HIGH DIVER

EDITOR'S NOTE: Too often, we forget that the mighty Mustang wasn't always mighty. Its father had humble roots, which included a specialized ground pounder, dive brakes and all. Not many A-36 Apaches were built, so pilots who flew her in combat are rare. Maj. Charles Waddell (inset) was one of those, and this is his story.

For many decades, surviving A-36s were so rare that none were seen at airshows. Today, Apaches, such as the Collings Foundation's "Baby Carmen," are not only seen regularly but also winning awards. Baby Carmen was judged Grand Champion—Warbird at EAA AirVenture in Oshkosh, Wisconsin, in 2012. (Photo by David Leininger)

COMBAT DRAMA IN THE A-36 APACHE

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Learning to Fly

When I joined the service in early December 1941, around the time Japan attacked Pearl Harbor, I was already considered an old man at 22. I was born in 1918 and grew up in Brooklyn, New York, where I tried to join the Air Corps in late 1938. But they didn't really want anybody because the country was just coming out of the Great Depression and the government was flat broke. Back then, with no war going on, they were a lot choosier about who they would take. December 7, 1941, changed all of that.

I spent almost a year waiting for my cadet appointment. Finally, in September 1942, I was assigned to flight-training school. I started out in low-wing Fairchild PT-19s, then went on to BT-13s and then into the AT-6. I was selected to become a fighter pilot and was shoved into an old P-40 Warhawk. Honestly, I thought the P-40 stunk! They were greatly overrated, and the ones we had at the Army Air Force (AAF) base in Eagle Pass, Texas, were complete dogs!

At Harding Field, Louisiana, training in the Apache proved to be some of the most hazardous in AAF as fledgling pilots transitioned to the new world of dive-bombing. At one point, the cast-aluminum dive brakes were ordered to be wired shut and the diving angles reduced to 70 degrees. Better techniques and hydraulic improvements corrected the difficulties, and full dive-bombing tactics were used with great effect in the Sicily and Italy campaigns. (Photo courtesy of Stan Piet)

The very first time I was up in a P-40, the whole electrical system went out. I had no electric pitch trim, and I couldn't lower my landing gear, so I had to pump it down by hand. For an "old guy," it became quite exhausting! The flaps had to be lowered by pumping them as well. It wasn't until after I landed that I was reminded of a bypass switch that would have solved all these problems, and helped me avoid using the "Armstrong" method! There was so much to learn as a green fighter pilot when checking out in a new airplane. But thankfully, the next one I was assigned to I absolutely fell in love with.

Charles Waddell, left, is seen with a fellow cadet during training. (Photo courtesy of Jim Busha)

I first laid eyes on the P-51A at Hillsborough Field, near Tampa, Florida. The Mustang was a hot fighter at the time—in my opinion, the very best we had. We got to fly them for three months before we were shipped out for combat, and they were a true delight—except for one small item: The cockpit cooling system didn't work at all. We were soaking wet in that hot Florida sun when we came down from flying, and that was just during the morning flight! But truthfully, I wouldn't have changed it for the world. Heck, going from an AT-6 into a Mustang was like jumping out of your father's truck into a souped-up hot-rod! The P-51A models had Allison engines. Down low, the planes were great, but above 12,000 feet, they got really tired in a hurry and had their tongues hanging out. By way of comparison, I got a chance to fly P-51B Mustangs while in tactical flying school. They were real beauties—powerful and yet graceful. Although their Rolls-Royce Merlin engines liked to buck and bang on startup, they really made up for it as they zoomed well past 12,000 and kept on going. But going up high was not the reason I was in Florida. I was there to learn the tricks and traits of the A-36 Apache dive-bomber.

Dive-Bomber School

Checking out in the early Mustangs meant only one thing: dive-bombing. Most of the early Air Corps dive-bombers had been A-24 variants of the Navy's venerable Dauntless SBD ("slow but deadly"), with a behemoth known as the Vultee A-31 Vengeance. The SBD was a well-proven airplane in the Pacific, but it was slow. We needed something that could get in and out quickly. The A-36 Apache, a variant of the Mustang P-51A, was specifically designed for swift, in-and-out dive-bombing. North American Aviation redesigned and strengthened the laminar flow wings, added racks to carry a 500-pound bomb under each wing, loaded it up with six .50-caliber machine guns, including two in each wing and two more

in the nose. Down low, it was fast, and it cruised at about 260mph; wide open, it could hit 365. But the greatest attribute of the Apache, by far, was its dive brakes.

Embedded in the wings, the dive brakes were aluminum-grated slats that popped out 90 degrees like clamshells on the top surface and the bottom. They were activated by a small control knob located on the pilot's left. When deployed in a dive, they allowed us to hold our dive steady and keep the gunsight's "pipper" on the target. In fact, as A-36 dive-bomber pilots, we would often brag that we could put a 500-pound bomb in a pickle barrel from 2,000 feet! Of course, there would be nothing left of the barrel to prove our accuracy, but I think you get the point.

