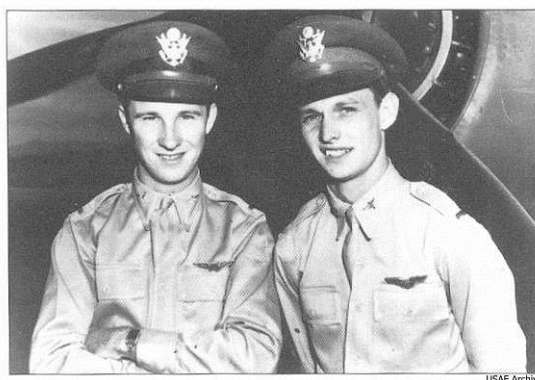


During the course of the Second World War, the United States produced many exceptional airmen who made their mark and will be remembered as long as people study those most defining years of the 20th century. Many have heard the names of the great fighter pilots, such as Bong, Gabreski and Boyington. However, some of the very best have never achieved the public recognition that they truly deserved. George S. Welch fits into that category. Despite being a featured character in the film epic, Tora, Tora, Tora, Welch simply isn't remembered in the company of the elite scoring leaders mentioned above. In many respects, this would be just fine with Welch. He was never one to seek out attention. Popular American culture has a tendency to accept Hollywood's definition of a hero. This is why names like Chuck Yeager and Pappy Boyington are known in nearly every home. Indeed, there were a great many brave men whose name is no more significant than that of one's bank manager or auto mechanic. Yet, many of these obscure individuals give up nothing in accomplishment and courage to any of the near mythical daredevils that have been popularized in the media. So, who are these men? George S. Welch was one of them. Perhaps his tragic and untimely death obscured his most remarkable life. Or, maybe it was his natural reluctance to live in the limelight. Whatever the cause, the time has come to give credit where it is due, and Welch is due no insignificant portion of glory.

Born on May 18, 1918, George was the son of an influential Du Pont research chemist. George's birth certificate lists his name as George Louis Schwartz, Junior. Having experienced a great deal of anti-German prejudice during the First World War, George's parents decided to formally change the last name of their two boys. Welch was his mother's maiden name, and it was decided to keep Schwartz as the middle name. Contrary to popular myth, George was not related to the Welch family of grape juice fame.

Young George lived the life that his father's status and income provided. He attending private schools and excelled at sports. His academic abilities were remarkable, although he tended not to make any more effort than necessary. Following his graduation from St. Andrews in June of 1937, Welch attended Purdue and studied mechanical engineering. Having been smitten by aviation, George put in the mandatory two years to be accepted for Army Air Corps flight training. However, with the start of the war in Europe, there were more applicants than openings for Army aviation cadets. Finding himself far down on a long list, George returned to Purdue in the fall of 1939. Finally, after several months, He was ordered to report to Randolph Field for cadet training.



Ken Taylor (left) and George Welch posing for the camera shortly after their epic air battle over Pearl Harbor.

Little more than a year later, Welch was commissioned as a Second Lieutenant and pinned on the wings of an Army Air Corps pilot. He received his orders to what was known as a “dream assignment”. George was to report to the 47th Fighter Squadron based at Wheeler Field on the Hawaiian island of Oahu. When he arrived in February of 1941, George was startled to see that the squadron was equipped with antique Boeing P-26 fighters. His horror was soon assuaged when he was informed that the Curtiss P-36 and the new P-40 were expected to arrive in early May. “Good thing,” thought Welch. The P-26 was little more than an airborne target by early 1941. Flying the little Boeing against a modern air force would border on suicidal, as was demonstrated 10 months later in the Philippines.

Welch would settle into the slow pace of duty typical of pre-war Hawaii. Working days were short, with most flying suspended before the mid day heat became especially oppressive. There was an abundance of time off and parties were the favorite pastime, frequently lasting from sunset to dawn. George was never the wallflower type and took to the social scene with his typical self-confidence. Life was pretty good for the 24-year-old fighter pilot. However, things were about to change dramatically and forever.



Curtiss P-40B, 15th Pursuit Group, Wheeler Field, Oahu, Hawaii circa December, 1941

Copyright (c) Jordan Publishing, 2000

A typical example of the P-40B fighters serving with the 15th Fighter Group at Wheeler Field on Oahu in late 1941. It was in this type of fighter that George Welch and Ken Taylor took full measure of the Japanese fighters and bombers dealing destruction to Pearl Harbor. The P-40B proved to be more than a match for the A6M2 Zero as long as its pilot took advantage of the inherent strengths of the rugged Curtiss.

The party and poker game had been pretty much the norm. It had begun shortly after 21:00 hours and continued going strong until the sky began getting brighter along the eastern horizon. Welch and fellow pilot, Ken Taylor crawled into their beds at the Wheeler BOQ expecting to sleep in on a duty free Sunday morning. Just two hours into their party induced slumber, an unfamiliar rumble roused them to their feet. Running to the window, Welch was horrified to see smoke rising from burning aircraft on the field. Gazing up at a passing plane he noted the big red ball on the wings and fuselage. Japanese! Wheeler was being bombed by Japanese aircraft!

Leaping into the same clothes he had worn the previous evening, George raced from his room just as Taylor burst out of his door. Welch and Taylor had flown their P-40B fighters over to the small airfield at Haleiwa as part of a plan to disperse the squadron's planes away from Wheeler. George grabbed the telephone in the duty office and called Haleiwa. Getting the Duty sergeant on the line, he told him to see that both fighters were fueled, armed and warmed up. He and Taylor were on their way. Running at full tilt, the two pilots piled into Taylor's car. Racing for the base gate, they were strafed by

a passing dive bomber. Once on the road to Haleiwa, Taylor drove at breakneck speeds, frequently pushing 100 mph, and covered the winding 16 miles of road in little more than 15 minutes. Sliding to a stop in a cloud of dust and gravel, both men raced to their P-40s, now warmed up and ready. Jumping into the cockpit, Welch listened as his crew chief said, "Lieutenant, we don't have any .50 caliber ammo here. All that you're gonna have is the .30s." "OK" said Welch, as he got his harness buckled. The crew chief continued, "We got word that we should disperse the planes, sir." "The hell with that", said Welch, "get off." The crew chief slid off the back of the wing and George pushed up the throttle and taxied to the narrow airstrip. Ignoring the usual pre-takeoff check-list, George slowly fed in full power and roared off the grass with Ken Taylor two minutes or so behind him.

