



A Successful Failure

Now that Fall has arrived the museum is preparing to hibernate for the winter. Our last weekend of regular hours is behind us and the airplanes are being prepared for storage for the usually cold winter. The museum staff is also breathing a sigh of relief that we made it through last few months of the season. Usually we are planning the next year's calendar at this time and thinking of ways to improve the museum for future visitors. This year is a little different. The staff is scrambling to recover from all of our bad luck that has plagued us since the Fall Fly-In before thinking too far in the future.

The streak of bad luck started a few days before the event when we found out that Kauffman's Barbecue Ranch would not be open to supply the Fly-In participants the Saturday evening chicken dinner. The staff decided we would, under the direction of Paul Sr., all pitch in to make a spaghetti dinner. That was the plan until Saturday, all of the other bad luck would play out by Saturday afternoon. That morning the Bird biplane, our ride airplane, was indicating unusually high oil pressure. Upon further investigation we determined we had an internal engine problem. Working tirelessly the volunteer mechanics tried to fix the problem but determined it would not fly for the rest of the Fly-In or the season. The repairs will take most of the winter to complete. Our bad luck did not end there. In the weeks prior we had been test flying the Rumpler C.V biplane. The idea was to debut it during the Fly-In, and debut it we did. It was an event that was a first for the visitors and us. Just after liftoff with my machine gunner, museum director Harry Burak in the rear seat, the engine began to lose power. Fearing that we would not be able to clear some obstacles I was forced to attempt a landing in a very small field. The saying, "any landing you can walk away from is a good one" certainly applied to this one. The left wheel collapsed on touch down and an impressive Hollywood-style ground loop followed. The Rumpler came to rest on its nose and thankfully we were not hurt, but I wish I could say the same for the airplane. The restoration

team will spend a large part of the winter making repairs.

This is where the failure started becoming a success. Paul Sr. was the first to locate us in the remote field, and then volunteers came out of the woodwork. After a short conversation with the State Police and the local FAA we were able to remove the wings from the Rumpler and return it to the airfield. With all of the volunteer help it did not take too long. Worried that the Fly-In was not going well while all of the key personnel were working on the Rumpler, I was pleased to find on my return that the Fly-In was still going on and was being run very well. Volunteers worked double time and did new jobs to keep the event running smoothly. Many of the wives and girlfriends jumped right in to help prepare the evening dinner. It was a beautiful thing to see, since volunteers have always been in short supply at our events, but a gap needed filling and museum members came to the rescue. To name everyone that was involved in making the event a success after such failure would be too numerous, but I would like to extend a heartfelt thank you to all of you who pitched in.

The other bright spot of the Fall Fly-In was the acceptance of a new flying machine. Through the generosity of Sam and Julie Clipp of Pennsburg, Pennsylvania, the museum was presented with an airworthy 1941 Culver Cadet aircraft. Sam had owned this airplane for many years and was a regular visitor to our events. Sam decided that it was time to see it go to a new home and chose the GAAM as the lucky recipient. The museum is very grateful to Sam and Julie and we thank them for their generosity. Be sure to see the Cadet on your next visit.

Another season is behind us now and the staff and I would like to thank every one of our members and volunteers for making it possible. Again, thank you for your continued support.

Sincerely,
Paul D. Dougherty Jr.
President

Restoration News

A busy museum season is behind us now and with the unfortunate events of the past few months the restoration shop will be a very busy place over the winter.

The project with the highest priority is returning the Bird biplane to airworthy status. An unusually high oil pressure indication lead to the total disassembly of its Kinner B-5 radial engine. A defect was eventually found between the crankshaft and the gear that the starter uses to turn the engine. The defect had cut off the oil supply to some of the engine's components. Fast thinking and quick actions by the pilot at the time, Eric Lunger, limited the damage. The problems are well under way to being corrected and the Bird should return to flying status by spring. This was a wake up call for the museum staff; it got us thinking about what we would do if this had happened at the beginning of the season. With that in mind, we decided it was time to rebuild a second Kinner engine to have ready if the need arises again. With a second engine ready to install, the Bird would only be down for a day or two if this or something similar would happen again. So now the staff is readying two Kinner engines for next season.

The next priority for the staff is the Ranger powered Great Lakes biplane. Over the past few years we have been plagued with problems with this airplane. As it is one of the workhorses it will need to be ready for the next flying season. The current problem was first noticed over the summer, it was consuming an unusually high amount of engine oil. Upon further inspection a crack in one of the cylinder walls was detected. The cylinder was removed and a new one has been ordered and will be installed soon. The other nagging problem with the Great Lakes has

been the design of the engine oil tank. The tank does not supply oil to the engine very well when the oil level starts to go down. A normal functioning Ranger engine will consume one to two quarts of oil per hour; because of this a new larger and more efficient oil tank will be installed. The Great Lakes should also be ready for another season of fly-bys, aerobatics, and glider towing.

