Comparative Table for Main Types of Fighters

Aircraft	Length	Span	Engine (hp)	Max Speed (mph)/ altitude (feet)	Range normal/max (miles)	Armament	Number Built
U.S. Navy							
F4F-4 Wildcat	28'9"	38'0"	Pratt & Whitney R-l 830-86 (1 ,200)	320/19,400	910/1,250	4x (later 6) .50-cal. machine guns	1,168
4U-l Corsair	33'4"	41'0"	Pratt & Whitney R-2800-8 (2,000)	417/ 19,900	1,015/1,562	6x.50-cal. machine guns	9,444[1]
USAAF							
P-400 (P-39D) Airacobra	30'2"	34'0"	Allison V-1710 (1,150)	335/ 5,000	600/1,100	1x20mm can. 4x.30-cal. 2x.50-cal. machine guns	179[2]
P-40E Warhawk	31'2"	37'4"	Allison V-1710 (1 ,1 50)	335/ 5,000	650/ 850	6x.50-cal. machine guns	2,320
Japanese Navy							
A6M2 Model 21 Zero-sen Zeke)	29'8"	39'4"	Nakajima Sakai 12 (925)	331/ 15,000	1,160/ 1,930	2x20mm can. 2x7.7mm machine guns	1,100[3]
A6M2-N (Rufe)	33'1"	39'4"	Nakajima Sakai 12 (925)	270/ 16,400	714/ 1,107	2x20mm can. 2x7.7mm machine guns	327
Japanese Army							
Ki.43-1a Hayabusa (Oscar)	28'11"	37'6"	Nakajima Ha-25 (950)	308/ 13,100	745 max	2x7.7mm or 12.7mm machine guns	716
Ki.61-1a Hien (Tony)	28'8"	39'4"	Kawasaki Ha-40 (1,175)	368/ 16,000	373/ 684	2x12.7mm 2x7.7mm machine guns	1,380

[1] Includes all variants of the F4U-l, i.e., the -1, -lA, -lC (armed with 4x20mm cannon), and -lD, as well as those built by Goodyear as the FG-lA/D, and by Brewster as the F3A-lD.

[2] The amount reclaimed by the USAAF from the original RAF order of 675. Approximately 100 P-400 and 90 P-39Ds served with the USAAF in the Pacific. Others served with the Soviet Air Force, and the USAAF in the Middle East and the Mediterranean theater.

[3] Production numbers for many Japanese aircraft are difficult to pin down. The best estimate places A6M2 production at over 1, 100.

Author's Collection

Major Gregory "Pappy" Boyington

The One and Only 'Pappy'

Every one of the Corps' aces had special qualities that set him apart from his squadron mates. Flying and shooting skills, tenacity, aggressiveness, and a generous share of luck—the aces had these in abundance. One man probably had more than his share of these qualities, and that was the legendary "Pappy" Boyington.

A native of Idaho, Gregory Boyington went through flight training as a Marine Aviation Cadet, earning a reputation for irreverence and high jinks that did not go down well with his superiors. His thirst for adventure, as well as his accumulated financial debts, led him to resign his commission as a first lieutenant and join the American Volunteer Group (AVG), better known as the Flying Tigers. Like other service pilots who joined the AVG, he first resigned his commission and this letter was then put in a safe to be redeemed and torn up when he rejoined the Marine Corps.

Boyington claimed to have shot down six Japanese aircraft while with the Flying Tigers. However, AVG records were poorly kept, and were lost in air raids. To compound the problem, the U.S. Air Force does not officially recognize the kills made by the AVG, even though the Tigers were eventually absorbed into the Fourteenth Air Force, led by Major General Claire Chennault. Thus, the best confirmation that can be obtained on Boyington's record with the AVG is that he scored 3.5 kills.

Whatever today's accounts show, Boyington returned to the U.S. claiming to be one of America's first aces. He was perhaps the first Marine aviator to have flown in combat against the Japanese, though, and he felt he would easily regain his commission in the Marine Corps. To his frustration, no one in any service seemed to want him. His reputation was well known and this made his reception not exactly open armed.