In training, and later in combat, we would normally operate in flights of eight, 12, and sometimes 16 A-36s. We climbed to 10,000 to 12,000 feet and waited for the leader's signal to dive. When he "fishtailed" his Apache, he wanted all of us to fall in behind him, as close to the tail of the A-36 in front as possible, so it was as if we were on an invisible string. It must have looked like a Broadway show from the ground, as we waited for the leader to roll over on his back and dive almost vertically for the target below. Before pushing over, though, we deployed the dive brakes to ensure that we'd be able to control our vertical speeds. We were told that this was an "incline" dive and that no other Air Force fighter could really do what we were doing—basically, dive straight down without tearing our wings off. During those steep dives, the brakes allowed us to hold our airspeed steady down to about 220mph. We would release our dummy bombs at 2,000 to 2,500 feet, close the dive brakes, and then zoom away as fast as we could. The training was continuous and at times strenuous, but I had a lot of fun. About the only thing missing was the flak and ground fire—something I would experience firsthand over the skies of Italy.

The men traveled in style via WW I–era boxcars, with 40 men per car. (Photo courtesy of Jim Busha)

Joining the Fight

I took a long, slow boat ride across the Atlantic Ocean and arrived in Casablanca, French Morocco, on Christmas Day 1943. From there, we were loaded in World War I–era boxcars called "40 in 8" because each one could hold up to 40 men or eight horses—thankfully, not at the same time. Five days later, I arrived in Libya, where I was shoved into the nose of a B-17 Flying Fortress and took off for Italy. The B-17 pilot must have been a frustrated fighter pilot because he never got much higher than the wave tops as we zipped over the water, across the war-torn countryside of Sicily, and on to our base near Naples, Italy.

I was part of the 27th Fighter Bomber Group (FBG) and joined them at an old commercial airfield called Pomigliano d'Arco. We shared our turf with our sister Apache group, the 86th, plus some bomber outfits. We were only 30 miles from the front lines, and to add to the excitement of war, Mt. Vesuvius decided to blow its top and send rocks as big as cars into the air!

Ground crewmen of the 86th FBG pose with A–36A, "#067," after its crew chief Staff Sgt. Meredith J. Sutton painted the 150th bomb mission marker on his charge. The plane was later lost to flak over Italy on January 14, 1944. (Photo courtesy of Stan Piet)

My initial combat hops were more or less familiarization flights with "old hands" that had been in combat for a while. My indoctrination lasted only about two hours. In that time, I absorbed every word the old-timers said because it was the only way to stay alive.

Shortly after I arrived, the big January 1944 battle at Anzio had erupted. On my first combat hop, I was assigned to fly on the squadron commander's wing. His job was twofold: to lead the mission and to keep me out of trouble. We found plenty of trouble that day as flak and small-arms fire filled the sky. The Germans threw everything they had at us. So what was it like to fly my first combat mission? In a nutshell, it was scary as hell! It took just 20 minutes to cross the bomb line and then we were on a fighter sweep, looking for targets of opportunity. The formation we flew was what we called "line abreast." It was hard for the Germans to hit us as we kept close to one another—only 50 feet away from the other A-36s. While we made our runs on the targets, we constantly changed our altitude and directions, turning and jinking the stick the whole time.

AS A STRAFING MACHINE, THE A-36 WAS FEARSOME, BUT IN ITS PRIMARY ROLE AS A DIVE-BOMBER, IT WAS DEADLY.

I will never forget my first target: a German ambulance. It sat in a parking area with a bunch of other vehicles around, so I didn't know if anybody was in it. Trouble was, there were a bunch of Germans standing near it and they were, of course, firing back at us. And they were very, very good at it, getting great accuracy with their 20mm and 88mm guns. They knew how use them, and they filled our planes with holes.

My Apache took three hits in the tail, but it kept on going as if it had only had its paint scratched. It would have been a lot different had the hits swapped ends and I took them in the engine or the coolant system. Had that happened, I am sure I would have had to bail out and became a guest of the Germans for the remainder of the war. Thankfully, the A-36 kept on ticking, and I made it out alive. Our missions increased during that time, and sometimes we flew multiple times each day. We rarely encountered German fighters, though, and most times had top cover from British or American Spitfire fighter squadrons.

Some of the A-36s in our squadron were armed with two 20mm cannon in the wings instead of machine guns. The cannon packed a punch, firing straight ahead; but they didn't converge into a cone of fire like our machine guns did. As a strafing machine, the A-36 was fearsome, but in its primary role as a dive-bomber, it was deadly.

