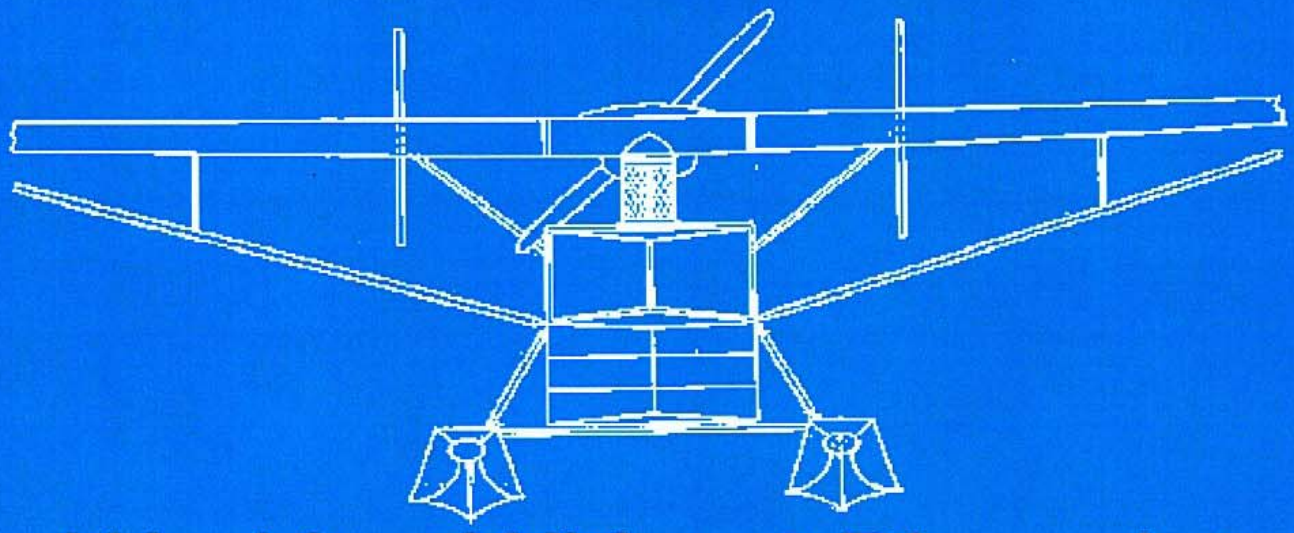
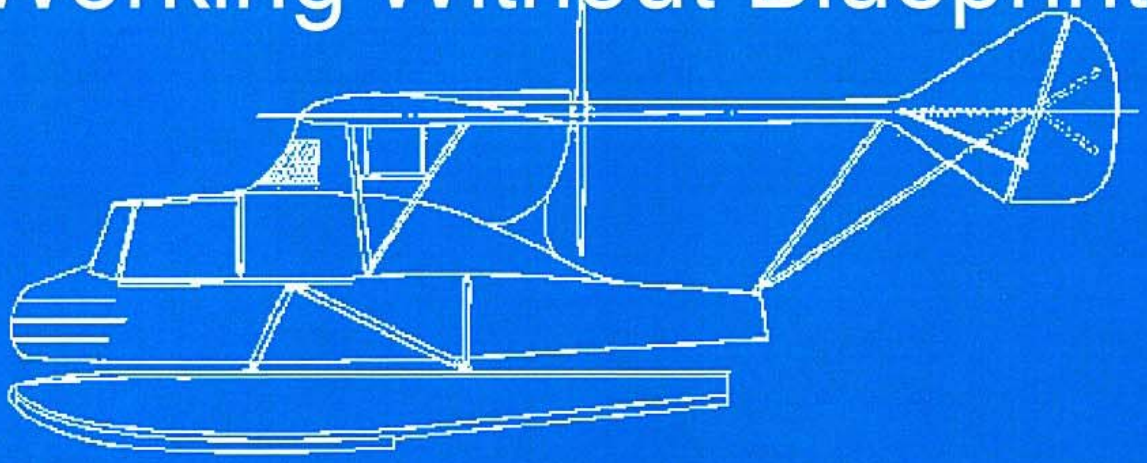
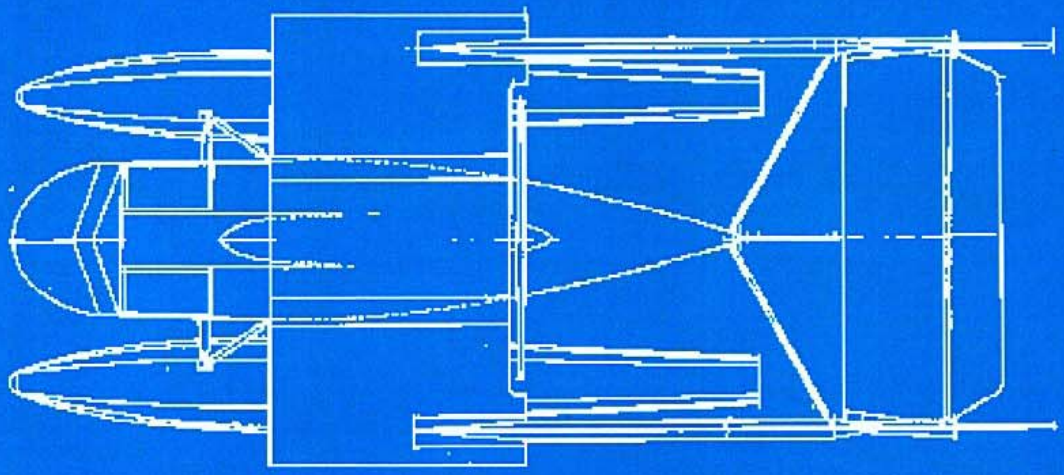


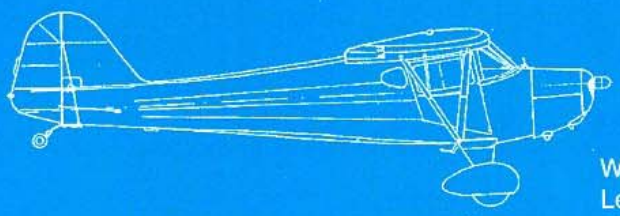
Working Without Blueprints©



The Story of the "Curlycraft"



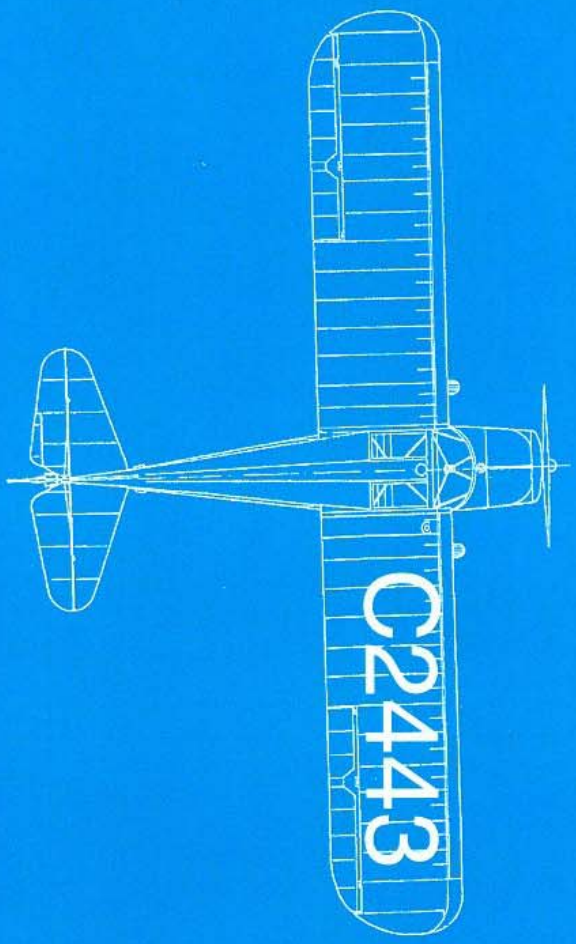
by: Don Shumaker



TAYLORCRAFT®

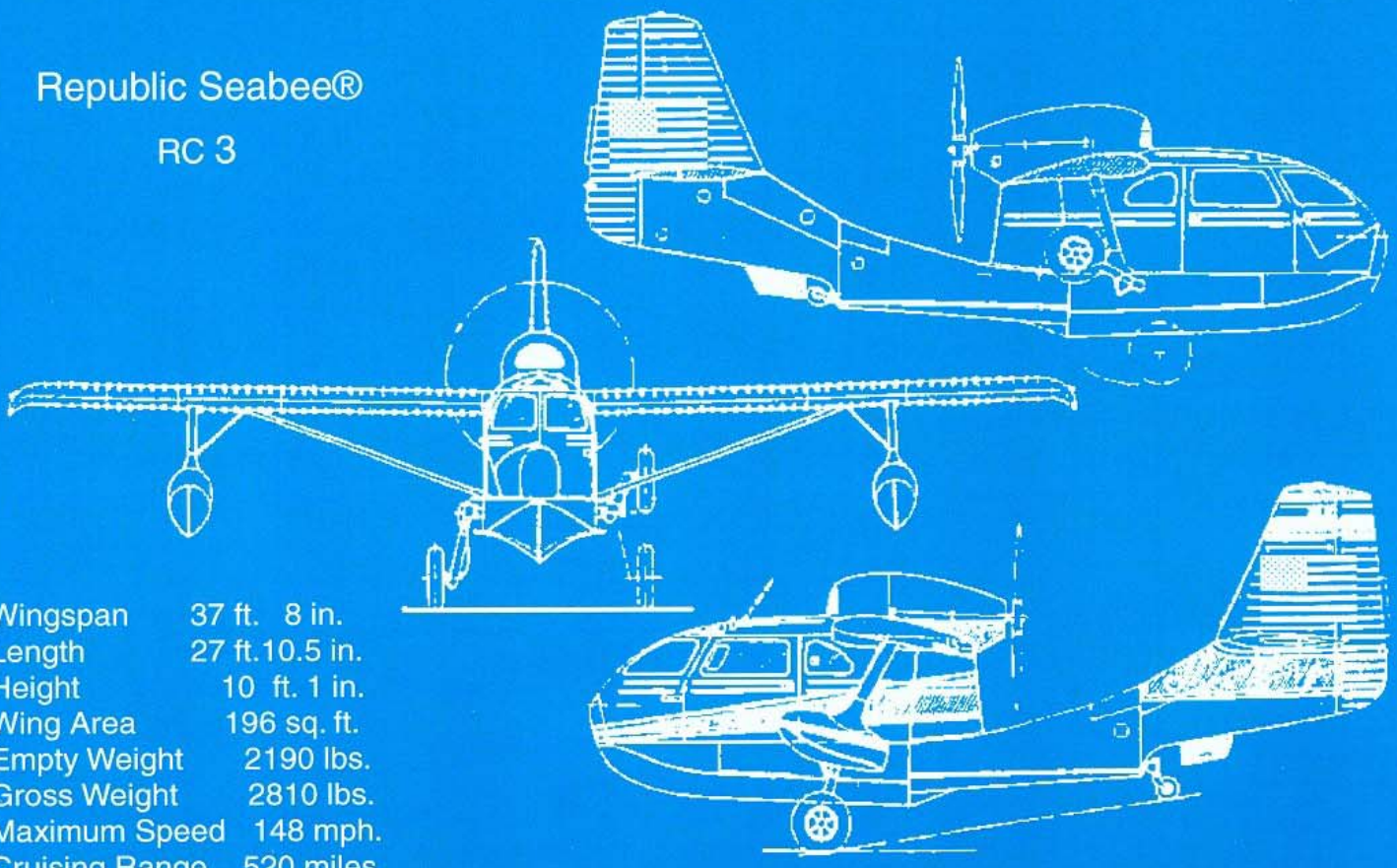
BC 12

Wingspan	36 ft. 0 in.
Length	22 ft. 0 in.
Height	6 ft. 8 in.
Wing Area	184 sq. ft.
Empty Weight	670 lbs.
Gross Weight	1150 lbs.
Maximum Speed	110 mph.
Cruising Range	500 miles
Service Ceiling	17,000 ft.



Republic Seabee®

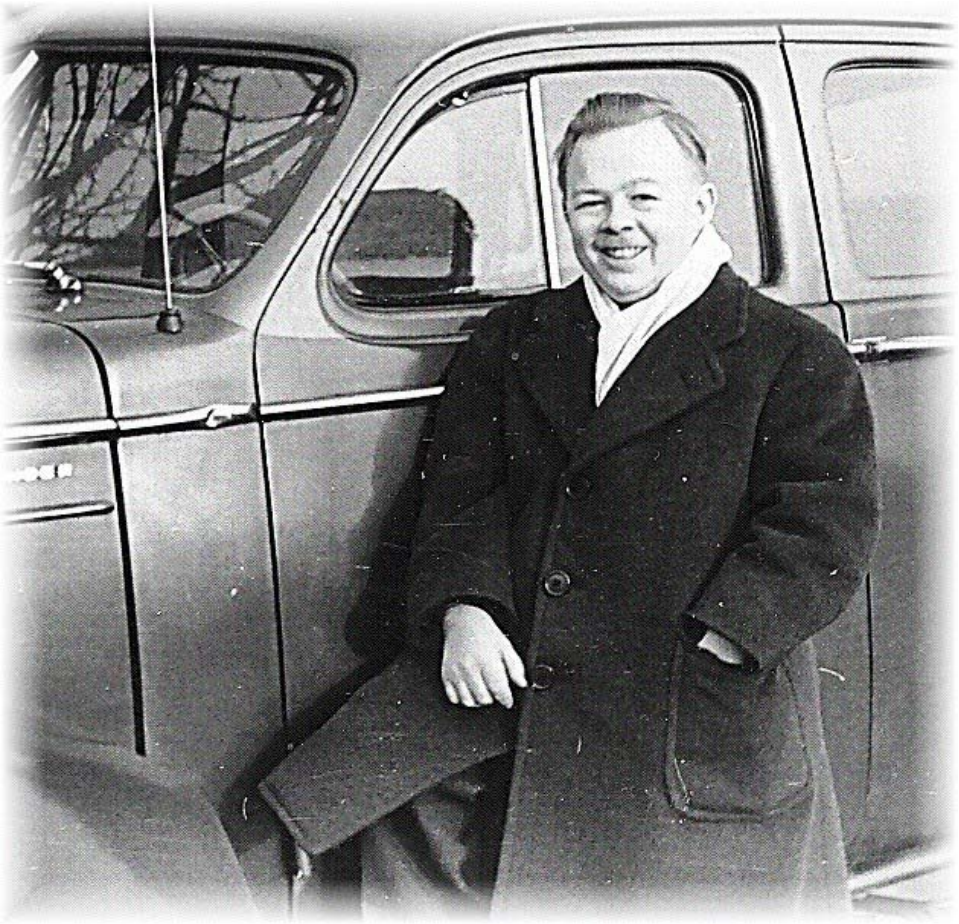
RC 3



Wingspan	37 ft. 8 in.
Length	27 ft.10.5 in.
Height	10 ft. 1 in.
Wing Area	196 sq. ft.
Empty Weight	2190 lbs.
Gross Weight	2810 lbs.
Maximum Speed	148 mph.
Cruising Range	520 miles
Service Ceiling	12,000 ft.

Don Shumaker Custom Miniatures
Pittsburgh, Pa.
Scale: 1: 60 Drw: DS/JN Date: 1946

This book is dedicated to my friend and mentor.



Robert “Shorty” Moore

From: My photo collection

Acknowledgment

This book could not have been written had it not been for Robert “Shorty“ Moore. He had insisted that I keep a log or a project book of the work that we did on this seaplane and made sure that I kept my entries up to date.

Steve Kohut was a lot of help with information on the second phase of the seaplane project. His daughter, Rita Kohut Stone, supplied me with photographs and documents that her dad had collected over the years. Many thanks to her for allowing me to use them in this book.

Special thanks to my wife, Geneva, my son, Dean, and friends for making sure I had things in order, including Harry Lapham, Carolyn Norris, Kayla Pongrac, Carolyn Peat, Flora Balmer, the late Clifford Ball and the late D. Barr Peat.

Last but not least thanks to the staff at Atlas Printing in Somerset,Pennslyvania for their help with Pagemaker® and making a printed and pdf version possible.

Introduction

As mentioned in the acknowledgment, this book is the result of keeping a log of the construction and building of an experimental amphibian seaplane. It was a dream of two Pittsburgh aviation pioneers, D. Barr Peat and Kenneth "Curly" Lovejoy. They had the financial backing of a Pittsburgh industrailist, H.J. Heinz II. (Figure 1, Page 6) The building of this seaplane was started in 1944 in a garage owned and operated by a well known aircraft, marine and auto mechanic, Steven J. Kohut, located at 17th and McClure Streets, Homestead, Pa..

They had no drawings or blueprints for this seaplane project. They made use of a wrecked 1938 Taylorcraft airplane. Due to the war there was a shortage of critical materials. It was very clever how they rearranged the parts and tried to keep the same dimensions. They, however, did not do very well keeping the same weight. Still, it was a great achievement, to be able to make a tractor type airplane into a pusher type airplane without drawings or blueprints.

The only construction drawings or blueprints for this seaplane project were made by me about a month after the official test flight. I made these to build solid models of this experimental seaplane. They were made for D. Barr Peat , Curly Lovejoy and H.J. Heinz II. One of these models ended up at a display at the Greater Pittsburgh Airport and in Clifford Ball's office at the Greater Pittsburgh Airport. It was returned to me by a member of the Aero Club to be refinished, and I refinished and remounted it in 1967. It was redone again in 2005. (Figures 2 & 3, Page 7)

Eventually this seaplane met the same fate that befell many light aircraft after the war. The aircraft market was flooded with all metal airplanes such as the Ercoupe, Beechcraft Bonanza, Cessna, Navion and, of course, the Republic Seabee.

In 1955 Taylorcraft designed and built a four place model using a fiberglass outer shell. It was a slick looking airplane. They built a plant in Conway, PA., but by the time they had resolved their manufacturing and certification problems the economy made a downturn. Taylorcraft was ahead of their time with composite construction in the aircraft industry. General Motors came out with the Corvette.

The photograph below is from the “Libary and Archives Division, Historical Society of Western Pennsylvania, Pittsburgh, PA.”

Figure 1

Kenneth “Curly” Lovejoy H. J. Heinz II

Curly Lovejoy and Mr. H.J. Heinz looking over artist sketches of various seaplane configurations. They discarded them, according to D. Barr Peat, in favor of a wrecked 1938 Taylorcraft because there was a shortage of materials for building airplanes.

Model of the Curlycraft

Figure 2

Figure 3

From: My photo collection

Introduction to Kenneth “Curly” LoveJoy

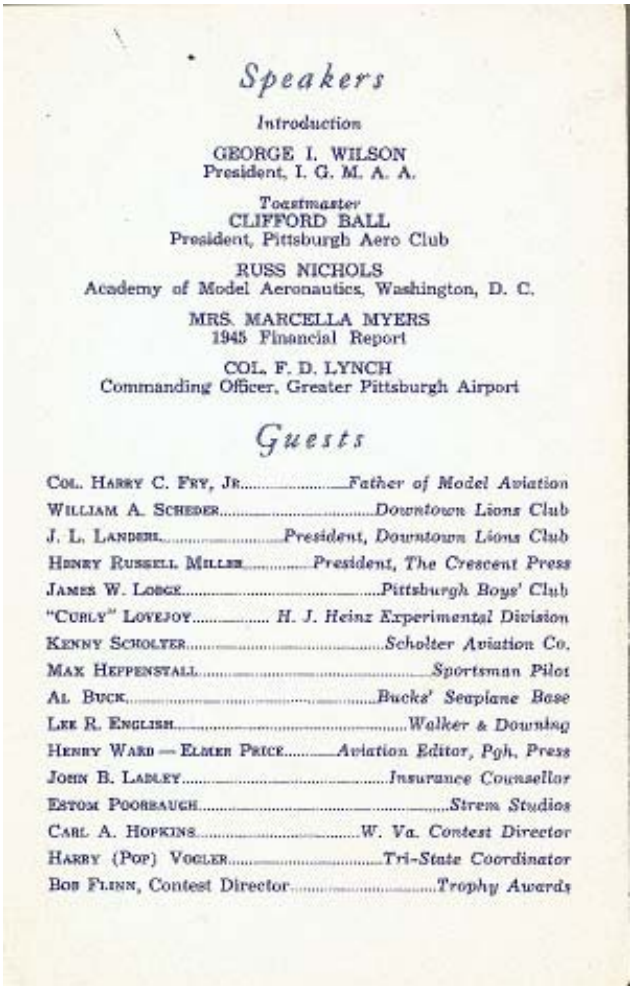
On October 13th 1945, Shorty Moore and I attended the International Gas Model Airplane Association (IGMAA) banquet held at the YMCA in downtown Pittsburgh. (Figures 4 and 5, Page 9 - Copy of the original program and menu). I really enjoyed these meetings and banquets, because they always had excellent programs. The two of us arrived early so we could socialize with other members like Kenny Scholter. Kenny was a member and a great booster of the IGMAA. As base operator of the Pittsburgh-Butler Airport he, allowed the IGMAA to hold flying model airplane meets at the far end of the field on weekends. (Figures 6, 7 and 8, Page 10 - photographs of the model airplane contest meet at Butler field.)

Max Heppenstal was also a IGMAA member and booster. He would give the members rides in his Staggerwing Beechcraft and would work as an official at the model airplane field. I was working on a solid model of his airplane and bringing him up to date on his model when Harry “Pop” Vogler interrupted our conversation to tell me that Shorty Moore wanted to introduce me to someone. That someone happened to be Kenneth “Curly” Lovejoy. He explained his seaplane project and asked if I would work with Shorty Moore on his project. (Figure 9, Page 11- Curly Lovejoy at the Pittsburgh Press Air Show in 1938 at the Allegheny County Airport).

Curly Lovejoy had asked Pop Vogler if he could recommend some local aircraft builders. He invited Curly Lovejoy to this IGMAA banquet as a speaker and to meet some of its members. (Figures 4 and 5, Page 9 - look at the guest list of speakers on the copy of the program). (Figure 10 Page 11- photo of PopVogler, Shorty Moore and me).

I will always be grateful to Robert “Shorty” Moore for asking me to be part of that great aviation project. It afforded me the opportunity to meet many Pittsburgh aviation pioneers, which I had seen at the Allegheny County Airport and Bettis Field. I have many fond memories of the air shows held at those airports, especially the Pittsburgh Press Air Shows. My buddies and I would ride our bicycles to watch the mail plane drop the mail and make a pickup at a site above Wilkinsburg.

Figure 4



Speakers

Introduction

GEORGE I. WILSON
President, I. G. M. A. A.

Toastmaster
CLIFFORD BALL
President, Pittsburgh Aero Club

RUSS NICHOLS
Academy of Model Aeronautics, Washington, D. C.

MRS. MARCELLA MYERS
1945 Financial Report

COL. F. D. LYNCH
Commanding Officer, Greater Pittsburgh Airport

Guests

COL. HARRY C. FRY, JR. ..... *Father of Model Aviation*
WILLIAM A. SCHEDER ..... *Downtown Lions Club*
J. L. LANDERS ..... *President, Downtown Lions Club*
HENRY RUSSELL MILLER ..... *President, The Crescent Press*
JAMES W. LODGE ..... *Pittsburgh Boys' Club*
"CURLY" LOVEJOY ..... *H. J. Heinz Experimental Division*
KENNY SCHOLTER ..... *Scholter Aviation Co.*
MAX HEPPENSTALL ..... *Sportsman Pilot*
AL BUCK ..... *Bucks' Seaplane Base*
LEE R. ENGLISH ..... *Walker & Downing*
HENRY WARD — ELMER PRICE ..... *Aviation Editor, Pgh. Press*
JOHN B. LADLEY ..... *Insurance Counsellor*
ESTOM POORBAUGH ..... *Strem Studios*
CARL A. HOPKINS ..... *W. Va. Contest Director*
HARRY (POP) VOGLER ..... *Tri-State Coordinator*
BOB FLINN, Contest Director ..... *Trophy Awards*

Figure 5

A copy of the original program for the IGMAA 1945 fall banquet.

