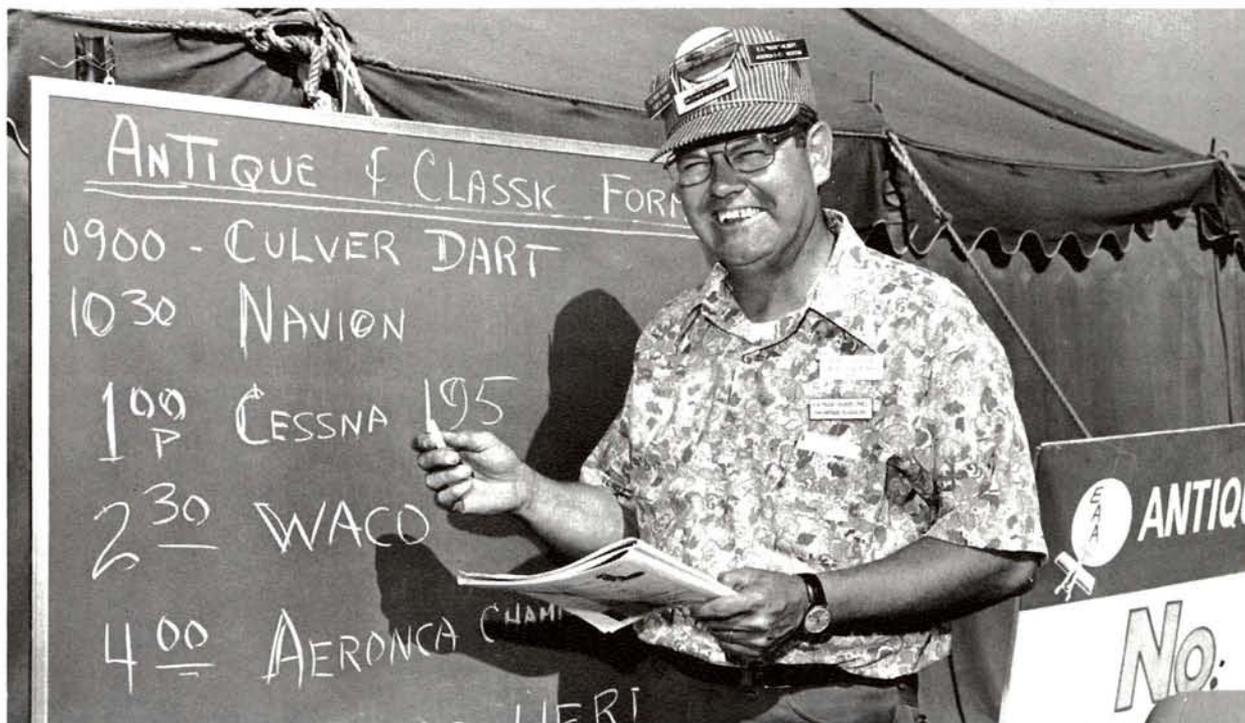


THE VINTAGE AIRPLANE



JUNE 1974





(Photo by Ted Koston)

THE PRESIDENT'S PAGE

By E. E. "Buck" Hilbert
 President, Antique-Classical Division

TALK ABOUT PROGRESS!

Look at this issue, compare it with the earlier issues and you, like me, will marvel at the content and quality. The articles are getting better, and bigger, and there are more pages, everybody likes it. Our mail box affirms that! We get more letters now, and we have more material to utilize in the make up. And the contributors are beginning to make their mark. Look at the wonderful articles by Big Nick Rezich! (I can hardly wait to see what's next!) Instead of struggling for filler, this is the first month we have really had all the material we need, and then some. The volume of letters we receive has been on the increase and we are on the verge of accomplishing what this magazine was created for, to get you Antique and Classic guys contributing to the movement through the magazine. And it's pulling us all closer together in the process. Don't quit now! If you've any inclination, or ideas, pictures, comments or kudos, let us know.

Oshkosh plans are progressing. The time is fleeting by and we have so much to do. The Antique-Classical Headquarters building work has been started. You early birds may be pressed into service to do some last minute painting and fixing, but all in all, Howard and I will have most of it done by Convention time. (Bet you didn't know Poopdeck's middle name was Howard, did you?) The Classic Parking Pre-registrations are running about neck and neck with last year, and the new parking area will pull them closer to the center of things. It may seem a little crowded, but we'll manage. All the activities will be centered about Ollie's Woods with the Forum Tent just West of the HQ building, the Classics parked south of the woods, and the Antiques to the north. It will call for some real co-operation amongst ourselves, so roll up your sleeves and let's get with it! See you there!

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Membership in EAA is \$15.00 per year which includes 12 issues of *SPORT AVIATION*. All membership correspondence should be addressed to: EAA, Box 229, Hales Corners, Wisconsin 53130.

THE VINTAGE AIRPLANE



VOLUME 2 — NUMBER 6

JUNE 1974

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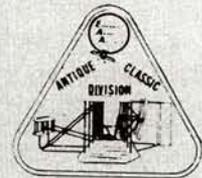
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THE VINTAGE AIRPLANE is owned exclusively by Antique Classic Aircraft, Inc. and is published monthly at Hales Corners, Wisconsin 53130. Second Class Permit pending at Hales Corners Post Office, Hales Corners, Wisconsin 53130. Membership rates for Antique Classic Aircraft, Inc. are \$10.00 per 12 month period of which \$7.00 is for the subscription to THE VINTAGE AIRPLANE. All Antique Classic Aircraft, Inc. members are required to be members of the parent organization, the Experimental Aircraft Association. Membership is open to all who are interested in aviation.

**Postmaster: Send Form 3579 to Antique Classic Aircraft, Inc., Box 229,
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RESTORING A FAIRCHILD 24

*Claude Gray (EAA 9052, A/C 1003)
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(Photos by Don Dwiggin)

My first interest in this airplane was really the Warner engine. A lot of my first flying in the 30's was in a Commandaire biplane with the 110 h.p. Warner on it. Later, I flew a number of hours in the Meyers OTW with the 145 Warner and my log book shows April 21, 1941 at Lambert Field, St. Louis, one hour in a Fairchild 24 with 145 Warner. This was my only experience with a 24 until I purchased this one. I had forgotten what a nice airplane it is. Wanting something with a Warner on it, the Fairchild seemed a good choice with its classic looks of the earlier cabin planes. The roll down door windows, four seats, roomy cabin and cabin heater had a great appeal after sitting in the breeze in my Smith Miniplane and American Eagle. Also, the thought of having an electric starter seemed to me a "touch of class."

N-81386 is one of the last Fairchild 24s built. It is a 24W46, which decoded means 24 model, 165 h.p. Warner engine and 1946 year. It was built by Temco Manufacturing Company in Winfield, Kansas after World War II. This airplane did not leave the factory until February 1948 and has a rather respectful and clean past compared with many of the old airplanes. It has always been licensed and flying except for a recover job and engine overhaul in 1959 and flew on to 1969 at which time I bought it. It again was in need of fabric and some tender loving care and was flown from San Diego to Van Nuys, Calif. on a ferry permit just one week after its license had expired. One interesting item is that the same engine has been on this airplane since they left the factory in 1948.

In the 3 1/2 year period of rebuilding I stripped the fuselage down to the tubing and replaced all the plywood bulkheads and installed new stringers throughout. These are wood "T" stringers that are not difficult to make on a table saw. One noticeable item that shows up often on the 24 is the warped stringers on the bottom edge of each side. This was easy to overcome this time by sawing a heavy wall .065 about 1 1/4" dia. aluminum tubing lengthwise and epoxy glueing this to wood spacers on the bottom longerons. I used regular house insulation of the aluminum foil and spun fiber-glass type. This makes a lightweight and easy to tack on insulation and does a good job of sound proofing. Does so well that I use a speaker for the radio in the cabin.

I have kept the plane original most of the way and only changed where better materials, such as in the upholstery, was more desirable. This was done in naugahyde and nylon fabric. All of the instruments are the original or same style and other than a little better grouping the panel is the same. I installed a new Genave 360 radio. The VOR antenna is built into the top of the vertical fin. This makes a clean, out of the way installation. There are a number of new, left over, parts still available and at good prices. This makes the 24 not too difficult to restore. I was able to get a needed tail-to-fuselage fairing, a new metal skin for one door, complete scuff plate set and two new fuel tanks. Good master brake cylinders are to be had at most well stocked auto junk yards. 1939-40-41 Dodge and Plymouth, also Chrysler

are the same as to mounting fittings and internal size and fit right on.

The 165 h.p. Warner was given a major overhaul as were the accessories. New mags were installed and a shielded harness from the 245 h.p. Jacobs fits on the Warner very well and dresses the engine up considerably. I installed an oil cooler (helicopter, new surplus) which fits completely under the accessory cowl. I used the blast tube to the oil tank for the cooling air supply with a shroud over the cooler and dumping out through a vent on the lower part of the cowl. Exhaust collector rings are a scarce item for the 165 so I finally located a machine shop in the Los Angeles area that could bend 4" O.D. stainless tubing to my measurements and made myself a jig and can now make my own sections as needed. Note to other 24 owners — I will assist you in getting this done. I saved the bending patterns for forming these for future needs. These forming patterns also include some for the small elbow that goes from the collector ring to the cylinder.

