



Winter 2022-2023

# P-51B SHILLELAGH WINTER UPDATE



Wings of the North Air Museum's P-51B

by Chuck Cravens



Kenneth Dahlberg with "Shillelaugh" in the earlier, pre-August 1944 paint scheme, note the spelling of Shillelaugh, later changed to Shillelagh. courtesy of Jack Cook collection



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## Update

Later August 1944 paint scheme after touch-up and nose art with spelling change.



Work this month included the completion of the primary fuselage framework, and trial fitting components as the first parts of the wing assembly were mounted in the wing fixture. The tailcone assembly was also finished. The fuselage framework was then disassembled for painting, and is now taking shape permanently in the fixture once more.



## Fuselage

This month the structural frame of the forward fuselage has been fitted and clecoed together. It was then disassembled and sent to the paint shop. Once it had been painted, permanent assembly of the fuselage began.



The structural framework for the forward fuselage assembly is taking shape.





The oil tank is taking shape for Shillelagh.



This assembly is the fixed radio shelf. There is also an assembly named the sliding radio shelf.





The aluminum part shown is a component of the fuselage web assembly, station 200 ¼ to 248.



This is the fuselage web assembly, fuselage station 200 ¼ to station 248 after angle stiffeners have been clecoed in place.



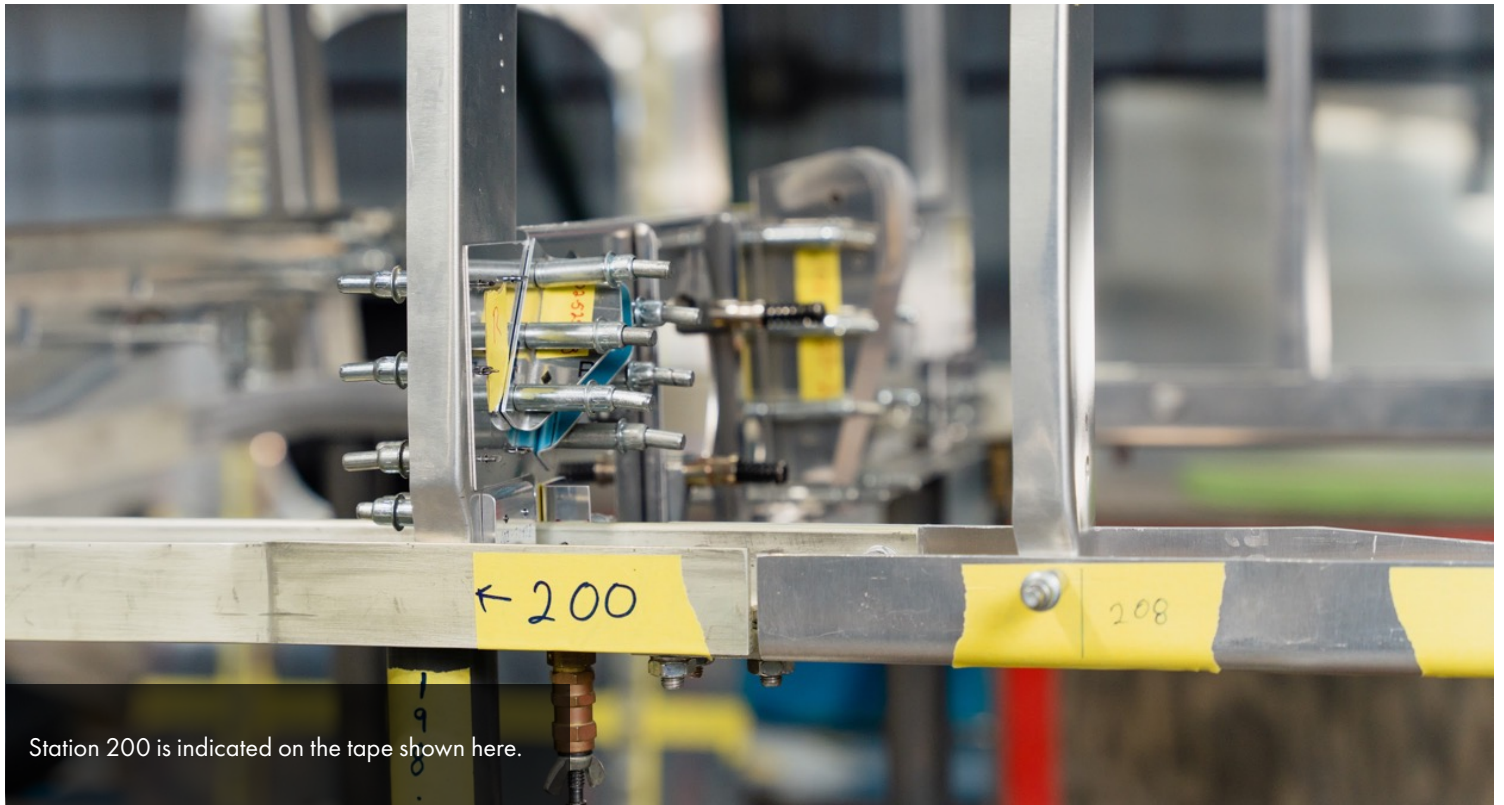


Every part is fitted carefully and clecoed together.



The yellow tape is easily removable and allows each piece to be labeled by station number as the fuselage framework comes together.









This NOS windshield assembly was purchased From John and Sue Paul, owners of P-51B Boise Bee. Their willingness to sell this rare assembly is a good example of how members of the warbird industry support one another.

Jacob works on the station 248 fuselage bulkhead. Station 248 is at the front of the tailcone assembly. The two brackets near the top of the bulkhead are for elevator cable pulleys.







The two openings with brown phenolic, riveted on either side of the central hole, are fair leads for control cables. The bracket at the center-right of the photo will carry rudder trim cable pulleys.



Mark works on the rudder pedals.







This is one of the rudder pedals for Shillelagh.



