

The 1947 Thompson Trophy Race

Changes prior to the races

1947 would see substantial change in the entry list for the Thompson Trophy.

People were up to challenge the superior performance of "Cobra II" after the death of Jack Woolams meant that Larry Bell would no longer allow test pilots to risk their lives to compete in the Thompson Trophy.

"Cobra II" was sold to Indianapolis car dealer Rollin Stewart.

Former Bell Test pilot Jay Demming was selected to fly the airplane in 1947.

Jay Demming and “Cobra II” in 1947



The 1947 Thompson Trophy Race

Changes prior to the races

- **Cook Cleland went straight to Admiral “Bull” Halsey to get a more suitable airplane for the 1947 Races.**
- **He was able to obtain 3 of the experimental R-4360 powered F2G Corsairs for 1947.**
- **Another Navy pilot, Ron Puckett, would also get an F2G Corsair for that race.**

1947 Cleveland – Ron Puckett F2G Corsair



1947 Cleveland – Dick Becker F2G Corsair



The 1947 Thompson Trophy Race

Changes prior to the races

- **The 1947 entry list also some other experimental prototypes among the entrants –**
- **Jean “Skip” Ziegler was entered in the Curtiss XP-40Q.**
- **Jimmy DeSanto was entered in the Curtiss YP-60E.**
- **Neither would feature in the results.**

“Skip” Ziegler flew the XP-40Q in 1947



The 1947 Thompson Trophy Race

Changes prior to the races

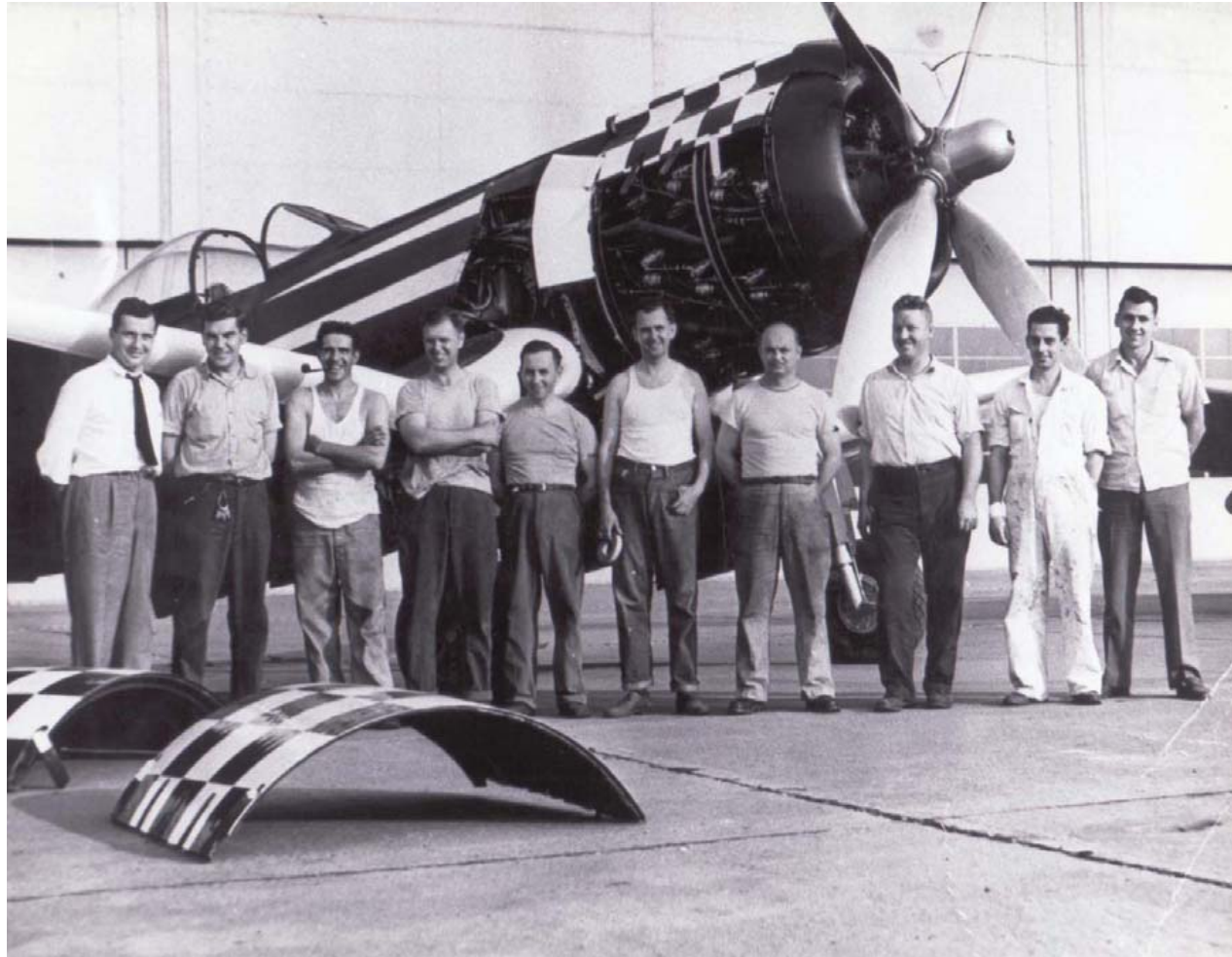
- **It was also decided to have Trophy Races for single type only. The fields for these races were made up of those who did not qualify for the Thompson in addition to those who did and chose to compete.**
- **Tinnerman Trophy – P-63 only**
- **Kendall Trophy – P-51 only**
- **Sohio Trophy – P-38 only**