One discouraging thing that happens on 24s (and, I am sure, other of the older planes that use the old automotive brake fluid in the shock struts) is to have the strut leak and the fluid, which I found to be better paint remover than paint remover, strip the paint from the gear fairings and wheel pants. After one repaint job on a couple of these items I decided that modern technology must have a better fluid for this. So far I have had very good luck with a product made by a company called LUBRI-TECH. It is a motorcycle racing fork oil. I am using the 10 weight. Not harmful to paint or seals and also works in the tail strut.

The plane is covered with Ceconite. The first coat of dope has a mixture of 1/2 pint of Superseam to one gallon of dope for good sticking qualities. I brushed on 7 coats of clear nitrate then built spray coats of silver with nontautening butyrate. The final finish is Dupont Dulux Enamel. I have this same cover and finish on my Smith Miniplane and after 14 years is still as good as new.

I feel that I was in luck to have had an Aeromatic propeller on the plane when I bought it. To me, the Aeromatic prop and the 24 were made for each other. Since I

have had my plane flying, I have flown a 24 with the same 165 Warner power but with the standard wooden prop. The performance difference is very noticeable . . . no offense to my friend Don Coleman's 24. It is a great old plane, but I might add that after he flew in mine, he is using my spare Aeromatic on his. There are two important aspects of the Aeromatic to be considered when using one. First, it needs to be overhauled and in first class condition. When they are worn inside the hub, they stick in pitch positions not desired at the time and can be a "wake-up-upper." After getting it in good condition the next factor is to understand the theory of the thing. As the younger generation says, "it does its own thing." As the prop shop told me, you set the weights per the specifications and go fly it. It probably will not be doing just what you want it to do so then you add or subtract weights until you get the manifold and RPM combination you want. I have found that 25" MP and around 1975 RPM gives good climb performance. According to the power chart this is about 80% power. Having established these figures for climb you will also come out with about 23-23 1/2" MP and about 1850-75 RPM for cruise. This is about 67% power on the chart. This has been giving me 8 1/2 gallons per hour fuel consumption. This gives me about 90 MPH indicated in climb and 115 true airspeed for cruise. The Aeromatic has to be set for various field elevations and if changing from normal elevation set for by

Claude demonstrates the roominess of the 24's cabin. The immaculate panel, roll-up plate glass windows and lush upholstery add that "touch of class" that make N-81386 a first class restoration.





ADDITIONAL INFORMATION

2000 feet or more should be reset. My figures are based on 1000' elevation field and cruise altitudes up to about 8000'. As I said before, the prop "does its own thing" and seems to adjust itself very well for heavier loads. When you compare these figures with some of the modern tin airplanes with same horsepower range, the 24 does not do too badly.

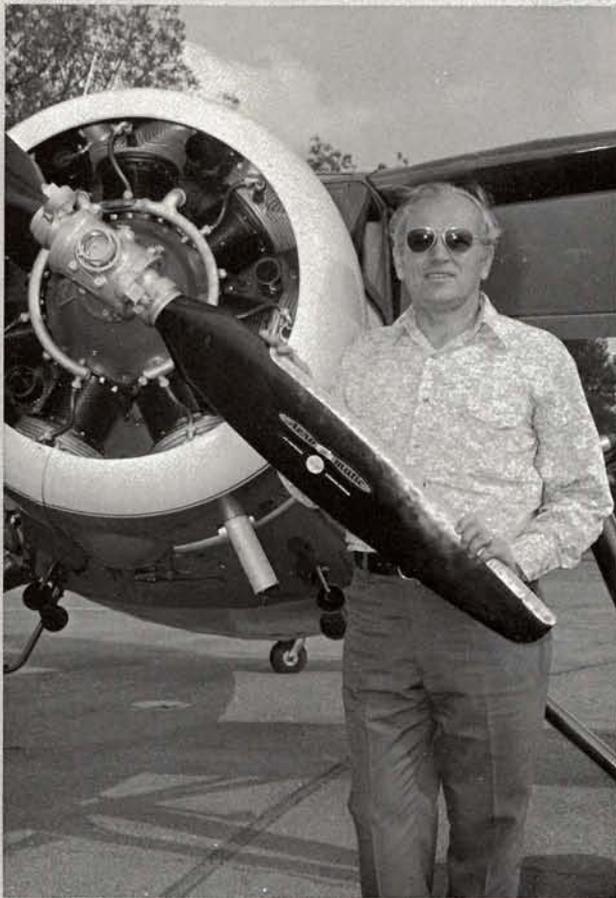
In the year and a half that I have had the plane flying it has been rewarding in other ways than being a nice plane to fly. The first Fly-In that I took it to was the Casa Grande, Arizona 1973 Winter Fly-In. It took Grand Champion, first in class and one special award. Since then it has brought home 6 more firsts, bests or specials. One for each Fly-In attended. This has made the 3 1/2 years of work very worthwhile. As I told the company check pilot when he asked how I liked flying the DC-10, "It's almost as nice as my Fairchild 24."

Restoration was completed October 1972.
Plane has flown approximately 140 hours to date.
Work credits go to many friends:

Engine overhaul by Pete Vellois. Also did my Lyc. 0-290G and OX5. Metal work and lots of hours on the rest of work by Obie Tollman. Obie would have had his own 2 place Midget Mustang flying by now if he had not helped me so much.

A very super Enamel paint job done by my son-in-law, Mike Weiss. He got so interested during the work on this that he obtained his Private license during the time we rebuilt the Fairchild. A future EAA member. He has found that the 24 does not fly like a Cessna 150, but he has just about conquered the tailwheel.

Rib stitching by everybody I could talk into it.



MEET YOUR DIRECTORS

Claude Gray is a Director of the Antique-Classic Division of EAA. Recently, President Buck Hilbert asked each Director to submit a short autobiographical sketch on themselves for use in *The Vintage Airplane*. This is what Claude has to say:

"Started out as the usual kid hanging around the small town airport — at Jefferson City, Missouri 1932 through 1936 — cleaning grease off of the belly of many of the new airplanes of that time that we now are lucky to find and get flying again as Antiques. Some of my favorites then that I worked on, flew in and sometimes got a little dual in were the 100 h.p. Warner powered Commandaire, OX Travel Air, Curtiss Robin that was the Greater St. Louis Endurance plane that set the record of 632 hours aloft, and many others. I got to gas planes for a few well known old timers such as Wiley Post and Art Goebel to name some.

After some college years I worked and flew at Lambert Field, St. Louis, 1939-40, and got my Commercial and Instructor rating. Spent 1941-42 instructing Army Primary at Bevo Howard's school in Orangeburg, S.C. From there I went to work for what was then Consolidated Aircraft as production test pilot on B-24s. In 1944 I went with Western Airlines and have flown the usual for this type of flying: DC-3, DC-4, DC-6, Convair 240, Lockheed Electra, Boeing 720-707 and now on the DC-10.

I have been in EAA since 1960 — have number 7 Smith Miniplane built. It has been flying 14 years now. My friend Bob Conover and I built and still own this together. A few years ago I restored a 1927 OX-5 American Eagle (front cover and story, March 1970 *SPORT AVIATION*). It is down for repairs now but will be flying again this next year. Currently I have flying my 1946 Fairchild 24W, also, just bought a 1935 Fairchild 24 C8C. Needs restoring but is all there . . . after retirement project."

PICKIN' & GRINNIN' & FLYIN'

*By Al Kelch, Antique-Classic Director
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Mequon, Wis. 53092*

Photos by the Author

Southern Hospitality was in abundance at the Lakeland, Florida Fly-In April 26, 27, and 28. Ed Escallon and Joe Araldi were on hand to greet all arrivals, backed up by three very pretty young Southern Belles at the registration hangar. Arrivals started around noon on Friday. Among the first was Weldon Ropp in his AT-6. Trailing behind and flying another of Weldon's planes, a very rare Travel Air 16E, was Tom Shobe with my wife Lois riding shotgun. There was much to see after a hearty welcome.

A brand new restoration of an Inland Sport by Joe Araldi's son had the early crowd captivated. On the airport a Corsair, beautifully restored, was being washed and polished in preparation for taxiing into a prominent position for the show. By 2:00 the planes were arriving, and it was obvious that this was going to be a fly-in to remember.

Late afternoon was filled with scurrying back and forth to the motel to check in and get washed up for the evening events. A chicken and ribs dinner at Joe Araldi's hangar was a sell out. (Pickin' & Grinnin' music and song followed which has fast become a part of the Florida fly-ins.) The crowd had a great time and retired early (some early in the evening, some early in the morning).

Saturday morning dawned bright and clear (as all Florida mornings do), and the air was full of good sounds — birds chirping. There was the staccato chirp of the Aeronca C-3, the deep throated warble of the P-38, the hoarse interrupted cry of a Ryan, added to a din of Wasp, Continental, Warner, Menasco, Jacobs — all as background music. The ground crews were busy doing a very effective job of parking planes. They were coming in thick and fast all day. By afternoon, the count was near 110 and I was worn out just going back and forth to look at new arrivals. To mention a few, Bob White, a newcomer to antiquing, came in in his newly converted Waco straightwing, which had been a duster. A new front hole where the hopper was and some cosmetics and paint made the old girl look right at home. This was Bob's first fly-in and he and his family seemed to have a great time. What a thrill to see people having such fun in an old troubled world like this one. A beautiful blue and silver (how else?) Travel Air 2000 took my eye. As I walked around it she whispered, "I'm the one", and sure enough the top trophy went to one Travel Air 2000.