I still have the original program.

Model flying field at Pittsburgh-Butler Airport
August 1945

From: My collection

Official's Tent

Registration and weigh-in

Fig.ure 6

Shorty and I helping a contestant
to get his engine running for
a ground take-off

Figure 7

Engine stopped running.
Well, try it again.

The plywood ramp is for
ground take-off
R.O.G. (rise off ground)

Figure 8

Kenneth “Curly” Lovejoy

1938 Pittsburgh Press Air Show

Curly and his Curtiss Pusher

Photo from E.L. Shryock’s collection

Figure 9

Figure 10

Harry “Pop” Vogler Robert “Shorty” Moore Don “Curly” Shumaker

September 1945 Pittsburgh - Butler Airport Model Airplane Field

From: My Photo collection

Starting the Lovejoy Project

Tuesday, October 16th 1945 after meeting Kenneth "Curly" Lovejoy, Shorty Moore and I went to a garage in Braddock to meet Steve Kohut and to start working on the seaplane. The garage was owned and operated by Matta Motors and was not currently in service due to the war. On the second floor was a fabricating shop operated by William Matta, who manufactured aircraft seat and frames for the U.S. Navy.

Our first day consisted of cleaning up and sorting out usable parts. We moved the floats and fuselage to the center of the shop.(Figures 11 and 12 - Page 13 - shows the cut up fuselage mounted to the floats) The seaplane was assembled with wings, booms and tail assembly at Steve Kohut's garage and it was dismantled for moving. (Figures 13 and 14, Pages 14 and 15)

Shorty was under the impression that all we had to do was cover the seaplane. with fabric. If you look at the photographs in Figures 13 and 14 that was not the case. Curly said they used an old wrecked Taylorcraft to make this seaplane. This gave Shorty the idea he was looking at a couple of weeks of work.

The fuselage was cut at the firewall to remove the engine mount so they could mount it in the rear. Curly decided that he wanted a pusher type seaplane since he was fond of the Curtiss Pusher he once owned. He felt it would be great for docking and would not be so hard on the propeller or the deck hands.

From the photos in Figures 13 and 14: you can see the configuration of the design that Curly wanted. The seaplane has a twin boom for the tail assembly and the rear of the fuselage has a bobtail. The fuselage wings attachment points were removed and moved to a pylon. The engine mount was also moved to the pylon. Curly had mentioned that he wanted the center line of engine thrust along the center line of the wing cord, to eliminate pitch change with throttle change.

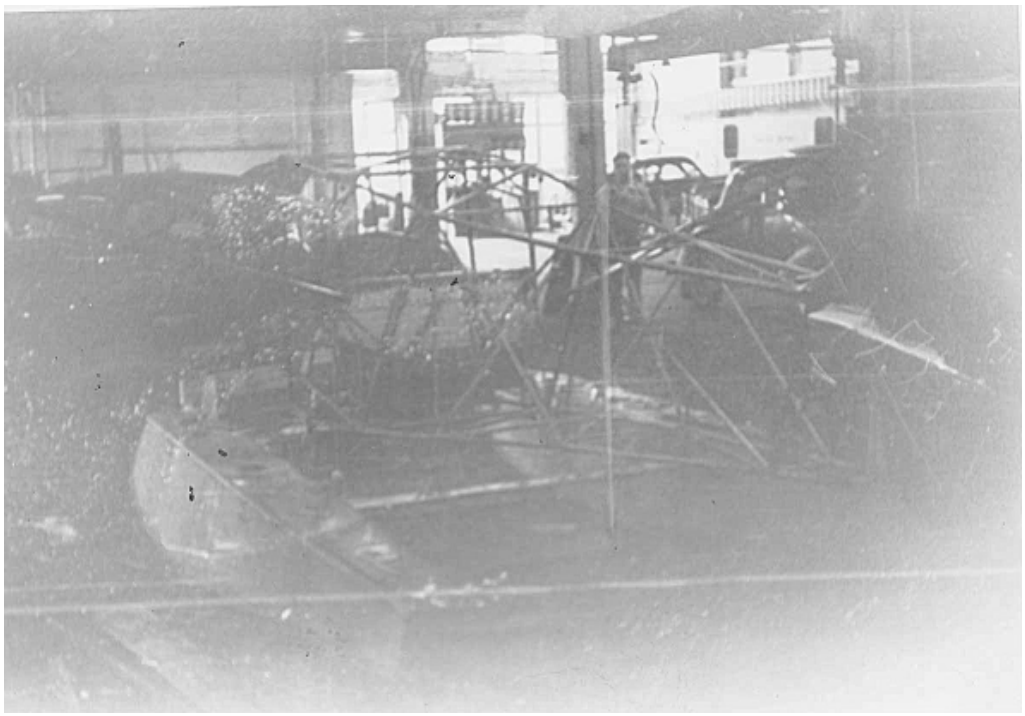


Figure 11
This photo was taken at Steve Kohut's garage.
It was dismantled for trucking to Matta Motors
Rita Kohut Stone's collection

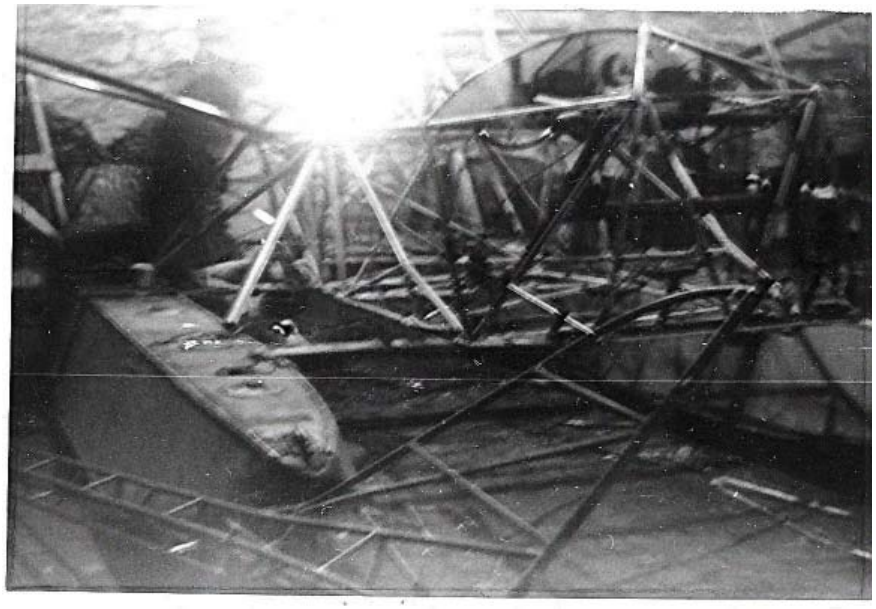


Figure 12
At Matta Motors
Photo by: Shorty Moore

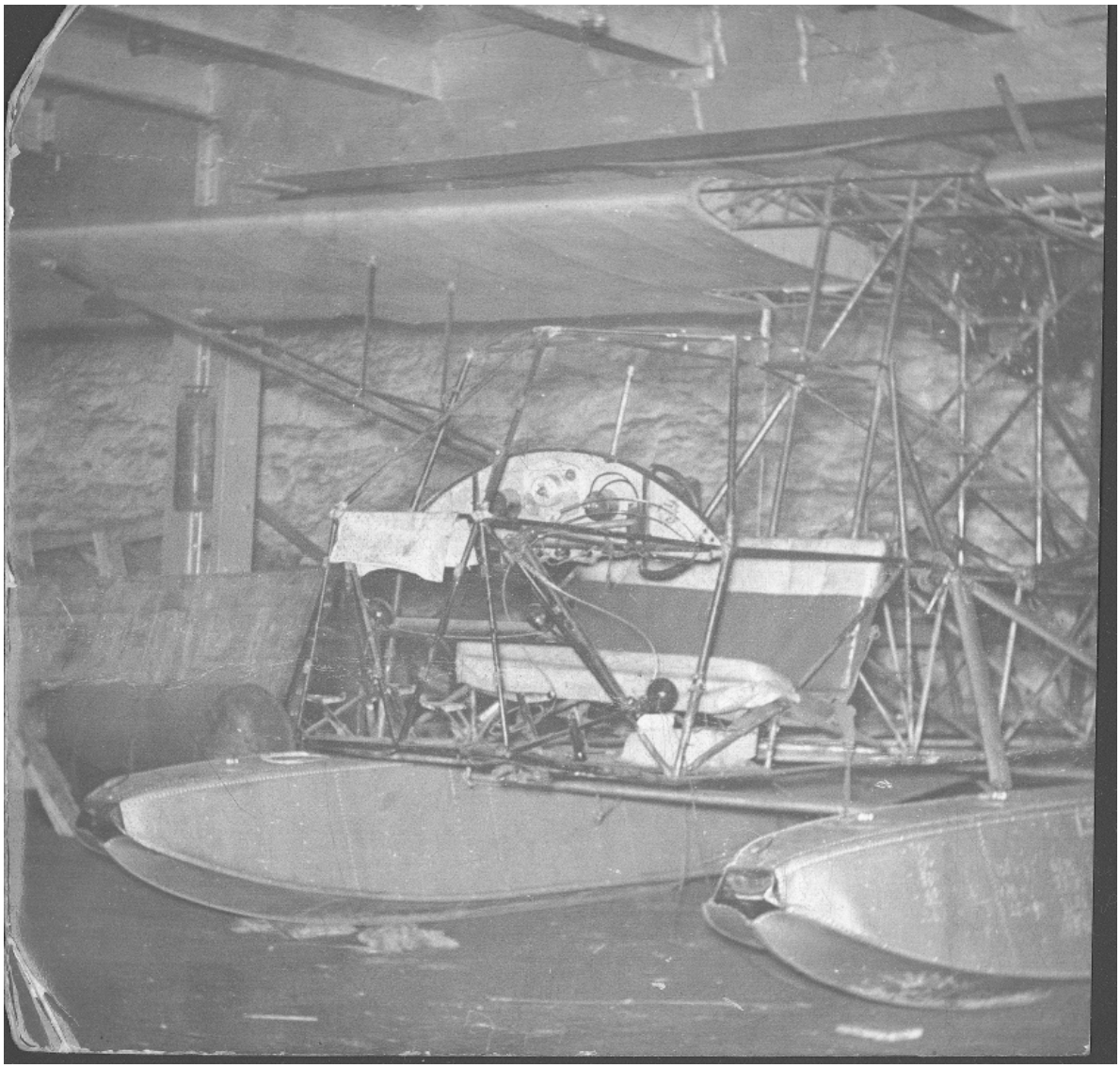


Figure 13

Another photo from Rita Kohut Stone's collection:
The Taylorcraft fuselage was mounted to the floats.
They had cut and re-arranged the parts.
This was done at Steve Kohut's Garage in 1944.
It was dismantled for moving,

From: Rita Kohut Stone collection

Figure 14

Note the extra wing panel.

Later in the day Curly showed up and we spent most of day talking about what he wanted us to work on. The next day everybody was at the garage early and we split up into two teams. Steve and Shorty went to work on beefing up the pylon and the engine mount. Curly Lovejoy and I went to work on the fuselage. If you look at Figure 13 on page 14 you can see the disarray of the cockpit. Curly suggested we straighten the seat pad so we had a place to sit while working in the cockpit. We removed the throttle and throttle cable , tachometer and temperature gauges. The control wheel and rudder pedals were still in place. I took out control cable pulleys, one at a time, and cleaned them and made sure they worked smoothly and then re-installed them.

The next day Curly and I worked on the front of the fuselage. He used an old fifty five gallon oil drum to shape the tubing for the nose and I tacked them in place. When we had finished the nose, Curly made a comment that it looked like an airship from the front. While Steve finished the welds on the nose, Shorty and I worked on cutting tubing and bending it for the pylon and bobtail. We used small diameter tubing for fairing in the fuselage because we did not have wood nor any means to cut.

We were about to go home when D. Barr Peat showed up. This is the first time Shorty and I had the pleasure of meeting him. He was a big, friendly guy who was impressed with our work and shop area and the progress on the seaplane. He had suggested to Curly Lovejoy that they find a place to finish the seaplane project because it was interfering with Steve Kohut's auto repair business. With the seaplane completely assembled there was no room for Steve to work indoors on his auto repairs.Steve said he needed help to speed up the seaplane project.

The next day Shorty and I spent most of the day cutting and bending tubing for Steve to weld. Steve said he had to leave early and wanted Shorty and me to get the wings ready to be re-covered. We removed all the old fabric, repaired the leading and trailing edges and the wing tips. The wings had a lot of dings and dents but were in good condition for a plane that was wrecked and had been handled a lot and stored in and out of hangers. We needed to repair a few ribs and a wing tip, but the wing spars were in excellent condition.

The work on the fuselage continued to be slow. With only one welding system to use, Curly asked D. Barr Peat to locate another gas welding system. With this, we began to make real progress on the fuselage. With most of the welding done on the fuselage, Curly suggested we get ready to reinstall the engine as it was removed to truck it to this shop. Keeping up with our strategy of reusing the existing parts. I had to clean up the engine rubber mounts and the bolts and nuts, because there was still a shortage of these materials.

The following day the engine was lifted in place and bolted. The nuts were checked and cotter-pinned. Now we could spend some time admiring the project because it really looked like a seaplane. Curly and I worked on the fuel lines to the wing tanks, to the mounting of the gasolator and the location of the fuel shut-off valve. While I was working on mounting the gasolator and the shut-off valve, Curly was working on the design and the location of the throttle assembly. He made a pencil sketch of what he wanted. Shorty and I went upstairs to Matta's shop and built the throttle assembly. Then, of course, we had to mount it. It ended up being mounted overhead like an automobile rear view mirror, which, according to Curly, was like the ones used in airships and large transports. I sat in the cockpit and tried it out and it was different from anything I had ever seen.

As Curly and Shorty worked on a design of the sliding canopy, I went about making a panel to hold the tachometer and the temperature gauge. It would be mounted in the pylon area behind the seat right of the pilot. Although he would have to turn around to read these gauges he felt it would work until he got longer cables. The other instruments would be the same as the original Taylorcraft instrument panel. Curly sat in the cockpit to pick the right location for this temporary instrument panel. I mounted the instruments into this panel and bolted it into place and connected the tachometer cable and the temperature probe cable. We had to keep in mind that this was only a temporary instrument panel and could be easily removed and re-installed the instruments into the original Taylorcraft instrument panel.

The next project was the sliding canopy. Curly and Shorty had made a drawing which was very ingenious. It made use of the odd sizes of Plexiglass® panels we had, and had all flat surfaces because we had no way to form the Plexiglass® , the only curve was made with aluminum so as to give the Plexiglass® the needed support.

The track for the sliding canopy was a different story. We had to wait for D. Barr Peat to bring us some channel to make the track. D Barr Peat was a wizard in finding materials, some of these material of course come from H.J.Heinz Company Glider Division. Most of these materials were odd sizes tubing, fabric and Plexiglass®. While we waited for the aluminum channel, Shorty and Curly worked on the windshield installation. Steve and I worked on the metal grill for the air intake at the pylon.using perforated expanded metal that had diamond shaped holes. The interesting thing about this material is that you can bend it, stretch and shrink it. We cut two pieces and aligned the diamonds so they matched up, holding them in place We used safety wire until we welded it. This task was completed quickly and it looked like a factory job, according to Steve Kohut.

When Barr Peat showed up with the needed materials, Curly, D. Barr and Steve worked on the sliding canopy track, while Shorty and I worked on the wiring. We used the old wiring and switches from the Taylorcraft. I made a simple schematic since the plane had no electric starter, generator, battery or lights. I decided to use the point- to - point wiring beginning with the magneto switch. Steve looked over and checked the wiring and he made some recommendations on rerouting the wires to relieve strain on the wiring harness. With this completed, Shorty and I laced up the wiring and added support clamps where they were needed.

Steve suggested everybody look over the fuselage to see if we missed anything such as tack welds that were not welded and check all attachment points. We all agreed the fuselage was ready for the fabric covering.

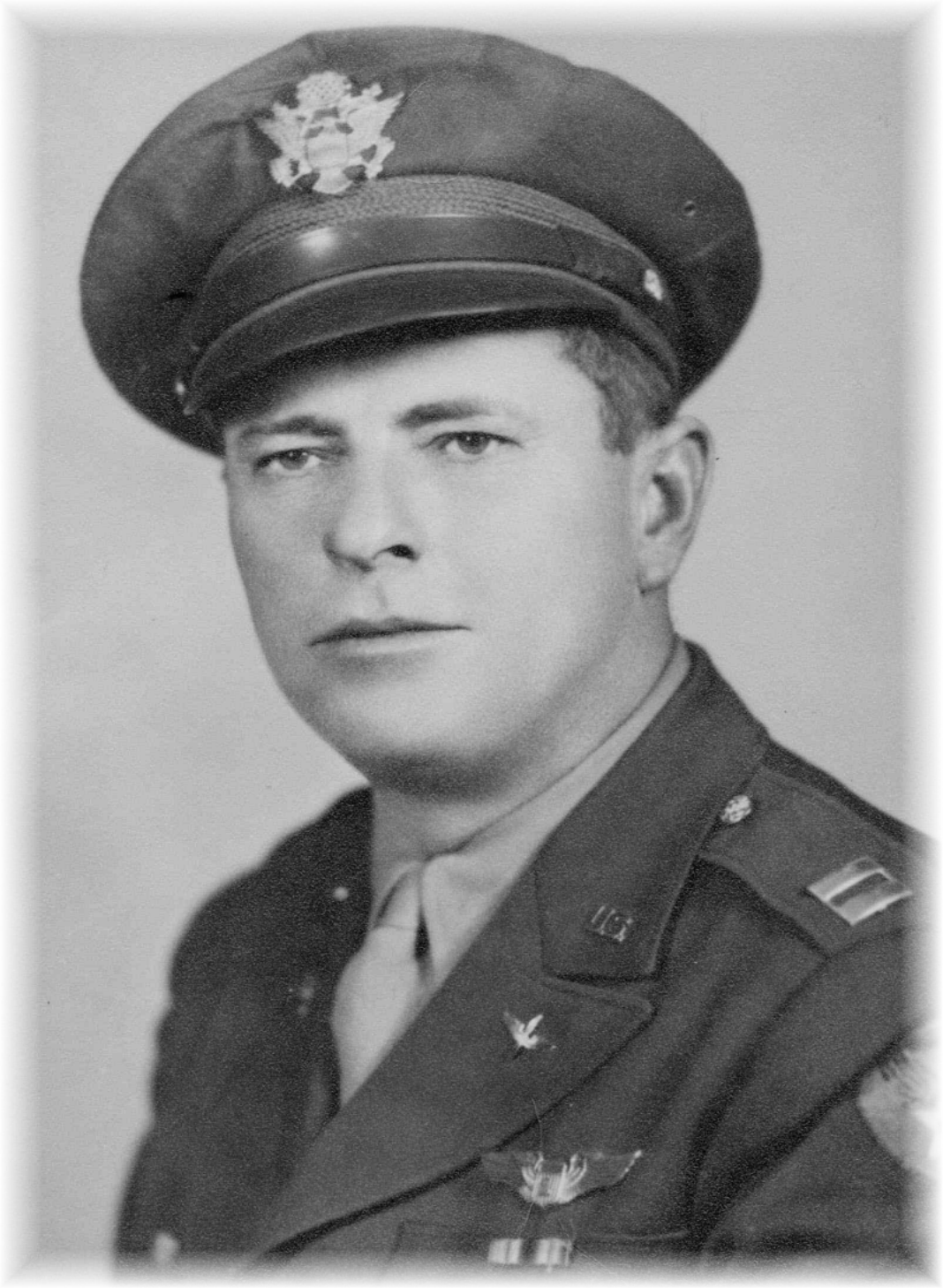
Shorty and I had started to measure for fabric to cover the booms, Curly had arrived and was looking over the booms, one of which was bent when they moved it from Steve's garage. We had to straighten it and Curly decided he wanted more offset in the vertical fin. I had been picked for the task of removing the vertical fins because of my previous experience.The procedure was to cut it first with a hacksaw then file the excess off without damaging the support tubing. Then I used emery cloth to polish and remove any trace of the old weld. Meanwhile, Curly and Shorty were figuring out the offset. Shorty had his bag of tricks, containing level, protractor, straight edge and clamps. Curly had noticed Shorty's notes titled "The Curlycraft" which made Curly smile. From then on we referred to the project as the Curlycraft. I held the vertical fin in position while Shorty tacked it in place. After that, both vertical fins were checked for offset and the welds were completed, cleaned and primed.

This tail offset incident reminded Curly to share a story with us about transporting B 24 Liberator Bombers for the Air Transport Command. When these airplanes were not rigged properly they were all over the sky and very hard to trim. (Figure 15, page 20 - Kenneth Curly Lovejoy in his Air Transport Command uniform)

Shorty and I made a bill of material for covering the job such as dope, aluminum powder, rib tape. roll of lacing cord and rolls of pinking tape. This list was given to Barr Peat. He said he would be back later in the day.

Shorty made sketches of the covering envelopes for the wings, booms, vertical fins, rudders, horizontal stabilizer and the elevator. Late in the day Barr Peat showed up with the fabric for covering the seaplane. He gave Shorty and me a ride home since we could not use a trolley to haul the fabric I was to take home to sew on my mother's sewing machine.

Shorty helped to lay out and cut the fabric for making the envelopes. But the fabric was a lot of odd sizes and shapes and it was like working on a jigsaw puzzle. It required a lot of planning to have the seams at the right places. My mother, who was a great seamstress, showed us how to get a straight seam and a neat French fold. Even with all this expertise, it required 2 days to complete.



This Photo was supplied by: Mrs. Joseph G. Horne

(Kenneth “Curly” Lovejoy’s sister)

Captain Kenneth “Curly” Lovejoy in his ATC uniform

Figure 15

Curly and Shorty decided to redesign the metal brackets for holding the booms to the wing spare. I went upstairs to Matta's shop to make these brackets. As was typical, finding the right bolts and nuts for this job was a problem and it took a couple of days for Barr Peat to find them. Then we mounted the two boom brackets to the wing spar and safety wired and checked the wings which were now ready for covering. The wing covering envelope fit like a glove. The rib stitching, however, was time consuming. Shorty and I stabbed ourselves and each other until we got the hang of it. While we had the wings hanging up, we decided to layout and paint the aircraft registration number, NX41859.

Shorty decided to cover the fuselage next. We started on the bottom of the fuselage. That completed, we started to cut material for the sides, at which time Shorty realized that we needed some curved needles. We made these out of welding rods, heating one end and hammering it flat, then drilled a hole in the flat end and bending as needed. These were used to lace the fabric to the tubing. It was a difficult job fitting the fabric around the pylon. It had so many different types of curves and we wanted to do it all with one piece of covering material. Shorty's experience in fabric covering really paid off and he sure made it look easy. The next day we started to cover the other side. That completed, Shorty, Curly and I applied clear dope on the fabric. We stayed late to finish that, but did not stay any longer than we had to because the fumes were getting to us.

Covering the tail surfaces and the booms was awkward. They were too big for our work bench, and we had to make some saw horses. The envelope for the horizontal stabilizer did not work very well, so Shorty decided not to use it. Even with all this difficulty it turned out fine. The elevator and the rudders did not take an envelope and as a result did not take long to complete. The booms were next. We set the booms on the saw horses to get ready for covering. We looked them over and decided to pull the control cables through the booms, being easier to do before we covered them. Each boom needed 4 cables, 2 for the rudder and 2 for the elevator.The control cables were then secured at each end.

