: A Desert Adventure



TWO SUPERB BACKCOUNTRY AIRCRAFT  
TAKE ON THE UTAH CANYONLANDS

STORY BY MARC C. LEE

PHOTOS BY JESSICA AMBATS

**H**andshakes are offered all around as the early morning quiet muffles discussions about density altitude and engine cooling. The majestic sandstone monoliths that surround the Moab Valley in Utah are still bathed in darkness; their distinctive orange hue invisible for another hour still. It's already 77 degrees in early September, with a forecasted 100 degrees likely by noon. A loose collection of bleary-eyed pilots—including myself and

*Plane & Pilot* editor, Jessica Ambats, convoy to Canyonlands Airport (KCNV), 25 miles outside of Moab, to launch a backcountry adventure into some of the most remote and scenic strips in the Southwestern desert.

We've come to experience the grandeur of this awesome but unforgiving country in two of the finest machines ever made for the purpose: The Katmai conversion Cessna 182 and the CubCrafters Carbon Cub. In fact, we're guests of none other than Todd Peterson, the man who con-



Todd Peterson just wanted a great backcountry airplane, one that could actually haul some people and have some range. “Really, I just wanted to develop something for myself,” he laughs. During the 1970s, Peterson took his uncanny mechanical abilities and developed the Wren 460, which was a STOL-modified Cessna 182. An offshoot from the “Skyshark” developed by Jim Robertson in the 1950s, the Wren featured the notable canard—a small wing mounted on the aircraft’s nose. It gave the Wren unheard-of pitch control, among other benefits.

The Wren lacked speed and useful load, so Peterson morphed the Wren into the 260SE, which was also based on the Cessna 182 airframe, and featured a 260 hp, fuel-injected Continental engine. He refined the canard concept and ended up with an aircraft that would cruise at 150 knots with a stall speed of 35 knots.

The STC’d modification was an enormous success and was a hit with the backcountry crowd. The canard concept allowed very flat pitch attitudes even at slow speeds. Also, the traditionally pitch-heavy 182 was nowhere to be seen, given the crisp pitch control afforded by the canard.

Wanting an even better backcountry aircraft for himself, Peterson “tweaked” the

260SE design in every way he could to squeeze more performance from it. The result was the “King Katmai.” Peterson added three feet to the 182’s wingspan, and rerouted brake lines behind the gear legs to avoid snags on bushes and rocks. He added stainless-steel strips to the gear leading edges to protect them from debris, and made hundreds of modifications to everything from the nose-gear oleo strut to the interior, so the Katmai could handle just about anything thrown at it. Lastly, he added a fuel-injected 300 hp Continental IO-550 engine to really ramp up performance.

“I took that airplane and beat it to death on every backcountry strip I could find,” said Peterson. “I learned something each time I did that, and worked those improvements into the King Katmai.” He maintains that the shortest backcountry strip he ever managed was 150 feet long. “I wanted an airplane that was safe at low altitudes and slow airspeeds,” he adds.

Peterson allowed me to experience the remarkable performance of the King Katmai coming into Canyonlands Field Moab Airport in Moab, Utah. Still turning in a 30-degree bank from a short base leg at 55 knots and right on the deck, Peterson had me fine-tune descent rate with the throttle



while crawling along inches above the runway. With the nose flat, I was hauling back on the yoke and seeing 35 knots as the 29-inch bush tires touched down and we stopped in 300 feet.

Peterson is based at El Dorado, Kan., and happily has more work than he can handle. He and his wife Jo—who’s also an accomplished air show pilot—get more enjoyment out of seeing his aircraft used than from any business success. “My favorite part is meeting the pilots that will fly these airplanes,” Peterson smiles. “I just love being with general aviation pilots and watching them experience flying as it’s meant to be. There is nothing I enjoy more.”



**CubCrafters dealer Scot Warren (top left) leads a group of three Carbon Cubs through Utah’s Canyonlands to strips like Happy Canyon (top right) and Caveman Ranch (bottom).**

ceived the Katmai, and who continues to be a respected and innovative figure in aviation with his introduction of the canard concept on the Cessna, and his vast experience in backcountry operations.

