

AIRCRAFT OF  
THE ACES®

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Nicholas Millman

# A6M ZERO-SEN ACES 1940-42



*R. John* 16



SERIES EDITOR TONY HOLMES

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# INTRODUCTION

The Mitsubishi A6M Zero-sen is as iconic in Japan as the Supermarine Spitfire is in Britain, and both fighters had the distinction of serving throughout World War 2, with design improvements to performance and capability through a succession of variants. The Zero-sen was arguably a more ubiquitous aircraft than the Spitfire in its operational deployment, designed from the outset as both a carrier and land-based fighter, able to fulfil long-range strategic offensive or short-range tactical defensive roles. It served as an escort fighter, fighter-bomber, nightfighter and, ultimately, a suicide aircraft. There was even a successful stopgap floatplane fighter version that operated from coastal bases in the South-West Pacific Area and in the Aleutian Islands campaign.

At the time of its introduction the aircraft possessed, in combination, revolutionary features for a fighter. It had an all-round vision canopy, whereas most fighters had cockpits faired into the fuselage spine behind the pilot's head, limiting rearward vision. It carried a 20 mm cannon in each wing, as well as a pair of rifle-calibre machine guns mounted in front of the pilot and synchronised to fire through the propeller. And it had an external fuel tank – a drop tank – that could be jettisoned in combat, the design of which was a masterpiece of engineering in its own right and which enhanced an operating range considered phenomenal at the time. The Zero-sen was the first truly long-range strategic escort fighter – a capability driven by Japanese strategic bombing experience in China that

A clipped-wing A6M3 Model 32 is put through its paces (*Tony Holmes collection*)

underpinned its extraordinary success during the first year of the Pacific War, coming as such a shock to the Allies.

The pilots who flew the first Zero-sens were exceptionally well-trained, and when the aircraft was first deployed to China in the late summer of 1940, many of them already had three years of air-combat experience in-theatre. Although the A6M2 went into service more than a year before the surprise attack on Pearl Harbor on 7 December 1941, its capability was relatively unappreciated by the Western air forces who would encounter it. This was perhaps because of their focus on the war in Europe. Several intelligence assessments had been sent back to Britain and the USA from China, but with one exception they were either disregarded or insufficiently communicated to the pilots who actually had to face the Zero-sen when push came to shove in the Philippines, Dutch East Indies and Malaya. There was also a prevalent belief in the inferiority of the Japanese pilot, largely formed from the racially discriminative prejudice of the colonial era.

Many Western studies of the aircraft and its pilots, often only subsidiary to broader historical treatises, adopt a chauvinistic perspective, perhaps clinging to a subconscious view of the Japanese forces as ‘the other’ – the historic enemy – and writing about them with an innate hostility, criticising aspects of the Imperial Japanese Navy Air Force (IJNAF) in its rise with the hindsight of its subsequent fall. This criticism has sometimes been levelled at IJNAF pilots for their use of dogfight tactics and manoeuvring in the horizontal plane, rather than the hit-and-run tactics in the vertical plane that were already being introduced into European air warfare in 1940. But criticism can also be levelled at the Allied air forces that faced the Japanese offensive in the Far East. Totally unschooled and underequipped to deal with their new enemy, they suffered accordingly, with honourable exceptions.

Much is made of the lack of fuel-tank protection and armour in the first variants of the Zero-sen, but that was of little comfort to the Allied pilot who found himself under coordinated attack from a trio of agile A6M2/3s. The ultimate failure of the IJNAF was as much logistical as anything else. It was simply overwhelmed, Japanese pilots facing increasing odds and, as its more experienced aviators were gradually lost in combat, having to fly and fight with decreasing levels of equipment, support, training and experience. A vicious circle that led inevitably to ultimate defeat.

This account is not a who’s who of Zero-sen aces or a chronology of all of their claimed victories – more than 150 pilots claimed five or more victories in the fighter. Instead, it seeks to describe the aircraft, its notable pilots and famous units within the context of the campaigns fought, from the Zero-sen’s debut over China in 1940 to the opening stage of the Guadalcanal campaign in August 1942, focusing especially on some of the less well known aerial encounters. This first volume relates the use of the A6M2 Model 21 and introduces the A6M3 Model 32, with later variants and their operations to be described in Volume 2.