The next day we started to cover the booms. Curly showed up and suggested that we install more control cable support. After we made and installed those, the booms were ready for covering. The envelope was difficult to slide over the boom, possibly because it was a little tight, so we tried the other envelope which went on much easier. With this one done, we started on the other boom. This one was also a struggle, because the booms were not welded in a fixture and varied in sizes. After completing all the fabric covering, the parts were painted with a clear coat of dope.

Steve showed up the next morning and was very pleased with our covering job. He suggested we get ready to paint the fuselage, wings, tail assembly and booms, and helped us mask up the plane. He had thought ahead and bought tape, newspaper and a big fan from his shop. Steve also showed Shorty and me how to mix the aluminum powder with clear dope and how to operate his spray gun.We had to use a brush to apply the paint on the bottom of the fuselage because there was not enough room to operate a spray gun. I started on one end, Shorty on the other and it did not take long to complete. Then we started on the rest of the plane. Everything was going great so we decided not to take time for lunch. When Shorty would operate the spray gun, I would mix up the next batch of paint. We took turns painting and mixing paint and when everything was painted, we cleaned up the equipment and went for a late lunch. Upon our return, Steve and Curly had most of the masking tape and paper removed and it looked great. Steve looked around for the nose bowl and the top engine cowl from the old Taylorcraft. He said we would work on it on Monday.

Monday, when Shorty and I arrived, Steve was working on the cowling for the top of the engine. With a wooden mallet and a wooden ball he was reshaping the aluminum cowl. Shorty and I did not help Steve very much because we were busy watching him. We had never seen anybody work aluminum like he did. After he welded the cracks, I filed and sanded the welds. Shorty relocated and mounted the fastening devices. Steve had repeated this procedure with lower cowling. With this work completed, they were ready for painting. We mounted them on the plane and it was virtually a perfect fit.

It looks like a seaplane, and not an air boat

Now all the parts were ready for the final assembly of the seaplane. The work seemed to go faster during the last couple of days since everyone knew what had to be done or maybe it was the excitement knowing we were getting to this part of the project. We were all coming in early every day and working longer hours. That was becoming hard on Steve and his business. After helping us he went to his garage and worked until 1:00 or 2:00 in the morning and returning to the project early the same day.

Curly wanted us to begin by putting the wings on the seaplane. We sorted out all the bolts, nuts, and fittings for installing the wings earlier. The seaplane had to be moved and this was a difficult task because it had no wheels and we had no dollies. Making this move had to make use of the overhead steel beams. The men from Matta's shop upstairs were a great help moving the plane. They helped us to lift the wings up until Steve bolted them into place. We then used rope to hold them up until we installed the wing struts.

With the wings bolted in place and the struts installed, we moved the booms in place to get ready for Steve to do the installation. Steve was picked for this job because he was the tallest. We had to make sure the booms were in correct order because of the offset in the vertical fins. With Steve standing on the floats, Curly, Shorty and I used rope to lift the boom up for Steve to install the bolts. We repeated that procedure for the other boom. Again, rope was used to hold up the booms until we installed the braces. A platform was made for Shorty and me to work on the wings, which we used to install the horizontal stabilizer, elevator, rudders and the braces that went from the booms to the fuselage for support.

Curly decided he wanted some adjustment in these braces. I cut off some of the braces so I could insert a piece of tubing inside the brace tubing. I drilled holes at 1 inch intervals into the tubing to give the needed adjustments. I did the same with the other brace. With the braces made we were ready to install the horizontal stabilizer. This took all of us to hold it up and bolt it in place. Next up were the rudders and the elevator. Which went without any problems. Curly and Steve moved and twisted the tail assembly and they decided it needed more bracing and support. The new braces went from the horizontal stabilizer to the main support braces. Curly and Steve checked the tail assembly and decided it had sufficient support.

Do you believe that we get paid for this?

Curly and Steve went out to lunch while Shorty and I stayed and ate our lunch sitting in the seaplane. This would be the last time we sat in the seaplane, we actually never had a ride in the seaplane. Looking back, I remember that day vividly. The Curlycraft was similar to the Ercoupe ®, that you stood on the floats or the wings then stepped onto the seat before putting your feet onto the floor and sitting down. It had dual control wheels and, of course, rudder pedals.

When Curly and Steve returned from lunch, Curly suggested we clean up the shop, since Mr. H.J. Heinz had mentioned he would stop by if he had time. We even swept the floor! We mounted the propeller with a couple of bolts, just for appearance. We sat around admiring our work and talking when Curly mentioned he had owned a 1934 a Sikorsky® amphibian and Mr. Heinz liked flying it. (Figure 16 Page 25) He also had flown Savoia®. (Figure 17 Page 25) Steve left to go to his garage when Mr. Heinz came into the shop. He walked over to the seaplane and was impressed with the progress we had made. Curly introduced Mr. Heinz to Shorty Moore. I had met Mr. Heinz previously when I would go to his office for our pay or to scrounge for parts and supplies at the Heinz Glider division.

This was the first time Mr. Heinz had actually seen the seaplane and he walked all around it asking questions, including when were we going to start on a 4 place model. Curly replied that we had to get this one right first. Curly had Mr. Heinz sit in the seaplane. He liked the throttle location and the sliding canopy and was impressed with how smoothly and quietly it worked. Curly sat in the plane with Mr. Heinz and Shorty heard Mr. Heinz say "This is like old times." Curly was Mr. and Mrs. Heinz's flight instructor and sometime pilot. Mr. Heinz then asked when would we be flying this seaplane. Curly replied that, after we did the weight and balance it would be dismantled and moved to Buck's Seaplane Base in a couple of days.

Shorty then suggested we go home and let these old friends talk. We had our day in.

Figure 16
Curly's 1934 Sikorsky® Amphibian
Photos from: E.L. Shryock collection

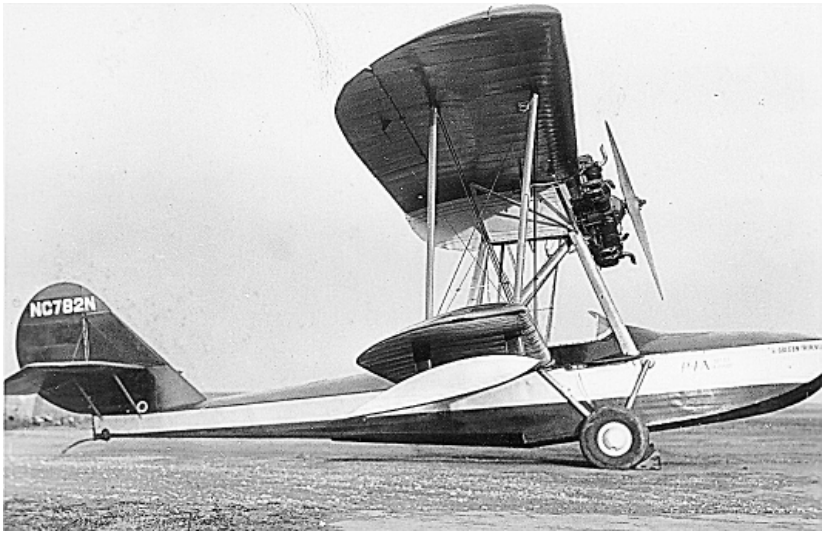


Figure 17
Savoia-Machette®
Kinner B5- 125 hp engine
Curly flew air mail from downtown Pittsburgh

Next day, nobody was in the shop when Shorty and I arrived. I went upstairs to Matta's shop to get my tool box; I stored it there because we had no security in our shop and my tool box was too heavy to carry on the trolley every day. When I returned to our shop Curly and Steve were there. They had gone out for breakfast and brought back coffee and donuts for Shorty and me. Curly thanked us for the work we had done to make Mr. Heinz's visit successful. He told us Mr. Heinz was impressed with the work we had done on the seaplane and that he stayed for several hours.

D.Barr Peat showed up with the Aircraft Registration Certificate NO. 41859 and Operation Limitations Certificate. We all looked it over and Shorty mounted it in the original certificate holder in the plane cockpit. (Figure 18 Page 27- a copy of the original aircraft registration certificate)

Curly said it was time to get to work on the weight and balance. I was not in on this process. Steve wanted me to work on and sort out control cables and clean up the turnbuckles, clevises and clevise pins. I put them all in a box and carried it upstairs to Matta's shop to use their solvent tank and buffing wheels. I spent most of the day in their shop and ate my lunch with guys in the shop. The guys were teasing me about being the test pilot; I told them I was taking some float time on the weekends. Mr. Matta wanted to know if I wanted a job when the seaplane was completed. I told him I was going back to school in the spring. When I had finished the cables I returned to our shop. Curly, Barr, Steve, and Shorty were just completing the weight and balance. Steve was very pleased with the way the control cables turned out.

I was brought up to date on the weight and balance by Shorty on our way home that night, first they had to begin by estimating the weight because they had no scales to weigh the plane. The estimated weight was from Taylorcraft specifications with EDO floats and it specified 1250 pounds. Shorty Moore believed the plane was more like 1350-1400 pounds because of the over-design and building of the booms, pylon and the engine mount. The balance was within specifications.

The next two days were spent dismantling the seaplane and crating up the parts for trucking to Buck's Seaplane Base on the Allegheny River on the north side of Pittsburgh. (Figure 19 Page 27- photograph of Buck's Seaplane Base)

FORM ACA 500-A
(REV. 1-15-45)

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

THIS CERTIFICATE MUST BE CARRIED IN THE AIRCRAFT AT ALL TIMES.

AIRCRAFT REGISTRATION CERTIFICATE NO. 41859

REGISTERED OWNER LOVEJOY-PEAT COMPANY
P. O. BOX 12
DRAVOSBURG, PENNA.

allegheny county apt
Pittsburgh Pa.

MAKE AND MODEL LOVEJOY-PEAT

SERIAL NO. 1

WHEREAS IT HAS BEEN DECLARED THAT THE ABOVE DESCRIBED AIRCRAFT IS NOT REGISTERED UNDER THE LAWS OF ANY FOREIGN COUNTRY AND IS OWNED BY A CITIZEN OF THE UNITED STATES, IT IS CERTIFIED THAT SUCH AIRCRAFT HAS BEEN DULY REGISTERED AS A CIVIL AIRCRAFT OF THE UNITED STATES IN ACCORDANCE WITH THE CIVIL AERONAUTICS ACT OF 1938, AS AMENDED.

DURATION

THIS CERTIFICATE IS OF 60 DAYS DURATION AND, UNLESS THE HOLDER HEREOF IS OTHERWISE NOTIFIED BY THE ADMINISTRATOR WITHIN SUCH PERIOD, SHALL CONTINUE IN EFFECT INDEFINITELY THEREAFTER EXCEPT THAT IT SHALL IMMEDIATELY EXPIRE UPON THE DATE (1) THE OWNERSHIP OF THE AIRCRAFT IS TRANSFERRED, (2) THE AIRCRAFT IS REGISTERED UNDER THE LAWS OF ANY FOREIGN COUNTRY, (3) THE REGISTRATION OF THE AIRCRAFT IS CANCELLED AT THE WRITTEN REQUEST OF THE OWNER, OR (4) THE AIRCRAFT IS TOTALLY DESTROYED OR SCRAPPED.

DATE ISSUED OCTOBER 15, 1945

(OVER)

BY DIRECTION OF THE ADMINISTRATOR:

JULES DE CRESCENZO
INSPECTOR, CIVIL AERONAUTICS ADMINISTRATION

ANY ALTERATION OF THIS CERTIFICATE IS PUNISHABLE BY A FINE OF NOT EXCEEDING $1,000 OR IMPRISONMENT NOT EXCEEDING THREE YEARS, OR BOTH.

Figure 18
Rita Kohut Stone collection

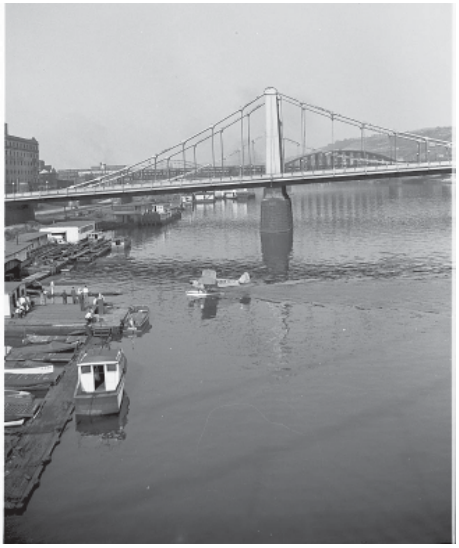


Figure 19

Bucks Seaplane Base

From: My photo collection

When the seaplane arrived at Buck's Seaplane Base, Al Buck had his mechanics assemble the seaplane and rig the control cables to prepare for the official test flight. Curly and Steve wanted all of us to assemble the seaplane, but Al Buck wanted no part of that. After all, it was his operation.

On Wednesday, November 28, 1945, I was working in downtown Pittsburgh and at lunch time I walked over to Buck's Seaplane base to see how the seaplane was coming along. The seaplane was in the water and tied to the dock. Curly just completed some taxi runs and had some heating problems along with control cable slack. Curly was upset because he had been waiting half a day for someone to work on the plane. I had to get back to work and could not wait to see the outcome.

I had made arrangements at work to take the afternoon off on Monday, December 3, 1945. I had called Curly to make sure he was going to be at the seaplane base. When I arrived, he was getting ready to do some high speed taxiing. They had trouble starting the engine, which smelled as though it was flooded. The 65 horsepower engine had no electric starter and had to be hand propped. This was definitely a balancing act, standing on the floats and pulling the prop through. One had the potential hazard of falling into the river or getting clubbed by the propeller, or both. They finally got the engine running, after warm-up. Curly made several high speed test runs. I noticed the plane would not break from the water and it had taken a very long run to get up on step. Curly knew the seaplane was too heavy or underpowered, which Robert "Shorty" Moore had also suspected. Curly made the approach for docking. (Figure 20, Page 30)

I walked down to meet him. He informed me they had solved the overheating problem by changing the baffling in the pylon and made some adjustments to the control cables to reduce slack. Curly had mentioned the seaplane had the same fell and response as the **Taylorcraft.** Curly said the seaplane was ready for the official test flight. He offered me a ride home and asked if I was coming to the official test flight. I said I would not miss it. We stopped for lunch and he talked about the changes he would like to do on the seaplane: larger engine, floats with retractable landing gears and streamline the fuselage. He then asked if Shorty and I would be interested in working on the seaplane next spring. I found out later on that very little work was done on the **Curlycraft** seaplane in 1946, outside of taxiing tests and short flight tests.

The big day had arrived

On Monday, December 3, I received from the Pittsburgh Aero Club an invitation to the official test flight, weather permitting, of Curly Lovejoy's seaplane on December 6th. I have the original post card. (Figure 21, Page 30)

The Pittsburgh Press had an article on Wednesday December 5th, 1945 about the test flight of Curly Lovejoy's seaplane the construction process, and the men involved.(Figure 22, Page 31- a copy of the article). My name and Steve Kohut's was mentioned, but Robert "Shorty" Moore had been omitted in the story. I felt terrible about Shorty Moore not being recognized in this article, because Shorty Moore had the most knowledge of aircraft design and construction on this project.(Figure 23, Page 32 - this photograph was taken by the Pittsburgh Press for this above article)

Thursday, December 6th, 1945, at the Pittsburgh Aero Club luncheon, D. Barr Peat made a presentation of the CurlyCraft seaplane and invited members and guests to assemble at Buck's Seaplane Base to watch the official test flight. (Figure 24, Page 33) I did not go to the luncheon because I had to work that morning. When I arrived at the seaplane base Curly's seaplane was tied to the dock. Curly and the Aero club members were arriving in small groups. When all of the members that were coming to the official test flight had arrived it was late in the afternoon. Al Buck's mechanics had started the engine and signaled the engine was warmed up and ready to go. Curly got into the seaplane and taxied up river. (Figure 25, Page 34) After turning around, he came down in the middle of the river when he passed the seaplane base. The seaplane was up on step and went well below us before it broke from the water and climbed to about 60 - 80 feet or more. The actual height depended on whom you talked to.(Figure 26, Page 34 - photo of the seaplane in flight) Curly touched down about a mile or more down stream and taxied back to the seaplane base. This was an experimental airplane and was restricted from flying over a densely populated area.

The rest of the day was spent taking pictures and socializing with club members. (Figure 27, Page 35) The Curlycraft was pulled out of the water. Curly had flown the seaplane after the official test flight, weather permitting. After the winter set in, the Curlycraft was stored until Spring.

Photograph from Pittsburgh Sun-Telegraph

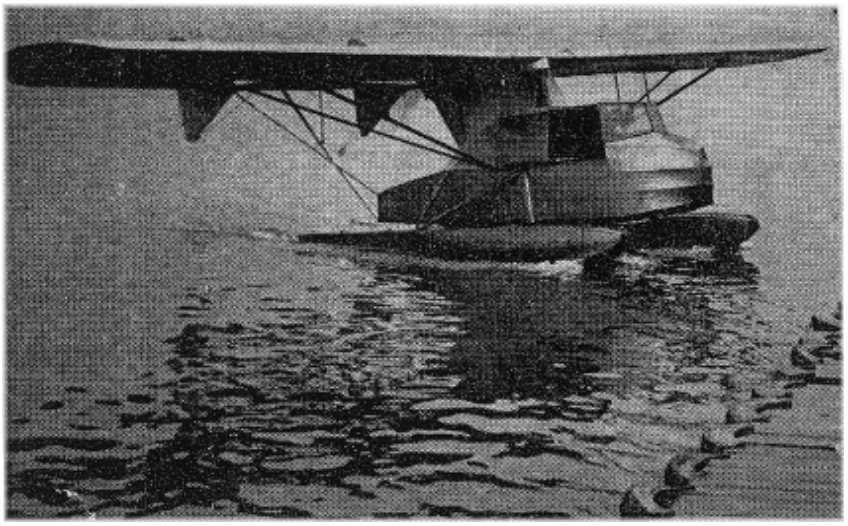
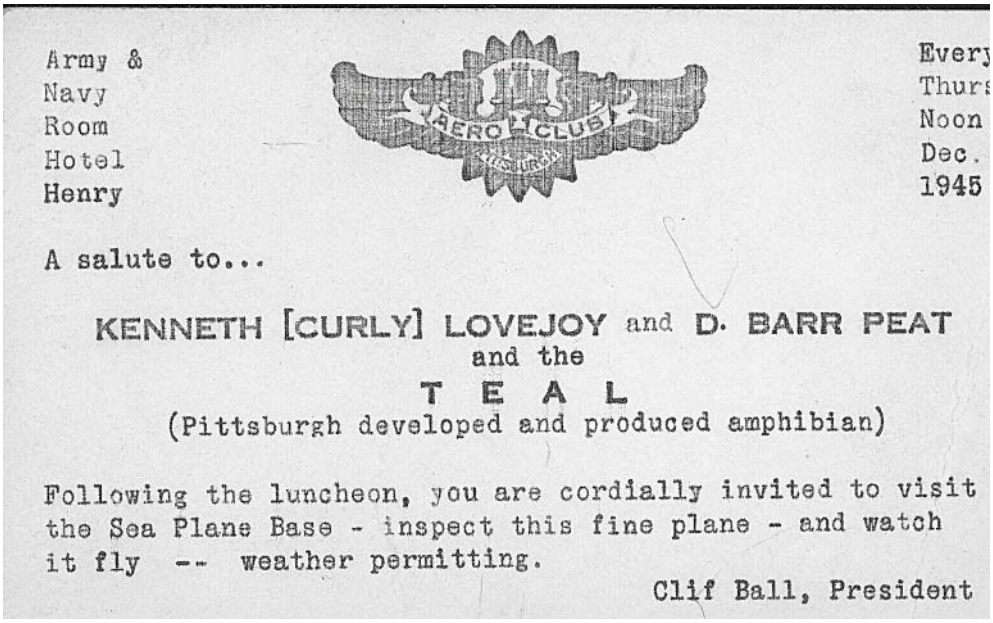


Figure 20
Monday December 3, 1945
Curlycraft docking after taxiing test.
Buck's Seaplane Base Downtown Pittsburgh,Pa.



Army &
Navy
Room
Hotel
Henry

AERO CLUB
PITTSBURGH

Every
Thurs
Noon
Dec.
1945

A salute to...

KENNETH [CURLY] LOVEJOY and D. BARR PEAT
and the
T E A L
(Pittsburgh developed and produced amphibian)

Following the luncheon, you are cordially invited to visit the Sea Plane Base - inspect this fine plane - and watch it fly -- weather permitting.

Clif Ball, President

Figure 21
Post Card from Pittsburgh Aero Club received December 3, 1945

EDNESDAY, DECEMBER 5, 1945

First City-Built Amphibian to Fly Tomorrow

Craft Created by 2 Air Pioneers

By HENRY WARD
Press Aviation Writer

Made in Pittsburgh, a new type, light amphibian is being groomed for its first official flight off the Allegheny River tomorrow.

The plane is the creation of two Pittsburgh aeronautical pioneers—D. Barr Peat and Kenneth "Curly" Lovejoy, with the backing of a widely known Pittsburgh industrialist.

Construction of the plane, capable of operating off water or land, was started nearly a year and a half ago in a Braddock garage and since September has been undergoing operational tests at Buck's Seaplane base, Pennsylvania Ave. and Ohio River, North Side.

Powered by a pusher-type 65 horsepower engine, the plane incorporates radical departures from the conventional amphibians. It has a twin boom tail, high wing, and in addition to floats is to be equipped with a retractable tricycle landing gear.

Has Air-Cooled Engine

Special attention has been given the air-cooling of the engine, usually a bugaboo on pusher-type planes. Mounted above and to the rear of the pilot and passenger compartment and in line with the wing, the engine is enclosed in a specially designed cowling fronted with a new-type of air intake duct. Tests have proved the system to be satisfactory even on long taxi runs.

Easy handling is one of the features of the new craft. The high wing, position of floats and an ingenious arrangement of rudder make it possible for the plane to be pulled alongside any dock or loading platform.

In Light-Plane Class

The float rudder operates from the wheel-aileron control making it easy for the pilot to "steer" the craft while on water.

The first amphibian built in Pittsburgh, the craft has been definitely designed for the lightplane class. All fabric, with the exception of the floats and engine cowling, the plane weighs 1250 pounds gross.

As it stands today the plane does not have particular "eye-appeal" although the designers have plans for "dressing it up" later.

Planned Craft Long Time

Mr. Peat and Mr. Lovejoy, who helped pioneer other aviation developments in Pittsburgh in the last 20 years, have been planning such an aircraft for a "long, long time."

Mr. Peat, who helped found Bettis Field, also was co-designer of one of the country's best known light land planes. Mr. Lovejoy, who flew one of the first commercial planes out of Pittsburgh, has long been a champion of seaplanes.

