



# GOLDEN PYLONS

e-NEWSLETTER

The Official Journal of the Society of Air Racing Historians, Inc.

Vol. I No. 2

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Nov-Dec 2012

# HAPPY HOLIDAYS !



Reno 2012 Unlimited Gold Winner  
Steve Hinton and "Strega"

Photo Credit – A. Kevin Grantham

***e-GOLDEN PYLONS***  
Nov-Dec 2012 - Issue 2

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## SYMPOSIUM UPDATE

By Joe Stamm

In early August, Board members began the intensive organizational effort necessary to make our April 26-27, 2013, Symposium a roaring success. A number of potential speakers were contacted in September at the Reno air races. Others have received a phone call from a designated Board "host".

We are very pleased that we can already confirm the attendance of Tony Jannazo's nephew and niece, John and Mary Ann Jannazo, who have extensively researched their uncle and the tragic crash in the 1947 Thompson race. They will present the story that all of the contemporary news accounts overlooked ... the human side of the pilot and the impact that his loss had upon the family left behind.

## RESTORATIONS & REPRODUCTIONS

### Hawker T. Mk 20 Sea Fury "Critical Mass" Restoration

The Dwelle family, owners of "Critical Mass", report steady progress in their restoration efforts with continued support coming from Sanders Aeronautics. A year ago, the restored fuselage was mated to the center section, and the Wright R-3350 and exhaust system were installed. This work was followed by wiring and instrument panel work that essentially completes the cockpits.

Plexiglas work on the canopies is being performed by Aero Trader, and fairings and other sheet metal work is being completed. The wing tips were installed this summer.

The Dwelles have decided that the historically correct Royal Navy silver paint scheme will be applied. They hope that the first post-restoration flight will occur in a little over a year. For photos and restoration updates visit: [www.seafury10.com](http://www.seafury10.com).

### Howard's "Ike" and "Mike" Restoration

The Cleveland-area owners of Benny Howard's "Ike" and "Mike", Tom Matowitz and Karl Engelskirger, report progress with their restoration of these two priceless Golden Age racers. The team dismantled one wing panel this year to obtain dimensions and shapes so that these complex

wooden parts can be duplicated. This wing work will utilize a computer-aided process which will produce perfectly symmetrical ribs of exact dimensions to produce wings that will be perfect mirror images of each other. The original metal fittings in the wings appear to be perfectly preserved and structurally sound so they will be reused.



"Mike"

The restoration project includes one nearly intact Menasco Buccaneer engine. Several key components of this engine have been checked over carefully, and it appears that they can be refurbished successfully rather than replaced (which would be problematic at best). The result of the engine inspection means that there is a very realistic prospect of flying one of the airplanes with an original Menasco power plant. If successfully, it is thought that this would be the first time an airplane has flown with a six-cylinder Menasco engine in more than seventy years.

### P-51D Mustang N13Y Restoration

SARH members Bob Taylor from OH and Pat Sidley from CT report that the New England Air Museum (NEAM) in Windsor Locks, CT has taken P-51 N13Y out of storage with plans to restore the aircraft as it was flown by Anson Johnson in 1949.

The accompanying photo was taken by Pat in October at NEAM after the aircraft had been brought out of storage by museum staff. The initial work, which is currently underway, is to carefully inventory and organize the pieces and parts



**Start of restoration of N13Y**

and then develop a detailed restoration plan. The restoration crew will build jigs to mount the larger airplane pieces (fuselage, tail, wings, engine, etc.) to make working on them easier. Pat has promised to send us additional photos as the restoration progresses.

The museum's website can be found at: ( [www.neam.org](http://www.neam.org) ) and contains additional information on the N13Y restoration and all of the aircraft in their collection which include the Marcoux-Bromberg R-3 and a Gee Bee R-1 replica.



**Anson Johnson's P-51D N13Y as it appeared in Cleveland in 1949**

## **TECHNICAL FORUM**

By Tim Weinschenker

June 30, 1986, was a momentous day in the history of Ingersoll-Rand (I-R) blast furnace turbo blowers. That Saturday morning was the day that I-R Turbo blower Serial number 410/1411 suffered a major explosion that launched the intake house off the roof of No. 2 Power House on Zug Island and

into the Detroit River. It was said that the boats on the river scattered faster than the late Bill Muncey in the Gold Cup. I cannot attest to this as I was walking up the stairs in No. 1 Power House on Zug Island when this catastrophic event occurred. Since that time, the turbo blower, better known to me as No. 5 Turbo blower, has been the cause of many sleepless nights; long, protracted start-ups; and numerous other disruptive events. Repeated attempts have been made by me and others to cure this machine of its ills. Some have kissed the left cheek of the turbine while others have poured sake at various points of the machine. Still others have performed ancient dances and rituals...but none of these measures have worked thus far.

Now, you might wonder what all of this has to do with Air Racing. It was in the midst of one of these protracted start-ups that I wrote the last *Technical Forum* for this newsletter. For three days I was unable to develop sufficient oil pressure for start-up despite the fact that the oil pressure had been fine when the unit was shut down. I relate this story because I have to give some logical excuse for the error made in my last column. Many of you were quick to spot my error, and I received a record number of emails pointing out my latest bone-headed mistake! In fact, so many responded that it is impossible to list all by name. My error was to call an "intercooler" an "innercooler". I'm not sure how I could do this. Maybe I should blame spell check. In any event, I want to give my thanks to all of you who took the time to point out my mistake.

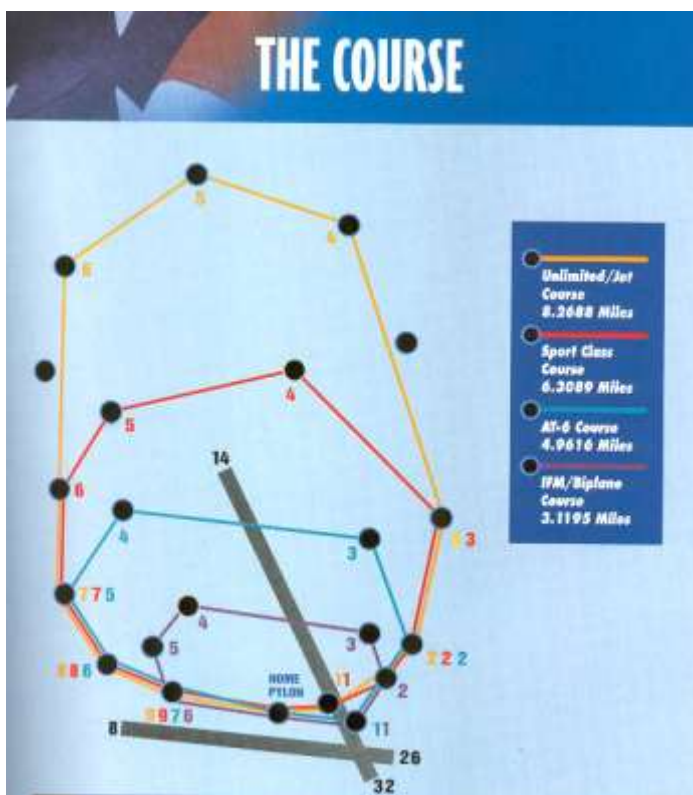
Now on to my next error, whatever and whenever it might occur...!

I mentioned in the last discussion of the Pond Racer that I had received some additional information on this racer just prior to my scheduled deadline and that I would follow-up in the next column. Dave Lednicer was kind enough to send me a copy of an excellent story on this racer that appeared in the Dec 25, 1991 – Jan 7, 1992 issue of *Flight International*. It is worth the effort to find this story written by Guy Norris. An added bonus is the presentation of a well done cutaway drawing of the Pond Racer. However, the part of the article that I found most intriguing and worthy of follow-up was the consideration given by the design team to understand the impact of the plane's design, and how the design would impact lap time due to the

way that the plane could navigate the race course at Reno. A computer model was generated that produced the shortest theoretical line around the course, a distance of 14.8 km. However, this course line was not realistic because of the high g-loadings that would result. Further computer modeling generated a turn profile through the tightest three pylons that would result in a lap distance of 15.4 km. Even with this profile, the computer predicted a very high g-loading of 6.8 g's if the turns were attempted at a speed of 435 knots. This type of g-loading on a warbird-type, unlimited racer would result in unacceptable speed loss while negotiating the turn. Typically, the g-loading was reduced by increasing the turn radius to the point that the g-loading dropped to a more acceptable level of 3.5 to 4.0 g's. This change did, however, increase the lap distance to approximately 15.8 km. The design team continued with their computer analysis and ultimately concluded that, if a new racer could be designed with a lower induced drag profile, it would be capable of flying the tighter course without excessive speed loss on pylon turns and would significantly reduce lap times. In this scenario, they calculated as much as a 3 seconds per lap improvement.

Reading this really made me want to do more research on the subject of how flying the race course can affect lap times. I had often wondered if other teams were using computer technology to learn how to better fly the course in much the same way that Grand Prix race car teams use telemetry data to help drivers improve lap times.

I heard about the difficulties of flying the correct racing line from several pilots from various race classes. The first example of this had been during a conversation that I had with Darryl Greenamyer in 1988. I had called Darryl to discuss several things about his Bearcat. One of the subjects that we covered was the defeat of his Bearcat, piloted by Richard Laidley, at Reno in 1972 by Gunther Balz in the "Roto Finish" Mustang. I was surprised by Darryl's statement. He told me that while Dick Laidley was an excellent pilot, he was not a seasoned race pilot. The only Reno Unlimited course experience he had was flying at the Reno races that year. Laidley flew a low, tight course (causing his eventual disqualification) that may have looked good to the spectators but really overloaded the airplane with excessive g-loading in the turns resulting in increased lap times rather than lower times.



The Reno Race Course



Many people have commented upon the way Darryl Greenamyer seemed able to fly any race course as if "on rails". Here he places the canopy back on his Bearcat after notching a fourth "kill" in the 1968 Unlimited Final.

Photo Credit - National Air and Space Museum

My next step was to call my good friend Bill Kerchenfaut. One of Kerch's opening statements to me was to remind me that the goal is to decrease lap times which may mean flying a longer distance. That may seem backwards but the reduced g-loading from the longer radius turns can have a positive impact on lap times due to higher speeds. Kerch also shared with me that the first pilot he knew of to use computer technology to improve his lap time was the late Lloyd Hamilton. A gentleman named Rit Keider, as Kerch remembered it, was the developer of that initial computer program to determine the ultimate line for minimum lap times. Kerch continued by stating that one program does not fit all planes. There are unique parameters for each aircraft. Kerch said that he had made use of GPS technology when he was the crew chief on Mike Brown's Race No. 232, and I recall an article in *Air Classics* magazine describing GPS's use in air racing. However, it was Kerchenfaut's next statement that I found most intriguing. Kerch worked with a number of different pilots throughout his career, and in terms of flying the optimal course, two in particular stood out. The first being Darryl Greenamyer, and the second being Skip Holm.



**Considered by many to be one of the best of a select group of Unlimited Race Pilots is Skip Holm pictured here the Monday following the 1987 Reno Air Races.**

**Photo credit - Tim Weinschenker**

Kerch felt that both of these pilots just seemed to have an uncanny ability to understand where they needed to place the airplane around each pylon to obtain the minimum lap time. He was not sure if it was the fact that both Darryl and Skip had test pilot experience, but they consistently demonstrated a natural ability to fly the correct line with any aircraft they were piloting even under greatly varying race conditions.

It is this human factor that makes this research so attractive to me. Despite the rapid advances in technology, it still comes down to people...people who are willing to put in the time to gain a full understand of what works, as well as, how and why it works. When I was researching "Conquest One" everyone told me that there was no one who understood the whole airplane as well as did Darryl Greenamyer. In every technical field, be it air racers or turbo blowers, it comes down to dedicated people in pursuit of the "perfect solution" to their challenge. This is what makes the research I do so rewarding.

Well, that's all for now. Hopefully, I didn't make as many mistakes in this article, either way, I always welcome your comments and corrections being sent to me at: [pylonguy2003@yahoo.com](mailto:pylonguy2003@yahoo.com).

I want to extend special thanks to Dave Lednicer and Bill Kerchenfaut for helping me with the preparation of this article.

## **HERMAN SCHAUB RETIRES AS SOCIETY SECRETARY & TREASURER**

***From Tim Weinschenker***

Herman Schaub has recently stepped down from his Society duties as Secretary and Treasurer. These duties have been taken over by Kenn Smith. We would be badly remiss if we did not show our respect, and honor Herman for all of the work he has contributed to our Society to make it the strong organization that it is today. We felt it best to ask former President and Editor, Don Berliner, to share his thoughts on just what Herman has meant to our Society.

***From Don Berliner***

When the Society's first Secretary/Treasurer, Jim Butler, knew he was nearing the end of his days, he made it clear that the man the Society needed to replace him was Herman Schaub. As "Herm" was not all that well known to many of us, Jim's

endorsement carried great weight.

In the first six years of the Society's existence, Butler had carried the load, keeping track of members and their dues payments, answering questions from potential new members, and somehow keeping us from going bankrupt. It hadn't been easy, as he was suffering increasingly from very painful rheumatoid arthritis.

In late 1991, it became too much for him and Jim slipped away, leaving the rest of us to carry on. Herman took over the time-consuming duties of the Secretary and the Treasurer. The transition could hardly have been smoother.

For the next 21 years, Herman kept the books and saw to it that each member paid his own way while also making sure the membership roster was up-to-date. All of this was done pretty much out of sight, except for his manning of the registration table at every Symposium starting in 1992. He checked the attendees in, collected from those who had not paid in advance, and managed to sell commemorative medals, CDs, and whatever else landed on his table.

Now Herman has decided it's time to step down and to hand the duties over to Kenn Smith. Kenn has a very large pair of shoes to fill, and the Board has full confidence in him to perform these key functions in the fine tradition of his predecessors.

## **THE SCATTER, I MEAN, THE HOME PYLON!**

By Tim Weinschenker

The last two months have been very challenging for me as maintenance outages in my professional life have kept me running from one end of the plant to the other! However, this has not stopped lots of good things from happening in our Society! The most exciting news for me was the successful launch of our first ***e-Golden Pylons***, the new electronic newsletter, and the upgrade of our website to include a PayPal option for paying your annual Society dues and for new member to join our Society.

A major personnel change for the Society is Herman Schaub's decision to step down as our Secretary and Treasurer after more than 20 years of dedicated service. Thanks, Herman, from all of us!!! Kenn Smith has graciously agreed to try to fill Herman's shoes, and we should extend to Kenn both

our gratitude and our full support as he assumes his new duties.

It is very encouraging to me that we have already had so many members sign-up to receive our exciting, new, ***e-Golden Pylons*** newsletter via email...if you haven't joined yet, you are really missing out on a lot of great air racing news, articles and pictures. And, I just can't let it pass without noting...I was most pleasantly surprised by some (who will remain nameless) that bought a computer and set-up an e-mail address just so they wouldn't miss out on any of the ***e-Golden Pylons*** action! I am also thrilled by the opportunity that we now have to share our air racing collections and research amongst all Society members. I hope that you will soon flood our editor, Joe Stamm, with so much material that a 100-page ***e-Golden Pylons*** is a real possibility! This valuable material can only be truly appreciated and enjoyed if it is shared with everyone.

Also, it is not too early to start making plans to attend the 2013 Symposium in Cleveland to be held on April 26<sup>th</sup> and 27<sup>th</sup>. Thanks to Joe Stamm we have a firm commitment from John and Mary Ann Jannazo to join us and present the true story of their Uncle Tony Jannazo. For the most part, the news media and historians have focused solely on the tragic crash of Tony in the 1947 Thompson Trophy. They did not realize nor mention that he was an experienced pilot with the dream of becoming a doctor. I am really looking forward to the presentation by John and Mary Ann. It will help us understand an important facet of their uncle's life, a story that has never before been presented.

I want to again encourage you to send your email address to Joe ([jastamm@gmail.com](mailto:jastamm@gmail.com)) so that you can begin receiving the electronic newsletter. If you don't have a computer don't be afraid to buy one...as some have done. Or, you might consider asking a computer-literate friend or relative to help you receive ***e-Golden Pylons***! This week, I am upgrading to an iPhone and will have a lot of new technology to learn. I expect to conquer the technological challenge facing me, and you can overcome yours too...you're never too old to learn a new thing.

Thanks to all of those who have helped Joe Stamm launch our ***e-Golden Pylons*** newsletter by



submitting material to him...keep it coming!

Finally, I want to wish each and every one of you and your families **Happy Holidays!**

## **A PICTURE IS WORTH A THOUSAND WORDS** **The COMMANDER and THE ELUSIVE** **“DRAGON TAIL”**

By Tim Weinschenker

I first attended the Reno Air Races in 1987. That came about because of Ollie Aldrich as I related in the July-August newsletter. The first year that I was able to be at the races as an honest-to-goodness photo-journalist with real press credentials and everything was 1991. This was courtesy of Don Berliner who asked me to take pictures for him as the official reporter for a Czech magazine. I ended up with the coveted cover photo on that magazine, but that's a story in itself which I'll have to tell another time. What this story is about was my 1991 induction into the Air Racing Historical Squadron. I served as a member of this squadron from 1991 to 1995 and again from 2000 to 2001. Serving in the Squadron was one of the greatest privileges of my life. Like all squadrons, the tone of the group is set by the Commander, and this Squadron had one of the most able commanders that the world has ever known. That person being one, retired, USAF Colonel, Al Wimer.



**Air Race Historical Squadron Commander Al Wimer on the left briefing another Squadron member at Pylon 8 at the Reno Air Races.**

**Tim Weinschenker Collection**

Al had a remarkable career in the USAF which was prematurely cut short in the mid-1960's when the doctors told him he had little time left to live! Like every challenge he ever faced, the Commander met this one head-on and lived for a very long time (his passing occurred only a year or two ago)!

Among Al's projects after leaving the USAF was building a Formula One Racer (a Rollison Beta). Unable to fly a Formula One, he decided the next best thing would be to compile the complete history of the Formula One Class! His goal was to collect at least one color photo of every plane that had ever participated in a Formula One race. As time went on, Al attended all the Formula One races held. He applied the same skills to air racing photography that had made him a top-notch fighter pilot in the Air Force. At the time, excellent pylon shots of racing planes were very difficult to obtain. The ultimate picture was considered to be one in which at least two planes and one pylon appeared. Sounds easy enough, but I can speak from personal experience that it is actually very difficult to do. Every year, the Commander would dutifully travel to the pylons for every Formula One race, attempting to obtain the “perfect picture”. Going to the pylons as a photo-journalist is not for the faint-of-heart or physically weak, at least not when I was there. There were no food, drink, seating, shade or bathroom facilities to speak of at the pylons.

The sole entrance requirement for induction into the Air Race Historical Squadron was being willing stand in the desert all morning and afternoon with little to drink, even less to eat and nowhere but the tall weeds to relieve oneself. The reward for enduring these hardships was being invited to the Commander's hotel room at the Miner's Inn at the end of the day. It was there that Ken “Rocky” Mountain would fix large quantities of out-of-this-world margaritas that were rapidly and repeatedly consumed by all present!

It was during these margarita sessions that the members of the squadron came to know the Holy Grail of the world's greatest Formula One Historian...i.e., a color photo of the Schroeder “Dragon Tail”. The “Dragon Tail” was an obscure pusher aircraft of late 1940's vintage. It had flown in a Formula One races in Miami. It seemed that the

the Commander's photo collection was complete, except for a color shot of the "Dragon Tail".

For years, all of the Squadron members longed to be the one who located that elusive photo for the Commander. Ultimately, it was through the Society of Air Race Historians that this came to pass. It had been rumored for a some time that if anyone had a color photo of this elusive aircraft, it would be Dr. Aaron King. And, in fact, when Aaron became involved with air racing once again (as well as with our Society), he was able to help the Commander fulfill his dream of capturing the "Dragon Tail".

If you were to ask anyone who was a member of the Squadron, they would quickly tell you what a privilege it was to serve under the Commander. The friendship and camaraderie of the Squadron was an experience that none of the members would trade for anything in the world. To me, that experience was much like the example set by the Society members who have helped to make our organization what it is today. I consider it a great privilege to follow in their footsteps.

The photo chosen for this story shows the Commander in his element...out at the pylon with his Olympus OM-4T's. He used his Olympus camera until upgrading in later years to better Nikon equipment.

I strongly encourage each of our Society members to choose a photo from their own collection and share the story about that photo with all of us through the *e-Golden Pylons* newsletter. I will again quote Chuck Lyford, "It is not history until it is written down!"

Send your stories and photos to our editor, Joe Stamm: [jastamm@gmail.com](mailto:jastamm@gmail.com)

## FIRST ISSUE OF *e-GOLDEN PYLONS* DEEMED A "HOME RUN"

By Joe Stamm

The first issue of the Society's electronic newsletter was emailed to members in October and has received outstanding reviews from readers. Those members who supplied their email to me enjoyed 47 pages of additional, all-new, air racing material. That is 47 pages over and above what everyone received in the traditional printed version of *Golden Pylons*.

Included in *Issue 1* of *e-Golden Pylons* was a feature article written by Tim Weinschenker covering Anson Johnson's P-51 in great detail. There were numerous other air racing articles, photographs (over 85), 3-D drawings, member contributions, model building tips and reprints of classic air racing articles and ads. By the way, member contributions of pictures and stories are very popular, so please keep them coming!

To join in the fun simply send me your email address. I'll add you to the rapidly growing distribution list, and I'll even email *Issue 1* to you so that you won't have miss out on a single thing.

You can contact me by email at:

[jastamm@gmail.com](mailto:jastamm@gmail.com)

## NEW MEMBERS

- Michael Scalingi, 5834 Wye Oak Commons Ct., Burke, VA 22015-2842
- Patrick Sidley, 610 Thoreau Circle, Windsor, CT 06095

## "THEIR FINAL LAP"

Charlie Terry passed away at his home in Westhampton, NY, on Thursday, Oct. 25th. Charlie was involved in and avidly promoted Formula V air racing from its inception. He was the only pilot to race in the first and the last Formula V competition. Charlie probably flew most of the racers in the Formula V class during his racing career, but he is best known for building and racing #14 "Beetle Bomb", NC14CT, the 1985 champion. He later campaigned #77 "Blueberry". Charlie also raced in the Formula 1 and the Sport Biplane classes.

## RACE PLANE SALES

### Hawker Sea Fury

One of the better-known Unlimiteds...the late Howard Pardue's #13 Hawker Sea Fury FB. Mk.11 N13HP...is for sale at an unstated price. It was originally #66, N666HP. Completely rebuilt after an accident, when its P&W R-4360 was replaced by a Wright R-3350, it is in green and grey camouflage with a gold spinner. Raced since 1989, the big Sea Fury has a best qualifying lap of 425 MPH and best heat speed of 412 MPH.

### Yak-3

It is also rumored that Will Whiteside has sold his record-setting Yak-3, "Steadfast", to an Australian buyer. This information has yet to be confirmed.



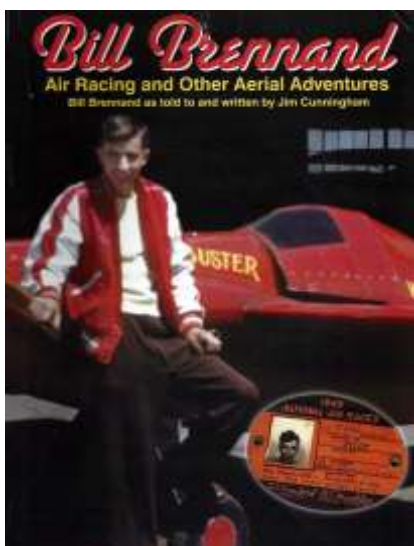
Photo credit – A. Kevin Grantham

## PRODUCT REVIEW

By Joe Stamm

Oshkosh, WI, native, Bill Brennand, and author, Jim Cunningham, have collaborated on a spell-binding book about Bill's life-time of aviation experiences.

Brennand, a farm boy born in 1924, started flying in 1943 while working for air racing legend and Oshkosh Airport manager Steve Wittman. Bill won the first race he ever entered, the 1947 Goodyear Trophy Race in Cleveland, while flying



"Buster" which was built from Wittman's damaged pre-war racer "Chief Oshkosh". Bill went on to win 30 of the 60 races in which he competed.

In addition to air racing, the book covers Bill's many other aviation achievements including creating the EAA seaplane base, building a successful airport and aircraft sale business, restoring a rare 1931 Stinson Tri-Motor and many other aerial adventure.

This fascinating book will be thoroughly enjoyed from start to finish by anyone interested in and air racing or aviation. You'll be amazed at how much one man can achieve with dreams and dedication.

The book is available from Airship International Press (309-827-8039) and on-line at: [www.gyzep.com](http://www.gyzep.com). You can obtain a signed copy of the book by sending a check to Bill Brennand, 1772 Orchard Court, Oshkosh, WI 54902. Pricing is \$24.95 for softcover, \$29.95 for hardcover plus \$4 shipping

## RECOMMENDED READING & VIEWING

### Reading

*Warbird Digest*, #45, Nov/Dec 2012 - Numerous articles of excellent coverage of Reno 2012.

*Air Classics*, Vol. 48, No. 12, December 2012 – Splendid Reno 2012 articles.

**Bill Brennand – Air Racing and Other Aerial Adventures**, by Bill Brennand as told to and written by Jim Cunningham. Bill and Jim's (both are SARH members) collaboration on the recounting of Brennan's aviation career is an excellent read for all air race historians and fans. For more details and ordering information see **Product Reviews** in this issue.

### Viewing

Unusual air race has Bermuda in its sights. For more details visit: <http://www.royalgazette.com/article/20121128/NEWS/711279922>

Another interesting website is: [www.fly-low.com/the-first-mid-eastern-regional-fly-in-air-race/](http://www.fly-low.com/the-first-mid-eastern-regional-fly-in-air-race/)

## NTSB FINAL REPORT ON LEEWARD CRASH

By Don Berliner

The accident that took the life of race pilot Jimmy Leeward (Society member #826) and nine spectators at Reno in 2011 has yet to reveal its full impact on the future of the sport. In view of the long-term results of Bill Odom's less destructive crash at Cleveland in 1949, we can assume that the echoes of the "Galloping Ghost" will remain as long as there is closed-course air racing.

## CLASSIFIEDS

After a year-long investigation by the National Transportation Safety Board (NTSB), the probable cause has been announced: flutter resulting from a series of mechanical failures and errors. While individuals no doubt may differ in their analyses, this is the official position, and the one on which future changes in the sport will hinge.

The most shocking revelations contained in the NTSB report are that the airplane and its pilot experienced a calculated 17.3 g's and a maximum speed of 527mph. The extreme g-loading unquestionably rendered Jimmy unconscious and quite possibly ended his life prior to his hitting the ground. That he was unable to control the airplane after it began its abrupt climb is difficult to challenge.

Focus of the investigation was the elevator trim tab system. Extensive modifications had been made to the "Ghost" in the two years prior to the fateful race, and there is no evidence that sufficient flight testing had been done after the changes had been completed, or that such tests would necessarily have found all the problems. In air racing's traditional last-minute rush to get everything finished in time for the starter's flag, it is not unusual for a team to cut corners. In this case, the result was a tragedy.

Changes to the Reno operation were suggested by the NTSB and incorporated into the 2012 program, which was conducted under many new rules. The lack of accidents in 2012, while admirable and encouraging, did not eliminate the fear of another, perhaps much worse, crash in the future. Racing at such speeds in full view of a large crowd will always bring with it the risk of catastrophe.

To put things into perspective, Lee ward's crash was the first accident involving spectator deaths in the 100-year history of American pylon racing. And, it was just the second anywhere in the world in which spectators lost their lives. In the Paris-to-Madrid Race of 1911, an airplane crashed into the VIP seating area, killing the French Minister of War. Of course, two nearby residents (i.e., not spectators) also tragically perished in Bill Odom's 1949 crash.

**World War I Aeroplanes, Inc.** publisher of:



**Aero**  
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## RENO 2012

All of the spectacular photographs to follow were taken at Reno 2012 by A. Kevin Grantham.



Reno 2012 Opening Ceremony



Formula One Race



Cassutt 1-11-M "Pooder"  
Flown by Tom Watkins of Calgary, Canada  
3<sup>rd</sup> Place - Formula One Silver Race

**Biplane Class action**



**Formula 1 #45 Cassutt 1-11-M "Quadnickel" and #13 Reberry 3M1C1R "September Fate"**



**Lancair Legacy "Jus Pass'n Thru" flown by Ernie Sutter to 1<sup>st</sup> Place in Sport Silver Race**





Harvard Mk IV "Red Knight" out of Delta, Canada side-by-side with #66 AT-6A "Gunslinger" - #66 finished 3<sup>rd</sup> and #64—5<sup>th</sup> in the T-6 Silver



T-6 pit crew working their magic



L-29 Delfin "Sluggo" flown by Joe Gano of Reno finished 3<sup>rd</sup> in the Jet Class Silver





The Grumman "Cats" rest as dusk settles over the Reno ramp



Steve Hinton in the Reno pace plane, Lockheed T-33



**Yak-3 UPW "Rossiya Su'Ka" entered the Bronze Unlimited Race but Did Not Finish**



**"Rare Bear" N777L flown by Stewart Dawson dropped out of the Unlimited Gold**



**A group of photographers trying to capture the "perfect picture".**



Matt Jackson's Sea Fury "Furias" before and after



"Lady Jo"

"The Rebel"

"Sparky"

"924"

"Argonaut"



Sanders' TMK 20 Sea Fury  
Brian was 3<sup>rd</sup> in the Gold



"Strega"



**F.B. II Sea Fury "September Fury" flown by "Hoot" Gibson to 2<sup>nd</sup> Place in the Gold race**



**P-51D "Strega" and Steven Hinton from Chino, CA, winners of the 2012 Reno Unlimited Gold Race**

**“Strega's” Luxury Suite**



**A Battle for 2<sup>nd</sup> Place  
“September Fury”  
and  
“Dreadnought”**



**Sea Fury “Argonaut” finished  
2<sup>nd</sup> in the Silver race flown by  
Corey Wells of Lone, CA**

“September Fury”

“Strega”

“Dreadnought”

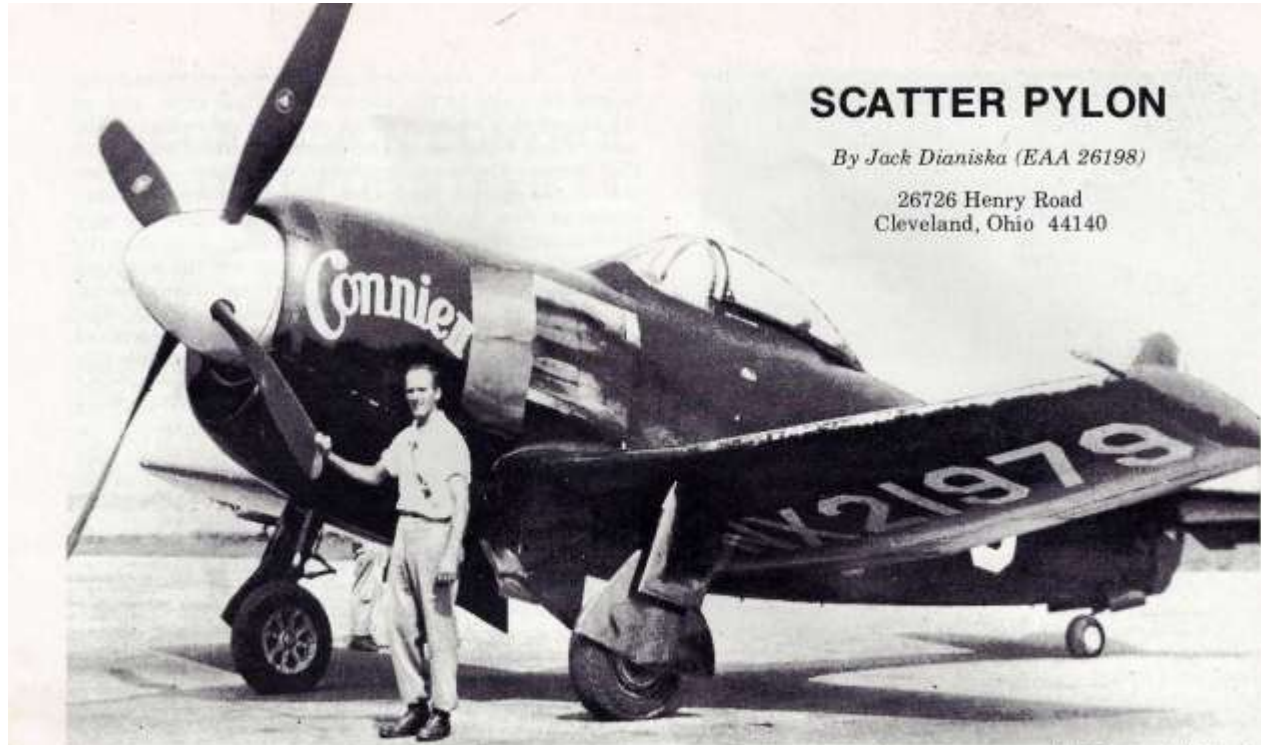


Victory is Sweet!