Boyington finally telegrammed his qualifications to Secretary of the Navy Frank Knox, and as a result, found himself back in the Marine Corps on active duty as a Reserve major. He deployed as executive officer of VMF-122 from the West Coast to the Solomons. He was based at Espiritu Santo, initially flying squadron training, non-combat missions. He deployed for a short but inactive tour at Guadalcanal in March 1943, and after the squadron was withdrawn, he relieved Major Elmer Brackett as commanding officer in April 1943. His first command tour was disappointing. He eventually landed in VMF-112, which he commanded for three weeks in the rear area. Prior to forward deployment, he broke his leg while wrestling and was hospitalized.

Boyington got another chance and took command of a reconstituted VMF-214. The original unit had returned from a combat tour, during which it had lost its commanding officer, Major William Pace. When the squadron returned from a short rest and recreation tour in Australia, the decision was made to reorganize the unit because the squadron did not have a full complement of combat-ready pilots. Thus, the squadron number went to a newly organized squadron under Major Boyington. In his illuminating wartime memoir, *Once They*

Black Sheep pilots scramble toward their F4U-1 "birdcage" Corsairs. The early model fighters had framed cockpit canopies. The next F4U-1As and subsequent models used bubble canopies which enhanced the limited visibility from the fighter's cockpit.

Author's Collection

Were Eagles: The Men of the Black Sheep Squadron, the squadron intelligence officer, First Lieutenant Frank Walton, described how Boyington got the new squadron command:

> Major Boyington was the right rank for a squadron commander; he was an experienced combat pilot; he was available; and the need was great. These assets overcame such reservations as the general [Major General Ralph J. Mitchell, Wing Commander of the 1st Marine Aircraft Wing] may have had about his personal problems. General [Mitchell] made the decision. "We need an aggressive combat leader. We'll go with Boyington." The squadron had its commander.

Much has been written about Boyington and his squadron. At 31, Boyington was older than his 22-year-old lieutenants. His men called him "Gramps" or "Pappy." In prewar days, he was called "Rats," after the Russian-born actor, Gregory Ratoff. The squadron wanted to call themselves the alliterative "Boyington's Bastards," but 1940s sensitivities would not allow such language. They decided on the more evocative "Black Sheep."

The popular image of VMF-214 as a collection of malcontents and ne'er-do-wells is not at all accurate. The television program of the late 1970s did nothing to dispel this inaccurate impression. In truth, Pappy's squadron was much like any other fighter squadron, with a cross-section of people of varying capabilities and experience. The two things that welded the new squadron into such a fearsome fighting unit was its new mount, the F4U-1 Corsair, and its indomitable leader.

Boyington took his squadron to Munda on New Georgia in September. On the 16th, the Black Sheep flew their first mission, a bomber escort to Ballale, a Japanese airfield on a small island about five miles southeast of Bougainville. The mission turned into a free-for-all as about 40 Zeros descended on the bombers. Boyington downed a Zero for his squadron's first kill. He quickly added four more. Six other Black Sheep scored kills. It was an auspicious debut, marred only by the loss of one -214 pilot, Captain Robert T. Ewing.