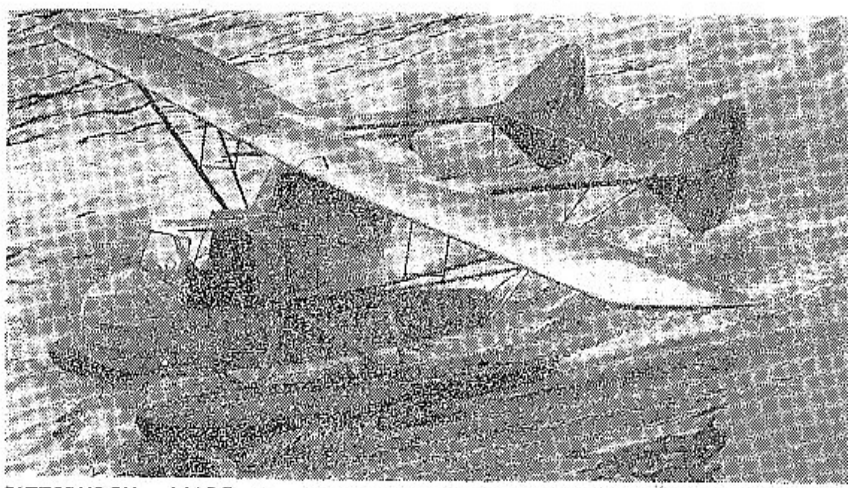
Actual construction of the amphibian was started only recently. With S. J. Kohut and Don Shumaker, the two men worked "under wraps." They had and still have no blueprints—they worked from experience.

Test to Follow Luncheon

"Oh we had some drawings to follow," Mr. Peat said, "but we threw them away. Once we get this baby flying we will get around to the blueprints."

Details of the plane will be given to the Pittsburgh Aero Club tomorrow at a luncheon in the Hotel Henry. The day has been dedicated by Aero Club President Clifford Ball to his two flying buddies—Barr Peat and "Curly" Lovejoy.

Following the luncheon the club members will visit the seaplane base for the initial flight of the plane.



PITTSBURGH - MADE, a new type of amphibian will get its first official flight tomorrow. The twin-boomed plane is shown in the top photo. Right, left to right, are S. J. Kohut, who helped with the construction, D. Barr Peat and Kenneth "Curly" Lovejoy, co-designers and veteran aviation experts.

Pittsburgh Press
December 5,1945

Figure 22

Pittsburgh Press photo December 4th 1945

Left to Right

Kenneth Curly Lovejoy Steve Kohut D. Barr Peat

Sitting in the seaplane: David Peat

Figure 23

Photo by Swoger

Left to Right

Unknown D. Barr Peat Clifford Ball Curly Lovejoy Steve Kohut

Pittsburgh Aero Club meeting December 6th 1945

Figure 24

Figure 25
Curly taxiing up river for official test flight on December 6th 1945
Pittsburgh Press photo

Figure 26
Official test flight
Rita Kohut Stone Collection

Rita Kohut Stone collection

Figure 27

Photo was taken after official test flight

Sitting in the seaplane left to right are David Peat and Kenneth" Curly" Lovejoy

Standing left to right are

Clifford Ball D. Barr Peat Steven J. Kohut

Robert “Shorty” Moore had to go to Columbus, Ohio and missed the test flight because his uncle had died. This was his extended family that he had lived with while attending Ohio State. When he returned to Pittsburgh he called me and asked if I wanted to go with him to Buck’s Seaplane Base to see Curly Lovejoy and the seaplane. I met Shorty at the seaplane base on my lunch hour. It was a mild day for December. The Curlycraft was tied to the dock with the motor running. Curly and a gentleman were in the plane. They taxied up river and turned around and came down river. The seaplane was up on step. I was sure they would take off; They did this several times. I believed the reason they did not get airborne was the plane had an experimental registration and no passenger rides. Maybe the plane was too heavy with a second person in the plane. I had to get back to work and Shorty Moore stayed to talk to Curly Lovejoy. When Shorty Moore came over to see me, I was working at a department store hobby shop putting on demonstrations for Plastic Wood ® using their products for model building.(Figure 28 & 29, Page 37) Shorty gave me a ride home and we had dinner and he told me that he wanted to see the seaplane fly. Curly had told Shorty that he was pleased with the seaplane performances and was anxious for the installation of a larger engine.

In our discussion about the project Shorty said we had worked a few days less than a whole month and had almost 200 hours each. Shorty said the rush was to have the seaplane ready for the test flight for the Pittsburgh Aero Club meeting on December 6, 1945. Why it took so long for our part of the project was that they had no plans or blueprints. Most of the time we had to do the tasks twice and wait for materials. Most days, Shorty and I were the only ones working on the seaplane. This all changed when we got closer to the test flight date. Everybody showed up almost every day and we had worked longer days.

When Spring arrived in 1946 the Curlycraft arrived at the Highland Seaplane Base in Aspinwall on the Allegheny River a short distance from Buck’s Seaplane Base in downtown Pittsburgh. How did it get there? By truck or was it flown? I do not know. The reason for moving up the river was that the area was less populated. The flight testing continued till late spring. (Figure 30, Page 38 - Curly standing by his seaplane; Figure 31, Page 38 - Curly taking a friend for a taxi ride)

I had talked with Curly Lovejoy on several occasions in 1946 and asked how the seaplane was coming along and he said they had ordered a Continental C85-12J engine and located a set of EDO floats with retractable landing gears. Another problem was deciding what retractable nose landing gear to use and locate it. On one of these occasions Curly Lovejoy said that he wanted to get all of this done before winter.

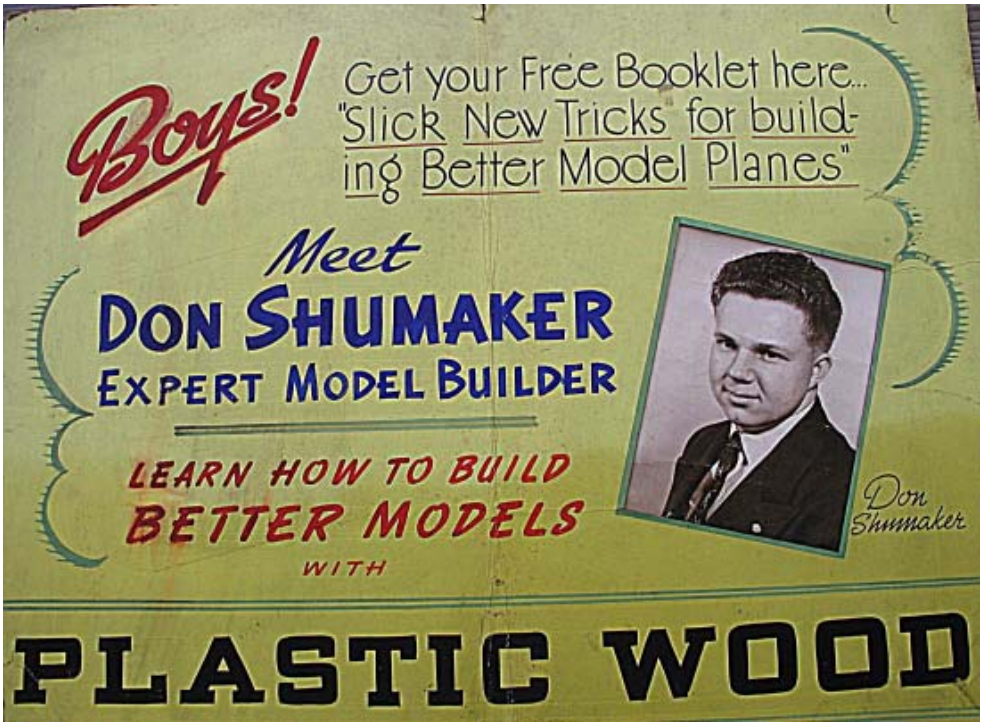


Figure 28

Figure 29

Figure 30
Kenneth “Curly” Lovejoy
At
Highland Seaplane Base

Figure 31
Curly and Friend

On Wednesday, February 12, 1947 Kenneth “Curly” Lovejoy

died and so did his beloved Dream

FEBRUARY 13, 1947

NO PILOT IS AT THE CONTROLS of this plane today. Kenneth "Curly" Lovejoy, right, inventor of this "dream boat," died last night. With Mr. Lovejoy, the first man to ever fly air mail to Pittsburgh, are the co-designers of the amphibian, S. J. "Steve" Kohut, left, and D. Barr Peat.

Death Keeps 'Curly' Lovejoy From Flying 'Dream Boat'

Veteran Among Pittsburgh Airmen Was On Verge of Completing New Plane

By HENRY WARD

Kenneth "Curly" Lovejoy will not fly his "dream boat" ter all.

"Curly," Pittsburgh pioneer airman, died last night in the West Penn hospital after a brief illness.

One of the most colorful of Pittsburgh's old-time pilots, he started his flying career in 1917 and never forsook it. To "Curly," flying was far more than a hobby or a profession—it was his life.

His enthusiasm for flying never dwindled regardless of numerous setbacks, and he was on the threshold of a new venture in aviation when death cancelled him out.

Working on Final Details

For more than two years he has been striving to perfect his "dream boat"—a new type of amphibian which "Curly" believed would revolutionize off-water flying.

Working with him were his old-time flying partner, D. Barr Peat, who, like "Curly," grew up with Pittsburgh aviation, and S. J. (Steve) Kohut of Homestead.

Although "Curly" had test flown his "boat," he contended it needed some refinements before it was ready.

Mr. Lovejoy learned to fly in World War I. He was an aerial gunner instructor at Fort Worth and after the war became a barnstormer, flying "Jennies" off many cow pastures in Western Pennsylvania.

Flew for Early Airlines

In 1927 he deserted private flying for a brief spell to join the newly-formed Clifford Ball Airlines, forerunner of Pennsylvania-Central Airlines.

He flew the first mail plane to land in Pittsburgh—the historic Cleveland-Pittsburgh flight on April 21, 1927, which started scheduled airline flights into Pittsburgh. Later he became a flight instructor.

When World War II restricted private flying, "Curly" went back to military flying and joined the ferry division of the Army Air Transport Command.

Native of City

Mr. Lovejoy was born in Pittsburgh in 1897, the son of Mr. and Mrs. Francis T. F. Lovejoy. His father was a former associate of Andrew Carnegie and for many years was secretary of the Carnegie Steel Co. The Lovejoy mansion was on Forbes St., near Braddock Ave.

Surviving are the widow, Mrs. Elizabeth K. Lovejoy, 816 Ivy St., and a sister, Mrs. Joseph G. Horne.

Funeral services will be held Saturday at 3 p. m. at H. Samson's. Burial will be in Allegheny Cemetery.

Figure 32

Pittsburgh Press

Death Grounds Pittsburgh's Pioneer Flier

Kenneth Lovejoy Flew First Air Mail Here; Was Barnstormer

Death has grounded Kenneth "Curley" Lovejoy, the pioneer pilot who flew the first air mail into Pittsburgh and who as a barnstormer in the early days of aviation is believed to have taken more Pittsburghers on their first flights than any other district pilot.

Mr. Lovejoy

Mr. Lovejoy died Wednesday night at West Penn Hospital and his passing ended his two-year dream of perfecting a new type of amphibian plane which he believed would revolutionize off-water flying.

The ship, which he called the "Dreamboat," was a pusher-type small plane utilizing pontoons with retractable wheels. He took his last flight in it last spring.

Experienced in small seaplanes —as with about all other types of aircraft—Mr. Lovejoy demonstrated as early as 1939 the feasibility of a Point-County Airport shuttle service. In October of that year he flew an Italian amphibian with a load of mail from The Point on a five-minute run to the airport.

Landed Safely in Crowd

He had worked on his own ship since, collaborating with an old-time flying associate, D. Barr Peat. It flew, but with the caution which only a veteran airman can exercise with the machine he flies; he wanted to get the "bugs" out of it.

Mr. Lovejoy learned to fly in 1917, and served most of World War I as an aerial gunner at Fort Worth. After the war he joined the rising tide of other young pilots and became a barnstormer. He flew "Jennies," the old Army JN-4 biplane, all over Western Pennsylvania in a day when often a cow pasture was the only airport available.

In the middle 1920s, according to his old cronies in Pittsburgh aviation, he was forced down in Altoona by a strong downdraft. But, they said, he was destined to be one of the oldest pilots. He set the ship safely down on a crowded street on a Saturday afternoon without touching a bystander.

Served in World War

In 1927, Mr. Lovejoy turned from private flying to join the newly-formed Clifford Ball Airlines, forerunner of the Pennsylvania-Central lines, now known as Capital Airlines. It was April 21, 1927, that he flew the historic Cleveland-Pittsburgh mail into the city, opening scheduled airline flights to Pittsburgh.

Later, he became a flight instructor and one of his most famous students, Helen Richey, holder of the women's endurance flight record, preceded him in death January 8 in New York.

With the outbreak of World War II, Mr. Lovejoy again returned to military flying as a member of the ferry division of the Air Transport Command.

Funeral Tomorrow Afternoon

Active in virtually all the city's flying activities, he was a charter member of the Aero Club, headed now by the same Clifford Ball with whom he worked as an airlines executive.

Mr. Lovejoy was born here in 1897, the son of Mr. and Mrs. Francis T. F. Lovejoy. His father was associated with Andrew Carnegie and was for many years secretary of the Carnegie Steel Company. The Lovejoy family had a mansion on Braddock avenue near Forbes street.

Mr. Lovejoy leaves his wife, Mrs. Elizabeth K. Lovejoy, of 816 Ivy street, and a sister, Mrs. Joseph G. Horne. Services will be held at Samson's Funeral Home, 537 Neville street, tomorrow afternoon at 3 o'clock, with burial in Allegheny Cemetery.

Figure 33
Pittsburgh Sun Telegraph
Page 41

The second phase of the sea plane project

Kenneth “Curly” Lovejoy’s Dream Boat (Curlycraft) project was continued by his good friends, D. Barr Peat and Steven J. Kohut, with Mr. H.J. Heinz II still backing this project. The seaplane was dismantled and trucked to Steve Kohut’s garage.

In Fall of 1947 I had stopped by Steve Kohut’s garage in Homestead. I wanted to see if any progress was being made on the seaplane. As I turned into his driveway I spotted the plane on the roof of his garage. I talked to Steve and he said he was storing the seaplane there until he located a nose gear and had time to work on the plane.

(Figure 34, Page 43 - In this photo, you can see they had removed the fabric from the front of the fuselage to install the retractable nose gear, and they installed the floats with retractable landing gear) The new and larger Continental C85-12J engine was installed. This engine was fuel injected. The injection system was made by Ex-Cello Corporation and Continental used this fuel injected system for a few years. With this new engine they had to make a new engine cowling and this would take care of any engine cooling problems. (Figure 38, Page 45)

In May 1948, I visited Steve Kohut’s shop in Homestead. They had completed the installation of the retractable landing gears. The seaplane was up on blocks. Steve had operated the landing gear system for me and it was smooth and quiet. The nose gear retracted forward and when locked in place the rubber tire on the wheel acted as a bumper when docking the seaplane.

They had installed a new propeller. It was a ground adjustable type. Steve said the seaplane was ready for flight testing and they were going to move the plane to the Highland Seaplane Base on the Allegheny river in Aspinwall.

(Figure 35, Page 43 - This photo was taken by the Homestead newspaper at Steve Kohut’s garage; Figure 36, Page 44 - a scanned copy of the original certificate) It was reissued May 7, 1948. These Certificates of Airworthiness have to be renewed every year. (Figure 37, Page 44. This is a scanned copy of the original Certificate of Operation Limitations and it was issued May 7, 1948)

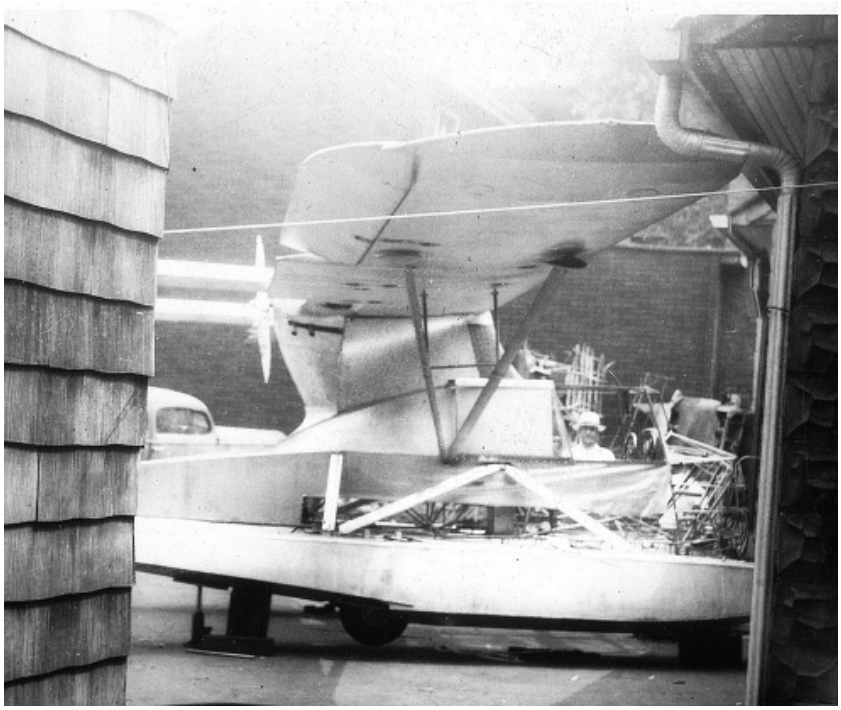
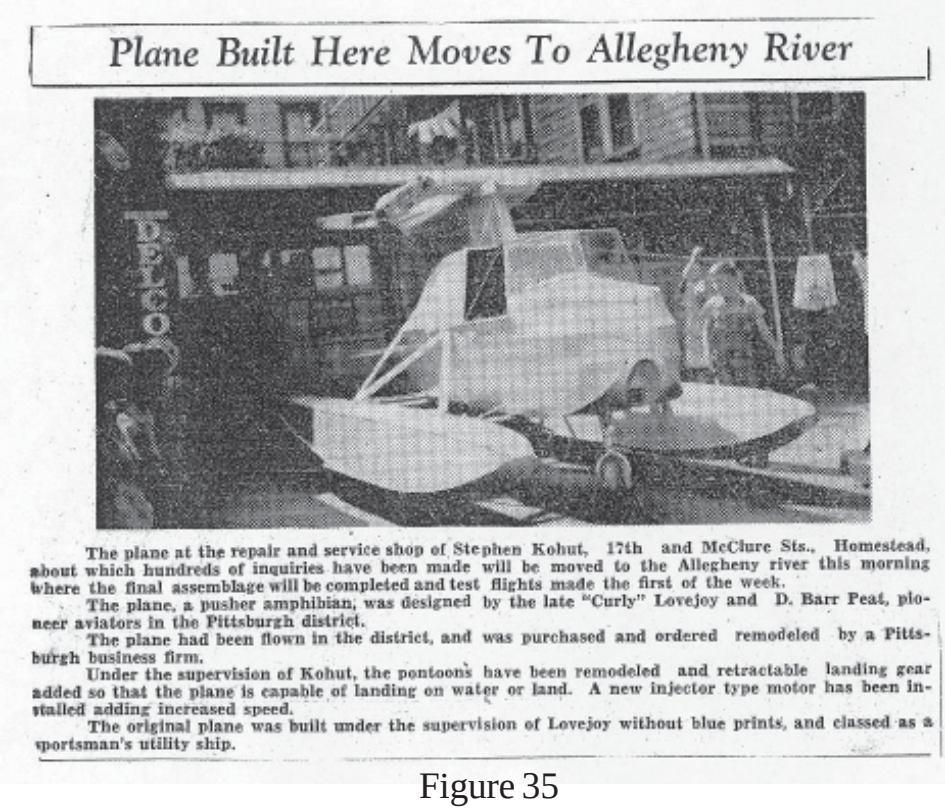


Figure 34
Rita Kohut Stone Collection
This photo was taken at Steve Kohut's Garage.
The fabric was removed to install the retractable nose gear.
The new engine and a ground adjustable propeller was installed.



Plane Built Here Moves To Allegheny River

The plane at the repair and service shop of Stephen Kohut, 17th and McClure Sts., Homestead, about which hundreds of inquiries have been made will be moved to the Allegheny river this morning where the final assemblage will be completed and test flights made the first of the week.

The plane, a pusher amphibian, was designed by the late "Curly" Lovejoy and D. Barr Peat, pioneer aviators in the Pittsburgh district.

The plane had been flown in the district, and was purchased and ordered remodeled by a Pittsburgh business firm.

Under the supervision of Kohut, the pontoons have been remodeled and retractable landing gear added so that the plane is capable of landing on water or land. A new injector type motor has been installed adding increased speed.

The original plane was built under the supervision of Lovejoy without blue prints, and classed as a sportsman's utility ship.

Figure 35

U.S. DEPARTMENT OF COMMERCE

CIVIL AERONAUTICS ADMINISTRATION

Certificate of Airworthiness

CAA IDENTIFICATION MARK NX 41859

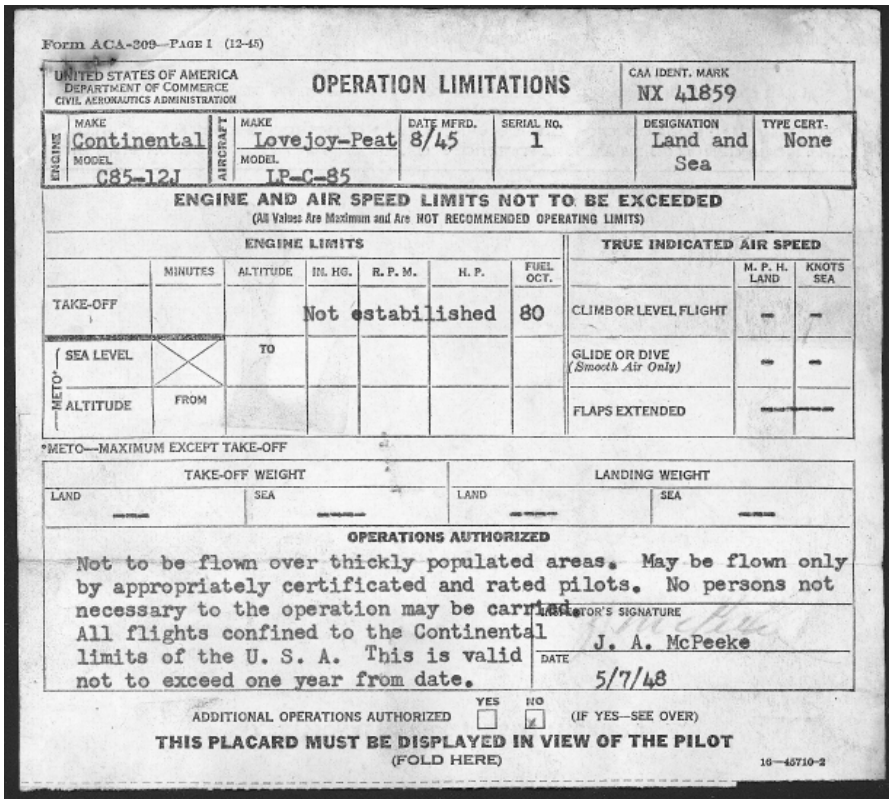
THIS AIRCRAFT HAS BEEN INSPECTED BY A REPRESENTATIVE OF THE ADMINISTRATOR AND IS CONSIDERED AIRWORTHY WHEN OPERATED IN ACCORDANCE WITH THE APPLICABLE AIRCRAFT OPERATION LIMITATIONS AND MAINTAINED IN ACCORDANCE WITH THE CIVIL AIR REGULATIONS.

