

A Tale of Two Tails - Ray Hawks' story of the P-47D's fin fillet

The following article was published in 2000 in the Ninth US Air Force Association newsletter, Volume X No.4, to which we give full credit for its inclusion. We relate it here, not because the incidents occurred on a New Forest Airfield, but to ensure that this unique story does not become lost in the mists of time.

Henry Goodall writes "I first met Ray Hawks at the 2005 Reunion of the 367th Fighter Group in New Orleans, when he told me the story of his near death experience, on rolling a P-47D Bubbletop Thunderbolt, when returning from a mission in Germany, in April 1944. He was by then a wiry engaging 80-something year old, with a quick wit and a ready smile. Although he was a 'replacement pilot', who arrived to join the Group in December 1944 and stayed with them until the end of hostilities, his story is important, as it explains an anomaly, which I have never before seen explained in any description of the 9th USAF in WWII, or any book about the P-47 Thunderbolt. It is quite common to see illustrations and photographs of late war P-47 'Bubbletops' both with and without a fin fillet in front of the standard fin. However, no explanation for the difference is ever given with the accompanying text or description. This story gives the real reason; the time, the place and the solution, which gave rise to the modification."



Lt. Ray Hawks circa 1945



Ray's story:

"I joined the 367th Fighter Group December 2, 1944 at A-68, Reims, France as a replacement pilot flying P-38s in the 394th Fighter Squadron. By February 1945 we replaced our worn out P-38s with P-47 Thunderbolts in combat with very few hours' transition (*That 'transition' is yet another story, for another time - Ed*).

"After reading stories in the '*Jug Letter*' about rudder locks on P-47s with the bubble canopy and no dorsal fin, I will tell you of the excitement I caused at Y-74, Frankfurt, Germany some 55 years ago on Friday, April 13, 1945.

"First let me go back to February 28 of that year, when we dive--bombed Heunkirchen, Germany and the flak was so heavy you could hardly see through it. As I recovered from a bomb run, I crossed controls, as I did on the P-38, to confuse flak gunners as to what direction I was going.

"The airplane went completely out of control. It happened so fast I couldn't really describe it. The rudder was locked full on, and I could get no response from the controls. With flak so heavy, I decided to try a last-minute bailout. As a last try, I jammed the throttle wide open, cut on water injection and was standing on the rudder. Immediately, it snapped out in a side skid. I recovered from the skid and found everything okay.

"In those days our Republic man (*the manufacturer's on-site technician*) was at debriefings to answer questions that may come up in regards to performance of the P-47. He said right off "Your rudder-locked it" and explained how to make a normal recovery, which took a minimum of 6,500 feet. A few days later, I was on a test flight and decided to see if his suggested recovery would work. I locked it up two different times and it did take 6,500 feet plus to recover.

"Then I thought when I recovered the first time in combat, the recovery was fast once it started. I locked it up several more times and gave wide open throttle with water injection and stood on the rudder. You could not tell exactly what was going to happen else but it came out quickly and always in a hard side skid and sometimes very little loss of altitude. Since this had no useful purpose, I forgot about it until April 13th 1944, as we returned from a mission (*to Frankfurt Y-74*), where I shot down an ME 109. Our flight leader did not believe in victory rolls, so brought us in low at under 200 mph. I rolled it anyway and rudder-locked under 500 feet altitude. If the airplane had responded to the controls in a normal way, I could not have recovered from the position I was in. I jammed the throttle, stood on the rudder, and it snapped out in a horrible side skid. I recovered from the skid, found my place in the landing pattern and landed as if nothing had happened.