## Note

The official IJNAF designation of the Mitsubishi Zero-sen was the Type 0 Carrier Fighter – *Rei Shiki Kanjoh Sentoh-ki* – abbreviated in service to *Rei*

Sen or Zero Fighter, now often described using the hybrid English–Japanese term ‘Zero-sen’, even in Japan. Type 0, or zero, refers to the aircraft’s year of introduction into service, being the last digit of the imperial year 2600 (1940). During the early years of the Pacific War, British forces referred to the type as the ‘Navy Naught’. Subsequently, the more permanent Allied codename ‘Zeke’ was established by US intelligence, although ‘Zero’ continued to be used in combat reports and US pilots, especially in China, habitually used ‘Zero’ to describe other Japanese radial-engined fighters such as the Imperial Japanese Army Air Force (IJAAF) Nakajima Army Type 1 Hayabusa (Ki-43 ‘Oscar’), a type often identified as a Zero-sen in the first few months of Pacific War combat.

## Rank Abbreviations

Capt	Captain
Cdr	Commander
Lt Cdr	Lieutenant Commander
Lt	Lieutenant
Lt(jg)	Lieutenant (junior grade)
Ens	Ensign
WO	Warrant Officer
ACPO	Air Chief Petty Officer (before June 1941)
APO	Air Petty Officer (before June 1941)
A	Airman (before June 1941)
FCPO	Flight Chief Petty Officer (after June 1941)
FPO	Flight Petty Officer (after June 1941)
F	Flyer (after June 1941)

Abbreviations used in this text for IJNAF flying ranks follow the format used in *Osprey Warrior 55 – Imperial Japanese Aviator 1937–45* by Osamu Tagaya. Airman and Flyer are sometimes referred to as NAP (Naval Air Pilot) in other references.

The so-called ‘Akutan Zero’ (DI-108 from the carrier *Ryujō*), force-landed on Akutan Island by FPO1c Tadayoshi Koga on 4 June 1942 after the fighter had been damaged by ground fire during an attack on Dutch Harbor, in the Aleutians. Koga was killed when the A6M2 nosed over in a marshy field, the pilot thinking he was landing – with the Zero-sen’s undercarriage extended – on solid ground. The US Navy recovery team, seen here carefully removing the wing-mounted Type 99 20 mm machine guns, would find Koga’s body strapped into the cockpit when the A6M2 was initially examined on 11 July 1942 (NARA)







## CHAPTER ONE

# FORGING THE BLADE

AGM2 V-172 of the Tainan Kokutai, flown by PO1c Shimezoh Inoue, became the first nearly intact Zero-sen to fall into Allied hands when, on 26 November 1941, it was one of two IJNAF fighters to land on a deserted beach on China's Leichou coast. Inoue and FPO2c Taka-aki Shimohigashi had become lost in fog during a flight from Tainan, in Taiwan (then Formosa), to Saigon, in Vietnam (then French Indochina). V-174 was badly damaged in the beach landing, and was chopped up into transportable pieces, but V-172 was recovered virtually intact. Both aircraft took several months to be moved from Leichou to Liuchow, where, by late summer 1942, V-172 had been reconstructed by RoCAF engineers and mechanics. Here, Chinese officials pose with a USAAF officer, believed to be Col Nathan F Twining (subsequently commanding officer of the Thirteenth Air Force), in front of V-172. In the foreground is one of the severed wings from V-174 (NARA)

**T**he Zero-sen was designed to an exacting specification issued by the Kaigun Kokutai Hombu (Japanese Navy Air Headquarters) to Mitsubishi in May 1937, before the first variant of the IJNAF's current fighter, the Mitsubishi A5M1 (Allied codename 'Claude'), had even been tested in combat. The design team was under the direction of Jiro Horikoshi, who had designed the A5M – an open-cockpit monoplane with a fixed undercarriage and two synchronised rifle-calibre machine guns firing through the propeller that went into action over China at the beginning of September 1937. A month later the Kokutai Hombu enhanced the specification for the Experimental 12-Shi Carrier-Based Fighter, which would later become the Zero-sen, with 20 new requirements, further increasing the challenges for Horikoshi and his team.

The proposed design was required to serve as an escort fighter with better performance than enemy interceptors. Crucially, it was to have a range of 1010 nautical miles (1162 miles) on internal fuel at normal weight, or 1685 nautical miles (1939 miles) with a drop tank. The aircraft would also be required to perform the air-defence role, intercepting and destroying enemy bombers. Its maximum speed had to exceed 500 km/h (311 mph) at 4000 m (13,120 ft), and it had to be able to climb to 3000 m (9843 ft) in less than three minutes and thirty seconds. The fighter had to be armed with two Type 99 Mk 1 20 mm 'machine guns' and two Type 97 7.7 mm machine guns. The aircraft also had to be able

to carry two 30 kg (66 lb) or 60 kg (132 lb) bombs.