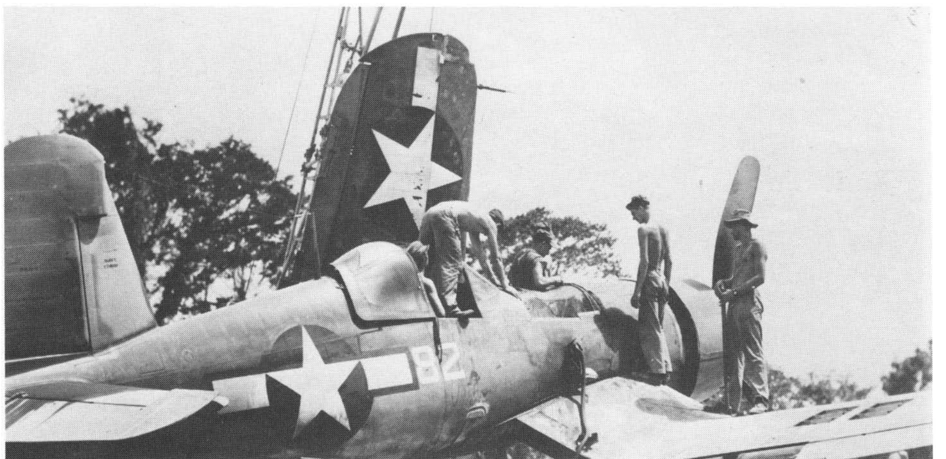
The following weeks were filled with continuous action. Boyington and his squadron rampaged through the enemy formations, whether the Marine Corsairs were escorting bombers, or making pure fighter sweeps. The frustrated Japanese tried to lure Pappy into several traps, but the pugnacious ace taunted them over the radio, chal-

Author's Collection

Pappy briefs his pilots before a mission from Espiritu Santo. Front row, from left: Boyington, holding paper, Stanley R. Bailey, Virgil G. Ray, Robert A. Alexander; standing, from left: William N. Case, Rolland N. Rinabarger, Don H. Fisher, Henry M. Bourgeois, John F. Begert, Robert T. Ewing, Denmark Groover, Jr., Burney L. Tucker.

Maintenance crews service this F4U-1 at a Pacific base. The Corsair's size is shown to advantage in this view, as is the bubble canopy of the late-production -1s and subsequent models.

Author's Collection



lenging them to come and get him.

By mid-December 1943, VMF-214, along with the other Allied fighter squadrons, began mounting large fighter sweeps staged through the new fighter strip at Torokina Point on Bougainville. Author Barrett Tillman described the state of affairs in the area at the end of December 1943:

> ...Boyington and other senior airmen saw the disadvantage of [these] large fighter sweeps. They intimidated the opposition into remaining grounded, which was the opposite reaction desired. A set of guidelines was drawn up for future operations. It specified that the maximum number of fighters should be limited to no more than 48. As few aircraft types and squadrons should be employed as possible, for better coordination and mutual support.

This strategy was fine, except that Boyington was beginning to feel the pressure that being a top ace seemed to bring. People kept wondering when Pappy would achieve, then break, the magic number of 26, Captain Eddie Rickenbacker's score in World War I. Joe Foss had already equalled the early ace's total, but was now out of action. Boyington scored four kills on 23 December 1943, bringing his tally to 24. Boyington was certainly feeling the pressure to break Rickenbacker's 25-year-old record. Boyington's intelligence officer, First Lieutenant Frank Walton, wrote of his tenseness and quick flareups when pressed about when and by how much he would surpass the magic 26.

A few days before his final mission, Boyington reacted to a persistent public affairs officer. "Sure, I'd like to break the record," said Boyington. "Who wouldn't? I'd like to get 40 if I could. The more we can shoot down here, the fewer there'll be up the line to stop us."

Later that night, Boyington told Walton, "Christ, I don't care if I break the record or not, if they'd just leave me alone." Walton told his skipper the squadron was behind him and that he was probably in the best position he'd ever be in to break the record.

The fighter strip at Torokina was hacked out of the Bougainville jungle. This December 1943 view shows a lineup of Corsairs and an SBD, which is completing its landing rollout past a grading machine still working to finish the new landing field.

Department of Defense Photo (USMC) 74672

Department of Defense (USMC) 73114

1stLt Robert M. Hanson of VMF-215 enjoyed a brief career in which he shot down 20 of his final total of 25 Japanese planes in 13 days. He was shot down during a strafing run on 3 February, 1944, a day before his 24th birthday.

"You'll never have another chance," Walton said. "It's now or never."

"Yes," Boyington agreed, "I guess you're right."

Like a melodrama, however, Boyington's life now seemed to revolve around raising his score. Even those devoted members of his squadron could not help wondering—if only to cheer their squadron commander on—when he would do it.