Retracting his landing gear, Welch reached down and grabbed the charging handles for the wing mounted .30 caliber machine guns. Climbing past 1,000 feet, he spotted a large formation of aircraft heading towards the Marine airfield at Ewa. With the throttle jammed full forward, Welch raced in after the Japanese. Lining up on a dive-bomber, he opened fire from very close range. Despite having a gun jam, his fire was dead accurate. The single engine, elliptical winged bomber exploded into flame and nosed straight over into the ground. Pulling off to make another run, Welch felt his fighter take hits from another bomber's rear gunner. Climbing away from the Japanese, Welch felt out the P-40 and determined that there was no damage of consequence. Rolling out into a dive, George headed back for the enemy formation. He arrived in time to see Taylor flame one of the "meatball" emblazoned dive bombers. Zooming in after another of the bombers (later to receive the Allied designation of Val) apparently headed back to its carrier, Welch again closed to point-blank range and sent the plane tumbling into the sea. Taylor had latched on to another of the Vals and sent him crashing into the ground just in from the beach near Barber's Point. Just as suddenly as it began, the sky was empty of enemy aircraft.



The A6M2 Zero was the fighter deployed aboard the Japanese carriers for the Pearl Harbor attack. It was this type that wounded Ken Taylor and was then quickly dispatched by Welch. Ironically, the Zero proved to be effective only if the American pilots entered into low-speed dogfights. Once the proper tactics were employed, the myth of the frail Zero's invincibility was forever shattered.(U.S. Navy photo)

Not far from Wheeler, both pilots headed in and set down on the devastated airfield to replenish their nearly exhausted ammunition supply. Fortunately, one of the field's fuel trucks had survived the attack. Welch and Taylor remained in their cockpits gulping water provided by their ground crews. Both aircraft were fully fueled and armed, including the two .50 caliber guns mounted above the engine. The armorers were unable to clear George's jammed wing gun. No matter, another formation of Japanese aircraft were spotted heading in. Welch waved the ground crew away and started the big Allison engine. As he turned onto the runway he eased up the throttle and roared down the field. Taylor rolled onto the runway and proceeded to take off in the opposite direction. As Welch cleared the ground, he pulled up his landing gear in time to see a Japanese fighter strafing Taylor on his

takeoff roll. Meanwhile, yet another of the enemy fighters strafed Welch as his P-40 raced down the runway. Rolling into a hard left turn, Welch felt the landing gear lock into their wells and went straight for the fighter (an A6M2 "Zero") that had attacked Taylor. Overhauling the radial engine plane, he opened fire. His rounds exploded the Zero's fuel tank and it crashed in a ball of fire just beyond the runway. Welch then spotted a lone dive bomber headed for the safety of its carrier and took out after him at full power. It didn't take long for the P-40 to close within range. Under a withering rain of machine gun bullets, Welch's fourth victim crashed into the sea. Having used most of his ammunition supply, it was time to return to Wheeler in order to rearm and top off the fuel tanks. After George taxied in and cut his engine he discovered that Taylor had been wounded by the marauding Zero that had worked him over on his takeoff run. Taylor had ignored the rifle caliber machinegun bullet that passed through his arm and went directly for the enemy. Taylor had managed to hit several other Japanese aircraft, but had not been able to see any of them crash, he was too busy for that. All he could do was claim two probables. Likewise, Taylor has stated that at least two other Japanese aircraft fell to Welch. However, like Taylor's probables, wreckage was never discovered out at sea. Once again, the two pilots refueled, rearmed and took off on a third sortie. However, by this time the Japanese carriers were already steaming away from Pearl Harbor. There would be no more encounters that day. Much to Taylor's credit, he allowed only first aid to be performed on his wound before taking off for the third time.



The IJN carrier Akagi as she appeared just three months before the attack on Pearl Harbor. Take note of the brand new A6M2 Zero fighters parked on the forward flight deck. It was the Zero that would earn a sinister reputation with American fighter pilots. George Welch found them much less daunting. Akagi fell victim to U.S. Navy dive bombers during the Battle of Midway in early June of 1942. (U.S. Navy photo)

For their actions on the morning of December 7th, both Welch and Taylor were awarded the Distinguished Service Cross. Later, Welch was honored by President Roosevelt at a special White House ceremony. Yet, this award was certainly less than what was deserved. Hap Arnold was prepared to approve a recommendation for the Medal of Honor for Welch. However, it was squashed by a local commander who argued that Welch and Taylor had taken off without orders. Such was the stupefying mindset of the pre-war Air Corps. Consider that the Japanese lost just 29 aircraft* during the attack (plus four other "operational" losses). Now stop and look at what Welch and Taylor had accomplished. At least 6, and probably 10 of the total Japanese losses were the direct result of these two pilots. How could the Army accept the "no orders" argument? What were these men supposed to do? Sit and wait for some staff officer to issue orders? Enemy aircraft were attacking, killing sailors, soldiers and airmen. There was no way that they would wait on the ground for the Japanese to discover their P-40s and destroy them sitting useless on the parking ramp. They were at war, and they were determined to make the Japanese pay a price for their treachery, and they intended to do so immediately.

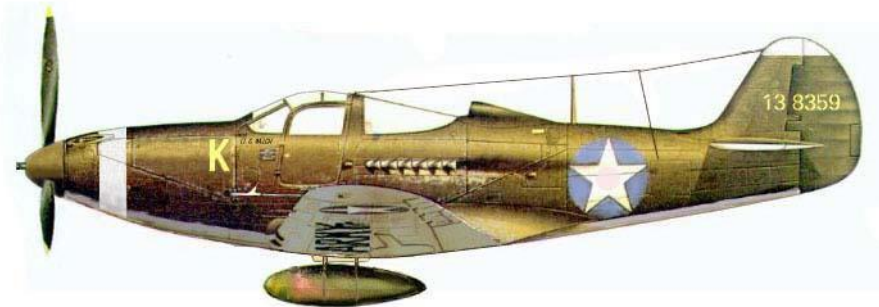


Standing before a Curtiss P-36 fighter, one of the few that survived, five USAAF pilots who shot down one or more enemy aircraft pose for a photograph. From left to right: 1st Lt. Lewis M. Sanders (1 victory), 2nd Lt. Phillip M. Rasmussen (1 victory), 2nd Lt. Kenneth M. Taylor (2 victories), 2nd Lt. George S. Welch (4 victories) and 2nd Lt. Harry W. Brown (1 victory). Together, these 5 pilots shot down nine Japanese aircraft confirmed, with 4 probables and two damaged. This amounts to nearly 1/3 of all Japanese aircraft lost during the Pearl Harbor attack. Three of the men are wearing sidearms, indicating that they were probably on duty when this photo was taken.