Bob Hoover congratulates  
Steven Hinton





## SCATTER PYLON

By Jack Dianiska (EAA 26198)

26726 Henry Road  
Cleveland, Ohio 44140

(Jack Dianiska Collection)

James DeSanto and the Curtiss YP-60E at the 1947 Cleveland Air Races.

(Editor's Note: The Scatter Pylon by Jack Dianiska (EAA 26198) is a regular feature of Chapter 127's excellent newsletter — edited by Ken Mountain.)

It was late August 1947... just a week before the Cleveland National Air Races were to get under way. I had spent the previous week helping a friend of my father prepare his new Goodyear midget racer for the first-ever Goodyear Trophy Race. The plane we were working on was the "Hurlburt Hurricane". Joe Smith, the pilot, had worked with my father in the experimental hangar on the XP-75 during World War II. He had invited us out to help.

We were working in the old Sky Tech hangar when from overhead came the roar of a high-powered unlimited engine. The engine sound was unfamiliar, so I walked outside to take a look. By this time, all eyes were pointed toward Brookpark Road at the strange looking race plane coming in over the fence for a landing. I thought I knew every unlimited type race plane that was flying at that time, but this one had me stumped.

### WHAT WAS IT?

It was big, fat and ugly! The name on the huge engine cowl read "Connie II", and she carried race number "80" on her sides. As this strange bird touched down and rolled out past the Sky Tech hangar, I heard someone exclaim, "It looks like a P-47." I thought that there was a resemblance to a P-47... but not really! I would have to see this ship up close to find out what she really was. As it turned out, I had to talk to the pilot, James DeSanto, after he had parked in front of the hangar. Only then did I discover what type this strange aircraft was. To my surprise, it turned out to be a Curtiss YP-60E. I had heard tales of this type, but had never seen one. The YP-60E was built to be a replacement for the P-40, but continued problems kept the airplane from ever reaching its goal.

James DeSanto had somehow acquired this rare airplane, and was going to take a crack at the 1947 Thompson Trophy. If brute power was the answer to an unlimited

race plane, then this huge monster should do well.

James DeSanto had gambled all in hopes of winning the famous Thompson Trophy. He had sold his flying school to purchase the craft. He then poured untold sums into modifying the airplane. The wing was clipped 10' 2" to give the racer a 31' 2" span. The P&W R-2800 engine was hopped up to deliver 2440 hp. The ship was equipped with water injection. With all these modifications, DeSanto was confident he could exceed 450 mph. After all, Curtiss had said the airplane was good for 420 mph in full battle armor.

The next day I was at Cleveland Airport bright and early as I did not want to miss the test flights. He had promised that he was really going to wring out his racer prior to qualifying for the Thompson event. I was very anxious to see what this powerhouse could really do.

By now, quite a group of spectators had gathered around the big P&W engine which was fired up. Within a matter of minutes the YP-60E was taxied out to the runway to await take-off clearance. With a mighty roar, she leaped to life, sped down the runway and was airborne.

DeSanto then put on a spectacular display of the airplane's capabilities. He was flying in air space over what is now the Cleveland Ford Foundry, near Brookpark Road, just east of the Cleveland Airport. Suddenly, without warning, bits and pieces of the tail section began flying off the speeding airplane. It was soon evident that the aircraft was out of control. It screamed toward the earth.

The next piece to fly off was the canopy... followed very quickly by James DeSanto. His parachute opened beautifully and as he floated down to earth, his one-of-a-kind YP-60E buried itself into a cornfield east of the airport.

Luckily, James DeSanto survived this harrowing experience. No one would ever know what the true potential of this unusual race plane could have been. She was gone forever, a million little pieces scattered over a beautiful green cornfield.



## MEMBER CONTRIBUTIONS

### SECOND FIDDLE MYSTERY SOLVED

by Tony Ambrose

I had the chance recently to visit the storage facility of the Crawford Auto-Aviation Museum where the bulk of the aircraft of the collection are being stored so that the renovation of the University Circle museum can be completed.

After looking at the cars and aircraft in the storage building, curiosity got the better of me and I wandered over to look at Bob Swanson's P-51K, "Second Fiddle" that placed 6<sup>th</sup> in the 1946 Thompson race. With the cowling off and the canopy open, I thought I'd take a few photos of parts of the aircraft I hadn't had the chance to see up close in quite some time. Looking at the engine, I was surprised to see that a Packard-built V-1650-3 was installed and not the V-1650-7 that was specified for the D and K series of Mustangs. When I got home, I checked some of the reference material I have and found that some of the 600 P-51K-10NT Mustangs were in fact manufactured with the -3 engine due to shortages of the -7 engines!



I wanted to have a photograph of the manufacturer's data plate located on the left side of the cockpit for my records. By getting this photo of the plate, I hoped to clear up the confusion of the exact model, D or K, that this Mustang is. The airplane does have the Aeroproducts propeller that would make it a K model but some resources still have "Second Fiddle" listed as a D model. Was the prop fitted after manufacture to replace a Hamilton Standard prop? I've also seen a discrepancy in the USAAF serial number published in books and research sources, and in one case show the aircraft having two serial numbers (44-12116 and 44-12216)!

Well, there on the plate is confirmation that the airplane is, in fact, a Dallas-built P-51K.



Also, a plaque on the left side of the instrument panel confirmed the USAAF serial number as being 44-12116 (shown as "Radio Call 412116").

Additionally, close examination of the "ghost" of the paint on the data panel on the exterior of the left side of the fuselage shows the 44-12116 number.

Mystery solved ... This isn't a big deal, just one of those little errors in detail that gets perpetuated by misinformation or assumption. I hope this information is of use to someone out there!



## MEMBER CONTRIBUTIONS

### Bob Hoover and the Truck at Reno 1989

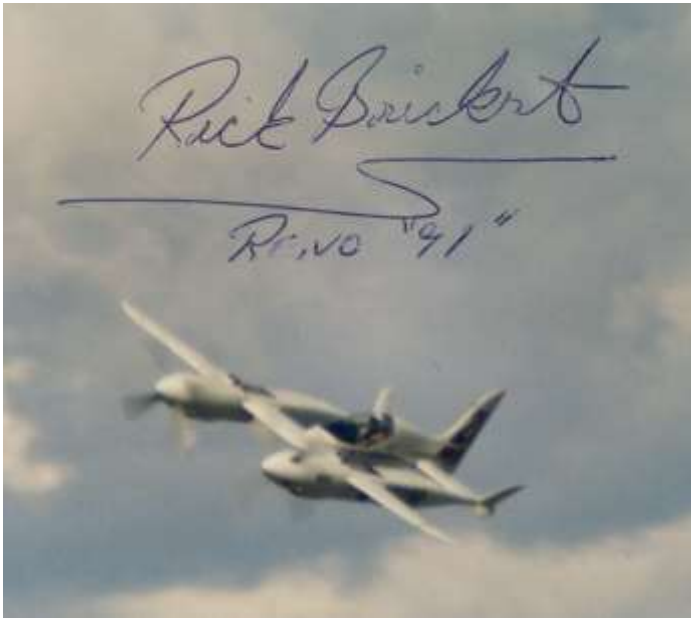
By Tom Fey

Editors note: Tom has been a good contributor to *e-Golden Pylons* with many unusual pictures. He didn't disappoint us in our second issue with his three submissions that follow...thanks much, Tom!



Even the great Bob Hoover can have a bad day. Reno ramp 1989. Note the mangled hood lodged in the lower cowling.

Submitted by Tom Fey - Photo credit Dick Hill.

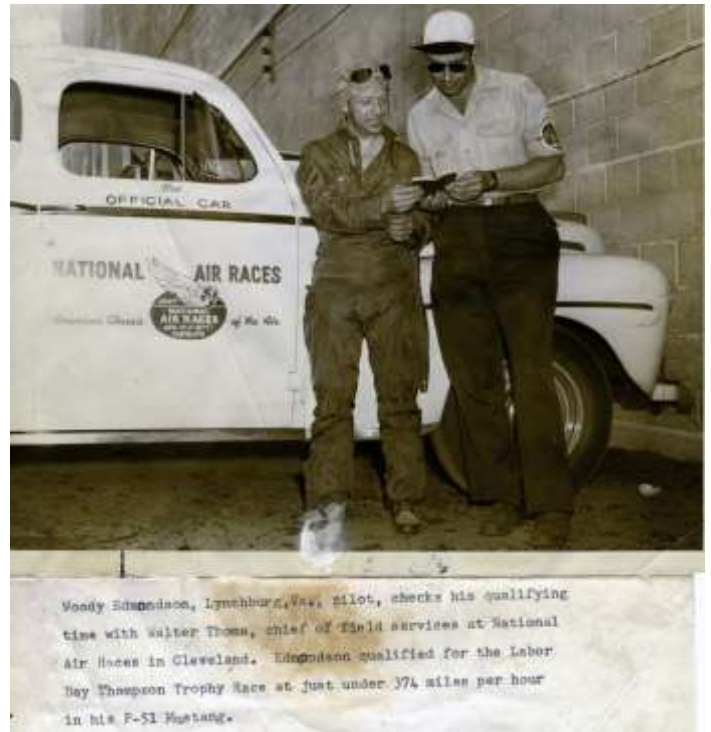


A moody shot of the Pond Racer at Reno in 1991 signed in the off-season by pilot Rick Brickert. Brickert was to lose his life in this aircraft at Reno in September 1993.

Photo by Dick Hill - From the Tom Fey Collection.

## MEMBER CONTRIBUTIONS

The following newspaper photo was sent in by Society Member, Dan Ripley of Colorado. Dan grew up in Woody's hometown, and Dan's father worked and flew with Woody.



## MEMBER CONTRIBUTIONS

### The JP-350-1

Tom Fey submitted several of Dick Hill's photos of the novel JP-350 racer. He also sent along the detailed articles that we have included in this article.

Below - John Parker is in the cockpit

Photo credit - Dick Hill  
Tom Fey Collection



John Parker's JP-350-1 on the ramp at Reno. The plane was lost on June 28, 1980 when the prop ran away

Photo credit - Dick Hill  
Tom Fey Collection



## THE JP-350-1

John Parker's new Lycoming T10-540 powered racer has its sights set on the FAI Class C-1.B and C-1.C speed records . . . and, ultimately, Reno.

After 8 years of design and construction, John Parker of Torrance, CA finally unveiled his new American Air Racing JP-350-1 Unlimited air racer on Saturday, February 11, 1989 at his facility on the Torrance, CA airport. The rollout ceremonies included the mayor of Torrance and various other officials and was, in part, John's public expression of thanks to all those who assisted him in some way during the long gestation of the racer. Of special note were his employer, American Airlines, Spacecraft Engineering, Northrop Aircraft Division and McDonnell Douglas Corporation, the latter for the valuable contacts they provided in his search for technical data. EAA Headquarters was represented at the rollout by veteran member Ray Gor-

don of Hacienda Heights, CA, who picked up his camera and headed for Torrance on very short notice. His photos and written report plus information gleaned from phone conversations with John Parker were used as the basis for this article. We are indebted to both for their cooperation and invaluable assistance.

The JP-350 was designed for a specific purpose: to break the existing world

by JACK COX

speed records in FAI Class C-1.B, which is for aircraft with take-off weights

of between 1,102 and 2,204 pounds (500-1,000 kg), and Class C-1.C, which is for aircraft with take-off weights of between 2,204 and 3,858 pounds (1,000 to 1,750 kg). When John Parker began the project nearly a decade ago, the speed to beat was the C-1.C three kilometer record of 284.376 mph set in October of 1977 by Bob Reichardt in a replica of Benny Howard's Mr. Mulligan. That record was subsequently broken by Ed Swearingen and the late Forrest Molberg in the ill-fated SX300 prototype . . . at a speed of 313.882 mph. Molberg holds the C-1.B record of 312.465 mph in the same airplane. Both the C-1.B and C-1.C 15/25 kilometer speed marks are currently held by Theo Potter in the Glasair III prototype at just over 284 mph. When John Parker put the first line on paper for his racer, his intention was to break



Photo Courtesy John Parker

all the existing FAI records by a **considerable** margin in the first stage of the racer's development, then progress through stages until, eventually, it would be competitive at Reno as an Unlimited. It would take about 400 horsepower in the initial phase and 800 horsepower at Reno to accomplish his goals.

Obviously, the starting point in the design was the engine. John decided from the beginning that he would limit his choices to engines that were currently in production and for which a racing propeller could be assembled from existing components . . . a combination of blades, hubs, governors, etc. One of the goals for the airplane was to have it serve as a platform for the supplemental type certification of new accessories and modifications for the engine chosen. To get 400 hp, the obvious choice was the 400 hp Lycoming 720 series, a flat eight used in the Comanche 400 and an ag plane or two. A second phase criteria, however, was to soup up whatever engine was chosen and John felt the 720 had limitations in that regard. Its long crankshaft, for instance, raised red flags in John's mind when he considered the possibility of dramatically in-



Photos by Ray Gordon

creasing the rpm. He also felt the 720's head design offered fewer possibilities for power increasing modifications than those of other engines available to him. In the end, John opted for the 6-cylinder

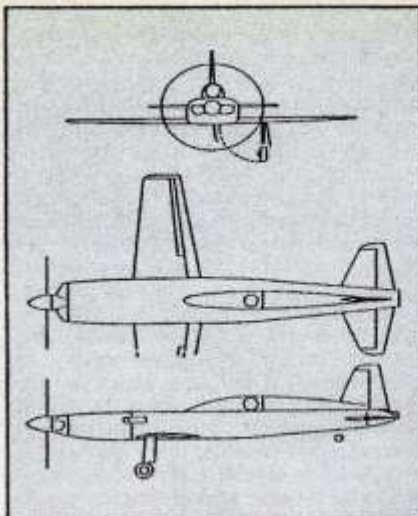
Lycoming TIO-540 . . . the up-exhaust model used in the Piper Navajo, with a Garrett turbocharger fitted with a manual wastegate. Some modifications have been made . . . the cam has been reground (for higher boost) and the oil flow within the engine has been re-routed to direct less oil to the lifters, more to the bearings and to provide a more controlled flow to the bottoms of the pistons. The result is that John has the option of achieving 400 hp by virtue of increasing rpm or manifold pressure . . . by going to 49 inches at 2,700 rpm or 2,900 rpm at 43 to 44 inches. The propeller is the three-bladed, extended hub Hartzell model also used on the Navajo, with a number of modifications. Since no stock airplane utilizing this engine/prop combination is as fast as the JP-350 is projected to be, the blades had to be twisted and the stops had to be altered to allow more pitch range. The low pitch stop has been left as it was, but the high pitch stop has been reset to permit the blades to extend to just short of the full feather position . . . the latter to cut drag to a minimum in the event of a total engine failure.

With the decisions made on the engine and prop, the next phase was to design the smallest, lightest airframe that John could bolt onto the back of them. From the start he opted for a conventional configuration and metal construction. He knew that, ultimately, his biggest expenditure of time, effort and resources would go into reducing cooling drag, so he wanted an airframe with as few unknowns as possible. The elegantly simple outcome of that line of thinking is what you see pictured here. The 23.75 ft. fuselage is, in effect, a long, tapering rectangular box with rounded corners, the width and height

**John Parker**



Photo Courtesy John Parker



### JP-350-1

LENGTH	23.75 ft.
HEIGHT	6.1 ft.
SPAN	18.5 ft.
WING AREA	63 sq. ft.
GROSS WT.	2300 lbs.
EMPTY WT.	1342 lbs.
ENGINE	LYC T10-540
H.P. LIMIT	800
G LIMIT	8

of which was dictated by the size and shape of the engine. Construction is typical aircraft sheet metal practice . . . ring bulkheads, stringers and flush riveted skin, the majority of which is .040 aluminum. All the metal skin is flat wrapped; all the compound curves, the wing and tail tips, the tailcone, nose bowl and the turtle deck, are fiberglass. The cockpit, in which the pilot reclines at about a 32 degree angle, is enclosed by a tinted canopy formed by Dick Evans out of 5/16th Plexiglas. Evans does most of the custom canopies you see on racers at Reno.

The JP-350's tail surfaces are virtually identical. John says they are larger than necessary in area, but had to have their current span in order to counter the destabilizing effect of the big 78 inch propeller. Their planforms are simply a function of the decision to use a .05 taper ratio. Both the rudder and the elevator are balanced 100% statically and 20% dynamically, and have a sufficient number of closely spaced hinges to help forestall the onset of flutter within the envelope in which the aircraft is projected to operate. A flutter analysis has been done and the JP-350 is theoretically flutter free out to 500 mph. The airframe was designed for 8 Gs positive and 4 Gs negative, with the usual margins for gust loading. Actua-

tion of the rudder is via cables . . . and the elevator by a system employing both cables and pushrods. A yaw damper has been installed, but will not be hooked up during the initial test flight phase. It consists of an autopilot rate gyro and servo that ties into the rudder actuation system. An automatic pitch system will also be developed.

The JP-350's tiny one-piece wing doubles as the fuel tank. It holds 55 gallons . . . ahead of the main spar in the portions of the wing outboard of the fuselage and between the main spar and the rear spar in the portion that extends through the bottom of the fuselage. The area under the fuselage ahead of the main spar houses the wheels when they are retracted. With the fuel extending the full length of the wing, problems with venting could have been a problem so John installed 9 separate vent lines, all of which extend into a common surge tank mounted in the accessory section in the fuselage (more about that later). Fueling will be accomplished much as it is in airliners . . . under pressure from the bottom of the wing. Quick disconnect connectors located in the wheel wells will allow fuel to be pumped in from barrels. This is a good indication of just how specialized the aircraft really is. Obviously, it cannot be fueled by means of the usual nozzles found at gas pumps and on fuel truck hoses. If the plane is flown far enough that it will have to be refueled along the way, special equipment will have to be put in place in advance. A battery cart will also be needed for starting.

The airfoil section begins as a NACA 64210 inboard and transitions to a 64109 at the tips. There is no twist and the only dihedral is in the upwardly tapering lower surfaces of the outboard sections of the wing. The top surfaces are flat (zero dihedral).

Perhaps the most significant departure, aerodynamically, from convention on the JP-350 was John's decision to use spoilers instead of ailerons for lateral control. This was done, in part, to permit the use of full span flaps needed to keep the stall speed down within reason. The design stall speed is 100 knots at 1,900 pounds. A plain flap is used, with a 30 degree maximum deflection.

The landing gear is entirely John's own design. He would have gladly adapted a stock unit, he says, but was unable to find one that would fit within the very thin wing when retracted. His first gear, in fact, simply would not fit and had to be junked in favor of a completely new effort. The drag links, in particular, were very difficult to squeeze into the available space. 5:00 x 5 Clevelands were the only stock wheels and brakes that would fit within the wheel wells and a 6 ply tire capable of handling about 1,300 pounds and speeds up

to 120 mph had to be found. Tires will be a very high maintenance item, John concedes, and will have to be changed frequently. Since the racer will not be flown regularly, this is an acceptable situation.

The main gear is raised and lowered by means of an electro/hydraulic power pack from a Cessna 210 . . . modified for use in the JP-350. It will be driven by a 24 volt on-board power source consisting of two 12 volt aircraft batteries in series . . . better, John says, for handling the spikes that occur when the gear is cycled than a single 24 volt battery. The retractable tail wheel is tied into the same system and because it requires less hydraulic pressure for actuation, will always come up and down before the main gear. Non-steerable, the tailwheel has a self-centering device to keep it from getting jammed sideways during the retraction cycle. The tailwheel and main gear leg doors are mechanically linked to follow the gears up and down, but the inner main gear doors are hydraulically actuated, utilizing the sequencing set-up commonly used in larger aircraft gear retraction systems. Ground steering of the racer will be via differential braking . . . which John says is about what the necessarily small brakes will be good for . . . no full power run-ups.

Ultimately, the major problem to be overcome in any sort of engine driven racing machine is heat dissipation. In aircraft this comes in the form of the drag that is incurred in cooling the engine, whether air or liquid cooled, and in cooling the oil. In the JP-350 the two are dealt with in two distinctly different ways. The engine cooling is more or less conventional . . . at least for racers . . . with the air coming in through front inlets, up through the cylinder fins and out the bottom of the cowling. A large cowl flap is used to control the flow. The name of the game here is the pressure differential across the baffles. The engine's exhaust outlet is rather unusual in its positioning . . . a single large pipe from the turbo extending out of the upper left, aft corner of the cowling and extending backward. There simply was no other practical place to run the exhaust out of the tiny fuselage. Not shown in the accompanying photos is a fairing that will close the gap around the pipe, although some cooling air will exhaust around the stack.

The most unique feature of the JP-350 is the means of cooling the oil. The fuselage has two firewalls: one in the usual location just aft of the engine and another quite a few inches further aft. The area between the two is what John calls the accessory section. In it he has mounted a heat exchanger . . . through which the fuel is pumped to cool the oil. Since the wing is also the fuel tank, it serves as an 18.5 foot long radiator to dissipate

the heat. A computer chip senses the heat in the exchanger and pumps fuel through it as needed. The pipes that bring the heated fuel back into the wing are positioned so that they spray the fuel on the top inner surface of the wing so that maximum cooling takes place even as the fuel is burned down by the engine. If the system works as well as John expects it to, it will be an essentially zero drag means of cooling the oil.

Induction cooling to avoid destructive detonation is another problem that has to be addressed when engines are run at very high power settings and initially,

Courtesy John Parker



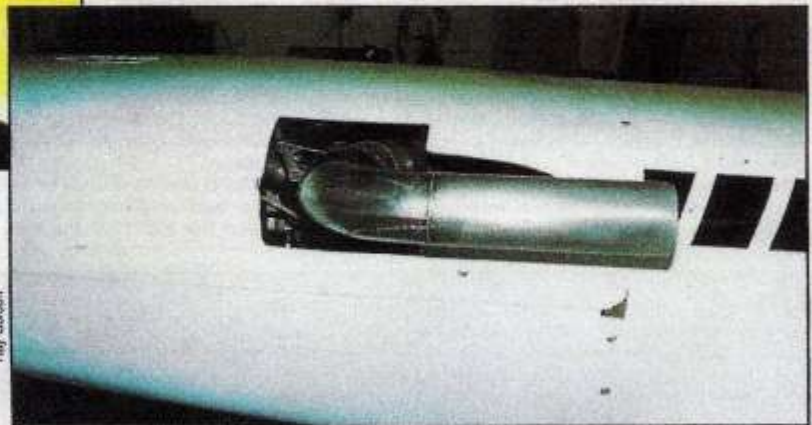
The JP-350's 18.5 ft. span is awesomely evident in this shot (top), as well as the lack of prop clearance.

Left - Wing tip, spoiler and flap detail.

Below - Exhaust stack detail.



Ray Gordon



Ray Gordon

at least, John is hoping to cope by means of pumping 1/7 of the fuel flow directly into the turbo. If this evaporative cooling is not sufficient, he is prepared to add water injection, or ADI (anti-detonation injection), as the racers call it. A nitrous oxide system is planned for the future when much higher power is required for racing at Reno, but for breaking the C-1.B and C-1.C speed records, it is not installed.

Inside the JP-350's cockpit, a side controller type stick is provided, mounted on the right side armrest/console. The throttle quadrant is mounted in the left side console. The instrument panel is equipped for full IFR capability, including two COM and one NAV radio and a Mode C transponder. About all it lacks is a loran, lights and a whisky compass, John says with a chuckle. As a precaution against carbon monoxide in the cockpit, John will always fly the airplane using an oxygen mask. This is a common practice among unlimited pilots at Reno.

As noted in the beginning, the JP-350 as you see it pictured here is just the first stage in its development. On down the line, John plans to install an electronic ignition and fuel delivery system

... and even a fly-by-wire control system is in the thinking stage. When I asked what sort of engine he would use to attain the 800 hp that is the design limit of the airplane, I was intrigued to hear John answer, "A Lycoming TGIO-540 ... good for 15 minutes."

As this article was being written in late February, between the time of the ceremonial rollout at Torrance and the first flight of the JP-350, the plans for the aircraft were as follows: Hopefully, John stated, the FAA would allow him to do the initial test flying from the Chino, CA airport where Tsunami, the Dreadnought and other racers have made their first flights. Its first competitive outing will be in late June at the CAFE 400 where he plans to set a

course speed record, and in September he hopes to have it at Reno. John acknowledges that he will not be competitive with the current engine, but he hopes he can qualify and get some experience in racing conditions this year to serve as a baseline for future development of the airplane. He also wants to get some exposure for the airplane in hopes that he can attract a sponsor. (John can be contacted at American Air Racing, 3915 Mesa Street, Torrance, CA 90505, phone 213/325-3222.)

The JP-350 is not John Parker's first venture into air racing. He was the Formula One champion at Reno in 1977 in a Shoestring he had built and again in 1979 and 1980 in an original design he



Carl Schuppel

The American Special Formula One in the EAA Air Adventure Museum. Its wing planform and other features set it apart from other racers. The streamlined belly tank was used in the CAFE 400.

called "Wild Turkey" in '79 and "American Special" in 1980. (There was no Formula One championship race at Reno in 1978 - It was called off due to high winds.) John's winning speed in 1980 was 249.07 mph . . . which has never been equalled or topped to this day. That racer also had a number of innovations, such as the means by



Carl Schuppel

which the oil was cooled, that subsequently were specifically disallowed in the Formula One rules, so John had little choice but to retire the airplane. In December of 1981 he donated it to the EAA Foundation and delivered it the following summer during Oshkosh '82. The American Special is a part of the Air Racing display in the EAA Air Adventure Museum, suspended from the ceiling in a racing attitude . . . forever rounding a pylon.

John Parker was born in Indiana but grew up in the Los Angeles area. He soloed an Aeronca Champ at the Santa Monica airport while still in high school and later started his own aerial photo business to earn money for college and, of course, further flying. He attended Junior College in L.A. and transferred to CalPoly in San Luis Obispo where he studied aeronautical engineering. He later obtained a degree in aeronautical engineering from the Air Force Institute of Technology. Continuing to fly, he got his Commercial license while he was still in college.

John joined the Air Force in 1957 and became a tanker pilot, flying KC-50s, KC-97s and the KC-135. He flew a tour

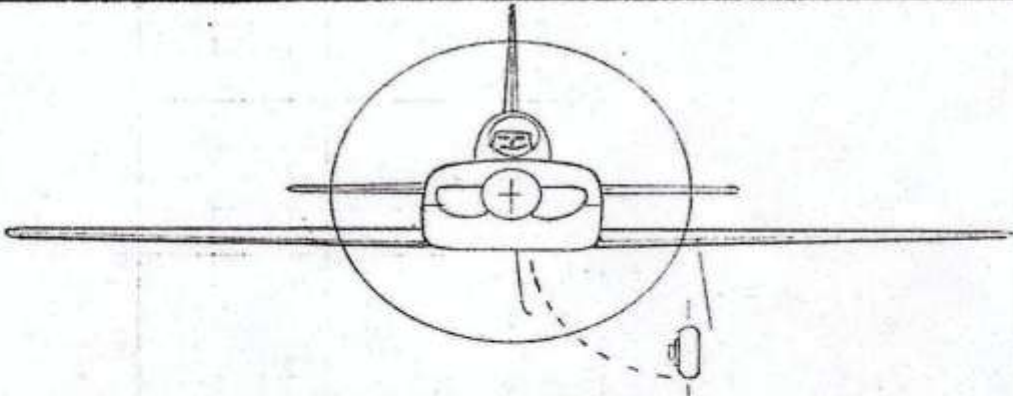
in Southeast Asia in the early 60s and upon his return to the states served for a time flying F-100s. After his discharge, he flew for a short time with Executive Jet, until hired by American Airlines in 1965. Subsequently, he has flown everything from the DC-6 to the 747 and, today, is a DC-10 captain.

John began his racing career as a crew member and engine builder. He began racing in a Cassutt and later built the No. 93 Shoestring "Top Turkey" . . . and then the American Special. The JP-350 is his latest effort and he expects it to have a long developmental life.