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While technically a private entrant, Cook Cleland would receive substantial help from Goodyear and Vought to prepare in 1947.



It was much the same for the Mustang that George Welch flew in 1946. It would be flown by Paul “Penny” Penrose in 1947.



Technical Insight

Challenge of being competitive in a P-51 Mustang

The P-51 Mustang would feature prominently in the entry lists for the Post war races. There were many reasons for this but in truth the Mustang was probably not the ideal choice for the Thompson Trophy.

It was chosen by many because it was more readily available on the surplus market. On paper offered greater performance.

It was the technical challenges of both the race site and race itself that made the Mustang less suitable than others for victory in the Thompson Trophy.

The Rolls-Royce Merlin was no doubt one of the finest examples of piston engine technology but it was a high altitude engine that was installed in the Mustang.

Maintaining high power levels for race distance meant that substantial amounts of fuel had to be carried.

**1947 Cleveland Air Races –
Preliminary Trophy Races – Soho Trophy Winner – Tony LeVier**



**1947 Cleveland Air Races –
Preliminary Trophy Races – Tinnerman Trophy Winner –
Ken Knight**



**1947 Cleveland Air Races –
Preliminary Trophy Races – Kendall Trophy Winner –
Steve Beville**



The 1947 Thompson Trophy

A Historical Appreciation

The 1947 Thompson had all the elements to be considered a classic air race –

- Record speeds**
- Close competition**
- Lots of action – retirements, crashes, etc.**
- Political drama – a botched start**
- A Popular winner – Local boy makes good.**
- Tragedy**

The 1947 Thompson Trophy

The Historical Record

Bob Cleland and Dick Becker flew their F2G Corsairs to a 1-2 finish in record time. Cleland setting a new race record speed of 396 MPH.

"Cobra II" finished third far off the pace at a speed of 367 MPH.

The best placed Mustang was Steve Beville flying "Gallopig Ghost". He finished 4th in the Thompson and won the Kendall Trophy race which was Mustangs only.