Welch and Taylor not only met the minimum standards for the MOH, they defined its meaning. Their actions on December 7th were certainly above the call of duty, and the risk they exposed themselves to was extreme. When will the Air Force and the U.S. Congress finally give these valiant men their just reward? If you believe that Welch and Taylor were stiffed by the Air Corps, take out a few minutes and write or phone your Congressional Representative and tell them about this injustice. Perhaps after nearly 60 years, we can get Welch and Taylor the award they truly deserved.

* Japanese Admiral Nagumo was well aware that the American defenses had greatly stiffened. Nine Imperial Navy aircraft of the first wave had been shot down. At least eleven more had suffered some level of battle damage. More resistance awaited the second wave which suffered 20 of its aircraft shot down, nearly half to the Army fighters that had escaped the original attack and gotten into the fight in the hands of vengeful pilots. Many of the second wave suffered some battle damage, with nearly 40 aircraft having been hit by anti-aircraft fire and the aggressive American fighters. Indeed, some of these aircraft were beyond economical repair. Adding to those casualties were several operational losses. Nagumo, who had already decided that a two wave attack was all he could afford to risk, was

more convinced than ever to turn for home. Additionally, the added specter of an American carrier Air Group finding his task force only reinforced his concerns. In general, Nagumo elected to err on the side of caution.



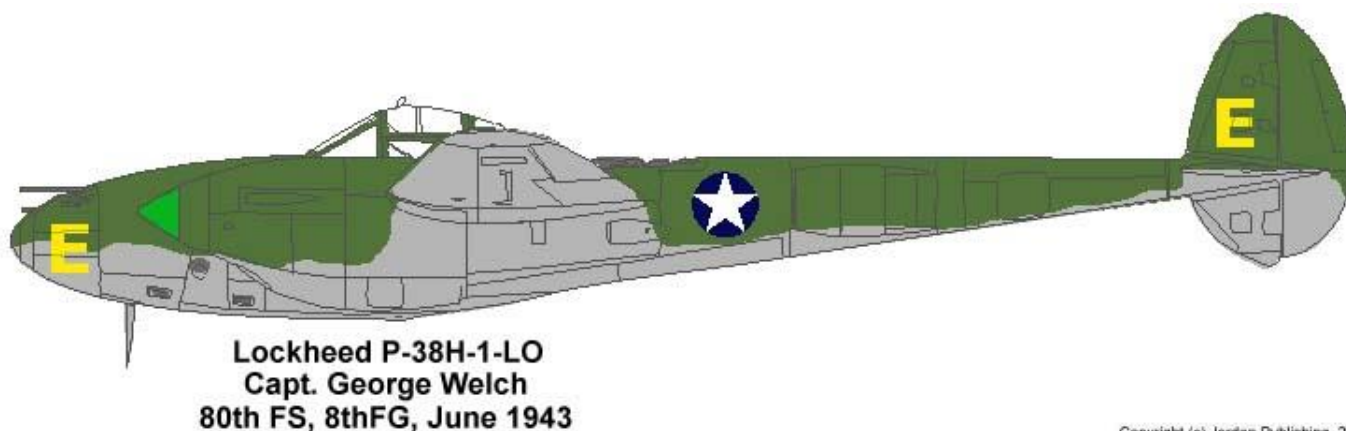
The Bell P-39D Airacobra piloted by Lt. George Welch.
36th Fighter Squadron, 8th Fighter Group
Port Moresby, New Guinea. Circa February, 1943.

Copyright (c) Jordan Publishing, 2000

This P-39D served in the 36th Fighter Squadron during Welch's tour. This profile represents the P-39D Airacobra flown by Welch into combat over New Guinea. It is based photographs of his fighter. These photos of Welch's P-39 show it with, and without the white vertical stripe. Welch despised the "Iron Dog" and repeatedly requested a transfer to a P-38 squadron. He eventually received that transfer in May of 1943. This Airacobra carries the standard 75 gallon external fuel tank. In addition, the quick application of white paint over the red center of the national insignia has faded in the damp conditions of Port Moresby and is again visible almost as a shadow. Welch's victory total and the aircraft's name (Miss Helen the Flying Jenny) appear on the right side of the aircraft. This P-39D appears as it did in February, 1943. Welch arrived in New Guinea with four confirmed victories scored over Oahu on December 7, 1941 and added three more on the one-year anniversary of that date.

After December 7th, Welch continued to fly combat patrols around Oahu. However, the news of his four confirmed victories had been released to the press and soon he was ordered back to the States. The country was badly in need of a hero, and Welch fit the bill. After several hectic months of giving War Bond speeches across America, Welch finally received orders to return to the Pacific. George reported to the 36th Fighter Squadron of the 8th Fighter Group in New Guinea. The good news was that this squadron had been seeing combat. The bad news was that it was flying the hopeless Bell P-39 Airacobra. Welch found himself flying mostly ground support missions, this being largely due to the P-39's poor combat performance and its limited range. Certainly, the 37mm cannon was useful against ground targets, but the Bell was at a serious disadvantage when facing Japanese fighters. This was largely the fault of it being fitted with an Allison engine that lacked a two speed, two stage supercharger. This meant that performance dropped off quickly above 12,000 ft. At the altitudes necessary to engage the Japanese bombers and fighters, the P-39 was an absolute dog. Welch did not view the lack of performance at altitude as the primary sin of the P-39. What truly turned Welch against the Airacobra was its limited combat radius. With the majority of air to air engagements being fought beyond the reach of the Bell, opportunities to shoot down more Japanese were nearly nonexistent. Naturally Welch noted that there were squadrons on his base that were flying the P-38G Lightning. Now, here was a fighter! Fast, long ranging and equally important, its twin Allison engines were turbosupercharged. This allowed the P-38 to climb higher and faster than the P-39. It was everything Welch wanted and the performance of the P-38 was reflected in the tally of Japanese

