

DECEMBER 2010

KEEP 'EM FLYING

Bird Dog Combat
L-4 vs. Storch

L-Bird Special

Teaching an Old Dog

New Tricks

Mike Vadeboncoeur and his L-19

BY JIM BUSHA photos by Jim Koepnick

Bird Dog History

In 1949, the U.S. Army announced to the various aircraft manufacturers that it was looking for a replacement for both the Piper L-4 Cub and the Stinson L-5 Sentinel liaison aircraft. Although the Army used and abused these fabriccovered aircraft during World War II, the world was now at peace and the rationing of metal for strategic weapons of war, such as bombers and fighters, was a thing of the past.

The Army not only wanted an airplane that could fly as slowly as a Cub and carry a heavy load like the Sentinel, but they also wanted something that was all metal to boot. The engineers and designers at the Cessna Aircraft Company borrowed bits and pieces from their popular four-place 170 and 195 models and came up with the Cessna 305A.

Cessna pulled out all the stops on creativity with the 305A. It produced a two-place tandem-seat aircraft, with an assortment of greenhouse windows wrapped around and above the pilot and observer. It had long, slender gear legs that could handle rut- and rock-infested fields, a set of barn door flaps that hung down 60 degrees that slowed landings to a crawl, and a cockpit as roomy as a woodgrain-sided station wagon.

The Army awarded the 305A "best of show" at the fly-off competition, and ordered more than 400 of the models with the new designation of L-19A. For the "lofty" sum of \$13,000 apiece, the Army bought itself a real show dog.

By early 1951, the L-19A had cut its combat teeth in Korea. In the fall of that same year, Cessna asked its employees to come up with a name for the big-tailed, short-nosed flier. Jack Swayze submitted the winning entry, and from then on the L-19A was known as the Bird Dog.

As the Korean War muddled on, the Bird Dog performed a laundry list of liaison duties that included artillery spotting, VIP transport, forward air control (FAC), photography platform, supply drops, rocket and machine gun platform, and an all-around watchdog for the troops below.

The Army also began using the Bird Dog as a stateside trainer for new Army pilots, and just to prove to prospective cadets what this 'Dog could do, a four-place Bird Dog aerobatic team was established and demonstrated at air shows across the country.

In 1957, Cessna delivered its 3,000th Bird Dog to the Army, and by the 1960s the Bird Dog was back in combat with multiple branches of the service performing the same type of missions over the skies of Vietnam, with a new designation of O-1.

Cessna produced more than 3,400 L-19/O-1 planes before the Bird Dog was phased out in favor of the twinengine, push/pull Cessna O-2 Skymaster. Most of the remaining Bird Dogs were retired and served their final military days with the Civil Air Patrol (CAP). Although the Cessna Bird Dog was officially retired from United States military service in 1974, its flying days were far from over, as hundreds of civilian owners scrambled to throw a leash around one and enjoy the flying attributes of this military workhorse.

Want to Do Your Own L-19 Restoration? Ask an Expert.

If you recognize Mike Vadeboncoeur's name, it's probably because you have noticed it associated with his award-winning company, Mid-





west Aero Restorations of Danville, Illinois. For more than 15 years, the restoration work of Mike and his team of craftsmen has created some of the world's most pristine and originallooking P-51 Mustangs, the likes of which have not been seen since the aircraft first left the North American Aviation factories in the mid-1940s.

With countless Grand Champion and Reserve Grand Champion accolades under his belt, Mike decided that it was time to restore an airplane for himself. Although Mike readily admits that owning and flying his own P-51 would be a dream come true, he also says that food, shelter, heat, and providing for his family come first. That's why he decided on an L-19 Bird Dog.

"I have had this 1951 L-19A Bird Dog project laying around for the last six years, and up until recently it was just a filler project when we had some down time between Mustang restorations," said Mike. "Two good friends of mine, Bob Young and Bob Wilson,

started this project early on by doing the sheet metal work. For me it was kind of fun to do something different. other than a Mustang. It was nice to focus on another airplane and learn its history, systems, and flight characteristics. I like to be challenged, and this project was no different when it came to locating parts, learning assembly procedures, and everything else that goes into a restoration. Although I didn't restore this aircraft as a major award-winner, I did attempt to make it not only as authentic as possible, but also to have some fun just enjoying the process."