THIS INSPECTION WAS CONDUCTED 5/7/48 DATE BY

J. A. McPeeke Civil Aero. Admin. CAA REPRESENTATIVE DESIGNATION NO.

FORM ACA 1362 7-15

Figure 36



Form ACA-309—PAGE 1 (12-45)

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

OPERATION LIMITATIONS

CAA IDENT. MARK NX 41859

	MAKE	MODEL	DATE MFRD.	SERIAL NO.	DESIGNATION	TYPE CERT.
ENGINE	Continental	C85-12J	8/45	1	Land and Sea	None
AIRCRAFT	Lovejoy-Peat	LP-C-85				

ENGINE AND AIR SPEED LIMITS NOT TO BE EXCEEDED
(All Values Are Maximum and Are NOT RECOMMENDED OPERATING LIMITS)

ENGINE LIMITS							TRUE INDICATED AIR SPEED		
	MINUTES	ALTITUDE	IN. HG.	R. P. M.	H. P.	FUEL OCT.		M. P. H. LAND	KNOTS SEA
TAKE-OFF			Not established			80	CLIMB OR LEVEL FLIGHT	—	—
METO* SEA LEVEL	X	TO					GLIDE OR DIVE (Smooth Air Only)	—	—
METO* ALTITUDE	FROM						FLAPS EXTENDED	—	—

*METO—MAXIMUM EXCEPT TAKE-OFF

TAKE-OFF WEIGHT		LANDING WEIGHT	
LAND	SEA	LAND	SEA
—	—	—	—

OPERATIONS AUTHORIZED

Not to be flown over thickly populated areas. May be flown only by appropriately certificated and rated pilots. No persons not necessary to the operation may be carried. All flights confined to the Continental limits of the U. S. A. This is valid not to exceed one year from date.

INSPECTOR'S SIGNATURE J. A. McPeeke

DATE 5/7/48

ADDITIONAL OPERATIONS AUTHORIZED YES ☐ NO ☑ (IF YES—SEE OVER)

THIS PLACARD MUST BE DISPLAYED IN VIEW OF THE PILOT
(FOLD HERE)

16—45710-2

Figure 37

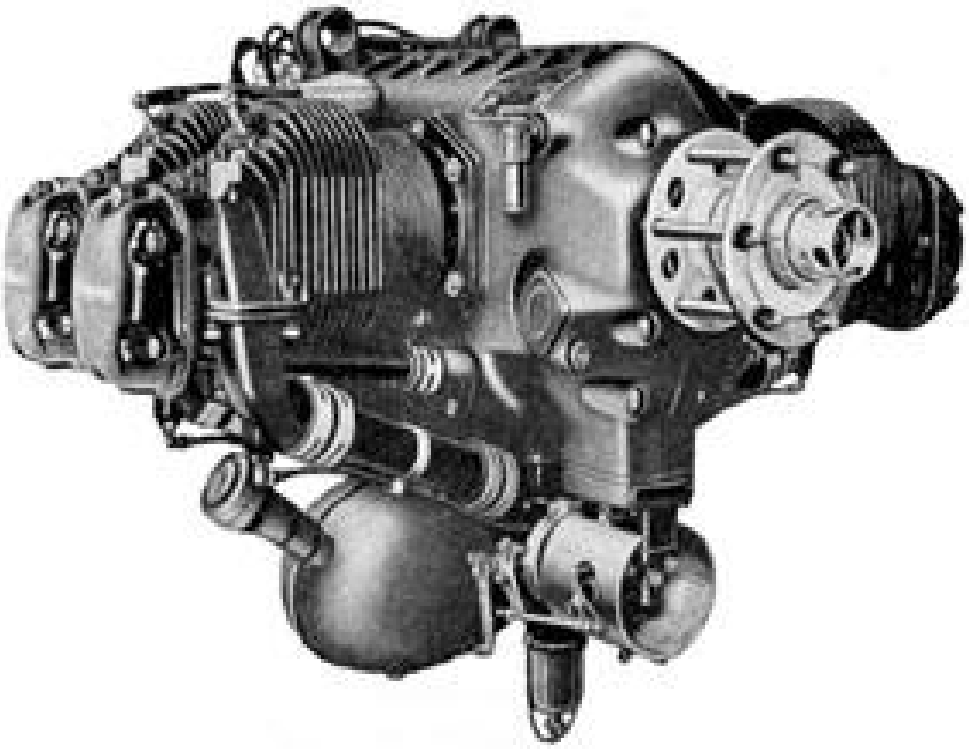


Figure 38

Continental C85-12J Fuel injected engine
Photo from Factory Service Manual

In May 1948 the Curlycraft arrived at the Highland Seaplane Base on the Allegheny River in Aspinwall, PA for assembly and flight testing. The exact date Steve Kohut could not remember. This would be the first time the Curlycraft was flown since the death of Kenneth “Curly”Lovejoy in February of 1947. The seaplane will be an amphibian now with the retractable landing gears and larger engine installed. (Figure 39, Page 47) Front view of the Curlycraft. It has a clean look. (Figure 40, Page 48 - a rear view and it has a very cluttered look; Figure 41, Page 49 - an oblique rear view and it has the same cluttered appearance; Figure 42, Page 50 - a close-up rear view of the engine and cowling) The cowling is larger than the original cowling with larger openings and this will allow for better cooling when taxiing. In this close-up you can see the ground adjustable propeller. In the center of the photograph you will see they had added support cables to brace the booms. They form an X. This will give more rigidity to the booms and the tail assembly. (Figure 43, Page 51) The seaplane has been checked out and the fuel tanks filled and ready for flight testing and waiting for the test pilot to arrive.(Figures 44, 45, Pages 52 and 53 - the seaplane in the water) Steve said the first day flight testing was adjusting the propeller for the best performance for climb and cruise. (Figure 46, Page 54 - this photo is from the collection of Rita Kohut Stone; I obtained a copy after her father had died. I have not, as of now, been able to identify two gentleman in this photograph, the gentleman on the left in white shirt and a fur cap and the test pilot wearing the Mae West life jacket.Of course the other two gentleman are D. Barr Peat and Steven J.Kohut with his back to us.

Most of the that summer was testing and making small changes in the seaplane such as making it water and air tight. They had spent considerable time on adjusting the ground adjustable propeller and the test pilot was not happy with the performance. By the end of the summer they had purchased an Aero-matic propeller. This propeller will automatically select the correct pitch. (Figures 47, 48, 49 and 50, Pages 55, 56, 57 and 58. A scanned copy of the original brochure from Rita Kohut Stone collection. An interesting note about the manufacture is that most Pittsburghers associate Kopper Company with coke and tar and lots of smoke. The Baltimore, Maryland department made these propellers using a composite material.

According to Steve, the Aero-matic propeller did improve the performance of the seaplane. Figure 51 and 52 on Page 59. Copies from Steve’s home movies. There are not many pictures of the Curlycraft in flight, most are of poor quality. I hope to make a short video from Steve’s home movies collection of the seaplane.

Rita Kohut Stone collection

Figure 39

Front View of the Curlycraft fully assembled, rigged and ready for flight testing.

This photo was taken in May 1948 in the hanger of the Highland Seaplane Base.

Rita Kohut Stone Collection

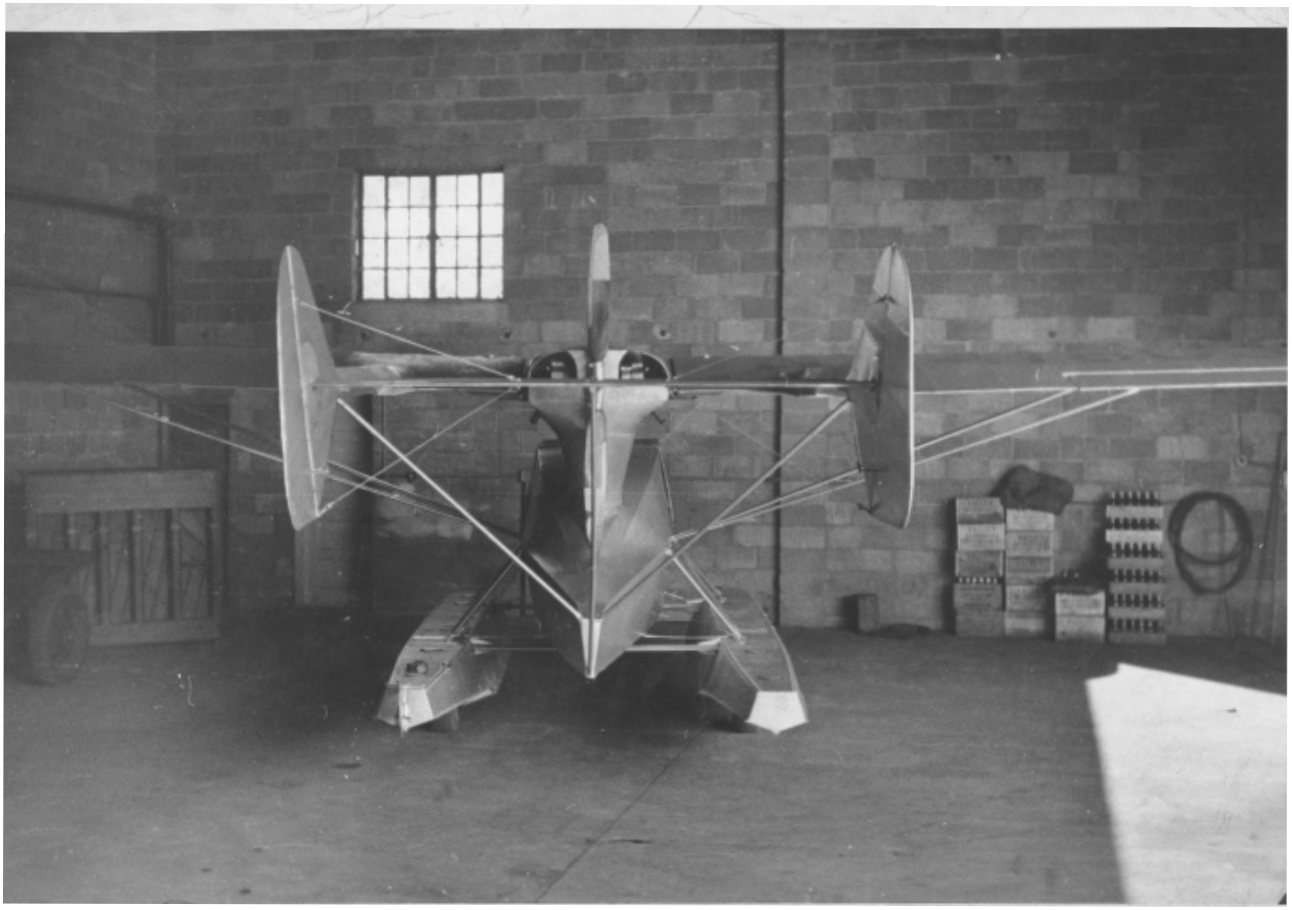


Figure 40

Rear View

This view show all the braces and guide wires.

The guide wires and the support braces are from early aircraft design.

This original Taylorcraft airplane was designed in the early 1930s.

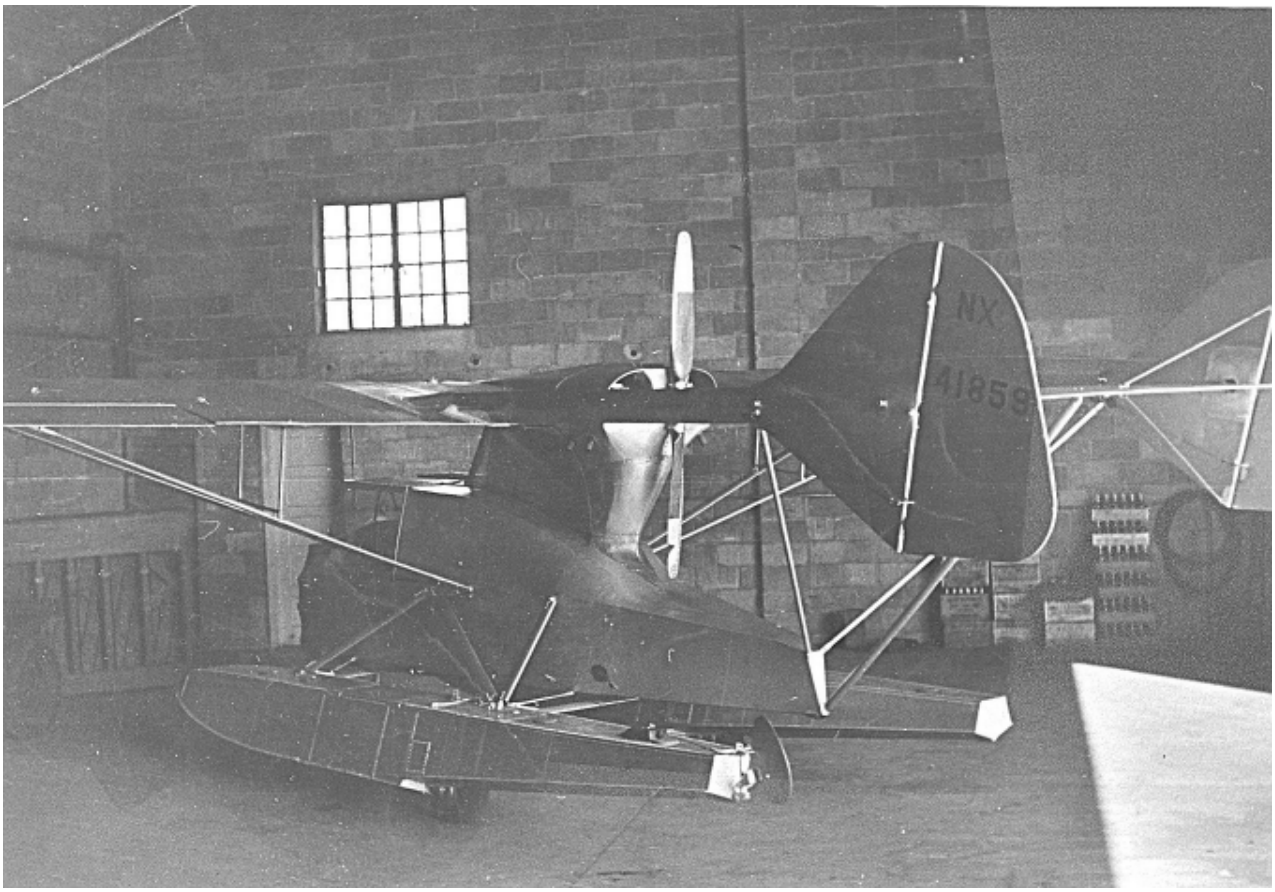


Figure 41

Oblique rear view

This oblique view really shows all the braces and guide wires.

To remove these the seaplane would have to be totally re-digned.

Figure 42

Rear view close-up.

In the center of this photo you can see the cross guide wires they had added

and in the center of this photo you can see the ground adjustable propeller.

Rita Kohut Stone Collection

Figure 43

Ready for flight test

Figure 44

The seaplane in the water for the first time since Curly Lovejoy had flown it for the last time in the Spring of 1946

Figure 45

Checking the engine and the magnetos

Unknown D.Barr Peat Test Pilot(unknown) Steve J. Kohut

Figure 46


Aeromatic® Features
Top-Flight Service!
Center of Aeromatic's well-developed service system is the new Service and Flight Test Hangar, shown above, at the Baltimore Municipal Airport. It houses up to nine airplanes and includes a completely equipped overhaul shop and repair parts storeroom. Overhaul stations, set up strategically across the country, provide quick service for Aeromatic owners in their local areas.
Aero matic
The propeller with a brain for your personal plane
Air Controlled Automatic Propeller—Licensed under Patents of Everel Propeller Corp.
FLYING FOR PLEASURE
You Get More Out of Your Plane Automatically with an AEROMATIC® Propeller
FLYING ON BUSINESS

Figure 47


Self-Acting AEROMATIC PROPELLER Selects
the Right Pitch from Take-Off to Landing!
Like a mechanical brain! That's how an Aeromatic Propeller automatically selects the correct pitch to give your plane extra life, while cutting fuel consumption and engine wear . . . whether you're taking off, climbing, cruising or landing. What's more, there are no extra controls or gadgets to fiddle with . . . no extra instruments to watch . . . when you equip your plane with this "propeller with a brain." And don't forget, Aeromatic is the only propeller that can make that claim!
Experimental developments were begun on this sensational propeller in 1937 by the Everel Propeller Corporation of Baltimore, Md. In 1941, Koppers Company was licensed to engineer, manufacture and market the Aeromatic Propeller. When you buy an Aeromatic, you enjoy the benefits of advanced propeller research, centered in our Propeller Test and Research Building . . . Koppers' high standard of workmanship . . . and unexcelled service facilities.
If you own a new plane or plan to buy one, you'll want to get more out of flying by enjoying the extra advantages of an Aeromatic Propeller. See your local Aeromatic Distributor, or write to us giving name and model of your plane for more information.
¼ SHORTER TAKE-OFF: Automatically, with engine at full throttle, Aeromatic Propeller assumes low pitch. Gets plane off ground quickly with full take-off power.
⅓ HIGHER RATE OF CLIMB: Automatically responds to natural forces. Increases pitch as air speed rises. Gets plane to cruising level fast, on minimum fuel.
GREATER CRUISING RANGE AND SPEED: Aeromatic automatically maintains the best pitch for top cruising on minimum fuel at any level up to critical altitudes.
SAFER LANDINGS: Aeromatic automatically adjusts its pitch for a long, flat glide. Moves to low pitch instantly for a quick pickup if pilot overshoots his field.
Aeromatic
The propeller with a brain
KOPPERS
for your personal plane
Air Controlled Automatic Propeller—Licensed under Patents of Everel Propeller Corp.
KOPPERS COMPANY, INC. • AEROMATIC PROPELLER DEPT. • BALTIMORE 3, MD.

Figure 48

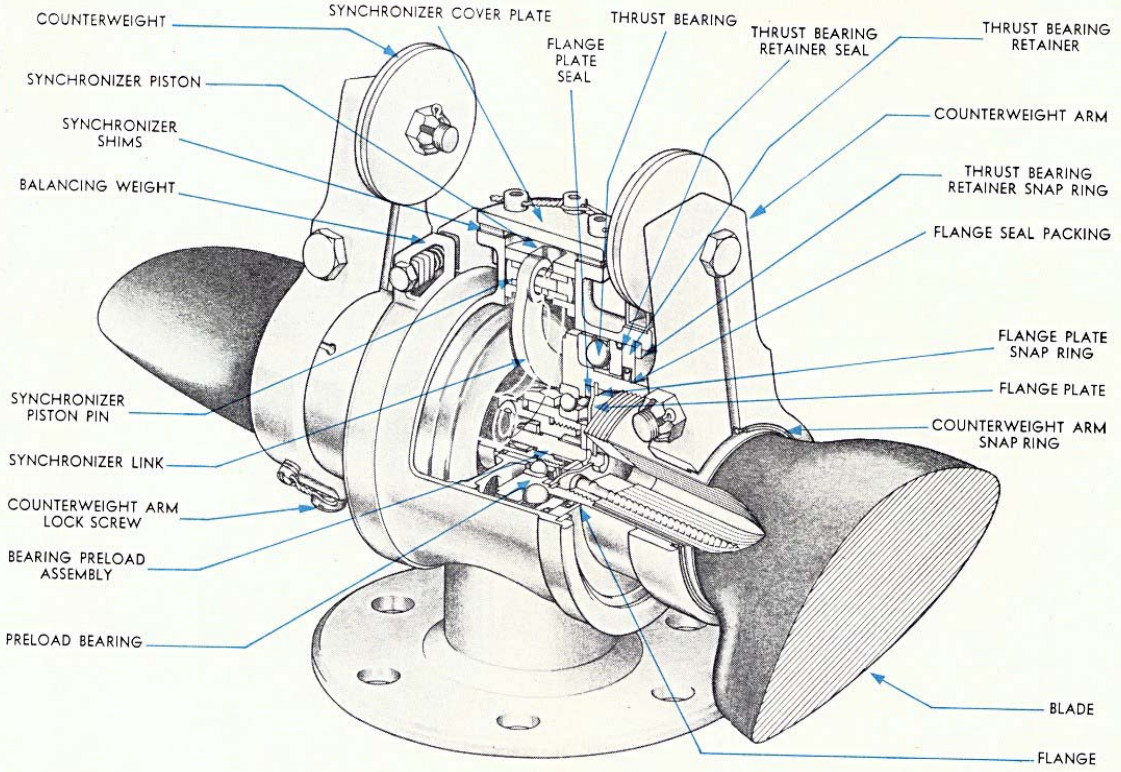

These Planes Get Peak Performance
from AEROMATIC PROPELLERS
Stinson
Swift
Piper Super Cruiser
Ercoupe
Bellanca Cruisair
Navion
Fairchild 24
CUSTOM TAILORED
FOR THE PLANES THEY FLY
They are available now for most new planes and are being approved for other makes and models.
MODELS FROM 75 TO 300 H. P.

Figure 49

Here's the Inside Story on Aeromatic Propellers!

The Aeromatic is a fully automatic propeller having no controls from the pilot or engine. The natural, physical forces acting on the blades and counterweights are utilized to accomplish the desired pitch change. Automatic action for pitch change of the Aeromatic is obtained by positioning the blades at a lag angle in the plane of rotation and the inclusion of counterweights. Briefly, this design permits aerodynamic thrust to act as a pitch-decreasing moment with the normal blade twisting moment. These moments balance the pitch-increasing effect of counterweight centrifugal force. Propeller response to airplane speed changes effectively controls engine power throughout the entire operating range.

Advanced design features of the Aeromatic Propeller include: 1. Dependability under all conditions is assured by the exclusive use of natural forces for pitch changes. Mechanical complication of pitch control devices is entirely avoided. 2. Simplicity, afforded by absence of controls, eliminates engine or airplane modification. 3. Single-piece hub prevents distortion and maintenance difficulties. 4. Thin lamination blades, with resin bonding, maintain stability against warpage and have greater strength than any natural wood blade. 5. Aeroloid plastic covers the blades, providing maximum protection against abrasion and moisture absorption. 6. External adjustments for limits of pitch range, balance, lubrication, etc., are easily made. 7. Fully enclosed hub is sealed against moisture and foreign particles.



KOPPERS COMPANY, INC. • AEROMATIC PROPELLER DEPT. • BALTIMORE 3, MD.

Figure 50

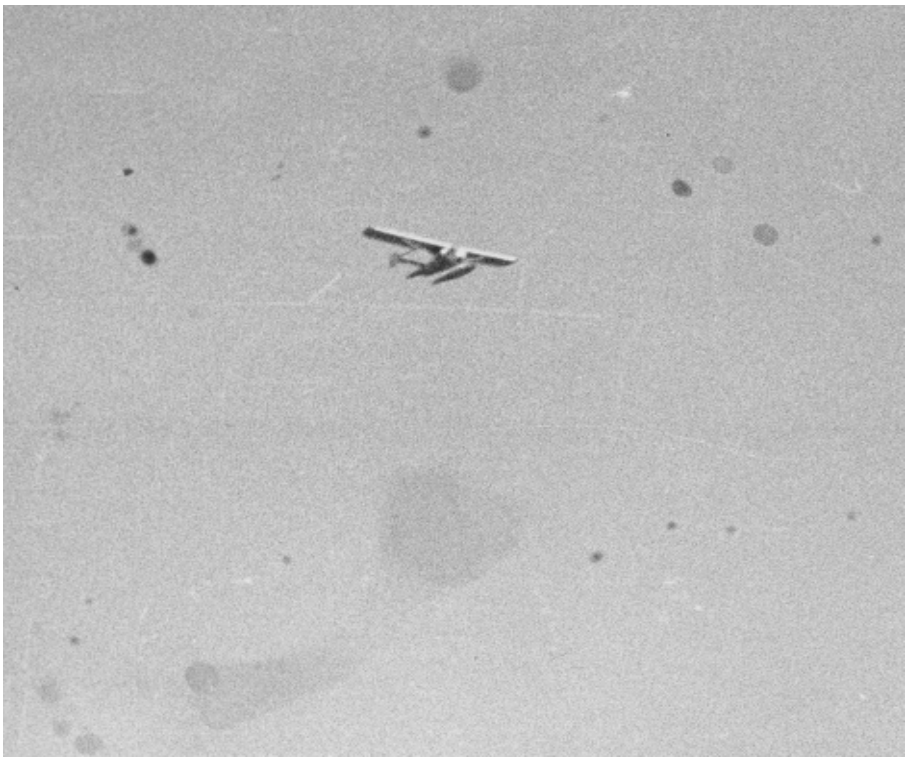


Figure 51

Figure52

The flight testing of the Curlycraft continued throughout the summer of 1948. The Certificate of Airworthiness expired May 7th 1949 and I was told they had not renewed it. (Figure 53, 54 and 55, Pages 61, 62 and 63 - photos of D. Barr Peat demonstrating the seaplane to some investors) Steve Kohut thought this was done in 1949; Most potential investors realized that the Curlycraftt needed to be totally redesigned for the postwar market and this would require a large investment. The Curlycraft was constructed of steel tubing and fabric. Most of the new airplanes where all metal and seaplanes were not in demand since every little hamlet had an airfield.