Pappy's agony was about to come to a crashing halt. He got a single kill on 27 December during a huge fight against 60 Zeros. But, after taking off on a mission against Rabaul on 2 January 1944, at the head of 56 Navy and Marine fighters, Boyington had problems with his Corsair's engine. He returned without adding to his score.

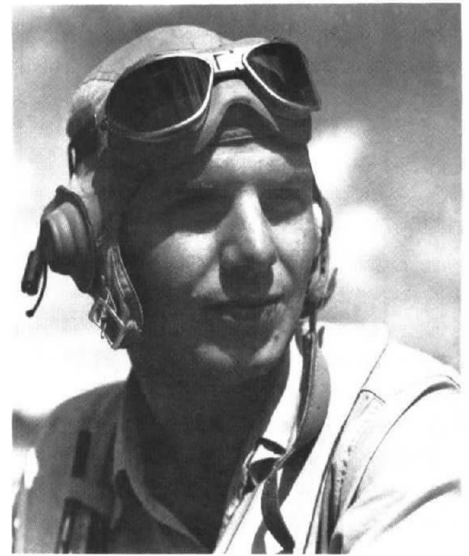
The following day, he launched at the head of another sweep staging through Bougainville. By late morning, other VMF-214 pilots returned with the news that Boyington had, indeed, been in action. When they last saw him, Pappy had already disposed of one Zero, and together with his wingman, Captain George M. Ashmun, was hot on the tails of other victims.

The initial happy anticipation turned to apprehension as the day wore on and neither Pappy nor Ashmun returned. By the afternoon, without word from other bases, the squadron had to face the unthinkable: Boyington was missing. The Black Sheep mounted patrols to look for their leader, but within a few days, they had to admit that Pappy was not coming back.

In fact, Boyington and his wingman had been shot down after Pappy had bagged three more Zeros, thus bringing his claimed total to 28, breaking the Rickenbacker tally, and establishing Boyington as the top-scoring Marine ace of the war, and, for that matter, of all time. However, these final victories were unknown until Boyington's return from a Japanese prison camp in 1945. Boyington's last two kills were thus unconfirmed. The only one who could have seen Pappy's victories was his wingman, Captain Ashmun, shot down along with his skipper. While there is no reason to doubt his claims, the strict rules of verifying kills were apparently relaxed for the returning hero when he was recovered from a prisoner of war camp after the war.

One of Boyington's Black Sheep, 1stLt John F. Bolt, already an ace, shot down his sixth plane over Rabaul in early January 1944. During the Korean war, when he was flying as an exchange pilot with the Air Force, he shot down six North Korean planes to become the Marine Corps' first jet ace.

Department of Defense Photo (USMC) 72421



Department of Defense Photo (USMC) 72421

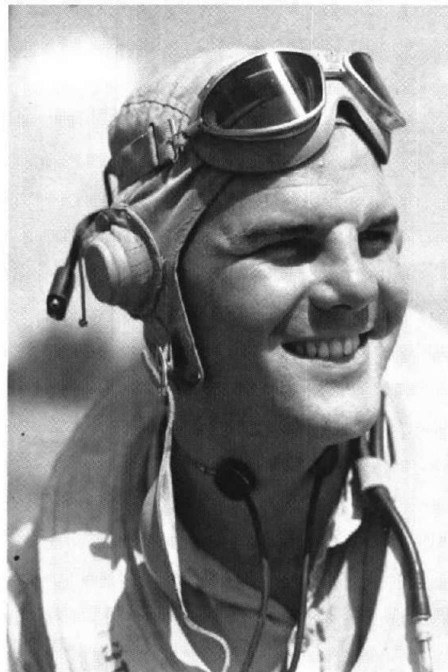
Capt Donald N. Aldrich was a 20-kill ace with VMF-215, and had learned to fly with the Royal Canadian Air Force before the U.S. entered the war. Although he survived the war, he was killed in a flying mishap in 1947.