Mike was interested in Bird Dogs early on in his flying career, when he was allowed to fly Bob Wilson's from his local grass strip. Bit hard by the 'Dog, Mike eventually acquired this project knowing someday he would restore it. Mike also appreciated the great history associated with Bird Dogs and the men who flew them in combat, and because it was a Cessna-built airplane, parts would be readily available.

Mike's L-19A Bird Dog was originally certified as a 2,100-pound gross weight airplane. There is, however, a supplemental type certificate available to bring the gross weight up to 2,300 pounds, which makes it a much more useful aircraft, and that was something Mike made sure he acquired with his L-19A.

Mike stayed with his original 1950s theme and kept the O-470-11 Continental engine that powered the early L-19As along with the McCauley allmetal fixed-pitched propeller.

"Finding and buying L-19 parts is a whole lot easier and cheaper than Mustang parts," said Mike. "With the Bird Dog there is a tremendous amount of support—several suppliers around the country and a lot of individuals with their own collections of spare parts. The guys at the International Bird Dog Association, like 'Mr. Bird Dog' Minard Thompson Jr., were instrumental in helping me restore this aircraft, and Pete Jones of Air Repair was of great assistance as well with this project.

"Like any airplane, there are always little idiosyncrasies that follow that





Mike Vadeboncoeur









specific type, and there are always experts out there that can yield detailed information to new owners and restorers to give them guidance and support. If you are going to tackle this airplane or any other similar type, then I highly recommend that you join the type club for your specific airplane; they are worth their weight in gold and are guaranteed to pay you priceless dividends down the road when you encounter a problem."

When Mike and his fellow workers began to tackle the Bird Dog project

in earnest, he already possessed the necessary skills needed to complete the project. But what about a firsttimer? What skills would he need to see a project like this take flight, and would this make a good airplane for someone who wants to get into the warbird arena?

"Absolutely," said Mike. "The Bird Dog is definitely a foot in the door when it comes to being a warbird pilot. It is an easy airplane to fly, a little tricky on landing (we'll talk about that later), and it has a tremendous amount of support. There are projects out there, sitting around waiting to be restored. I would recommend a general knowledge in sheet metal work because most of the projects out there had been ground-looped. If you don't feel comfortable with that aspect of the project, then I recommend having either your local A&P assist you or sub out the sheet metal work if necessarv. Remember, this is a Cessna-built aircraft and some of it was based on the 170 model, and there are plenty of shops around that work on Cessna airplanes all day long. There are also volumes and volumes of manuals, depot overhaul manuals, and other references on the Bird Dog that are readily available to the restorer as well.

"When we started the L-19 rebuild we reskinned the fuselage from the firewall back to the observer's section. We were very pleased when we attached the wings and everything lined up just right. For my particular L-19, I wanted to make it original for its time period, and part of that required attaching some strange-looking antennas up on the center above the cabin and also on the horizontal stabilizer.

"I chose a 1950s paint scheme that had the high-visibility DayGlo orange for flight-training purposes. It was a common theme for stateside aircraft to be painted like this, so Army aviators wouldn't run into one another when they were out practicing. I also left the instrument panel as stock as possible, including the rocket selector switches. The real challenges with this project, however, were finding the interior panels, especially the side panels—but I got lucky and was able to find some brand-new, never-beenused ones. Again, you just have to know where to look for these things, and ask around on the type club chat rooms. I am very pleased on how the restoration turned out; outwardly it looks as it did when it was in the service, teaching Army pilots how to fly."

Flying the Bird Dog

If you were a fixed-wing Army aviator in the 1950s and '60s, the only game in town if you wanted to earn your wings was at the controls of the Bird Dog. One of the most infamous Bird Dog training centers was known as Mother Rucker's School for Boys, held at the sprawling Fort Rucker U.S. Army base in Alabama. New pilots were indoctrinated with this greeting by their instructors, "There are only two kinds of Bird Dog pilots; those that have already ground-looped and those that will!" That fact was proven over and over again.