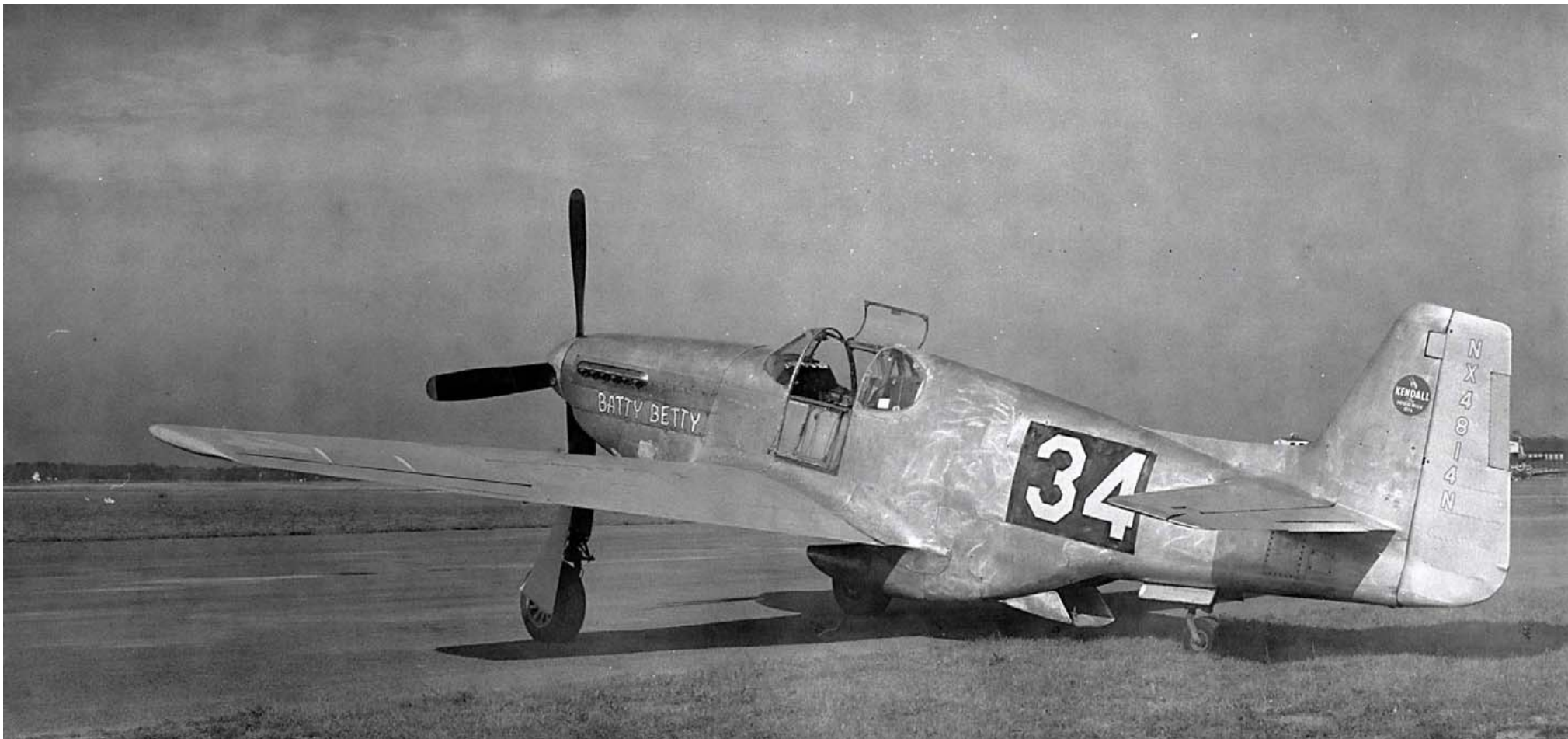
Bob Hardwick was said to be the "real winner" in 1947 as he had supposedly insured his Mustang "Batty Betty" with Lloyds of London and collected the insurance money for it!

1947 Cleveland Air Races –

Cook Cleland was the winner of the 1947 Thompson Trophy Race in his F2G Corsair



**1947 Cleveland Air Races –
But many said Jack Hardwick made more money than Cleland!**



1947 Cleveland Air Races –

Unnoticed by the masses was the early retirement of a dark blue P-51 Mustang flown by a young National Airlines pilot from the Mustang only Kendall Trophy. He was forced to borrow money to get out of town! His name was Anson Johnson.



The 1948 Cleveland Air Races

Changes prior to the races

• **1948 would see a real solid effort by new Rollin Stewart to return “Cobra II” to the winner’s circle.**

• **Allison test Pilot Chuck Brown was selected as the pilot.**

• **The top notch technical team was headed up by Dick Nola with excellent support by Allison Engines.**

Chuck Brown would fly “Cobra II” in 1948



The 1948 Cleveland Air Races

Changes prior to the races

- **The story of 1948 would center around fuel – In this case Shell’s very special Methyl Triptane.**
- **Probably less known was consideration given to using alcohol as the fuel for both “Cobra II” and Chuck Tucker in his P-63.**