These are rudder pedal fork assemblies.





The fuselage components have been painted and returned to the restoration shop. Brad begins the process of permanent assembly.



Painted fuselage parts await assembly





Brad works on reassembling the fuselage framework.



The large flat sheet metal part to Brad's left, which is clecoed to the frame, is the fixed radio shelf.









## Engine Mount

The engine mount that will be used on Shillelagh is a NOS (New Old Stock) assembly that was obtained from Jay Wisler. It had been part of the Connie Edwards collection and is in near-perfect condition. Shillelagh will contain many components that come from original wartime production.



The two wood braces attached to the aft end of the mount are original shipping supports from the North American factory.





A QEC consisted of the mount, the engine, and many of the components and accessories installed on the engine. By disconnecting accessories, linkages, hoses, and tubing, and taking out the four large bolts, an engine swap could be done rapidly at the squadron or depot levels.





Here is another view of the engine mount assembly.

## Tailcone

Work on the tailcone was essentially finished this month.



The tail cone assembly nears completion in the fixture.





This is the exit fairing for the pilot relief tube, located under the tailcone.



This view of the inside of Shillelagh's tailcone was taken before painting.





Here is the same view after disassembly, painting, and reassembly.



The tail cone assembly is essentially complete and has been removed from the assembly fixture.





Left side view of the tail cone assembly



The rear bulkhead of the tail cone has a small oval-shaped opening for the rudder control rod visible here just left and below the larger central hole.





The two openings on the side of the tailcone are access holes for the tailwheel and control cables. The dull areas around the openings are places where an acid wash has been applied before spot welding, just as was done at the Inglewood, CA, North American Aviation factory during the war.



The horizontal stabilizer will rest on this yellow-painted surface once the Mustang is assembled.





This bulkhead is just in front of the horizontal stabilizer opening. The two oval openings with brown phenolic parts riveted to them are for the upper elevator cables.



