

## P-51 Mustang "Red Nose"

This is the Dixie Wing's newest airplane, but is actually one of the first airplanes in the CAF fleet. It was acquired by the founding members of the CAF including Loyd P. Nolen himself. Thus, this airplane is not only historically significant, but it is thoroughly engrained in the CAF's heritage as well. The Dixie Wing was selected to become the new home for the P-51 "Red Nose" by the CAF General Staff in November of 2002. We are very proud to have received such an honor and are doing our best to live up to that distinction.



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### ***Red Nose's History***

"Old Red Nose" has had a long and colorful history, dating back to the closing days of World War II. It was produced at the North American Aviation plant in Inglewood, California, and rolled out on 11 April, 1945 and was to accepted by the United States Army Air Force (USAAF) as serial number 44-73843. It was shipped to Page Army Air Force Base in Florida later that month and assigned to the 388th AAF Base Unit of the Third Air Force. Little is known of its service there, but it was probably used for training purposes. In September of 1945 the aircraft was transferred to the 336th Base Unit stationed at Sarasota, Florida. In November of that year, it was shipped to Hobbs AAFB in Texas and placed in storage. Its only other journey in the next six years was a transfer to the San Antonio Air Material Center at Kelly Air Force Base in 1947.

Though in storage for six years, this aircraft, now known as USAF F-51D-25NA s/n 42-73843, had not yet finished its tour of duty. In January of 1951, this aircraft was dropped from the USAF inventory and transferred to Canada under the Mutual Defense Assistance Program. It was officially accepted by the Royal Canadian Air Force (RCAF) on 11 January 1951, and was placed in stored reserve in Trenton, Ontario. A month later, on 26 February, this aircraft was once again flying, now with the No. 416 "Lynx" Squadron (regular) of the RCAF, based in Uplands, Ontario.

It served with this regular unit for little more than a year before transfer to the No. 10 Technical Services Unit in Winnipeg, Manitoba, on 28 March 1952. Here it stayed until assigned to the No. 420 "Snowy Owls" squadron (auxiliary) of the RCAF in London, Ontario. Its tenure with this unit lasted until 19 July 1956, when the aircraft was listed as awaiting disposal and placed into storage. It was

then bought by a private company in the United States, and ended back in San Antonio, Texas, now as the property of Stinson Field Aircraft.

What followed was a fateful day in the history of the CAF. On 17 October 1957, Mr. Lloyd P. Nolen, then of "Mustang and Company," bought the aircraft with three friends for \$2,500. This signified the unofficial start of the CAF; indeed, later that year, someone painted "Confederate Air Force" on its tail and the name stuck. In December of that year she was repainted with invasion stripes and coded VF\*G, and at this time the members referred to the aircraft as "Old Red Nose." She was officially donated to the CAF in 1977 and became part of the collection of the American Airpower Heritage Flying Museum in 1991. The airplane was restored in 1993 and is in excellent shape. "Old Red Nose" was assigned to the Dixie Wing of the CAF in November of 2002 and took to the air for the first time in 4 years in September of 2003.

### ***Flying the P-51 by Bob "Punchy" Powell***

Background: "Punchy" flew with the famous "*Blue Nose Bastards of Bodney*" in the European Theater of Operations during WWII. The short stories that follow are taken from his experiences flying P-51s in combat. Today, Punchy is retired and lives just South of Atlanta, GA.

#### ***First Flight in the P-51***

One day in early April, 1944 we returned from one of our many P-47 Thunderbolt missions to find two or three Mustangs parked in the 328th Sqdn revetment area. I was still sitting in the cockpit filling out the Form 1 for the mission when my Crew Chief, S/Sgt Jim Loughrey, climbed up on the wing and said, "Lieutenant, the Colonel said you were to get de-briefed and then you are to get 30 minutes in one of those Mustangs over there." I looked at him in disbelief since it was the first time I had ever seen a Mustang.

However, Colonel Mason had given that order and, as a 2nd Lieutenant, I knew that's what I had to do. So, I went over to one of the Mustangs and crawled into the cockpit, studying the instrument panel and seeing how I fitted into it. Then I called our Engineering Officer, Capt "Gus" Gustafson, and said, "Gus, what can you tell me about this airplane?" Gus said, "Not much, Punchy, except how to start the engine. We don't have any T.O. (Tech Orders) or PIF on it yet, but you guys are supposed to get checked out in it because you are flying a mission in it tomorrow." And so we did.