I visited with all sorts of planes all afternoon. The P-38 was a thrill to see taxi up. Ted Voorhees in his beautiful Waco E that I call "Duchess" came in in all its splendor. There were Swifts, Stinsons, Fleets, Aeroncas, Ryans and all sorts of good old planes to visit with.

Getting back to the people — the Florida bunch has a lot of fun and there are ever so many interesting people. I was sorry the day wasn't twice as long. A few minutes with Ernie Moser, a chat with Mr. Green, a stop here and there and before you know it the day is gone. Again the mass exodus from the field to the motel to clean up for the Saturday night banquet. The early sign up had been 85 people for dinner. As I passed the swimming pool area, I heard the number 200 mumbled, as the hotel people hurriedly moved out of their largest room to the pool area to accommodate the crowd. By 6:00 p.m. people started to drift into the out-

door cocktail area. It was hard to recognize newly made friends now as they were no longer in their field togs but dressed in their top finery. It was an attractive bunch and a pleasant evening, sitting in the balmy air around the pool. The food was wonderful, the crowd in a gay mood, and the setting one to behold for us northerners. Palm trees, water, laughter, warm summer air and no bugs to eat the food. After everyone was fed all carried their own chair to the large room the tables had been removed from earlier in the evening for a program. After a short business meeting, led by President Ed Escallon, trophies were presented. Most were humorous and given for fun. I had parked my car and trailer near the planes (with a load of Cub parts you wouldn't believe on board), so I got the Jonathan Livingston Seagull award for "The Most Undressed Cub." The serious awards of the evening included the one given for the best-of-show to the Travel Air 2000 I previously mentioned — owned by Jim and son John Dekle of Thomasville, Georgia. A trophy well deserved. The final speaker and guest of honor was Joe Green, pioneer aviator from Kansas, who many of the Kansas City bunch will recognize. His tales of early flying and quiet humor were well received. Most interesting was his work for Inland, and the timeliness of having one of the few Inland Sports left, newly restored for him to see, made it all the more interesting.

Sunday morning was slow to start, of course, but got going around mid-morning with air games, short field take-offs, flour bombings, etc. The time had come for Lois and I to gather up our mess of Cub parts and start the long journey north, so the fun stopped here. However, we are both still grinning and looking forward to being in Lakeland again next year.

Orchids to the Florida Chapter for a fine Fly-In.



"The Most Undressed Cub" award was presented to author Al Kelch for this rig. Immediately after the Lakeland Fly-In, Al and his wife Lois maneuvered this formation of airplanes, motorcycles, autos and who knows what else back north to Wisconsin.

**LAKELAND
'74**



The Araldi Inland Sport — just restored. We hope to have a story on this one soon.



Piggy-back P-38.



Tom Shobe brought in Willie Ropp's rare Curtiss Wright Travel Air 16E.



Fly-In Chairman Joe Araldi caught in a rare moment with his Cabin Waco. Most of the time he was out welcoming guests and seeing to the workings of a very successful Fly-In.



Tyke Crabtree's mirror finish Swift.



Tom Scott's Fairchild 24R46 with Ted Voorhees' Waco SRE in the background.



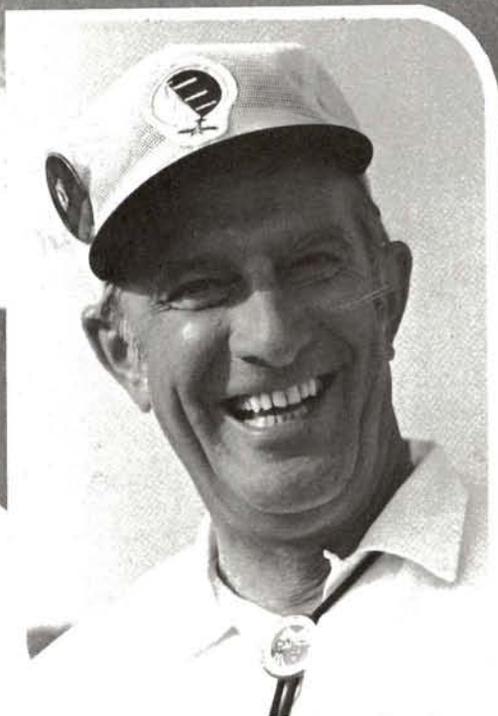
Staggerwings!

The Best Antique award at Lakeland went to John Dekle of Thomasville, Ga. for his blue and silver Travel Air 2000.



Wayne Thomas' Corsair.





REMINISCING WITH BIG NICK

*Nick Rezich
4213 Centerville Rd.
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THE HOWARD STORY — PART ONE

"It's a Wasp Monocoupe!"

"No . . . it's a . . . aha??"

"Wow! Look at it go! What is it?"

"It's Benny Howard's new 'Mulligan'!"

These are just some of the comments *you* would have heard had you been in the grandstands on opening day of the 1935 National Air Races at Cleveland, Ohio.

Benny O. Howard had just won the Bendix Race beating Roscoe Turner by 24 seconds . . . roaring to victory in his newest creation, "Mr. Mulligan." The new Howard racer was not the typical Howard design of the past — the sleek, low wing type — but, instead, a high wing, strut-braced monoplane. After taking the laurels (and cash) for the trans-continental Bendix race, Benny entered Mr. Mulligan in the Thompson Trophy race against the powerful little low-wing pylon racers.

For the Thompson he selected his ol' racing buddy, Harold Neumann of Kansas City, to handle the chores. Harold was no newcomer to the Howard designs as he had been flying the "Ike", "Mike" and "Pete". Harold qualified the Mulligan at a speed of 247 mph which made him a threat to the other qualifiers and a potential winner.

Before the Thompson got underway Harold warmed up by winning the Greve Trophy in Benny Howard's "Mike" . . . making it two out of three for Benny. Winning the Thompson would give him a clean sweep of the major events at the Nationals.

The favorite in the big one, the Thompson, was the colorful Roscoe Turner, but everybody was pulling for the Mulligan and Benny. Steve Wittman was in the lineup with his powerful D-12 powered Bonzo and Harold knew that Witt was going to be a hard man to beat in addition to Turner. Then there were the jitterbugs of Roger Don Rae, Joe Jacobson, Lee Miles and Marion McKeen — each of which posed a threat.

Well, ol' Harold nailed down second place with that big brute and played a waiting game . . . "who is going to blow his engine first, Turner in the lead or Witt right behind him nibbling on his flippers?". He throttled back just enough to keep Roscoe in sight . . . and then it happened. Bang!!! Roscoe blows his engine and leaves the race.

The crowd goes wild and when they come around again the Dean of air show announcers past and present, Jack Storey, booms over the P.A. —

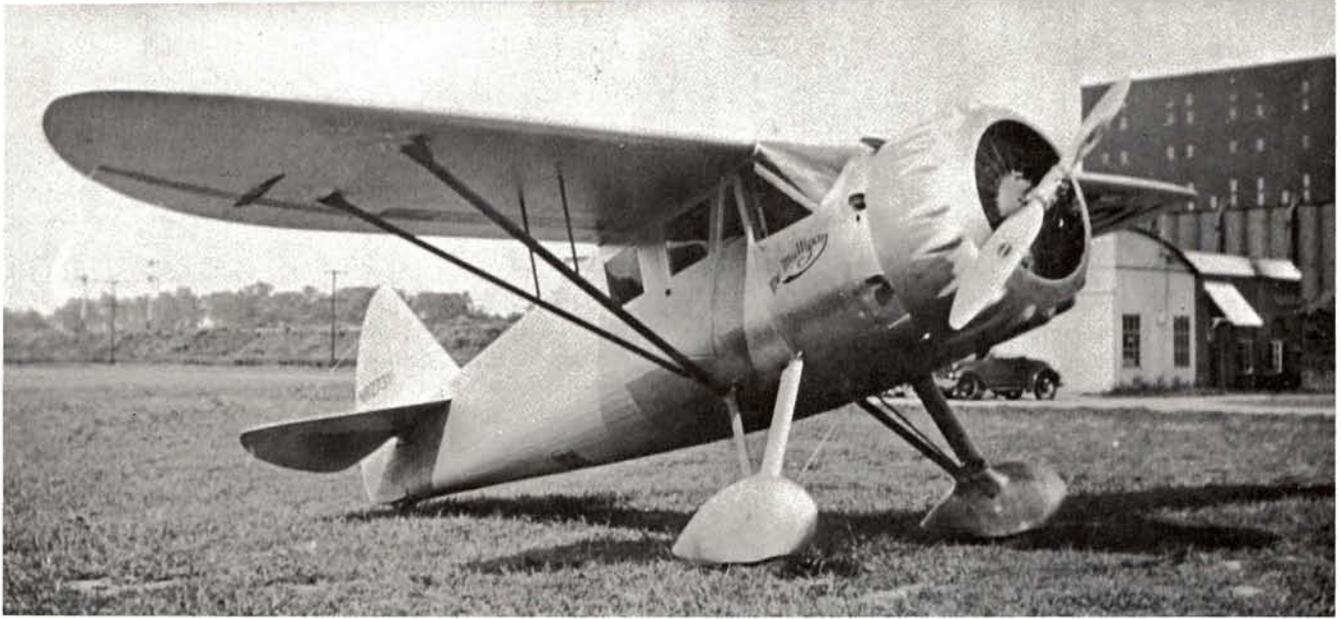
"Neumann, the leader! Can he keep it?"