Our gaggle of airplanes consists of three CubCrafters Cubs and five Katmais. The trio of Cubs joins us on their way to the Reno Air Races, with Scot Warren—owner and president of Warren Aircraft, a CubCrafters dealer for Texas/La./Okla./Ark.—leading their group.

Peterson briefs our group and makes it clear that this will be a weekend of backcountry fun, with the goal being safety and learning about the capability of these airplanes. Other than Peterson, Warren and Katmai owner Jar Minor, there aren’t any heavy-hitter backcountry pilots in the bunch. Experience ranges from 350-hour VFR pilots to others with more time and ratings under their belts.

The plan is to use Canyonlands as a base and strike out daily to a myriad of picturesque strips, with names like Happy Canyon, Mexican Mountain, Tangri-la, and Dirty Devil, that each offer challenges to match their names. Not a contest to pit the Carbon Cubs against the Katmais, it’s a chance for both sides to experience what these airplanes can do.

### The Strips

It’s difficult to describe the characteristics of the vivid desert that encompasses Monument Valley, Arches National Park and Canyonlands National Park near the southeastern corner of Utah. Five hundred million years of geologic upheaval have created a vast panorama of ponderous sandstone formations that glow orange-red in the sun like massive cakes glazed with marmalade. The scale here



is stupefying, with a timetable measured in millennia. The formations make you feel not like an ant, but like a sand flea. Among these giants are scores of tiny dirt strips carved out of the rock, which served remote mining outposts decades ago. Today, they’ve become valued destinations for pilots seeking vistas not available anywhere else on Earth.

The Cubs and Katmais leave Canyonlands at first light, setting out for Tangri-la (UT68), a dirt strip also known as Caveman Ranch. Tangri-la has a colorful history and sits alongside the Colorado River like an oasis rising out of the red rock canyons that surround it. The unique strip and guest ranch is owned by Rod Tangren, and features a lodge and 10 individual guest rooms, which are actually caves blasted into the rock. The rooms stay a consistent 72 degrees year-round because of the insulation provided by the rocks. Tangren built all this with his own two hands and plans for it to become a destination resort.

The 3,000-foot gravel strip is one of the easier backcountry strips to navigate, although silt from yearly flooding on the sides of the strip can trap an airplane.

One of our group, David Durham, owns a beautiful Katmai that has kept its stock Cessna tires instead of the marshmallow-like bush tires of the other aircraft. After an easy landing and taxi, Durham parked his Katmai to wait for the rest of the arriving group. Within minutes, the Katmai’s small tires sank into the chalk-like sand and took the effort of many to extricate. For the rest of the trip, Durham earned the affectionate call sign of “Little Wheels.”

Approaching Tangri-la, a stunning site of geometric azure pools dominates our windscreens. Each is a shade of blue that fades from deep lapis to brilliant turquoise and creates a contrast against the orange canyons that’s exquisite. These are potash evaporation ponds built by the Texas Gulf Sulphur Company in the early 1960s. Part of a mine that produces potassium chloride (also called “potash”) for use in fertilizers, river water is pumped into the mine to dissolve the potash, after which the brine solution is pumped to evaporation ponds. The different concentrations of potash, copper and other minerals turn the water chromatic shades of blue.

Continuing south, our group blends into a loose formation, with the Cubs scur-



rying around the sky like ducklings. A 25-year airline captain, Warren flew crop dusters as a teenager, and has an intuitive sense for the backcountry. He sends his relatively inexperienced charges on to Fry

Canyon, while he and one Katmai—piloted by Peterson—proceed to Happy Canyon (UT97), a challenging dirt strip that was scraped out of the sandstone to serve a uranium mining operation.



In 1952, a geologist named Charlie Steen struck the largest deposit of high-grade uranium ore in these canyons that had ever been found in the United States. This created a “uranium rush,” as nuclear



**Landing on Happy Canyon's rough dirt strip is a step back in time. Remains of a mining shack contain rusty items on its crumbling timber shelves.**

weapons development fed Cold War hysteria and devoured every ounce of uranium available. Landing strips were hastily dug into the red rock to accommodate these operations, and Happy Canyon—like most of these strips—remains a legacy to this time, with a collapsed mine entrance that smells of snakes and buzzes with desert wasps.