Pappy and his wingman had been overwhelmed by a swarm of Zeros and had to bail out of their faltering Corsairs near Cape St. George on New Ireland. Captain Ashmun was never recovered, but Boyington was retrieved by a Japanese submarine after being strafed by the vengeful Zeros that had just shot him down. Boyington spent the next 20 months as a prisoner of war, although no one in the U.S. knew it until after V-J Day.

He endured torture and beatings during interrogations, and was finally rescued when someone painted "Boyington Here!" on the roof of his prison barracks. Aircraft dropping supplies to the prisoners shortly after the ceasefire in August 1945 spotted the message and soon

Department of Defense (USMC) 73119

Three of the Corps' top aces pose at Torokina in early 1944. From left: 1stLt Robert Hanson, Capt Donald N. Aldrich, and Capt Harold Spears were members of VMF-215 during the busy period following the loss of Pappy Boyington. The three aviators accounted for a combined total of 60 Japanese aircraft.



Department of Defense Photo (USMC) 72424

Capt Harold L. Spears was Robert Hanson's flight leader on the day Hanson was shot down and killed after Spears gave Hanson permission to make a strafing run against a Japanese position in December 1944.

Department of Defense Photo (USMC) 58384

On 30 June 1943, 1stLt Wilbur J. Thomas of VMF-213 shot down four enemy planes while providing air cover for American operations on New Georgia. Two weeks later, on 15 July, he shot down three more Japanese bombers. Before he left the Pacific, his total of kills was 18½.

everyone knew that Pappy was coming back.

Although he had never received a single decoration while he was in combat, Boyington returned to the U.S. to find that he not only had been awarded the Navy Cross, but the Medal of Honor as well, albeit "posthumously."

With Pappy Boyington gone, several other young Marine aviators began to make themselves known. The most productive, and unfortunately, the one with the shortest career, was First Lieutenant Robert M. Hanson of VMF-215. Although born in India of missionary parents, Hanson called Massachusetts home. A husky, competitive man, he quickly took to the life of a Marine combat aviator.

During his first and second tours, flying from Vella Lavella with other squadrons, including Boyington's Black Sheep, Hanson shot down five Japanese planes, although during one of these fights, he, himself, was forced to ditch his Corsair in Empress Augusta Bay.

For his third tour, he joined VMF-215 at Torokina. By mid-January, Hanson had begun such a hot streak of kills, that the young pilot had earned the name "Butcher Bob." Hanson shot Japanese planes down in bunches. On 18 January 1944, he disposed of five enemy aircraft. On 24 January, he added four more Zeros. Another four Japanese planes went down before Hanson's Corsair on 30 January. His score now stood at 25, 20 of which had been gained in 13 days in only six missions. Hanson's successes were happening so quickly that he was relatively unknown outside his combat area. Very few combat correspondents knew of his record until later.

Lieutenant Hanson took off for a mission on 3 February 1944. The next day would be his 24th birthday, and the squadron's third tour would end in a few days. He was going back home. He called his flight commander, Captain Harold L. Spears, and asked if he could strafe Japanese antiaircraft artillery positions at Cape St. George on New Ireland, the same general area over which Pappy Boyington had been shot down a month before.

Hanson made his run, firing his plane's six .50-caliber machine guns. The Japanese returned fire as the big, blue-gray Marine fighter rocketed past, seemingly under control. However, Hanson's plane dove into the water from a low altitude, leaving only an oil slick.

Hanson's meteoric career saw him become the highest-scoring Marine Corsair ace, and the second Marine high-scorer, one behind Joe Foss. Lieutenant Hanson received a posthumous Medal of Honor for his third tour of combat. As Barrett Tillman points out in his book on the F4U, Hanson "became the third and last Corsair pilot to receive the Medal of Honor in World War II. And the youngest."

Japanese Pilots in the Solomons Air War

The stereotypical picture of a small, emaciated Japanese pilot, wearing glasses whose lenses were the thickness of the bottoms of Coke bottles, grasping the stick of his bamboo-and-rice-paper airplane (the design was probably stolen from the U.S., too) did not persist for long after the war began. The first American aircrews to return from combat knew that they had faced some of the world's most experienced combat pilots equipped with some pretty impressive airplanes.