The design project almost stalled in April 1938 when Horikoshi, concerned that all the IJNAF's requirements for speed, range and manoeuvrability could not be achieved, requested priorities to be set. A heated controversy began, with conflicting views expressed by the officers of the Yokosuka Kaigun Kokutai (Navy Air Group) responsible for operational

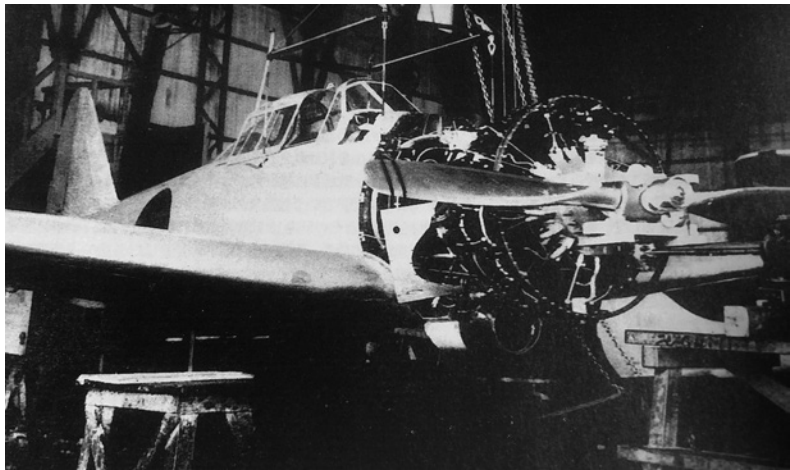
evaluation, who advocated manoeuvrability as the priority, and those of the Yokosuka Kaigun Koku Gijutsu-sho (Naval Air Technical Arsenal) responsible for flight testing, who advocated long range as the priority. Other voices intervened and concerns began to be expressed about the aircraft, with some looking to other design concepts, but Horikoshi was able to re-consider his preliminary calculations and assure the Kokutai Hombu that in fact all their requirements could be met after all.

The prototype Zero-sen took to the air for the first time on 1 April 1939, with Mitsubishi test pilot and former APO3c Katsuzo Shima at the controls. A total of 119 test flights then followed, with various modifications and improvements made, including a change of engine mandated by the Kokutai Hombu. The first A6M1 was accepted by the IJNAF on 14 September 1939.

The Zero-sen's agility is often attributed to lightness traded for a lack of protective pilot armour or self-sealing fuel tanks. However, whilst those omissions certainly contributed to its agility, the airframe structure also used a special aluminium–zinc–magnesium alloy, Extra Super Duralumin, that was developed in Japan. The subsequent chemical analysis of the lightweight metals used in the construction of the Zero-sen led to the development in the USA and Britain of similar alloys such as 75S (later 7075) that was used in the construction of the Boeing B-29 Superfortress.

The Type 99 Mk 1 Model 3 machine gun was a licence-built Oerlikon FFL, and the version first installed in the wings of the A6M2 had a 60-round drum magazine with a muzzle velocity of 600 metres per second (mps) and a rate of fire of 520 rounds per minute (rpm). This calibre of weapon was designated as a cannon by most air forces, but the IJNAF used the designation 'kikan juu' ('kijuu' – machine gun) for all automatic weapons. The low muzzle velocity and limited ammunition were the subject of criticism when the Zero-sen went into action, and many pilots, veterans of the A5M, preferred to rely on the 7.7 mm cowling guns for their reliability.

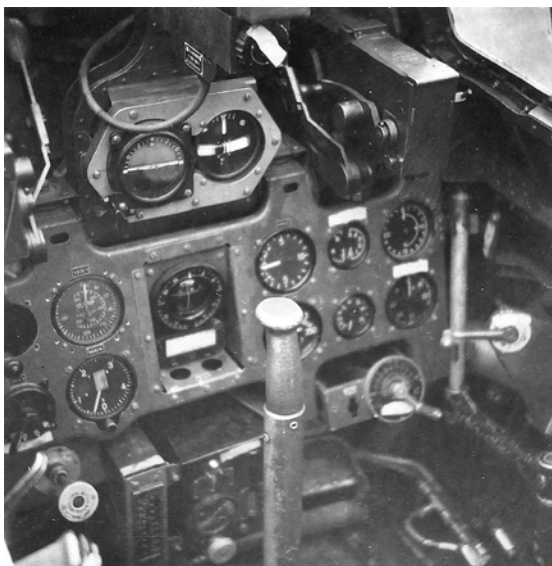
The pair of cowling-mounted weapons were Type 97 7.7 mm fixed machine guns – a licence-built adaptation of the Vickers E class (pilot's) aircraft machine gun. This weapon was fed by disintegrating belts in