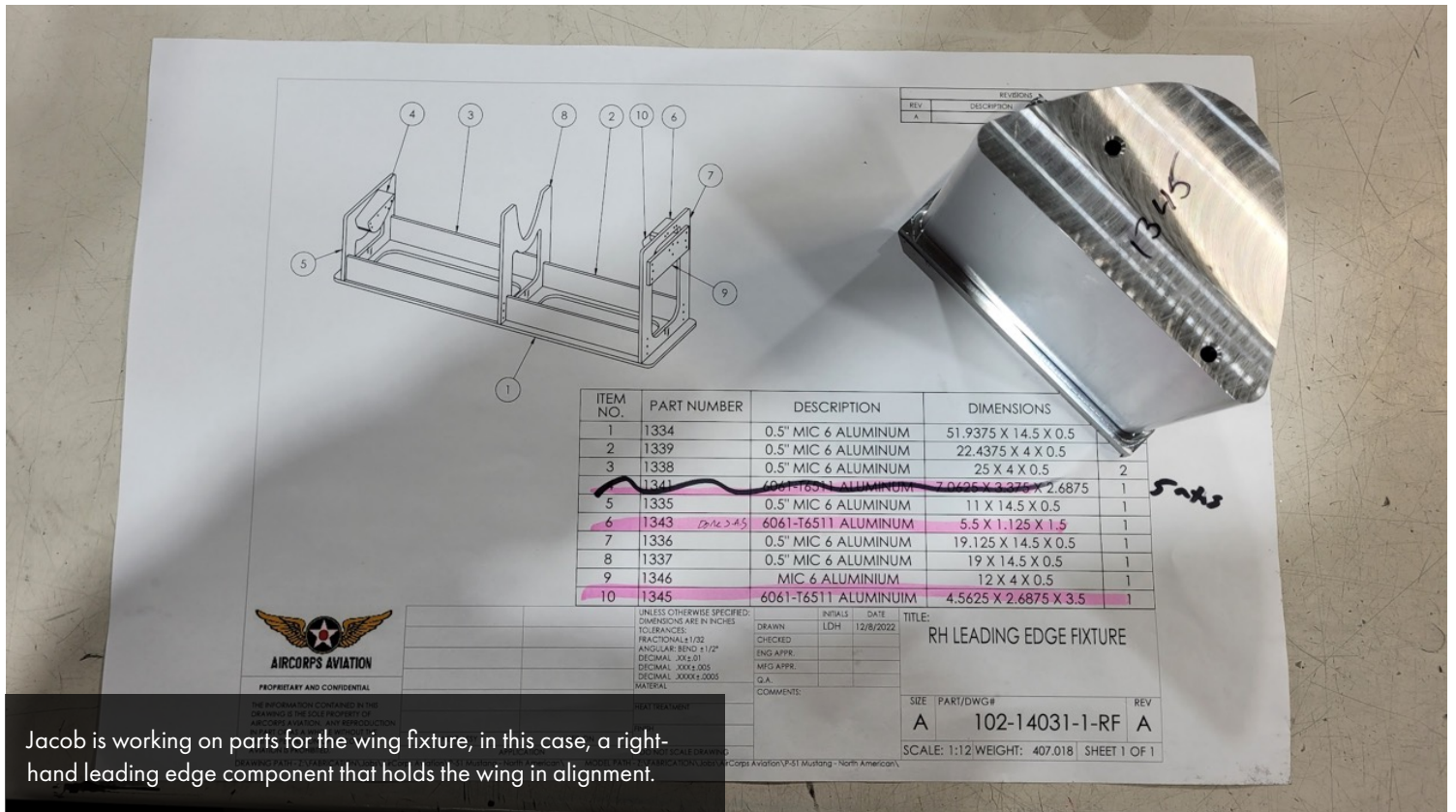
In this image, the painted structure inside of the tail cone is clearly visible.





## Wings

Work on fabricating the spars helped start the process of building the wings for Shillelagh. The assembly fixture was prepared and the first wing components were mounted.



Jacob is working on parts for the wing fixture, in this case, a right-hand leading edge component that holds the wing in alignment.





This is a section of the wing fixture that will support the inner "kink" in the leading edge.



The rear spar attach point is a critical part of the construction of the wing.





The center wing rib rests on a bench.

