

Experimental Aircraft Association



TALESPINNERS

Chapter 174

Cincinnati, OH
Chartered since 1966
www.eaa174.org

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Builders' Logbook

Why the Carlson Sparrow II XTC?

by Gary Collins

After becoming enamored by the Corvair engine it was necessary to find an airframe that could use the engine and meet my other requirements. Some of these were:

- Two seats, side-by-side
- High wing
- Fuel in the wings
- All metal structure (fabric covering OK)
- Adaptable to be nose wheel or taildragger

A search of the Kitplanes list of homebuilts only identified a few that met all these criteria.

I think it is more practical to have the passenger sitting next to you. The only benefit I have experienced for centerline seating is in aerobatics. Four or five aileron rolls in an RV-6 and I need to stop but I did eight in the RV-8 prototype with no ill effects. Since the Corvair will not be an aerobatic engine this was not an issue. Side-by-side does not compromise cruise speed. I had always marveled at how much faster a Taylorcraft was compared to a J-3 Cub. It seemed that the different airfoil and better cowling could not make that much difference. When Mike Seager came by several years ago to give instruction in the RV-6, we got to talking about this. He has over 5000 hours of RV time in all the various models and even though Vans specifications note a 2-3 mph advantage for the tandem models, Mike says in fact he has experienced about that much speed advantage in the side-by-side models.

The high wing requirement is also a personal preference, probably due to learning to fly in a Taylorcraft and flying most of my time since in high wing aircraft. I have about 120 hours in Don Reasoner's RV-6 and it seems perfectly normal and acceptable except for my ability to study the ground.

Since I am not looking for fighters hunting me down I find the tremendous sky visibility less valuable than the ability to see interesting stuff on the ground. Even more important is the ability to have a very simple gravity feed fuel system with the high wing.



The Sparrow II XTC

There is nothing inherently bad about wood spars but given a choice I prefer metal spars. Most of the post WWII trainers have wood spars but I have noted that Cubs with metal spars are prized. The current spar issue with the Citabria also makes me feel that a good

aluminum spar is the way to go. Having rebuilt a Taylorcraft many years ago, I found that the fabric work was quite enjoyable. So metal structure covered in fabric would be fine with me.

If a plane can be set up as a taildragger and as a nosedragger, it probably has been well laid out for CG considerations and would be easily adaptable to floats, something I have always wanted to try.

So with these thoughts in mind, one design seemed to stand out. The Carlson Sparrow II XTC. The XTC version is a modification of the Sparrow II which was beefed up to accept engines up to the Cont. 0-200. Since the Corvair set up with a starter and alternator weighs the same as the Continental with the same accessories and produces the same power, it seemed a good match. So the question was how to find out more about the Sparrow II XTC and the Carlson Aircraft Company. I found the company web site www.sky-tek.com and went through it carefully. Carlson has many models. There are several ultralights, a very cute replica of the post WW II Piper PA-8 Skycycle, the Sparrow series, and a 2/3 scale Fieseler Storch which is a big plane for a homebuilt. The Skycycle is a single seat, low wing with a Continental 65 hp. The original used a surplus drop tank as the fuselage frame. Carlson uses a steal tube frame covered with fiberglass like a GlasStar. The most interesting thing I found was that Carlson owns the dies to make many different aluminum spars and streamlined struts and other extrusions for stringers etc. I suspect many of the spars available from major parts suppliers come from them. They can provide ribs for several Piper models.

So I decided I needed to see the Sparrow II XTC in person and Garry Howell, Dave Murphy and I flew my Cessna 170B to the Carlson strip near East Palestine, Ohio. It is on the charts as "Aeroflight" east of Canton and just west of the state line with Pennsylvania. We got to see a taildragger version with at Rotax 912 and were pleased with what we saw. See photo.