We didn't know the settings for the throttle, manifold pressure, zilch. A couple of the 486th pilots who had flown these planes into Bodney told us a few things they had learned about the '51 while flying them there, but it was very little. We were a cocky bunch and figured that if we could fly a seven ton T-Bolt we could certainly fly this smaller bird. So, I taxied out and took off. I was a little slow getting my wheels up, however, since the cockpit was not yet familiar. I took it up to about five or six thousand feet and did a couple chandelles, then some tight turns and then decided to see how it rolled. It performed beautifully. By this time my 30 minutes were about up and I knew I had to get that baby back on the ground so I decided to see how it reacted to power stalls and power-off stalls with the wheels down. No problem, so I went in and landed it--maybe not my best landing ever, but not too bad.

True enough, our next mission included both P-47s and P-51s because we didn't have enough Mustangs to make up a complete Group--usually three Squadrons of 16 each, 48 planes plus a couple of spares. Several of the Mustangs aborted the mission before crossing the North Sea--with "rough engines." The reason is we didn't have any knowledge of the proper settings and a rough engine over the North Sea in an unfamiliar aircraft isn't the most comfortable experience to have.

Fortunately, the mission was a milk-run since it involved escorting a bomber force on their withdrawal and didn't require deep penetration over the Continent.

After obtaining the PIF and making a few training flights, we realized we had a great airplane. It was easy to fly, very maneuverable with good speed and rate of turn. However, we were a little unhappy about giving up those eight .50 caliber guns in the Thunderbolt for the four guns in the B-Model Mustangs. But this was balanced by the fact that we no longer had to sweat coming back from missions over the 100 miles of North Sea with our fuel gages on zero. We now had a fighter with great range, one we could fly and fight deep into enemy territory and we now looked forward to our first mission over Berlin.



### ***Last Flight in Combat in the P-51***

In August, taking off on a mission out of Bodney, I lost my P-51B in which I had flown most of my missions when it suddenly burst into a ball of fire just after takeoff and I crash-landed it in a farmer's field adjacent to Bodney. That's when I got my new P-51D which, like my earlier planes, was named "*The West 'by Gawd' Virginian*" after my home state. However, I only flew a few missions in this airplane since I was nearing the end of my second combat tour, a total of 93 missions.

My last mission was a Ramrod mission to Peenemunde where the 8th's bombers were to bomb the factories building the infamous V-2 rockets that had more or less replaced the V-1 "Buzz-Bomb." It was a very long mission during which we flew slightly offshore of northern Europe along the Frisian Islands, crossing the lower part of Norway and Denmark, and then turning south toward Peenemunde.

We didn't encounter any enemy fighters on this mission but about two-thirds through the mission I developed a leaky prop seal and the oil flowed back across my windscreen making it very difficult to see well enough to fly good combat formation or see any "bandits" if we had encountered them. And, it made my landing back at base a little difficult.

Since I was one of the early pilots in the 352nd, I never did get to fly one of the later models which came equipped with K-14 (gyro) gunsight, tail radar, a G-meter and G-suits. These innovations came after I completed my two tours of combat missions.

### ***P-51 "Mustang" vs P-47 "Jug"***

About half of my missions were flown in P-47s and the other half in the P-51. Both were great airplanes and each had some advantages over the other. For example, the T-Bolt could outdive anything; had eight instead of the four or six guns of the P-51s; could turn with anything above 20,000

feet; and it could take one helluva beating and get you home. It's major fault was lack of range. It only carried 305 gals internally and burned about 100 gph at optimum cruise settings and 156 gph when you ran full mixture and powered up in a dogfight.

In contrast, the Mustang more than doubled the range, flying as much as 6-7 hours under optimum conditions on a mission. It was much more vulnerable to enemy gunfire, however, since a bullet into the radiator meant you only had a few minutes of flight time before the coolant was gone. So, I loved the Thunderbolt best when making ground attacks on trains, trucks, flak towers and enemy airdromes but I preferred the Mustang for bomber escort and air to air combat. Both airplanes made a major contribution to the success of the Eighth Air Force in winning air superiority over Europe. But, I think the turning point in the air war came with the advent of the P-51s. Except for the 56th FG, which flew P-47s until war's end, the other fighter groups of the 8th Air Force switched to P-51s.

Re the P-38 Lightnings, the two FGs in the Eighth flying these (both later went to the Mustangs) had a victory to loss ratio about half that of the T-Bolts and Mustangs. I have no explanation for this fact since their pilots were trained just as we were. It could have been their tactics which better suited two-engine aircraft or the pilot's visibility from their cockpits could have been a factor. Since I never got to fly the Lightning, I do not pretend to know why their performance in Europe was not comparable to their combat records in the Pacific Theatre.

Nuff said!