The crowd is on its feet as Witt nibbles at Harold's tail. Harold knows Witt is there even though he can't see him from inside that cabin. He inches on just a bit more power to hold the lead . . . but unknown to Harold, Witt is having problems with the D-12 and is running with reduced power. Well, BELIEVE-YOU-ME, Harold was going around those pylons so close, I swear you couldn't put a .050 feeler gauge between Mulligan and the pylon! Harold goes on to win the coveted Thompson Trophy Race and it is a clean sweep of the Nationals for Benny Howard.

Benny went to the Nationals for one reason — to win as much money as he could. The money was to be used to open a factory to produce America's fastest 300 h.p., four place cabin monoplane. Benny was already into the design with Gordon Israel, the co-designer and co-pilot of the Mulligan for the Bendix win. Benny left Cleveland with a hat full of money, but before he left, he called Chicago and said go full bore on the new airplane.

Before we go on about the Howards, I would like to clear our engine here. The December 1973 issue of the AOPA Pilot carried an article about Benny Howard's DGAs. It was written by my good friend and popular EAAer, Peter Bowers of Fly Baby fame. In my opinion, Pete Bowers is the foremost aviation historian and the most accurate writer in the aviation media, however, his researchers or the printers zinged him this time. I don't know what happened but the facts got a bit screwed up on a couple of points. I hope I'm not nit-picking, but I find my version different than his . . . anyway, I was dere, Charlie!!

Pete states that the Mulligan was built in a store in Chicago — not so! It was built in Kansas City. Ask the man who helped build it, EAA Warbird member Eddie Fisher, or EAA/IAC member Harold Neumann, pilot of the Mulligan. He also states that Harold was co-pilot on the victorious Bendix flight — not so! It was co-designer Gordon Israel. He states that the factory opened in 1937 — not so! It was 1936. (The Howard Aircraft Corporation was formed in



(Photo Courtesy Don Pratt)

Mr. Mulligan on the day of its first flight. Few fairings had been applied at this point. The exhaust system visible in this shot is different from what appears on later photographs of the racer.



(Photo Courtesy Don Pratt)

Left. Benny Howard and Mr. Mulligan on the day of the first flight of the racer. Note the lack of fairings and paint.

(Photo Courtesy Don Pratt)

Below. Harold Neumann in 1933 at the Chicago Air Races.

(Photo Courtesy Don Pratt)

Mr. Mulligan in racing trim.



1937.) He also says the Howard airplane was not meant to be a seaplane — no, no, no!! The production airplane was certified as a seaplane (see photo). The first seaplane went to Canada as CF-BET — all white trimmed in red. The highlight of the Chicago Air Show held in the International Amphitheater was a Howard on floats sitting in a pond of water. I should know . . . I waxed it every night.

And finally and foremost, a fellow on the west coast claims he salvaged the remains of the Mulligan from the New Mexico crash site and is re-building it. He may have picked up a few scraps of the wings or other parts, but not THE Mulligan . . . or else there must have been TWO Mulligans because “Sludge” Doyle and Mike Molberg brought back what was left to bring back. I was at the factory when they unloaded it in front of the engineering offices. This was valuable information to the engineers and Benny.

When that blade let go (and it was the complete blade) the engine stayed on the airplane and the airplane did not break up in the air. The vibration was so bad that it knocked Benny cold for a while and it was his wife, “Mike”, who kept the airplane right side up until Benny could recover enough to fly it.

What happened to the Mulligan? It was cut up at the factory and most of the parts, tubing, etc., were made into souvenirs. I was talking to Mr. Earl Ewing, our first plant superintendent, the other day and he informed me that his wife still has the flower pot holder made from the Mulligan. Mrs. Molberg has hers also. To go a bit further, I tried to buy the remains at the time but couldn’t — but during the negotiations, I wound up with the wings from Gordon Israel’s “Redhead” racer. I hope this clears the air once and for all about the Mulligan. If a Mulligan emerges from the west coast, it will be a replica. O.K., ’nuff said!

Now, where was I? Oh yes, the first Howard.

Benny Howard was flying for United Airlines at “Muni” (they called the Chicago Municipal Airport “Muni” in those days) and living at the Troy Lane Apartments — known as the Troy Lane Hotel. It was located at 63rd and Troy on the south side of Chicago about 3 1/2 miles from the airport. Remember this location because when we get into the Pylon Club story a little later, we will be talking about the same location.

In order to work on the new airplane and not drive all over town . . . and to be away from snoopers . . . Benny rented a store around the corner from the hotel and that is where the first Howard DGA cabin was built.

I was still working for Blue Bird when the finished airplane was trucked out to “Muni” for final assembly and flight test. My first impression of the airplane when I first saw it assembled was, “WOW!”. It looked like it was doing 200 mph just sitting there. It was painted with a metallic blue and bronze and it sported a Wright J-6-7-E2 in the nose.

I watched them make all the final adjustments, etc., and made sure I was on hand for the first flight. I asked Benny, “What are you calling this one?” “The ‘Flanigan’”, was the answer.

. . . And that’s what I have been calling it ever since.

When it came time to test fly the Flanigan, Benny was in his usual good form. Those of you who knew Benny will remember his favorite maneuver was a chandelle on take-off. After completing his taxi tests, he came roaring down the old southwest runway at Muni and as he approached the old Standard Oil Company hangar, down went the left wing and up with the nose . . . and I mean UP! . . . into a beautiful chandelle.

The first flight looked like he had a 1,000 hours in the machine. Benny made a few speed passes coupled with some pylon turns and then an out of sight climb. This was

followed by a slow flight circle of the airport and a 3-point landing like it was loaded with nitro.

There was much jubilation, back slapping, etc., after that flight and it was agreed by all that Benny had another winner in the Flanigan.

Now the work of getting the machine certificated and finding a place to build it was underway. Certification was handled by Gordon Israel. For the factory, Benny chose the old Mattie Laird factory located in the Clearing industrial district. The address was 5301 W. 65th St. — just two blocks south of Muni. Mattie had used this building to construct his last airplane, the Sesquiplane. The factory was opened in 1936 with the same handful of men who built the Flanigan.

All the money Benny won at the 1935 Nationals was put into the certification of Flanigan and the factory. He was still short of working capital and needed more money to get the operation off the ground. The place to get the much needed money was the coming National Air Races. The now-famous Mulligan was brought to Chicago for rework in preparation for the Bendix Race. Master mechanic and chief honcho was Roy “Sludge” Doyle. He upped the horsepower of the Mulligan to over 800 and said, “Hell, he can win the Bendix with the flaps down!”

My first working experience with the Mulligan came when it was moved to the old Texaco hangar at Muni. I was not a Howard employee yet, however, I knew Roger Scheon (I may not have that name spelled properly, but it is pronounced “Shane”), the brother of Maxine Howard, Benny’s wife. So, I was allowed to help “Sludge” Doyle. My first job was that of pouring oil along the hangar floor so we could slide the tail skid, which was built into the tail, to maneuver the ship in and out of the hangar. We didn’t use good oil — the oil came from Roger Scheon’s gas station which was immediately across the street from the hangar. Oh yes, I had to clean up the hangar floor afterwards!

Being on hand during the test flights was breath taking. Every flight was an air show. On one flight, Benny took off from the north/south runway, which was the shortest at Muni — around 4500 feet long, holding it down going south toward the Texaco hangar. When he got to the ramp, he pulled it up into that famous Benny Howard chandelle and I swear it was 60° climb! That climb continued that way to about 12 or 14 thousand feet. I had never seen an airplane climb like that from take-off. He ran many altitude tests because that was his secret — altitude.

The low-level tests were something else . . . these you had to see and hear to believe. The harmonics between the prop and exhaust sounded like the present day jets — it was more like a purr than roar. I will never forget that sound or sight. A day didn’t pass that I did not bug “Sludge”, Gordon or Benny for a ride during the testing. But with the tanks in the back there was no way. Time was short and every flight was of importance. Benny said he would fly everybody in it after the races. I lived for that day . . . which never came.

The final shake-down flight was from Chicago to New York. We gassed and oiled Mulligan to race weight, Mike and Benny strapped themselves into the seats, the engine barked to life and they were off. As they taxied out for take-off, I was wondering how it would get off and if he would pull his chandelle on take-off.

Well, the take-off was no different than the others as far as getting off and climb were concerned, however, Benny did leave off the chandelle. It was less than 3 hours when Benny called and said he had made it in just under 2 1/2 hours with no problems.

Again, everyone was jubilant . . . all but one, that is. “Sludge” Doyle looked like he had the weight of the world



(Mike Rezich Collection)

This is the original Howard DGA-8, the "Flanigan." The picture was taken the evening of the first test flight.



(Nick Rezich)

This is the "Flanigan" after it went through the factory certification. The photo was taken by me at "Muni" . . . The ship was later sold to Mexico along with two others. Notice the only changes from original to licensed airplane are a new fin and rudder, exhaust outlet on the left side instead of the right, rounded rear window and nav light on the fin instead of the rudder.