Then I asked for the names of some builders to contact. About then a picture of one appeared in the June 2003 issue of *Experimenter*, see p. 48. I talked to several builders as well as the fellow whose plane was in the *Experimenter*. He was flying his from his home in Vernal, Utah to Aurora, OR over the Labor Day weekend. I had planned to visit my daughter in Portland that weekend so I met him and he gave me a ride. His plane has a Continental 0-200 which he has modified with Light Speed electronic ignition and high compression pistons. He is guessing it puts out 120 hp. Since he had only flown from Vernal which is 5200 feet elevation, the take off and climb he was getting

near sea level was impressive to him and to me. He likes the plane but he purchased the kit just before Ernie Carlson died and he got very poor service from the company. In his case this was compounded by getting the first version of the Sparrow II XTC with several new features that were not completely worked out. He had a terrible time figuring out control cable routing for folding wings. The option for folding wings is no longer available. His plane is about 2 inches wider than the current version. I left Oregon impressed with the plane but concerned about the company support I might receive.

After reviewing the other aircraft we might build that fit our criteria, we decided to go ahead and order the Sparrow II XTC from Carlson Aircraft. We have had some problems with the instruction manual and consistency of parts (like control surface hinges) but have been able to work through them. The next big hurdle will be building an engine mount for the Corvair and working out the cowling. I bought a deep fiberglass nose bowl specifically made for the Corvair at Sun-n-Fun which, when mated to a 13 inch Vans spinner will give the plane a whole new look. But, you know this will lead to some snags getting everything to work. Such is the life of a homebuilder. At the end of April the wings were completed as far as we have parts. The fuel tanks will be picked up when we get the fuselage in mid-May. The plane will then be assembled and the struts installed to provide proper washout. At that point the wing leading edge skin can be installed and the wings will truly be structurally complete except for the fabric covering.

April Chapter Meeting Minutes

The April 25, 2004 meeting of EAA Chapter 174 was called to order in the Old Terminal Bldg of Clermont County Airport at 2:08 pm by president Tom Jenkins. Officers present included Todd Winemiller, Phil Cady and Scott Hersha.

Awards were handed out to Dave Robertson, Treasurer 2003, Brian Nickels for his efforts with the Young Builders program and Norm Beaudette as website editor and as a coordinator with the Young Eagles program. Thanks were given for their efforts and participation.

The minutes of the previous meeting were approved. The treasurer's report was approved as read. Guests were introduced and invited to join EAA174.

To date, there has not been a vacate notice requiring the library to be moved. The final hangar payment was made in March. The Chapter obligation is finished.

We will not participate in the Blue Ash Airshow as a vendor this year.

Todd Winemiller and Doug Auxier flew in the warbirds show at Sun 'n Fun. Mark Webb worked at the welding tent. Lee Jewell joined Silver Wings while at Sun 'n Fun. National president Don Fairbanks held down the fort at Silver Wings. Scott Hersha, Kathie Doyle and Lee attended forums, workshops, air shows, vendor booths and plane displays.

The Short Wing Piper Club meets in Sault St. Marie, MI, June 21-24. All taildraggers are welcome. Stu Faber suggested a side trip to the Canada Bush Air Museum. EAA Chapter 582 is sponsoring the Bowling Green, OH fly-in and airshow on June 26-27.

Scott Hersha is checking on prices for the rental of aircraft certified scales. Howard Wells and Doug Auxier volunteered the use of their scales.

Phil Cady reported on a meeting which he attended, which dealt with homeland security. From May through September, please keep up with Internet notices regarding partial or full grounding of General Aviation aircraft. There have been some serious threats to our security, several of which involve the use of small aircraft. Check before you fly.

Gary Collins reported the May meeting with photographer and pilot Bill Fortney presenting "America From 500 Feet" will be off-site [at the Airmans Club at Lunken - see notice below - Ed.], on May 16th. All family members and guests are invited to attend this special meeting.

Todd Winemiller announced the Cincinnati Warbirds' fund raiser on May 29th. Proceeds from the benefit will help the club purchase and donate a flight simulator to the new Warbird Museum which is under construction at Clermont County Airport.