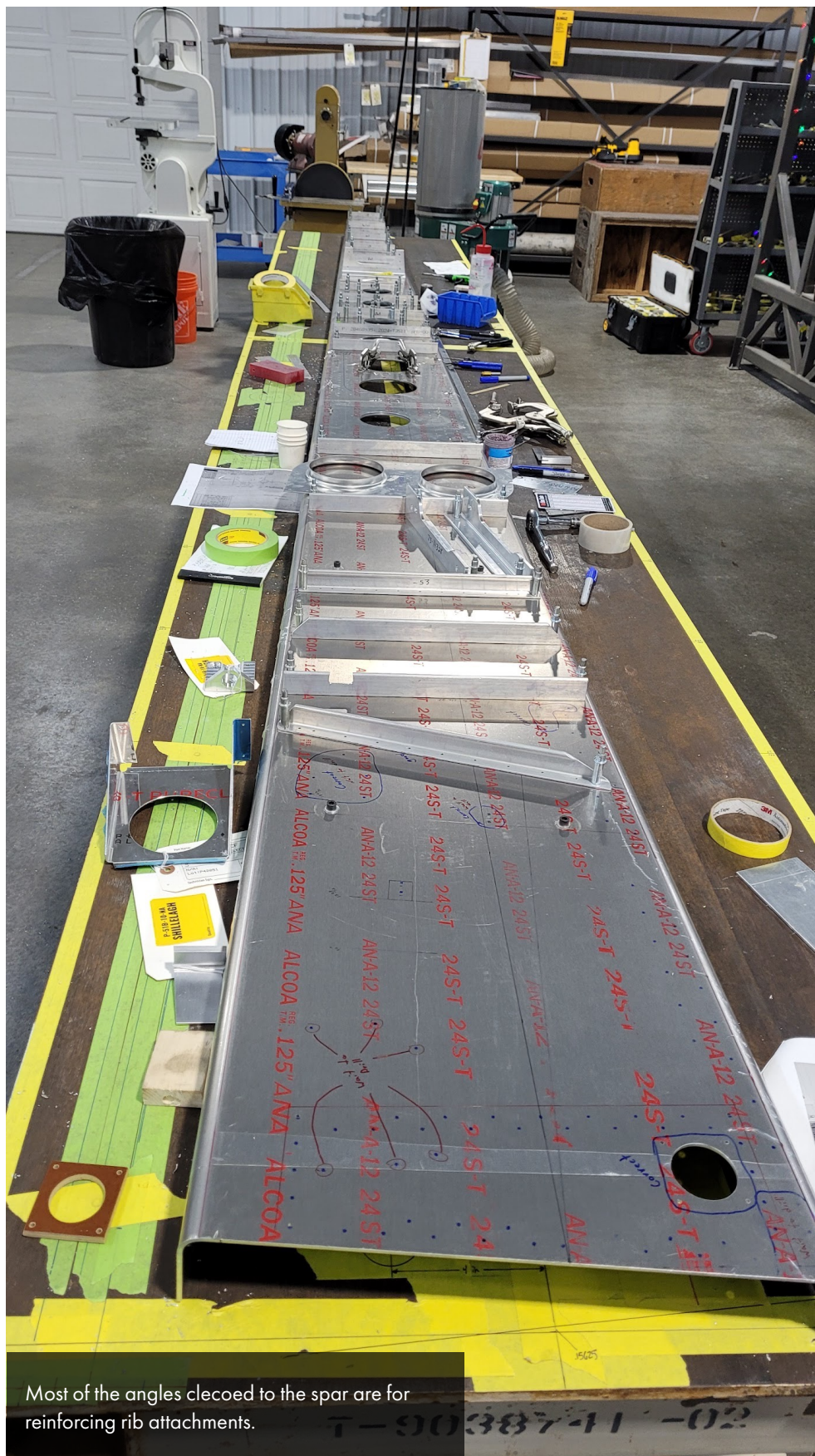


Randy checks an engineering drawing of the front main spar.









Most of the angles clecoed to the spar are for reinforcing rib attachments.





Neil fits a reinforcing angle to the main spar.



Wing ribs rest on a bench in readiness for assembly in the wing fixture.





The landing gear pivot support assembly is one of the first components to be mounted on the wing fixture.



A section of the inner main spar for the left wing is in place and mounted to the fixture and the landing gear pivot casting.