Happy Canyon is short, narrow, rutty and dominated by a massive canyon face. There are no go-arounds here. I'm in the Cub with Warren, who puts us down in an impossible 200 feet. Peterson is close behind, sticking the Katmai like a seasoned pro, with Ambats riding right seat. We shut down and break the deafening silence with our footsteps. A crumbling mining shack remains, standing as a testament to the hardiness of those who labored here. They must have felt like outcasts on an asteroid. Inside, timber shelves are still stocked with bottles of liniments and tinctures, long dried out, and companions to rusted cans of beans and empty jugs of whiskey. We've stepped back in time (the Utah Back Country Pilots Association has asked that items at these strips be left untouched).



Takeoff from Happy Canyon is an adrenaline-pumping affair as the density altitude reaches toward 9,000 feet. For the Carbon Cub, it's a moderate task, even loaded heavily as we are. Our takeoff roll is 150 feet, and we climb at 1,500 fpm. Todd Petersen knows his Katmai and calculates a takeoff roll of 600 to 700 feet on the 1,200-foot strip. With his 300 hp IO-550 blaring out its characteristic mid-pitch snarl, and his 29-inch bush tires absorbing the rocks and bumps, he's off in about 600 feet. Below us, the tattered and faded windsock hangs still, a limp gatekeeper to another era.

### Remote And Rugged

Some in the group opt for Mineral Canyon or one of many other strips that dot this

Martian landscape. Each offers its own story and challenge. General aviation was made for exploring these canyons, and I consider how fortunate I am as we float above a sliding tapestry woven in burnt sienna and ochre. Flying with Warren in the Carbon Cub, our talk turns to emergencies.

“It's all about margins,” Warren says as we pass low over the chiseled canyons. “You have to leave yourself an out.” He's confident we can find a spot for the Cub if we had to. “But what looks smooth from up here is deceiving,” he adds. Flying alone here isn't recommended, and we're reassured by the banter between our group on 130.30, our chosen air-to-air frequency. They'd be our first call in a pinch.

## CubCrafters Cubs | [www.warrenaircraft.com](http://www.warrenaircraft.com), [www.cubcrafters.com](http://www.cubcrafters.com)

The CubCrafters Carbon Cub is one of aviation's great triumphs. While the light-sport category is sometimes thought of as the realm of inexperienced pilots or those who don't want to go through an FAA medical exam, the truth is that the Carbon Cub is one of the most fun and versatile aircraft on the market today, in any category.

CubCrafters took the best features of the legendary Piper Super Cub and left out all the undesirable traits. While other manufacturers have their version of the venerable Piper J-3 Cub, the CubCrafters Carbon Cub is an aircraft with its own personality and character. The Carbon Cub has 50% less parts than the legendary backcountry Super Cub and is 350-400 pounds lighter.

We had the privilege of flying alongside Lee Boyd's Carbon Cub during our Moab adventure that featured a custom paint job depicting a P-51D Mustang with a “shark mouth” normally attributed to the P-40s of the Flying Tigers in World War II. It turns out this was done because the Carbon Cub has a horsepower-to-weight ratio of just 7.33 pounds—nearly identical to the famed P-51. The shark mouth honors the memory of the P-51s that served in the 12th Fighter Bomber Squadron, 18th Fighter Bomber Group during the Korean War.

Steve Vidal's Carbon Cub, also in our backcountry group, had its own custom paint job that stopped people in their tracks. Vidal and Boyd's airplanes are the work of airbrush artist Mike DuSold, an intensely talented

artist who works out of a warehouse in Lewisville, Texas, and has become the go-to guy for one-of-a-kind aircraft (and motorcycle, and car) paint schemes. If you saw Art and Charlotte Andersen's “Grizzly Cub” at this year's EAA AirVenture, with its flame-and-grizzly-bear motif, you saw DuSold's work. Scot Warren of Warren Aircraft in Denton, Texas, recommends DuSold ([www.dusolddesigns.com](http://www.dusolddesigns.com)) to his Carbon Cub clients looking for something nobody else has. His work is breathtaking.



