

Chasing Lewi

Three-month aerial odyssey finds its own adventure along historic trail

Story and photos by Ron Lowery, EAA 556164

Adventures can begin in many different ways. Sometimes they are stumbled upon. Sometimes they are the result of inspiration from unlikely sources. Many times they originate as a task assigned by an employer.

A case in point happened 200 years ago when President Thomas Jefferson assigned two men the task of mapping some newly acquired territory while they went about searching for a water route to the Pacific Ocean. Little did they know that this assignment would prove to be so challenging it would become known as “the greatest American adventure.”

My own adventures have usually begun in a different way—curiosity. This simple little word has been one of the driving

forces of my life. Upon hearing about the 200th anniversary of Lewis and Clark’s expedition, I became intrigued about the possibility of retracing their route by air and producing a book about the adventure.

My wife, Sue, seemed to share my curiosity about Lewis and Clark, their men, and their Indian guide, so off to the computers we went to begin research.

We discovered all kinds of information about the commemoration of Lewis and Clark’s exploration.

I’m a visual type of guy, so illustrations and photos of the trail interested me the most. I saw great historical illustrations, but the available photos left me disappointed and visually unsatisfied. Also, the objective of many

s&Clark by Air

Kansas City was the last large city on the trail.





Cloud Chaser floats over the Missouri River, barely above the treetops.



Studying the Lewis and Clark route using the computer software called Keyhole.

of the books seemed to be to try to hide modern development along the trail, as if the publishers wanted to create a view of the trail like it was 200 years ago. In addition, most of the photographs also showed the rivers and land from the same perspective that Lewis and Clark experienced—a land-based perspective.

I studied the route Lewis and Clark followed using computer software called Keyhole. This neat tool allowed me to download satellite imagery and zoom in on any part of planet Earth to examine details as small as bridges and visualize the 3D relief of riverbanks. From the comfort of my office chair, I could float above the Missouri River just like I was flying at an altitude of about 8,000 feet.

Energized by this simulated flying experience, I concluded I had an artistic responsibility to show the rest of the world the beauty of the rivers along this historic trail.

Further studies with topographical and political maps gave me a better feel for population density and highways. Aviation charts were important in understanding what kind of controlled airspace problems I would have to deal with. It also made me realize how few airports were in that part of the country. Because my AirCam can land or take off within 200 feet, runway lengths were a nonissue, regardless of density altitude. Another interesting fact is that, once you're north of Omaha—all the way to Portland,



Ron's "one man air show" entertains onlookers as the local media gets footage for the local news.

Oregon—there are only a couple of military operations areas and a few towered airports. This gave me a chance to live the life of a bush pilot.

As a result of all this research, we agreed that a low-altitude photo study coupled with an aviation adventure story would be a radically new perspective on the Lewis and Clark trail. Knowing how my aerial photography of the Tennessee River had excited people, I decided to apply those same skills to a national audience. Because the story about Lewis and Clark was about the land, the people, and their personal journey in a keelboat, we decided to structure our story in a similar way, but we were going to explore with our "flying green canoe."

In the same way that Native Americans gathered on the riverbanks to greet the explorers and their strange watercraft, our unusual aircraft acted as an ambassador, attracting curious farmers, ranchers, aviators, boaters, and Native Americans.

The Flying Tripod

During my 40 years in all types of photography I've tried to make the next picture better than the last, and I continually strive for something unique. The most difficult part of shooting scenery is the struggle to find the best angle and then wonder if anyone had already shot that same perspective. One of my biggest pet peeves is happening upon a sign reading "Photo Vantage Point." Aviation has brought me creative freedom I've never known before.

With the help of my AirCam, which I named *Cloud Chaser*, I can live in a three-axis world that gives me unlimited perspectives. Within seconds of my wheels leaving the ground and heading skyward, those lines on the road and barbed wire fences become irrelevant. With my mind and body freed from the ground, I no longer feel constrained to the horizontal.

I built my twin-engine AirCam with my son, Alan, over three years—1,800 hours of construction time. As the months, then years of construction rolled by, our aluminum sculpture started to magically transform into a chariot I dreamed would allow me to soar above the clouds.