In addition to the above repairs taking place the repairs to the Rumpler C.V are also well under way. A cause for the engine's loss of power has not been determined yet, but the airframe repairs are progressing. The lower left wing was damaged in the off-field landing, the rear spar was broken just outboard of the outer struts. A new section of spar has been spliced in and the necessary rib repairs are being made. During the landing, the left wheel was destroyed and the right wheel and axle were bent. A new set of wheels and tires has been secured to replace the old ones. The landing gear legs were also bent and will be removed over the winter for repairs and repainting. Once the airframe is secure on a good landing gear the engine will be addressed. The staff is hopeful that the problem, although it took the airplane out of the air, is simple. Even though the airplane came to rest on its nose there is no major damage to the propeller or engine crankshaft.

Last and not forgotten, is the Jenny restoration project. A small amount of progress has been made. The fuel tank has been remanufactured and painted. Also the painting of several other small components is being completed before the weather turns to cold to paint. If any spare time can be found, the fuel tank and the fuel system will be installed. As soon as all of the high priority projects are completed and if nothing else breaks the Jenny will be the prime focus of the restoration staff.



Above: It's WWI all over again; the Rumpler C.V strafes the field.

Above right: The Rumpler just after the emergency landing.

Right: A close up of the damage to the landing gear.



Photos by Gerry Wild

Welcome New Members

Jeff & Karan Saitto & Family, Media, PA
Charles & Trudy Morshead & Family, Auburn, PA
Clement Zilka, Bensalem, PA
Tom Dawson, Metaire, LA
Dorrance Lance, Bridgeton, NJ
David & Maryellen Schaller & Family, Pennsburg, PA
Stephen Brown, Huntington Valley, PA
John Weckerle, Plainview, NY
Curt Hopkin, Skippack, PA
Robert D. Martin, Ephrata, PA
John Winger, Scranton, PA

Lifetime Member Renewals

Samuel & Julie Clipp, Pennsburg, PA
Kate & Michael Macario, Malvern, PA
Gene Breiner, Newville, PA
William & Tamar Earnest, Allentown, PA

Calendar of Events

The 2006 events will include:

- **Bus Trip & Dinner**
- **Membership & Tour Guide Meeting**
- **Barnstormer Day**
- **Summer Fly-In**
- **Flying Circus Airshow**
- **Fall Fly-In**

Dates will be announced in the next newsletter.

Great Holiday Gifts Biplane Ride Gift Certificates

15 minute ride

One person \$80 Two people \$90

30 minute ride

1 or 2 people \$165

Available at the Golden Age Air Museum.

Call (717) 933-9566

Simply call with Visa or Mastercard

Donations

Samuel & Julie Clipp, Pennsburg, PA
1941 Culver Cadet Aircraft
Walter H. Grimes Estate, Robesonia, PA
Portable Runway Light System & Piper Aircraft Parts
Harry Menear, Harrisburg, PA
T6 Hydraulic Cylinders & Vintage Aviation Magazines
Debra & Stephen Dougherty, Milmont Park, PA
\$250 In Memory of Mary Ann & Frank Dougherty
Krista & Brian Dougherty, Pennsauken, NJ
\$250 In Memory of Mary Ann & Frank Dougherty
Roy Layton, Manheim, PA
Antique Aircraft Radio & Aviation Magazines
Ken Cassens, Stone Ridge, NY
Taylor Cub Tire & Wheel
Rufus Groff, Manheim, PA \$100 Donation
Joanne Storch, York Springs, PA
Bound EAA Magazines In Memory of John Storch
Bill Atherton, Stockertown, PA
Vintage Aircraft Rigging Manual & Aircraft Drawings
Quentin Veil, Wyomissing, PA
Aviation Memorabilia
Stephen Pitcairn, Robinsville, NJ \$300 Donation
John Hess, Manheim, PA \$100 Donation

*Our sincerest apologies if we have missed any
one of our valued donors.*

Volunteer Projects

Volunteers are needed for the following:

- Daily tour guides
- Special events
- Building painting
- Grass cutting
- Link trainer restoration
- Aircraft cleaning & waxing
- Engine displays
- Sign painting and construction
- Restoration work
- Special events

Wanted

- Male adult mannequins and showcases for displays of military & aviator uniforms
- Golf cart (electric or gas)
- Tig welder system
- Kinner B-5 engine parts

The Culver Cadet LFA-90

Produced on the heels of the racy Culver Dart, the Culver Cadet was a unique design for 1940. The brainchild of legendary designer Al Mooney, later of Mooney Aircraft, the Cadet turned the heads of the aviation world. The prototype was first named the “Model L” upon its rollout in late 1939, then for a short time it carried the name of its predecessor the “Dart”. It quickly was renamed the “Cadet” to signify its differences from its predecessor. A very small, economical, and fast little ship the Cadet became a very popular choice of pilots in the early 1940s. With a retractable landing gear and built entirely of wood the Cadet offered high performance on a modest budget. Originally featuring a seventy-five horsepower Continental four-cylinder engine, the model LCA. It could carry two people at one hundred and thirty miles per hour on five gallons of gas per hour. The seating is side by side with control sticks at each seat. All this could be had for a small investment of \$2,200. It became so popular with businessmen and sport pilots that orders were being placed for new models without the purchasers having ever seen one.