The 1948 Cleveland Air Races

Changes prior to the races

- “Cobra II” had received an Engine upgrade with the installation of a late model G6 Allison engine.**
- Testing with different fuels had taken place. Alcohol had been tested and considered but it was decided that the high octane rating of methyl triptane made up for any advantage alcohol may have provided.**
- Not so fortunate was Chuck Tucker. He did flight testing with alcohol but could never get big enough jets to provide adequate fuel flow.**
- Unknown to him at the time he had done piston damage to the Allison engine in his P-63.**
- It did not become apparent until after he arrived at Cleveland. High speed test flights using Methyl triptane revealed piston damage that meant he had to withdraw from competition in 1948.**

Chuck Tucker's No. 28 P-63 in 1948



The 1948 Cleveland Air Races

Changes prior to the races

- **Cook Cleland was determined to keep possession of the Thompson Trophy as well.**
- **His efforts centered around the use of methyl triptane fuel as well.**

The 1948 Cleveland Air Races

Changes prior to the races

- **For the first time a serious effort was being made to alter the airframe for aerodynamic streamlining.**
- **In this case it was a P-51 Mustang.**
- **The airplane was entered by Houston Beechcraft dealer J.D. Reed and the aircraft was a P-51C Mustang named “Beguine”.**

The 1948 Cleveland Air Races

Changes prior to the races

- **“Beguine” was the brainchild of North American Engineer Ed Horkey.**
- **The removal of the ventral cooling scoop and movement of the cooling radiators to the wingtips was to decrease aerodynamic drag and increase top speed.**
- **The modifications were completed prior to the 1948 races and it was scheduled to be flown in competition by Paul Penrose.**

1948 Cleveland Air Races – “Beguine” as it appeared prior to the 1948 Cleveland Air Races



**Air Race Historical Research
Dustin W. Carter Collection**

1948 Cleveland Air Races – Paul Penrose in the cockpit of “Beguine”



The 1948 Cleveland Air Races

Changes prior to the races

- **The aircraft never made it to Cleveland. Ferry pilot Joe Howard ran out of fuel over Kansas and had to belly the aircraft into a farmer's field.**

The 1948 Cleveland Air Races

Changes prior to the races

- **National Airlines pilot Anson Johnson had come up with his own ideas of how to make a Mustang more competitive.**
- **One of the technical problems facing people flying the P-51 was which type of Merlin engine to use in competition.**
- **The majority of surplus Mustangs were equipped with a -3 or -7 engine. In some cases the newer -9 Merlin was available.**

The 1948 Cleveland Air Races

Changes prior to the races

- The problem was that none of these were really the correct engine for racing at Cleveland.**
- The problem was related to the density altitude and the supercharger installed on these engines.**
- The two stage blowers on these engines was really one of the finest examples of mechanical supercharging but was primarily designed for high altitude use and not racing at near sea level density altitudes.**
- Anson Johnson searched through available Merlin engines and determined that the -225 Merlin was more suited for racing at Cleveland.**

The 1948 Cleveland Air Races

Changes prior to the races

- As it featured only a single stage blower, the -225 Merlin was lighter than the -9 Merlin by several hundred pounds.**
- Because of the low density altitude of Cleveland the single stage blower was not a handicap in terms of making horsepower. It actually would be able to run closer to the optimum point on the blower curve and not run into surge problems such as those experienced by Paul Penrose in 1947 on the Ron Freeman owned Mustang.**
- Anson Johnson was able to obtain Methyl triptane to use as a fuel in the Thompson.**

The 1948 Cleveland Air Races

The Historical Record

- **Despite this the performance of his Mustang was far below that of “Cobra II” and the two F2G Corsairs that were entered by Cook Cleland for himself and Dick Becker.**
- **Record setting qualifying performances were turned in by both Chuck Brown and Cook Cleland. Brown qualifying “Cobra II” at an amazing 418 MPH.**
- **Anson Johnson qualified for the Thompson at a speed of nearly 400 MPH. The best yet seen for a Mustang.**

1948 Cleveland Air Races – Anson Johnson's Mustang N13Y



1948 Cleveland Air Races – Anson Johnson's Mustang N13Y



The 1948 Cleveland Air Races

The Historical Record

- **The 1948 Thompson turned into a mechanical carnage.**
- **Both Cook Cleland and Dick Becker had to retire their F2G Corsairs with induction system explosions caused by insufficient testing of methyl triptane as the fuel.**
- **Chuck Brown led almost the entire race but was forced out on lap 19 of the 20 lap race.**
- **This meant the surprise winner was none other than Anson Johnson in his Mustang.**
- **He would not have to borrow money this year to get out of town!**
- **Only three aircraft finished the race.**

1948 Cleveland Air Races – Anson Johnson in the winner's Circle



1948 Cleveland Air Races – N13Y in the winner's Circle



1948 Cleveland Air Races –

1948 was not kind to Cook Cleland. He dropped out with induction system problem



1948 Cleveland Air Races –and so did Dick Becker



The 1949 Cleveland Air Races

Changes prior to the races

Anson Johnson was a quietly determined competitor. He knew that he had been fortunate to win the race and if he was to retain his title his Mustang would require further modification.