(Nick Rezich)

"This is Maxine "Mike" Howard leaving the Chicago hospital enroute to Palm Springs, California for recuperation and rest (following the Mr. Mulligan accident). That is Gordon Israel with her. The other lady, I think, is the hostess from Palm Springs. Note that "Mike" is flying a TWA DC-2 . . . husband Benny flew for United! I took this photo at "Muni." "

Right. A photo taken by George Hardie at the Howard Flight Test area sometime in the late 1930s.



(Nick Rezich)

This is the first Howard seaplane. Photos taken at the factory fly-away hangar in Chicago. Note the high gear. This was a double door (left and right) model. Also, it was equipped with three fuel tanks.



on his shoulders. "Sludge" was clutching a notice in his hand that read, "Tests indicate propeller should be restricted to 500 or 550 h.p.", I don't recall which. This really disturbed "Sludge". He knew he had over 800 horses jumping up and down under that Mulligan cowl. There was no other propeller available — nor was there any money if one were available. Yet, he knew he couldn't turn Benny and Mike loose with that prop. Many frantic phone calls were made, and still no prop. Race time was around the corner and a decision had to be made. As I remember it, someone at Smith said it was O.K. I don't know who made the final decision to fly the race with the Smith propeller, but I do know who accepted the responsibility when that prop failed over New Mexico while Benny and Mike were leading the Bendix by a huge margin.

When the Mulligan was destroyed in the ensuing crash, Roy "Sludge" Doyle crashed right along with them. When "Sludge" was notified of the crash, he knew what had happened and kept screaming, "I should have never let them go!". Mike and Benny recovered from that crash, but "Sludge" — like the Mulligan — was destroyed for life. From that tragic day in September 1936 until the day he died, Roy "Sludge" Doyle carried the cross of guilt and responsibility of that crash. He died with a very heavy and broken heart. He stayed on with the factory taking his early pay in stock instead of cash (because there wasn't any of the latter) until it closed during World War II. A day didn't pass that he didn't remind someone that it was his fault for letting Benny fly the airplane. In recent years whenever I flew an air show in the South Bend area, ol' "Sludge" would show up and we would reminisce about the Howard days. Our last visit was during the Polish Air Force air show at Warsaw, Indiana. Before the day was over, he again reminded me that he should never have let Benny go and that the factory would still be open if it were not for that accident.

The accident really did upset the apple cart for Benny. The factory was open with a few orders for the new DGA, but it needed the money Benny had hoped to win at the 1936 Nationals. With Benny and Mike in the hospital, the factory more or less went into receivership before it formally opened. I think you know what I am trying to say . . . Benny was broke! Now add the hospital bills to the already broke Howard Aircraft and you have a grim situation. You would think that would be enough problems for Benny — but there were others that were much worse. Mike's legs were not healing properly and this worried Benny more than the factory. Benny recovered first and Mike came along later, after several operations. She was and still is the most beautiful, considerate woman in the world. When she and Benny healed and came by the factory, she was dressed in the sharpest pair of slacks I have seen. She stopped and talked with everyone in the shop . . . and she always had that big smile one never forgets.

Let me tell you a story about Mike and Ben. They were going through the factory and stopped to talk with me while I was putting the final sanding on a yellow Howard. I don't know if I was showing off or just super thrilled with our chat, but while they were still standing there, I proceeded to sand through the fabric along a stringer on this almost completed Howard . . . embarrassed? Boy, you know it!! Mike and Ben smiled and walked on leaving me with a repair job that would have to be invisible upon delivery of the airplane.

Mike knew everyone in the plant by first and last name and would most often call you by your first name or nickname. (By the way, about the time you are reading this, I will be returning from Hammondsport, N.Y. where I will

have attended the enshrinement of Ben O. Howard into the Pioneers of Aviation OX-5 Hall of Fame.)

Benny hired only super craftsmen. You had to be the best in the industry or you didn't work for Howard. After working for Blue Bird, American Airlines, Stinson Aircraft and others, I can truthfully say that when a Howard was delivered it was the best built airplane in the world.

Some of the original super men were: The late Mike Babco, welder supreme. He came from Mattie Laird's. Mike also made jigs. The woodworking department was headed up by the late Eric Pearson. He and his Swedes could lay plywood like it was molded plastic. The original assembly was handled by three men from Stinson — Earl Ewing, the late Mike Molberg and "Lefty" Huff. "Lefty" didn't last long as he did most of his work with his mouth instead of his hands. As it turned out, Earl Ewing, now retired and living in Pennsylvania, was named shop superintendent. Mike Molberg was put in charge of all assembly. The sheet metal department was headed up by the dean of tin benders, Eskic Hallquist, who also came from Mattie Laird's. He was a gutter man in Chicago and would come out to Mattie's to make cowling on contract. The finishing department was run by an old air mail mechanic, "Red" Gross from Chicago. Inspection was the job "Skippy" Butler nailed down. The interiors were by Frank Kubac, aluminum welding by the super welder, Robert Babb of St. Louis (and now a bartender in Chicago). This guy put heliarc to shame. The plant master mechanic and in charge of the fittings and machine shop was Roy "Sludge" Doyle. The engineering department consisted of Gordon Israel as chief and Ted Linnert. Later came Dr. Walter Brownell, Dr. Niebersauer, Gordon Israel again and, finally, Bill Peerfield. Flight test was handled by Ben O. Howard, Walt Brownell, Fred Novinger, Gordon Israel, Walter Daiber and Tony Mackowicz. Tony was the spin expert. He ran all the early spin tests. Walter Brownell ran the spin tests on the first seaplane. He is the chief pilot for Morton Salt, flying a Jet Star today. Tony Mackowicz is living in retirement in Chicago, Ted Linnert is with ALPA in Washington, D.C. and Gordon Israel is in California working as a consultant.

Sales were handled by "Slim" Freitag and Benny's brother, Sam Howard. The last I knew of Sam, he was living in Coral Gables, Florida and produces the world famous Aquatic Productions. "Slim" is still living in DeKalb, Illinois.

I may be misspelling some names here . . . please forgive me as I am going back 38 years and I couldn't spell then!

For presidents we had Ben O. Howard, B. D. DeWeese and Dan Peterkin, Jr. The only vice president I can remember was C. "Slim" Freitag.

Next month we will go into the factory and build them . . . how and who. I'll tell you about some special customers like Wallace Beery and others. Keep the letters and cards coming — it really blows my ego!

Until next month, remember, the wing tip that points to the tail in a spin requires opposite rudder for recovery.



(Mike Rezich Collection)

This is the economy model with the 225 Jake and Curtiss Reed prop, no wheel pants and the cheap paint job. Photo taken by an unknown (to me) photographer when the ship was on the west coast for the March 1937 Pan Pacific Air Show at Los Angeles. I have a photo of Benny and "Mike" sitting with the airplane at the show.



(Nick Rezich)

The same ship after being returned to the factory for new deluxe paint job and new gas tanks. The photo was taken by me at the Chicago factory . . . we were swinging the compass at the time.



(Nick Rezich)

A CAA DGA-8. Note the lower gear and right hand door. This airplane was loaded with radio gear for CAA work. The pilot got lost over Kansas City and cracked it up when it had only a few hours on it. Ship was rebuilt by Howard.



(Nick Rezich)

This is a deluxe 9 with controllable prop, 2 doors and deluxe paint. The Stinson in the background was a trade-in for a Howard. The photo was taken by me at the Chicago Fly-away factory area . . . during test flight phase.

Howard
AIRCRAFT CORPORATION
CHICAGO



(Courtesy Nick Rezich)

Howard DGA-8 powered by a 320 h.p. Wright. Colors, Stinson Green - Spartan Green. This photo was from company literature.

(Courtesy Nick Rezich)
A page from a Howard Aircraft Corporation promotional
publication. A DGA-11 is considered the ultimate Howard
by today's antique airplane enthusiasts.

Howard
AIRCRAFT CORPORATION
CHICAGO



DGA - 11. NC 18208 450 Horse Power Wasp Jr.
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U. S. Civil Aircraft, Volume 6 - By Joseph P. Juptner. Aero Publishers, Inc., 329 Aviation Road, Fallbrook, California 92028, 364 pages, \$11.95.

Yes, antiquers, Volume 6 is finally available. Author Joe Juptner has now successfully battled his way from ATC numbers 501 through 600 in his struggle to document every aircraft that has received a government Approved Type Certificate. Volume 6 starts with the Curtiss-Wright Condor T-32 which received its ATC on March 16, 1933 and concludes with the Fairchild 24-C8E which was stamped "approved" on April 14, 1936. This three year period saw the birth of some of the most mouth watering ol' aircraft in American history . . . like the D-145 Monocoupe, Kinner Envoy, the DC-2, Ryan ST, Beech A-17F, Lockheed Electra, Luscombe Phantom, Northrop Delta, Wiley Post biplane, Taylor "Silver Cub", Stearman-Hammond and, of course, a whole raft of Waco, Stinson, Bellanca and Fairchild models . . . and more.

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Jack Cox

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Golden Oldie of the Month

The Arup S-2

By Jack Cox



The presentation of this month's Golden Oldie is made possible by George Hardie of the EAA Air Museum staff who provided the negatives for these remarkably sharp photos of the Arup S-2. They were taken by A. B. Bradley at the 1933 Chicago Air Races and Lee Fray of our EAA staff did the lab work to produce the excellent prints.