The prototype Experimental 12-Shi Carrier-Based Fighter, which would later become the Type 0 Carrier Fighter, better known as the Zero-sen, nears completion in the Mitsubishi Aircraft Company factory in Nagoya in mid-March 1939. Fitted with a Mitsubishi Zuisei-13 engine rated at 875hp and driving a two-bladed variable pitch propeller, the aircraft made its first flight on 1 April 1939 from Kagamigahara airfield with Mitsubishi Chief Test Pilot Katsuzo Shima at the controls (*Tony Holmes collection*)

#### OPPOSITE

V-172 was repaired, re-painted and test-flown by the Chinese as P 5016. Later at Kunming it was examined and test-flown by Claire Chennault's 'Flying Tigers', although it was not tested in the USA until 1943. During re-assembly of the fighter it was found that V-172's fuselage panels aft of the cowling had been lost in transit whilst being moved north to Liuchow, so RoCAF mechanics quickly fashioned substitute panels with uncharacteristic louvred vents – clearly visible here – as replacements (*Ronnie Olsthoorn*)



A view of the cockpit in the captured Tainan Kokutai A6M2 V-172. Note the breeches of the two cowling-mounted Type 97 7.7 mm machine guns directly above the control panel (*Ronnie Olsthoorn*)

panniers of 500 rounds, with a muzzle velocity of 745 mps and a rate of fire of 900 rpm. This weapon had good synchronisation capability, was very accurate and could fire ball, tracer, armour piercing, high explosive and incendiary ammunition.

By the time of the Pearl Harbor attack in December 1941 about 375 Zero-sens had been produced by Mitsubishi, but their impact on the enemy during Japan's offensive far outweighed the actual numbers deployed at the front. During the first half of 1942 Mitsubishi manufactured more than 300 A6M2 before switching to production of the A6M3 in June. Nakajima also began manufacturing A6M2s from December 1941, with nearly 500 aircraft produced by the end of 1942.

## FORMATIONS AND TACTICS

During the period covered by this volume the basic fighting formation for the Zero-sen was the shotai or flight of three aircraft, flown in a 'vic'. It was looser and more flexible than the tighter RAF formation. Each shotai was led by the most senior or experienced pilot (the shotaicho), and for operations a chutai or squadron was usually made up of three shotai. In practice, the chutai was sometimes flown with only two shotai, and the latter could be flown with only two aircraft or sometimes four. In some cases the chutaicho flew separately with a single wingman, but more often he led the first shotai himself.

The shotaicho usually flew at the apex of the 'V' of the 'vic', with his left-hand wingman at least 30 yards away at 'seven o'clock' to his position, but slightly higher. The right-hand wingman typically flew further back, about 50 yards behind him, between a 'five' and 'six





o'clock' position to the shotaicho and again slightly higher. The chutai replicated this formation, with the three shotai forming a larger 'vic'. The left-hand shotai flew about 175 yards back and 60-70 ft higher, whilst the right-hand shotai flew about 200 yards back and 160 ft higher. This formation was most often used when cruising to and from targets, and once engaged with enemy aircraft the chutai usually broke down into individual shotai for combat.

The shotai would endeavour to stay together to make coordinated attacks, often with dive-and-zoom gunnery runs from alternate flanks of the target aircraft so as to maintain superior altitude. With a strong team spirit, shotai pilots would share kills, even when the wingmen had not fired, and this was encouraged by some commanders so that individual victories were not always precisely recorded. In many cases, a shared claim has been treated as a single claim attributed to each participating pilot's record – in other words duplicated (see below).

On escort missions a covering force of fighters – 'engobutai' – would usually fly above and behind the bomber formation as a direct escort, sometimes, if numbers permitted, with additional fighters to either side of it. From its perch, the top cover could drop down on any enemy fighters attempting to make beam or rear quarter attacks against the bombers. A 'seikitai' of chutai or two-shotai strength would usually fly ahead of and below the bombers as an air control force, 'sweeping' away any enemy fighters climbing to intercept them head on.