"The Bird Dog is a great airplane to fly," said Mike, "as long as you remember that they are like all other tailwheel airplanes—you don't stop flying them

Aircraft Data Box	
Aircraft Make & Model	1951 (Cessna 305A) L-19A Bird Dog
N-Number	N305MV
Certification	Standard
Length	25 feet 9 inches
Wingspan	36 feet
Height	7 feet 3 ½ inches
Maximum Gross Weight	2,300 pounds
Empty Weight	1,615 pounds
Fuel Capacity (gallons)	36 usable
Seats	2 in tandem
Powerplant Make & Model	
Horsepower	Continental 0-470-11
Propeller Make & Type	McCauley all-metal fixed-pitch
Cruise Speed/Fuel Consumption	105 mph at 11 gallons per hour
Power Loading	Positive
Wing Loading	12.1 pounds/square foot
Equipped for	VFR/Night
V _H [maximum speed in level flight with maximum continuous power]	130 mph
V _S [stalling speed or the minimum steady flight speed at which the airplane is controllable]	54 mph clean, 44 with flaps
V_X [speed for best angle of climb]	60 mph
V _Y [speed for best rate of climb]	65 mph

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until they are in the hangar. Cessna did a fabulous job with the built-in stability of this aircraft. I flew it hands-off for the first 45 minutes without touching the stick. Slow flight is also another one of its attributes, and the stall is very benign—just a little burble with very little noticeable wing drop. And with such a large rudder, even if the wing dropped a little bit you could pick right back up with that rudder. My L-19 burns 11 gallons an hour with a cruise speed of around 105 mph—faster if I am going down hill.

"The landings were one thing that I had to get used to, especially with 60 degrees of flaps at my disposal. In this configuration you can really point your nose almost straight down at the runway, but you have to be careful in the flare or otherwise you may end up scraping the belly and overextending the gear legs like some Army aviators did while in training. I like to use be-



tween 30 and 45 degrees of flap on landing, which slows the Bird Dog down below 70 mph. I keep my head outside the cockpit from that point on while the speed bleeds off as I wheel-land the L-19. The original Bird Dog I trained in always seemed to want to three-point, and for whatever reason, mine seems to prefer the wheel-landings technique. I know that with the combination of full flaps and those long, steel-spring gear legs, you have to be careful on touchdown, because the air flowing over the wings has a tendency to disrupt the airflow over the rudder. If you don't catch it in time, then you have a strong chance of proving those Army instructors right, as you go round and round in a ground loop.

"The only problem I had with my Bird Dog was getting used to the manual flaps. At 95 mph indicated I was in the white arc of the airspeed indicator, and as I reached down to pull up the flap handle it felt like it was set in concrete—it would barely budge. I spoke with Minard Thompson about this, and he told me my speed was way too fast, and that I needed to get it down to around 80 mph. Minard also told me that at these lower flap extension speeds it will be not only be easier to lower them, but it will also be less of a strain on the flap mechanism itself. That piece of advice has made my landings even more enjoyable, as the Bird Dog settles in on approach with just my stick inputs holding it steady until landing. Without a doubt, Cessna built one heck of winner with this airplane."

Bird Dog Experts

The International Bird Dog Association (IBDA) is the first place you may want to look at for one-stop shopping and information. Chock-full of stories, photos, and classifieds, along with the added ability to network with owners, veterans, and restorers who can answer all your technical and authenticity questions, this is one place you will definitely revisit time and time again. Visit the IBDA online at *www. IBDAweb.com.* The International Liaison Pilot and Aircraft Association (ILPA) is another organization that is dedicated to these warbirds and the men who flew them. For more information, contact Bill Stratton at the ILPA, 16518 Ledgestone, San Antonio, TX, 78232.

The EAA Warbirds of America, with its motto of "Keep 'em Flying!" is another organization that can link potential buyers with current owners, restoration shops, tailwheel instructors, and insurance representatives, to name just a few. If you are serious about acquiring an L-19, and want to make your Bird Dog purchase a smooth one, then consider joining EAA Warbirds of America. Visit it online at www.Warbirds-EAA.org.

Want to Learn More About the Cessna L-19/0-1 Bird Dog?

If you are interested in learning more about the history of the Bird Dog and how it was used in combat, consider some of these wellknown book titles.

The Ravens: The Men Who Flew in America's Secret War in Laos, by Christopher Robbins

0-1 Bird Dog in Action, by Al Adcock

The Lovable One-Niner: A Complete History of the Cessna L-19 Birddog, by Minard Thompson

A Hundred Feet Over Hell: Flying With the Men of 220th Recon Airplane Company Over I Corps and the DMZ, Vietnam 1968–1969, by Jim Hooper

Cessna Warbirds: A Detailed and Personal History of Cessna's Involvement in the Armed Forces, by Walt Shiel