Following the 2:50 pm adjournment, an informative in-depth presentation by Glenn and Greg McCaulley brought about a lively interactive discussion on batteries.

Respectfully submitted by Kathie Doyle, on behalf of Lee Jewell, Chapter secretary.

Pilot Harrison Ford Appointed Chairman of Young Eagles Program

EAA has announced that Harrison Ford, who has been an EAA member since 1996, is an active pilot and a Young Eagles Flight Leader with over 90 Young

Eagles to his credit, has been appointed chairman of the Young Eagles program. Mr. Ford has a passion for aviation and sharing it with others, especially young people. An interview with Mr. Ford will appear in the May issue of Sport Aviation magazine.

In addition, EAA also announced that Gen. Chuck Yeager will assume the new post of Chairman Emeritus. EAA is grateful to the General for his support, leadership and guidance through the years as the organization strived to reach its initial goal of flying 1 million Young Eagles. The General will continue to be actively involved in the program, especially through his activities at EAA AirVenture Oshkosh.

Ohio Aerobatic Open

Ohio's local International Aerobatic Club (IAC34) is hosting their annual Aerobatic contest & celebrating IAC 34 30th year anniversary. The celebration and contest will be held on June 26-27th at Bolton Field (TZR) in Columbus, OH. There will be Primary through Unlimited levels of competition.

Chicken and Ribs will be catered by JP's BBQ on Saturday, June 26th. The dinner is \$20.00 per adult and \$10.00 per child.

If you are interested in volunteering during this event, please contact Lorrie Penner at 513-284-5076 or email lorriepenner@juno.com.

Aircraft Registration Write-In Alert

On March 12, 2004, EAA sent out an e-mail e-Alert concerning the aircraft registration tax for aircraft registered in Ohio - it went from \$3.00 per aircraft to \$100.00 per aircraft, no matter what the size. Based on member input, the Ohio Senate has now introduced Senate Bill 230 to change the registration tax from a flat \$100.00 per aircraft to \$15.00 per seat - see www.legislature.state.oh.us/bills.cfm?ID=125_SB_230.

The next step is up to us. Call or e-mail your local state representative, using the links provided below, and let him/her know that you support this proposed change.

Original e-Alert from EAA to e-mail alert subscribers (excerpts): "As you are aware, the FY 2004-2005 General Revenue Budget Bill (HB 95) that was passed in 2003 by the Ohio 125th General Assembly changed the Ohio state aircraft registration license tax to \$100.00 dollars per aircraft, regardless of size. Prior to this bill aircraft registration was based on a per-seat fee of \$3.00.

Several EAA members in the state voiced their concern that a small single seat aircraft like a Preceptor N-3 Pup, a Rans S-14 Airaile, a Mooney Mite or a Pitts Special would pay the same registration fee as a 18 seat Gulfstream G550. EAA agrees that the fee modification is not equitable.

We have learned from our discussion with the state DOT and EAA members in the state that alternate language has been submitted to the Ohio legislature that would change the appropriate section of HB 95 (Section 4561.18). That change would create a more equitable registration fee of \$15.00 per-seat.

This corrected language has not been able to make it into the Capital Bill (the legislative tool for making this type of technical change) due to lack of support. *[We succeeded in getting it in. Now we need to urge the legislators to vote yes on the issue. – Ed.]*

EAA is urging you to call or e-mail your local state Representatives and ask them to support the state DOT Aviation departments request to add to the Capitol Bill the Section 4561.18 change which would modify the aircraft registration fee from \$100 per aircraft to \$15.00 per-seat. Contact information for your local State Representatives may be found in your phone book or on this state web site: <http://www.house.state.oh.us/jsps/SearchbyName.jsp>

In addition to your local state legislator, we also urge you to contact the Speaker of the House, Larry Householder, as he has oversight control of what goes into the Capitol Bill this session. Speaker Householder may be reached by e-mail: district91@ohr.state.oh.us or by calling (614) 466-2575.