The Arup S-2 is one of those interesting little footnotes of aviation history that is largely forgotten today. A low aspect ratio flying wing, the Arup (pronounced AIR-UP) was conceived by a South Bend, Indiana podiatrist, Dr. Cloyd L. Snyder. He allegedly hit upon the wing planform of the Arups by noticing the stable gliding characteristics of a felt heel lift while tossing one about his office one day. After a series of heel shaped models were built and successfully flown, a man-carrying glider, the Arup 1, was built. Successful as a glider, the Arup 1 was converted to a powered airplane with the installation of a Heath Henderson engine.

Raoul Hoffman, whose many aeronautical engineering articles have been collected and made into a design manual by EAA, was hired as the newly formed Arup Company's engineer. He proceeded to design a Snyder-type flying wing incorporating a NACA M-6 airfoil and powered by a 36 h.p. Continental A-40. This machine was designated the Snyder Two, or Arup S-2.

In its original form the wing was a typical heel shape . . . straight leading edge with curving trailing edge. Someone got nervous, however, and added small "ears" at the wing tips to act as auxiliary ailerons. Large trailing edge ailerons and an elevator were already built in and probably were adequate because the "ears" were dropped on subsequent models.

The S-2 was test flown in April of 1933 by Glenn Doolittle, a cousin of THE Doolittle. Surprisingly, the radical little aircraft was successful from the start and labored for several years and several hundred hours of flying time without incident. The S-2 was flown to Washington and demonstrated for the NACA, CAA and the Army. C. H. Zimmerman, who later designed the Vought "Flying Flapjack" was supposed to have been an interested NACA observer. The plane received brief worldwide attention during this trip . . . the Associated Press circulated a wire photo of the S-2 flying over the Capitol dome in Washington — a feat that would get an aircraft and its pilot a permanent grounding today!

Two additional and more advanced Arups were subsequently built, the S-3 and S-4, and attempts were made to gain financing for the purpose of manufacturing an Arup. Promotional tours all over the mid-west were made, including flights over the Indianapolis 500 race and the Chicago Air Races where the pictures above were taken . . . but to no avail. With finances running out, the S-2 and S-4 were reduced to earning their keep as flying billboards making low and lazy circles over towns and public assemblies with "Sears and Roebuck" and other trade names painted on the wing. No one seems to know the ultimate fate of the Arups. Some say the S-2 was broken up in the late 30s by the CAA for the sin of not being a licensed aircraft and the S-4 was last seen hanging from the rafters of a garage.

Why would anyone want to build such a "freak" in the first place? Well, there were (and still are) logical arguments in favor of the low aspect ratio flying wing. The compact size made for efficient storage and was economical to build since it involved fewer parts than a



conventional aircraft . . . very important considerations in Depression ravaged 1933. The configuration insured tremendous short field performance . . . take-off took only 4 to 5 seconds . . . and was stall and spin resistant. Whereas the "conventional" airplane's wing will stall at an angle of attack of 12 to 14 degrees, the Arup would hang on through 35 degrees . . . even the worst dummy in the world would realize something was amiss at such a ridiculous angle. In 1933 stall/spin accidents were the number one killers of pilots and something needed to be done to reduce the fatalities. The Arup was one answer, but it was never used.

The S-2 had its shortcomings, of course. Visibility was marginal due to the low windshield and the fact that the pilot's seat (and, thus, eye level) was well aft of the wing's leading edge. Celluloid panels were placed in the wing to allow a better view forward and down during operation at high angles of attack . . . like landing! The later S-3 and S-4 models incorporated "greenhouse" canopies and one, the ill-fated S-3, even had a tall tricycle gear. (Unfortunately, this plane was consumed in a hangar fire after its first flight, believed to have been the work of an arsonist.)

The Arup S-2 had a span of 16 feet (19 feet after the addition of the "ears"), a length (or chord) of 14

feet at the widest point, which averaged out to an aspect ratio of 1.7. The stall, such as it was, occurred at a 35 degree angle of attack . . . at a mere 23 mph! The glide ratio was only 3 to 1. Contrary to predictions of the "experts", the short spanned S-2 climbed just as well as similarly powered light planes of the day. A top speed of 97 mph was possible, which was not bad on 37 horsepower.

If any of you are interested in delving further into the Arup story, an excellent, well illustrated article appeared in the March 1967 issue of Sport Aviation (page 4) by Bernard L. Rice (EAA 11039). EAA Headquarters has a copy of the plans of the Arup S-4, as do a number of individuals, and we have heard rumors of a replica being built.

The Arups strutted and fretted their hour upon the aviation stage and are heard no more . . . except in places like *The Vintage Airplane*. During their short lives, however, the Arups were made highly visible — they were exhibited often, flown all over the mid-west and were tried out by a fairly large number of pilots. How many of you have pictures of any of the Arup models? Did any of you ever get the chance to fly one? We would be happy to print a follow up to this article if any of you have further information to share.

Around The Antique/Classic World

BELLANCA

Dear Dorothy:

I have just read the April 1974 The Vintage Airplane and the Bellanca article caught my eye. I've got to have the rest of them. Enclosed is a check for \$10.00 for membership in the EAA Antique-Classic Division plus \$2.00 for January, February, March and April issues of The Vintage Airplane. Your and Gene's picture of the Officers and Directors looks great.

I've always been a Bellanca fan because my father worked for the Bellanca factory when it was in Omaha. He was a combination electrician-welder having worked for the Ramer cycle shop there. As my folks tell it, I was born while my father was with Bellanca but I was a very sickly child, and even lost weight — so the doctor recommended they feed me goat's milk. So Dad bought a couple of goats to feed me. Giuseppe Bellanca learned of the goats Dad had and wanted some goat's milk too, so he came to our house in Council Bluffs, Iowa many, many times for milk and my folks became pretty well acquainted with Mr. Bellanca. In fact, my mother still has a baby ring Mr. G. M. Bellanca gave me when I was a baby.

In addition to working on the Bellanca CF cabin plane, he also did considerable work on the de Havilland mail planes Bellanca was modifying at the time — mainly new wings.

Best wishes to you and Gene and all the EAA staff.

Sincerely, Adolph Hugo, EAA 5404
7715 E. Fourth St.
Tulsa, Oklahoma 74112

BELLANCA CRUISAIR

Dear Jack:

The small world photo on page 9 of the January '74 issue of The Vintage Airplane has really renewed my enthusiasm. Seeing N-74232 and N-74230 backgrounded by a Cessna 190 really did it.

I owned a Cessna 190 (N-1551D) for three years, and in my opinion it is the only *real* airplane Cessna ever made. The point of interest to you, however, is the fact that several months ago I located and purchased several baskets of 14-13 parts which had originally been an airplane. Actually the wings are in excellent shape, only the fuselage and tail needing a lot of work. After looking at the photos in your article I made a quick check of my registration and confirmed the fact that my airplane was missing from the photo on page 9. Behold, N-74231, she will fly again. When she does I will forward a photo.

Who knows, maybe someday I can squeeze it between 230 and 232 for a real Bellanca line up.

Respectfully,
Mike Grimes
6081 N. Angus St., No. 134
Fresno, California 93710

CHILTON MONOPLANE

Dear Jack:

I read your article on the Chilton Monoplane in The Vintage Airplane for April 1974.

The particular aircraft you illustrated is of great interest to me as this is the one fitted with a Walter Mikron engine 20

and some years ago I played quite a large part in this installation, the only one of its type. Additionally, rather than some being fitted with the 44 h.p. French Train engine only one was so fitted, in fact G-AFSV, the subject of your photographs. The reason for the change from Train to Mikron was that the Train was a very unsatisfactory engine although when running properly made the little Chilton go very fast. In fact the Train engined Chilton broke the 100 kilometre speed record for aircraft in this weight class many years ago and it so happens that I have the propeller from this aircraft in my garage. This propeller I have had for a long time intending to send it over for the Museum.

Also among my goodies I have one of the landing gear leg assemblies of the famous Percival Mewgull G-AEXF which made such a spectacular flight from London to Cape Town and back before the war. This item is at present in a dirty grey primer paint but I wonder, do you think that this would be a suitable item to have in the Museum as it is after all highly historical and shows the sort of technical thinking of the thirties on this side of the pond regarding undercarriages? Unfortunately, I could not send the whole aeroplane as this has rotted into many small pieces but happily it has been collected up by an EAA member over here who will eventually, he hopes, restore the aircraft to flying condition. The reason I have one undercarriage leg is that the previous owner dropped it on the other one and being irreplaceable we had to think again and I redesigned the whole gear to take two Miles Magister oleo pneumatic legs. Both Miles and Percival are rather forceful aviation characters and I shudder to think what would happen if they ever found out that a pair of Miles legs were married to a Percival airframe!

Incidentally, in reading one of your other articles recently I noticed that you referred to whisky. Whisky spelt with an "e" is Irish, whisky spelt without an "e" is Scotch, if you ever want a good punch up go into an Irish pub and ask for some Scotch whisky without an "e" and see what happens to you. Of course, an interesting variation on that theme is to try it in the reverse sense and say in Scotland that there is nothing like whisky with an "e"!

I have been reading once again your wonderful gift of Lindbergh's book and reading it with particular interest because of his love of Brittany in France. During the last two years I spent a great deal of time in that area as a consultant V.P. to a local airline and since having the book which you so kindly gave me I have been determined to find his house. This has been very difficult but at last I have found the island and hope during one of my next visits to see if I can walk up to the front door.