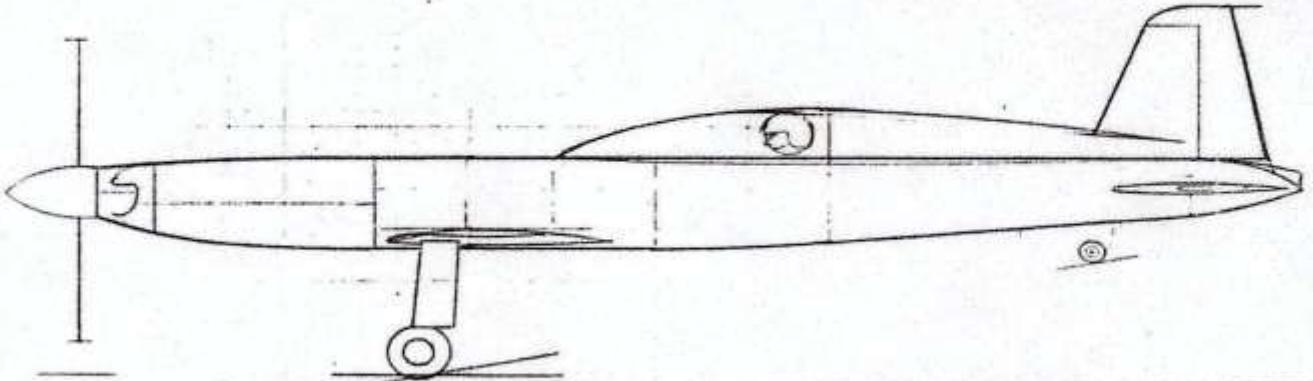
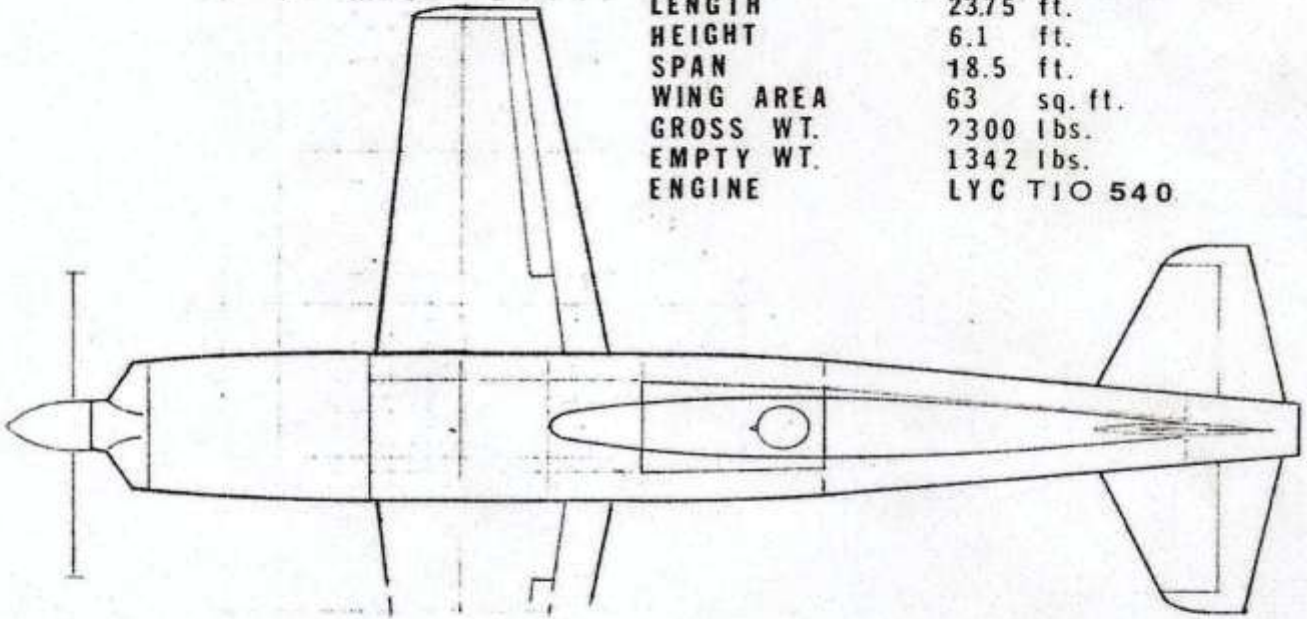
One intriguing aspect of the JP-350 is the fact that it is very close in concept to the 550 cubic inch Greve Trophy racers of the 1930s. Air race fans have always regretted the demise of that class because it resulted in more innovation than even the Thompson Trophy unlimiteds. The Folkerts racers, the Keith Riders, Art Chester's Goon, Steve Wittman's Chief Oshkosh, the Brown racers . . . all were Greve racers. Wouldn't it be great to see a new 550 cubic inch class for aircraft like the JP-350?

Photo Courtesy John Parker





LENGTH 23.75 ft.  
 HEIGHT 6.1 ft.  
 SPAN 18.5 ft.  
 WING AREA 63 sq. ft.  
 GROSS WT. 2300 lbs.  
 EMPTY WT. 1342 lbs.  
 ENGINE LYC TIO 540



H. P. limit 800  
 G limit 8  
 NOTE: 1 PLACE

BY	J. PARKER	2-82
CHECK		
REV.		
SCALE	1/30	
DW. no.	1 71-2R	

**JP-350-1**  
**AMERICAN AIR RACING**  
 TORRANCE CA.

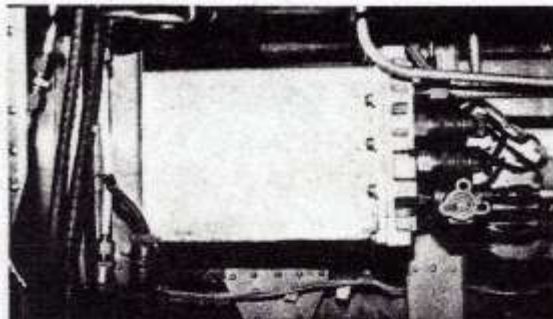


DESIGN IDEAS—From The Regional Editors

# Racing Plane's Wing Doubles As Radiator

Innovative design cools engine oil without imposing a drag penalty

Lyle H. McCarty, Western Editor



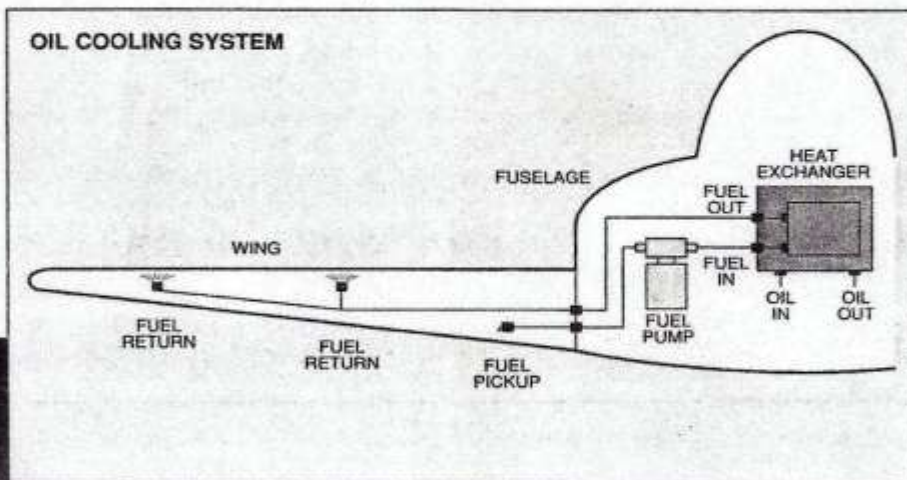
Located between double firewalls, this heat exchanger transfers heat from the JP-350-1 racing aircraft's engine oil to the fuel. (*Design News* photo)

**Torrance, CA**—In designing a racing airplane in any given weight class, the object is to develop the most thrust while creating the least drag. Therein lies a dilemma for the design engineer—lots of horsepower means lots of waste heat, and rejecting that heat into the airstream almost always imposes a serious drag penalty. Some of the engine's reject heat is busy raising the oil temperature, so engineers usually control oil temperature by pumping the oil through a radiator. The radiator disturbs air flow over the fuselage, and there goes the  $C_d$ !

To attack the problem, this oil-

temperature control scheme employs an oil-to-fuel heat exchanger. It's an aircraft-type, brass tube-and-fin unit contained in an aluminum housing and located between dou-

ble firewalls in the long nose of the JP-350-1 racing aircraft. An engine-driven oil pump circulates the oil through the heat exchanger; flow rate is modulated by a valve that



John Parker hopes to better the existing 314-mph speed record with this impressive racer that he designed and constructed.

starts to open when the oil temperature reaches 125F and is fully open at 180F. Full flow rate of the system approaches 500 gals/hr.

Fuel, 55 gals of which is carried in the JP-350-1's wet wing, circulates from the wing through the other side of the heat exchanger, then back to the wing. A small electric-motor-driven fuel pump performs this job at a rate of about 50 gal/hr. The return piping terminates in four nozzles that direct a spray of fuel onto the inner top wing surface. Initially, the reject heat simply raises the fuel temperature. Then, as the fuel temperature rises, the wing acts as a radiator—with no increase in drag. The spray action of the hottest fuel against the interior of the upper wing surface augments the process. The JP-350-1's wing area is only 63 sq-ft—which is mighty small for a wing, but more than adequate as a radiator.

John Parker, aeronautical engineer, DC-10 captain, and racing pilot, devised this system to keep his aircraft's engine oil cool without suffering a drag penalty. John has designed, built, and is now test flying the JP-350-1, a sleek-looking racer he hopes to enter in the competition at Reno this fall. The six-cylinder Lycoming TIO-540 engine on the JP-350-1 will reject about 1400 Btu/min to the engine oil during the limited time the aircraft is racing.

Parker hopes to set new speed records in the C-1.B and C-1.C classes with his aircraft. (Current records range from about 285 to 314 mph, depending upon a number of factors.) The plan then is to extend the design through engine modifications and other design growth so the JP-350 can compete in the unlimited class at Reno.

Additional details . . . Contact John Parker, American Air Racing, 3915 Mesa St., Torrance, CA 90505. □

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Circle No. 216

Design News/12-4-89/103

June 13, 1993, Letter from John G. Parker to Tom Fey



**AMERICAN AIR RACING**  
3915 Mesa Street  
Torrance, California 90505

Phone / Fax  
(310) 325-3222

June 13, 1993

Tom Fey  
810 N. Patton  
Arlington Hts. IL  
60004-5242

Dear Mr. Fey:

Thank you very much for your June 28, 1993 letter. It is very flattering, thank you.

I am hopeful that the demise of the 350 was not published. Bad news is never good. Jack Cox did one of his stories on the 350 in the April 1989 issue of Sports Aviation.

Without digging out all the old flight logs, I can summarize that the 350 was too sophisticated, it had too many systems. We were always flying with some open maintenance item. In the design of the control surfaces, I went too far in reducing high speed control forces. Pitch and yaw control was too light and roll control was too heavy. It made the aircraft twitchy to fly. In retrospect, if more time had been spent analyzing each flight, I could have seen the prop problem coming.

The expanding opportunities in air racing, you eluded to, are extremely hard to find. Any "one of a kind" aircraft designed for racing will have to additional purposes to exploit those "expanding opportunities". It will take people like yourself to help organizes design, construction and racing teams to build and race new unlimited racers. I like the warbirds also, and Lyle Shelton and the Rare Bear racing and speed records will be hard to beat; however, the long term future of unlimited air racing is dependant on new home built racers.

Sincerely,

A handwritten signature in black ink that reads "John G. Parker". The signature is written in a cursive, flowing style.

John G. Parker

## Official FAA Accident Report on HOMEBUILT JP-350-1 Accident in TORRANCE, CALIFORNIA, USA on 6/28/1990

- Summary
- Aircraft
- Injuries
- Cause
- Flight
- Conditions

The air crash with the HOMEBUILT JP-350-1 happened on 6/28/1990 at 1518 in TORRANCE, CALIFORNIA, USA, causing Substantial damage to the Airplane. More details on the accident below:

- Date/Time: **6/28/1990 at 1518 Pacific Standard Time**
- Location: **TORRANCE, CALIFORNIA, USA**
- Aircraft: **Airplane**
- Make/Model: **HOMEBUILT JP-350-1**
- Damage: **Substantial**
- Injuries: **N/A**
- Cause: **THE PILOT OF THE HOMEBUILT SERVICED THE PROPELLER HUB WITH 120 PSI PRIOR TO DEPARTURE. AFTER TAKEOFF HE LOST CONTROL OF THE PROPELLER AND THE ENGINE LOST THRUST. EXAMINATION OF THE PROPELLER ASSEMBLY REVEALED NO EVIDENCE OF A PRE-IMPACT MALFUNCTION. ([more](#))**

Aircraft details on HOMEBUILT JP-350-1 Air Crashed in 6/28/1990 at 1518 in TORRANCE, CALIFORNIA, USA, causing Substantial damage to the Airplane:

- Aircraft Category: **Airplane**
- Manufacturer's name: **HOMEBUILT**
- Model: **JP-350-1**
- Series Identifier: **JP-350-1**

- Serial Number: **88350-1**
- Aircraft Registration Number: **N350JP**
- Federal Aviation Registration Type: **Part 91: General Aviation**
- Certified Max Gross Weight: **2800**
- Registration Class: **U.S. Registered/U.S. Soil**
- Homebuilt? **Y**
- Total Number of Seats:
- Number of Engines: **1**
- Fixed/Retractable Gear: **Retractable**
- Type of Last Inspection: **Annual**
- Date of Last Inspection:
- Total Airframe Hours:
- Airframe Hours since Last Inspection: **36**
- ELT Installed? **Unknown**
- ELT Activated? **Unknown**
- Aircraft Owner Name: **JOHN G. PARKER**
- Aircraft Owner City: **TORRANCE**
- Operator Same as Owner? **No**
- Aircraft Operator Name:
- Aircraft Operator Code:
- Aircraft Operator City: **TORRANCE**

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- Final Report on Probable Cause of Crash
- Initial Report

- THE PILOT OF THE HOMEBUILT SERVICED THE PROPELLER HUB WITH 120 PSI PRIOR TO DEPARTURE. AFTER TAKEOFF HE LOST CONTROL OF THE PROPELLER AND THE ENGINE LOST THRUST. EXAMINATION OF THE PROPELLER ASSEMBLY REVEALED NO EVIDENCE OF A PRE-IMPACT MALFUNCTION. THE PROPELLER BLADES HAD BEEN SHORTENED AND THE PROPELLER OVERSPEED OCCURRED BECASUE THE BLADES WERE NOT COUNTERWEIGHTED. HARTZELL STATED THE 120 PSI CHARGE IN THE HUB WAS INSUFFICIENT TO COUNTERACT THE AERODYNAMIC TWISTING MOMENTS AND PREVENT THE OVERSPEED.

## American Air Racing

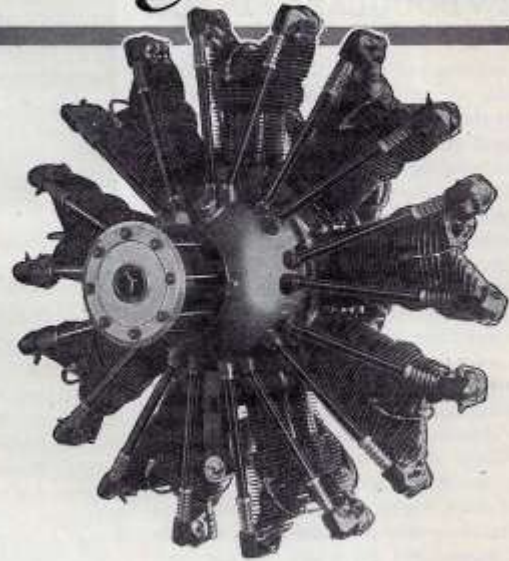
American Air Racing Inc (pres: John Parker), Rancho Palos Verdes CA.

**Parker JP-350** 1988 = 1pClwM rg; 450hp Lycoming TIO-540; span: 18'6" length: 23'9". Unlimited racer [N350JP].

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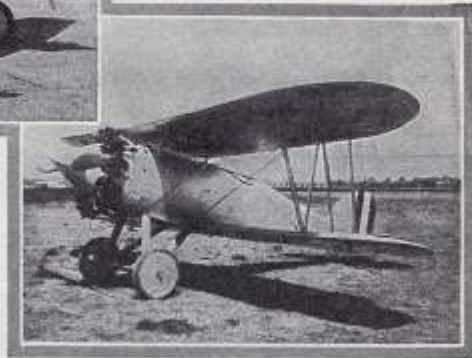
*Wasp Engines are now flying in these Navy Fighters*



THE CURTISS HAWK



THE BOEING FIGHTER

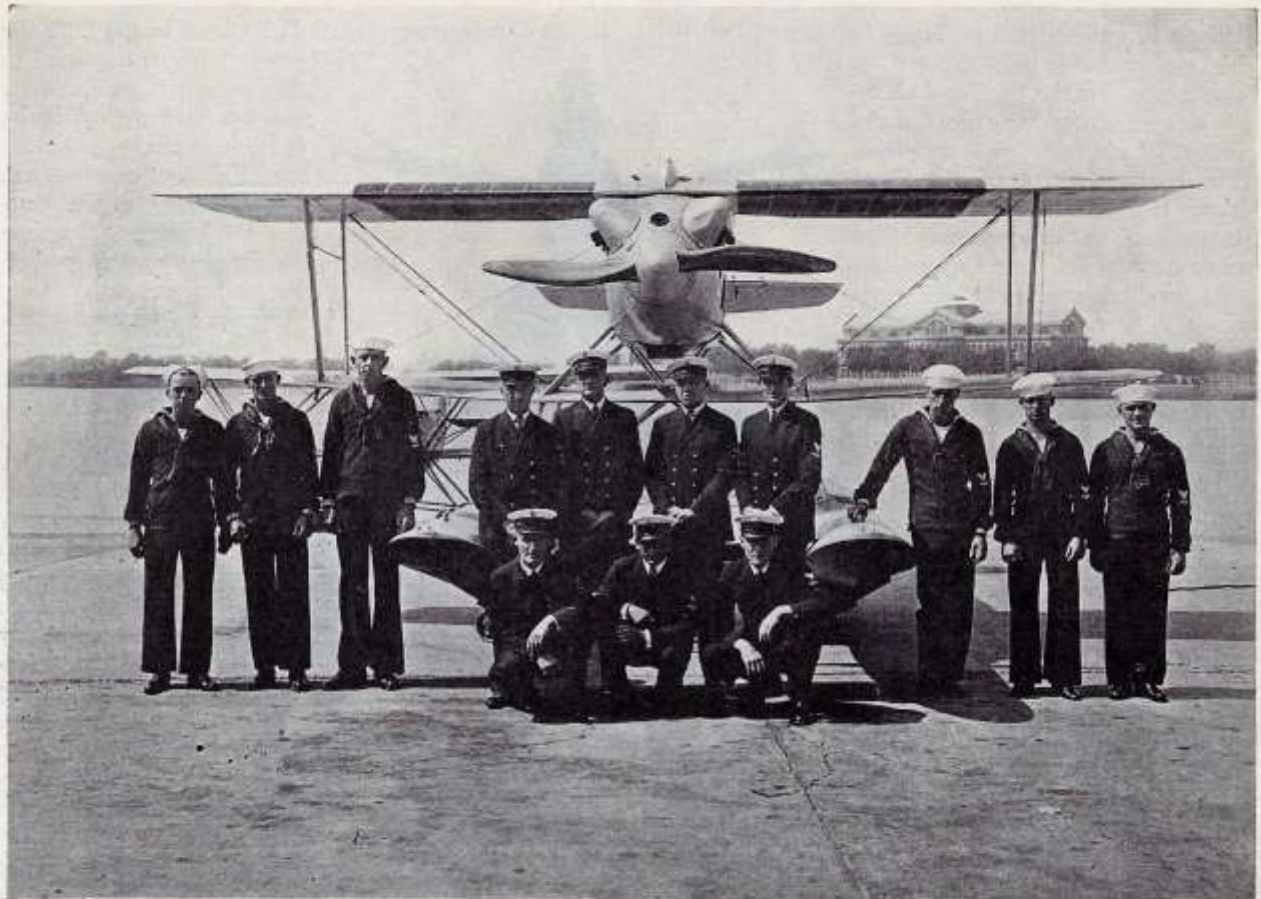


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U. S. Navy Photo.

THE MECHANICS WHO WILL TAKE CARE OF THE U. S. NAVY PLANES AT THE SCHNEIDER CUP RACES.

## NAVY PLANES DEFEND CUP

WHAT will undoubtedly prove to be the most keenly contested international aviation contest ever held will take place at Bay Shore Park, fourteen miles from Baltimore, Maryland, on October 24th and 25th. The Jacques Schneider Maritime Cup for high speed seaplanes will be up for contest again, and the fastest planes and the most experienced pilots of three nations will meet in friendly, although earnest rivalry. Representing this country will be three fast seaplanes of the United States Navy, piloted by racing pilots with many hundreds of hours of racing and service flying to their credit. The last contest, held at Cowes, England, on September 28th, 1923, was won by U. S. Navy pilots with Navy planes. The entries that will defend the Cup will prove to be, it is expected and hoped, the fastest water-landing flying craft in the world. Last year's winner, a Navy Curtiss seaplane racer, piloted by Lieutenant David Rittenhouse, roared around the course at a speed of over 177 miles per hour. It is interesting to note that Lieutenant Rittenhouse is one

*Jacques Schneider Maritime Cup Race for Seaplanes to be Held at Baltimore, Md. October 24th-25th*  
Lieut. T. T. Patterson, U. S. N.

of the defending pilots this year, an honor unquestionably due to him for his magnificent victory last year. The plane that won the Cup last year will be one of the four planes from which the selection of the three fastest will be made for the actual contest. This selection will be made after trial flights, during which world's records are likely to hang in the balance. Besides last year's winner, another of the same type that Lieutenant Rutledge Irvine piloted into second place in 1923 will be in the lists.

The team of Navy pilots who will defend the Schneider Cup against Europe's most promising entries will be in charge of Lieutenant F. W. Wead, U. S. N., of the Bureau of Aeronautics. He was in charge of last year's victorious racing team and looks forward confidently to a repetition of last year's success. He will have with him, as pilots, Lieutenant David Rittenhouse, mentioned before as the winner of the Cup in 1923, Lieutenant A. W. Gorton, who was a member of the 1923 team, Lieutenant George T. Cuddihy and Lieutenant Ralph A. Ofstie. Lieu-

tenant Lester T. Hundt and Boatswain Earl E. Reber will act as reserve pilots. Three Italian and two British planes have been entered as challengers for the Cup, and all indications point to very fast entries indeed from these two countries. The Italians in particular have every incentive to put forth their best efforts, as the conditions of the annual contests for the Cup provide that any country victorious three times in five years gets permanent possession of the trophy. Italy won in 1920 and 1921, so that a win in 1924 would take the Cup back to Sunny Italy to stay. Three of the foremost Italian firms are building two planes each to be considered for

places on the three-plane team that will compete this October. Some of these planes are hull-type flying boats and some of them are pontoon-type seaplanes. It is probable that F.I.A.T. and modified Hispano Suiza engines will be used in the Italian planes. The Italian firms, the Savoia Company and the Macchi Company in particular, are experienced racing plane designers and builders and can be depended upon to produce planes that will provide extremely good competition.

Two British seaplanes have been entered in the contest. The Supermarine Company will undoubtedly build one of these planes and either the Gloucester or Fairey firms the other. Supermarine built the plane that won the Cup from Italy in 1922, which was the plane that came in third in last year's contest. It is anticipated that the Supermarine

plane will be a flying boat, powered with a Rolls-Royce Condor engine, 600 H.P. fitted in the hull, the

power being transmitted to the propeller via a shaft and gears of endless chain. It is interesting to note that the Fairey firm has the British rights to the Curtiss D-12 engine, the Curtiss-Reed all metal propeller and the Curtiss wing radiator, all features which were fitted to the winning American seaplanes last year. Certainly, the British aircraft designers may be counted on to produce planes with very high speed, probably embodying features used on the American



THE JACQUES-SCHNEIDER INTERNATIONAL RACING SEAPLANE TROPHY. U. S. Navy Photo.

1923 entries, which they had ample opportunity to study, and which made a very considerable impression in England on account of their superiority over the best British seaplanes then built.



THE NAVY TEAM: LEFT TO RIGHT—LT. F. W. WEAD, IN CHARGE, LT. DAVID RITTENHOUSE, WINNER 1923, LT. A. W. GORTON, LT. R. A. OFSTIE, LT. G. T. CUDDIHY, PILOTS. U. S. Navy Photo.

held in rough water, is over a five mile course and requires the pilot to taxi over the starting line, land, taxi one half mile between two buoys at a speed of over 12 miles per hour, take off, land, taxi one half mile

The Schneider Cup contest is not solely a high speed competition. Seaworthiness and airworthiness must be combined with speed in order to stand the stress of the contest. The pilots, also, must be equally at home on the water, under all conditions, as in the air. The general rules of the race provide that a navigability test of all planes entered be held the day before the speed contest. This test, which may be



between a second set of two buoys, then take off, land, and taxi over the finish line. After this the seaplanes must be left at anchor for six hours. No changes in the planes other than shifting propellers, should that be necessary, is allowed between the navigability test and the race. These conditions make the Schneider Cup a very valuable stimulus for the development of high speed, seaworthy, seaplane fighters.

The race, to be held at Bay Shore Park, Maryland, will be over a triangular course, 31.07 miles in length. All three turns in this course will be very sharp, of about 120 degrees. Seven times around the course, or 217.4 miles, will constitute the race. Bay Shore Park is ideally situated for the race conditions, and is easily accessible from Baltimore by auto, road and electric train. The contesting pilots will be quartered in the Southern Hotel, Baltimore. Quarters for the mechanics for the entries will be provided on the grounds, together with tent hangars, with wooden floors, for the planes, and a portable machine shop. A long pier will afford several thousand spectators an excellent view of both the navigability tests and the race. The anchorage tests will probably be made in the lee of this pier.

The National Aeronautic Association, as the representative in this country of the Federation Aeronautique Internationale, has charge of the details of the race, and will certify the speeds made by the contestants to the F. A. I., the homologator of all aircraft records. The Aero Club of Baltimore is doing the major part of the hard work in actually staging the contest, and has been supported by many prominent

Baltimoreans who are determined to make it the outstanding aviation event of the year in this country.

Aviation designers and others interested from abroad and at home will visit Baltimore in a body. Arrangements are being made to handle a stupendous crowd to witness the most important international aviation event ever held in the United States.

\* \* \*

EDITOR'S NOTE:—Information has just been received from the Royal Aero Club that one of their entries in the Jacques Schneider Cup Race will be a seaplane constructed by the Gloucestershire Aircraft Company of Cheltenham with a 450 h.p. Napier Lion engine. The machine is to be known as the "Gloster 11 Napier."

The Royal Aero Club has appointed Lord Edward Grosvenor to represent the Club at the race and he will be in charge of the machine and personnel. In addition to Lord Edward Grosvenor, the Gloucestershire Aircraft Company will send over one of their directors, either Mr. D. Longdon or Mr. A. W. Martin. Mr. H. P. Folland, the designer, and Mr. H. T. Vane, managing director of the Napier engine company, will also be in the party.

In addition to this personnel there will be two pilots and five mechanics, whose names are not yet available.

The present arrangements are that the machine and personnel will sail from London, on October 4, on the S.S. "Minnewaska," arriving in New York on October 12.

The "Gloster 11 Napier" has shown a remarkable performance during the trials and will no doubt be a formidable contender for the Jacques Schneider Trophy.

## WEATHER REPORTS FOR ZR-3

A COMPLETE service of weather information for the use of the ZR-3 in her approaching trans-Atlantic flight has been perfected by the Navy Department and will be put into operation when the giant dirigible points her nose westward and heads for her final destination at the Naval Air Station, Lakehurst, N. J. The system of weather forecasting and communication which has been devised for the flight by the Navy Department makes use of naval ships located at sea for the gathering of weather data and naval radio stations within the continental limits of the United States for the transmission of information to the airship.

The naval meteorological service for the delivery flight of the ZR-3 depends essentially upon three station ships to be placed in the North Atlantic. One of these ships will be located at 45° 45'W; the second ship will be located at 55° N., 45°W; and the third ship will be located at 44°N, 57°W. The latter vessel will act as a radio relay ship for the weather information which is accumulated by the two former vessels. The most northerly

ship of the three will be required to make hourly observations of weather conditions and take upper air soundings by means of pilot balloons every six hours. Four times each day this information will be transmitted to the second ship in the train, which will combine the data obtained with observations made on board. The second of the three ships will be known as the Primary Observation Ship, and will accumulate all weather information from the continental United States and from the observation ships to the northward of her; she will also pick up weather reports from all vessels at sea within radio range and will transmit the digested information through the relay ships to coastal radio stations. All activities in connection with weather forecasts and transmission of weather information for the ZR-3 will be coordinated in the Navy Department at Washington, and the Naval Radio Station located at Annapolis will be used for communication with the ZR-3 when the airship is within range of that station. In connection with the arrival of the ZR-3 in this country, emergency landing fields have been designated as follows:

The Boston Airport, Boston, Mass.  
Mitchel Field, Long Island.

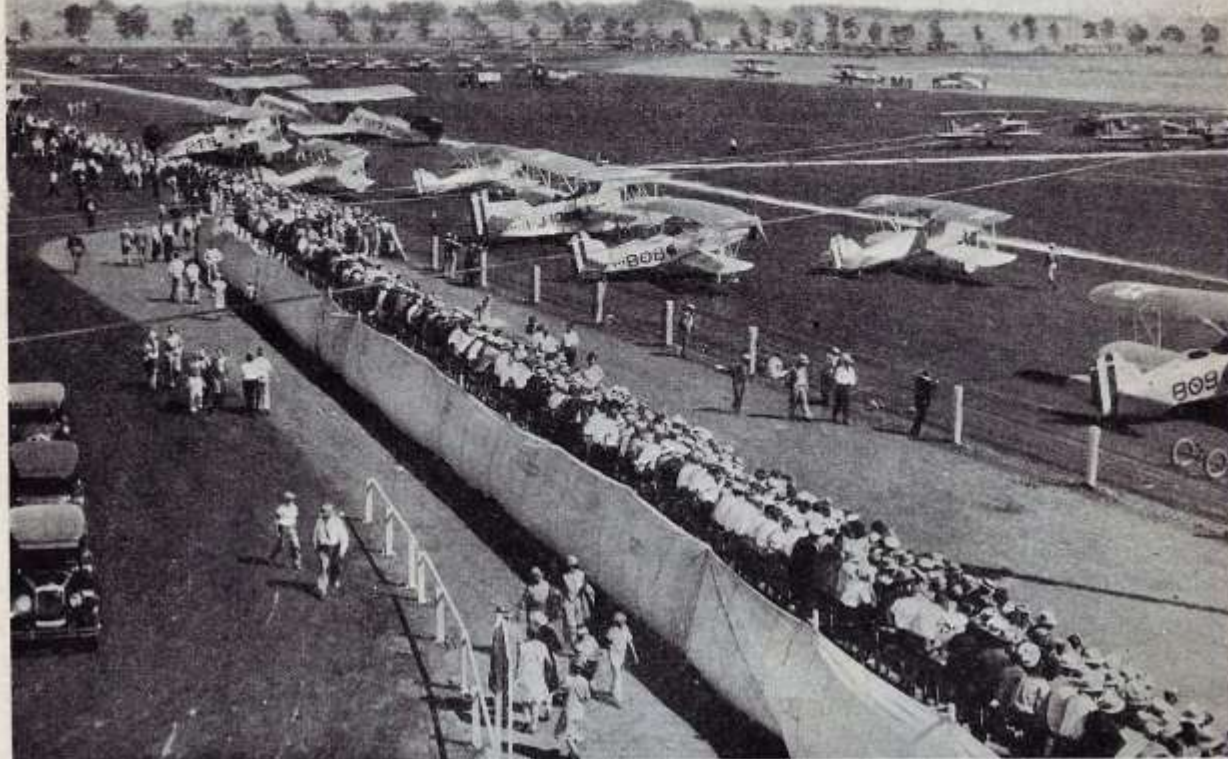
Langley Field, Hampton Roads, Va.  
Paris Island, S. C.

These emergency landing fields will be prepared to receive the airship on short notice in the event that circumstances make undesirable the continuance of the voyage direct to Lakehurst, N. J.

The Department desires to emphasize the importance of uninterrupted communication with the ZR-3 while in flight and bespeaks the cooperation of various radio organizations and individuals having radio equipment to the end that the least possible interference in these communications may exist. On the other hand, the Department bespeaks the heartiest cooperation of the radio public in the matter of listening in for messages transmitted by the ZR-3, as such assistance may be extremely valuable in maintaining communication with the ship.