The right-wing spar section is also in place.

## The Pioneer Mustang Group



Two P-51 Mustangs of the 354th Fighter Group in flight. This photo would have been taken at least a month after D-Day when the order to remove invasion stripes from the upper surfaces came out. Photo American Air Museum in Britain, Roger Freeman Collection

The 354th was the first US Army Air Force unit to take the Rolls-Royce Merlin powered P-51B Mustang into combat, which earned it the appellation "Pioneer Mustang Group". Not only was the 354th the first long-range P-51B Mustang escort group, but it also led all groups in the European theater by destroying 701 enemy aircraft in air-to-air engagements.





### 9th Air Force Emblem



The 354th FG was assigned to the 9th Fighter Command under the command of Brigadier General Elwood R. "Pete" Quesada. What was to become the 9th Air Force was originally constituted as V Air Support Command on 21 Aug 1941 and activated on 1 Sep 1941. The unit was soon redesignated as the 9th AF in April 1942. The 9th moved to Egypt and began operations on 12 Nov 1942, participating in the Allied drive across Egypt and Libya, the campaign in Tunisia, and the invasions of Sicily and Italy. Then the 9th moved to England in October of 1943 to become the tactical air force for the invasion of the Continent. From 1943 on, the 9th helped prepare for the assault on Normandy, supported operations on the beach in June 1944, and took part in the drive that carried the Allies across France and culminated in victory over Germany in May 1945<sup>1</sup>.



Maj Gen Elwood R. "Pete" Quesada, leader of the 9th Tactical Air Command, climbs aboard an F-6B.

The first P-51Bs to reach England were assigned to the 354th Fighter Group under the 9th Air Force. The 9th's primary mission in Europe was tactical support for ground troops. However, when General H.H. "Hap" Arnold learned of the capabilities of the new long-range Mustangs, he decided that the new P-51B could be the answer to the 8th Air Force bombers' urgent need for a long-range escort.

To facilitate this escort role for the improved fighter, (instead of the tactical role more typical to the 9th AF), General Ira Eaker arranged for the 354th to be operationally assigned to the 8th Air Force while remaining administratively part of the 9th Air Force.

The P-51Bs of the 354th first entered combat on December 1, 1943, "by mid-winter the improved P-51B Mustangs of the 354th Fighter Group were regularly accompanying Eighth Air Force Heavy bombers over their targets deep in Germany. The new Mustangs proved magnificently successful in aerial combat, constantly meeting and defeating superior forces of German aircraft which threatened the heavy bomber formations."<sup>2</sup>

<sup>1</sup>Army Air Corps Library and Museum, [https://www.armyaircorpmuseum.org/www/9th\\_Air\\_Force.cfm](https://www.armyaircorpmuseum.org/www/9th_Air_Force.cfm), accessed 12-22-2022

<sup>2</sup>Richard H. Kohn and Joseph P. Harahan, *USAF Warrior Studies, Condensed Analysis of the Ninth Air Force in the European Theater of Operations*, New Imprint, Office of Air Force History, United States Air Force, Washington D.C., 1984, page 16





Shillelagh wasn't one of the very first P-51Bs assigned to the 354th Fighter Group. Shillelagh arrived in England in early April of 1944 and P-51B 42-106602 flew its first combat mission on 15 April 1944.

The 354th Fighter Group was comprised of 3 squadrons, the 353rd, 355th, and 356th.

David O'Hara's Shillelagh and Ken Dahlberg were assigned to the 353rd FS. By late May of 1944, the 354th was flying fewer escort and more tactical missions in preparation for the invasion of "fortress Europe".