When I decided to build this airplane, my primary goal was for a photography platform. My secondary goal was to explore the country. Contrary to what some people speculate, it didn't turn out to be an open-cockpit plane simply because we ran out of parts.

With the wing and engines

mounted behind the cockpit, nothing gets in the way of my shots, not even when I use very wide-angle lenses. With the redundancy of two engines and the cockpit's great visibility, I have never felt safer in the sky. The two Rotax 100-hp engines provide enough reserve power to change altitudes quickly, get out of tight places, and make takeoffs and landings within a couple hundred feet. Because of my unusual IFS (I Follow Scenery) style of flying, the plane fits my personality and projects like this Lewis and Clark one well. Dropping the flaps to fly at 45 mph is great for observation and photography. Flying this slowly, combined with engines and props that only whisper, allows me to get shots in which the wildlife appears to be posing.

Artistic and Flying Challenges

The challenges Lewis and Clark faced on their expedition were surveying the great unknown, avoiding being shot full of arrows or eaten by bears, and moving a large boat upstream hundreds of miles. My greatest challenges, however, were artistic in nature. Since there are no exotic national parks like Yellowstone along the trail, my task was to showcase the simple beauty of America by showing others whatever hidden gems I could find in the prairie, curving river, or cultivated field.

Because of this approach, many of the resulting images are a blend of nature's handiwork accented with the impact of man. From the graceful curves of contour farming to the rows of windmills that appear to be marching across the ridges with swirling swords, all features of the land were treated with equal respect.

As an artist, my eye is trained to look for shapes, patterns, and textures accented with lighting that forms a composition. In no way did I try to hide development along the rivers.

When shooting photos on the ground you have a lot more control

over your shots, such as holding a small tree branch beside the camera to hide a dumpster. In a plane, however, what you see is what you get. That's usually good, though, because aerial photography reveals details not seen from the ground.

Although I didn't have to deal with water currents, there was an abundance of air current challenges. From mid-day thermals and extreme inversion layers to winds that would howl through the mountain passes,

rivers of air made our flying adventure interesting. Landing in Great Falls one day I used at least 10 feet of the 5,000-foot runway.

Where I live in Chattanooga, we don't get to practice in the wind much. Most of the airports in this part of the country have lightweight rope tiedowns. When landing at airports out west, I was startled to see heavy-duty chains on the ramp. I conjured up images of returning to the airport to find chains still

Lancair Flies ComDat
Antennas with XM Weather Data

Lancair is a technological leader. That's why they chose ComDat antennas from Comant for XM Weather Data.

Fast fit, just about every antenna on Lancair aircraft is made by Comant.

You can do the same for your aircraft, whether it's GPS, Com, Nav or XM. ComDat is the only choice when you want to add new systems without adding antennas. See your ComDat dealer today on how you can save time, save space, and save money... with ComDat.

COMDAT
COMMUNICATION ANTENNAS

1-800-444-4444
www.comant.com
sales@comant.com

Comant
A Glenn Group Company



The trail began at St. Louis, the city from which Lewis & Clark launched their journey.



White Cliffs, Montana—the orderly ways of man complement the chaos of nature.

attached to wing struts, but no airplane.

Even though I had little concern about my 1,000-pound airplane surviving during flight, I was apprehensive about tie-down endurance. And because during the trip we often needed to be airborne before dawn, we had to turn down generously offered hangar space.

Logistical Challenges

We also faced logistical challenges during the trip. How would we budget the time to cover the route? Who would make up our team? How would we live along the "trail"? What kind of equipment would we need? How would we get air-to-air photos of *Cloud Chaser*? Where would we get funding for the project, as well as find a publisher for the book?

After the first six months, the theme and size of the book was established. From the start, Sue and I were committed to a book that had the best photography, writing, design, and printing we could muster.

To finance the project, a friend of mine had a great idea. I remember the day of that first meeting well. It was September 11, 2001. His idea was to approach large companies that would be so inspired by the possibilities of our venture that they would shower us with money. Further enticing us, he said just four or five major sponsors would be enough to pay for our expenses and also the printing of the book.