aircraft being shot down. George wanted the Lightning, he wanted it badly and cornered his group commander and inquired as to when 36th could expect to get the P-38. The answer was: "When we run out of P-39s." That was all Welch and the pilots of 36th needed to hear. Virtually any problem encountered in flight (real or imaginary) resulted in a bailout from that day forward. The operational loss rate climbed dramatically. Welch found himself in hot water with the Group commander, who pointed out that George had been very successful in the P-39. Hadn't he shot down two Vals and a Zero on the one-year anniversary of the Pearl Harbor attack? That didn't deter Welch, who knew he could have splashed a hell of a lot more if he'd been flying the Lightning. Finally, the Brass gave into Welch's repeated requests and transferred him across the field to 80th Fighter Squadron. At last, George had his P-38, and he made the most of it.



Copyright (c) Jordan Publishing, 2000

George Welch would get another nine Japanese in this P-38H. All nine went down in just three engagements.

On June 21, 1943, he destroyed two Zeros over Lae. Then, two months later, George downed three Ki-61 Tony fighters near Wewak. Promoted to captain, Welch was moved to 8th Fighter Group Headquarters. His biggest day since Pearl Harbor came on Sept. 2, 1943, when he killed three more Zeros** (these may have been Ki-43 Hayabusa fighters, called the Oscar by the Allies) and a "Dinah" twin-engine fighter. The startling thing about Welch's victories is that they all came in multiples. Virtually every time he found himself in air to air combat, he shot down two or more of the enemy. Shortly after his final kills, George became aware that his rather common case of malaria had grown far worse. Reluctantly, he reported to the base hospital where the doctors were horrified at his condition and promptly shipped him off to a hospital in Sydney, Australia. His recovery was slow, and the Air Corps decided that George had seen enough combat. After flying 348 combat missions and 16 confirmed kills, Welch was headed home. One can only wonder what George's final score may have been had malaria not knocked him out of the war. This writer is convinced that Welch would have challenged Bong and McGuire for the ace's crown had he remained in the theater. As it was, malaria sent him home just as things began to heat up in the SWPA.

** It was not uncommon for pilots to refer to the Ki-43 as a Zero. There were many instances where Army pilots claimed to have shot down a Zero, only to have the wreckage found and properly identified as something else.

George arrived in the States with his new Australian bride. He was promptly sent out to do more War Bond speeches. Eventually, he was stationed in Florida where his talents were used in a fighter

tactics development program. Nonetheless, he was still in demand for Bond rallies and this kept him terribly busy. General Hap Arnold had recommended Welch to North American Aviation as a test pilot. In the spring of 1944, George visited with Ed Virgin, the Chief of Engineering Flight Testing and was offered a position. Welch promptly accepted the offer and with Arnold's blessing, resigned his commission with the USAAF. Within two weeks, George was test flying variations of the P-51 Mustang.

Just over two years after the war ended, Welch would go on to rock the aviation world by doing something that so rattled the newly appointed Secretary of the Air Force, that it was covered up for over 50 years. For that story, please use the link below to go to Part Two - The Amazing George Welch: First Through the Sonic Wall.

BIBLIOGRAPHY:

Dr. William Wolf, 'Aerial Action... Pearl Harbor Attack', American Aviation Historical Society Journal, Spring 1989.

Al Blackburn, 'Aces Wild: The Race for Mach 1', Scholarly Resources, 1999.

Walter Lord, 'Day of Infamy', Holt, Rinehart & Winston, 1957.

Gordon W. Prange, 'At Dawn We Slept', McGraw-Hill, 1981.

Len Deighton, 'Blood, Tears and Folly', HarperCollins, 1993.

Written correspondence with Jolyon Welch.



After the surrender of Japan, many major aircraft contracts were greatly scaled back or cancelled outright. Fortunately, North American Aviation had a diversity of contracts and most projects continued (albeit at significantly reduced numbers). Of the 2,000 P-51H fighters on order, only 555 would be built. The P-51M (a Dallas built variant of the P-51H) was simply cancelled. North American's XP-82 Twin Mustang program continued on although it would be cut back as well. Unfortunately, the XP-82 suffered some unexpected development woes, and combined with the XSN2J program, George Welch found himself a very busy test pilot. Welch gained his first jet fighter experience flying the XFJ-1 destined for the Navy. Bestowed with the name Fury, the XFJ-1 was a straight-wing fighter that proved to be rather slower than had been hoped. Being somewhat disappointed, the Navy would cut back its order to just thirty examples. Meanwhile, the Army Air

Force expressed an interest in a swept-wing version proposed by North American. Benefiting from research data captured in Germany, NA's design team, headed by Lee Atwood, conducted extensive wind tunnel testing and eventually produced a design featuring a wing sweep of 35 degrees. Very much impressed by the data and design (especially when compared to the straight-wing design that they were initially offered), an order was placed for three prototypes to be designated the XP-86, and a contract was signed in September of 1945.

As the XP-86 was being completed, George Welch had already been designated to make the first series of test flights. Welch spent a considerable amount of his time in the engineering offices located at North American Aviation's Inglewood facility. Here he would grill the design team about the new fighter's expected stability and handling. Welch also quizzed the team about the prototype's potential maximum speed. Being informed that the new fighter, now called the Sabre, should be able to handle 650 knots, Welch formulated a plan in his mind that had it been known, would have caused his employer many a sleepless night.

After a series of extensive ground tests, resplendent in its polished aluminum skin, the XP-86 was disassembled and trucked to Muroc Field (later renamed Edwards Air Force Base). On September 18, 1947, Stuart Symington took the oath of office as the first Secretary of the new, independent United States Air Force. Before the XP-86 was ready for its first taxi tests, Symington made a point of notifying North American that he expected them not to steal any thunder from the new Air Force's pet research project, the rocket powered Bell XS-1. Symington's orders were explicit. Having been briefed that the XP-86 was capable of exceeding Mach 1 in a dive, the Secretary fully expected that North American Aviation would wait until the XS-1 had made its mark in history before they claimed their portion of the supersonic sweepstakes. Besides, Larry Bell had already complained to the President about North American plotting to upstage his rocket plane.