"The Group escorted gliders on D-Day on 6 June 1944 and in the course of that month continued to strike targets like railways lines and German gun positions in support of Allied troop positions in northern France. The Group was awarded two Distinguished Unit Citations, the first for their work escorting bombers in the first half of 1944 and the second for a series of successful fighter sweeps that destroyed numerous enemy aircraft in the air and on the ground on 25 August 1944. The Group supported the Battle of the Bulge that winter and Allied troops fighting at the Rhine river in early 1945."<sup>3</sup>



354th Fighter Group Emblem



353rd Fighter Squadron Emblem

In November of 1944, the 354th received rather unwelcome orders to convert from their beloved P-51Bs to P-47s. The groups' re-equipment with P-47s signaled an end to armed reconnaissance missions where pilots went looking for trouble in the air. The 354th's primary duty now was dive-bombing, strafing, and supporting troops on the ground, more in line with the 9th Tactical Air Forces' usual mission."<sup>4</sup>

<sup>3</sup>American Air Museum in Britain, <https://www.americanairmuseum.com/archive/unit/354th-fighter-group#:~:text=The%20Group%20escorted%20gliders%20on,troop%20positions%20in%20northern%20France>. Accessed 12-27-2022

<sup>4</sup>William Ness, 354th Fighter Group, Osprey Publishing; Illustrated edition (March 25, 2002) p98





Capt. Kenneth Dahlberg(left), supervises the loading of the machine guns on his Republic P-47 Thunderbolt at a front-line field. Loading the ammunition is S/Sgt. Harry D. Phillips, the crew chief (center), and Pfc. George Spiros, Photo, American Air Museum in Britain, Jack Cook Collection

The Thunderbolt's stay with the 354th was brief, ending around the middle of February of 1945. The 354th pilots were ecstatic to get back into their beloved Mustangs that February.

Ironically Ken Dahlberg missed the changeover because he was hit by 88mm flak while flying P-47D-25 Thunderbolt #42-29336 - FT-O on a ground attack mission on February 14, 1945, and he was shot down for the third and last time.





This time he wasn't as fortunate as he had been the first two times he was downed. In both earlier incidents, Dahlberg was able to return to the 353rd FS in a short time. On this occasion, the German army captured him and Dahlberg spent 3 months as a POW.

The first time Ken Dahlberg was shot down was in August of 1944 while flying Shillelagh. Bailing out of the damaged Mustang, he was fortunate to land on the property of Baron Denis Baudoin. Had he had a choice, Ken couldn't have picked a better spot to land because Denis and Madeleine Baudoin were members of the French Resistance and would be instrumental in Dahlberg's evasion of the German army and successful return to his unit. More about Ken and the Baudoins will be forthcoming in future updates.

The day after Christmas 1944, during the Battle of the Bulge, Ken was flying P-47 FT-K when he was hit by ground fire on an armed reconnaissance mission to the Bastogne area. He successfully belly-landed but was three miles behind the German lines. A US tank crew bravely crossed the lines to rescue the downed flier.

Ken Dahlberg's WWII combat flying days were over after February 14, 1945, but the 354th Fighter Group's war continued. On February 16, just two days after Ken was downed, the 354th flew its first mission with the new Mustangs.



The fourth Shillelagh was a P-51D, the Mustang variant the 353rd Fighter Squadron received after switching from Thunderbolts and flew until the war in Europe ended. Ken Dahlberg was a POW by the time the D models arrived.





With the return of the Mustangs, (now the P-51D models with the new bubble canopies), the 354th Fighter Group became the Pioneer Mustang Group once again. For the remainder of the war, missions were almost all fighter sweeps and patrols in support of the Allied troops as they crossed the Rhine and advanced into Germany.

The record of the Pioneer Mustang Group was notable for many "firsts":

#### 354th Fighter Group, Pioneer Mustang Group Firsts:

- First to fly the long range Mustang in combat: December 1, 1943
- First long-distance escort: December 13, 1943 (Kiel, Germany 950 miles)
- Lt. Charles Gumm achieves the first aerial victory for the group: December 6, 1943,
- First 1100 mile mission to the border of Spain: December 31, 1943,
- First Merlin Mustangs to strafe on a mission: February 8, 1943, Frankfurt, Germany
- First fighter over Berlin: March 3, 1944,
- First P-51B dive bombing mission: March 26, 1944, Creil, France
- First in aerial victories: total of 701



Medal of Honor winner, Lieutenant Colonel James Howell Howard, United States Army Air Corps, with his North American Aviation P-51B-5-NA Mustang, 43-6315, "DING HAO!" at RAF Boxted, 25 April 1944. (American Air Museum in Britain, Roger Freeman collection)