Of course, in the aftermath of 9/11 the economy was in a slide, and all we got were wish-you-well smiles and handshakes. After a year and a half we had only two minor sponsors, so we decided to bite the bullet and invest our savings to finance the trip ourselves. Being so firmly hooked on the idea after all that research, there was no way we were going to give up on this project.

By February 2003 we had decided a crew of at least four would be needed. My job would be photogra-

pher and chief pilot of *Cloud Chaser*. My wife, Sue, would pull a fifth-wheel RV with a pickup truck, as well as take care of the meals and design and maintain the website. My son, Ryan, would help Sue and do odd jobs around camp. Even our dog, Jack, had responsibilities. Being in charge of security, he was tasked with protecting us from grizzlies and renegade prairie dogs, as well as grasshoppers.

That left a writer. We chose Mary

Walker, a writer who had a broad knowledge of the Lewis and Clark history. She was also a pilot, and the original plan was for her to fly her Citabria as a chase plane. However, her Citabria was being refurbished, and delays in the completion of the project meant the airplane wasn't ready to make the trip.

We pressed on with only one airplane. To do air-to-air photos, Mary would fly *Cloud Chaser* while I shot from a rental plane. The only prob-

Cirrus Flies ComDat
Antennas with XM Weather Data

Cirrus is moving toward glass cockpits in a big way. That's why they choose ComDat combination antennas from Comant for XM Weather Data.

Fact is, just about every antenna on Cirrus Design aircraft is made by Comant.

You can do the same for your aircraft, whether it's G18, G28, H41 or T44. ComDat is the only choice when you want to add new systems without adding antennas. Give your ComDat dealer today on how you can save time, save space, and save money... with ComDat.

COMDAT
COMBINATION ANTENNAS

© Comant Solutions, Inc. 2003
Photo courtesy of Wilson Design

714-970-6460
www.comant.com
sales@comant.com

Comant
A Garmin Group Company



The Jefferson and Madison Rivers wind their way across the valley floor near Three Forks, Montana.



Like a small, green bug, *Cloud Chaser* descends into a canyon on the Snake River near Lewiston, Idaho.



Haystack Rock off the Oregon coast near where the Corps ended their expedition.

lem was that Mary weighed only 120 pounds, 30 pounds short of the minimum needed to solo the airplane. Since we didn't have time to fatten up Mary, we decided we could put sand bags beside the front seat.

One of the most interesting comparisons between Lewis and Clark's exploration and ours was the equipment needed for each trip. Lewis and Clark had the latest technology for their travels, but we couldn't imagine how they survived with their minimal tools. By contrast, we blazed the same trail with a GPS for navigation, broadband-capable satellite dish to connect to the Internet, and cell phones and walkie-talkies to communicate by voice. But of course, the most important accessory was our credit card.

Reliving the Experience

No matter how you look at this book project, it certainly was an educational experience. Before we even left St. Louis heading west, we became immersed in L&C history at museums in St. Louis and St. Charles. Along the trail we met many re-enactors that virtually lived their parts with their period costumes and outfitted with equipment of the time.

Seeing the trail from the air, we could witness many of the same concerns and rewards Lewis and Clark experienced. From the snags along the muddy Missouri River to the treeless plains and the endless stretches of mountains, these were obviously major hurdles for the Corps, but they were easy obstacles to fly over. At many of our campsites we refreshed ourselves by swimming in the streams and rivers along the trail and even sang the same songs in the evenings that were heard around the Corps' campfire.

For me, traveling the trail was a whole different experience than the chase crew's. From the air, a river was as good as a highway, and I followed its every bend. Sue and Ryan, on the other hand, traveled the roads and seldom saw the rivers.

Occasionally they would arrive at the rendezvous point first, but most of the time I beat them there. From my heavenly perch, it was convenient to check out the campgrounds for vacancies and also look for low overpasses that the RV would need to detour. One day I spotted them up ahead on a long, flat, desolate stretch of highway. As I swooped down beside them over the field that paralleled the road, our dog, Jack, was the first to spot me, then

everyone else waved. Even though I racked up the most time in the plane, everyone got to have plenty of flying time.