Before the Certificate of Airworthiness expired in 1949, the Curlycraft was flown from the Highland Seaplane Base on the Allegheny River in Aspinwall, Pa. to a small airport near Jeannette, Pa. for winter storage. This is one of the few times the seaplane made a landing at an airport. According to Steve Kohut the test pilot said the seaplane did not perform very well on a paved runway. One of the problems was excessive nose wheel shimmy. I do not know if the nose gear had a shimmy dampener Steve Kohut had taken home movies of the Curlycraft taking off a runway of an unknown airport. These home movies are of poor quality.

Steve Kohut obtained ownership of the Curlycraft December 23, 1952. (Figure 56, Page 64 - scanned copy of the original letter from H.J. Heinz Company) (Figure 57, Page 65 - a copy of a original letter address to the operator of the Jeannette Airport, Mr. Elmer Ashbaugh to release the Curlycraft to Steven J. Kohut) According to Steve, the H.J. Heinz Company wanted this ship dismantled and disposed of. He thought maybe there was a liability issue. Steve wanted the engine for his Ercoupe.

What happened to the rest of the Curlycraft is a mystery. Steve Kohut told me in 1977 the seaplane was stored at his brother Nick's barn in McMurray, Pennsylvania. Steve's daughter was told by her cousin that he played on it in their barn. The farm was sold for housing development and they do not know what happen to the seaplane. I'm still researching this mystery. I was told at one time that one of the investors had the seaplane. Steve told me that was not true because most of the seaplane was dismantled as H.J. Heinz had wanted.

Figure 53

D. Barr Peat at the controls.

Demonstrating the Curlycraft at the Highland Seaplane Base.

If you look you can see the Areomatic Propeller in the next 2 potos.
The blades are broad compare to the ground ajustable propeller
in Figure 42, Page 50.

Rita Kohut Stone collection

Figure 54

D. Barr Peat and the Curlycraft

.This is a good view of the Aeromatic Prpeller

Rita Kohut Stone collection

Figure 55

D. Barr Peat and the Curlycraft returning from taxiing test.
Steve said this was in 1947; he was demonstrating the seaplane.

H. J. HEINZ COMPANY

MAKERS OF THE 57 VARIETIES

OFFICE OF THE PRESIDENT

PITTSBURGH, PA.

December 23, 1952

Mr. Steven Kohut
1702 McClure Ave.
Homestead, Pa.

Dear Steve:

This will confirm our understanding that you will purchase the "Curlycraft" and all of its accompanying accessories and spare parts from Mr. H. J. Heinz II.

You will remove the plane from the hangar where it is presently stored prior to December 31, 1952, as the hangar rental is being discontinued at that time.

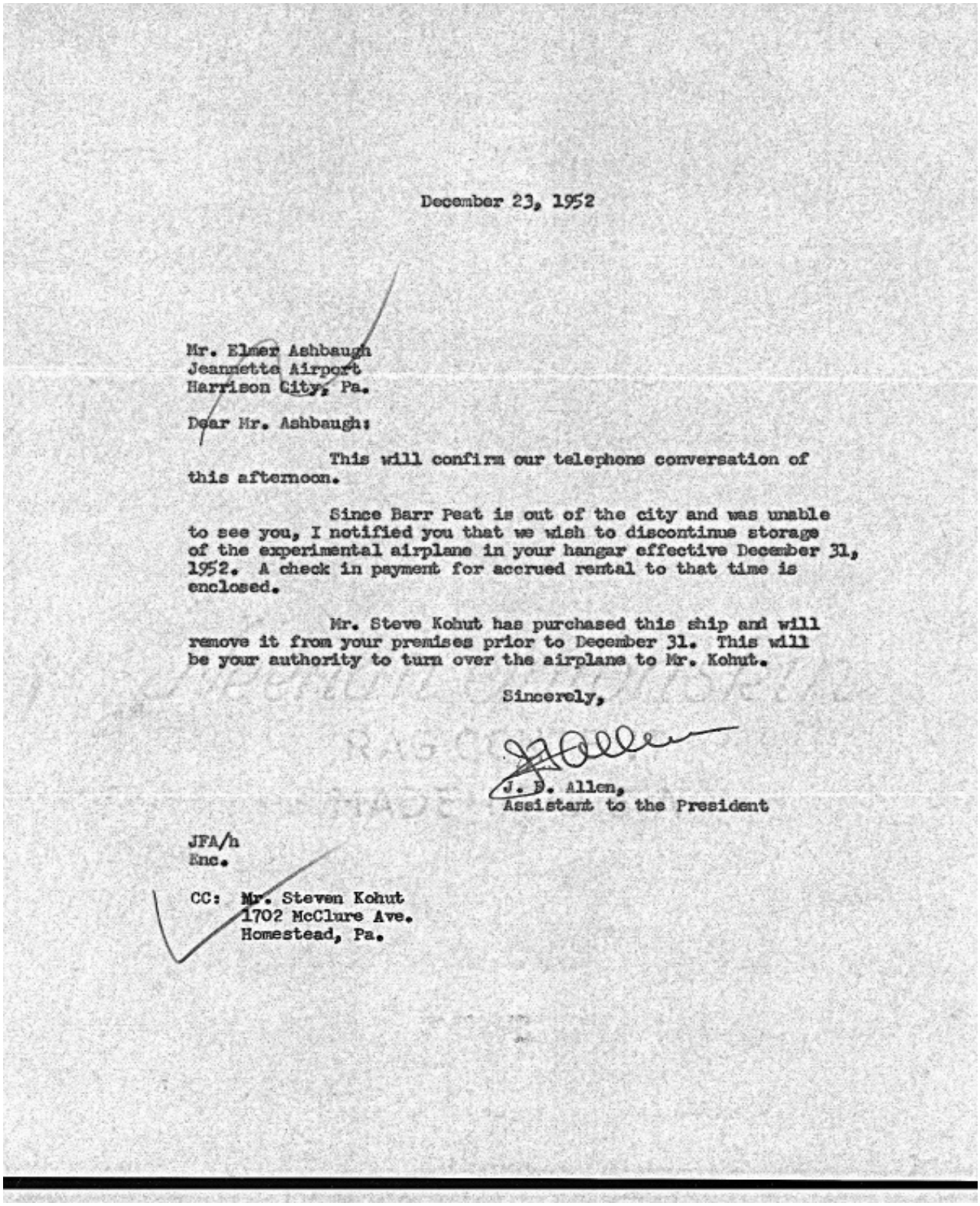
You will assume the responsibility for transferring and dismantling the ship and will have the privilege of disposing of any salvagable parts.

Sincerely,

J. F. Allen,
Assistant to the President

JFA/h

Figure 56



December 23, 1952

Mr. Elmer Ashbaugh
Jeannette Airport
Harrison City, Pa.

Dear Mr. Ashbaugh:

This will confirm our telephone conversation of this afternoon.

Since Barr Peat is out of the city and was unable to see you, I notified you that we wish to discontinue storage of the experimental airplane in your hangar effective December 31, 1952. A check in payment for accrued rental to that time is enclosed.

Mr. Steve Kohut has purchased this ship and will remove it from your premises prior to December 31. This will be your authority to turn over the airplane to Mr. Kohut.

Sincerely,

J. F. Allen,
Assistant to the President

JFA/h
Enc.

CC: Mr. Steven Kohut
1702 McClure Ave.
Homestead, Pa.

Figure 57

D. Barr Peat has a new project to promote

D. Barr Peat's new project was the Custer Channel Wing. (Figure 58, Page 67 - scanned copy of the original copy of the Aero Club of Pittsburgh program for December 6, 1951). The program, "The Shape of Wings To Come" was to promote the Custer Channel Wing. The program had a great turn-out. Custer Channel Wing Figure 59 Page 68. An interesting note is that the program that was held for Kenneth "Curly" Lovejoy and D. Barr Peat's seaplane project was on December 6, 1945. (Figure 24, Page 33)

I had attended the program and have an original "Taylorcraft News Release" that was handed to me by Clifford Ball. They were mimeographed copies and mine had faded and was exposed to some moisture. I was able to read and retype a copy for this book. (Figure 60, Page 69) After the program I alked to Clifford Ball and he invited me for a tour of the new Taylorcraft Plant at Conway, Pennsylvania.

In January 1952, I called Clifford Ball and told him I would like to have a tour of the new Taylorcraft plant. On this tour I met Willard Custer, C. G. Taylor and B. J. Mauro, the president of Taylorcraft Corporation. I was shown a new Taylorcraft model, which was a 4 place and a tail dragger and had a very fast look to it.

I had lunch with Clifford Ball and I mentioned I was interested in working on the Custer Channel Wing project. Clifford Ball suggested I wait until they get the contract from the Air Force to build some models for testing. I was 27 years old at the time and was naive about the workings of the government and the military to believe they had a chance to get a contract. Looking back over the years, the enthusiasm these gentlemen had for this project, I believe they were as naive as I was.

It was an interesting experience working on the Curlycraft project. I had learned a great deal about building and developing new products. It is disappointing and sad that all this work and the Curlycraft may have ended on a scrap heap or maybe it lies undiscovered in somebody's barn.

THE

AERO CLUB OF PITTSBURGH

-- WEEKLY LUNCHEON AND PROGRAM --

THURSDAY - 12:30 P.M.
DECEMBER 6th, 1951.

AVALON ROOM
HOTEL SHERATON

A preview - -

"THE SHAPE OF WINGS TO COME"

with

WILLARD CUSTER, Pres.
Custer Channel Wing Corp.

B. J. MAURO, Pres.
Taylorcraft Corp.

C. C. TAYLOR
Originator of the Light Plane

Our guests will include the foremost aviation writers of the nation -- some of which are:

David Anderton
Engineering Editor
Aviation Week

Richard G. Fuller
Engineering Editor
American Aviation

Richard Seaman
Scientific Editor
Time Magazine

R. N. Larkin
Pittsburgh Bureau Chief
Business Week

Richard Hawthorne,
Assistant Editor
Aviation Age

Harold G. Alloway
Managing Editor
Popular Science Monthly

INVITATIONS EXTENDED TO OTHERS -
ACCEPTANCES NOT RECEIVED AS THIS
BULLETIN GOES TO PRESS

This is another periodical program marking a milestone in the advancement of aviation of which the AERO CLUB has had many such in its histor dating back to an air meet in 1910.

Members are urged to come -- and bring guests!!!

NOTE: Change in time for this week's luncheon.

Figure 58

Custer Channel Wing

Figure 59

This is my copy of Photograph from Custer Channel Wing Corporation.

Taylorcraft News Release

December 6, 1951

From: Clifford Ball, Publicity Director - Taylorcraft, Inc - Conway, Pennsylvania

Taylorcraft, Inc. of Conway, Pennsylvania the first aircraft manufacture to contract with the Channel Wing Corporation of Hagerstown, Maryland for license to manufacture both military and private aircraft. The first type that will be rejected on an experimental basis will be a military aircraft that will comply with Air Force specifications for liaison aircraft.

It will carry a pilot and three fully equipped combat soldiers or three litter patients and one medical attendant. It will have at least five hour cruising range and be able to land-on and take-off from unprepared surfaces. The useful load will exceed one thousand pounds exclusive of pilot, and it's normal cruising speed will be one hundred and fifty knots or better.

Mr. Willard Custer, the designer and builder of the experimental Channel Wing says that when full usefulness of the Channel Wing is applied to the aircraft it could well be that such aircraft will supercede the airplane, the helicopter, and the wheeled vehicle since it will be able to go into inaccessible places where other means of transportation cannot go. Mr. Custer pointed out, "that the principal of the Channel Wing is that lift is created by air which is moved over the airfoil, drawn or sucked by the propellers, thus creating a powerful lifting force on the lifting surface without forward motion, thus being able to create vertical lift, hover in midair, slow down and speed up at the will of the pilot".

Mr. C. Gilbert Taylor, the creator of the light airplane, speaking for Taylorcraft said, "The Custer Channel Wing is the first change in basic design of aircraft since Wright Brothers, and that complete new formula for aerodynamics may have to be developed together with engineering data and new operating rules to cover the aircraft that is now in the process of development by Taylorcraft, Inc.".

Mr. Taylor further pointed out the usefulness of such an aircraft for the military as for instance, in a place like Korea, it could be based very near the front, it's ability to take off from and land on rough ground, and it's ability to hover for rescue or observation purposes. It would make an ideal ambulance and it could be used for combat too, since it has high speed for quick approach and fast get away, with a rate of climb of 1000 feet per minute or better.

(This is a retype memo, the original was faded)

Figure 60

Kenneth Frick (Curly) Lovejoy

Curly Lovejoy was a very interesting individual who was born in 1897. His father was secretary of Carnegie Steel Company. His flying career started during World War I with the US Army Signal Corp as an aerial gunner instructor. After the war he did barnstorming. Kenneth "Curly" Lovejoy was Clifford Ball's first airmail pilot. He flew a Waco 9 called Miss McKeesport in 1927. Curly Lovejoy flew airmail from downtown Pittsburgh, I'm not sure of the date (some people think it might be in 1938). (Figures 61 and 62, Pages 71 - photographs of that event)

Kenneth "Curly" Lovejoy operated a flying school at Bettis Field call "Lovejoy School of Aviation". He gave Kenny Scholter his first flying lesson; another famous student was Helen Ritchey. For more reading and information on his flying career, check these web sites or type the following names at your favorite search engine: D.Barr Peat, Kenneth "Curly" Lovejoy, Clifford Ball and Bettis Field.

Here is great a book about early aviation history in Wester Pennsylvania.
This book can be purchased from Amazon.com.
Google Books has a limited preview of this book.

"A Place in the Sky": A History of the Arnold Palmer Regional Airport and Aviation in Southwestern Pennsylvania, 1919-2001 (Hardcover)
by David Wilmes (Editor), Mary Ann Mogus, Richard David Wissolik (Editor)

Jim Hartman compiled a great article on "Pittsburgh's First Airfield" for the Homestead & Mifflim Township Historical Society. The site has a new name and location:
www.mifflintownship.org

Figure 61

Kenneth “Curly” Lovejoy Clifford Ball

Figure 62

Unknown Postal Official Col.Harry C. Fry Curly Lovejoy Clifford Ball

D. Barr Peat

D. Barr Peat had a long and interesting flying career. As his friend Curly Lovejoy, he spent most of his time promoting aviation. Barr Peat, with the financial help of Clifford Ball, opened the Bettis Field and in 1925 they had their first air show. D. Barr Peat knew everybody in the aviation and the political field. With his and Clifford Ball's political connections they obtained a contract to operate air mail services from Bettis Field to Cleveland, Ohio. (Figure 63, Page 73- Newspaper clipping of the 18th anniversary of their first airmail flight)

D. Barr Peat did work with us on the 1945 stage of the Curlycraft when he was not out locating supplies. He said Shorty Moore and I were spoiled with all our tools. In his early days of flying all he needed was pair of pliers and a spool of safety wire. He was a good mechanic and he had a lot of input on this project. In 1947 I did receive a call from him to look over some drawings, the drawings were of the Custer Channel Wing and he wanted some models made. The last time I saw Barr Peat was at the Rostraver Airport on the arrival of the replica of "The Spirit of St. Louis" on June 29, 1977. (Figure 64, Page 73) I was at the same event and presented a check to my friend Verne Jobst, the pilot for their expenses.

D. Barr Peat's daughter Carolyn Peat had written a very good article of her father's life as a pioneer aviator and a promoter of aviation. This article can be read at "EarlyAvaitors" **http://www.earlyaviators.com/ebettis5.htm**

More of D. Barr Peat's carrer in aviation can be obtain at the same sites as Curly Lovejoy, Clifford Ball and the Bettis Airfield. These aviation's pioneers carrers have parallelled. When you read about one you will read about the other.

Want to read more about D. Barr Peat's newest project the Custer Channel Wing and Taylorcraft Corporation this can be done by searching under Custer Channel or Taylorcraft.

—Post-Gazette Photo

THE EIGHTEENTH ANNIVERSARY of the first airmail flight out of Pittsburgh was celebrated by the Pittsburgh Aero Club at a luncheon yesterday at the Hotel Henry. Here Clifford Ball, founder of the Cleveland-Pittsburgh Airmail and Express Line; Kenneth Curley Lovejoy, the pilot who flew the first trip, and D. Barr Peat, operations manager of the airline, discuss the flight which was made between Pittsburgh and Cleveland on April 26, 1927.

From the Pittsbudgh Post Gazette

Figure 63

Verne Jobst Don “Curly” Shumaker

My Photo Rostraver Airport June 29, 1977

Figure 64

Steven J. Kohut

Steve was the head mechanic on the Curlycraft project. He was born a mechanic. His success was that he was good at listening and he knew how to get the most out of people. He had great respect for Shorty Moore and his knowledge of aircraft design and construction. Steve always referred to me as the “Kid” or “Curly Junior”. Steve was only about 14 years older than me. Shorty was 15 years older than me so I was the kid on this project . I liked the way they would suggest on how to do something. “Maybe you ought to try it this way”.Shorty and I both had schooling in aircraft welding; with Steve coaching, we became better welders. Steve was the only welder that could light his pipe with his torch and talk and not lose any heat in his weld.

I first met Steve at Matta’s garage in Braddock and our friendship lasted until he moved to eastern Pennsylvania to live with his daughter. I will always remember the story that he and his wife Margaret would tell about the trips they made in their 1945 Ercoupe. His wife, Margaret, was a licensed pilot. Steve told me the reason he had not taken his pilot test, he was afraid he would not pass the test. Anyway, Margaret was a better pilot, according to Steve. In 1979, my partner, Harry Lapham, and I were restoring a 1945 Ercoupe and Steve was a lot of help. Every time I visited Steve he would have some parts for our Ercoupe.

Steve had worked on the Custer Channel Wing when D. Barr Peat was promoting the plane. Steve has a lot of home movies on the Custer Channel Wing and with the Curlycraft. Steve had his home movies put on a video tape. I’m in the process of editing the tape. They are not of good quality because a lot was lost through time and transferring. I am planning to make a short streaming video that will be accessed from the electronic version of this book. Steve was born in 1912 and died 2000. I was disappointed in researching for this book that there was very little information on Steve Kohut’s contribution to aviation.

Knowing Steve, I think it didn’t matter because he enjoyed his work and friends. (Figure 65, Page 75 - copy of newspaper article about his life and work in aviation.)

Copy From: Tribune Review

Steve Kohut

Munhall man's mechanical dreams took wing

By Jerry Vondas
TRIBUNE-REVIEW

Steve Kohut belonged to an exclusive group known as the "airport bums."

In the 1920s and '30s, when few airports had full-time employees to repair planes, free-lance airplane mechanics were in demand.

Mr. Kohut was a self-trained mechanic who — even though he never learned to read — built a successful business and helped design an airplane for financier H.J. Heinz.

Steven J. Kohut of Munhall, former owner of S.J. Kohut Aircraft, Marine & Automotive Service in Homestead, died Tuesday, Aug. 29, 2000, of congestive heart failure in his daughter's home in West Chester, Chester County. He was 88.

Along with such well-known mechanics and aviators as Kenneth "Curly" Lovejoy and Barr Peat, Mr. Kohut camped out at airports and waited for repair jobs that came along.

"Dad could be found at the old Bettis Airport or the airport in Irwin, Latrobe and Greensburg, and also the old county airport in West Mifflin," said his daughter, Rita Stone.

Although Mr. Kohut never completed the Schwab Vocational School in Homestead, he was considered an excellent mechanic who understood the intricacies of complicated mechanisms, Stone said.

"Unfortunately, Dad never learned how to read, and that was one of the reasons he could never take the test for a pilot's license," she said.

But that didn't keep Mr. Kohut from teaming up with Lovejoy and Peat to design and construct an amphibious airplane, which Lovejoy believed would revolutionize water flying. The "Dream Boat," as Lovejoy called it, had been commissioned by Heinz and eventually was housed at the Highland Sea Plane Base on the Allegheny River.

"There was no end to what my father could do when it came to mechanics," she said.

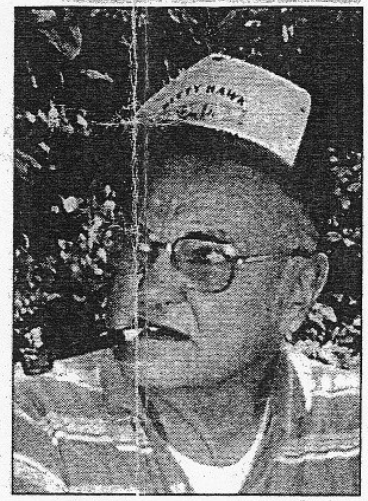
Born and raised in Homestead, Mr. Kohut was one of eight children of Nicholas K. and Julia Zoldy Kohut. His parents had emigrated from the Austro-Hungarian Empire and were married in Braddock.

Although Nicholas Kohut was employed at the Homestead Works of USX (then U.S. Steel), he also operated a small grocery store in Homestead. His wife and children worked at the store until he finished his shift.

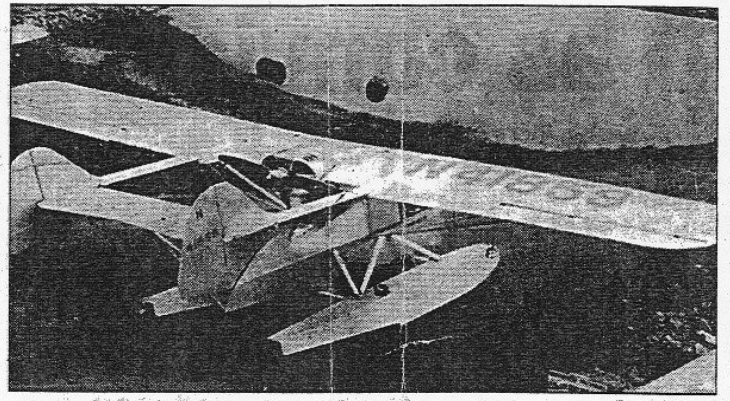
"My father hated working in the grocery store," Stone said. "He enjoyed hiding in the attic of my grandparents' home" at Ninth and West streets.

Steve Kohut's fascination with airplanes began when, as a teenager, he went to live with his sister, Julia, in Dearborn, Mich. and got a job at the Henry Ford Airport.

"When Dad first started working at the airport, it was his job to sew



Steve Kohut



Submitted photo

The Heinz amphibious plane, which Steve Kohut co-designed and helped to construct.

together the advertising banners that the planes and blimps would fly over Detroit," Stone said. "Soon after, he began to work on airplane motors.

"Dad couldn't wait until he returned to Pittsburgh to begin his own business," she said.

In those early days, Mr. Kohut worked out of his parents' garage along Ninth Street. Eventually, he relocated to 17th and McClure streets.