Unfortunately, the politics behind the scenes were totally lost on Welch. Not only did he not care one whit about Symington or his edict; Welch was a civilian and not employed by the Government. Moreover, George had long since demonstrated a tendency toward independence. Knowing the potential of the Sabre, there was no way that Welch could pass up an opportunity to explore its limits, and perhaps, gain some personal retaliation for the P-39 "Iron Dog", by sticking it to the guys at Bell.



One of the first aircraft that Welch tested was the P-51 Mustang. The aircraft above is a brand new, factory fresh P-51H. This was the fastest of the Mustang line, being capable of 487 mph at 25,000 feet.

With the XP-86 reassembled at Muroc, Welch went to work on a series of taxi tests designed to fully explore ground handling right up to takeoff speed. These tests were done on the morning of September 29. Getting an early start, the taxi runs were completed by 10 AM. Everyone was satisfied with the results. Yet, a minor fuel leak promised to keep the mechanics busy for the rest of the day.

That evening, Welch headed for his room at Pancho's Fly Inn (later renamed Happy Bottom Riding Club) where he normally stayed when at Muroc. A favorite hangout for both the North American and Bell gangs, as well as most of the test pilots on the base, Pancho's was the place to learn what everyone else was up to. The owner of the Fly Inn, Pancho Barnes, was a rough and tumble aviatrix who had specialized in air racing and Hollywood stunt flying; she had cultivated friendships across a broad spectrum of personalities. These included Jimmy Doolittle and Mae West, to name but two. Built like a linebacker, Pancho was a larger than life personality who had the delicate charm and manners of a drunken cavalry trooper. Naturally, everyone loved Pancho, who all realized as a soft touch for pilots, especially Yeager, who she adored.

Welch went for dinner and a beer, and as was his habit, he spoke with Millie Palmer, a local girl who made Pancho's her home away from home. Millie was expert at picking up tidbits of information about the various projects at Muroc. Millie mentioned that the Bell folks didn't expect to be flying before the end of the week. Welch confided his plan to make a supersonic dive during the Sabre's first flight on Wednesday, October 1. George explained to Millie what she should look for. "A sharp boom, like a clap of thunder. If you hear that, be sure to write down the time, what it sounded like, the reaction from others, stuff like that."



Welch was one of the primary test pilots assigned to the XP-82 program. It was the P-82 that was used as the chase plane on the early Sabre flights. The P-82B was almost as fast as the P-51H, but had nearly twice the range.

Right on schedule, the Sabre was ready for its first flight early Wednesday morning. After an uneventful takeoff from the dry lakebed, Welch joined up with his chase plane. The chase pilot today was Bob Chilton in a P-82 Twin Mustang. Riding in the P-82's right cockpit was a cameraman, assigned to record the flight. Chilton eased the twin engine fighter below the Sabre to inspect the underside.

"George, your main gear doors aren't shut."

"I'll put them down again."

"The mains are down now, but the nose gear is only halfway down."

Cycling the gear handle to the up position once again, George watched as all the gear flags indicated up and locked.

"All appear to be up and locked," Chilton announced.

Welch pushed the throttle up to full power and the Sabre surged forward. "Don't go away, Bob. I just want to feel it out a bit."

Easing back on the stick, Welch began a steady rate climb at just under 350 mph. Zooming up at over 4,800 feet per minute; it took but a few minutes to reach 35,000 feet. As he leveled off, airspeed

quickly increased to 370 mph. After a double-check of his instruments, Welch rolled into a 40 degree dive, pointing the nose west, directly at Pancho's Fly Inn, several miles away.



North American Aviation archi

If ever any aircraft looked right, the XP-86 was certainly one of them. With perfectly clean lines, the Sabre could not help but be a winner. This is how the XP-86 appeared after being reassembled at Muroc. Within a few days, it would punch through the sound barrier.

The airspeed indicator wound up to about 405 mph, and seemed to get stuck there. Yet, there was no doubt that the XP-86 was still accelerating. Everything felt normal, until passing below 30,000 feet where a tendency to roll needed some minor correction. George pushed the nose over a bit more. Then, suddenly, the airspeed indicator jumped beyond 470 mph and continued to go up. Passing 25,000 feet, Welch eased back on the stick and pulled back the throttle. Once again, there was a bit of wing roll and the airspeed indicator jumped back from 520 to 450 mph (520 mph indicated translates to 720 mph true at this altitude, uncorrected).

Contacting Chilton, Welch joined up with the P-82 as it was time to head back to Muroc. Due to ongoing rigging, the speed brakes had been disabled and were not available. This would complicate the landing approach because jet fighters took quite a while to scrub off airspeed, not having a propeller functioning as a giant, circular air brake. Descending towards the lakebed, Chilton slipped underneath the Sabre as Welch slowed and lowered the landing gear. Once again, the main gear locked down. The nose gear, however, refused to extend beyond the halfway position. Welch cycled the gear up and down several times to no avail. He tried the emergency pump. That too failed to push the nose strut into position. Radio discussions with the North American engineers on the ground produced no solution. Welch even tried pulling several Gs of loading. Nothing worked. With fuel rapidly becoming an issue, Welch elected to make a long, straight-in approach. Touching down at

140 mph, Welch trimmed the nose full up, intending to hold it up as long as possible. Racing alongside the Sabre were crash trucks and a pickup with a motion picture camera. As the Sabre's speed dipped below 90 mph, Welch began easing the nose down. Just then, the nose gear snapped down and locked in place. The wheel touched, and the XP-86 rolled out normally. George's luck had held again.

Prior to heading back to North American to brief the engineers, George telephoned Millie Palmer. Excitedly, Millie related that a terribly loud ba-boom had nearly blown her out of bed. The time was noted and it corresponded to George's dive. "Pancho", Millie related, "is really pissed. You know how she feels about Yeager." Apparently, Pancho claimed the boom was a result of mining operations going on 30 miles away to the north. Of course, no one had previously heard any mining explosions, nor could that account for rattling windows only on the east facing side of the Fly Inn. Welch chuckled and swore Millie to secrecy.