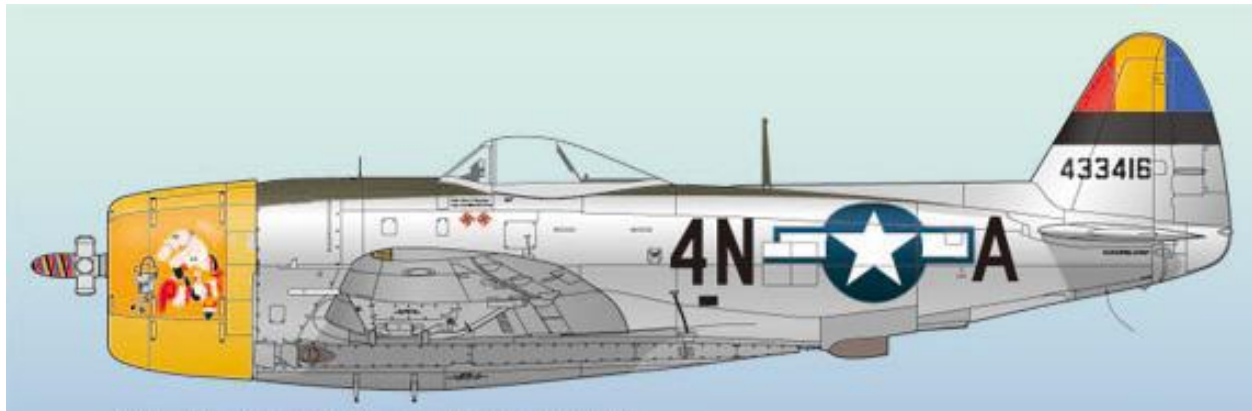
An eye-witness, J K Attlenon, later described the event, "I was an armorer with the 404th Fighter Squadron, 371st Fighter Group and reloading my P-47 when we heard the returning flight. I saw the '47 start to roll, then it went out of control, like a falling leaf. We thought for sure he was a goner but by gosh he came back into view. What a miracle! I'll never forget it.

Ray continues his story, "It seemed the whole base saw it happen for they converged on me from all directions, climbing all over my airplane and telling me how lucky I was. I said, "You guys should be with me sometime when I am scared!" I did see, in those few seconds, my whole life flash in front of me, but I really seemed to be someplace else watching this thing about to splatter.

"My squadron commander came by with some uncomplimentary remarks and, less than 30 minutes later, the Group Commanding Officer came by and congratulated me. Last came my flight leader with the question, "What did you learn today?" and it nearly did him in when I answered, "Don't roll a P-47 on the deck at under 250 mph."

The post script to the story, related to me by Ray in New Orleans in May 2005, is even more interesting.

Ray was somewhat older than some of the squadron's pilots, having already achieved an engineering degree, before training as a pilot. Shortly after the April 13th incident, he decided to find out exactly how the loss of control occurred and why. He took his P-47 up again and carried out the manoeuvre, taking 6,500 feet to recover on each occasion. He had an idea that the disrupted airflow over the fuselage might be the cause, when the aircraft was in a skid or yawing more than 10 degrees. He asked the Republic engineers on the base to prepare a kite shaped sheet of aluminium and fold it along its length, that being around 7 feet long, 4 feet wide at one end and tapered to a point at the other. He had them rivet this onto the fuselage and fin, as a fillet, in front of the fin, to form a barrier, stopping any lateral airflow between the cockpit canopy and the fin, which he suspected might be the cause of the aircraft going out of control. He then took the aircraft up to 10,000 feet and tried to replicate the side skid and the 'falling leaf' out of control situation. He couldn't. Having tried several times to get the aircraft to misbehave, he gave up, happy in the knowledge that he had found a solution.



Back on the ground, the news spread quickly through his unit and several other Groups immediately adopted the fillet as a standard 'in field' modification. Although the Republic engineers knew about the 'Bubbletop's vicious characteristic, which of course had never occurred in the 'Razorback' P-47, due to the high ridge running from the cockpit to the fin, they had never come up with a solution. It had taken Ray's prior engineering know-how to solve the problem. And that's the true reason why you see illustrations and photographs of late WWII Thunderbolts both with and without the fin fillet -*Henry Goodall*.