The inauguration of a system of weather reports to the airship in the course of its trans-Atlantic passage might be considered as a forerunner of a service regularly maintained for commercial airships engaged in trans-Atlantic commerce, and from this standpoint will probably be of intense importance to the radio public during the course of the flight.

# The National Air Races



**T**HE National Air Races and Aeronautical Exposition of 1928, were held by the California Air Race Association at Mines Field, Los Angeles, September 8-16, 1928, under the sanction of the National Aeronautical Association.

With \$150,000 in cash prizes and \$25,000 worth of handsome silver trophies to lure them, 250 civilian, Army and Navy pilots entered the various competitions that included three transcontinental races for Class A, B and C ships, one non-stop transcontinental race, one international race for Canadian flyers, two California cross-country races for Classes A and B, seven closed course events for civilians, ten for Army, Navy and Marine pilots, a dead stick landing contest, a parachute precision jumping event and two boys' model plane competitions.

During the nine days of the meet 700,000 persons witnessed the air manoeuvres and contests. The planes at Mines Field numbered 761. Of these, 461 were participants, including 161 Navy and 125 Army ships.

The participating planes carried

1,000 pilots, mechanics and passengers, aggregated 7,000 hours flying time with a mileage approximating one million miles, involving 5,000 take-offs and landings in practically every American type of plane, powered by almost every type of motor.

"I have never seen such flying," declared Colonel Charles A. Lindbergh, who came to look and remained to fly as a substitute for Lieutenant J. J. Williams, of the Army stunt trio, the only fatality of the meet.

In fifty-eight days the officials of the California Air Races Association transformed a mile square barley field into an up-to-the-minute airport with three runways 7,000 feet long, an exposition building of 200,000 square feet, grandstand and bleachers seating 23,000 and parking lanes for 37,000 automobiles.

The transcontinental class races wrote a new epic of progress in man's conquest of the air. Out of forty-nine starters, in the A, B, and C classes forty finished. These planes started from Roosevelt Field, New York City, and followed a

course set by the race committee that took them through Pennsylvania, Ohio, Indiana, Missouri, Kansas, Oklahoma, Texas, New Mexico and Arizona to California with thirty minute control stops at various cities for refueling and specified night controls, entirely eliminating night flying.

Class A, for ships with motors of 510 cubic inch displacement or less, open to all types of stock model planes primarily designed for commercial flying and having a capacity of at least one passenger besides pilot, raced for \$10,000 capital prize money, divided between the first six pilots who finished in the shortest elapsed time. Sixteen 30 minute controls and five night stops were designated for this class with an average distance of 173 miles between controls. Lap prizes, totalling \$2,560, were offered by various control cities.

There were 38 entries, of whom 25 started September 5 and 23 finished September 10.

Earl Rowland, piloting a Cessna-A with Warner "Scarab" motor, won

every lap all across the continent and finished first with an elapsed flying time of 27 hours, 31 seconds, averaging 108.85 M. P. H. He was awarded the first prize of \$5,000 and garnered an additional \$1,510, a wrist watch and a Mexican serape as lap prizes.

Robert Dake and Theodore Taney were second in an American Moth with Warner "Scarab" motor, capturing the second class prize of \$2,500 and \$750 lap money. Time 28-18-43.

W. H. Emery, Jr., in a Travel Air, Warner "Scarab" motor, won third prize of \$1,000 and \$275 lap money. Time 28-48-28.

T. W. Kenyon, in a Challenger, Warner motor, won fourth prize of

the safety of flying when conducted under conservative methods.

The Class B Transcontinental race was for standard stock model civilian planes powered with motors of more than 500 cubic inch displacement but not to exceed 800 cubic inches. The ships started two days after Class A, September 8, and finished September 12. They followed practically the same course as Class A, with thirteen thirty minute controls, averaging 209 miles apart and four night stops.

The pilots contended for \$15,000 and \$2,410 lap money. There were 22 entries, 20 starters and 14 crossed the finish line.

John Livingston won this race in a Waco 10, powered by a Wright

John P. Wood, winner of the National Air Tour this year, was third in a Waco ship, with Whirlwind motor. His elapsed time was 24-31-8. His prizes totalled \$2,525.

Edward G. Schultz, Cessna, Whirlwind, was fourth. Time 24-55-08. Prize money, \$1,300.

Charles W. Meyers, Waco 10, Whirlwind, fifth. Time 25-04-13. Prize \$700.

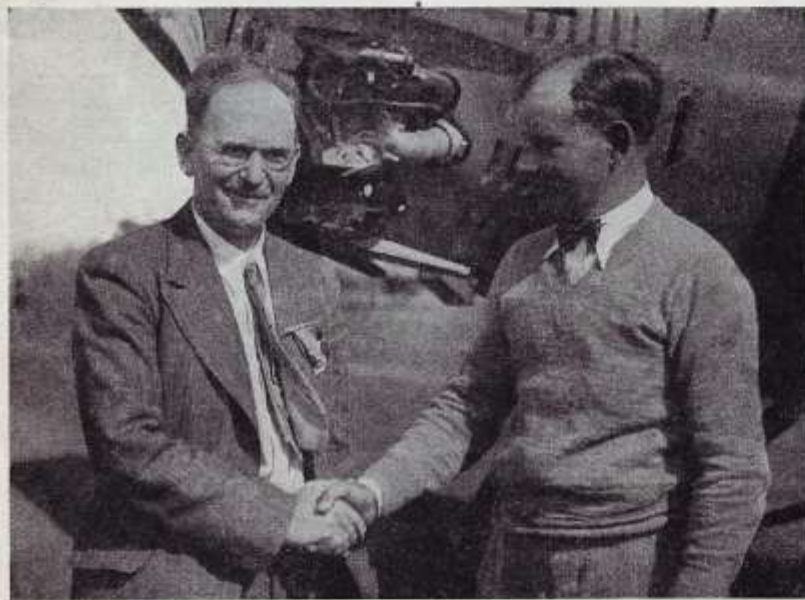
L. F. Schoenair, Buhl Airsedan, Whirlwind, sixth. Time 26-11-20. Prize \$300.

Others who finished were Jay Sadowsky, Cessna B., Wright J5, time 26-57-53; Ivo McKinney, Pacer, Whirlwind, time 27-47-05; M. W. Whittall, Fairchild, Whirlwind, time 37-05-16; Maurice Marrs, Travel Air, 29-47-13; B. H. Shaw, Lockheed Vega, 31-42-04; R. J. Merritt, Ryan, Whirlwind, 33-59-32; T. A. Wells, Travel Air, D4000, Wright J5, 26-12-01.

Livingston with his Waco 10 won every lap all across the continent. He was closely pressed on the first two laps by J. W. Smith and Al Litzenberger in a Cessna until they were forced to drop out of the race, leaving Schultz in a Cessna the only close contender until Ballough flew his Laird LC-R into second place between Kansas City and Wichita and held that position till the end of the race. Ballough flew a plucky race. He was rapidly cutting down Livingston's time lead when he began to have motor trouble in Oklahoma and had to put in a new cylinder and new valves. In Yuma he was forced to put in a new motor, larger than the old one, making it impossible to use the cowling and causing consequent loss of speed.

Transcontinental Class C race from New York to Los Angeles for civilian ships powered with motors of more than 800 cubic inch displacement brought out a number of fine, large cabin ships, designed to carry at least four passengers and pilot. They started three hours after the Class B ships and followed very nearly the same course with nine half hour controls and only three night stops. Each ship was obliged to carry a load of 640 pounds in addition to the pilot. There were four starters and three finished.

The winner was Robert W. Cantwell in a Lockheed Vega monoplane, powered with a P&W "Wasp" motor. His elapsed time was 24 hrs., 9 min., 01 sec., an average of 121.69 miles per hour. He carried as passengers Edward Schlee, round-the-world flyer, Erle P. Halliburton, owner and navigator of the plane, and the lat-



\$700. Time 29-19-47.

Tex Rankin, in Waco 10, 0x5 motor, won fifth place and \$500 in 29-36-29.

James S. Charles, in an Eagle Rock (Curtiss 0x5), was sixth in 30-48-5, winning \$300.

Despite the handicap of bad flying weather, fog, rain and storms in the East and stiff head winds in the West, these small, light planes made an excellent record of steady, consistent performance and speed. Only 12 out of 25 finished last year, and this year's winner, with a 110 H. P. Cessna, made the 2,939 miles in only five hours more flying time than it took Art Goebel to make it over a more direct course in his 440 H. P. Yankee Doodle Lockheed Vega. All the rest, but one, of the Class A planes landed within twenty minutes of the winner, demonstrating the remarkable progress made in a year, the reliability of the small plane and

*Allen H. Lockheed congratulates Robert Cantwell at the finish of the Class C Transcontinental race.*

Whirlwind motor, entered by the Advance Aircraft Company. His elapsed time was 22 hours, 56 minutes, 59 seconds, averaging 128.03 miles per hour. He captured the first prize of \$7,000, lap prizes totaling \$1,410, a wrist watch and Mexican serape and a special sweepstake award of \$2,500 for the shortest elapsed time in any of the transcontinental races, a grand total of \$10,910 for his four days' flying.

E. E. Ballough won second place in a Laird LC-R, with "Whirlwind" motor, with an elapsed time of 23-16-24. He got the second prize of \$3,500, lap money amounting to \$450, and the second sweepstakes prize of \$1,500.



*John H. Livingston, pilot, and M. B. Allen, passenger, winners of the Class B Derby.*

ter's brother, John Halliburton.

Captain C. B. Collyer, holder of the present around-the-world flying record of twenty-three days, was second in a Fairchild Cabin monoplane, with Wasp motor, time 27-10-45.

Edward J. Brooks, in a Fokker Special Universal monoplane, with Wasp motor, finished third in 27-24-53.

Cantwell won every lap of the race, capturing first prize of \$5,000 and \$1,155 lap money, in addition to the wrist watch given by Pecos, Texas, and the Mexican serape presented by El Paso.

Collyer won \$2,675 prize and lap money and Brooks \$1,650.

The one big disappointment of this great national event was the failure of the Transcontinental non-stop race that was fully expected to set a new East-West continental record. Open to all civilian ships powered with any type motor of unlimited cubic inch displacement, prizes totalling \$22,500 in cash and several exceedingly handsome trophies were offered.

Nine large, powerful ships, piloted by famous air skippers, started from Roosevelt Field, New York City, on Wednesday, September 12, expecting to arrive in Los Angeles the next afternoon, but only one of them, Art Goebel and his Yankee Doodle, succeeded in getting through and was disqualified under the rules for making a forced landing for gas in Arizona. All of the others were forced down by motor troubles or lack of gas at various points across the continent. Most of the ships encountered a windstorm area as they approached the Rockies that later developed into cyclonic fury in the

Middle West and so reduced their speed that gas supplies were exhausted.

The Army, Navy and Marine Corps contributed generously to the success of the meeting. The Army sent large squadrons of pursuit, observation and bombing planes from Crissy Field, San Francisco; March Field, Riverside; Rockwell Field, San Diego; Crockett Field, Texas, and nine big tri-motor Keystone bombers across the continent from Langley Field, Virginia.

From the Navy came the famous VB2B squadron of 15 Curtiss Hawks, squadrons of Boeing fighters and bombers from North Island, San Diego; pursuit groups from the airship carriers Langley, Lexington and Saratoga lying in San Diego and San Pedro harbors and Marine Corps squadrons of Curtiss Falcons and Curtiss OC2 ships, from Mather Field.

Every day the sky over Los Angeles was filled with great formations, sometimes numbering 150 of these warriors of the skies flying between Mines Field and their bases. The contingents from San Diego and the big fleet carriers left their bases 130 miles distant each day, flew to the field, did their stuff and returned home without landing, all in a few hours.

The "Three Sea Hawks" of the Navy, Lieutenants Tomlinson, W. V. Davis, Art Goebel's Dole flight navigator, and Storres "stole" the show. Their amazing manoeuvres and antics in the air were instructive, beautiful and hair-raising and kept the spectators at a fever pitch

*H. S. Myrhes, winner of Class A race from San Francisco to Los Angeles.*



*Dudley M. Steele, chairman of contest committee, greets Earl Rowland, winner in Class A Derby.*

of excitement. They left the ground in their little Boeing fighters in close formation as if nailed together, not more than a few inches seemingly separating the wing tips of their planes. They zoomed, looped, dived at furious speed, turned over and flew upside down, never losing their perfect formation. They did startling climbing rolls, corkscrewed down for a series of slow, deliberate loops fifty feet above the ground and closed the performance with their famous following loops in which they chase one another in perfect verticle circles, one at the top of the loop while the second is diving down ahead of him and the third coming up behind.

The "Three Musketeers" of the Army were equalling daring, skillful and sensational. This stunt trio was composed of Lieutenants J. J. Williams, I. A. Woodring and W. L. Cornelius. The thrilling climax of their act was a dangerous outside loop performed by two of the trio that started at a height of 5,000 feet and brought them diving down at terrific speed to about 1,000 feet above ground, when they turned for the upward climb and leveled off just before the completion of the loop to avoid disobeying a service regulation which forbids this exceedingly dangerous manoeuvre.

It was during this performance on Monday, September 10, third day of the show that Lieutenant Williams, their leader, suffered his fatal crash. While his companions were climbing for altitude Williams flew back and forth before the grandstands enter-

taining with a series of daring stunts, looping, rolling, diving and turning over on his back.

Woodring and Cornelius had just completed their outside loop dive and were leveling off when Williams started his last stunt flying upside down in front of the stands, barely 100 feet above the ground. As he finished the feat and turned over to come out of it in a vertical bank his engine popped and failed to pick up quick enough to prevent crashing. He was badly injured and died seven hours later.

The next day Colonel Lindbergh, who had been attending the show merely as a spectator, walked into the field headquarters of Captain A. W. Brock, chief operations office of the Army unit, and volunteered to fill the gap in the Three Musketeers and fly with Woodring and Cornelius, who were his buddies during his Army training. He was given Williams' place and thereafter during the rest of the show flew as Number One of the trio, leading them in all their daring aerial stunts.

The only other casualty of the meet was the accident of Lieutenant George H. Hasselman, U. S. N., who crashed while making a vertical bank too low around a pylon in the sixty mile race of the fifteen VB2B squadron of Boeing fighters. While badly injured Lt. Hasselman is recovering.

William H. E. Drury, youthful pilot of London, Ont., flying a Waco, won the international race from Windsor, Canada, in 19 hrs., 55 min., 41 sec., averaging 107.63 miles per hour. The distance was 2,145 miles

*E. Ballough of Chicago, who won the Class B Transcontinental Derby in a Laird biplane.*



*Robert Dake checking in his American Moth at Kansas City during the Class A Derby.*

with five controls. Drury won first prize of \$5,000, \$750 lap prizes, a Stetson hat, a watch and two pairs of chaparajos. Kenneth Whyte, of Hamilton, Ont., in a Moth, won second prize of \$2,500, \$150 lap money, a traveling bag and sweater. S. T. Stanton and E. V. Hemple, flying a Martin bi-plane, were forced down by engine trouble almost within sight of their destination, at Fontana, forty miles from Los Angeles.

The numerous closed course races were splendidly staged and furnished an almost continuous daily performance of speed and thrills. Thanks to the vast dimensions of Mines Field and skill of pilots as many as twenty racing craft were whirling around the pylons at a time at 100 to 170 miles an hour without interfering or clashing with each other or the stunt and exhibition formations going on simultaneously.

The races followed triangular five and ten mile courses around huge checkered pylons so arranged that they were never out of sight of the spectators who followed every move of the speeding ships with the keenest interest.

The first closed course event was a forty mile civilian relay race for two place planes. The Eaglerock team, composed of Jack Frye, Capt., and J. S. Charles, Lee Flannigan, Paul Richter, Jr., and Harvey Bolton, won at 79.748 M.P.H. The Swallow team was second, and an individual, Louis E. Derryberry, was third. Closed Course Event No. 2 was a civilian race over a 50 mile course for plane flying engines in the

510 cubic inch class, and was flown with two preliminary heats and a final. Earl Rowland came in first in the final, in a Cessna, powered with a Warner motor, at 111.74. H. S. Myrhes in a Kinner-powered Simplex was second, and Robert Dake, flying an American Moth with a Warner motor was third.

The closed course event No. 3, a civilian free for all over a distance of 50 miles, limited to motors in the 720 cu. in. class, was won by D. C. Warren in a Travel Air equipped with a Hispano motor. Reginald Sinclair was second, in an Eaglerock powered with a Curtiss C-6, and Theodore Taney was third, in an American Moth (Warner). Warren's speed was 123.39 M.P.H. Closed Course Event No. 4, for civilians flying planes powered in 800 in. class, in a 75 mile free for all, was captured by E. E. Ballough in a Laird (Whirlwind), with John P. Wood second in a Whirlwind-equipped Waco, and John Livingston third, also in a Whirlwind Waco. The speed was 137.82 M.P.H.

Closed Course Event No. 5, a 100 mile civilian free for all speed and efficiency race for cabin planes powered with engines in the 800 cu. in. class, resulted in a speed victory for Louis G. Meister in a Buhl Airsedan, powered with a Wright Whirlwind, at 116.74 M.P.H. Victor Dalin, in a Bellanca, also equipped with a Whirlwind, took second place.

The efficiency contest was won by Victor Dalin in his Bellanca, with Louis G. Meister in the Buhl Airsedan second. The winner's effi-

*William Drury of London, Ontario, winner of International race from Windsor to Los Angeles.*



ciency score was 629.493.

In Closed Course Event No. 6, an unlimited free for all speed and efficiency competition, over a course of 100 miles, Robert Cantwell flew home the winner in a Lockheed Vega powered with a Pratt and Whitney Wasp motor at a speed of 140.30 M.P.H. Art Goebel was second, also flying a Lockheed Vega Wasp-equipped, and L. F. Shoenhair, in a Whirlwind Buhl Airedan, was third. Victor Dalin won the efficiency contest in his Whirlwind Bellanca. His point score was 863.232.

Closed Course Event No. 7 was a parachute jumping contest, run off in three competitions on three different days. A daily prize of \$100 was offered to the contestant landing nearest the circle, and a final prize of \$350 was given the jumper whose average accuracy in the three jumps was highest. George W. Wehling won with an average landing of 66 ft., 9 2/3 in. from the circle. Frank J. Garjola was second, and E. C. Lundquist was third.

Closed Course Event No. 8 was a 120 mile race open only to observation type military two-place planes. Lt. J. L. Kane won the race in a Vought Corsair, powered with a Pratt and Whitney Wasp motor. All of the other planes and motors, in the race were of the same make. Lt. H. C. Fick was second, and Lt. M. W. Ellis was third. The winning speed was 142.275 M.P.H.

Closed Course Event No. 9 was a Navy pursuit plane race over a 50 mile course. Lt. R. J. Crommelin won in an F-2-B1, powered with a Pratt and Whitney Wasp, at 147.77 M.P.H. All the planes and motors in this race also were of the same make. Lt. E. A. Cruise was second and Capt. Driscoll was third.

Event No. 10 was a closed course race for army pursuit planes over a distance of 50 miles. As in the other service races, all the entrants in this event were of the same make. Lt. W. L. Cornelius, flying a Curtiss Hawk with a Curtiss D-12 motor, won the race at a speed of 147.73 M.P.H. Lt. I. A. Woodring was barely 5 seconds behind, and Lt. J. E. Mallory came in third.

Closed Course Event No. 11 was a National Guard race for two place planes. All of the entrants were Douglas planes, powered with Liberty motors. Lt. Brooks was first in an O-2H at 124.88 M.P.H., Lt. D. F. Kearns in an O-2H was second, and Capt. Symons in an O-2C was third.

The best time of the meet was made in Closed Course Event No. 12, when Lt. T. P. Jeter, flying a new

Boeing XF4B with a supercharged Wasp motor, won the free for all military pursuit race over 120 miles at 172.26 M.P.H. Lt. S. A. Cruise was second, and Lt. D. W. Harrigan was third.

Closed Course Event No. 14, open to National Guard, and Army and Navy Reserve primary training ships powered with 180 h.p. Hispano-Suiza motors over a 25 mile course, was won by Claude Owen at 93.82 M.P.H. T. Williams was second, and George Sherwood was third.

Event No. 15 was a light airplane speed and efficiency contest. The speed competition was won by E. H. Heath in his Heath monoplane with a Bristol Cherub engine, at a rate of

ingly apparent that this infant of the commercial world, just out of its swaddling clothes, is already a business prodigy and fast becoming a giant.

The exposition building was a great stucco structure in mission style covering a city block and located just inside the main entrance to Mines Field with a spacious park-like patio between it and the rear of the grandstands. It provided 200,000 square feet of exhibition space for more than one hundred exhibitors with wide aisles and a high arched roof decorated with festooned bunting and flags of all nations.

The center of the floor was given



*H. C. Lippiatt of Los Angeles, who came in first in Class B race from Oakland to Los Angeles.*

112.00 M.P.H. Vern Roberts, flying a Velie powered Monocoupe was second, and Chas. A. LaJotte in a Velie Monocoupe was third.

In the efficiency contest John E. Carberry won with a Moth, powered with a Cirrus engine. Vern Roberts' Velie Monocoupe was second, and E. B. Heath, in his Bristol Heath was third. The winner's score was 709.693. An added event, in which only Douglas planes powered with Liberty motors participated, was won by Lt. Barber at a speed of 127.49. Lt. Goss was second and Lt. Walthall was third.

The exposition held in connection with the races was a revelation of the extent, scope and diversity of the aviation industry. It made convinc-

over to the aircraft exhibits, while round the four sides were located the booths of motor and body builders, tool and instrument makers, tire and oil companies, steel and wood propeller manufacturers, parachutes, aviation toggery, schools, magazines, transportation companies and an array of accessories.

On the floor were grouped planes embracing nearly every size, make and type of airplane from a tiny one-passenger, two-cylinder, 20-H. P. grasshopper to the giant 1,600 H. P. Boeing passenger transport and huge Ford and Fokker tri-motored, 12 passenger cabin ships affording the luxuries of air travel.

Despite the intriguing and thrilling attractions of the flying field there was always a good crowd of intensely interested visitors in the exposition building and during the evening the aisles were packed.

*(Continued on page 107)*

## National Air Races

(Continued from page 15)

There were five national conventions held during the week in connection with the races and exposition.

The National Aeronautical Association held sessions on three days at the Ambassador Hotel and elected Hiram Bingham, United States Senator from Connecticut, president, to succeed Porter Adams, who held the office two years and declined a third term and was elected governor-at-large. General Mason W. Patrick, former chief of the Army Air Service, who was prominently mentioned, refused to allow his name to be considered.

Roscoe Vaughn of Wichita, Kan., was named vice-president; Valentine Gebhart of Seattle and B. F. Castle were re-elected secretary and treasurer.

The Commercial Airplane Manufacturers' Section of the Aeronautical Chamber of Commerce of America held its third national meeting on two days in the Exposition Building.

The Society of Automotive Engineers held sessions on September 11 and 12 at the Biltmore Hotel.

## Correction

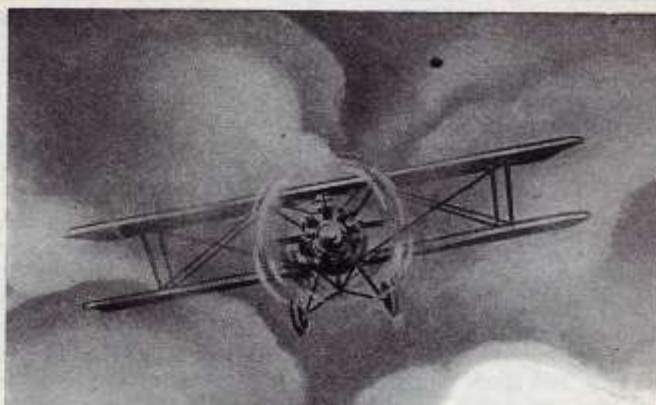
In the October issue of POPULAR AVIATION, Line of Position, and Star Altitude of Curves, publications of the Weems System of Navigation, were listed at \$1.75 apiece. POPULAR AVIATION wishes to make both an apology and a correction. The present edition of Line of Position sells for \$2.50, and the next edition will probably sell for \$4.00. Star Altitude Curves sells at \$5.00 per band of ten degrees of latitude.

## Cradle of Aviation

(Continued from page 81)

Flanked by water and woodland. Scientists hie hither to search for the marvels of flora and fauna concealed amid the thickets. And in uncounted myriads the masses from Chicago, Gary, Indianapolis, have come to play and refresh themselves in this wonderland where Nature has been so lavish of her charms.

In 1896, however, the Miller sand dunes bore another reputation. They were something to be shunned, especially at night, unless there was plenty of company along. Old settlers in that secluded hamlet



Are You in a  
**fog?**

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Floyd J. Logan, *Aviation Jobber, Cleveland*, writes: "Your Course gives to the layman, in simple language, answers to questions which exist in the minds of beginners."

Lt. Leigh Wade, *Round-the-World Flier*, says: "Your Course is a wonderful exposition of the fundamentals of aeronautics. I can readily recommend it to those seeking authentic information."

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## **Bill Greve and the Greve Trophy Race** A brief biography

The name William Louis Greve flashed into national prominence before World War II when the Cleveland industrialist agreed in 1934 to sponsor a major event in the National Air Races for pylon racers powered by engines of 550 cubic inches or less. Although the Greve Trophy ran as second billing to the prestigious Thompson Trophy Race, it nonetheless became a highly popular and noteworthy race in its own right.

The initial two Greve Trophy Races were run in three heats with the contestants awarded points according to their finish positions. The trophy was then awarded to the point champion. In 1934, this was Lee Miles in his Miles & Atwood Special. The following year, Harold Neumann captured the trophy with Ben Howard's *Mike*. The 1936 Greve Trophy Race reverted to a single race competition and remained that way until the last event held in 1939.

Of the six years in which the race was held, two were notable for their close finishes. In 1937, Rudy Kling edged out Steve

Wittman by 0.282 miles per hour. The following year, Tony LeVier took the race by a similarly small margin, 0.47 miles an hour, when he beat Art Chester. Art returned the favor in 1939 setting the Greve Trophy Race speed record of 263.390 miles per hour. Unfortunately, LeVier was forced out of the race in lap eleven.

Bill Greve was born before the turn of the century on November 2, 1882, the son of Claus and Clara Greve. He graduated from Central High School in Cleveland and ten years later, married Elsie Baldwin of Cleveland in June 1908.

Greve's interest in air racing began several years earlier in 1929 when he assumed the presidency of the National Air Races. Greve was prominently identified with the promotion and advancement of aviation, as a student flyer, as a member of aeronautical associations, and as president of the National Air Races, the latter a post he assumed in 1929.

Since the time he left high school, Greve was continuously associated with the Cleveland Pneumatic Tool Co., manufacturers of the Aerol oleo-pneumatic and oleo-spring shock absorbing struts for aircraft, eventually rising to president and a director of the company. He also became president and a director of the Champion Machine & Forging Co. of Cleveland, and of the Cleveland Pneumatic Tool Co. of Canada, Ltd., in Toronto; president of the Cleveland Rock Drill Co., and vice-president, and a director, of the Carey Machine Co. He served as mayor of Mentor-on-the-Lake, Ohio, in 1925.

Greve was active in the aviation community as well as local Cleveland organizations including the National Aeronautic Association (president, Cleveland Chapter, 1930-31, and as a director), Cleveland Chamber of Commerce (vice-president), Mason (member of all bodies); the Cleveland Athletic Club, Shaker Country Club, and the Union Club (Cleveland).



**The Three Seahawks at the National Air Races  
Mines Field 1928 Leader Lt. Tommy Tomlinson CO VF-2B  
is flanked by Lt. jg Bill Davis and Lt. jg Putt Storrs**

**Paul Faltyn – Curator**

**Niagara Aerospace Museum  
Niagara Falls, NY**



## The Golden Age of Air Racing

### Illustrated by Emil Strasser Photographs

#### All Pictures from the Gerald Liang Collection

By Joe Stamm

Emil Strasser was born in 1911 and grew up in Akron, Ohio. Emil was inspired by Charles Lindbergh's flight and began taking aviation photographs in 1930-1931. Strasser visited Los Angeles in 1936 to attend the National Air Races and to seek a job with Northrup Aviation. He successfully photographed the Races but was not hired by Northrup because he had no aviation industry experience.

Emil returned to Akron and joined Goodyear Aircraft in 1940. He stayed with Goodyear until 1945 when the life-long bachelor moved to Los Angeles with his parents, sister and an aunt. He once again applied to Northrup and was hired, working there until he retired in 1977.

He remained a dedicated aviation photographer until the end of his life in 1997. At the time of his death, Emil had over 1,000 rolls of film in storage that he had shot but not developed.

Jerry Liang who is a talented, prolific and renowned aviation photographer in his own right. His work is frequently published. Jerry is also a aviation photograph collector.

Jerry became a friend of Emil Strasser in 1969 and stayed close to him until the end of Emil's life. Jerry acquired Strasser's stored film and has preserved it for future generations. He generously shares his Strasser collection with serious aviation researchers and writers. We are honored that Jerry has allowed us to reproduce photos from his Emil Strasser Collection. All of the photos that follow come to us through the courtesy and generosity of Jerry Liang. Jerry believes deeply that these old images need to be shared as widely as possible not locked away by collectors...a basic philosophy that your Society shares.

Bob Hall was chief engineer, draftsman, and test pilot for the Granville brothers until an

argument with "Granny" Granville led to a parting of ways. Hall started his own firm in 1932 and quickly received two contracts for race planes.

The first contract was with wealthy, sportsman Frank Lynch. He wanted a plane to try for an around-the-world record flight. To fulfill Lynch's order, Hall designed and built the "Cicada". The plane had staggered, side-by-side seating and a P&W Jr. R-975 radial engine. The plane was designed and built in less than six months! It was painted in a unique light brown, cream and green scheme to resemble a cicada bug.

To test the plane, Hall took the "Cicada" to the International Niagara Falls Races held in June, 1932. A fatigued Hall and the long-distance racer, "Cicada", could no better than 4<sup>th</sup> place in a 50 mile, pylon, free-for-all race.

Lynch had hoped to race "Cicada" in the 1932 Bendix Race but engine problems grounded the plane. A new engine was installed so that the "Cicada" could enter pylon races at the 1932 National Air Races. Unfortunately, the new engine ran no better than the previous one, and the plane did not race at Cleveland that year.

Lynch and the "Cicada's" bad luck continued when, later in 1932, Lynch veered during take-off at his home airport, clipped a hangar, and crashed. Frank Lynch perished in the wreckage and "Cicada" was destroyed.



The second race plane order, which was worked-on simultaneously with the "Cicada", was let by Marion Guggenheim. Her corporate pilot, Russell Thaw, was to race the plane at the 1932 National Air Races in pylon events.

The plane was named the "Bulldog" after Yale's mascot. Hall built the plane with gull wings for stability, and the "Bulldog" was powered by a P&W Wasp R-1340 with an experimental Hamilton Standard controllable pitch propeller.

Hall almost crashed during the "Bulldog's" first test flight when the plane violently rolled to the left on take-off. As a result of this near accident, Hall increased the vertical stabilizer which improved the "Bulldog's" take-off characteristics.