A typical day began with getting airborne before dawn—and sunrise comes pretty early in a Montana summer. After a couple of hours of shooting in the rich morning light, we would return to base and have breakfast. I'd download the photos from the camera and look through them to make sure I had what I

Cessna Flies ComDat
Antennas with XM Weather Data

Cessna is moving toward glass cockpits in a big way. That's why they chose ComDat combination antennas from Comant for XM Weather Data.

Fast In, just about every antenna on Cessna Single Engine aircraft is made by Comant.

You can do the same for your aircraft, whether it's GPS, Com, Nav or XM, ComDat is the only choice when you want to add new systems without adding antennas. See your ComDat dealer today on how you can save time, save space, and save money... with ComDat.

COMDAT®
COMBINATION ANTENNAS

Comant
A Garmin Group Company

764-478-6487
www.comant.com
sales@comant.com

© 2008 Comant, Inc. All Rights Reserved.

wanted. The remainder of the morning would be dedicated to maintaining the plane, RV, and computers.

In the afternoon, Sue would assist me in editing photos and uploading them to our website so the whole world could share in our adventure. Also during the day, Mary and Sue would deal with the local media to organize interviews and photo opportunities. Though local news people were usually more interested in the airplane than us, we always enjoyed telling them the story of our adventure.

This was not a fly-along-and-shoot-as-you-go project. Every scene was carefully considered for the right weather and lighting. Sometimes important shots would take as long as five days. As a result, the total distance we traveled, including scouting and shooting, was some 14,000 miles.

Many times we'd spot some-



The paddlewheeler *Queen of the West* near Lewiston, Idaho.

thing interesting from the air and then spend time exploring it on the ground. We spent a great deal of time studying topography maps and weather forecasts before the next flight.

As a gravity-defying photographer, this was an incredible adventure. Zipping across America in a jet is different from us "sipping" our way across America. For three months, *Cloud Chaser* helped me savor America as if it were a fine wine.

I found indescribable beauty in

the way the landscape evolved like the view through a kaleidoscope—from short-grass prairie to eroded badlands, and then to rugged mountains before emerging at the Pacific. It helped me relate much better to the original explorers' experience.

Ascending to the top of a high ridge to be welcomed by a vista of river canyons and volcanoes nourished my soul beyond comprehension. There is no doubt Lewis and Clark would have loved this plane.



*Ron Lowery is a professional photographer whose award-winning photographs have been sold around the world. He and co-author Mary Walker published the aerial photo and adventure book, *Chasing Lewis & Clark Across America: A 21st Century Aviation Adventure*. You can see more about this adventure on www.chasinglewisandclark.com.*

ELECTRIC TRIM SYSTEMS

Install this small, 14 volt servo motor to control Elevator, Aileron or Rudder trim.

Trim Systems include:

Position Indicator Rocker Switch Clevis/Pushrod Kit

T2-7A Trim System (.7 inch travel).....\$235
T2-10A Trim System (1.0 in. travel).....235
T3-12A Trim System (1.2 in. travel).....255

Position Sensor

Use this sensor to measure wing flap, cowl flap position. 1.2" travel.....\$30

STICK GRIPS

NEW! G3 Grips feature 4-way toggle switch, multi-color faceplates.

G101 G207 G307

Speed Control

Adjusts trim sensitivity.....\$35

The Ray Allen Company
2525-8 Pioneer Avenue, Vista, CA 92081 USA
Phone 760 599 4720 FAX 760 599 4383
see more details at: www.rayallencompany.com

RV BUILDERS SHEET METAL INSTRUCTION

LEARN THE BASICS OF SHEET METAL CONSTRUCTION WHILE BUILDING YOUR OWN RV TAIL ASSEMBLY!

- Complete your entire tail assembly in our climate-controlled sheet metal shop in less than a week. The RV-10 takes a little longer.
- Learn basic sheet metal construction under the supervision of professional instructors.
- Work with our tools so you'll know what you need before you waste a lot of money on unnecessary equipment.
- Gain a level of confidence working with our instructors that will carry over as you build the rest of the airplane in your workshop.

CALL TODAY AND GET THE FULL STORY!

866-967-5740
770-467-9490
buildtofly.com
info@buildtofly.com

Alexander TECHNICAL CENTER