Both J.D. Reed and Walter Beech were not pleased to say the least with the failure of “Beguine” to make it to Cleveland in 1948.

Paul Penrose was dismissed as pilot. It was felt he should have been the one flying “Beguine” to Cleveland as he had done the flight testing prior to the race.

Anson Johnson was considered as a replacement pilot by J.D. Reed. He was invited to Houston by J.D. Reed to take a look at “Beguine”.

Anson looked at “Beguine” and decided he could do better.

The 1949 Cleveland Air Races

Changes prior to the races

- **National Airlines Head of Maintenance, J.D. Crane was retained to take Anson's ideas from theory into practice.**
- **Anson's idea was to move the cooling system for the Mustang from the ventral scoop and place it in the area of the gun bays in the wings.**
- **Radiators were sourced from the P-39 Airacobra as it was found that these would fit in the wing.**
- **A section of the upper wing skin was designed to be hinged to provide an outlet for the air that had to exit these radiators.**
- **Anson considered the entire system to result in much lower cooling drag than the radiator pods that were found on "Beguine".**

The 1949 Cleveland Air Races

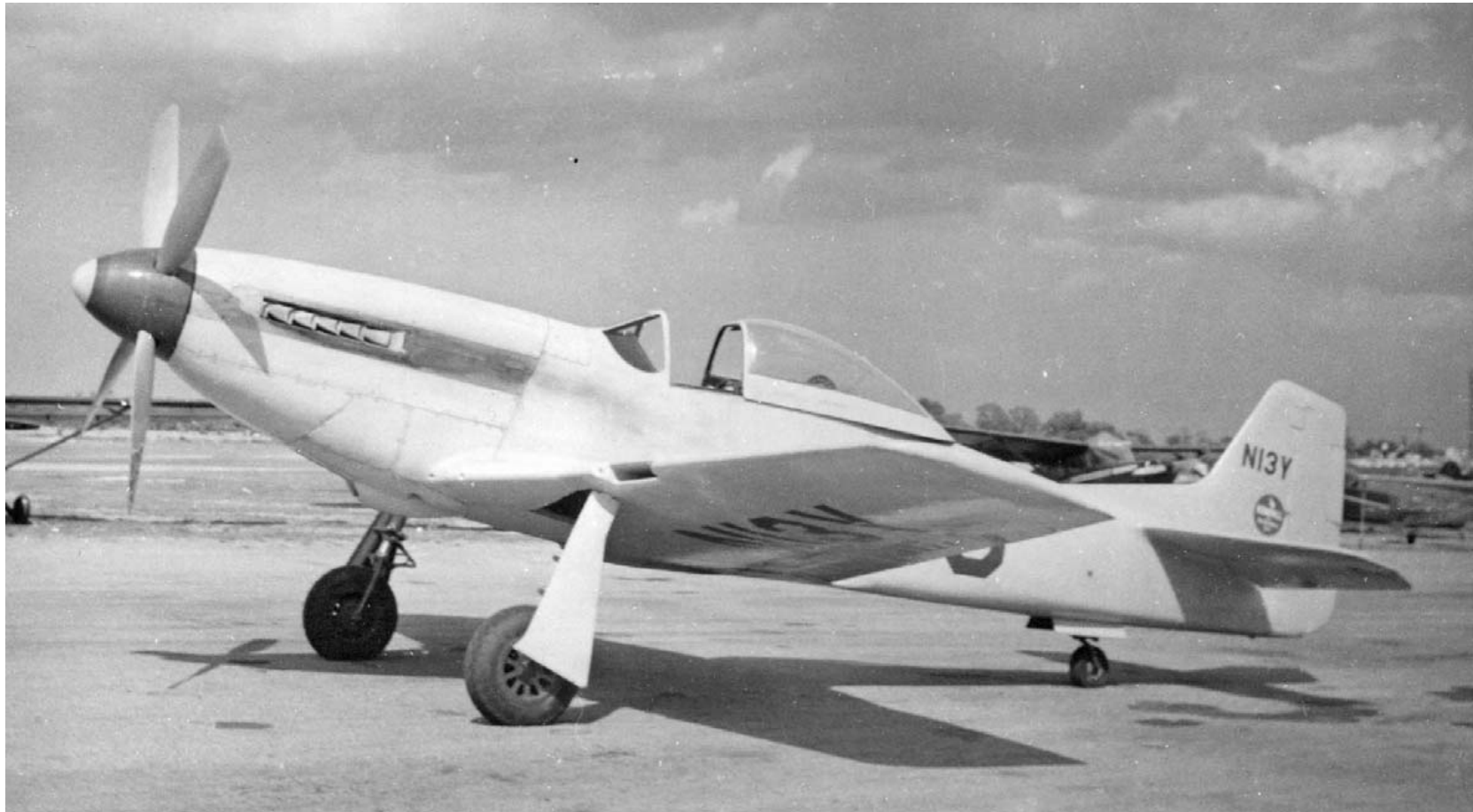
Changes prior to the races

- **Additional modifications to N13Y included a reprofiled lower cowling that included a revised inlet engine air scoop.**
- **The -225 Merlin was retained as well as the special prop with shortened blades.**
- **It was also decided to incorporate reprofiled exhaust stacks. These were recessed further into the cowling to try and minimize the drag of the exhaust stacks and the exhaust wake.**
- **Methyl Triptane was again to be utilized for fuel in the race.**
- **Modifications were completed in time for flight testing prior to the races.**
- **Another modification was an upgrade to the hydraulic system to retract the landing gear more rapidly in the same fashion as the “Cobra II”.**

**1949 Cleveland Air Races –
Anson Johnson's Mustang N13Y upon arrival at Cleveland**



**1949 Cleveland Air Races –
Anson Johnson's Mustang N13Y upon arrival at Cleveland**



The 1949 Cleveland Air Races

Changes prior to the races

- **Upon arrival at Cleveland it was found that a -225 Merlin had been installed in another Mustang. This time it was in M.W. Fairbrother's Mustang – the former "Sep" Migton machine that had been flown by Earl Ortman in 1946.**

M.W. Fairbrother's P-51 Mustang - 1949