Any questions concerning the proposed change should be addressed by calling the State DOT Aviation Administrator, Rudy Rudolph, at 614-793-5041.

EAA encourages you to take immediate action as this change will help general aviation in the great state of Ohio."

Chapter Program for May

Programs Director Gary Collins has arranged a special slide presentation for the May meeting. On May 16, Bill Fortney will present "America From 500 Feet", a photo album of the U.S.

About the Author

Bill Fortney is a professional photographer of 33 years experience. Throughout his career he has worked in a

number of areas of photography. An award winning photojournalist & sports photographer, he was the official photographer for the Washington Redskins during the strike shortened Super Bowl season. As a magazine photojournalist, he has interviewed and photographed over 70 celebrities. Bill has also worked as a medical photographer and does underwater videography. For the past ten years Bill has become one of the best known nature photographers in America. His company, The Great American Photography Weekends is one of the most successful and top rated workshops companies. Over the past seven years Bill has worked with the Who's Who of natural history photography.

Bill and David Middleton produced the runaway bestseller, The Nature of America and Bill Fortney's Great Photography Workshop. Bill is currently working on his new project America from 500 feet. In addition to running workshops, working on book projects and writing for the photography press, Bill has produced a series of video tapes on nature photography.

Bill is currently a Nikon Professional Services Tech Rep for Nikon covering the Southern U.S. Bill, 58, is married and has three adult children and four grandchildren. He and his wife Sherelene reside in Corbin, Kentucky.

Please Note! In order to provide a dark venue for this presentation, the May meeting and program presentation will be held in the Airmans Club at the Terminal Building at **Lunken Municipal Airport**.

Young Eagles Rally, June 5th



This year the Chapter is holding only one formal Young Eagles rally, and it's coming up soon! If you feel you can help the Chapter out in this worthy and rewarding cause, as a pilot or as a ground crew member, please sign up on our website, or call Phil Cady or Norm Beaudette.

Fly-out to Eagle Creek / Indy Trials, May 15th

If all goes as planned, our May fly-out will be to Eagle Creek Airport (EYE), in Indianapolis, to check out the qualifying runs at Indy, which run from 11:00 am until 6:00 pm. Admission to the qualifiers is around \$10, and we'll also need to hire transportation to the raceway and back to the airport (about 4 miles each way). Expect to leave I69 around 9 am and leave EYE by 5 pm. Check our web site for the latest on this.

Hangar Flying

with Stu Faber

May, 2004



HINTS.

BROKEN EXHAUST VALVE. Could be a worn guide or a hot spot due to baffle damage. Check baffles, replace with new from factory.

BLACK OIL. If oil blackens quickly could be a pin hole in fuel pump diaphragm or damaged cylinder wall.

DIRECTORY. *General Aviation News 18 Mar 04.* A detailed directory of home built kits and plans.

PROGRESS. You have probably seen the modified lawn tractor used as a tug to move airplanes around Clermont County Airport. It lifts and holds the nose gear while it moves the plane. Jane's Airport Review, Jan/Feb, carries an article and several ads on available equipment for handling large airliners the same way. It eliminates the awkward tow bar. A number of other pieces of equipment are also available which speed ground operations allowing shorter turn around times. There is an electronic device which guides the pilot to a precise parking spot.

A Wall Street Journal article points out that the most airline delays are caused by airport lack of capacity. It also reported that airline mechanical problems are more widespread than reported mostly due to poor management of maintenance.

Another trend in major airports is to make them into shopping malls also as a way to get more revenue.

HISTORY NOTES. It has been said that the two hangars at the east end of the row at Lunken Airport were given to Grizzard Airport (Blue Ash) in the early 1920s by the military for a reserve unit, and later moved to Lunken.