Blue Skies,  
Punchy.

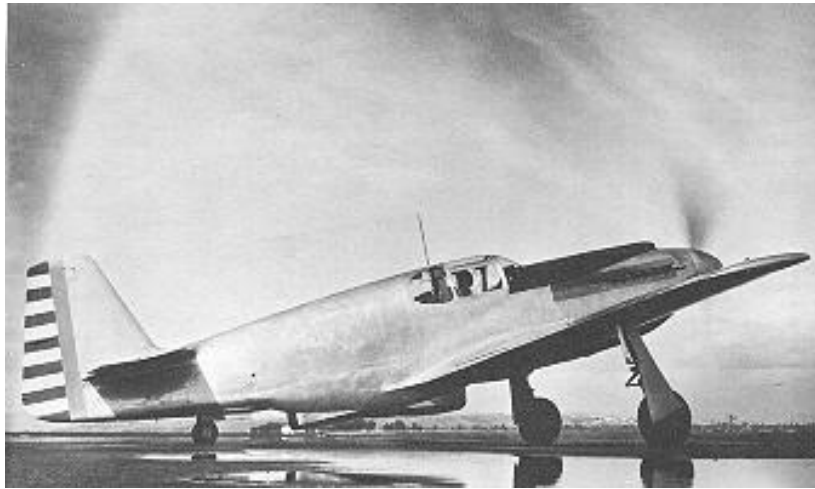
Punchy has written a book about the Blue Nosed Bastards of Bodney. You can [contact him](#) if you'd like a copy. You can also read more about Punchy in [WVU's Alumni Magazine](#), and [here](#) and on the [352nd Fighter Group](#) site. Or just Google for Bob Punchy Powell!

### ***P-51 History***

The P-51 was North American Aviation's first real foray into the manufacture of fighter aircraft. The genesis of the P-51 began in April 1940 when "Dutch" Kindleberger, president of North American Aviation, bought a new fighter design from Curtiss for \$56,000. This evolved over time and six months later, the prototype NA-73 was launched. This first Mustang prototype was designed and rolled out an astounding 117 days, with first flight on October 26, 1940. The essence of the P-51 design is synergism of contemporary advanced aerodynamic and structural design. In particular, it was one of the first fighters with a laminar flow airfoil. This gave the Mustang an exceptional internal fuel capacity and low drag, enabling it to fly an extended combat radius. It also gave the Mustang a high top speed, a valuable asset in aerial combat.

Much of the initial design work on the Mustang was conducted at the request of the British, who were in great need of high performance fighter aircraft. Initial tests showed that the basic design was very promising, and the RAF ordered 620 shipsets of the MK I Mustang. The USAAF also followed suit in 1942, ordering 500 A-36A "Apache" dive-bombers in late 1942. Unfortunately, the Allison V-1710-87 engine had good power at low level but produced insufficient power above 15,000 feet. This was due primarily to the Allison Engine's single-stage supercharger, which was intended for use in combination with a turbo-supercharger and therefore did not have sufficient compressor capacity to maintain high induction pressure at altitude. This lack of high-altitude performance limited the Mustang MK I/A-36 to ground attack and reconnaissance roles. Nevertheless, the A-36 was moderately successful in the Mediterranean area of operation, claiming its share of aerial victories

against the Luftwaffe in air-to-air combat. Cautiously, the USAAF ordered an initial 150 P-51s mounted with four 20 mm cannons. Thereafter, 310 P-51As were ordered, with a 1,200 hp V-1710-81 engine, and four 0.5-in machine guns with racks for two 500-LB bombs.



*This is the prototype Mustang, the NA-73 originally ordered by British Royal Air Force.*

In 1942, the British proposed putting the Merlin engine into the Mustang airframe. The installation of the two-stage supercharged Merlin engine in conjunction with a four-bladed propeller was found to give the Mustang extremely good performance, with top speeds exceeding 400 mph as well as long range and maneuverability. The result was a fighter that could equal or outperform any other aircraft in the air at that time. North American quickly developed plans to manufacture the P-51 with the license-built Merlin 61, the Packard V-1650-3 in-line engine.

As the basic Mustang design matured, it would ultimately become the leading US fighter in the European Theater of Operation during the final year of the war. Various models followed in quick succession. The USAAF ordered 2,200 P-51Bs, which were introduced into combat in December 1943 to escort B17s and B-24s on their missions over Germany. The aircraft were mounted with four 50 cal machine guns. The P-51D variant was ordered in 1943 and was introduced with the bubble canopy and dorsal fin to control stability problems along with six 50 cal guns. Even though the Malcolm hood, which enhanced visibility on the British Mustang Mk II and Mk III, was employed by the USAAF, it was the bubble canopy that became the standard feature of the P-51D. Few P-51Ds were operated by the British as the Mustang Mk V. Later P-51Ds included an additional 85-gal fuel cell behind the pilot's seat. This enabled the Mustang's combat radius to extend from England to Berlin and back. It was also the most widely used variant of the Mustang, a grand total of 8,102 aircraft of this type being produced.