Feeding on the airplanes triumph, K.K. Culver was looking for a new facility and workers to construct his feisty little ship. With the interest of Walter Beech, of Beechcraft Aircraft fame, and one of the builders of the museum’s Winstead Special airframe, Culver decided to move their facility from Port Columbus, Ohio, to Wichita, Kansas. Walter Beech would eventually take the helm of the Culver Aircraft Company from K.K. Culver Jr. With a great facility and a very desirable product the Cadet started to evolve. It was next produced with an eighty horsepower Continental engine. It was next offered as the model LFA with an eighty horsepower Franklin, and finally as the model LFA-90 with a ninety horsepower Franklin engine. Performance of course improved with each new model. The LFA-90 now included an electric starter, generator, and lights. Even with the addition of an electric source all models of the

cadet retained a mechanical hand operated system of retracting and extending the landing gear. All of the Cadets have built in slots just aft of the elliptical wing leading edges to improve aileron control at lower speeds. The final version of the LFA-90 sold for \$2,617 at the Wichita factory and west coast customers were surcharged an additional \$90.

The museum’s new Cadet is a 1941 model LFA-90 Cadet. It is very spirited and a pure delight to fly. It has a very light feel and is very responsive. It is a little bit small for a six feet two inch tall pilot, but manageable. Even though the ground handling is very straightforward, it is more challenging to control than your average small tail dragger. Takeoffs are energetic with one person and slightly slower and longer with two people on board. The ninety horsepower Franklin pulls the little craft upward at a nice rate. The adventure in flying a Cadet begins with the gear operation. Retracting the gear after takeoff can usually be accomplished with one hand. A locking lever needs to be moved over one detent and three revolutions of a hand wheel crank will retract the gear. Extending the gear is another story; it is a three-handed operation, one to fly the airplane, one to turn the hand



Photo by Melissa Lambert

Sam Clipp (center) presents the Culver Cadet to Paul Dougherty Jr.(left) and Paul Dougherty Sr. (right) who accept it on the museum's behalf.

wheel, and one to unlock the lever. The Cadet is not an airplane that you can let go of the control stick for more than a second or two, which is not enough time to retract the gear. Upon gear extension the airplane usually gets put through some mild aerobatic maneuvers as the pilot tries to fly with his knees and uses both hands to operate the gear. Landings are adventurous but easily accomplished. All this aside the Cadet is a very delightful airplane to fly.

The museum is very grateful to Sam and Julie Clipp for their generous donation of this historic airplane. It is a very worthy addition to the Golden Age Air Museum collection.

Cadet Statistics:

Empty weight806 lbs
Gross weight1305 lbs
Wingspan27' 0"
Length17' 8"
Height5' 6"
Landing gear width79"
Fuel capacity.....20 gallons
Cruising range.....500 miles
Stall speed.....51 m.p.h.
Max speed.....142 m.p.h.
Fuselage:Plastic-bonded plywood monocoque
Wings: Fabric covered wood



Photo by Melissa Lambert

A beautiful view of the Culvert Cadet in front of the museum hangar and windsock tower.

***Thank you,
to all of the volunteers & donors who made the
2005 season possible!***

Membership Information

Four types of memberships are available:

Lifetime membership.....\$500.00
Yearly family membership.....\$35.00
Yearly individual membership.....\$25.00
Corporate sponsor.....\$1,000 annual

Members will receive four copies per year of this newsletter, discounted or free admission to museum activities, and a 10% discount on gift shop merchandise. Lifetime members will receive an embroidered baseball hat.

Museum Information

Golden Age Air Museum

Hours: Friday & Saturday 10-5, Sunday 11-5
May through October, year round by appointment

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Museum Volunteer Staff

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Newsletter Editor: Melissa Dougherty

Board of Directors

Paul Dougherty Jr. / Chairman Harry Burak
Paul Dougherty Sr. Michael Cilurso
James McCord, Director Emeritus

Current Museum Collection

1917 (R) Rumpler C.V {UR}
1917 Standard J-1 {UR} off premises
1918 Curtiss JN4D "Jenny" {UR}
1918 (R) Fokker Dr I Triplane{AR}
1924 (R) Dormoy Bathtub {AR}
1926 Winstead Special {F}
1927 Travel Air 2000 {AR} in storage
1929 Cessna AW {AR}
1929 Star Cavalier Model B {AR} in storage
1930 Star Cavalier Model E {AR}
1930 (R) Great Lakes Sport Trainer {F}
1930 Fleet Model 7 {F}
1930 Allison Sport Plane {AR}
1931 Brunner Winkle Bird {F}
1932 Pietenpol Air Camper {F}
1932 Taylor E-2 Cub {F}
1934 Monocoupe 90A {AW}
1936 Aeronca C-3 Master {UR}
1941 Culver LFA-90 Cadet {F}
1946 Taylorcraft BC-12D {F}
1949 Cessna 195 {F}
1970 Breezy {F}
1971 Great Lakes {F}
1927 Ford Model TT Truck "Henry"
1930 Ford Model A Roadster
*{F} Flying, {UR} Under Restoration,
{AR} Awaiting Restoration*



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