The 1949 Cleveland Air Races

Changes prior to the races

- **Cook Cleland had not been sitting idle either.**

His stable now consisted of 3 F2G Corsairs



The 1949 Cleveland Air Races

Changes prior to the races

- **His No. 94 F2G now had wings further clipped.**
- **Cleland had also installed a hydrogen peroxide injection system to provide more power.**
- **It was his “secret weapon” that never worked! Team mate Dick Becker would comment in later years that all it did was “corrode the hell out of everything!”**
- **Cleland fielded a third entry, No. 57 that would be flown in competition by Ben McKillen.**

The 1949 Cleveland Air Races

Changes prior to the races

- **“Beguine” arrived at Cleveland looking magnificent and the subject of much speculation.**
- **The real story of “Beguine” took many years to see the light of day.**
- **Jackie Cochran took ownership just a few weeks before the races.**
- **Ken Cooley would have been the pilot had J.D. Reed retained ownership of the airplane. Ken had been doing all the flight testing in Houston that summer in preparation for the races in September.**
- **Instead Bill Odom was selected by Jackie Cochran to be the pilot.**

en Cooley on a pre-race photo op over Houston



1949 Cleveland Air Races – Bill Odom and “Beguine”



**1949 Cleveland Air Races –
“Beguine” certainly attracted a lot of attention in 1949**



The 1949 Cleveland Air Races

Changes prior to the races

- **Ron Puckett would provide competition in his own F2G Corsair. He had missed 1948 when the ferry pilot had damaged the gear retract system ferrying the airplane to Cleveland.**

1949 Cleveland Air Races – Ron Puckett's F2G – “Miss Port Columbus”



The 1949 Cleveland Air Races

Changes prior to the races

- **“Cobra II” was missing in action. Damaged in a landing accident when being brought back to Indianapolis after the 1948 races.**

Cobra II as seen in storage at the Air Museum in Claremont, California



**Air Race Historical Research
Photo by Robert F. Pauley**

The 1949 Cleveland Air Races

Changes prior to the races

- The Cleland entered F2G Corsairs had to be the favorites although Dick Becker and No. 74 were eliminated from competition when the nose case gears stripped at the end of his qualification laps.**

1949 Cleveland Air Races – Dick Becker's F2G Corsair



The 1949 Cleveland Air Races

Changes prior to the races

Bill Odom qualified “Beguine” at 405 MPH. He was also victorious in the preliminary Sohio Trophy Race.