Most of our missions began with the squadron commander standing before us in the briefing room, where he'd pull back the curtain back to reveal a large wall map of Italy. We would be given our targets and routes and, on some occasions, photographs of our targets. All of our A-36s were painted in the same flat, olive drab scheme with just a number or letter signifying individual planes. We wrote all the numbers on the back of our hands so that we knew who was next to

Below left: The dive brakes, above and below the wings, create a monumental amount of drag, allowing the normally clean airplane to dive at near vertical angles. (Photo by David Leininger) **Below right:** The two .50-caliber Brownings in each wing brought the total to six. (Photo by Frank Mormillo)

The air inlet above the nose, rather than below it, is a major difference between the Allison-equipped Apaches and the Merlin-equipped Mustangs. The Apache could carry 1,000 pounds of bombs. Note the belly scoop, which is much slimmer than the later Mustangs. Owner Dan Fiedkin has restored his airplane to appear mission-ready, complete with bombs. (Photo by David Leininger)

Above: **The basic cockpit layout didn't change in any of the models. The gear handle is down by the left foot, trim wheel and knobs are under the left arm, fuel selectors are between the legs, and so on. (Photo by Frank Mormillo)** **Left:** **The "birdcage" canopy of the Allison airplanes didn't change when the Merlin-powered 51B/Cs were developed, but the Malcolm Hood replaced the center part. The 51D introduced the bubble canopy. (Photo by Frank Mormillo)**

us, what A-36 they were in, and who was who in what position. As we strapped inside the A-36, we were struck by the sight of identically colored Apaches warming their Allison engines, dust flying as airplanes rocketed down the runway.

With our target photos strapped to our legs, we struggled to get to 12,000 feet with a 500-pound bomb slung beneath each wing. Although I could feel the prop wash from the guy in front of me, I got used to it after a while. We kept our eyes peeled for German fighters and hoped the Spitfires would latch onto them before they spotted us. Our targets were command posts, dams, bridges, airfields, and troop concentrations. We usually avoided bombing the German airfields because they were heavily defended by antiaircraft guns—but we sure strafed the hell out of them when we came zooming in at treetop level, all of us line abreast with our machine guns shooting up the whole damn place!

Left and below: Waddell traded his beloved A-36 Apache for the P-40 Warhawk (left) and later the P-47 "Jug" (below) before rotating back to the States. He reported that neither aircraft could approach the Apache in terms of accuracy as a dive-bomber. (Photos courtesy of Jim Busha)

Saying Goodbye to an Old Friend

But just as soon as I got comfortable in the A-36 and felt like it was an extension of my body, the planes were ripped away from us. North American Aviation built only about 500 of them. Some stayed back in the states, and others went to the Far East Theater of Operations. In Italy, there was nothing else around that could do what we were doing. But our numbers were dwindling because of operational losses. The AAF could no longer keep two A-36 groups going and had to decide between us and the 86th. We did it the old-fashioned way and flipped a coin. Unfortunately for me, the 86th got to keep flying the Apache. Our 27th FBG was promised the new P-51 Mustang, but like everything else in the army, nothing ever goes as planned. Instead of Mustangs, we ended up with war-weary P-40F Warhawks that had been cast off by the Royal Air Force. As far as we were concerned, we were stepping backward, but orders were orders and we made do with what we had. The A-36 was designed perfectly for its dive-bombing role; why the AAF gave them up is a mystery to me!

The P-40F could do only about 240mph on the deck, compared to the 300+mph in the A-36. We should have learned that gambling only gets you further in debt! The bottom line is that the A-36 was designed for one very important and particular task: dive-bombing. When the AAF tried to replace it with a new airplane, they fell short. We later got P-47 Thunderbolt "Jugs" as replacements for the P-40 dogs. But diving in a P-47 was a tough deal. You couldn't come diving straight down because that behemoth picked up speed so rapidly that you had to think 10,000 feet ahead of it to pull out safely. We developed a glide-bombing technique. That helped, and it must be said that the P-47 had one advantage over the Apache: It could carry twice the load—two 1,000-pound bombs. I think that that capacity was the deciding factor for the powers that be.

I think our dive-bombing accuracy dropped in the P-47. One big reason was that you couldn't see over the Jug's nose. As a consequence, we *had* to glide-bomb. There was no way we could direct a bomb into a pickle barrel (the fabled claim of radar-guided-bombing enthusiasts)—or even close!

How did I keep going as a fighter pilot and avoid stewing about whether today was my day to cash in? Truthfully, I never gave it a thought. I was scared to death every day, but I always thought it was going to be the other guys that would get hit—never me. There was one big reason I felt this way: I knew that I had an excellent airplane strapped to me. The A-36 Apache was my good luck charm!

Charlie Waddell wound up flying 120 combat missions in the A-36, P-40, and P-47. Of the 26 men he went into combat with as part of the 27th FBG, only nine returned home.