Soon after, Russell Thaw flew the plane but didn't like it and indicated that he would not race the plane in Cleveland. At this juncture, Hall begged Guggenheim to let him fly the "Bulldog" at the 1932 Cleveland Air Races...some sources state that Hall purchased the plane back from Guggenheim. In any event, Hall did enter the "Bulldog" in the 1932 Nationals, qualifying at 244 MPH.

designed the Gee Bee R-1 and R-2 before leaving the Granville brothers' shop.



The Gee Bee R-2 finished the 1932 Bendix race in 4<sup>th</sup> place, and was 5<sup>th</sup> in that year's Thompson race.

The R-2 was modified for 1933 with a larger engine, longer wings and a larger rudder. Russell Boardman was the owner of both the R-1 and the R-2. He entered both planes in the 1933 Bendix race from NYC to Los Angeles. Boardman flew the R-1 and hired Russell Thaw to fly the R-2. Both planes planned to refuel in Indianapolis. Thaw arrived first and slightly damaged a wing in landing. Boardman arrived shortly afterward and was visibly upset with Thaw for damaging the R-2. Boardman quickly refueled the R-1 and immediately departed for the

West Coast; however, he stalled the plane just after lift-off and was died from the resulting crash.

The unnerved Thaw withdrew from the race and had the R-2 shipped back to the Granvilles in Springfield, MA, for repairs. Later in 1933, after the

The following picture of Howard's DGA-5 "Ike" was also taken by Emil Strasser in 1932. Note the unusual tandem wheels of the main gear. The tandem gear was fine in the air but made ground handling difficult since they didn't caster. The arrangement was quickly changed back to a single



"Bulldog" was entered in the Thompson Trophy Race. While the plane was first in to the air, it finish next to last, only besting Howard's "Ike". Blame was placed on the experimental prop for restricting maximum horsepower ; however, Hall was so disappointed that he had the plane dismantled!

Strasser provides a unique perspective in this photo of the Gee Bee R-2, Race No. 7 which was the cross-country racer with a smaller engine but larger fuel tanks than the Gee Bee R-1. Robert Hall

wheel configuration after the 1932 National Air Races. "Ike" qualified for the 1932 Nationals at 197 MPH and had success (three - 1<sup>st</sup>. and two - 2<sup>nd</sup> ) in small displacement races. However, the 160 HP Menasco-powered "Ike" finished last in the Thompson race (right behind the much more powerful, 600 HP "Bulldog").



Gordon Israel was a close friend and co-worker of Benny Howard. Israel helped design and build Howard's "Pete", "Mike", "Ike" and "Mister Mulligan". He also found time to build his own gull-wing racer 260 HP Menasco engine named the "Redhead". The "Redhead" crashed on its first flight but was rebuilt in time to race at Cleveland, but the plane qualified at only 202 MPH, a disappointing last in the large engine class. The "Redhead" flew in the Frank Phillips Trophy Race but dropped on lap 2 due to engine problems.

The plane appeared at races in 1933 and then was damaged in the 1934 Omaha Races. It was rebuilt with a straight wing but never raced again.



Strasser photographed Howard's DGA-4 "Mike" in 1933 at the Akron, Ohio, Municipal Airport. "Mike" had a more powerful Menasco engine than "Ike" and followed-up its success at the 1932 Nationals with wins at the 1933 National Air Races held in Los Angeles including 3<sup>rd</sup> place in the Thompson trophy Race. "Mike" entered many races from 1932 through 1939 when it (and "Ike") disappeared for many years. Both "Mike" and "Ike" resurfaced a few years ago when two Cleveland pilots found and bought the planes. As described in *Golden Pylons*, restoration work has begun with the hope of flying one of the planes with an original Menasco engine.



Emil Strasser captured the image (shown on the next page) of Milo Burcham's "Blue Flash", a Boeing 100 (the civilian version of the military P-12A) in 1934 at Cleveland. Burcham performed spectacular aerobatic displays at races and air shows for many years including the 1934 National Air Races where he performed a crowd-pleasing "one wheel landing".



Strasser usually took uncluttered pictures of single aircraft but, in this example from 1935, he captured five of the iconic Golden Age racers in one picture. From left to right the racers are: Howard's "Mike" and "Ike", Wittman's "Bonzo", the Keith Rider R-3 Marcoux-Bromberg, and Howard's "Mister Mulligan".

It was with the next plane, a Wedell-Williams Model 44, that Roscoe Turner won the first of three Thompson Trophy Race in 1934. The Heinz Company sponsored Roscoe that year; hence, the Race No. 57.

Jimmy Wedell built the plane for Turner for the 1932 race season.



The 1935 Loose Special was the smallest plane at the races that year. It was powered by a 90 HP, 266 cid, 5-cylinder Lambert radial engine. Race No. 11 was painted red and cream did not race that year due to serious instability in flight.

The plane was re-engined for 1934 with a 1,000 HP P&W Hornet radial which made the difference that Turner needed to win the Thompson race and the Shell Speed Dash. Although replaced by the LTR-14 in 1937, Turner's Wedell-Williams continued racing through 1939 sometimes piloted by Joe Mackey. After retirement, the plane was sold to Fred Crawford and the restored Model 44 now resides in the collection of the Crawford Auto-Aviation Museum at the Western Reserve Historical Society in Cleveland.





By 1935 the Fordon-Neumann was used primarily for aerobatic work, but Harold Neumann did enter the plane in the 375 cid class races in 1935. Of, course, Neumann was already pretty busy that year in Benny Howard's employ. He flew Howard's "Mike" to the win of the Greve Trophy and then "Mister Mulligan" to the Thompson win. With Benny Howard's win of the 1935 Bendix Trophy Race, that gave the Howard team a clean sweep of the 1935 National Air Races!

Art Chester brought his green and cream Chester Special called the "Jeep" to Cleveland in 1935. The plane was powered by a Menasco C4S in-line engine. Built by Chester in 1932, it wasn't quite ready for the National Air Races that year, but it did race successfully in 1933, 1934 and 1935. At the 1935 National Air Races, "Jeep" took two – firsts, one - 3<sup>rd</sup> and a 4<sup>th</sup> place finishes. Art Chester soon moved up in class with his more powerful and faster race plane that he named the "Goon".



Construction on the Howard DGA-6 "Mister Mulligan" began in 1934 and was completed in time to enter that year's Bendix cross-country race. "Mister Mulligan" was painted pure white and the Race No. 40 was black outlined in gold. A 550 HP P&W Wasp Sr. with a Smith controllable pitch propeller was installed on the plane. Harold Neumann was ferrying the plane to Los Angeles for the start of the 1934 Bendix, but encountered mechanical issues that resulted in a hard emergency landing in Nevada. The accident scratched "Mr. Mulligan from the race.

Clyde Folkerts' first race plane, shown here in 1935 as the Folkerts SK-1 Fordon-Neumann racer, was built in the early 1930's and already had a successful race career behind it. The aircraft was powered by a reliable, 125 HP American Cirrus in-line engine.



Benny Howard and Gordon Israel tried again in 1935 and ended up winning not only the Bendix Race but also the unlimited, pylon, Thompson Trophy Race with Harold Neumann at the controls. Benny Howard hit the Trifecta in 1935 when Neumann also finished in first place in the Greve race flying "Mike". Benny Howard and his wife, Maxine or "Mike" for short, were piloting "Mister Mulligan" eastbound in the 1936 Bendix race when misfortune visited them. Over New Mexico, the

By 1935 the Fordon-Neumann was used primarily for aerobatic work, but Harold Neumann did enter the plane in the 375 cid class races in 1935.

plane's propeller shed one blade resulting in a crash at a remote location in the desert. Both Howard's were badly injured and pinned in the wreckage until a local Indian stumbled upon them and brought help. Long recuperations were needed to fully heal their injuries.

Ultimately, "Mister Mulligan" served as the prototype for Benny's commercial cabin ship that was used by civilians and the military.

Strasser captured the Keith Rider R-1 "San Francisco" at the 1935 National Air Races. Race No. 131 was equipped with a 260 HP Menasco engine and retractable gear. Originally built in time for the 1931 National Air Races, the R-1 enjoyed a very successful racing career including a 3<sup>rd</sup> place finish in the 1935 Thompson race and 2<sup>nd</sup> place in the Greve race in Cleveland.



This shot of the Lockheed Orion Race No. 72 was taken in 1935. The plane was owned by F.C. Hall from Oklahoma and flown by Roy Hunt to a 4<sup>th</sup> place finish in the 1935 Bendix race. "Sheridan" arrived in Cleveland three hours after the winner, Benny Howard in "Mister Mulligan", had landed.

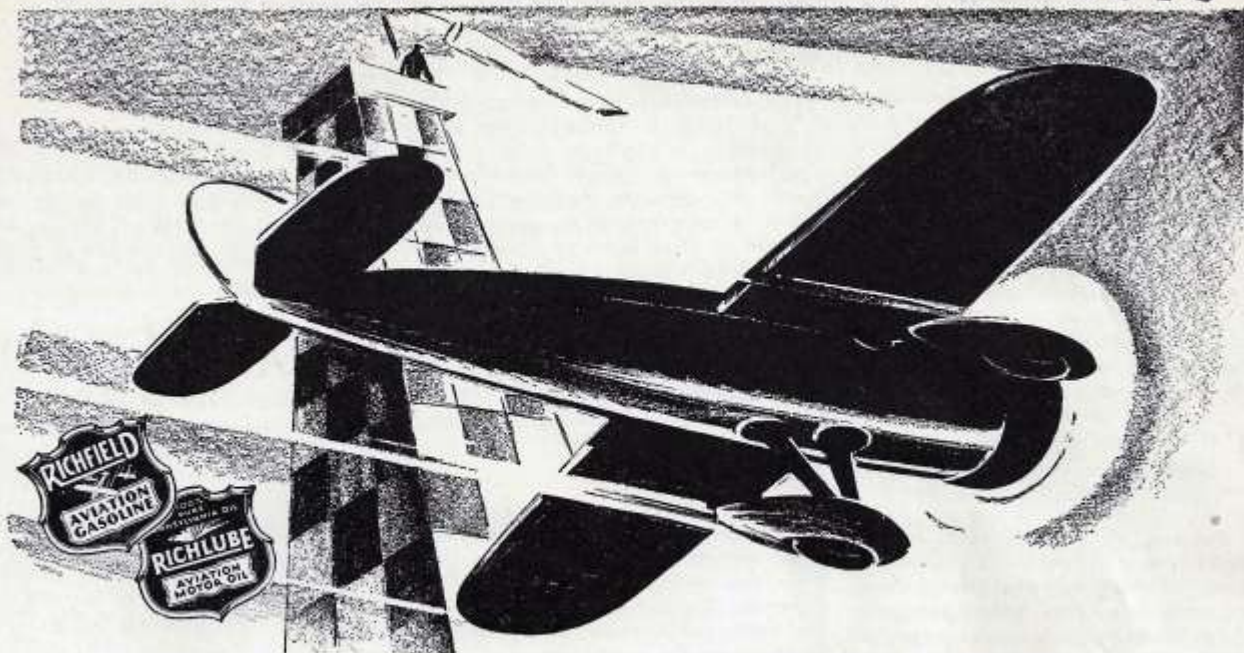


Rudy Kling had bought the plane in 1934 and hired Roger Don Rae to fly it for him in '34 and '35. Rudy decided he was ready to fly in the 1936 Nationals but met with a bit of bad luck in Los Angeles. The plane was demolished in a landing accident at the Nationals; fortunately, Rudy survived to race another day.

**And, here is the man responsible for many of the fine air racing photographs that we enjoy today, Emil Strasser !**



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tories out of 23 events in the world-famous Gold Cup Regatta at Red Bank, N. J.... and 1st and 2nd in the spectacular Non-Stop air race to Chicago...won by Wiley Post with Art Goebel, second!

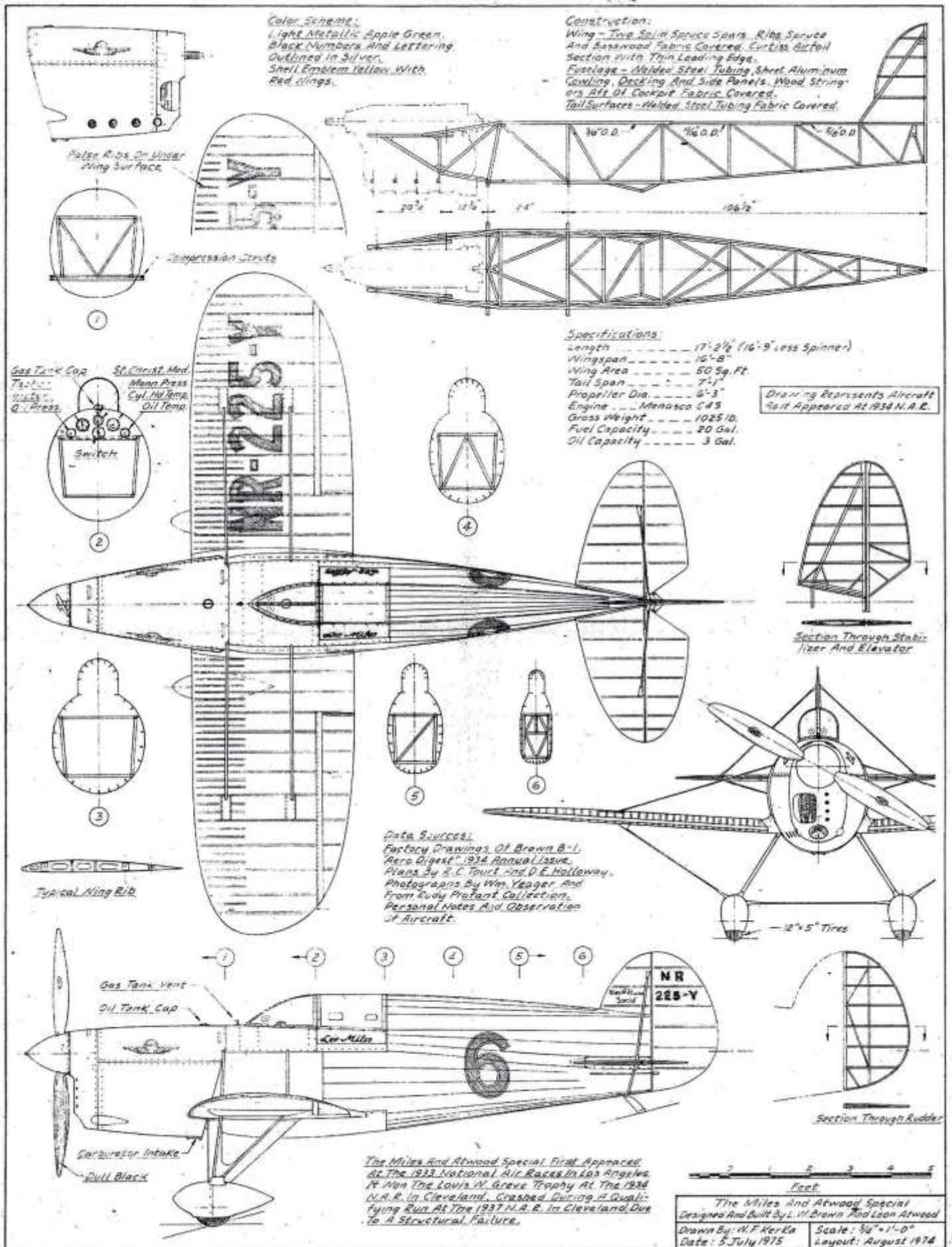
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This 3-view of the Miles & Atwood Special was drawn by W.F. Kerka , July 5, 1975. From Bob Pauley Collection





## THE MILES & ATWOOD SPECIAL CANOPY

by Joe Stamm

Lee Miles, Leon Atwood and Larry Brown combined their talents to create the Miles and Atwood Special which was financed and flown by Lee Miles. The team's efforts produced a winner. The plane was small, light-weight, and streamlined with the cockpit fully enclosed by a smoothly rounded, Fiberloid canopy. The plane, with its Menasco Pirate engine, was very fast for its class.



The superior design of the plane combined with Miles obvious piloting skills produced outstanding results on the race course. Lee won the prestigious Greve Trophy in 1934 as well as numerous other races.

Based upon his 1934 performance, Miles was rated the number one racing pilot of the year which entitled him to display Race No. 1 on the M&A Special in 1935.

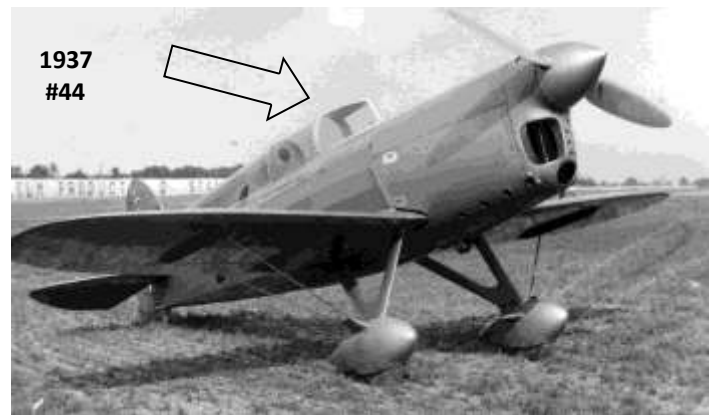
The competition began to catch up to Miles and the M&A Special in 1935 and to be their equal in 1936; nevertheless, Lee earned over \$14,000 of prize money over the 1933 to 1936 time period.

Despite the disappointing 1936 season, Miles and the M&A Special returned to the 1937 National Air Races.

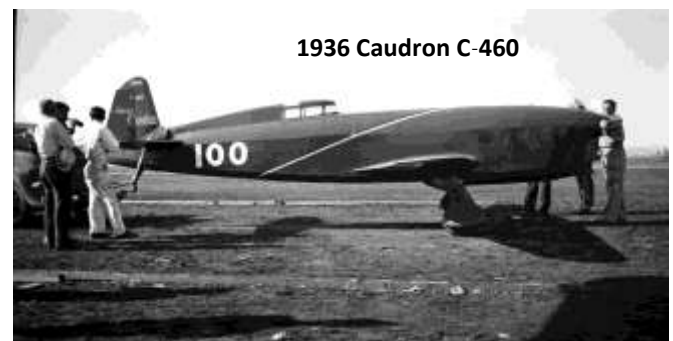
Sadly, during a qualifying flight, a flying wire snapped during a high-G pylon turn. The wings folded and a spinning, out-of-control crash ensued. Lee Miles perished instantly and the Miles and Atwood Special was completely destroyed. Their short but spectacular air racing dominance ended tragically.



A little-known footnote to the crash is that during the fatal qualifying run Lee Miles was making his first-ever flight with a new canopy. Lee had replaced the original, "rounded" Fiberloid canopy with one that came to a point at its nose. The next photo clearly shows this new canopy configuration (Arrow).



The new canopy was similar to the canopy used on the 1936 French Caudron C-460 that Michel Detroyat had flown with record-setting success during the 1936 National Air Races ... perhaps Miles had been inspired to duplicate the canopy design based upon Detroyat's performance.



There is absolutely no indication nor claim that the M&A Special's new canopy in any way caused or contributed to the fatal crash ... the plane and pilot were doomed the instant the flying wire snapped.

If one closely examines the photo of the crash scene , the twisted and broken "pointed" canopy and its frame can be identified (Arrow).

## SEPTEMBER GLORY

By John Jannazo and Mary Ann Jannazo

### Prologue

This story was written over a period of months in the late 1990s and was intended primarily for the Jannazo family. John Carroll University ran an abbreviated version in 1998, and I always thought it would make a blockbuster movie. For the most part, though, the story is a labor of love. As information and connections became available, the story progressed. With the passing of my parents in 2002, it was time to let the story rest. It is an honor, however, to update and present the article to the Society of Air Racing Historians.



**Lt. Anthony R. Jannazo**

## September Glory

*Labor Day weekend now brings thousands of spectators and hundreds of military and civilian aircraft to Cleveland's Burke Lakefront Airport for*



**Tony Jannazo  
F2G-1 "Super Corsair"**

*one of the most exciting air shows in the United States. Aviation fans thrill to the graceful team demonstrations of the world famous Air Force Thunderbirds and the Navy's Blue Angels. For the military purists, there are spectacular air combat demonstrations featuring the lethal power of the F-15 Eagle or the wicked agility of the F/A-18 Hornet. Deep in the footnotes of Cleveland's proud aviation heritage, however, lies another story. A story about a time when long-forgotten flying heroes of the 20th Century step out of creased and faded black-and-white photographs, and for the briefest moments, bring to life their quest for September Glory.*

Cleveland, Ohio, Monday afternoon, September 1, 1947. After a rain-soaked Saturday, crisp, blue, late summer skies returned to the second post-war National Air Races over the city's rural Municipal Airport. For three weeks, 500-hundred feet above the field, the air had shrieked with the sky-ripping thunder of the most powerful collection of fighter aircraft in the history of American aviation. The now classic line-up of the newly created United States Air Force<sup>1</sup> included P-38 Lightnings, P-39 Airacobras, P-40 Warhawks, P-51 Mustangs, P-63 Kingcobras and Navy F2G Corsairs. The pilots had completed their qualifying time trials and waited in the warm, fall sunshine for the grand finale.

The prestigious National Air Races would come to a dramatic close that day with the most crash filled air race in history. A wide-open free-for-all, the Thompson Trophy Race was an airborne chariot race. Ordinary men under extraordinary circumstances would push the 4000 plus horsepower machines to limits only they could define. And on Tuesday, September 2, 1947, the winner's photograph would appear on the front page of major newspapers from New York to Los Angeles.

After a six-year hiatus resulting from World War II, the National Air Races resumed in 1946 with the first appearance of jet engine powered aircraft. In 1947, industrial giants of the day, including Frederick C. Crawford of Thompson Products, Inc. (later TRW) and Malcolm P. Ferguson of Bendix Aviation Corporation, considered the races an opportunity to "inspire further research and development, to attain higher speed with safety through even more dependable power units and more highly efficient craft<sup>2</sup>."

However, Ohio-born Major General Curtis LeMay, a future Air Force Chief of Staff, had a different perspective. Observing the racing field filled with war surplus, he worried about the precipitous drop in United States aircraft production.

The blunt speaking, cigar-chomping LeMay observed: "The aircraft industry is going to fall flat on its face unless we do something...The industry has gone to pot...because you can't keep an industry alive without production."<sup>3</sup>

But the pilots of Cook Cleland's Thompson Trophy team didn't share LeMay's opinion. For them, the race was the Big Event – to be won with the biggest, fastest, most powerful aircraft they could secure – the Goodyear F2G-1 Corsair.

Navy ace Cook Cleland, the Cleveland-based hometown favorite and aviation entrepreneur, entered three surplus Goodyear F2G-1 Corsairs. The experimental F2G-1 was designed as a carrier-based fighter plane, an "engine with wings" to battle Japanese kamikazes during the invasion of Tokyo. Only fourteen prototypes were built and Cleland had

procured three of the behemoths from the Navy Department.<sup>4</sup> Powered by a monster 28-cylinder Pratt and Whitney Wasp Major motor, factory rated at 3,500<sup>5</sup> horsepower with a 4,360 cubic inch displacement, Cleland and his team planned a dramatic 1-2-3 finish.

Cleland, flying Number 74, and Richard Becker, a Navy test pilot flying Number 94, did finish first and second. During the seventh lap of the race, near number 2 pylon, the exhaust stacks cracked in the third Corsair, Number 84, filling the cockpit with carbon monoxide and killing twenty-four old naval aviator Lt. Anthony "Tony" Jannazo, USNR.

As Cleland and Becker taxied in and shut down their planes, news of their teammate's death ended their short-lived victory celebration. At the same time, at home on Cleveland's east side, the tragic news was passed to family and friends who were waiting for Tony's return, and for the wedding reception for my parents – Dominic and Josephine – who were married that morning.

The race was bittersweet for Cleland and Becker, and most of all for our family.

Born ten years later, as I grew up, details of my uncle's life remained a sad mystery. I knew that Tony was one of twelve kids, he was my father's youngest brother, and he was killed racing a Corsair on my parent's wedding day. And I heard a thousand times – he had no business racing airplanes and missing his brother's wedding. He should have skipped the race and come to the church with the rest of the family.

Each Memorial Day, I accompanied my mother to the cemetery to place an American flag at Tony's headstone and to plant fresh geraniums from my father's garden center. And for a minute or two each year, on Memorial day and on the 1<sup>st</sup> of September, I would pause to wonder about the person Tony had been and why he would miss his brother's wedding "to fly in some race."

As I grew older, my boyhood dreams of flying jets turned into an Air Force career in military tactical aviation. Occasionally, I would query my father for details on Tony's aviation career. But for my Dad, it was a story too hard to tell. They were separated by a seven year age difference and my Dad's service in North Africa with the Army's 888<sup>th</sup> Airborne Engineers during World War II. Dad did say that Tony flew conventional F-4U Corsairs late in the Pacific War, that he made one of the Navy's first carrier landings in the experimental, dual jet-propeller powered Ryan FR-1 Fireball, and he was racing in the Thompson to earn tuition for medical school, which he planned to attend in the fall. From other family members, I learned Tony was an accomplished musician who played the

<sup>1</sup> The United States Air Force stood up on July 26, 1947, as a separate and equal military service.

<sup>2</sup> Herbert E. Prentke, 1947 Official Directory and Log, 21<sup>st</sup>. Annual World Premier Air Classic National Air Races. 1947 National Air Races, Cleveland Municipal Airport, August 30, 31, September 1, p. 53.

<sup>3</sup> Roelif Loveland, "Gen. LeMay Warns of U.S. Air Crisis", Cleveland Plain Dealer, 02 Sep 1947, p. 1.

<sup>4</sup> Cleland's justification to the Navy admiral who could authorize his purchase: "Sir, I just want to beat the Air Force in the Thompson Trophy Race!"

<sup>5</sup> Conversations by the author with Cleland and Becker on 27 Feb 1995 set the horsepower on their aircraft after modifications at 4000-4300 horsepower. Cleveland Plain Dealer newspaper reports of the day stated Chance-Vought officials verified Cleland's 4000 horsepower claim. The engine was designed to power heavy bombers and transport production aircraft.

piano and the trumpet. And at the time of his death, after being a rated pilot for eight years, Tony was buying a car, a late model Mercury from Ohio Motors. The \$100 down-payment was returned to the family.

Tony was the only person in our large family who was connected with military aviation and ours was a strange kinship. Over the years, Tony was never far from my thoughts, but he was rarely close enough to fully engage. As my flying career progressed, however, the desire to know more about Tony was an objective that I planned to pursue. Someday.

Occasionally, though, strange events occurred, bringing Tony to the front of my things-to-do list.

On September 1, 1986, I was flying F-106 Delta Darts with Bobby Armour with the 49<sup>th</sup> Fighter Interceptor Squadron at Griffiss AFB, NY. After the sortie, as we filled out our time sheets, I noticed the date and told Bobby about Tony. Several years later, Bobby phoned to say he had spoken to Tony LeVier at the annual Air Force "Gathering of Eagles" symposium. Mr. LeVier, the famous Lockheed test pilot and accomplished P-38 air racer, stated he did remember Tony. In fact, he had seen him go down.

I made a mental note to write Mr. LeVier. Someday.

In 1990, I was browsing in a book store while on temporary flying deployment. I just happened to glance down at a bottom rack and noticed a book with a P-80 Shooting Star on the cover. It was a Bantam Book reprint of Tony LeVier's 1954 autobiography, "Pilot." On page 185, there was a brief description of the 1947 race and LeVier's eyewitness account of Tony's crash. Ironically, I had flown the training derivative of the P-80, the T-33 Lockheed Racer.

Although I still have the book; I never wrote the letter.

During several trips to the National Air and Space Museum, I saw the famous picture of Thompson Trophy winner Cook Cleland in the air races display. Each time I wondered why Cleland was smiling so broadly when his teammate had just been killed.<sup>6</sup> I made a mental note to find him and to ask him what the hell happened that September afternoon. Someday.

Someday came on a Sunday afternoon in October 1994. My sister, Mary Ann Jannazo, a Cleveland writer, was researching the surprise attack on Pearl Harbor. In the days before the Internet, tracking down information and eyewitnesses was slow going. By chance, a friend in Arizona mentioned her uncle was a member of the Pearl Harbor Survivor's Association, and he provided Mary Ann with Cleveland-area contacts. She telephoned each veteran, explaining the project, and recording their accounts. But their stories were well-worn movies, specific details were lost over time, and they were hard pressed to answer her questions. As she came to the last name on the list, she hesitated, wondering whether another call would yield any new

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<sup>6</sup> I later learned he did not know my uncle was killed until later in the day. The famous photo of Cleland in ruffled tie and victory wreath had been taken just after Cleland pulled in to park.

information. But there was something familiar about the telephone number.

So she placed the call.

A gentleman answered, and she introduced herself.

There was a long, silent pause. The gentleman asked her to repeat her name.

"Are you related to Tony Jannazo?"

"He was my uncle."

There was another long, silent pause.

"I'm Dick Becker. I flew with Cook Cleland and Tony in the Thompson Trophy Race."

This time, it was Mary Ann's turn for the long pause.

That afternoon she called me, saying, "Guess who I found?"

Neither of us had heard of Dick Becker and our response was a mixture of anticipation and uncertainty.

The next week Mary Ann met Dick and they spent most of the morning discussing the race. During their conversation, Dick mentioned he still visited Cleland every year, at his home in Pensacola, Florida. By chance, I had been assigned to nearby Elgin Air Force Base, flying F-15 Eagle's with the 33<sup>rd</sup> Fighter Wing. On Monday, 27 February 1995, I spent the evening with Cook Cleland and Dick Becker. It was a meeting the Fates could not have predicted.

After almost fifty years, Tony would become more than a name etched on a cold headstone in the cemetery. He would come to life in words spoken by genuine aviation heroes. The first few minutes, however, were awkward. Cook, Dick and Clara Becker had not talked about the crash in many years. And though they did not mention the strong family resemblance between Tony and myself, there must have been a "Twilight Zone" quality for Cook and the Beckers.

The awkward minutes passed as the conversation turned to airplanes and air racing and the glorious summer of 1947. We talked for more than four hours. Three fighter pilots, two generations, linked by an enigma.

I asked question after question, trying to break loose fifty-year old memories from two aging fighter pilots. What kind of person was Tony? Was he a good pilot? How did he become a member of your team? Who worked on the airplanes? Who paid for the fuel? What advice and from whom did you get it before modifying the planes? What sort of g's did you pull in the pylon turns? Where was Tony in the course when you last saw him?

Looking through Cook's Thompson Trophy scrapbook of yellowed newspaper clippings and black-and-white photographs, it seemed as if a door had opened through the portals of time.

Cook and Dick could still recall precise specifications of the famous Thompson Trophy winning Corsair's motors. They could describe the feeling of being poured from the cockpit after twenty grueling laps and flying 300 miles at 400 feet and 400 knots.

They could not, however, tell me any details about Tony. He had only been with them for several weeks before the race, taking the place of naval aviator Lt. John "Tommy" Thomas whose commanding officer saved his life by canceling the would-be racer's leave at the last moment. Tony entered the race so late, the Air Race program did not include his

photograph or flying resume.

In the hectic days before the race, Cook, Dick and Tony were immersed in their aircraft, each one working with the ground crews to get the highest performance from their machines during the qualifying time trials and the race. Their only conversations were unremarkable pilot small talk. They expected to have plenty of time after their record setting victory to hear the details of each other's race.