After briefing the engineering team at North American, Welch tracked down Ed Horkey. There were some "funny" instrument readings during the dive, and George was looking for some answers.

Test pilot Blackie Blackburn describes the conversation:

"I started at about 290 knots", Welch explained. "In no time I'm at 350. I'm still going down, and I'm still accelerating, but the airspeed indicator seems stuck like there's some kind of obstruction in the pitot tube, I push over a little steeper and by this time I'm going through 30,000 feet. All of a sudden, the airspeed needle flips to 440 knots. The aircraft feels fine, no funny noises, no vibration. Wanted to roll to the left, but no big deal. Still, I leveled out at 25,000 and came back on the power. The airspeed needle flicked back to 390. Whadya think?"

"What did the flight recorder look like?"

"It wasn't on the flight card, I was just feeling it out, so I wasn't running the camera. Anyway, there wasn't anything wrong with the airspeed system. They checked it out after I landed."

Horkey guessed that Welch had run into a previously unknown Mach effect. Indeed he had. What Welch had observed was a phenomenon that would later be called, "Mach jump". Today, "Mach jump" is generally considered solid evidence of speeds in excess of Mach 1. Of course, on October 1, 1947, no had ever seen it before.

Welch made the second and third flights with the landing gear mechanically locked in the down position. The revised and more powerful hydraulic cylinder for the nose gear had not yet arrived. So, the gear was bolted down and the gear lever was safety wired in the down position. However, there was another reason for bolting down the landing gear. Welch's ba-boom had also hammered Muroc. Without saying so, the Bell and NACA people were generally unhappy about the rumors consuming much of the chit-chat on the base. The XS-1 had still failed to push beyond Mach .98. The chatter around the base was that the XP-86 was responsible for the boom that had rattled windows and scared the hell out of everyone. People had raced outside looking for the telltale plume of black smoke that proclaimed the end of an aircraft, and maybe its pilot. But, there was no smoke. There was no crash. The only excitement centered on the crash trucks racing out to meet the swept-wing Sabre as it returned. All in all, it looked as if Welch had pulled the feet out from under XS-1 program. Even though there was no official statement from North American, despite unconvincing denials by Sabre team, the word was out at Muroc. Welch and the XP-86 had gone supersonic.

As soon as Welch landed after his second low speed flight in the “fixed gear” XP-86, he was informed that his wife Jan had gone into labor with their first child. Welch flew the company plane up to Los Angeles, but arrived after his son had been born. That evening, Jan phoned her family to announce the birth of Gilles, and of course, tell them about George breaking the sound barrier. Years later, Jan’s brother Jimmy would recall that he could not determine if Jan was more excited about her new baby, or her husband’s supersonic adventure.

The XP-86 was being prepared for its fourth flight. Again, despite replacing the nose gear hydraulic cylinder, the schedule called for this flight to be made with the landing still bolted down. Welch objected. He argued that there was no solid reasoning for this, and flying with the gear bolted down was downright dangerous. He was right. Without the ability to raise the landing gear, an engine failure could be fatal. Welch argued that the Sabre “glides like a rock” with the wheels down. Finally it was agreed that the gear would be unbolted and functional, but the flight test parameters would remain unchanged.

On the morning of October 14, Chilton and Welch discussed how they could disguise another supersonic dive. They decided to maintain a constant chatter on the radio, transmitting test results for tests completed early in the flight. That might work, but there was no way to disguise the sonic boom. It was generally understood that later in the morning, Yeager and the XS-1 would be trying for Mach 1. But, there was still time for one dive before the official title was handed to Yeager.



George Welch roars off of the lakebed runway to begin his October 14th flight. After completing his test card, Welch would climb to 37,000 feet and for the second time in two weeks, dive the Sabre through the sound barrier. This time, he beat Chuck Yeager by just 15 minutes.

Taking off from the lakebed, Welch immediately recognized that he had a problem. The airspeed indicator needle was stuck on zero. Gauging his speed, Welch brought the Sabre down and was met by the ground crew. The problem was found and fixed within minutes. During preflight calibration, the pitot tube line had been disconnected. Someone had failed to reconnect it. Another 30 minutes went by while the plane's fuel was topped off. Finally, just before 9 AM, the Sabre roared off the desert runway and climbed into the bright azure sky.

Climbing out to 10,000 feet, Welch performed all of the low speed maneuvers and tests called for on the flight test card. Yet, he reported only half the results. Retracting the landing gear, he waited until Chilton gave him a thumbs-up that all looked normal. Advancing the throttle to full power, he eased the Sabre into a climb and soared up to 37,000 feet. As he climbed, George read out the second half of the low speed test results. Leveling off, he checked his instruments one final time. As he did on his first dive, Welch rolled the Sabre into a 40 degree dive and pointed the nose directly at Pancho's. As the jet accelerated, he read out the last of the test results. Just like the first dive, a little wing roll followed by the airspeed indicator needle jumping announced that he had exceeded the speed of

sound. Except that this time, he was going even faster, having started his dive 2,000 feet higher. Unlike the dive 13 days earlier, Welch did not pull off power when he passed 25,000 feet. Instead, he executed a full power, 4g pullout. Welch did not realize it at the time, but this maneuver was to greatly increase the force of his sonic boom as it slammed into the earth.



North American Aviation XP-86
Pilot: George Welch
November 13, 1947

Flying over Rogers Dry Lake on November 13, 1947, the XP-86 with George Welch at the controls would be officially measured at Mach 1.04 by NACA's Radar Theodolite. The tremendous speed of the Sabre had the potential to cause the Air Force great embarrassment.

Easing off power, Welch scanned the sky looking for Chilton's P-82. He spotted what he at first thought was Chilton. Then he realized that the plane had more than two engines. It was a B-29, a mothership, lumbering to altitude with the XS-1 in its belly. Slightly behind, on either side were the P-80s of chase pilots Hoover and Frost. It dawned on him that his shock wave might have hit the big bomber. If it had, there was no doubt that everyone aboard would have gotten the message, loud and clear. Finding Chilton, Welch headed back to the base. The landing gear came down as advertised and George greased it in like the pro he was. A few minutes later, after shutting down and climbing out, Welch heard a distant ba-boom. A check of his watch indicated 10:30 AM. Attaining a speed of Mach 1.06, Yeager had finally done it.