Although aviation was an integral part of his life, his reputation as an auto mechanic paid the bills. He serviced garbage trucks, firetrucks and street cleaners for Homestead Borough, his daughter recalled.

In 1940, Mr. Kohut married Margaret Martin, a young woman from Hazelwood who he met when she was working as a waitress at the former Stouffer's Restaurant in downtown Pittsburgh. Margaret Martin Kohut, who died in 1997, earned her pilot's license and, along with her husband, took several trips in their airplane.

An avid fisherman and hunter, Mr. Kohut also enjoyed gardening.

"Dad was well-liked by our neighbors," Stone said. "There were always children visiting our home. Dad made them welcome."

In addition to his daughter, Rita, Mr. Kohut is survived by a brother, Edward Kohut of Seminole, Fla., and a sister, Margaret Filiatrault Granger of New Port Richey, Fla; four step-grandchildren; and seven step-great-grandchildren. He was also the brother of the late Nicholas Kohut, Julia Matlock, Mary Nahay, Ann Urban and Helen Selai.

A Divine liturgy was celebrated Saturday in St. Elias Church, Munhall, with burial in St. Elias Cemetery. Arrangements by the Savolskis-Wasik-Glenn Funeral Home Inc., 3501 Main St., Munhall. Contributions may be made to the Neighborhood Visiting Nurse Association, 795 E. Marshall St., Suite 204, West Chester, PA 19380, or to the charity of the donor's choice.

Figure 65

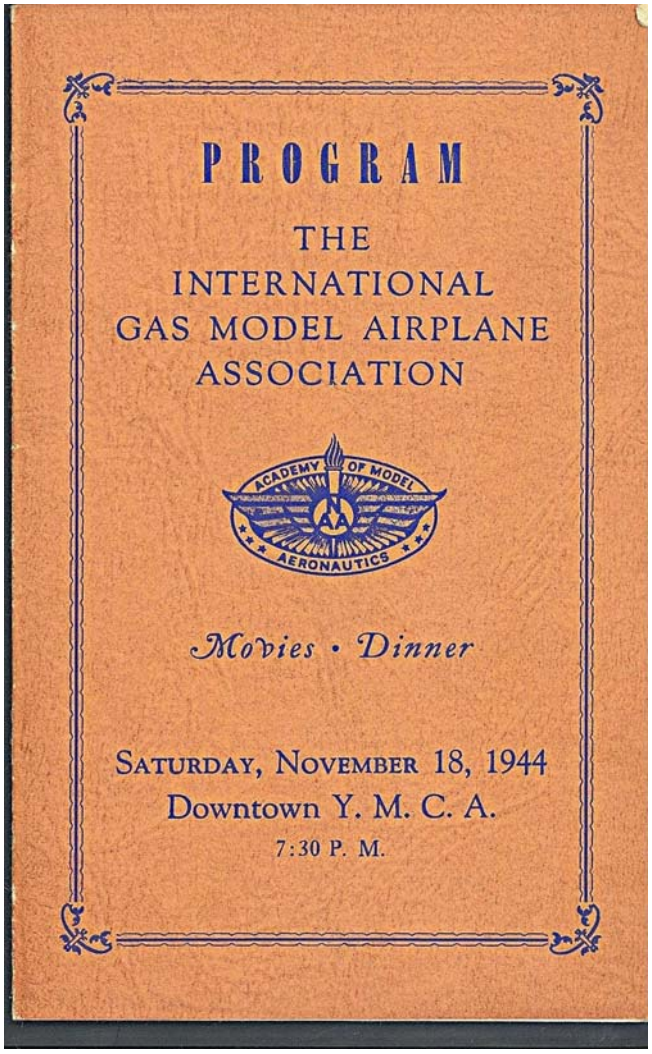
Robert "Shorty" Moore

I was first introduced to Robert "Shorty" Moore at Bob Flinn's Hobby Shop in downtown Pittsburgh. He was working at the Wilkinsburg Boys Club. Bob Flinn told Shorty I was building a radio controlled model airplane. They suggested I should attend the Academy of Model Aeronautics (AGMAA) meeting at the downtown Pittsburgh YMCA. (Figure 66 and 67, Page 77 - copy of the original menu and program) Shorty Moore invited me to stop by the Wilkinsburg Boys Club for a visit.

One evening I stopped to see Shorty and I took my model airplane with me. I was really surprised with the size of his class and shop. He had about 15 or 16 model builders in his class. What impressed me was a model he had of an uncompleted Piper J3 Cub. It was about 1/4 scale and he had started this at college for a class project. The fuselage was built of steel tubing and constructed from drawings he had made. The wings were constructed the same as the original J3 Cub. The welding and the workmanship of the fuselage and wings were flawless. This project was in need of a suitable engine and at that time none was available. Shorty said if he found an engine I could help with the radio control system.

Shorty had a lot of suggestions for my model; This was a free flight model and it had too much stability. With Shorty's help I rebuilt my model and had lots of fun flying it. Shorty and I went with friends to model airplane contests all over Eastern Ohio and Western Pennsylvania, which were great fun. The summer was ending and I was making plans for school and Shorty said he was looking at some job offers. We had no idea that we would be asked to work on the Curly Lovejoy seaplane project. Shorty had a job interview and I applied for school. We put all that on hold so we could work on this project. After we completed the project, Shorty moved out of town and I went back to school and we lost contact.

Robert "Shorty" Moore attended Ohio State University in Columbus, Ohio and graduated with a degree in aeronautical engineering. He learned to fly and received his Private pilot license. Shorty and his classmates had rigged a Piper J3 so he could reach the controls. After graduation he did not fly much while working at Wright-Patterson Field in Dayton, Ohio. He worked on projects that made use of his small stature and his aeronautical engineering schooling. Shorty shared a story about crawling all through the B29 looking for structural and control problems.



PROGRAM

THE
INTERNATIONAL
GAS MODEL AIRPLANE
ASSOCIATION

ACADEMY OF MODEL AERONAUTICS

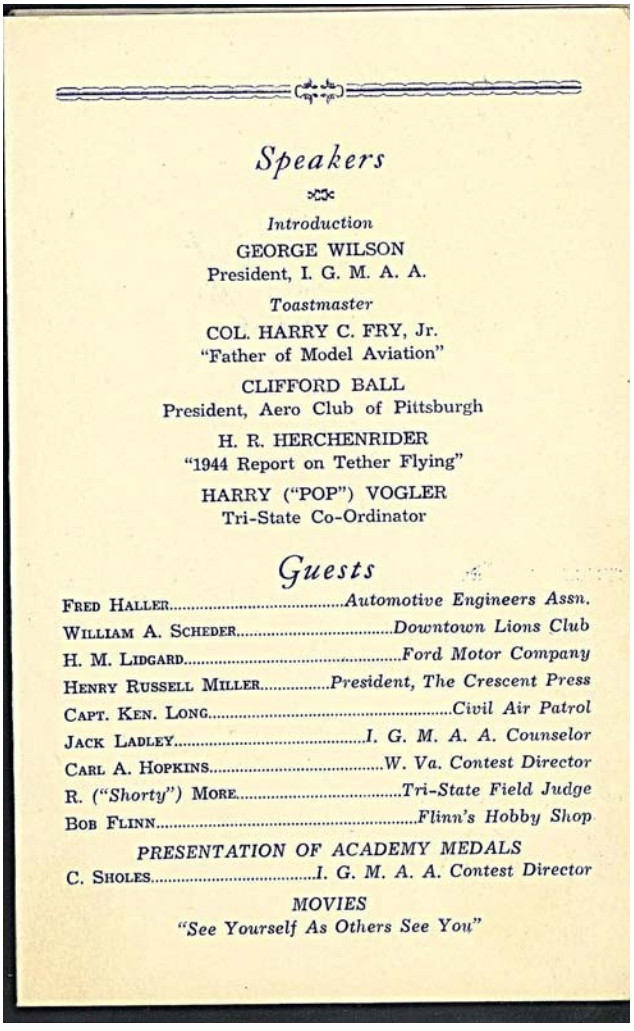
Movies • Dinner

SATURDAY, NOVEMBER 18, 1944
Downtown Y. M. C. A.
7:30 P. M.

Figure 66

IGMAA Program and Menue

November 18, 1944



Speakers

Introduction
GEORGE WILSON
President, I. G. M. A. A.

Toastmaster
COL. HARRY C. FRY, Jr.
"Father of Model Aviation"

CLIFFORD BALL
President, Aero Club of Pittsburgh

H. R. HERCHENRIDER
"1944 Report on Tether Flying"

HARRY ("POP") VOGLER
Tri-State Co-Ordinator

Guests

FRED HALLER.....*Automotive Engineers Assn.*
WILLIAM A. SCHEDER.....*Downtown Lions Club*
H. M. LIDGARD.....*Ford Motor Company*
HENRY RUSSELL MILLER.....*President, The Crescent Press*
CAPT. KEN. LONG.....*Civil Air Patrol*
JACK LADLEY.....*I. G. M. A. A. Counselor*
CARL A. HOPKINS.....*W. Va. Contest Director*
R. ("*Shorty*") MORE.....*Tri-State Field Judge*
BOB FLINN.....*Flinn's Hobby Shop*

PRESENTATION OF ACADEMY MEDALS
C. SHOLES.....*I. G. M. A. A. Contest Director*

MOVIES
"See Yourself As Others See You"

Figure 67

IGMAA Program and Menue

Don “Curly” Shumaker

I started building solid models of airplanes when I was 11 years old. My neighbor gave me magazines and loaned me books with pictures of the great flying boats. I kept the magazines for many years until they got misplaced while I was in the Army. I still have another collection of books on flying boats.

In the summer of 1942 I worked for Gardner Display on Melwood Street in Pittsburgh. They made displays, display cases and counters for department stores. For the war effort they made a wide range of products. They made models of military aircraft to use for aircraft identification training and models of Army trucks, tanks and jeeps which were for use on planning boards. My most interesting work was building cockpit mock-ups for the Grumman Wildcat and the Avenger. (Figures 68 and 69, Page 79) They were full size. They used full scaled photographs of the instruments and glued them on to the instrument panels and they had a throttle and control stick. Cockpits were as real as it could be for training without using critical materials.

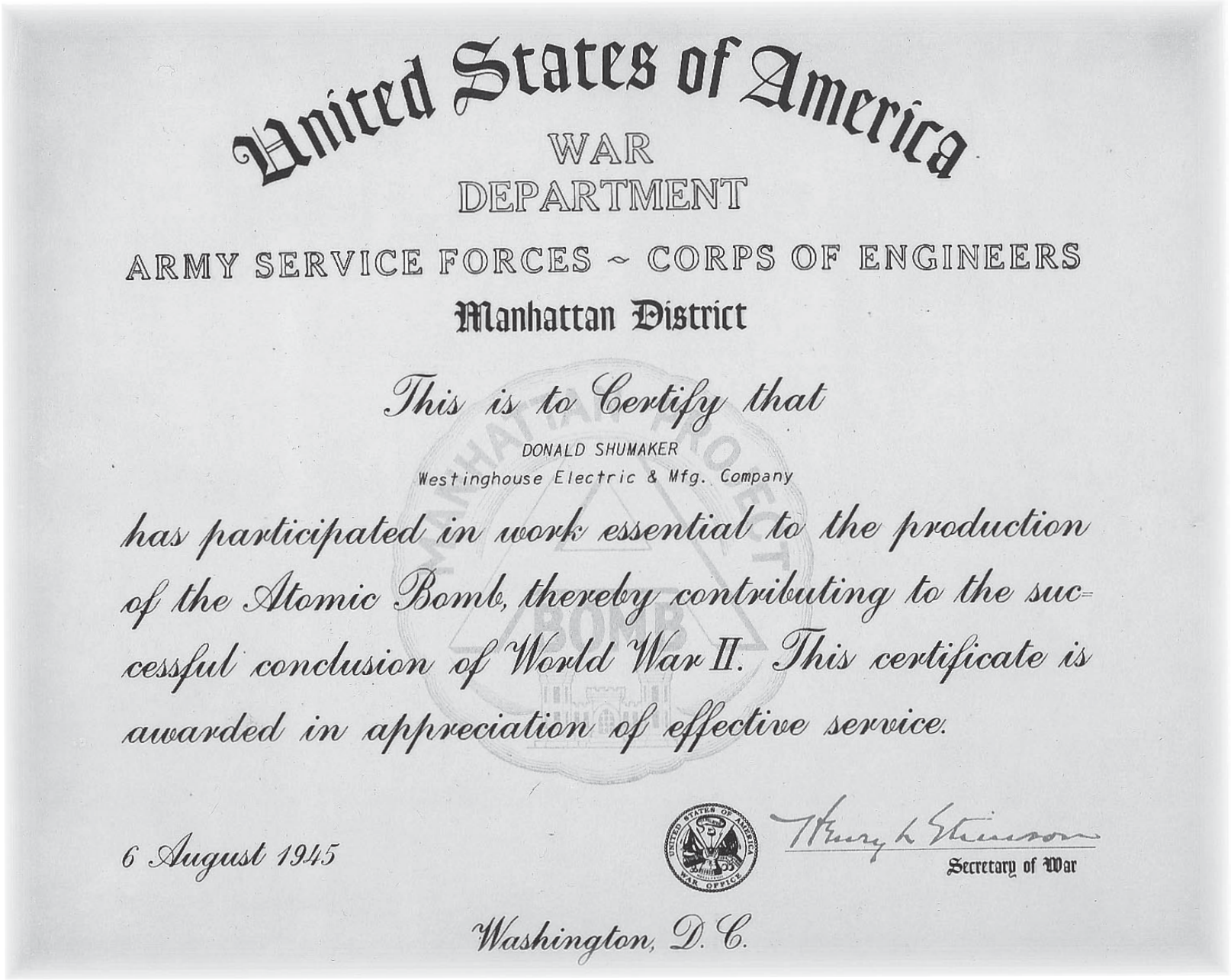
In August 1943 I was injured in an accident while in the Army and was discharged. I went to work at night for Westinghouse in East Pittsburgh as an electrical tester and mechanical inspector on the Manhattan Project. (Figure 70, Page 80 - a scanned copy of the certificate from the Army Corp of Engineers) We had no idea what we were working on. I described to one of my college professor what we tested and he said it was a “Calutron”. If you are curious what it is type “Calutron” at your favorite search engine.

During the day I went to aircraft mechanic school. In August 1945, I was laid off at Westinghouse and began working on Curly Lovejoy’s seaplane project in October. When my part of the seaplane project was completed I worked part time as draftsman, machinist and model builder while going to school.

I married and worked as a sales engineers for a company in Johnstown, Pennsylvania. They manufactured planetary gear reducers of various sizes from 3 inch to 60 inch. (Figure 71, Page 81 - the smallest gear reducer and Moon Vehicle; Figure 72 Page 81- the largest gear reducer)

Figure 68
This site has some great photos of a recent restored Wildcat.
Kiwi Aircraft Images

Figure 69
This site has some great photos of recent restored Avenger.
Warbird Resource Group.



United States of America

WAR
DEPARTMENT

ARMY SERVICE FORCES ~ CORPS OF ENGINEERS

Manhattan District

This is to Certify that

DONALD SHUMAKER
Westinghouse Electric & Mfg. Company

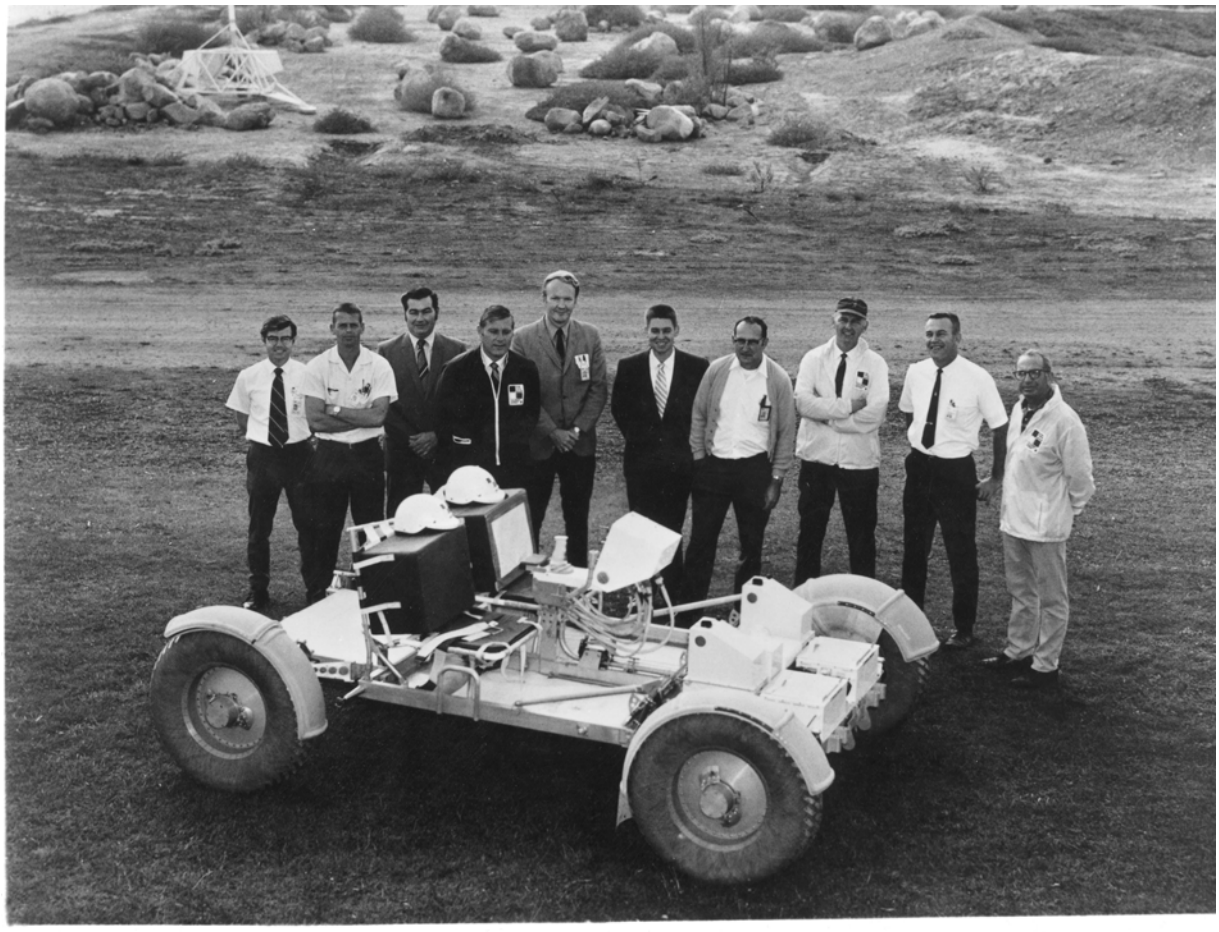
has participated in work essential to the production of the Atomic Bomb, thereby contributing to the successful conclusion of World War II. This certificate is awarded in appreciation of effective service.

6 August 1945

Henry L. Stimson
Secretary of War

Washington, D. C.

Figure 70



Special Reducer for the HubTraction Drive for Moon Vehicle

This unit has a 3 inch ring gear

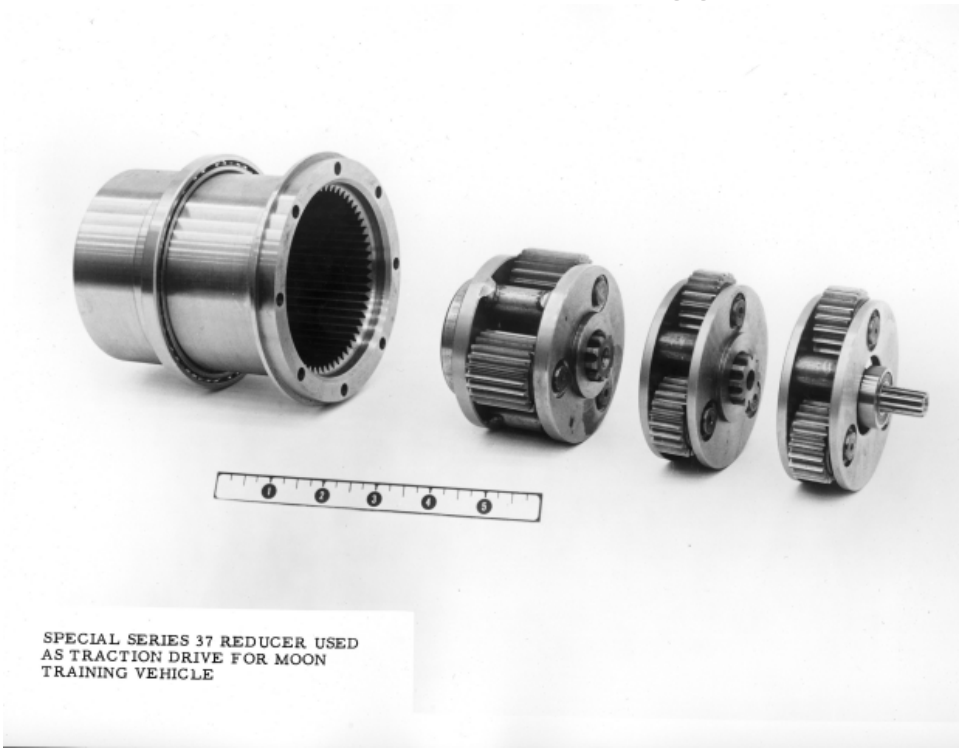


Figure 71

Mr. Frank Mardis president, looking over the largest planetary gear reducer we made. This unit has a 60 inch ring gear and it was made for a river dredge.

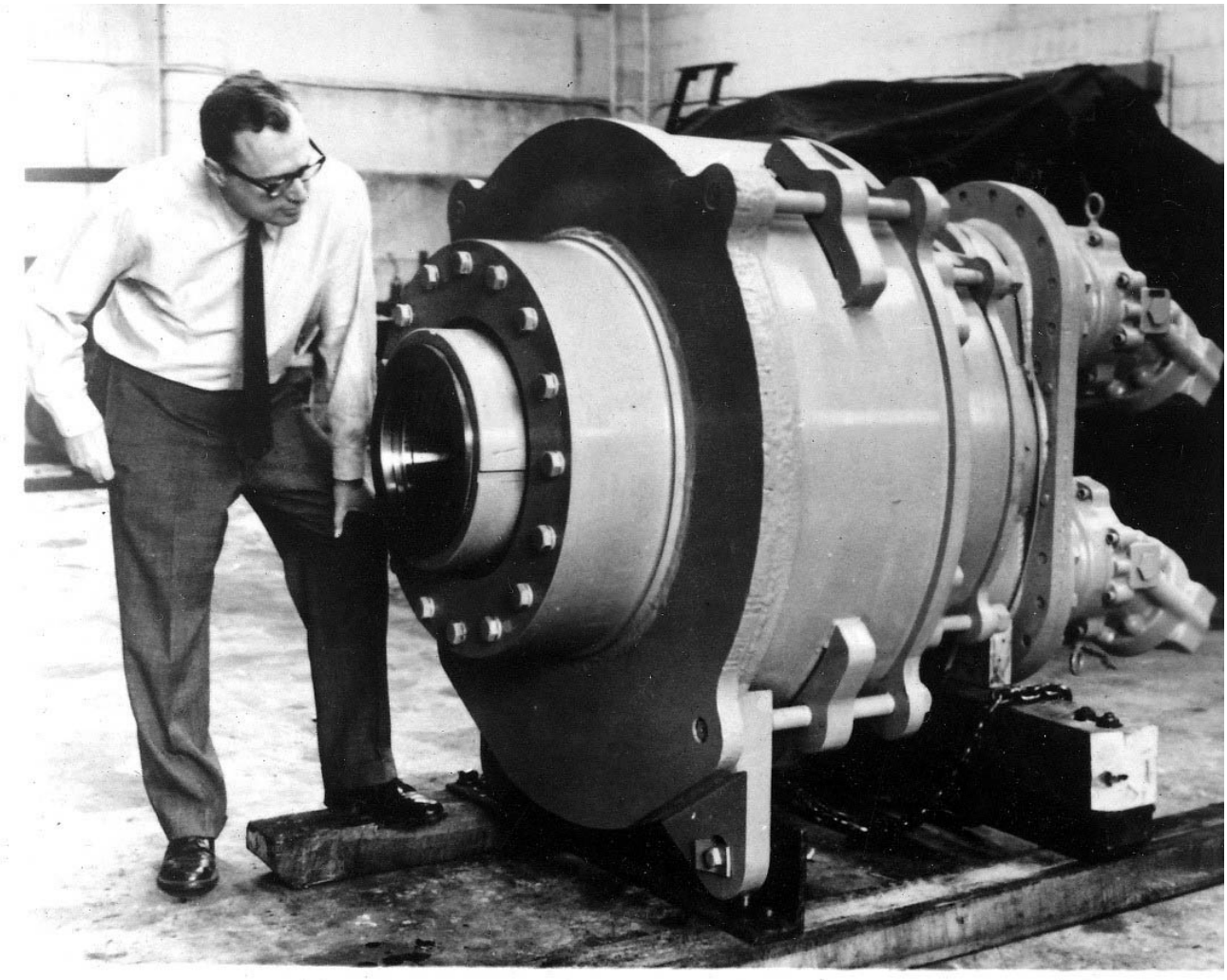


Figure 72

Photograph from:

Crichton Manufacturing Company, Johnstown, PA

I kept my interest in aviation and worked on a rotary engine conversion for light planes. (Figures 73, 74 and 75, Page 84 - Drawings of the single rotor version) We had put the dual rotor version on the back burner because of the problems we had with the single rotor version. My recent project was a radio controlled model, a cross between Bill Lear's Fan and Molt Taylor's Mini-Imp. It would be powered by electric motors and I was researching fuel cells for a power source.