By all accounts, the 1947 Thompson Trophy race was one of the most thrilling in aviation history. In the wild, race horse start, Skip Ziegler, flying a P-40, as the alternate thirteenth aircraft in the twelve aircraft field, mistakenly took off without clearance. After six laps, official records showed Tony in the thick of the pack in fifth place, behind Cook, Dick, Jay Demming in the 1946 Thompson Trophy winning (Number 11) P-39 Airacobra, and Paul Penrose in his (Number 37) P-51D Mustang. Tony's plane went down in the seventh lap. Three other aircraft crashed during the race. One pilot walked away and the other two pilots survived.

As the night with Cook and Dick drew to a close, I felt honored to have had the opportunity to meet two remarkable aviators. I could "talk with my hands" about the strategy of winning a closed pylon race, and I left with a true feel for the experience of participating in the heady post-war days of unlimited category air racing. The Thompson Trophy Race was the Super Bowl of air racing, and I had spent four hours with two world champions and aviation Hall of Famers.

That night, I realized the meaning of all those mysterious "Field of Dreams" clues and coincidences left by someone over the past fifteen years. I knew about Tony's death. Now I wanted to learn about his life. My priority became locating primary source documents and anyone with first-hand information about Tony or the race.

The search continued on and off for six more years. Tracing one clue to another, Mary Ann and I located aviator and college friends. Family members provided the dusty box that included his pilot training academic books, an unused oxygen mask, and a note found in Tony's jacket after the race.

"Tony – Was looking for you but family waiting for me. Will drop back later if possible. Good luck, you broken-down microbiologist. Jim Rose"

We never found Jim Rose but believe he was a John Carroll University classmate. A letter written to an address in the 1946 yearbook was answered by his widow, who did not remember her husband speaking of the Air Races or Tony.

At Cleveland's Crawford Auto Museum, thanks to the very helpful curator, Mr. Jeff McQuaade, we saw up-close the monstrous Wasp Major engine that powered Becker's 1947 Number 94 to a second place finish, and Cleland to his first place finish in 1949. As for the planes, we learned an eccentric character owned the only remaining Corsair, where it sat rusting away in a northern Ohio field.

In 2000, we connected with Ralph Hollinger, a squadron mate of Tony's during flight training in Kansas. Ralph recalled the day Tony saved him from drowning and later teaching him to swim. He described Tony as easy going and easy to like, with friends all over the east coast, who he often stayed with during his frequent cross-country navigation training flights.

As a remembrance of their friendship, Ralph presented our family with a dramatic photograph of Tony taken moments before the race. Tony – sitting in the cockpit of Number 84 Corsair, engine turning – the dashing young aviator taxiing out for the flight of his life.

In 2001, we connected with a second squadron mate, Jack Howard. Mary Ann and I met Jack at the 100<sup>th</sup> Bomb Group restaurant across from Cleveland Hopkins Airport. Jack, Ralph and Tony roomed together during preflight training at Iowa University, Iowa City.

The training was grueling, with little time off, the days filled with academics and physical fitness training that included boxing and hand-to-hand combat.

Like Ralph, Jack described Tony as easy going – on the ground. In the air, however, Jack described Tony as "kind of crazy." We heard stories of Tony buzzing a classroom at John Carroll, and making good on the dare to fly under a bridge at Gross Isle, Michigan.

Jack went on to fly PBMs and PBYS, and did not see Tony until they returned to Ohio after the war. Jack tried to make the race that day, but his girlfriend had other plans.

I sensed that Jack and Ralph felt there would always be time. Later.

We followed every lead – from year books, to newspaper articles on microfilm, and names written on photographs. But one source continued to elude us – eyewitnesses.

Mary Ann tracked down his college transcripts and military records. Although his transcripts showed an average student, Tony was accepted at Loyola School of Medicine in Chicago. We were surprised to learn Tony was popular with the ladies. Mary Ann found a photograph of Tony with an attractive blond taken at a nightclub, a blurry photograph of a dark-haired Kansas farm girl, and spoke with a Shaker Heights socialite who remembered dancing with Tony under the stars at Euclid Beach Pavilion.

Since Tony's plane went down in Strongsville, on the outside chance she might find city records, Mary Ann visited the city's Fire Department – and made a crucial discovery. She was given the names of two eyewitnesses to the crash.

Both witnesses were firemen – a retired chief who was called to the crash site, and an active-duty lieutenant who attended the Air Races as a boy. Neither witness described Corsair Number 84 flying erratically as reported in newspaper accounts. Both said, "It looked like he was trying to find a place to land."

Our family – especially our father, had been angered by newspaper reporters and authors who implied that Tony was an inexperienced pilot who could not handle the aircraft and it was just damn lucky that spectators hadn't been killed. Tony learned to fly, Dad said, before he learned to drive.

Given Tony's experience, we believe, fighting off the effects of poisonous exhaust, he made an heroic, last ditch effort to crash into an empty field, avoiding the estimated 250,000 spectators who lined the race course, inside and outside the airport.

After years of chasing a cold trail, and with a lifetime of family sadness for losing Tony in the prime of his life, the lukewarm leads came to a dead end.

Although Tony's personal life remains cloaked in shadows, one fact became crystal clear. Tony lived to fly and he was passionate about flying the biggest, fastest, most powerful aircraft of the era. He rushed through flight training in the shortest possible time. In the summer of 1945, he served in the Pacific and saw World War II come to its atomic close. And when he had the opportunity to join Cook Cleland's 1947 Thompson Trophy Race team, only fate could have kept him from the race and his chance to fly his way into September's glory.

It cost him his life, but hopefully not his legacy.

### Epilogue

As the story fades into the footnotes of National Air Race history, back into the creased and faded photographs and newspaper clippings, a request. If there are any readers who may be able to add to the story in some meaningful way, we continue to be interested in details on Tony's life. Any readers who might have, actual newspaper accounts, unpublished photos or other personal details about Anthony R. Jannazo USNR's aviation career, please contact: Lt Col (ret) John Jannazo, 5500 N. Williamsburg Blvd, Arlington, VA 22207, [Jannazo@aol.com](mailto:Jannazo@aol.com) , 850-974-4459.

Finally – my sincere thanks to my sister, Mary Ann Jannazo. Without her help, collaboration and writing expertise “September Glory” would have remained one more item on my life to-do list, set aside, to work on.—someday.



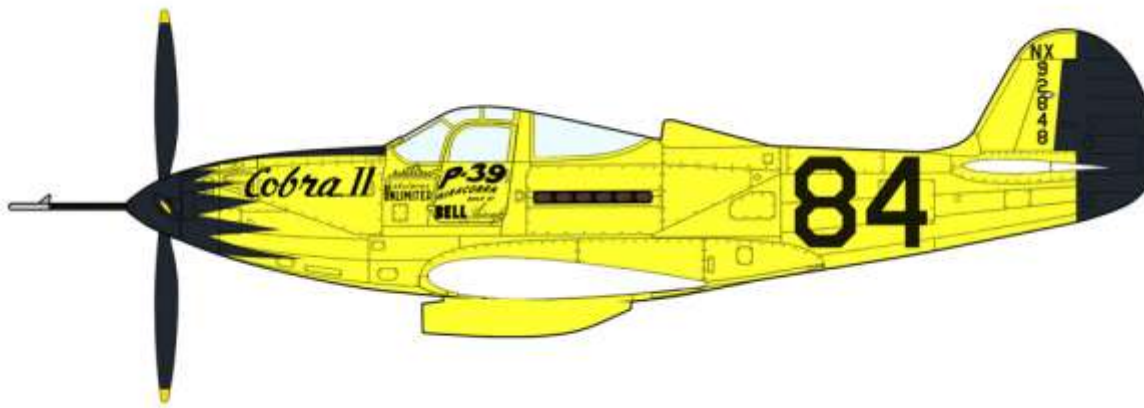
**Dominic and Josephine Jannazo  
Wedding Day  
September 1, 1947**



**Tony Jannazo**



**Model Kit Comparison –  
1/48 Cobra I and II Kits –  
Accurate Miniatures versus Hasegawa**  
By Tim Weinschenker



Dedicated model kits of race planes are usually few and far between. In the last few years builders of 1/48 plastic models have been blessed with quite a few different Unlimited Air Racers. In the case of the post-war Bell P-39Q Cobra I and Cobra II we have actually been favored with two kits from which to choose. A few years ago Accurate Miniatures released their version of Cobra I and Cobra II. The kit included decals for both Cobra I and Cobra II as they appeared at the 1946 Cleveland National Air Races. Also included were some of the necessary components required for an accurate scale-model. To the surprise of many, Hasegawa recently

released their own version of these famous race planes. Both of these kits are currently out of production but can still be obtained at either eBay

or some hobby shops that have stock remaining.

I had purchased a pair of the Accurate Miniatures kits when they first appeared.

Recently I acquired the Hasegawa kit of the Cobra and

wanted to share a comparison of these two kits for those who might be contemplating either.

As many may know, the Accurate Miniatures kit is based on the Eduard 1/48 P-39Q kit. The Accurate Miniatures model includes the additional oil cooler located under the fuselage in the form of a cast resin component. However, they did not add the correct AeroProducts paddle blade propeller, pitot tube, enlarged air intake scoop or fuselage stiffeners. The decal sheet does include the markings for both Cobra I and Cobra II, but did not include the nose scallops which had to be masked and painted by the assembler. The overall



quality of the molded components was very good but enthusiasts were somewhat disappointed that a number of the important details were omitted. It does build into a fine model but the modeler must either scratch build the missing components or purchase the X-S Model's Cobra I or II conversion set to achieve a truly Accurate Miniature!

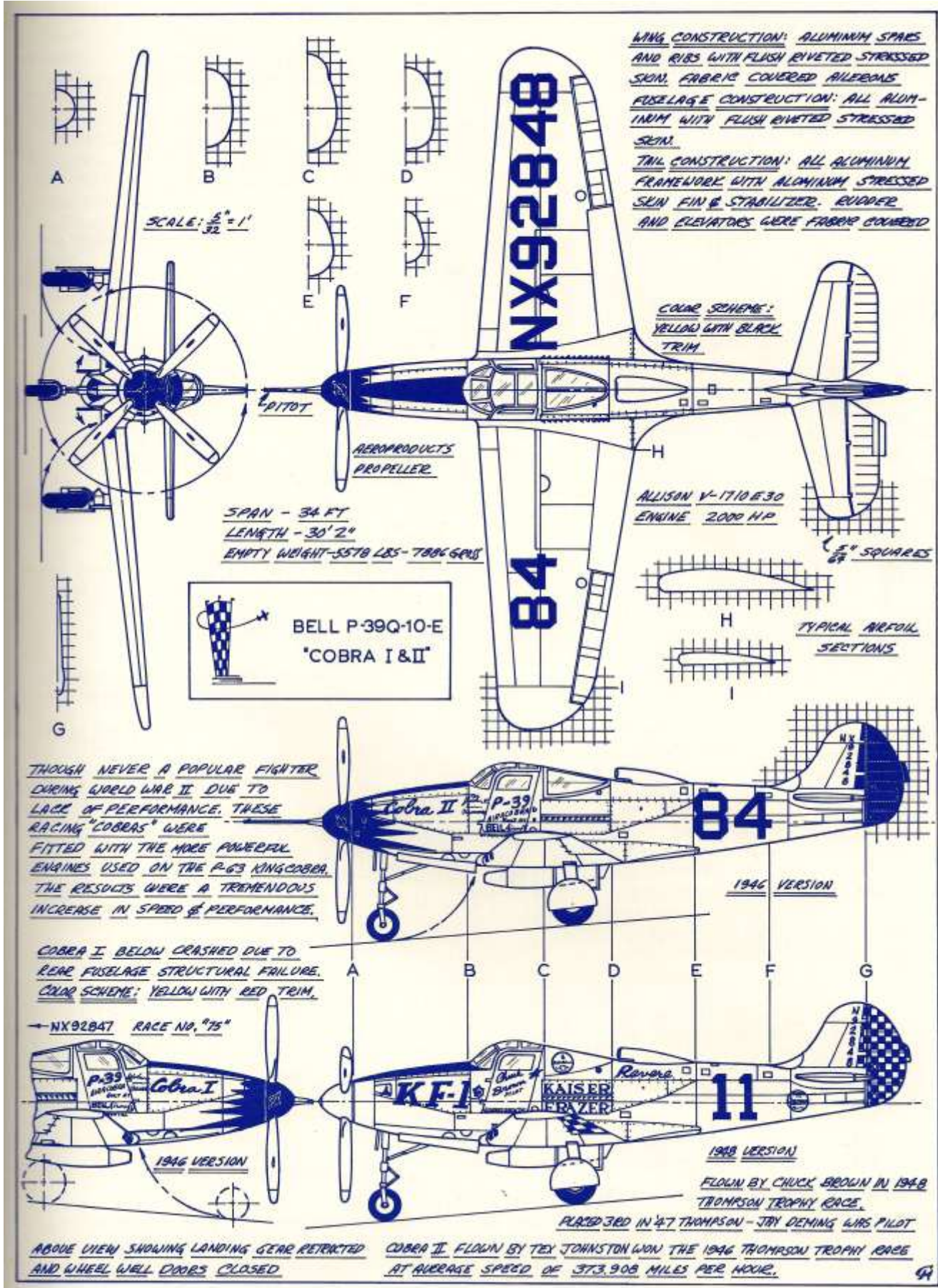
Hasegawa's release of another version of this famous P-39 racer came as a surprise to most model builders. Having purchased numerous copies of both the Hasegawa and Eduard 1/48 scale P-39 kits I was really not sure which one I considered to be more accurate. However, based upon Hasegawa's reputation, I expected that they would do a much better job of supplying all of the special components required to make a truly accurate replica of these famous racers. I was not disappointed. The contents of this kit include the required extra oil cooler, enlarged air intake scoop,

4 blade AeroProducts propeller and special pitot tube. Like the Accurate Miniatures kit, the Hasegawa kit contains decal sheets to build either Cobra I or Cobra II. Unlike the Accurate Miniatures kit, however, Hasegawa's decal sheet does include the nose scallops making the job much easier for the model builder.

We model builders are fortunate to have a choice of kits for these famous racers. In terms of price the winner will most likely be the Accurate Miniatures kit, but in terms of building an accurate replica of these aircraft the hands down winner has to be the Hasegawa kit.







Source: "The National Air Races in 3~Views: 1929-1949", Charles A. Mendenhall, Pylon Publications, Rochester, New York, 1971, p. 49.

## MEMBER CONTRIBUTIONS

Noted Air Racing author, photographer and artist Bob Pauley has graciously consented to share part of his extensive Air Race photo collection in *e--Golden Pylons*. A minimum of 20 photos per issue will be shared. Selections for this issue are a mixture of Early Reno Unlimited racers and Goodyear/Formula One Racers.

All Photos from the Bob Pauley Collection

Jack Lowers built this modified Cassutt Racer. It was later sold to Chuck Andrews and named "Moonshiner". Date of this photo is not known.



The builder of this airplane, Jack Lowers in the cockpit at the Cleveland Air races.

Another aircraft with Cleveland connections is this Number 99 Cassutt. This was built by a group from the Cleveland area in which Jack Dianiska played a major role. Photographed at the 1968 Cleveland races with pilot Sal Lanese standing by the airplane.





Another Ohio based airplane was this Cassutt built by Marion Baker. Photographed at the 1969 Cleveland races with Marion Baker beside it. Named "Boo Ray" it was later sold to Colonel Bob Moeller.

A stunning photo of Jim Miller's original pusher racer. Date and site unknown. See Bob Pauley's 3-view drawing also in this issue.



This modified Cassutt racer was built by Tom Cooney. It is photographed in Cleveland. Year is not known. It was heavily damaged in a crash while flying to the 1971 Cape May Air Races that were held in early June of that year.



Bob has always had a great interest in Goodyear/Formula One class racers. This is the "Denight Special".

A later day shot of the same airplane. This time at the 1968 Fredrick Maryland races with Nick Jones at the controls.



Steve Wittman is photographed by his famous "Bonzo" at the 1970 Fort Lauderdale Air Races.



Cassutt Racer "Mother Holliday" photographed at the 1969 St. Louis Air Races.



Cassutt Racer "Mother Holliday" photographed at the 1969 St. Louis Air Races.



Nick Jones Cassutt Racer "Mother Holliday". This could be at the 1970 Fort Lauderdale Air Races.



Another obscure Formula One racer was this "Midget Moncoupe" entered at the 1969 Fort Lauderdale Air races by Henry Watt.

Marion Baker replaced "Boo Ray" with this new racer named "Aquarius". This photo was taken after it had been through several iterations of modifications.



There was very much a "Hollywood" presence at the early Reno Air Races. Here from left to right are Dale Robertson (Iron Horse), James Franciscus (Dr. Kildaire), Susan Oliver (TV soaps) and Cliff Robertson (633 Squadron). Reno 1966 or 1967.



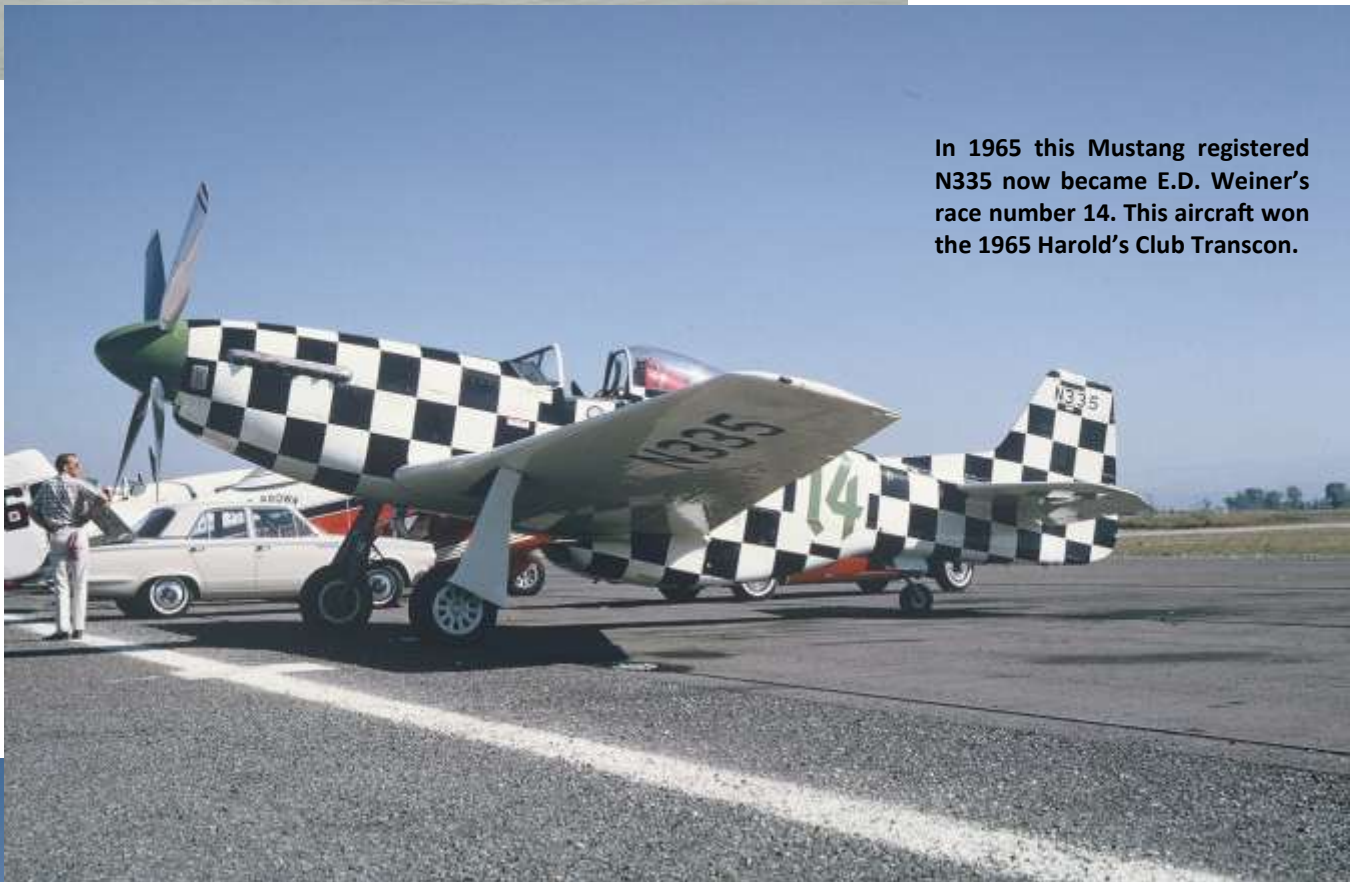
Darryl Greenamyer's Bearcat as it appeared in the 1964 Reno Air Races.



E.D. Weiner's 1964 Mustang as it appeared at the Sky Ranch facility. This later became Number 49.



This beautiful blue Bearcat was owned by Tom Matthews in 1964 and flown by Walt Olhrich. Photographed at Reno Municipal



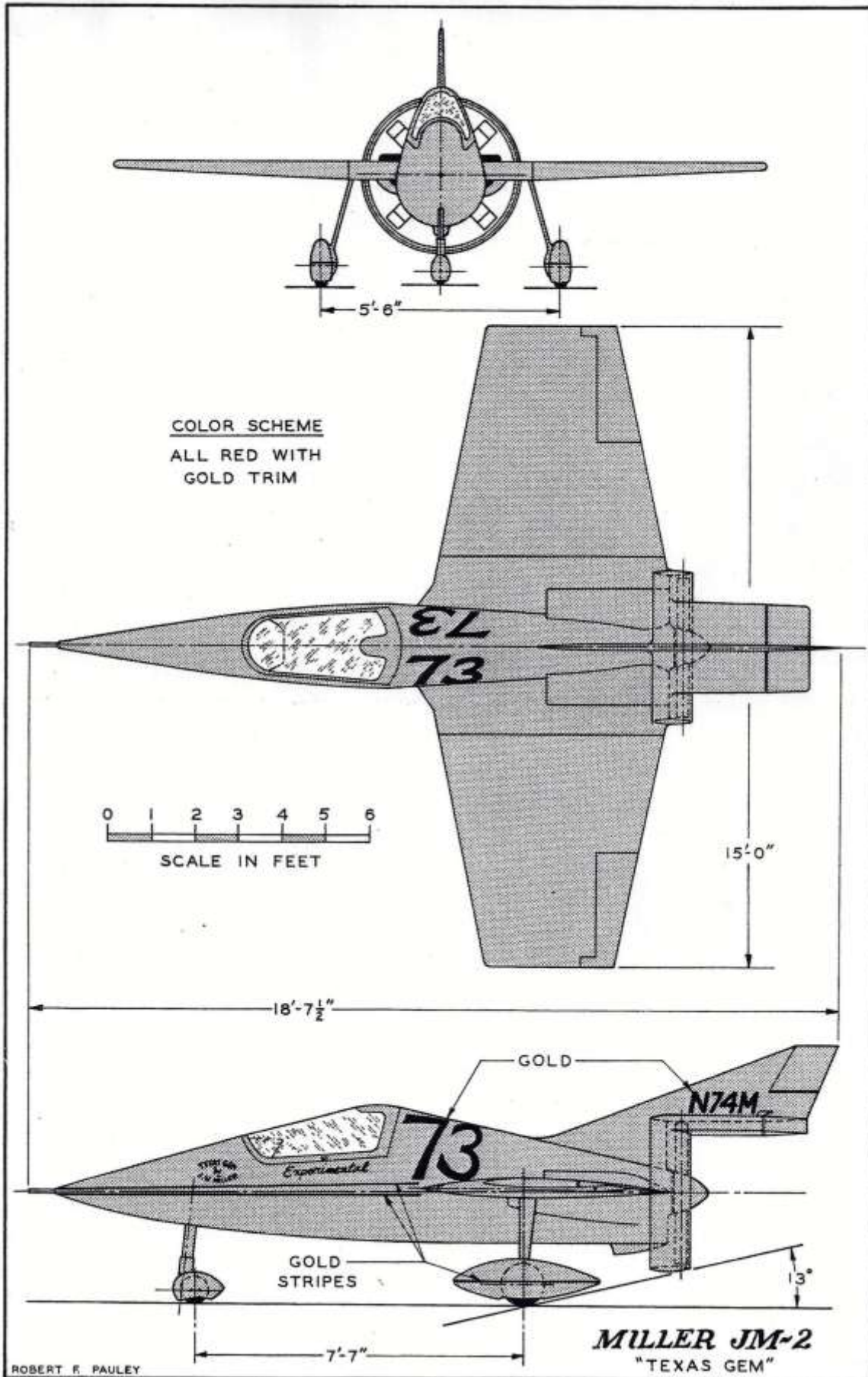
In 1965 this Mustang registered N335 now became E.D. Weiner's race number 14. This aircraft won the 1965 Harold's Club Transcon.



This Mustang was flown in the 1964 Harold's Club event by Jack Shaver. Again, photographed at Reno Municipal.



3-View Drawing by Bob Pauley



## THE HISTORY OF A P-63A RACER RACE NUMBER 55 & 64

By Bill Meixner

When WW II ended the American people wanted to forget the war and return to the many things they enjoyed before the war started. Air racing was a huge favorite and there were many former military pilots and test pilots who now wanted to race.



Howard Lilly  
1946

Howard and a few friends (no doubt also employed at NACA) went to work doing whatever they thought necessary to make the P-63 a competitor. While Lilly qualified for the Thompson Trophy Race, he finished a disappointing ninth place at 328 mph, no match for the highly modified Bell P-39's, P-38 Lightnings, or several P-51's.



Just prior to the 1947 National Air Races Howard was transferred to NACA Muroc flight test unit which later became Edward's Air Force Base in California.

Howard Lilly, trained as a Naval aviator, joined NACA Langley in October 1942 and was transferred to Cleveland's NACA Lewis at Cleveland Airport in early 1943. When the races were again scheduled for September 1946 Lilly decided to enter and purchased a surplus Bell P-63A Kingcobra which was assigned Race No. 64. Lilly secured The Ohio Ball Bearing Company as a sponsor and painted the company's logo prominently on his P-63's nose. He also stenciled his name and "The Pride of Coolidge" on the plane's doors.

In 1947, the P-63's race number was changed from 64 to 55. Lilly was unable to fly in the races, probably due to his assignment at Muroc.

So, at the last minute, William "Bill" Bour (a decorated World War II P-47 pilot from the 56<sup>th</sup>. FG) was asked to fly the plane. The Kingcobra was first entered in the 1947 Tinnerman Race for P-63's. Bour was only able to coax 255 mph out of the P-63 due to the wheels not fully retracting which slowed him. This resulted in a last place finish in a field of five but he still won \$250.



Bour had little time to relax since he was also entered in the next race, the unlimited, free-for-all, Thompson Trophy Race. After refueling, Bill immediately taxied to the start-line; although, realistically he had little chance of keeping up with the pace expected to be set by the much faster planes in the Thompson race. However, the Thompson race took its toll on the race planes as seven of the thirteen starters dropped out or crashed during the race. Bill's P-63 gear fully retracted this time and Bour avoided the mishaps experienced by seven of the other pilots. He finished the race in sixth place ... last in the field of survivors ... at 327 mph which earned him \$1,500!



Kleinknecht offered Russell Hosler the services of all the former crew members for one season. Hosler accepted this offer, and he and the crew commenced work to make the plane race-worthy for 1948.



On May 3, 1948, Howard Lilly was killed when the Douglas D-558-1 Skystreak he was flying crashed on take off. As the aircraft climbed, a component in the engine compressor section failed causing compressor blades to cut through the aircraft's skin. Some pieces cut the main fuel lines and severed the aircraft's control lines as well. The aircraft went into a left yaw and roll, crashing into the Rogers Dry Lakebed and exploding.

Lilly's family asked one of Howard's best friend and NACA engineer Ken Kleinknecht to dispose of the P-63 race airplane. Arrangements were quickly made and the airplane became the property of the Hosler Aircraft Corporation.

Hosler hired local Cleveland pilot Bob Eucker to fly the P-63 Kingcobra in the 1948 races. Ken Kleinknecht would be project engineer. The aircraft went through service checks and was thoroughly inspected. After a complete cleanup it was painted a high gloss black with bright yellow markings except for the white *Hosler Aircraft Corporation* logo on the forward fuselage and the name "Spirit of Tick" on the doors.

The door markings were done on Ken's instructions in honor of Howard Lilly. The crew insisted the spinner be painted yellow to make it more visible when approaching the race grandstands.

Tuesday, August 31<sup>st</sup>., was the first day of qualifying. The airplane had been lightly fueled to save weight. The fuel was split between wing and nose tanks with the wing tanks being used for take off and landing. The nose tank was used only for the full power qualifying laps. Full power fuel consumption could then be measured by dip sticking just the nose tank. The first qualifying lap went well but on the backstretch of lap two

witnesses on the ground saw the airplane suddenly zoom skyward. Soon the crew saw pilot Bob Eucker in the distance making a number of strange maneuvers. He then proceeded to make a very unusual landing, dragging the airplane down its final approach nose high with full flaps and a lot more power than normal. Bob landed successfully and as he taxied to the hangar the crew saw that the right door was missing. Bob had forgotten to switch fuel tanks when he began his timed run and the engine quit due to fuel starvation. When the engine quit Bob pulled up to gain altitude and jettisoned the door, ready to bail out. The sudden change in air pressure when the door was released tore Eucker's helmet and glasses off his head jamming them in the aft of the canopy. With his arms on the door sill and his right leg on the wing, he suddenly realized why the engine quit. Falling back into the seat he moved the fuel selector and the engine immediately came to life. Sitting in the seat was now a very nearsighted pilot without his glasses. The strange maneuvers people observed were Bob making a few practice landings on cloud tops before trying the real thing.

A crew member recovered Bob's helmet and glasses from the back of the cockpit and they then set out to find the P-63's door. Bob drove them to the spot where he felt the door might be and, sure enough, they found the door somewhat bent and the glass broken. A crew member worked all night straightening the door, painting it and installing a new Plexiglas window. After the repairs, no one could tell it had been damaged.

The next day Eucker qualified for the 1948 National Air Races with a speed of 368.485 mph.

The Tinnerman Race was run on Saturday and was a crowd-pleaser from the start. Bob jumped into the lead and traded places several times with William Fairbrother and Bruce Raymond. In lap five, Fairbrother dropped out with propeller problems and Bob led until the home stretch of the last lap. At that point Raymond, who had gained some altitude passed Bob by diving across the finish line, winning by inches. The official race speeds were Raymond 362.245 and Eucker 362.092 mph. Bob won \$1,750 for his second place finish.

On Sunday the Sohio Handicap Trophy Race was run. The entrants were assigned takeoff time based on their qualifying time. By the rules, anyone running the race faster than his qualifying time was disqualified. Bob was assigned the sixth takeoff slot, as his handicap was 137.5 seconds. Seven laps later he was the Sohio race winner with a speed of 320.220 mph including the handicap (his actual speed was 362 mph). With the Sohio Handicap Trophy victory came \$3,150 of prize money. Race No. 55 earned the distinction of becoming the only P-63 to ever win a major open class race.