That night there would be no celebrating at Pancho's. The Air Force had clamped a secrecy lid on Yeager's flight. The party was held at several of the pilot's houses. A drunken Yeager managed to crash his motorcycle in a knucklehead display of derring-do. Of course, Pancho's was open for business, and the North American gang had gathered for a few drinks. Pancho was walking on air, her darling boy having blasted the Fly Inn with a boom that broke some large windows on the east side of the building. Major General Joseph Swing (an old friend from the war) was on hand and asked Welch about the two separate booms. The first was extremely loud, the second, 15 minutes later, was far more subdued. Welch suggested that it came from a V-2 rocket out of White Sands. General Swing knew otherwise. Swing had earned a tremendous reputation for his leading an airborne

operation that freed over 2,000 American POWs from a Japanese camp on Luzon. Swing's reputation and his close friendship with General Eisenhower would come into play later.



Very few photographs were taken of the XP-86 using color film. This photo, like the previous one, was probably taken on November 13, 1947. Welch can be identified by his unique, orange flying helmet.

Between October 14 and November 4, Welch had taken the Sabre up 19 times, with eight of those being labeled as “high Mach dives”. The constant hammering of sonic booms finally convinced the Air Force and NACA to employ the same measuring equipment used for the XS-1, to determine the actual speed of the Sabre. On November 13, Welch was “officially” clocked at Mach 1.02 and later that same day, Mach 1.04 was attained. On both flights, the airspeed needle had jumped just as before. Between October 1 and February 28, Welch made at least 68 flights, of which, 23 were supersonic. During the same time period, the XS-1 made seven flights, with but only three were supersonic. Indeed, the vast majority of booms heard in the desert over those months belonged to Welch and the XP-86. More importantly, I believe, the Sabre was a real combat aircraft. It had guns. It could deliver bombs and rockets. It could takeoff and land under its own power. No wonder Bell was worried.

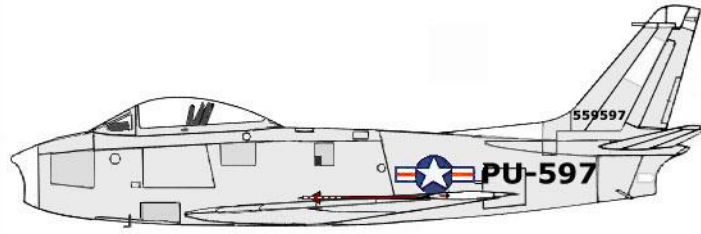
Despite the tight security surrounding the XS-1 program, the story of Yeager's flight was leaked to a reporter from Aviation Week magazine. In an issue dated December 22, 1947, an article appeared

with the glaring headline: “Bell XS-1 Makes Supersonic Flight”. The magazine was released on December 20th. The cat was certainly out of the bag.



George Welch posed for this photo shortly after the Air Force announced that he had flown the XP-86 through the sound barrier. For political reasons, the Secretary of the Air Force post dated the event by nearly seven months.

Dutch Kindelburger was the founder of North American Aviation, and was still president of the company. He happened to be visiting the Pentagon just three days before Christmas when he was informed that Stuart Symington wanted to see him, right now! Upon arriving at the Secretary's office, everyone else was asked to leave and the door was closed. Dutch was handed a copy of Aviation Week, opened to the XS-1 article. Dutch shrugged, this was old news to anyone who had been at Muroc. Symington went on to explain that General Joe Swing had seen the article and claimed that Welch had beat Yeager, not once, but twice. Kindelburger explained the odd behavior of the airspeed indicator, and informed the Secretary that testing in November had confirmed the airspeed indicator's behavior and the fact that the XP-86 had broken the sound barrier. Symington was dumbfounded. He was in terrible bind. The President had promised Larry Bell that the XS-1 would be the first to go supersonic. Not only that, but the fact that the XP-86 “officially” broke the barrier just days after the rocket plane created another problem. Why spend so much money on the XS-1, when its technology wasn't even needed?



Copyright © 2000 Jordan Publishing

North American XP-86 circa November 13, 1947

A solution was worked out that included North American sitting on the story until the Air Force felt it was safe to issue a press release. This would allow Symington to get the maximum mileage out of the XS-1 and Yeager. Then, when it was politically safe, the world would be informed of the Sabre punching through the mythical barrier. True to his word, Kindelberger kept the story under wraps. In June of 1948, a press release announced that the XP-86, piloted by George Welch had broken the sound barrier on April 26th.



Bell's XS-1 was designed specifically to break the sound barrier. However, the technology of the XS-1 was, in some regards, actually less advanced than that of the XP-86. Air Force Captain Chuck Yeager was assigned the job of piloting the rocket-plane. After slowly sneaking up on Mach 1, Yeager finally pushed the XS-1 through the sound barrier on October 14, 1947. However, George Welch and the XP-86 had already gone supersonic twice before. It appears that the Air Force is beginning to feel the

heat and can no longer ignore the evidence supporting George Welch and North American's XP-86 Sabre. The Air Force Museum web site has now added three key words when they describe Yeager's Mach 1 flight. The ammended language is as follows: "Capt. Charles E. Yeager, on the ninth flight of the Air Force test series, exceeded the speed of sound IN LEVEL FLIGHT."

Since the press release of 1948, the story of the XP-86 and George Welch has remained little more than rumor and legend. In the early 1990s, a former North American test pilot began the research for a book that would finally tell the truth about who was the first man to fly faster than sound. Al (Blackie) Blackburn labored for several years, gathering evidence and interviews. Finally, in 1998, his book was released. It had an immediate impact within the aviation community. The Smithsonian's Air and Space magazine published a condensation of the book. The Air Force has denied that Welch was first. However, even the U.S. Air Force cannot totally ignore the existing wealth of evidence, the weight of which, is more than compelling. The official web site of the Air Force Museum has ammended its language and added the words; "IN LEVEL FLIGHT" to their story of the famed supersonic flight made by Yeager in the XS-1 on October 14, 1947. Fifty one years of history will have to be rewritten to incorporate Welch and his accomplishment. Like any massive organization, the military is terribly slow to accept change. This is exacerbated by the realization that the Air Force's greatest hero since World War Two will have to, at the minimum, share his place on the pedestal of fame. If anyone should have any doubts, the evidence, if properly considered, is conclusive. Let's view this in terms of presenting the evidence as if in a criminal trial. Would the evidence result in a conviction?