All best wishes to you and Golda and hoping to see you at Oshkosh.

With kindest regards,
Yours sincerely,
Harold Best-Devereux
11 Stonehills House
Stonehills, Welwyn Garden City
Herts, England

GENERAL SKYFARER

Dear Mr. Cox:

While visiting a friend of mine in Florida I saw his copy of The Vintage Airplane, the March 1974 issue, I believe. You had an article on the General Skyfarer in it, saying

only two were currently carried on the FAA Civil Aircraft Register, NC-29025 and NC-29030; I own 030, have owned it for about ten or twelve years, and believe it or not finally managed to get it restored for flying again. You requested some additional information on the General — perhaps this will help, even though it is taken from memory as my records are in California and Nevada.

The General Aircraft Company was formed in 1941 at Lowell, Mass. They turned out a total of 17 civilian Skyfarers, NC-29015 to 29030 inclusive. They also made one for Uncle Sam that carried civil registration and a 125 h.p. engine. Perhaps this would account for the serial number 18 being stamped on all the parts of my plane. The article from which you quoted said all parts would carry their part number, but this was not done, only the serial number was applied. Off hand I'd say this was more because each airplane was hand built than for any other reason. The planes were all built between April and August, 1941, mine being the last of the lot. After the war a few (6, I believe) were made in LeMars, Iowa as the LeMars Skycoupe. These suffered a variety of accidents, mostly problems with the nose wheel and I've been told that those that weren't wrecked were scrapped. None have come to my attention since I purchased my Skyfarer.

The construction of the plane is much like a Bede IV, being angle aluminum fuselage frame bolted together, with a few wood fairing strips and fabric cover. The wing is a D spar affair, fabric covered from front to rear spar, with full span flaps and ailerons supplying all the wing surface aft of the rear spar. There are 11 ribs in each wing, all identical, plus two smaller tip ribs. These are built up of angle aluminum stock. Two fuel tanks of 10 gal. each make up the inboard end of the wing, which bolts to the fuselage with three bolts. Control cables run in the streamline tubing wing strut to the ailerons, the mechanical flaps having their cables rigged under the seat and behind the baggage compartment.

The tail surfaces are of mixed construction, the stabilizer being all aluminum, the elevators and fins fabric covered. As you know there are no rudders. The pitot tube is mounted high on the right fin.

Controls are rather straight forward, being cable operated in all cases, with bicycle chains controlling the cables over the control wheels. My plane is fitted with dual controls, the co-pilot's control wheel being connected behind the panel to the pilot's wheel and thereby using the same chains, cables, etc. from that point on to the control surface. The one and only pedal on the floor is the brake, which works on both wheels simultaneously. Steering is direct (very!) to the nose wheel through the control wheel and functions as in an automobile. This presents an interesting if somewhat hazardous situation for the old time pilot transitioning to the Skyfarer, but probably was no problem to the student.

The problem, you see, is maintaining directional control on take off or roll out. Today's pilots have been taught to rotate the nose early and fly the plane off the ground when it is ready, and likewise to hold the nose off on landing, letting the nose fall through smoothly as the plane decelerates. Now, imagine doing this in the Skyfarer. You are roaring madly down the runway, feel the elevators becoming effective, and rotate the nose. As it leaves the ground you notice a decided swing to the left, which you promptly correct with a little right rudder. About the time you've pushed your foot an inch or two through the floorboard you realize THERE ISN'T ANY RUDDER!! So, how to stop the swing? Only one way — *carefully* let the nose down to the runway, being sure the wheel is straight before it touches, then steer! Then,

when you are for sure positive you have flying speed you rotate again and pull the plane into the air, where left turning tendency can be corrected with aileron.

Landings are much the same, in reverse. Fly the plane down to the runway (the General people said you could pick any landing speed between 40 and 80 mph), flare, and when the main gear touches, *promptly* lower the nose wheel to the ground. If you hold it off two things will happen, neither of 'em good. You will lose directional control if there is any crosswind at all, and when the tail stops flying and lets the nose down it does so all at once, the nose wheel falling about 3 feet, CRUNCH. After breaking two cast bronze collars in 3 landings I learned these little facts of life, and now landings are no worse (nor more expensive) than with any other long-legged tricycle.

In the air the Skyfarer isn't too much different than most airplanes. The deep windshield and high seating make you feel more like you are sitting on the front porch swing than flying an airplane, and the two control "driving" is a bit unusual at first, but before too long you become resigned to having nothing to do with your feet, and simply drive. With practice you will be surprised just how much you can do with the General. I've done the usual wingovers, stalls of sorts, even managed a few Lazy 8's, which are fun without rudders. And, if you have more courage than brains the plane will loop.

The plane was seven years in the rebuilding, and is finished in its original colors with 21 coats of hand rubbed dope. All the original metal work was saved, which in retrospect I feel was a mistake. Better work would have been possible by replacing the sheet metal gear fairings with new material, for example. But, my idea was to retain as much of the original airframe as I could.

Its performance? I really can't give you precise figures, but it cruises nicely alongside an 85 h.p. Luscombe all day long — say 90 mph. Climb is wonderfully slow, but I have had it above 10,000 feet starting at sea level. With this kind of performance naturally the plane is not based in Reno, where the airport is 5000 feet ASL to start with!

The Skyfarer isn't all bad, however. It is a fun little plane to take to fly-ins — not much worry about figuring out which one is yours. And, tall as it is it's easy to spot in a crowd. Good shade for watching the air shows, too.

That's about it on my Skyfarer, at least all I can recall without going into the gruesome details of all the time and money spent on the restoration. If you hear from the owner of the other one in California, or from the one in Canada that was supposedly destroyed about 7-8 years ago in a wind storm I'd surely like to hear from you about them.

Best wishes,
Howard C. Cagle
Yacht Chance
c/o Creature Enterprises
2702 Hy. 92 West
Winter Haven, Florida 33880

Dear Mr. Cox:

I read the article in The Vintage Airplane magazine, March edition, about the Skyfarer airplane and can add a little more info about the plane.

I know of NC-29027 that was completely demolished June 6, 1943 at Youngstown, Ohio by a Mr. Upson. No fault of the plane, he ran out of gas and demolished it on a forced landing.

I owned NC-29017 and if you can secure a copy of January/February 1973 AAA Magazine, I wrote a story about my flying experience in the Skyfarer.

After I got married in '48 and my son was born, I sold it to someone in Georgia (I don't even remember the name). I lost track of it since then.

It was a fine airplane and I have a lot of sentimental memories for it. I'm back flying again, an Ercoupe, but I'd sure like to fly the Skyfarer. I flew and owned it for five years.

It is also my wish that you receive more information on this little jewel because it deserves a rightful place in aviation history.

If I can be of any further help, please let me know.

Sincerely,
Alverna Williams
528 Hensley Dr.
Grand Prairie, Texas 75050

IT'S A THUNDERBIRD

Gentlemen:

I note that you ask for identification of the "camera plane" in the Art Goebel picture collection in the May issue of "The Vintage Airplane". For once, instant recognition!

That slick 3POLB is a (was a) *Thunderbird* manufactured in early 1928 by Thunderbird Aircraft, Inc., 900 Allen Ave., Glendale, Calif. Check page 995 of your June 1928 Aero Digest for a good picture of the type. If you (or Nick Rezich) have the negative handy, perhaps you might want to see if that swirl of letters across the rudder spells "Thunderbird". Possibly it does!

I cannot begin to tell you how much I enjoy "The Vintage Airplane".

Sincerely,
Jack Kakerbeck, EAA 21718, A/C 815
258 Mountain Rd.
Cornwall-on-Hudson, N. Y. 12520

Dear Buck:

Received your good May '74 issue of The Vintage Airplane and enjoyed the Swallow article very much. What year and NC number is it? I may find you some pictures of it. This one clipping enclosed — newspaper article says dealer in Chicago received 25 of them. Maybe that one of yours was one of them.

Regarding the Art Goebel pictures on page 10, it was asked what make was the camera plane? Enclosed is a clipping ad of it — a "Thunderbird".

Your Thunderbird camera plane's rudder spells out Thunderbird — a good magnifying glass — *but good*.

Sincerely,
Gene Bransteter, EAA 2390, A/C 139
1017 Eastern Ave.
Ashland, Ohio 44805

THE GREAT KR-31/PARKS FLAP

Dear Jack:

Received my April 1974 issue of The Vintage Airplane and always enjoy reading it.

The devil in me comes out when I see some obvious errors and in interests of historical accuracy wish to point out a couple things.

Big Nick is wrong calling a Parks P-1 (page 15) a Kreider-Reisner Challenger KR-31. The KR-31 had the radiator on top between the cabane struts and the Parks hanging below. Also a slight difference in rudder shape and engine cowling. Tell Nick to ask his brother, Mike, to straighten him out as he is a REAL expert. I was selling Mike air-

plane photos back in 1939. Also on page 16 he or you quote, "Long nose Kinner Eagle — the 'good one' short nose OX-5 was a bad spinner says Nick" (end quote). The A-1 Eagle was built in both a short and long nose version with OX-5 before the A-129 (pictured on page 16 of The Vintage Airplane), as the Kinner version and was called the "ant eater". Both the A-1 Eagle and A-129 models (2) have attended past AAA National Fly-Ins. Also KR-31's (2).