**1948 Sohio Trophy Race Winner  
Bob Eucker and Wife**

Monday, September 6<sup>th</sup>, the day of the Thompson Trophy Race, will forever be known as "Black Monday". That day only three of the twelve starters finished the race. Two laps into the Thompson Trophy Race Bob began to experience cooling problems and retired in lap six. Race No. 55 and crew had done well with a second place and a win, their best year ever. Despite not being able to finish the Thompson Trophy Race, they earned just under \$5000.

Bob Eucker had an interesting confession to make after the races. The first test flight he made in the airplane was also the first time he had ever flown any airplane bigger and more powerful than the Stearman PT-17 biplane that he used in his banner towing business.

As a World War II Stinson L-5 instructor with about 4500 hours in his log book, one of Bob's dreams was to fly in the National Air Races. He brought to the race 55 group the skill, determination, completeness and a sense of fair play that marked his entire life.

Sadly, Bob Eucker was killed in the crash of a Globe Swift in 1974.



**Race Ready for 1949**



**Abandoned Outside the Airport**

**Abandoned Outside the Airport and Looking Quite Derelict**

The Hosler-Eucker team prepared the P-63 Kingcobra for the 1949 National Air Races, but it was not to be. Persistent landing gear problems forced the plane to withdraw from the competition without flying.

Like so many race planes, P-63 Race No. 55 was abandoned (some sources say that Hosler donated the plane to the Civil Air Patrol and that they abandoned it) at Cleveland Airport. Later the airplane was moved to a lot opposite the entrance to the Airport where it remained until the mid-1950's. The Kingcobra served as a reminder that many planes such as this once made history at the Cleveland Airport.



Kingcobra P-63A - Race No. 64 - 1946



## RESTORATION - INFORMATION SOUGHT

### P-51D Mustang N13Y

SARH members Bob Taylor from OH and Pat Sidley from CT report that the New England Air Museum (NEAM) in Windsor Locks, CT has taken P-51 N13Y out of storage with plans to restore the aircraft as it was flown by Anson Johnson in 1949.

The following photos were taken by Pat in October and November at NEAM after the aircraft had been brought out of storage by museum staff.

The work is currently underway. The plan is to approach the restoration as a series of sub-assemblies and then bring everything together at the end. To facilitate the work, the crew has built a jig for the fuselage and mounted it. The left wing has also been mounted on a jig to give the crew easier access. There has also been work started on the general repair and clean up of the stock parts such as the cockpit canopy, the engine mount has been removed to make it a bit easier to move the fuselage around the shop. However, it looks like a big part of the restoration will be in the wings, which isn't surprising since that was where most of the modifications were made.

The NEAM is seeking detailed documentation:

1. The radiator/oil cooler installations in the wings. They note that it is pretty easy to understand the airflow through the wing structure, but the fluid piping is another story.
2. Photos of the cockpit as N13Y flew (ideally in 1949 as that's the restoration target) but any cockpit shots would be a start.
3. Good quality color photos of the exterior markings, particularly those showing small details.

If you can help the restoration team with any of these items, contact Tim Weinschenker ([pylonguy2003@yahoo.com](mailto:pylonguy2003@yahoo.com)) or Joe Stamm ([jastamm@gmail.com](mailto:jastamm@gmail.com)), and they will put you in touch with the proper people at the museum.

Pat has promised to send us additional photos as the restoration progresses.

The museum's website ( [www.neam.org](http://www.neam.org) ) contains additional information on the N13Y restoration and all of the aircraft in their collection which includes the Marcoux-Bromberg R-3 and a Gee Bee R-1 replica.



N13 Y Fuselage



N13 Y Fuselage



N13Y Left Wing in Jig



**N13Y Radiator/Oil Cooling Tubing in Wings**



**N13Y Radiator/Oil Cooling Tubing in Wings**



**N13Y Radiator/Oil Cooling Tubing in Wings**

## **History / Previous Identities of N13Y**

**1946** NX69406 (Woody Edmondson)  
Race #42 - "City of Lynchburg VA"  
Thompson Trophy Race: 7th at 354 mph

**1946** Woody Edmondson N13Y

**1946** DiPonti Aviation

**1947** Anson Johnson  
Race #45  
Racing modifications  
Kendall Trophy Race: Out lap 5 of 7

**1948** N13Y Anson Johnson  
Thompson Trophy Race: 1st at 383 mph

**1949** Anson Johnson  
Tinnerman Trophy Race: Did not start  
Thompson Trophy Race: Out at lap 9

**1952** Robert Bean N502

**1962** John Juneau / George Nesmith

**1962** John Juneau

**1962** Robert D'Orsay

**1963** Frank Lloyd

**1965** Walter Ohlrich

**1966** Richard Vartanian N913Y

**1972** Leonard Tanner

**1972** Bradley Air Museum N13Y  
Restoration - Work slowly progressing

**2012** New England Air Museum  
Renewed restoration project launched



SEPTEMBER 15, 1937



# BEECHCRAFTS ARE WINNERS

In competitive events at air meets, and in the daily grind of every day service, Beechcrafts shine by comparison. The racing speeds of standard commercial Beechcrafts serve to reduce operating costs and travel time for their owners. Beechcrafts win business for the many commercial concerns that use them,

and win the high regard of owners throughout the world, for their reliability and ruggedness.

Some of Beechcraft's trophies, including the *Bendix award of 1936*, are pictured below.

Inquiries for details of these outstanding airplanes are invited.

## BEECH AIRCRAFT CORPORATION

6407 EAST CENTRAL

WICHITA  
KANSAS



Beechcraft won the Frank E. Phillips Trophy awarded at St. Louis International Aerobatic Competition in the Speed Race for Unlimited Commercial airplanes, 1937



The Frank E. Phillips Trophy won by Beechcraft in the Unlimited A. T. C. Race at Denver, 1936



The Colonel E. H. R. Green Trophy won by Beechcraft at the Miami All-American Air Races, December 10-12, 1936



Winning this Glenn H. Curtiss Perpetual Trophy at Miami, December, 1936 again emphasizes Beechcraft superiority



The Bendix Trophy won by Louise Thaden and Beechcraft in the 1936 Free-for-All Transcontinental Speed Race, New York to Los Angeles, 14 hours and 55 minutes

## P-39Q COBRA I and COBRA II NIAGARA AEROSPACE MUSEUM

By Joe Stamm

The following pictures of "Cobra I and II" were generously made available to the Society through the cooperation of Paul Faltyn, Head Curator of the Niagara Aerospace Museum in Niagara Falls, NY. The Museum has a large collection of Bell Aircraft airplanes, helicopters and aviation materials, and also inherited the Bell Aircraft photo and film archives from which these pictures come.

The Museum's collection includes a number of unique and rare aviation artifacts. The "crown jewel" of the collection is the WW II Soviet Bell P-39 Airacobra "Miss Lend-Lease" which was recovered from a lake above the Arctic Circle in Russia. Other interesting Bell aircraft are Larry Bell's personal, commercially licensed, Bell O-47 helicopter (definitely not your standard Korean War MASH unit O-47), the Bell X-22A V/STOL Research Airplane, and the Bell Rocket Belt that was featured in a James Bond movie...plus lots more Bell and other aircraft and artifacts!

The Museum just announced that they will be relocating to a larger, more readily-accessible facility located in the former Airport Terminal at the Niagara Falls International Airport. The grand opening is scheduled for May 2013.

Planned for the grand opening is a Bell Air Race Team display. The Museum has a piece of "Cobra I" that washed ashore from the 1946 crash into Lake Ontario.



A piece of "Cobra I" that washed ashore

### Our Assistance Sought

The Museum is seeking other display materials related to "Cobra I and II", Slick Goodlin, Tex Johnston, Jack Woolams, etc. Photos, air race programs, plane models and other memorabilia are needed for the display. If any Society members have items that they are willing to loan or donate to the Museum for the display, please contact me ([jastamm@gmail.com](mailto:jastamm@gmail.com)), and I will connect you with the Museum's Head Curator, Paul Faltyn.

Check out the Niagara Aerospace Museum at [www.wnyaerospace.org](http://www.wnyaerospace.org) and then plan a summer 2013 visit.

All of the following photographs are from the  
Bell Aircraft Archives  
and provided by  
Paul Faltyn and the Niagara Aerospace Museum



Alvin "Tex" Johnston  
Cobra II



Jack Woolams  
Cobra I



Cobra I and II at the Bell Aircraft Factory - 1946





Jack Woolams  
Cobra I



Jack Woolams  
and Family



Jack Woolams

Jack Woolams with  
Bell Executives and Military Personnel





Tex Johnston  
Cobra II  
1946



Cleveland, Ohio



Cleveland, Ohio





Tex Johnston & Cobra II  
with the Thompson and  
Allegheny Ludlum Trophies  
1946



Tex Johnston & Cobra II  
with the Thompson and  
Allegheny Ludlum Trophies  
1946





First and foremost  
Tex was a test pilot

Bell P-63



Bell P-59



Bell X-1

## PRESIDENTIAL SELECTIONS

By Tim Weinschenker

As promised, I continue with a selection of 20 photos from my archives of Air Racing History. Again, there is no particular theme to the selections. If anybody has a particular aircraft or racing event they would like to see featured, please let me know and I will try to accommodate your request.

Starting again in the pre-war era, I have always been fascinated by the Clayton Folkerts SK-2, SK-3 and SK-4. While with the late Ollie Aldrich and Pappy Weaver for our own mini air race symposium at Ollie's home in Houston, Texas, I mentioned this to Pappy. About a week after I got home, a package arrived for me that contained all of Pappy's 4" x 5" negatives of these particular airplanes. I've included some of my favorites.

Thanks Pappy and Ollie! I know you are both watching over us!



Another fine left-hand, side view of the SK-2



This frontal picture shows just how small the SK-2 really was. Notice the camber angle on the main wheels.



Harold Neumann poses for the camera in this fine photo study of the Folkerts SK-2 "Toots".



A fine half-front shot of the left-hand side of the 1937 Thompson winning Folkerts SK-3 flown by Rudy Kling.

1937 Thompson Trophy winner being congratulated on his victory. I'm not sure who is with Rudy. Do any of you readers know who this is?



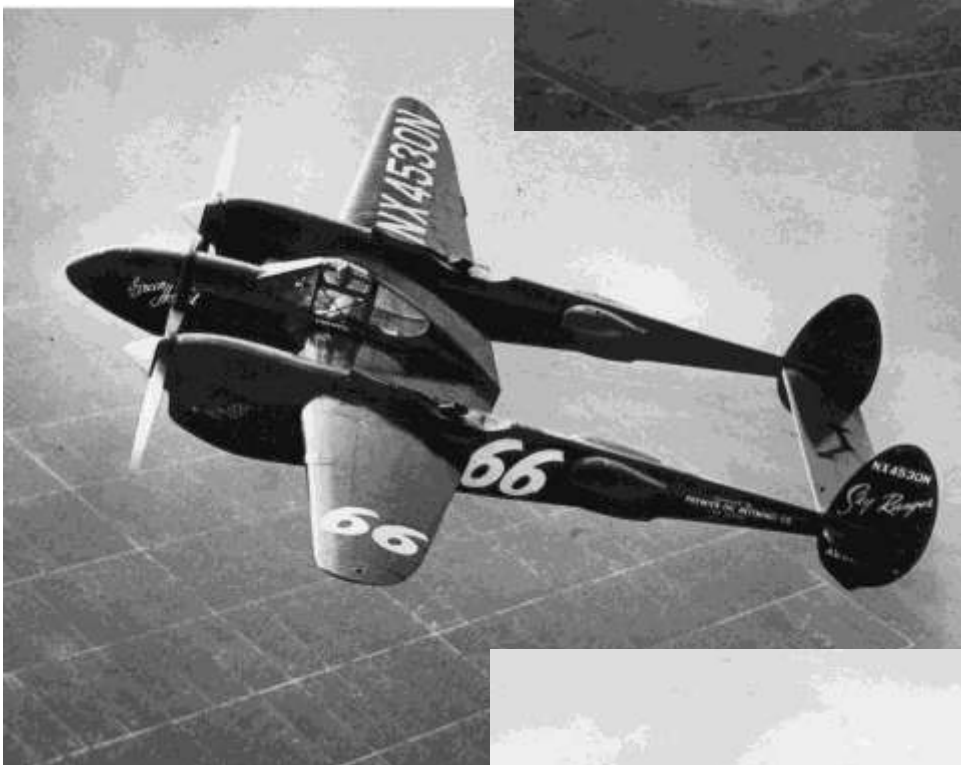
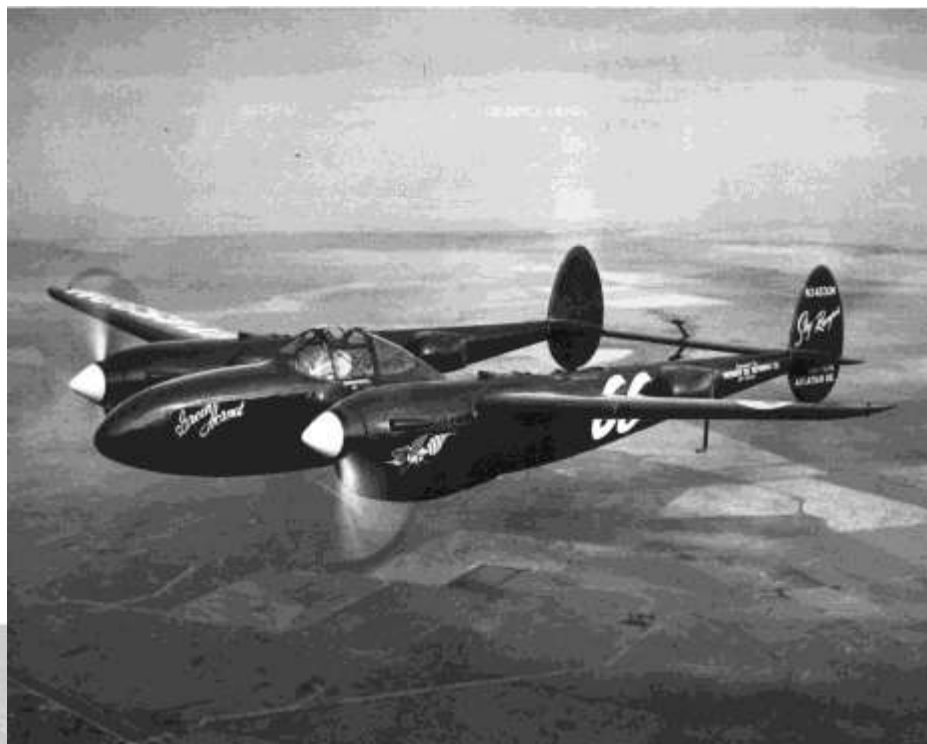
A companion photo of the SK-3 taken from the half-left, rear angle. To me, the SK-2 and SK-3 really represent the Golden Era of Air Racing.

Switching gears now to the Post war Cleveland era, these next photos are courtesy of the late Ollie Aldrich. Those who knew Ollie understand that he was more than obsessed with the “Beguine”, and the other aircraft of J.D. Reed.

In pursuit of this obsession, Ollie sought out and collected every photo of Reed’s aircraft, as well as the pilots that flew them. In this case, it was the P-38, “Green Hornet”, and the pilot Ivis Hill.

**Below**

This fine in-flight photo of “Green Hornet” was, no doubt, taken by Bailey Studios of Houston, Texas. Modelers will like this photo since you can clearly see the removal of the turbo superchargers.



**Above**  
A Another excellent in-flight photo of “Green Hornet”.

This beautiful ground shot of the airplane clearly shows the most of the markings on this handsome, green racer.





A nice photo of “Green Hornet” pilot Ivis Hill.

Now let’s move on to the Reno era. I have included some color photos to prove that I have used some color film. We’re going to start; however, with a slide that was sent to me by William T. Larkins.



Before “Dago Red” and “Strega”, Bill Destefani started crewing with a Mustang named “Mangia Pane”. This photo was taken by William T. Larkins when the P-51 was being flown by Ron Hevle.

Below

1987 was the year that "Strega" upset the Unlimited apple cart at Reno, and "Tiger" Destefani enjoyed every moment of it! He is shown relaxing in the "Strega" pit area the day after winning the Gold.



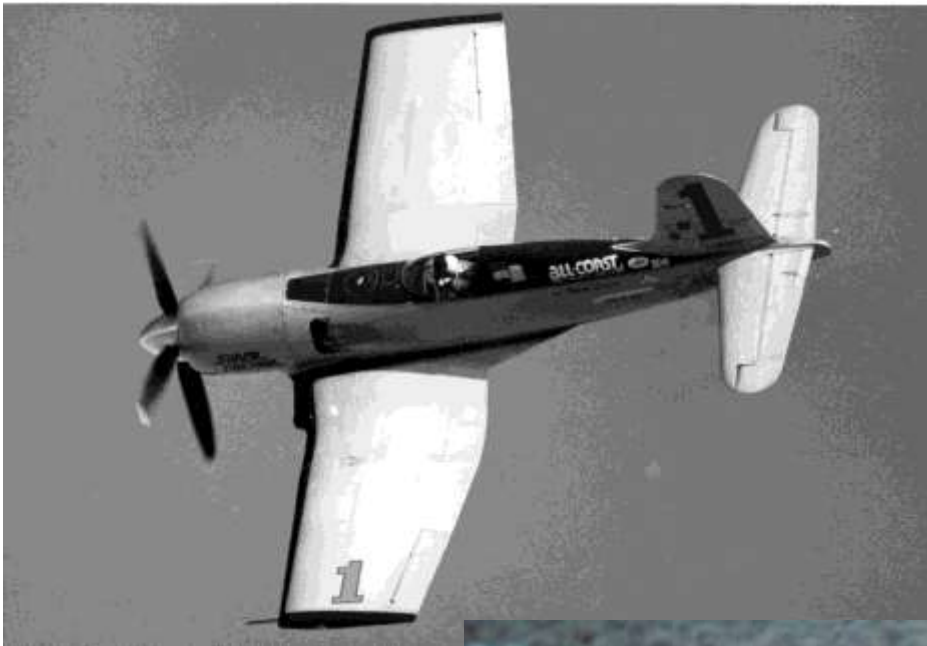
Above

A common sight in the Reno pits was the sign painter practicing his craft on many a racer. In this case, it is the modified Yak 11, Maniyak. The racer arrived at Reno in 1987 painted red with no graphics or markings. All of the markings were added as the race week progressed.



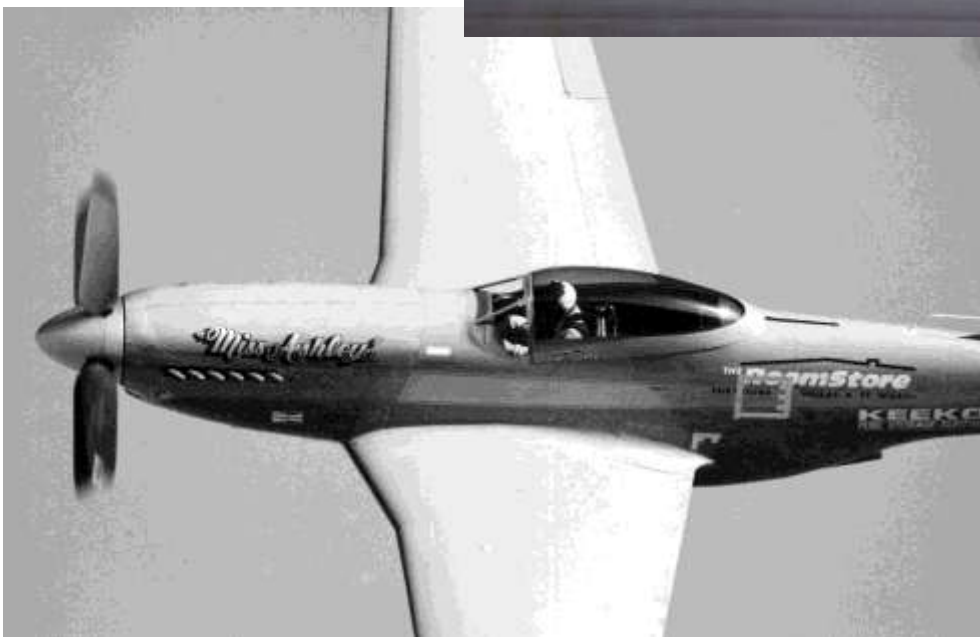
James Harris at the start of a Formula One race in his modified Cassutt racer.





A fine shot of the Super Corsair going around Pylon 2 during the 1992 Reno Unlimited Final.

Don Whittington's Griffon powered version of "Precious Metal" as it appeared at the 1988 Reno Air Races.

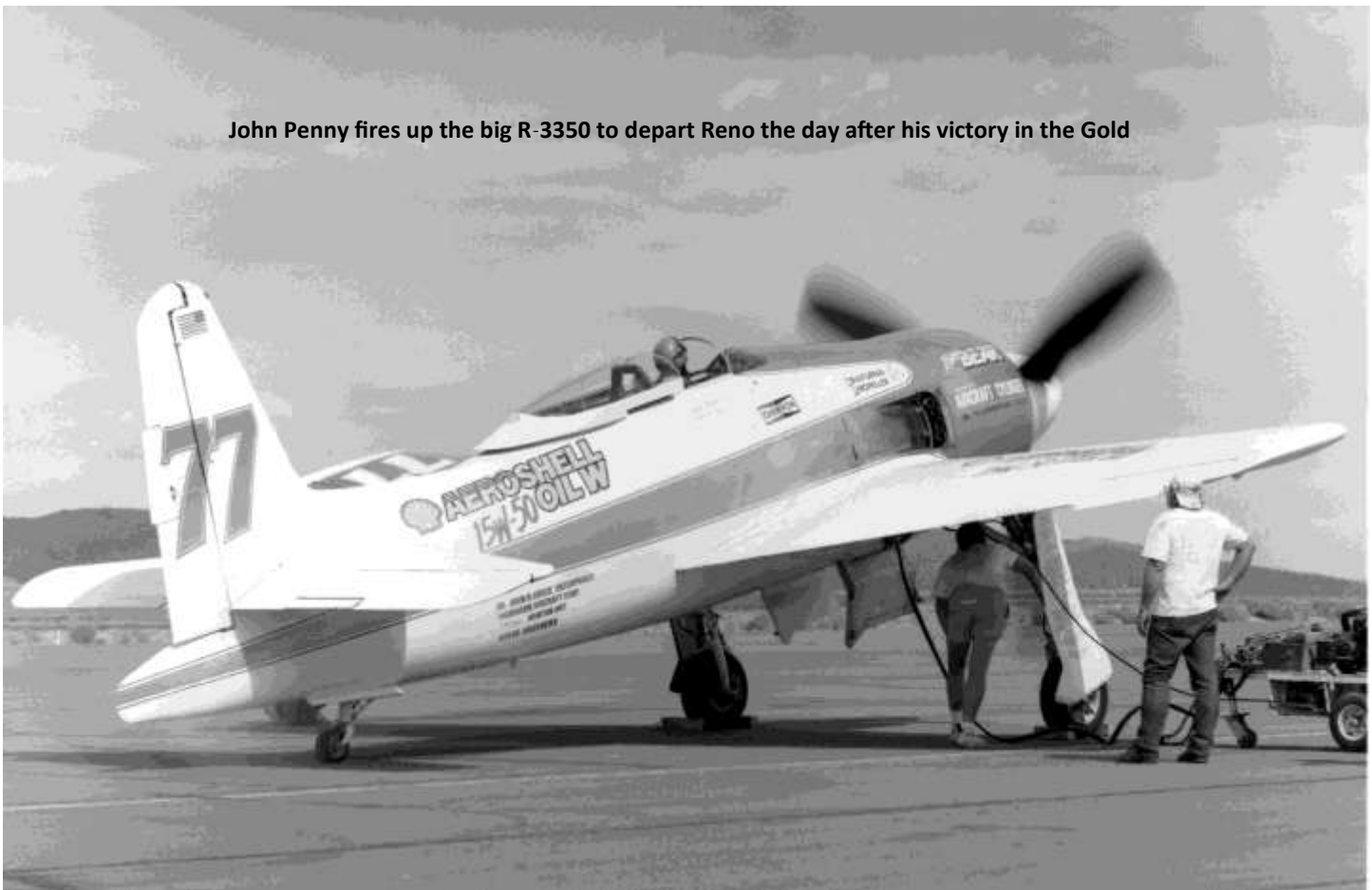


You can look right into the cockpit of the late Gary Levitz' "Miss Ashley" as it rounds Pylon 2 in the 1992 Reno Unlimited Final.

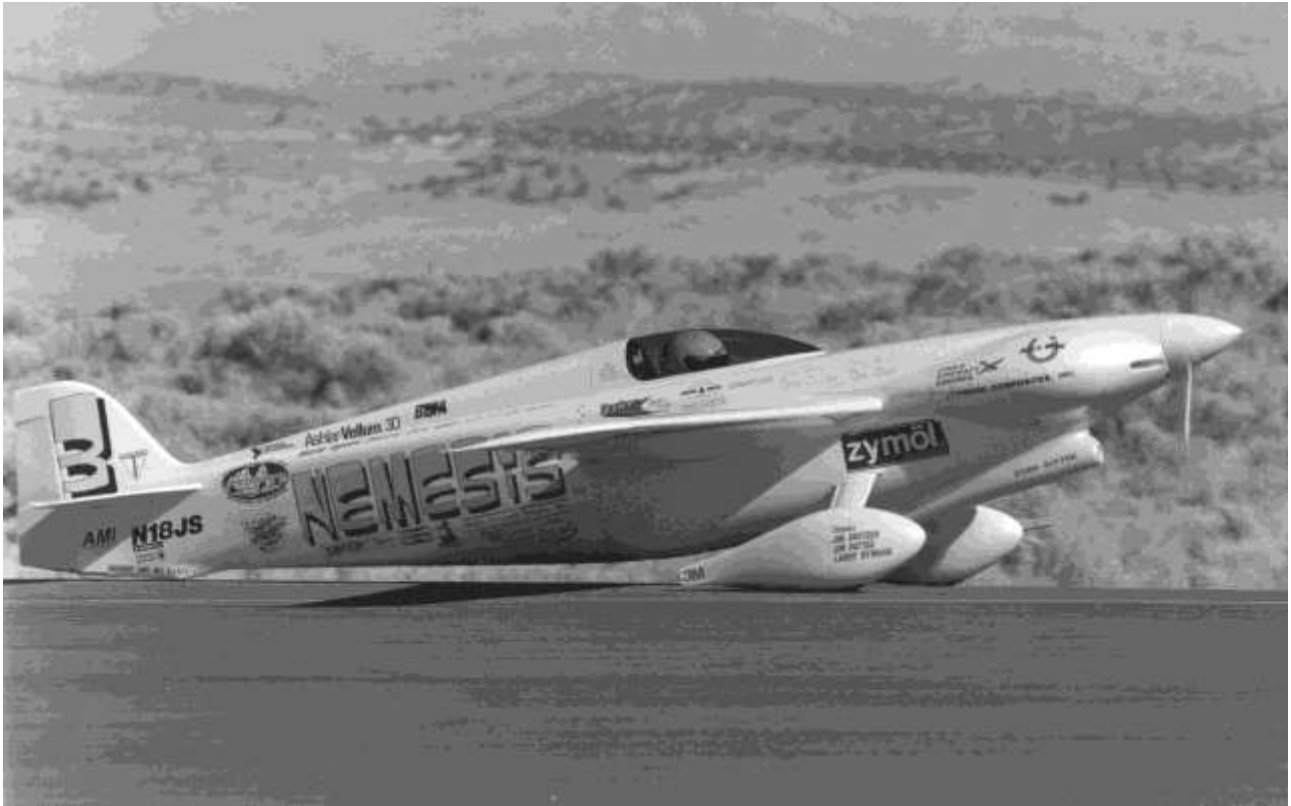
1992 was the last year Ollie Aldrich was able to attend Reno. When he saw that Lyle Shelton had painted "Rare Bear" green, he predicted he would win the Gold Race...and, he was right!



John Penny fires up the big R-3350 to depart Reno the day after his victory in the Gold







**Jon Sharp prepares to take off for a qualifying run in his Formula One racer, "Nemesis".**

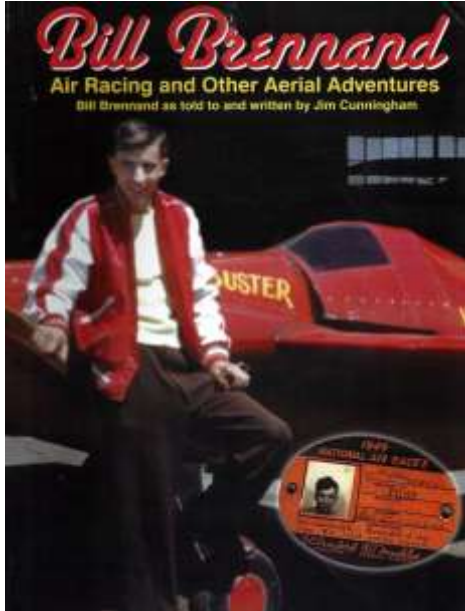


**Last, but not least, a picture taken by father, Maurice Weinschenker, at the 1971 Cape May Races. On Saturday, Dick Foote is seen taxiing his P-51 Mustang out for the first Unlimited heat at the 1971 races in Cape May, New Jersey.**

## BOOK REVIEW

### “Bill Brennand - Air Racing and Other Aerial Adventures”

By Bill Brennand as told to and written by Jim Cunningham



Oshkosh, Wisconsin native, Bill Brennand, and author Jim Cunningham have collaborated on a book of Brennand's aviation experiences, “Bill Brennand Air Racing and Other Aerial Adventures”, published by Airship Publishing

Brennand, a farm boy born in 1924, started flying in 1943 while working for air race legend and Oshkosh Airport manager, Steve Wittman. Referring to this period, Brennand said, “You've got to remember, in the 1940s, my job description was: sweep the hangar floor, fly the students, work on airplanes and win the National Air Races.”

Brennand won the first race he ever flew, the 1947 Cleveland National Air Race, in a plane named *Buster* that was built from the damaged *Chief Oshkosh*, one of Wittman's pre-war race planes that had crashed in 1938. Brennand went on to win numerous races over the years flying *Buster* and later, *Little Monster*, a plane designed and built by Curtis Pitts of Pitts Special bi-plane fame. He retired from racing in 1952, after having flown in every major air-racing event held in the U.S. during that period. Brennand won 30 of the 60 races in which he competed.

Brennand also flew *Buster* in aerobatic air shows performing along with Wittman and the renowned aerobatic pilot, Betty Skelton Erde. *Buster* is currently on display in the Smithsonian Air and Space Museum's Golden Age of Flight exhibition at the National Mall building.

In 1949, Brennand purchased property on Lake Winnebago just south of Oshkosh. With the help of

long-time friend, Al Ziebel and others, he made improvements to the property including provisions to store a few seaplanes. When the Experimental Aircraft Association moved its convention to Oshkosh in 1970, members began to fly into Brennand's seaplane base. Brennand donated the use of the seaplane base to EAA and soon it became an extension of the convention. It is the busiest seaplane base in the U.S. during convention week and receives thousands of visitors who arrive by bus from the convention grounds.