One of the shortcomings of the P-51B was its limited firepower of only four machine guns. In addition, the guns in each wing were aligned at rather odd angles, requiring a severe bend in the ammunition belt feeds and resulting in frequent gun jams. The P-51D gun installation was completely redesigned, and the result was the installation of three MG53-2 .50-caliber machine guns in each wing, all of them mounted upright and all fed by straight ammunition belts. The inboard guns each held 400 rounds, and the others 270 rounds each. P-51Ds had under-wing hardpoints not only for bombs and fuel tanks but also for various types of air-to-ground rockets. These included zero-length stubs for six 5-inch rockets or as many as ten if no drop tanks were carried. Alternatively, "Bazooka" tubes could be carried in triple clusters. There were a few field conversions for special armament, examples including two drop tanks and six 100-LB bombs, four 100-LB bombs plus 36 fragmentation bombs, or four 75-

Imp gallon drop tanks. Aircraft used in the China-Burma-India theater usually had a direction-finding loop antenna in front of the vertical stabilizer.



*This is a Combat P-51D Mustang as it would appear when it first arrived to the combat units both in the European and Pacific Theaters.*

The P-51D began to arrive in Europe in quantity in March of 1944. The 55th Fighter Group was the first to get the new P-51D, trading in its old P-38s for the new bubble canopy fighters. The change from the torque-less twin-engined P-38 to the single engine P-51 caused some initial problems, and the lack of directional stability caused by the presence of a full fuselage tank took some getting used to. However, once their pilots became fully adjusted to their new rides, they found that the P-51D gave them an edge in both speed and maneuverability over all Luftwaffe piston-engine fighters at altitudes above 20,000 feet. Luftwaffe pilots considered the Mustang to be rather vulnerable to cannon fire, particularly the liquid-cooled Merlin engine, which could be put out of action with a single hit. The Mustang was the only Allied fighter with enough range to accompany bombers on their "shuttle" missions in which landings were made in Russia after deep-penetration targets had been attacked from bases in England. The Mustangs also participated in low-altitude strikes on Luftwaffe airfields, a rather dangerous undertaking as these fields were very heavily defended by flak. Heavy losses were suffered by American airmen in these raids due to Mustang's comparatively poor ability to withstand battle damage.

The total number of 14,819 Mustangs of all types were built for the Army. American Mustangs destroyed 4,950 enemy aircraft in Europe to make them the highest scoring U. S. fighter in the theater. They were used as dive-bombers, bomber escorts, ground-attackers, interceptors, for photo-recon missions, trainers, transports (with a jump-seat), and after the war, high performance racers. The aircraft was employed throughout 40 USAAF fighter groups and 31 RAF squadrons. The P-51 Mustang's combat record is generally considered to consist of: 4,950 aerial victories, and 4,131 ground kills resulting in an 11:1 "kill ratio".

### ***Specifications:***

#### ***Dimensions:***

**Wing Span:** 37 feet. 1 inch

**Length:** 32 feet. 3 inches

**Height:** 13 feet 8 inches

**Weight:** Empty: 7,125 lb, Max. Takeoff: 11,600 lb

**Wing Area:** 235 sq. ft.



**Power Plant :** Packard Built Rolls-Royce Merlin V-1650-7 liquid cooled 12 cylinder vee piston engine  
**Propeller:** Four-Blade Hamilton Standard

***Performance:***

**Top Speed:** 448 mph (Clean), 360 mph at 5,000 ft.

**Range:** 950 miles without auxiliary fuel cells, w/Large Droptanks: 2,100 miles

**Ceiling:** 41,900 feet

**Initial Climb Rate:** 3,745 ft. per minute (fpm)

**Sustained Rate of Climb:** 3,475 fpm

**Armament:** 6 X 0.5 (12.7mm) Browning machine guns, 2 X 500 LB bombs, 8 X 5-in (127mm) HVAR rockets

**Want to see and hear it take off?** Check out this [short video](#) (4.2Mb, avi format)

**Want to see and hear it fly?** Check out this [short video](#) (1.5Mb, avi format)

**Want to see and hear it land?** Check out this [short video](#) (3.3Mb, avi format)