Perhaps I'm a bit too pure on such items but a publication that is published in the interests of antique airplanes should be factual — wouldn't you say?!

Ahh, it's the little things that drive editors mad, Jack. I really don't have the time to be critical, but the Parks P-1 versus KR-31 has been a tough one for years and the difference is there, if you look for it. Come see us sometime!

Very truly yours,
Robert L. Taylor, President
Antique Airplane Association
P. O. Box H
Ottumwa, Iowa 52501

Dear Jack:

Having owned at least 6 KR-31 "Challengers", and having flown at least 6 others, I noticed at once that there was something wrong with the picture on page 15 of the April Vintage Airplane.

The description reads "KR Challenger (KR-31) with a mighty OX-5 in its nose". At first I thought it might be a modified KR-31, but finally recognized it as a Parks P-1.

Having also owned and flown "Tank" powered Waco 10's, I believe the exhaust manifold is that of a "Tank" engine. Since I cannot see clearly if there is a radiator hung under the firewall, I cannot be sure. The "Tank" manifold would not fit an OX-5, I feel sure.

My guess is that the ship is a "Tank" Parks P-1.

The split-type landing gear, the shape of the top engine cowl, the lack of a center section radiator on the Parks P-1, show it to be other than a KR-31. The step into rear cockpit of a KR-31 is a spring-loaded door that you slip your foot through on the side of the fuselage. The photo shows a rod on the fuselage to use as a step, as on a Waco 10.

I understand that the KR-31 and 34 plans were sold by Kreider-Reisner, after Fairchild discontinued manufacturing them, to Parks Air College. I know they produced a number of modifications of the KR's. However, the basic fuselage and wings, etc., were unchanged.

I realize that this news is not of "earth shaking" proportions, but since I got my license and learned on KR-31's in 1931 at Atlantic City Airport (Philadelphia Air Service, Jack Ruffley instructor) I have a soft spot for them. The KR-31 I rebuilt in 1962 (with a *new* OX-5 engine) turned out to be one I rented at Carlisle, Pa. Airport in 1934.

I just bought a beautifully overhauled OX-5 engine, and am looking for a good Waco 10 or KR-31 to put it in. If you hear of one complete but needing moderate rebuilding, I would appreciate your letting me know about it. In the past I have owned 3 UPF-7s, 1 DH 60 Gypsy Moth, RNF and UBF Wacos, 2 Waco 10s, 6 KR-31s, Meyers OTW, one Citabria and a Champ.

I'm retired now and have time to restore an OX ship, so let me know if you hear of one for sale.

Best regards,
Bob Hoover
Easy St., R. D. 2
Selinsgrove, Pa. 17870

P. S. Not the *famous* Bob Hoover!

(EDITOR'S NOTE: Yes, it was a Parks! Our readers will be gratified to know that Big Nick and your editor have gone into a twelve day period of Shame and Repentance. We have clothed ourselves in raiment made from discarded fabric from a KR-31 and have annointed our heads with the ashes of some old Parks Air College test papers — those with flunking grades!)

CURTISS PUSHER

Dear Sirs:

Re the top picture on page 13 of your April issue. In 1918 my mother and I spent a few weeks in Santa Monica, California near Clover Field (I think). Even though I was only about 7 years old I was much impressed by one Al Wilson who had a pusher. He would fly it around the field while a helper tried to drum up passengers. He would say, "Going up, \$5.00 for five minutes. The nearest you'll ever get to heaven". Then Al Wilson would take them up in another biplane. I pass this on for what it is worth.

Yours very truly,
Bill Martin
Box 1803
Calexico, California 92231

Dear Jack:

Regarding your Curtiss photos on page 13 of the April issue:

The top photo is of a Headless "replica" — or perhaps the term "look-alike" is more proper — owned and flown by Al Wilson, a west coast movie and air show pilot of the late twenties and early thirties. If my memory serves me correctly, he had the title of "Major".

Wilson was a contemporary of Frank Clark, Spider Matlock, Paul Mantz, Milo Burcham, etc. He performed at the National Air Races in Los Angeles at least once during the early 1930's.

I have a hundred feet or so of commercial film in my library which shows Wilson flying his headless replica. Seems his favorite trick was flying the machine while standing erect in the seat. The films indicate that he had a standard control system with an elongated shaft on his wheel control to provide his "stand up" flying capability. Films also show the OX-5 for power, something other than the standard Curtiss airfoil section, and a ton of trouble with longitudinal stability.

Also have some footage showing Wilson doing simple aerobicic in this ship.

Regard to all — looking forward to seeing you in July.

Sincerely,
H. N. "Dusty" Rhodes
8861 E. Briarwood Blvd.
Englewood, Colo. 80110

Dear Jack:

April's Vintage Airplane arrived in this morning's mail and with as much modesty as I can get together, I am delighted with the way it turned out. In spite of my closeness to the period of time and things Bellanca, I got quite a charge of seeing it all put together so well by you.

I have only one little nit to pick. In the nice account you gave of me at the bottom of page 4 you said: "Today he has his own Summit Aviation at nearby Middletown . . .". I am Vice President and General Manager of Summit, but it is not mine. It is owned lock, stock and barrel by young Richard C. du Pont, Jr., son of the country's most outstanding sailplane pilot during the 30's. The latter was killed in a military glider accident at March Field in 1943 while serving on General Arnold's staff. This could be corrected in the next issue.

Thanks again for doing such a great job.

Sincerely,
John McC. Morgan
1020 Overbrook Rd.
Westover Hills,
Wilmington, Delaware 19807



SWIFT

Dear Headquarters People,

I enclose a picture of my latest project, Swift 2334B. I belong to EAA Chapter 25 here in Minneapolis and have flown most of the common lightplanes, but the Swift is my all-time favorite. N2334B is a stock 1948 125 h.p. original although previously I have owned Swifts with 85, 90, 125, 145 and 150 horsepower engines. I am also building up another Swift with a 210 Continental. Incidentally, the first Swift was built and flown over 30 years ago, so the FAA has permitted 2 inch numbrs as per Part 45 of the FARs.

Jim Montague (EAA 42062)
6132 12th Ave. South
Minneapolis, Minn. 55417

Calendar Of Events

- JUNE 7-9** — DENTON, TEXAS — Texas Chapter of Antique Airplane Association Annual Fly-In. Denton Municipal Airport. Contact: Ed McCracken, 1044 East St., Grapevine, Texas 76051.
- JUNE 8-9** — BURLINGTON, WISCONSIN — 2nd Annual EAA Antique/Classic Division Spring Fly-In.
- JUNE 13-16** — TULLAHOMA, TENNESSEE — National Staggerwing Club Fly-In. Contact: W. D. "Dub" Yarbrough, Lannom Mfg. Co., Box 500, Tullahoma, Tenn. 37388.
- JUNE 30** — MISHAWAKA, INDIANA — Mishawaka Pilots Club, 6 miles north of Goshen omni. Fly-in breakfast and lunch. Air show, trophies galore for the best Waco, Fairchild, antique, experimental, etc.
- JULY 6-7** — LA RUE, WISCONSIN (NEAR BARABOO) — 6th Annual Antique Transportation Meet. Antique airplanes and air games, steam train rides, antique car games and hill climb, swap meet. Fun for the whole family. NO landing or parking facilities for modern aircraft. Contact: Edward C. Wegner, 10 Stafford St., Plymouth, Wisc. 53075.

- JULY 20-21** — SHIRLEY, N. Y. (LONG ISLAND) — 12th Annual Fly-In of the Antique Airplane Club of Greater New York at Brookhaven Town Airport. Dinner dance on Saturday night. Contact: Harry E. Geddes, Sec., 374 Latham Rd., Mineola, N. Y. 11051 (516) 746-3453.
- JULY 31 - AUGUST 1** — FOND DU LAC, WISCONSIN — Antique/Classic Division Participation in EAA/IAC Aerobatic Contest. Spin, Loop and Roll Competition on August 1. Contact: Don Taylor, Contest Chairman, 2 Chandelle Drive, Hampshire, Ill. 60140, (312) 683-2244.
- JULY 31 - AUGUST 6** — OSHKOSH, WISCONSIN — NEW DATES — 22nd Annual EAA International Fly-In Convention. Largest and best Antique and Classic gathering anywhere. Make your plans and reservations early.
- AUGUST 10-11** — ALBERT LEA, MINNESOTA — Skyrama '74. Airport dedication. Contact: R. J. Lickteig, Box 731, Albert Lea, Minn.
- AUGUST 25 - SEPTEMBER 2** — BLAKESBURG, IOWA — Fourth Annual National Invitational AAA-APM Fly-In — Antique Airfield.
- AUGUST 30 - SEPTEMBER 2** - OTTUMWA, IOWA — Ottumwa Antique Airplane Convention. Ottumwa Airport. Sponsored by Antique Airmen, Inc. Contact: J. C. "Chuck" Weber, 441 Berry Rd., Barrington, Ill. 60010.
- SEPTEMBER 13-15** — GALESBURG, ILLINOIS — 3rd National Stearman Fly-In. Contact: Jim Leahy, 445 N. Whitesboro, Galesburg, Ill. 61401. OR Tom Lowe, 823 Kingston Lane, Crystal Lake, Ill. 60014.



**The Vintage Airplane is the official publication of Antique Classic Aircraft, Inc.,
a division of The Experimental Aircraft Association, Hales Corners, Wisconsin.**