Author's Collection

A rebuilt late-model Zero shows off the clean lines of the A6M series, which changed little during the production run of more than 10,000 fighters.

Author's Collection

Newly commissioned Ens Junichi Sasai in May 1941.

Certainly, Japanese society was completely alien to most Americans. Adherence to ancestral codes of honor and a national history—one of constant internal, localized strife where personal weakness was not tolerated, especially in the Samurai class of professional warriors—did not permit the individual Japanese soldier to surrender even in the face of overwhelming odds.

This capability did not come by accident. Japanese training was tough. In some respects, it went far beyond the legendary limits of even U.S. Marine Corps boot training. However, as the war turned against them, the Japanese relaxed their stringent prewar requirements and mass-produced pilots to replace the veterans who were lost at Midway and in the Solomons. For instance, before the war, pilots learned navigation and how to pack a parachute. After 1942, these subjects were eliminated from training to save time.

Young men who were accepted for flight training were subjected to an excruciating preflight indoctrination into military life. Their instructors—mostly enlisted—were literally their rulers, with nearly life-or-death control of the recruits' existence. After surviving the physical training, the recruits began flight training where the rigors of their preflight classes were maintained. By the time Japanese troops evacuated Guadalcanal in February 1943, however, their edge had begun wearing thin as they had lost many of their most experienced pilots and flight commanders, along with their aircraft.

The failed Japanese adventure at Midway in June 1942, as well as the heavy losses in the almost daily combat over Guadalcanal and the Solomons deprived them of irreplaceable talent. Even the most experienced pilots eventually came up against a losing roll of the dice.

As noted in the main text, Japanese aces such as Sakai, Sasai, and Ota were invalided out of combat, or eventually killed. Rotation of pilots out of the war zone was a system employed neither by the Japanese nor the Germans, as a matter of fact. As several surviving Axis aces have noted in their memoirs, they flew until they couldn't. Indeed many Japanese and German aces flew

until 1945—if they were lucky enough to survive—accumulating incredible numbers of sorties and combat hours, as well as high scores which doubled and tripled the final tallies of their American counterparts.

Unfortunately, Japanese records are not as complete as Allied histories, perhaps because of the tremendous damage and confusion wrought by the U.S. strategic bombing during the last year of the war. Thus, certainly Japanese scores are not as firm as they are for Allied aviators.

In the popularly accepted sense, the Japanese did not have "aces." Those pilots who achieved high scores were referred to as Gekitsui-O (Shoot-Down Kings). A pilot's report of his successes was taken at face value, without a confirmation system such as required by the Allies. Without medals or formal recognition, it was believed that there was little need for self-promotion. Fighters did not have gun cameras, either. Japanese air strategy was to inflict as much damage as possible without worrying about confirming a kill. (This outwardly cavalier attitude about claiming victories is somewhat suspect since many Zeros carried large "scoreboards" on their tails and fuselages. These markings might have been attributed to the aircraft rather than to a specific pilot.)

Author's Collection

Enlisted pilots of the Tainan Kokutai pose at Rabaul in 1942. Several of these aviators would be among the top Japanese aces, including Saburo Sakai (middle row, second from left), and Hiroyoshi Nishizawa (standing, first on left).

Author's Collection

A lineup of A6M2 Zeros at Buin in 1943. By this time, the heavy combat over Guadalcanal had been replaced by engagements with Marine Corsairs over the approaches to Bougainville. Japanese Navy aircraft occasionally flew from land bases, as these Zeros, although they are actually assigned to the carrier Zuikaku.