You be the judge.

Motive: Welch clearly demonstrated a desire to push the Sabre through Mach 1. His discussions with the design engineers at North American and with his friends and family are proof positive of this.

Opportunity: Welch had two opportunities to dive the XP-86 prior to Yeager's record flight.

Weapon: There can be no doubt that the XP-86 could exceed Mach 1 in a dive. This was officially established on November 13, 1947. There were no changes made to the aircraft that could improve performance between October 1 and November 13. So, there is no doubt that the XP-86 was capable of supersonic flight from day one.

Witnesses: There were hundreds, if not thousands of people who felt and heard the two sonic booms of October 1 and 14. Several have since testified to hearing the booms. In addition, we have the testimony of those who spoke with Welch where he admitted to making unauthorized supersonic dives.

Additional evidence: Welch's flight logbook contains entries for all supersonic flights, including those not authorized. "Mach Jump": Welch was the first to report this phenomenon. No one had observed "Mach Jump" prior to the flight. Yet, today it is considered as decisive evidence of supersonic flight.

Summation: Welch announced his intention to dive the XP-86 through the sound barrier. Welch had at least two opportunities to do so. Welch was flying an airplane that was easily capable of exceeding Mach 1 in a dive. Welch told several credible people that he had flown through the sonic barrier. There were hundreds of witnesses, including one General and other high ranking military and civilian personnel who heard and felt the sonic booms. Welch witnesses a phenomenon that only someone who had exceeded Mach 1 would see. He reported it before any other pilot. Therefore, he could not

invent it. Welch's logbook lists the two flights as high Mach (the same terms used for the official speed runs).

The Verdict: Guilty as hell.



Well into the XP-86 test program, George posed in civilian garb with a Sabre. Where one earth, did he get that suit and bow tie?! After the F-86 was deployed to Japan and South Korea, Welch was sent to Japanese and South Korean fighter bases to perform demonstration flights for new Sabre pilots. According to his youngest son, Jolyon Welch, George wormed his way into flying combat missions. During these missions, Welch is said to have "unofficially" dispatched as many as six MiG-15 fighters in less than 20 sorties! When veteran F-86 pilots were asked if they knew anything about Welch flying in combat, the general response stayed very close to one pilot's answer; "Wheaties preferred to observe his students while on the job." The Air Force has never officially commented on George's training habits.

Having taken the prototype YF-100 Super Sabre (there was no XF-100) supersonic on its first flight on May 25, 1953, Welch reinforced all claims to his being the first man through the sound barrier. This was typical Welch behavior. Unfortunately, George cannot testify for himself. On Columbus Day of 1954, Welch was performing a demonstration flying the new F-100A. His flight card called for a symmetrical pull-up at 1.55 Mach. The maneuver would generate more than 7 Gs. As he began the maneuver, the airflow over the wing suddenly burbled, completely blanking the newly redesigned and smaller vertical stabilizer. The fighter yawed slightly and then suddenly turned partially sideways to the direction of travel. The nose folded up at the windscreen and crushed Welch in his ejection seat. Miraculously, the seat fired and carried Welch clear of the plane as it disintegrated. Ejecting at supersonic speeds is not only hard on the human body, it's hard on parachutes as well. Welch's chute was nearly shredded by the violent blast of air. With many panels blown out, the rate of descent was much too fast to avoid serious injury, or even death. When rescuers arrived at Welch's side, he was barely alive. He died before he could be transported to a hospital. Ironically, Yeager had complained that the F-100A, with its smaller vertical stabilizer, was dangerously unstable. Welch elected to fly it anyway.

In a span of just under 14 years, George Welch had established himself as one of America's greatest aviators. His remarkable accomplishments in World War Two would be enough to cause people to remember him in both books and films. Adding in his postwar adventures only serves to place him far above all but a handful of American aviation figures. So, why is it that Welch is virtually unknown outside of the aviation community today? Not only was he the first man to break the sound barrier, he was also the first to do so in an air-breathing aircraft in level flight (YF-100).

Perhaps, the next time you look up at a passing jet, or watch a modern fighter roar across the sky, just maybe, you will remember George Welch and his contributions to America and aviation.

To the reader:

If after having read the evidence presented here, you believe that George Welch and Kenneth Taylor have not received the recognition that they are due, there is something that you can do.

With regard to Welch and Taylor being denied a Medal of Honor, take some time and call, write or E-mail your Senators and Congressional representative. Ask them to investigate this travesty.

If you believe that Welch was, or may have been the first man to break the sound barrier, please take a few minutes and write to the historian of the United States Air Force, Dr. Richard Hallion, and ask him to conduct an objective investigation into the issue. To date, Dr. Hallion has limited his efforts to defending the XS-1, in accordance with USAF policy. No one from the historian's office has contacted surviving members of the North American engineering team. Nor to my knowledge, have they had any contact with the Welch family, who have George's logbook and personal records.

BIBLIOGRAPHY:

Dr. William Wolf, 'Aerial Action... Pearl Harbor Attack',
American Aviation Historical Society Journal, Spring 1989.

Al Blackburn, 'Aces Wild: The Race for Mach 1', Scholarly Resources, 1999.

Walter Lord, 'Day of Infamy', Holt, Rinehart & Winston, 1957.

Gordon W. Prange, 'At Dawn We Slept', McGraw-Hill, 1981.

Len Deighton, 'Blood, Tears and Folly', HarperCollins, 1993.

Air & Space Magazine, January 1999.

Bill Gunston, 'Faster Than Sound', Chancellor, 1995.

Angelucci & Bowers, 'The American Fighter', Orion, 1987.

Yeager & Janos, 'Yeager', Bantam, 1985.

Written correspondence with Jolyon Welch.