With a few friends we started EAA chapter 633 in Johnstown, Pennsylvania. Harry Lapham, my friend and partner, and I restored a 1945 Ercoupe. (Figure 76 and 77, Page 85 - photos of the Ercoupe.) We had published a newsletter on our Rotary Engine Conversion and were asked to put on a program for Altoona, Pennsylvania EAA chapter 400. They held that meeting at the Blue Knob airport.

When Harry Lapham and I arrived at their meeting, I was introduced to the chapter president, Paul Nuss. After talking to Paul, he thought I might know his father, who was coming to the meeting later along with his mother. After the business meeting and coffee and donuts, as Harry was setting up for our program, I noticed a man coming in the door. I recognized him from H.J. Heinz Company but hadn't seen him for some 30 years. This was Paul Nuss's father, Mundy Nuss. At H.J.Heinz Company he was in charge of welding and tooling for the H.J. Heinz glider division and now has an Airco welding supply business in the Altoona area.

On another occasion, Harry Lapham and I went to a fly-in chicken barbecue at a private field in Woodbury, Pennsylvania. (Figures 78, Page 86; and Figure 79 Page 87) This field was located about half way between Altoona and Everett. Mundy Nuss was there and I sat with him and we talked about old times. He inquired about the Curly's seaplane. Mundy Nuss told me he was a Taylorcraft dealer before the war and he sold Curly Lovejoy and D.Barr Peat a wrecked 1938 Taylorcraft. This is the one that Barr Peat and Curly Lovejoy used to make their seaplane.

"What a Small World"

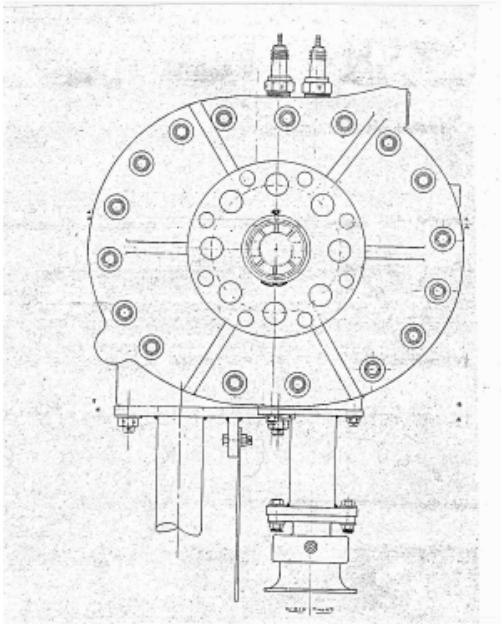


Figure 73

Frint wiew

You will notice the oilpan legs were removed and the engine was rotated 90 degrees.

The engine will be a dry sump system

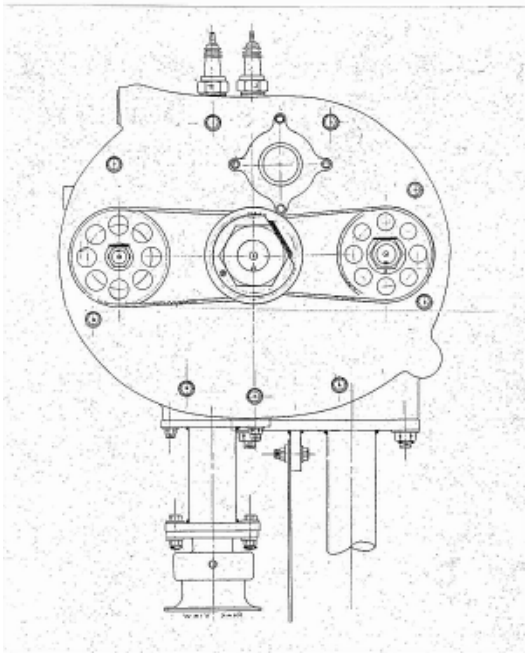


Figure 74

Rear View

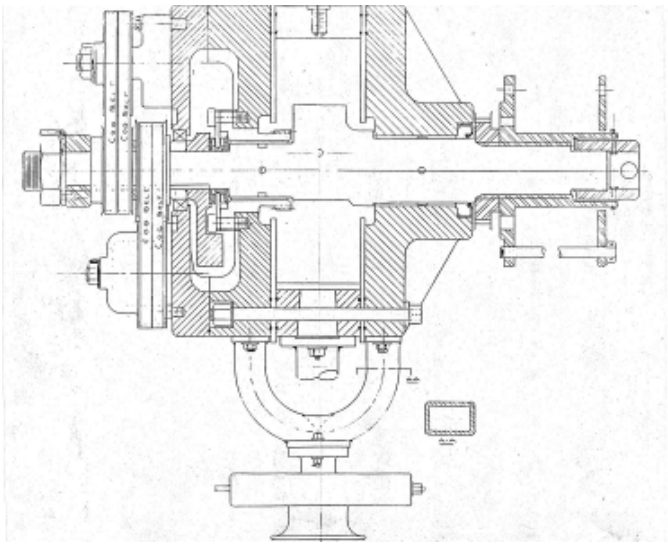


Figure75

Cross section side view

Figure 76

Harry Lapham and I did a complete restoration on this 1945 Ercoupe 415C
Harry checking the engine and building engine time before
installing wings for test flight

My granddaughter, Melissa, and I doing taxiing tests.

Figure 78

Balloon inflated and ready for tethered rides. This is one of many events at E.A.A. Chapter 400 fly-in and barbeque held at Baker-Sell farm and private air field. It was hosted by Sarah Sell and family in July 1978.

Figure 79

Photograph taken from hot air balloon. Notice airplanes in “T” hangers. Mrs. Sarah Sell said at one time her husband and sons all had airplanes and flew from their farm. These annual events had as many as 20 aircrafts and over 150 guests. These great family events went on for almost 20 years.

William Matta

William Matta owned and operated an auto dealership and garage in Braddock, Pennsylvania where the final work and assembly of the seaplane was done . On the second floor he had a shop for fabricating seats and seat frames for the U.S. Navy. They were for the Grumman Wildcat, Avenger and the Vought Corsair.

Bill Matta was a great help in the Curlycraft project. He allowed us to have access to his shop and the use of his drill press, band saw, bench grinder, and he helped us out when we needed any supplies. I had spent hours in his shop and I appreciated it and so did Steve and Curly. It made our work a lot easier.

William Matta started Matta Broadcasting Company and one of the first FM stations, WLOA 96.9, in the Pittsburgh area. This operation was located in his old second-floor fabricating shop.

Summary

All the photographs, documents and the model from my collection and Steven J. Kohut collection used in this book were donated to Senator John Heinz Pittsburgh Regional History Center and can be viewed by the public. A hard copy of this book can be obtained from the History Center.

If any reader of this brief story of the Curlycraft has any information, comments or correction, please contact me at my e-mail address listed below. I would like to identify all the people in the photographs that have not been identified. I would like to know the whereabouts of the negatives and photographs from E.L. Shryock collection. The address on the photos is 1307 Woodlawn Ave. Wilkinsburg, Pa.. The dates on the photos are 1938, 1939 and 1940. I'm looking for information on photos taken by the Pittsburgh Press at the Pittsburgh Press Air Shows. I would like to know if Henry Ward, the aviation editor for the Pittsburgh Press, had a private photograph collection of the aviation events that he covered.

email: doshu@comcast.net

For Further Reading

High Frontier: A History of Aeronautics in Pennsylvania by
William F. Trimble, University of Pittsburgh Press, 1982.

The Airways to Everywhere: A history of All American Aviation, 1937/ 1953 by
W. David Lewis and William F. Trimble, University of Pittsburgh Press, 1988.

Pittsburgh History, A magazine of the City and Its Region.
The winter 1993/1994 edition by Brian Butko, Paul Roberts, William F. Trimble.

This photograph was over-looked and it is the only one of the Curlycraft at an airport. This photograph is from Rita Kohut Stone collection and the date was 1948. The pilot and the airport loation is unknown as of now.

To view the Curlycraft flying: Click here

The video scenes are of the amphibian version

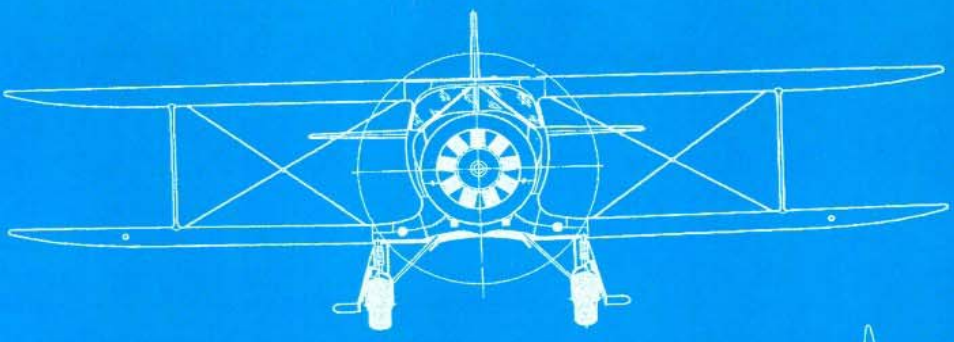
Photo from NASA

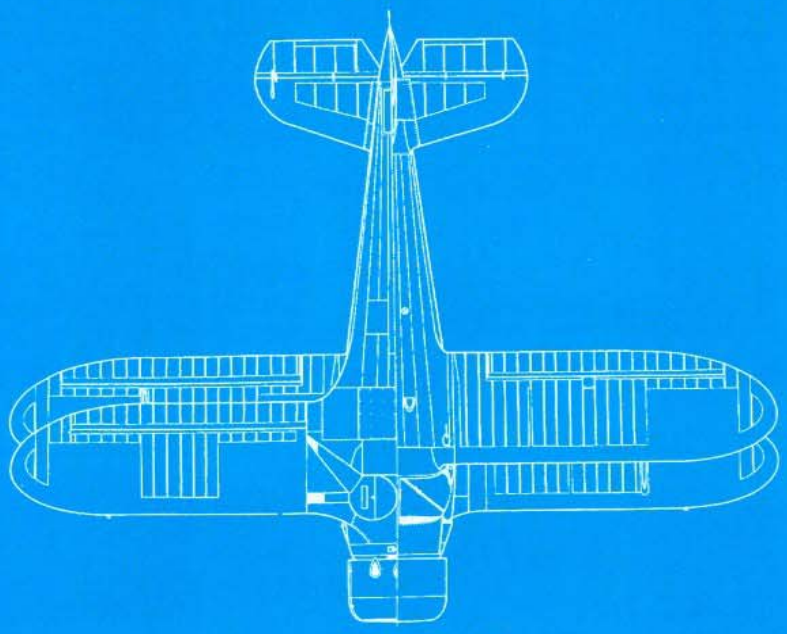
Fred Weick's W-1

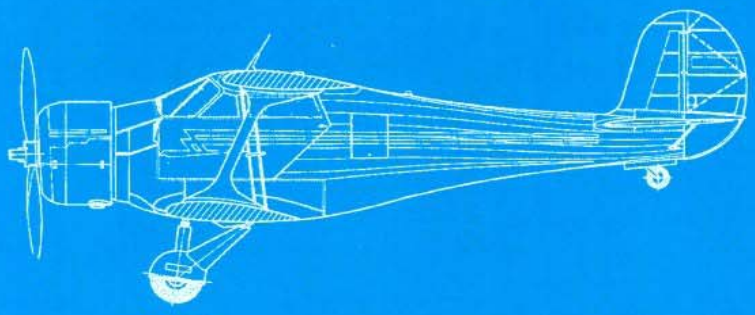
The Curlycraft and the W-1 had similar design features. Both were "pushers" and had twin vertical fins.

The W-1 was designed and built in the early 1930's to demonstrate Weick's integrated control system.

You can get more information on Fred Weick by typing his name at any search engine.



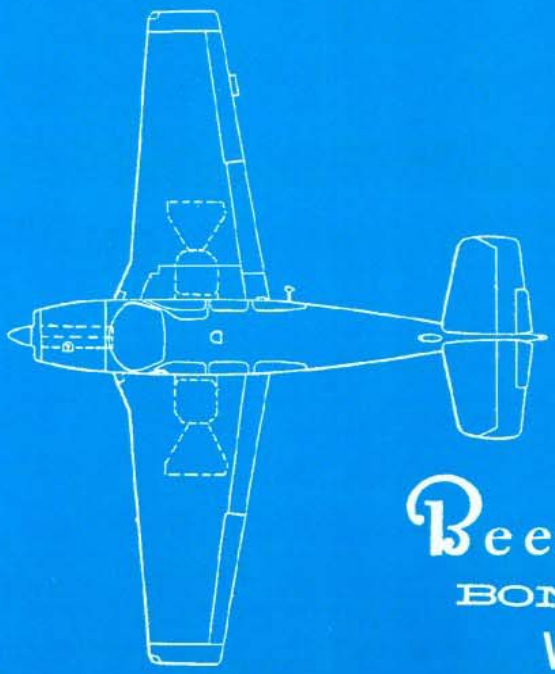


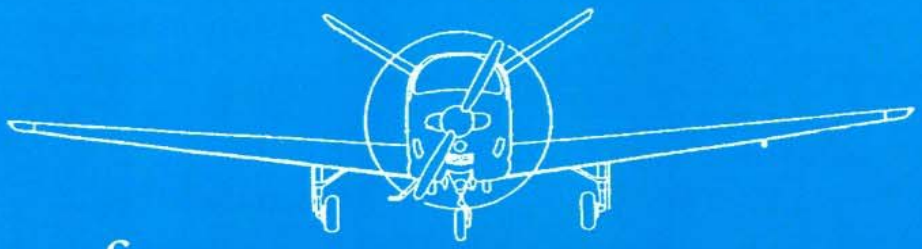


Beechcraft®

Staggerwing

D 17



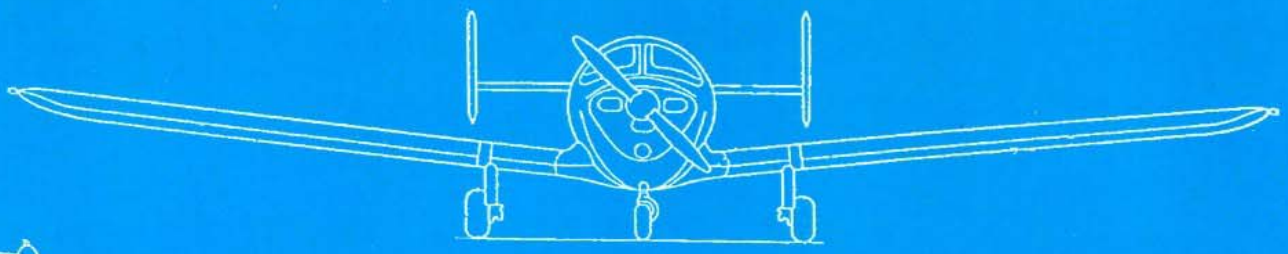


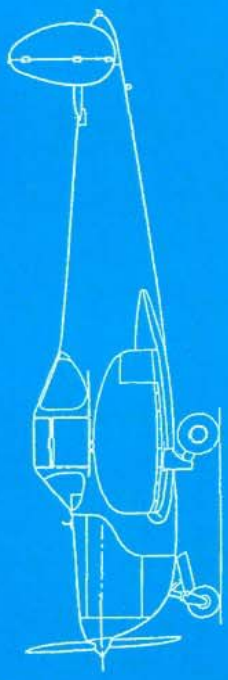
Beechcraft®

BONANZA

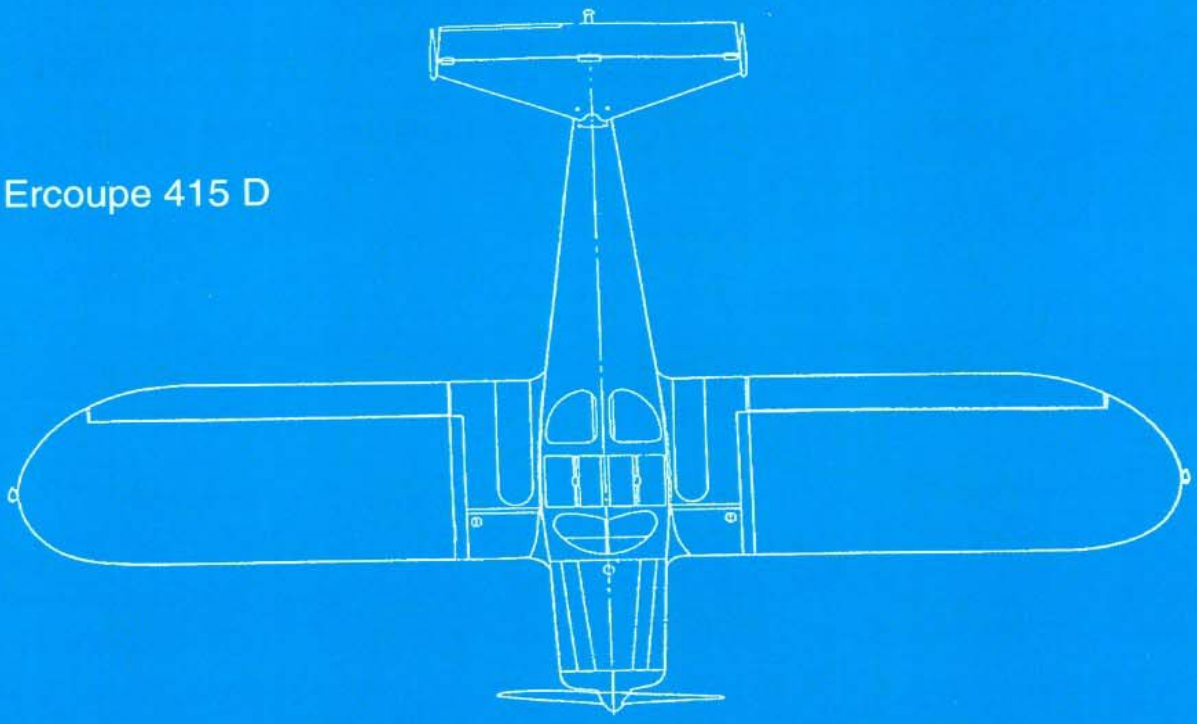
V 35

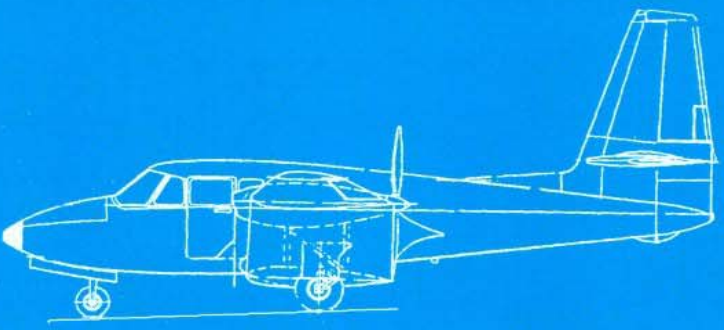
Don Shumaker Custom Miniatures
Pittsburgh, Pa.
Scale: 1: 60 Drw: DS/JN Date: 1946



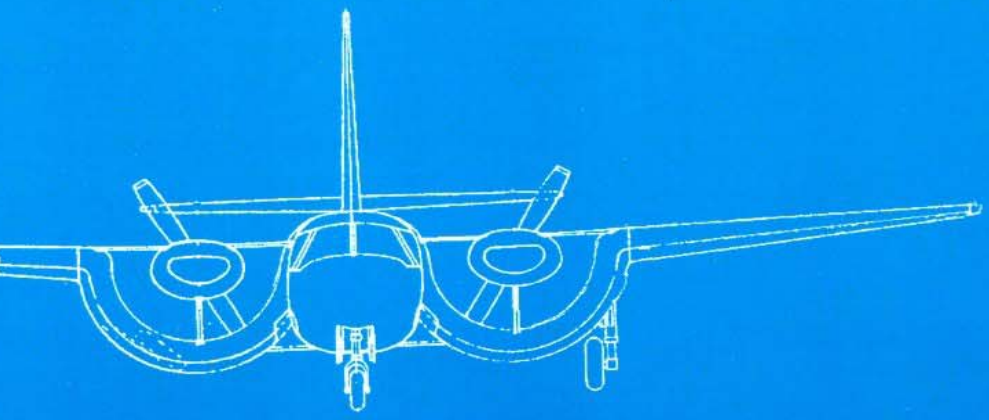


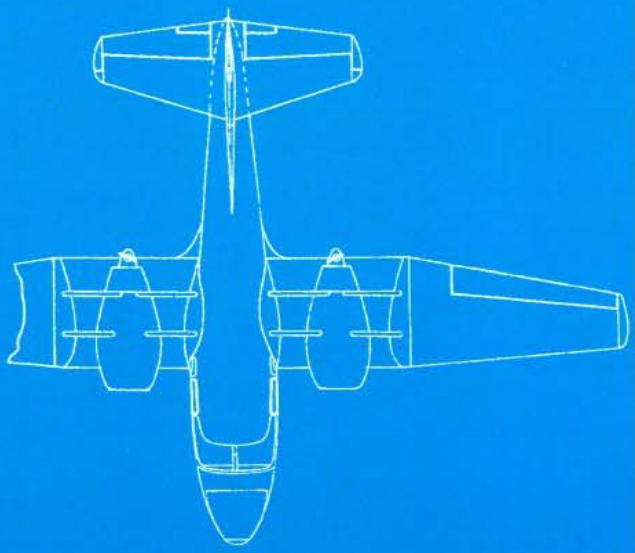
Ercoupe 415 D





Custer Channel Wing





Don Shumaker Custom Miniatures
Pittsburgh, Pa.
Scale: 1: 60 Drw: DS/JN Date: 1946