**Lee Boyd's Carbon Cub stands out with a custom paint scheme that depicts a P-51D Mustang.**

Whether custom-painted or not, the Carbon Cub is the best-performing backcountry LSA out there. Landing and takeoff distance is unrivaled in the LSA world, and it can climb at more than 2,100 feet per minute at sea level and still be climbing at more than 1,100 feet per minute at 10,000 feet. One of our Carbon Cubs also sported the Catto composite propeller, which has been impressing backcountry pilots recently. The wood-core prop was developed by Craig Catto and is laminated with a glass/carbon composite for extreme structural integrity and amazing STOL performance.

The Carbon Cub pushes the LSA cruising speed limit even with 29-inch tundra tires. Its slow-speed handling is nimble and is mild-mannered even when landing on asphalt. With a listed takeoff roll of 60 feet and a landing distance of 245 feet, there aren't too many places you can't go.

More than performance, the aircraft feels safer due to its extraordinarily slow stall speed. CubCrafters adds vortex generators to the wing for even better low-speed maneuverability. The roll-cage construction and AmSafe airbag seatbelt option adds peace of mind to an already brutish backcountry performer.



An indispensable tool here is Galen Hanselman's *Fly Utah!* handbook. Filled with specifications, advice and lore, it's the expert guide for pilots flying these canyons. Hanselman, who's obsessed with accuracy and honesty, lists each strip along with reams of everything you need to know to launch—and get the most from—an adventure here.

Like the blue dart frog of the Amazon, as beautiful as this land is, it can kill you quickly. Water is everything here, and I go through nearly half gallon of it just flying around in the blast furnace heat. We're near the spot where Aron Ralston had to cut off his own arm to survive after falling into a slot canyon.

Smart pilots carry a gallon of water, a PLB (personal locator beacon), survival tools, first aid kit, food and a sleeping bag. It's evident that a search-and-

## Recreation Aviation Foundation | [www.theraf.org](http://www.theraf.org)

Jumping in and out of these pristine airstrips, the question comes to mind as to who preserves and maintains them. There are, of course, no FBOs, no crew cars, no facilities to speak of, yet these remote strips require work to keep them useable, mapped and accessible. Much of this work lies with the Recreational Aviation Foundation (RAF).

could be enjoyed by the public. The organization also furthers backcountry safety through education and activities across the country.

The threat against backcountry airstrips is a national concern. Once these resources are gone, there's no bringing them back, and a way of life will have been destroyed. Already, many mountain strips across the

American West have been bulldozed in the name of progress and profit. Members of the RAF combat these threats through acquiring private land for development of new airstrips, funding of efforts to recognize backcountry airstrips as useful and legitimate public resources, and providing education to the public and to other pilots about the value of these airstrips.

Scot Warren, who led the CubCrafters Cubs on our Utah desert adventure, is the Texas

state liaison for the RAF and has seen firsthand what their efforts can do. "I grew up in rural Colorado," says Warren. "And these airstrips are a way of life for a lot of pilots," he continued. "The RAF is such an important part of preserving them that I wish more people knew about what they do."

Warren, like others in the organization, works within his state to help others recognize how valuable the airstrips are, and that they serve the entire flying public. "We couldn't be flying into these airstrips

like we are today without people in the RAF working hard to maintain them," he said.

Of course, the RAF can't succeed alone. They depend completely on the generosity of the public to fund their efforts. There are a million ways to give to the organization, with everything from one-time donations to ongoing, planned giving. More importantly, the RAF wants more pilots to get involved. "Pilots need to know that we're the only organization that tries to preserve backcountry airstrips on a national basis," explains Warren.

The RAF has had some high-profile victories, including the creation of a brand-new backcountry airstrip about 70 miles outside of Great Falls, Mont., called "Russian Flat" (M42), and the preservation of six backcountry strips in the Upper Missouri Breaks National Monument. In 2010, the RAF managed to push through resolution H.R. 1473 through the House of Representatives that recognizes backcountry airstrips as valuable national resources that should be protected. The RAF also became the majority owner in Ryan Field (2MT1), a pristine backcountry airstrip at West Glacier, Mont. Still, there's much work to be done.

"Backcountry strips are being closed all the time," says Warren. "Without the RAF, we would lose a lot more of them." Warren sees protecting and preserving these resources as the responsibility of all pilots and urges them to get involved. "It's not just an important cause, it's part of the legacy we're leaving to the next generation of pilots."



rescue operation here would be like finding a grain of salt on a beach. For 100 miles, we see no structures, roads or any sign of human civilization.