Recently a group known as Lunken Airport Benefit Assn. has received non-profit status. They were the organizers of the 2003 Air Show. They are being assisted by a group which helps non-profits run events which raise some funds. The Cincinnati aviation history group which has been meeting recently is now a committee of the LABA. There seems to be considerable interest. A number of persons seem to have collections of relevant material. Once Lunken was the largest municipal airport.


BATTERIES. Although I could not stay for full discussion of batteries at the last meeting I did serve as an aircraft electrician for a while during WW II. Nobody else would do it. Batteries were a major part of the job. At the meeting a discussion of alternators developed. They are called alternators because they alternately develop alternating and direct current each revolution. Diodes act as check valves blocking alternating current and allowing direct through. Voltage will change with speed but a regulator will limit it to voltage required. B-24s had five 200 amp *generators*. One cut in at 800 rpm for starting the other engines.

An auto alternator can be used to run much 120 volt AC equipment if run at the right speed. In regular use auto alternators are designed to run at a wide range of speeds as many autos can run from idle to more than twice the speed of most aircraft engines. Fast charge and discharge is very hard on lead/acid batteries. They get too hot and it damages them internally and shortens their lives. They discharge slowly when not used and then when the engine starts, charge too fast. Any charge rate over 4 to 6 amps is hard on auto batteries. Long cranking is too. At low temperatures they may have only half the power available when warm.

I once had a small solar charger on the outside of the hangar which I could plug in to keep the charge up. It seemed to work. It only takes a few milliamps. One amp will boil the water out over time. Keeping batteries and connections clean is important.



Upcoming Events of Interest to Chapter Members

- **174** May 16, Sun. **Chapter Meeting**. Airmans Club, Terminal Building, Lunken Municipal Airport, Batavia, OH, 2:00 pm. ***Special guest: Bill Fortney, photographer, pilot and coauthor of "America From 500 Feet"***.
 - **May 23, Sun. EAA Chapter 36 BBQ**, Troy, OH. Call 937-335-1444.
 - **May 23, Sun. Starke County Fly-In / Drive-In**, Knox, IN. Call 877-772-5002.
 -  **June 5, Sat. Chapter 174 Young Eagles Rally**. Old Terminal Building, Clermont County Airport, approx. 8:30 am registration.
 - **June 12, Sat. Mentone Flying Club Fly-In Pancake/Sausage Breakfast**, Rochester, IN. Call 574-551-1635.
 - **June 12-13, Sat-Sun. Blue Ash Airport Days 2004**, Blue Ash Airport (ISZ), Blue Ash, OH.
 - **June 17-20, Thu-Sun. 12th National Aeronca Association Convention**, Middletown, OH. Call 309-853-8141.
- **174** June 19, Sat. **Chapter Meeting and Pancake Breakfast Fly-In**. Old Terminal Building, Clermont County Airport, 9:00 - 10:00 am.
 - **June 20, Sun. Father's Day Fly-In**, Connersville, IN. Call 765-827-3040.
 - **June 21-24, Mon-Thu. Short Wing Piper Club National Convention**, Sault Ste. Marie Municipal Airport (ANJ), Sault Ste. Marie, MI.
 - **June 24-26, Thu-Sat. Wings Weekend 2004**. Earn your FAA pilot proficiency wings. Get up to 3 hours free dual flight instruction in one day. Free seminars, displays, gala banquet. Butler County Regional Airport, Hogan Field (HAO), Hamilton, OH.
 - **June 26, Sat. Plane Fun 2004**, Bowling Green, OH. Call 419-666-0503.
 - **June 26-27, Sat-Sun. Ohio Aerobatic Open**, Bolton Field (TZR), Columbus, OH.

Next Chapter Meeting
Sunday, May 16th, 2004, 2:00 PM



PLEASE NOTE !!! Our May meeting is at Lunken Airport !

Program:

"America From 500 Feet"

presented by Bill Fortney

photographer, pilot and author

Airmans Club - Terminal Building

Lunken Municipal Airport

All aviation enthusiasts welcome!