Ben McKillen won the Tinnerman Trophy in his F2G Corsair.

Anson Johnson chose to save N13Y for the Thompson Trophy skipping the preliminary events.

The 1949 Cleveland Air Races

The Historic Record

- The 1949 Thompson Trophy race was another tragic event.**

The 1949 Cleveland Air Races

The Historic Record

- The F2G Corsairs finished 1-2-3. Cleland being victorious over Puckett and McKillen.
- Odom would tragically crash “Beguine” into a suburban home in Berea Ohio killing himself and his young wife and her son.
- Anson Johnson and N13Y would be undone in the Thompson by first the high speed gear retract mechanism and then the low profile exhausts.
- When connecting the 2nd hydraulic pump the crew failed to bleed the system properly. This meant the landing gear did not retract properly at first.
- Precious time was lost getting the gear to retract.
- Once retracted the low profile exhaust stacks began to burn off the engine as it was being pushed to make up time.

The 1949 Cleveland Air Races

The Historic Record

- **A frustrating race for a promising airplane.**
- **Unfortunately 1949 would be the last Post War Thompson Trophy “R” race.**
- **Plans were made for the 1950 race but it never happened.**
- **Anson Johnson and others were frustrated by the closure of the National Air Races.**
- **Anson still believed he had the world’s fastest propeller driven airplane and he planned to prove it to the world by making an assault on the 3km speed record that was held by German pilot Fritz Wendel.**

Cook Cleland would win the 1949 Thompson Trophy in his No. 94 F2G Corsair



It would be a 1-2-3 for the big F2G Corsairs as Cleland was followed by Ron Puckett and Ben McKillen



But Air Racing was changed forever by the tragic crash of Bill Odom and “Beguine”.



1949 Thompson Trophy – Exhaust stack damage N13Y



1952 World Speed Record Attempt

Miami, Florida



The World Speed Record Attempts N13Y – Miami, Florida

- **Several runs were made.**
- **There was problem with the timing cameras but Anson Johnson believed that his Mustang did achieve speeds capable of breaking the 3km record even though the timing cameras did not agree.**
- **The -225 Merlin was removed and sent out for overhaul as parts of plans for a new assault in 1953**

1952 World Speed Record Attempt – Miami, Florida



The World Speed Record Attempts N13Y – Miami, Florida

When the engine was returned it was found to his surprise it was not the -225 engine that was returned.

Anson finally threw in the towel.

The aircraft went into storage. Then passed through several owners until it was finally passed on to the New England Air Museum.

In the 1970's Anson Johnson wanted to restore the airplane to flying condition and return to competition at Reno.

He believed until he passed away in 1988 that he had broken the 3km record speed in 1952.

He disagreed with those of the opinion that the coolant system modifications to N13Y were not the way to go to have the fastest Mustang.

The concepts of N13Y were incorporated into "Stiletto". This aircraft was flown to victory in initial Reno outing by "Skip" Holm.

N13Y – 1960's
Miami, Florida



New England Air Museum

Restoration of N13Y

- It's a tribute to Anson Johnson that the New England Air Museum is restoring N13Y to appear as it did at the start line for the 1949 Thompson Trophy.**
- A tribute to those who participated in a largely overlooked and underappreciated period in the history of the Sport of Air Racing.**

Anson Johnson's P-51D Mustang N13Y

Congratulations and many thanks to all those who helped return N13Y to the condition that we see today...foremost, this includes the P-51D N13Y restoration team:

- **Pete McConnell – Crew Chief for N13Y Project**
- **Rick Centore**
- **Barry Cowles**
- **Wayne Dow**
- **Bob Grzech**
- **Joe Kellog**
- **Tom Palshaw**
- **Ed Patapas**
- **Lou Rell (deceased)**
- **Silas W. Smith**
- **Al Steinmetz**
- **Bob Upson**

Anson Johnson's 1949 P-51D Mustang N13Y



Thanks so much!
Questions/comments???