"Whisky Alpha, you up?" jolts us as we approach Fry Canyon (UT74), with its promise of Indian ruins and cave art. Fry Canyon was another strip put here by a booming uranium industry. When the Cold War wound down, it took uranium with it, leaving many of these places ghost towns. "We're here and have you in sight," we answer, and turn a close base leg to the relatively long but rough airstrip. Our bulbous tires make the washboard surface seem smooth and a little bouncy.

A short hike from the airstrip reveals the ruins of cliff dwellings built here by the Anasazi Indians some 900 years ago. Standing on the opposite ledge, we each admire the ruins across the precipice and wonder who these people were, living in this harsh but breathtaking environment. As quickly as we came, we're off to Monument Valley.

Ambats and I switch places so we can experience both types of aircraft. Peterson graciously hands over the Katmai



and teaches me a thing or two about backcountry operations. With 11,000 hours of GA flying to his name, he's humble and greatly skilled. He's also a big fan of the CubCrafters airplanes. "When the time comes that I don't think I'd pass the FAA medical anymore," he laughs, "I'm gonna take a serious look at these Cubs." Meanwhile, he demonstrates the superb handling of the Katmai.

The key to the Katmai conversion is the canard concept. A canard is a small horizontal surface (or "foreplane") attached ahead of the main wing, on the nose. A

mini-horizontal stabilizer, the canard has a moveable "elevator" section that deflects seven degrees downward at full aft yoke and roughly one degree up when the yoke is forward. The net effect is super-enhanced pitch authority and stunning slow-speed performance, allowing for nearly flat attitudes at extremely low speeds. It makes getting into and out of these remote strips safer.

The regal sentinels of Monument Valley come and go as we catch a bite at Goulding's Lodge, deep in Navajo country, then race the sun back toward Moab.



The sand-sculpture mesas occasionally give way to stomach-dropping canyons as the afternoon thermals churn the air around us.

I'm filled with a sense of humility as I survey the desert below. Peterson and I discuss the contrast between the hardships the Mormon pioneers faced when settling this land, and how we glide above it, listening to music in comfort, watching the miles tick away at 140 knots. Only in a small aircraft can we experience the contrasts here.

Back at Moab, we park the Katmai

with the sun low behind us. We're tired, thirsty and sunburned. Each of us carries the treasures of the day not in our pockets, but in our memories. We haven't so much conquered this land as we've been guests of it; this living desert allowing us a glimpse from a magic carpet that few will ever experience. With all of us smiling through the red dust that covers us, I'm assured that adventure still lives. P&P

***With hot midday temperatures, the density altitude at Happy Canyon (elevation 4,934 feet) reached nearly 9,000 feet.***



## Moab Valley Flying Resources

A backcountry tour through the breathtaking strips in the Utah desert is achievable by any pilot with moderate experience. The best approach is to base out of Canyonlands Airport (KCNV) and fly day trips to the vast array of airstrips within a short hop of the airport. The town of Moab provides a wide array of accommodations and amenities, and is more than adequately supplied with grocery stores, pharmacies and sporting goods. It's also an excellent location from which to launch river tours, rafting, hiking, photography expeditions or just some lazy floating along the crisp waters of the Colorado River. Planning is the key to a safe and successful desert strip adventure, and there are plenty of resources to assist pilots.

### ***Fly Utah!* Pilot's Guidebook**

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

Galen Hanselman has written several



guidebooks that are considered "Bibles" for pilots. His *Fly Utah!* handbook details each backcountry strip, with everything from frequencies to tips and techniques. It's a must-have for the Southwestern desert.

### **Utah Backcountry Pilots**

[www.utahbackcountrypilots.org](http://www.utahbackcountrypilots.org)

This website has up-to-the-minute information on all the backcountry strips. It's also a great place to get backcountry training and advice.

### **GH-UT Utah Supplemental WAC Chart**

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

Fifty-seven of the backcountry strips listed in *Fly Utah!* have never been depicted on an aeronautical chart. This WAC chart supplement is critical for any backcountry flying in Utah. It's laminated and beautifully printed.