The Aces

Although the men in the Zeros were probably much like—at least in temperament—Marine Wildcat and Corsair pilots they opposed, the Imperial Japanese Navy pilots had an advantage: many of them had been flying combat for perhaps a year—maybe longer—before meeting the untried American aviators over Guadalcanal in August 1942. Saburo Sakai was severely wounded during an engagement with U.S. Navy SBDs on the opening day of the invasion. He returned to Japan with about 60 kills to his credit. Actually, because he was so badly wounded early in the Guadalcanal fighting, Sakai never got a chance to engage Marine Corps pilots. They were still in transit to the Solomons two weeks after Sakai had been invalided home. (His commonly accepted final score of 64 is only a best guess, even by his own logbook.)

After graduating from flight training, Sakai joined a squadron in China flying Mitsubishi Type 96 fighters, small, open-cockpit, fixed-landing-gear fighters. As a third-class petty officer, Sakai shot down a Russian-built SB-3 bomber in October 1939. He later joined the Tainan Kokutai (Tainan air wing), which would become one of the Navy's premier fighter units, and participated in the Pacific war's opening actions in the Philippines.

A colorful personality, Sakai was also a dedicated flight leader. He never lost a wingman in combat, and also tried to pass on his hard-won expertise to more junior pilots. After a particularly unsuccessful mission in April 1942, where his flight failed to bring down a single American bomber from a flight of seven Martin B-26 Marauders, he sternly lectured his pilots about maintaining flight discipline instead of hurling themselves against their foes. His words had great effect—Sakai was respected by subordinates and superiors alike—and his men soon formed a well-working unit, responsible for many kills in the early months of the Pacific war.

Typically, Junichi Sasai, a lieutenant, junior grade, and one of Sakai's young aces with 27 confirmed kills, was posthumously promoted two grades to lieutenant commander. This practice was common for those

Japanese aviators with proven records, or high scores, who were killed during the war. Japan was unique among all the combatants during the war in that it had no regular or defined system of awards, except for occasional inclusion in war news—what the British might call being "mentioned in dispatches."

This somewhat frustrating lack of recognition was described by Masatake Okumiya, a Navy fighter commander, in his classic book *Zero*! (with Jiro Horikoshi). Describing a meeting with senior officers, he asked them, "Why in the name of heaven does Headquarters delay so long in according our combat men the honors they deserve?...Our Navy does absolutely nothing to recognize its heroes...."

Author's Collection

Lt (j.g.) Junichi Sadai of the Tainan Air Group. This 1942 photo shows the young combat leader, of such men as Sakai and Nishizawa, shortly before his death over Guadalcanal.

Occasionally, senior officers would give gifts, such as ceremonial swords, to those pilots who had performed great services. And sometimes, superiors would try to buck the unbending system without much success. Saburo Sakai described one instance in June 1942 where the captain in charge of his wing summoned him and Lieutenant Sasai to his quarters.

Dejectedly, the captain told his two pilots how he had asked Tokyo to recognize them for their great accomplishments. "...Tokyo is adamant about making any changes at this time," he said. "They have refused even

Author's Collection

LCdr Tadashi Nakajima, who led the Tainan Air Group, was typical of the more senior aviators. His responsibilities were largely administrative but he tried to fly missions whenever his schedule permitted, usually with unproductive results. He led several of the early missions over Guadalcanal and survived to lead a Shiden unit in 1944. It is doubtful that Nakajima scored more than 2 or 3 kills.

to award a medal or to promote in rank." The captain's deputy commander then said how the captain had asked that Sasai be promoted to commander—an incredible jump of three grades—and that Sakai be commissioned as an ensign.

Perhaps one of the most enigmatic, yet enduring, personalities of the Zero pilots was the man who is generally acknowledged to be the top-scoring Japanese ace, Hiroyoshi Nishizawa. Saburo Sakai described him as "tall and lanky for a Japanese, nearly five feet, eight inches in height," and possessing "almost supernatural vision."

These A6M3s are from the Tainan Air Group, and several sources have identified aircraft 106 as being flown by top ace Nishizawa. Typically, these fighters carry a single centerline fuel tank. The Zero's range was phenomenal, sometimes extending to nearly 1,600 miles, making for a very long flight for its exhausted pilots.

Photo courtesy of Robert Mikesh