Between 1968 and 1995, Brennand built an airport 10 miles north of Oshkosh. The airport offered flight training, aircraft sales, aircraft maintenance and restorations of vintage aircraft. Brennand's most significant restoration was a “basket case” 1931 Stinson Tri-Motor that he and two friends purchased in 1970. The plane was trucked from Fairbanks, AK via the ALCAN Highway and restored to airworthy condition over a period of 10 years. The Stinson Tri-Motor was operated for 15 years allowing thousands of passengers to experience airline transportation as it was in the 1930s. The venerable aircraft was awarded Grand Champion Antique at the annual Sun 'n Fun fly-in at Lakeland, FL and Reserve Grand Champion Antique at the EAA convention in Oshkosh.

Brennand's flights have also taken him to some of the most remote places on the continent: from mountain and jungle airstrips of Mexico and Central America to far north Ontario and Manitoba, Canada, where he visited remote Indian villages by floatplane. Join him as he tells the story of his life as an air race pilot and other aerial adventures.

The book is available from Airship International Press (309-827-8039) and on-line at: [www.gyzep.com](http://www.gyzep.com).

You can obtain a signed copy of the book by sending a check to Bill Brennand, 1772 Orchard Court, Oshkosh, WI 54902. Pricing is \$24.95 for softcover, \$29.95 for hardcover plus \$4 shipping and handling.



## RACE PLANE PROFILE No. 2

### SKYLANES UNLIMITED "COBRA I" and "COBRA II"

By Tim Weinschenker

The resumption of air racing at Cleveland on Labor Day 1946 was one of the many things that was to occur to try to return the United States to normalcy after the end of World War II. Like so many other things, air racing at Cleveland after the war could never really be the same. Prior to World War II, the Thompson Trophy race was dominated by homebuilt racers that captured the imagination of the public. Each pre-war plane was a reflection of the builder's eye for speed and whatever else it took to win the coveted Thompson Trophy. The speed needed to win the pre-war Thompson was less than 300 mph, and the airplanes of that era were not on the cutting edge of technology. World War II saw huge advances in aviation technology, and this would be very evident when racing resumed at Cleveland in 1946.

The first problem for the post-war race organizers was to define the racing classes. The advent of jet technology resulted in speeds far higher than ever before seen. The public was anxious to see these new aircraft in action, and Cleveland would be the perfect place to display the jet aircraft. The problem was that the astronomical speed was accompanied by astronomical costs that only the military could afford. None of the new jets were in civilian hands so any program with these planes would be courtesy of the military. It was agreed that an all-military race would be held for the jet aircraft. The popular Thompson Trophy Race, held on Labor Day, would still be the traditional closing event of the meet. In all likelihood, the general public was more interested in the display of the new jet technology than the traditional Thompson Trophy.

The post-war Thompson Trophy would take on a much different character than the 1939 event, the last race conducted before World War II. Gone were the homebuilt racers of the 1930's. The availability of cheap, surplus World War II fighters made these ex-military warbirds the plane of choice for both the cross-country Bendix Trophy and the closed-course Thompson Trophy. To some, the post-war races lacked "romantic appeal" due to the absence of the 1930's "Golden Age" racers. Most

post-war race fans did not have a true appreciation for the work and modifications that went into making a the top post-war contender. In reality, just like the 1930's homebuilt racers, the 1940's entries reflected the builder's eye for the speed and endurance that it would take to win the coveted Thompson Trophy.

Two of the entries for the 1946 running of the Thompson Trophy that stood out were the P-39 Airacobras entered by Skylanes Unlimited. Skylanes Unlimited was a company formed by Bell test pilots: Jack Woolams, Tex Johnston, and Chalmers "Slick" Goodlin. Their express purpose was to build two highly-modified P-39 Airacobras for the 1946 Thompson Trophy and to come away victorious.



Jack Woolams

Photo credit - Bell Aircraft

Though not publicly acknowledged, in fact, these were "Bell factory entries" as many of the key technical personnel working on the Skylanes project were Bell Aircraft employees. In his autobiography, Tex Johnston gives an excellent description of the care and thought that the Bell aircraft engineers put into the modifications performed on the P-39's prior to their arrival in Cleveland. The general public did not generally understand what a technical challenge the Thompson Trophy race was in comparison to the contemporary races held in Reno, Nevada. The 300 mile length of the early

Thompson races meant that the planes would have to endure approximately 45 minutes of high power settings. More accurately stated, this meant that the winner would most likely be the plane that was capable of staying at those high power settings for the full 45 minutes. Also, the aircraft needed to carry not only sufficient quantities of fuel for the grueling race but also large quantities of ADI fluid. In addition, the density altitude at Cleveland posed a challenge in the selection of the correct supercharger. This was especially true in the racers that employed Allison and Rolls-Royce Merlin engines.



**Cobra I at the 1946 Cleveland Air Races**

**Photo credit - Harold G. Martin**



**Alvin "Tex" Johnston with his wife in the Victory Circle after winning the 1946 Thompson Trophy**

**Photo credit - Bell Aircraft**

Skylane's "Cobra I" and "Cobra II" would not only have the benefit of top notch engineering from both Bell Aircraft and Allison Engineering but also would have the aircraft completed in time for a systematic flight test program prior to arrival in Cleveland. Another aspect of the post-war Unlimited racers that is often overlooked is the access that the racers had to factory- new engine and airframe components. This edge may have been overlooked by many, but not by more astute observers such as Reno crew chief Bill Kerchenfaut. Kerch has many times stated that access to new parts, especially

engine parts, was a huge advantage the post-war Cleveland racers had over the current day Reno competitors.

For the 300 mile Thompson grind, the Bell engineers felt that the basic P-39 airframe was plenty fast in stock configuration and, therefore, did not recommend any major airframe modifications. Internal modifications were made to the landing gear retraction system to speed up the cycle time for gear retraction to only 4 seconds. This was accomplished by increasing the power of the landing gear retraction motors. That change made it necessary to strengthen the retraction torque tubes to handle the increased power from the retraction motors. Mechanical uplocks would also be employed to ensure that the main gear did not deploy slightly, or droop, during high speed flight resulting in increased drag. Manual lowering of the gear had to be employed since the motor-driven, rapid-lowering, cycle time would have caused adverse chatter during the lowering of the gear. This gear retract modification was to greatly benefit "Cobra II" during the racehorse start employed for the Thompson Trophy. The engineers also decided to remove all of the pilot operated trim tabs and replace these with fixed position tabs that would be ground adjusted during the flight test program. Of course, all armor plating and excess equipment was removed from the planes to reduce weight.

The Allison Engineering staff calculated that it would be necessary to increase the diameter of the supercharger, install undersized pistons, and increase the engine maximum rpm from 3000 to 3200. It would also be beneficial to enlarge the air intake for the carburetor. The result would be an increase in engine manifold pressure from 75" to 86". A larger 4-blade propeller would be required to convert all this added horsepower to thrust. The larger P-63 propeller filled this job quite well. It was also calculated that ADI would have to be injected at all manifold pressures higher than 55". Engineers calculated that 85 gallons of ADI would be required for the Thompson race; so, Bell engineers designed and installed the ADI tank in the forward gun bay area of the airplane. An increased capacity for oil cooling would also be needed. This was handled by installing a P-40 oil cooler assembly underneath the fuselage in a custom-made housing. Allison engineers stated that the manifold pressure could be increased to 106" by other supercharger modifications but recommended against doing this for the 1946 Thompson. They had reasoned that P-39 would easily defeat the other potential entries in this configuration while not overstressing the engine. Goodyear was retained to manufacture special, light-weight fuel cells that would be able to handle high g-loading and also provide a ten percent increase in fuel capacity. The movement of the pitot tube airspeed sensor from the wing to the front of the prop spinner completed the majority of modifications made to the Skylane airplanes. They both were now ready for flight testing.

Flight testing revealed that the airplanes would be competitive, but also revealed several potential problems that could adversely affect performance in Cleveland. The first problem



uncovered was considerable engine oil discharge from the oil tank breather vent at high power settings. Allison reps determined this problem to be due to blow-by created when the undersized pistons caused severe aeration of the engine oil. Installation of two oil-air separators in the engine-to-oil tank return line helped solve this problem. A more serious issue was the complete loss of the left elevator during a high-speed test flight. Excessive elevator trim caused the fabric covering on the elevator to balloon and then fail. It was decided to remove the fabric covering of the elevator, rudder and ailerons and replace the fabric with metal sheeting. This incident also reinforced the decision to remove the pilot-adjustable trim tabs and replace them with fixed tabs. These trim tabs were

tested and adjusted during flight testing. According to the late Tex Johnston, the airplane was a joy to fly. Painted in dramatic paint schemes the red and black "Cobra I" to be piloted by Jack Woolams, and the yellow and black "Cobra II" to be piloted by Tex Johnston

were ready for Cleveland. "Slick" Goodlin was the designated back-up pilot.

Both pilots arrived at Cleveland anxious to show what they could do and to size up their competition for the Thompson Trophy. It seemed that the folks at Lockheed and North American had been busy as well; although, perhaps not as intensively as Bell. Lockheed test pilot Tony LeVier arrived in his fire engine red P-38, and he would benefit from full Lockheed factory support. Likewise, George "Wheaties" Welch who was North American's chief test pilot arrived in a Mustang supported by the North American technical staff. However, it seemed that most pre-race publicity focused on the Bell P-63 Kingcobra that was entered

privately by Northrop test pilot Chuck Tucker. The drastic wing-clipping performed on this airplane caught the public's imagination and it immediately became the public favorite.

This would all change as Tex Johnston took "Cobra II" up to qualify. A timing error meant that at first he was given an erroneous speed of 382 mph in his qualifying attempt. The next morning his speed was corrected to the 408 mph that he had actually

crash. Steel reinforcing plates were added to the rear fuselage of "Cobra II" in Cleveland as well as reinforcing wire to the front windscreen. It was thought that either the tail section had failed or the windscreen imploded. Larry Bell wanted Tex to withdraw from the Thompson. Tex promptly resigned from Bell Aircraft. Larry Bell then decided to compromise and let Tex fly in the 1946 Thompson on the condition that it would be his final race.



**Cobra II after the 1946 Thompson Trophy**

**Photo credit - Warren Bodie**

achieved. This made Tex the top qualifier, followed by "Wheaties" Welch in his Mustang. Woolams was disappointed with his 392 mph effort and left for Buffalo to have the engine changed as he felt his engine suffered from excessive detonation during his qualifying attempt. The engine was replaced in Buffalo that night, but disaster occurred on the test flight the next morning. The airplane crashed into Lake Ontario and Jack Woolams was killed. The loss was devastating to the entire SkyLANES crew. Because the airplane had not yet been recovered from the lake, there could only be speculation as to the actual

For the Thompson start, "Cobra II" was lined up at angle of 45 degrees to the right. This was to help counteract the tremendous torque of the Allison during the racehorse start. "Wheaties" Welch protested this to no avail and at the fall of flag "Cobra II" was off and running. Tex was in the air with his gear retracted before the other racers even got off the ground. The race was really no contest as "Wheaties" Welch was an early retirement in his Mustang as the engine overheated. Tony LeVier surprised everyone with his second

place finish in the big, red Lockheed Lightning. Tex was able to throttle back during the race but still set a new race record of 373mph for the 300 mile Thompson.



**Cobra II after the 1946 Thompson.  
The stress of the Thompson race is evident by removal of black trim from the nose**

**Photo credit - Warren Bodie**

The 1946 Thompson Trophy had produced the expected result for the Bell and Allison technical staffs. For Tex Johnston his racing career was now over. As promised, Tex disposed of "Cobra II" after the races and retired as an air race pilot.



**Tex Johnston and his wife in new convertible after winning the 1946 Thompson Trophy.**

**The trophies are in the back seat.**

**Tex retired from air racing after the Thompson win.**

**Photo credit -Bell Aircraft**

The aircraft sat at the Bell factory until August of 1947. Bell helicopter demonstration pilot Jay Demming was able to persuade Indianapolis Kaiser-Frazer automobile dealer, Rollin Stewart, to purchase "Cobra II" from Bell and to enter it in the 1947 Thompson Trophy race. The airplane was basically unchanged from its 1946 form. The deal for Demming was that if he won the Thompson Trophy race he would become the owner of the airplane. A second place finish would mean half ownership and third place meant Demming would not receive anything. Demming was confident that the airplane was still a winner and he would soon be the owner of "Cobra II".

The 1947 Thompson was the watershed year of post-war Unlimited Air racing. Having seen what "Cobra II" could do led other competitors to seek ways to compete with the ultra-fast Cobra. The Mustang flown in 1946 by "Wheaties" Welch returned. This time in a beautiful bronze paint scheme and flown by Western Airlines pilot, Paul "Penny" Penrose. Still a stock airframe, more work had been done to improve the reliability of the -9 Merlin engine. Of more concern to Demming was the entry of four of the big F2G Corsairs; three by Cook Cleland and the other by Ron Puckett. Equipped with the big Pratt and Whitney R-4360 engines, they seemed to be the ultimate Thompson Trophy racer. Actually, Bell personnel had considered this option in 1946 when they had determined that higher engine power could be generated but with a potential decrease in reliability. They knew none of the big Corsairs would be entered in 1946 and stayed with the lower power for an increase in reliability. Other unusual entries included "Tex" Ziegler in the XP-40Q and Jimmy DeSanto in the YP-60E (See the article on the YP-60E in this issue of *e-Golden Pylons*). DeSanto was to crash and destroy the YP-60E prior to qualifying.

The qualifications proved that the competition had not stood still. Cook Cleland, Dick Becker and Paul Penrose all qualified at speeds faster than "Cobra II" for the 1947 Thompson Trophy Race. Cleland was the top qualifier at a

**Cobra II after arrival at the 1947 Cleveland Air Races. Note the absence of sponsor markings and the change of race number.**

**Photo credit - Warren Bodie**



speed of 401 mph. Demming was not able to match Johnston's 1946 qualifying time of 408mph in "Cobra II". However, his effort of 391 mph was not without drama as Demming suffered a failure of the windscreen on the second qualifying lap and was barely able to complete it.



**1947 Cobra II with sponsor markings added**

**Photo credit - Harold G. Martin**

The start of the 1947 Thompson was somewhat of a chaotic affair with 13 aircraft starting instead of the normal 12. This did not stop Jay Demming from repeating the form shown by Tex Johnston in 1946 as "Cobra II" was again first off and was to lead the first two laps of the race. Demming was overtaken first by Dick Becker and then by Cook Cleland during the race. Demming would finish a distant third to winner Cook Cleland and 2<sup>nd</sup> place Dick Becker in their F2G Corsairs in the 1947 Thompson Trophy Race. This also meant that Rollin Stewart would retain ownership of "Cobra II". Jay Demming thought he had an arrangement to continue as pilot, but this opinion was not necessarily shared by Stewart.

Far from being discouraged by the results of the 1947 Thompson, new owner Rollin Stewart enlisted the aid of Allison Engineering to upgrade the performance of the airplane for the 1948 Thompson Trophy. Led by Don Nolan, the technical crew from Allison upgraded the engine by installing the latest G6 version of the engine. The supercharger of this engine meant manifold pressures of up to 118 inches were possible. To prevent detonation at these high power settings Nolan and his crew flight tested a wide variety of fuel blends that included a 100 percent alcohol blend. The wonder fuel for 1948 was Shell Oil's methyl triptane. This remarkable fuel had an octane rating of over 200 and virtually assured no detonation, provided it was injected in the proper quantity. To ensure enough of this fuel could be carried another 40 gallon fuel tank was installed behind the pilot. Flight testing went well and the team arrived in Cleveland in 1948

confident of another victory. Renamed the "KF-1" in deference to owner Stewart's Kaiser-Frazer dealership, the plane arrived at Cleveland ready to race. The pilot, however, was not Jay Demming but Allison test pilot Chuck Brown.

**A superb right-hand view of the 1948 KF-1**

**Photo credit - Warren Bodie**





Methyl triptane was available to the other 1948 competitors as well. Cook Cleland planned on using it on the F2G's being flown by him and Dick Becker. Charlie Tucker had also purchased a load of the new fuel for his P-63 Kingcobra. Tucker, however, had burned a piston on his engine and was forced to withdraw. It has been said that he sold his supply of triptane to an unknown National Airlines pilot named Anson Johnson who had entered his dark blue P-51 Mustang. Johnson was more of a competitor than people realized. This was his second Cleveland appearance, and he had carefully studied available Merlin engines and decided that the -225 Merlin would be a much better choice than the -9

in his pocket. It was later determined that a section of the fuel line had been exposed to hot engine exhaust gases when a small cover had blown off during the race. Brown's misfortune meant that the winner of the Thompson Trophy was the huge underdog Anson Johnson in his P-51 Mustang.

This loss was a big disappointment to owner Rollin Stewart. The "KF-1" was damaged in a landing accident on its return to Indianapolis. No effort was made to repair the airplane for the 1949 Thompson; so, the post-war racing career of this special Cobra ended with the failed 1948 effort. The airplane was to remain in storage until it was purchased by Planes of Fame owner Ed Maloney. Ed display the plane until it was purchased in the mid 1960's by Mike Carroll. Carroll intended to make the plane a pylon racer again. Extensive airframe modifications were made that included clipping eight feet from the wings. The rebuilt racer was to be named "Cobra III". Tragically, Carroll was killed and the airplane lost on the first test flight. This brought a close the career of this great race plane.



**KF-1 at the 1948 Thompson start line**

**Photo credit - Peter Bowers**

Qualifying was a scorching affair with Brown setting a new qualifying record of 418 mph. Cleland was close behind at 417 mph. The start was a repeat of 1946 and '47 as the renamed "KF-1" leaped into the air and into the lead of the race immediately.

Unlike the previous year, the F2G Corsairs of Becker and Cleland both suffered induction system explosions caused by incorrect mixtures of methyl triptane and had to drop out of the race. The 1948 Thompson saw an unusually high retirement rate. Brown was leading the race by a large margin but, unknown to his pit crew, was suffering engine problems from about lap 10 on. The problem turned out to be fuel system vapor lock. This resulted in Brown having to drop out of the race on lap 19 with the race virtually



**KF-1 as it appeared at Ed Maloney's Museum in Claremont, CA in 1962**



Cobra II at Cleveland in 1946

Photo credit - Harold G. Martin

Air Race Historical Research  
Photo by Harold G. Martin



Cobra II at Cleveland in 1946

Photo credit - Harold G. Martin



Cobra II at Cleveland in 1946

Photo credit - Harold G. Martin



**Cobra II after the Thompson Trophy Race  
Cleveland - 1946**

**Photo credit - Warren Bodie**



**Cobra II touches down at Cleveland in 1946**

**Photo credit - Harold G. Martin**



Cobra II at Cleveland in 1947 with some, but not all, markings added

Photo credit - Warren Bodie



Cobra II at Cleveland in 1947

Photo credit - Warren Bodie



Full left-side view of Cobra II  
1947 Cleveland

Photo credit - Pete Bowers

Right-side view of Cobra II 1947 Cleveland  
Of note is rain on the field and sponsor markings

Photo credit - Pete Bowers



Cobra II  
1947 Cleveland



Photo credit - Bob Stuckey

Cobra II  
1947 Cleveland



Photo credit - Bob Stuckey

Cobra II  
1947 Cleveland

Photo credit - Pete Bowers



Air Race Historical Research  
Bruce Fraites Collection



(Left )  
Cobra II  
1947 Cleveland

Photo credit - Bruce Fraites

(Below)  
Cobra II 1947  
Enlargement shows detailed marking on left tail

Photo credit - Steve Hudak via Bruce Fraites





Rechristened KF-1 in 1948  
Cleveland National Air Races

Photo credit - Pete Bowers



1948 KF-1

Photo credit - Pete Bowers

1948 KF-1

Photo credit - Charles Trask



1948 KF-1

Credit - Bruce Fraites Collection



1948 KF-1

Credit - Bruce Fraites Collection





## NX92847 Data Sheet

### Post-War Thompson Trophy

**Race Number** – 75, “Cobra I”

**Aircraft type** – P-39Q Airacobra

**Registration** – NX92847

**Owner** – SkyLANES Unlimited

**Pilot** – Jack Woolams

**Races flown** – **None** - Fatal crash after qualifying 3<sup>rd</sup> for 1946 Thompson Trophy

**Color scheme** – 1946 – Insignia Red with black trim

**Major airframe modifications** – 1946 – Enlarged carburetor inlet air scoop. All fabric covering on control surfaces replaced with metal. All flight adjustable trim systems removed and replaced with fixed, ground adjustable trim tabs. Gear retraction system modified for rapid retraction. (Cycle time of four seconds). ADI injection added at all manifold pressures higher than 55". ADI tank installed in former nose gun bay. All fuel cells replaced by special fuel cells manufactured by Goodyear. Undersized pistons installed in the Allison engine. 3-blade stock propeller replaced by 4-blade, P-63 Kingcobra propeller. Additional oil cooler installed on lower fuselage. This consisted of a P-40 oil cooler installed in a custom made housing. Pitot tube relocated from wing to the tip of the propeller spinner.

**Historical Highlights** – P-39Q, Race 75, Cobra I was a twin to P-39Q, Race 84 Cobra II that was being flown in the 1946 Thompson Trophy by Tex Johnston. Cobra I was to be flown by Bell chief test pilot Jack Woolams. After qualifying a disappointing 3<sup>rd</sup> place behind Tex Johnston and George Welch, Woolams immediately departed Cleveland to return for an engine change at the Bell Factory in Buffalo. This being done, Woolams took the airplane up for a test flight the following morning. While making a high speed run across Lake Ontario the airplane disintegrated and crashed with fatal results. The airplane could not be recovered before the Thompson Trophy was to be run so hasty modifications were made to Cobra II based on speculation as to what might have caused Woolams fatal accident. Four stiffeners were added to the rear fuselage and strengthening wire was added to the front windscreen of Cobra II. After recovery of parts of the airplane it was thought that the front windshield had imploded which resulted in fatal injuries to Jack Woolams before the crash occurred.

## NX92848 Data Sheet

**Post-War Thompson Trophy**

**Race Number** – 84, “Cobra II”

**Aircraft type** – P-39Q Airacobra

**Registration** – NX92848

**Owner** – Skylanes Unlimited

**Pilot** – Alvin M. “Tex” Johnston

**Races flown** – 1946 - Thompson Trophy – 1<sup>st</sup> place

**Color scheme** – 1946 – Insignia Yellow with black trim

**Major airframe modifications** – 1946 – Enlarged carburetor inlet air scoop. All fabric covering on control surfaces replaced with metal. All flight adjustable trim systems removed and replaced with fixed, ground adjustable trim tabs. Gear retraction system modified for rapid retraction. (Cycle time of four seconds). ADI injection added at all manifold pressures higher than 55”. ADI tank installed in former nose gun bay. All fuel cells replaced by special fuel cells manufactured by Goodyear. Undersize pistons installed in the Allison engine. 3-blade stock propeller replaced by 4-blade, P-63 Kingcobra propeller. Four stiffeners added to the rear fuselage area at Cleveland after the fatal crash of Cobra I. Additional oil cooler installed on lower fuselage. This consisted of a P-40 oil cooler installed in a custom made housing. Pitot tube relocated from wing to the tip of the propeller spinner.

**Historical Highlights** – P-39Q, Race 84, otherwise known as Cobra II was a sister ship to P-39Q, Race 75 otherwise known as Cobra I. Cobra I and Cobra II were both owned by a company called Skylanes Unlimited which was a partnership between Bell test pilots Jack Woolams, Tex Johnston and Chalmers “Slick” Goodlin. The airplanes were purchased and modified with the express purpose of winning the 1946 Thompson Trophy race at Cleveland on Labor Day weekend. Bell Aircraft and Allison Engineering technical personnel assisted in the preparation of the Cobras for this event. Extensive flight testing meant both were well prepared for the Thompson Trophy race. Johnston in fact qualified Cobra II in first place at a speed of 408 MPH. Tragedy struck when Jack Woolams crashed fatally in Cobra I after returning to the Bell Factory for an engine change after the completion of his qualification run. Hasty modifications were made to Cobra II to ensure it did not suffer a similar fate. Johnston led the 1946 Thompson from start to finish, setting a new race record average speed of 373 MPH. Johnston was forced to make the 1946 Thompson his first and only air race as employer Larry Bell told him he could no longer race if he wished to remain a test pilot for Bell Aircraft leaving Tex with a perfect race record of having qualified on the pole position and flying to victory by leading every lap of the only race he ever entered.

## N92848 Data Sheet

### Post-War Thompson Trophy

**Race Number** – 11, 1947 – “Cobra II” and 11, 1948 – “KF-1”

**Aircraft type** – P-39Q Airacobra

**Registration** – NX92848 – 1947 and N92848 - 1948

**Owner** – Rollin H. Stewart

**Pilots** - 1947 – Jay Demming and 1948 – Chuck Brown

**Races flown** – 1947 - Thompson Trophy – 3rd place and 1948 and Thompson Trophy – DNF – Retire 19<sup>th</sup> lap

**Color scheme** – 1947 – Insignia Yellow with black trim and 1948 - Insignia Yellow with black trim and checkerboard

**Major airframe modifications** – 1947 – No additional modifications made since 1946 Thompson Trophy and 1948 – Additional 40 gallon fuel cell added behind the pilot’s cockpit. 4-blade prop replaced with a 3-blade prop that consisted of Aero products P-51H propeller blades in 3-blade hub.

**Historical Highlights** – P-39Q, Race 84 in 1946 sat dormant at the Bell Factory until it was purchased by Indianapolis Kaiser-Frazer dealer Rollin H. Stewart. Stewart had been persuaded to do this by Bell Helicopter demonstration pilot Jay Demming. Demming would be the pilot at Cleveland with an arrangement with Stewart that if he finished first in the Thompson he would become the owner of the airplane. 2<sup>nd</sup> place would give him half ownership. 3<sup>rd</sup> place meant he would get nothing. As time was running short there was no time to perform additional modifications. Demming felt though the plane could still win provided none of the former Navy F2G Corsairs were entered. Cook Cleland had retained the Race number 84 for his stable of 1947 entries so it was necessary to change the race number on Cobra II from 84 to 11. Demming was both surprised and dismayed to find not one but four F2G Corsairs among the entries for the 1947 Thompson Trophy. Demming managed to qualify 3<sup>rd</sup> for the Thompson Trophy despite a windshield failure during this attempt. He could manage no better than 3<sup>rd</sup> place in the Thompson meaning that Demming walked away with nothing and Rollin Stewart was still the owner.

- For 1948 extensive engine modifications were made that increased the manifold pressure capability from 85” to 115”. This was done by fitting a state of the art G6 Allison engine. Use of Shell methyl triptane fuel insured engine reliability or so it was thought. Much to Jay Demming’s dismay Rollin Stewart replaced him as pilot with Allison test pilot Chuck Brown. Brown was able to qualify the renamed KF-1 at a record 418 MPH for the Thompson Trophy. In the race Brown led every lap except the all important last lap. Fuel system problems forced his retirement one lap short of victory in the Thompson. The aircraft was damaged in a landing accident while being returned to Indianapolis. It was decided not to repair the airplane for the 1949 Thompson Trophy. The airplane went into storage until it was purchased by Planes of Fame owner Ed Maloney and trucked to California for display in his museum. Mike Carroll purchased the airplane in the mid 1960’s for restoration and return to the pylons at Reno. Sadly this was not to be as the airplane crashed with fatal results to Mike Carroll on its first test flight in August 1968.

## REPLICA PROJECT

### Peter Groves "Super Solution" Project

By Joe Stamm

I have just learned of a project to build a flying replica of the Laird "Super Solution". It is an exciting project being undertaken by Peter Groves who currently lives in eastern Ontario, Canada.

I have emailed with Peter and read his website. I am very impressed with the dedication and commitment he has made to the project, as well as the high quality of his workmanship and the progress that he is making despite several job relocations taking him to faraway parts of the world (e.g. Dubai).

The four pictures of his work shown are but examples. There are many more interesting shots on Peter's website. I really encourage you to visit...I think you will be interested in what he is doing, impressed with his work, and encouraged by what he has accomplished.

Peter's site is:

[www.supersolutionproject.blogspot.ca](http://www.supersolutionproject.blogspot.ca)



Some examples of Peter's excellent workmanship



## PRODUCT REVIEW

Aero Research Photo CD's  
by Tim Weinschenker

Even though I have a substantial collection of photos of race planes from all eras I am always searching for additional photos that may show new or previously overlooked details. A series of Air Race photo CD's are available from the Aero Research Company located in Reno, Nevada. Aero Research produces photo CD's on a large number of aviation subjects. For air race fans the following CD's are offered in their Warbird Series of CD's:

Catalog #3001 Unlimited Racers – 1964-1974 187 images  
Catalog #3006 Unlimited Racers – 1975-1985 257 images  
Catalog #3003 T-6 Racers – 1971-1977 179 images  
Catalog #3009 T-6 Racers – 1978-1987 162 images

I purchased both of the Unlimited Racers CD's from Aero Research. Within two to three days of the purchase the CD's arrived on my doorstep. I am very pleased with the CD's. Each CD contains a wide variety of race planes, and the quality of the photos is very good. The images are copyrighted, so I contacted Aero Research about restrictions on the use of the photos. Aero Research's owner, Jay



Sherlock, gave me permission to use a few of the photos for this review. However, he indicated that for commercial use he would have to contact the original photographers for their permission to publish their work. This seems reasonable, and I thank Jay for granting permission to SARH to use several of the photos.

The first photo is of E.D. Weiner's pylon racing P-51 Mustang N335J as it appeared at the 1967 Reno Air Race which illustrates the quality of the photos.

As many of you know I am a model builder, and I am always looking for new reference materials. Many different decal manufacturers have produced decals sheets for this specific airplane. The shade of green used to replicate the Race No. 49 and the "Hi Time II" name have varied widely on these decal sheets. In addition to the decals, I have several color photos of this P-51; however, until I purchased this CD I did not have a good left-side view of the airplane. While it may not be as readily apparent in the newsletter reproduction (I suggest magnifying the photo), close examination of this photo has convinced me that two different shades of green were used on the plane. The green for the race number appears to be the same shade of green as used on E.D.'s cross country Race No. 14, N335. On the other hand, the "Hi Time II" logo appears to be a different shade of green. I have several different decals sheets for this airplane produced at various times by Red Pegasus. Keith Davidson of Red Pegasus has used different shades

of green on different sheets but it has been a consistent shade on each different sheet. The same "phenomena" also applies to the earlier decal sheet produced by Speed Demons. My conclusion is that Red Pegasus has produced decals with the correct color for both the race number and logo of "Hi Time II" ... they are just not on the same sheet! I would encourage those that are interested to purchase this CD and share your opinion with me ... I could be wrong!

Color photos from the 1964 Reno races are relatively rare. The 1964-1974 CD disc includes very nice photos of most of the Unlimited Racers that attended the 1964 races. The next photo is Dick Snyder's P-51 Mustang "Phoebe II". I had not seen a color photo of this particular airplane prior to my purchase of this CD.

As mentioned, the 1964-1974 CD contains 187 images, the 1975-1985, 257. I feel that the CD's are very reasonably priced, high-quality, reference aids for any Air Racing Historian. Jay Sherlock promised that other Air Race CD's are in the works.

I highly recommend the Aero Research CD's to all Society members and hope that our support will help encourage Jay to make more of this material available for our use. Aero Research CD's may be purchased for \$12.95/CD, on-line, using PayPal, at



Aero Research's website:  
[www.AeroResearchcnds.com](http://www.AeroResearchcnds.com) .

# HAPPY NEW YEAR !