## HINERI-KOMI MANOEUVRE

Much has been made of this combat manoeuvre (see page 46 in the colour section for illustration) in the study of the Zero-sen, but whilst it is true that A6M pilots were able to exploit the exceptional agility of their aircraft in performing it, the technique had been developed before the fighter was introduced into IJNAF service. It was first conceived in 1934 by PO Isamu Mochizuki at Yokosuka Kokutai and then further refined in combat over China with the A5M. The term hineri-komi has been translated as 'turning in', and involved turning the tables on a pursuing attacker by a sharp, almost vertical climb to begin a loop and then near the top briefly applying right aileron and hard left rudder to side-slip out of the loop and snap roll quickly in a twisting motion to put the Zero-sen behind and above the attacking aircraft as it attempted to follow through. Allied pilots often described the manoeuvre as being similar to a 'hammerhead stall' or a stall turn after a steep chandelle.

It was also used similarly to the Immelmann turn (the original manoeuvre of a steep stall turn, not the later revision of it as a roll off a half loop) to enable repeated dive-and-zoom attacks on a target without losing altitude superiority. These manoeuvres, performed very rapidly, sometimes gave Allied pilots the impression of being engaged by more aircraft than were actually present.

Isamu Mochizuki, 'father' of the hineri-komi manoeuvre, which he perfected whilst serving with the Yokosuka Kokutai during 1934, and an expert dogfighter. He subsequently became an ace flying the A5M over China and, after a long period of instructing, returned to operational flying as a buntaicho in 281st Kokutai. By the time of his death fighting alongside ground troops in the ill-fated defence of Roi-Namur Island as part of the Battle of Kwajalein in February 1944, Mochizuki had been credited with ten victories (*Yasuho Izawa*)







## CHAPTER TWO

# WIELDING THE BLADE — 1940-41

Two 12th Kokutai A6M2s cruise over the cloud-shrouded Chinese mainland in May 1941. 3-138 (in the foreground) is the subject of Profile 6, this aircraft having previously been misidentified as 3-136 as flown by A1c Tamotsu Kojima (six victories) on the 26 May 1941 mission to Nanning. The aircraft was in fact the mount of future ace PO3c Kunimori Nakakariya, who claimed two I-15s destroyed with it during the Nanning operation. The lead fighter is 3-141, which is Profile 7 in this book. It is being flown here by Lt Minoru Suzuki and displays the two fuselage bands of a chutaicho (*Tony Holmes collection*)

**W**hen the first six Zero-sen fighters of the Yokosuka experimental detachment under the command of Lt Tamotsu Yokoyama glided to a landing at Hankow airfield, in China, in early July 1940, they were eagerly awaited and much was expected of them. It would be nearly two months, however, before the new fighter was ready to encounter the enemy. The Sino-Japanese War, now in its third year, had ground to an effective stalemate, with the IJNAF engaged in a long-range, high-altitude daylight and nocturnal strategic bombing campaign against the major cities in western China, aimed at forcing Chinese Nationalist leader Chiang Kai-shek to the negotiating table.

The IJNAF's principle fighter, the A5M 'Claude', had proved successful against the Republic of China Air Force (RoCAF) in aerial combat. However, although plenty of pilots had become aces flying the A5M, the fighter's effectiveness was limited due to its modest range, even when fitted with an external tank. This in turn meant that the 'Claude' was unable to escort the bombers on their long-range missions into the Chinese interior. The RoCAF put up fierce fighter resistance and the IJNAF's Mitsubishi G3M Type 96 Land-Based Attack Aircraft (Allied codename 'Nell') twin-engined bomber began to suffer increasing losses. Lt Hachiro

Takeda, a buntai leader in 13th Kaigun Kokutai, described the experience of coming under Chinese fighter interception during one such attack against RoCAF airfields at Chengtu on 4 November 1939;

‘Seeing Chengtu city and Taipinsi airfield below, we began our bombing run. At an altitude of 13,000 ft below and to our rear were two groups of I-15s and I-16s pursuing us. My squadron was the defence unit, so we flew to the rear and below the other formations. After bombing, the enemy made the first attack from the lower right. As planned, my squadron increased speed and flew below the third squadron at centre-right, drawing level with that formation. Some six I-15s in a group flew past my squadron from lower right. Fire broke out from the right wing root of the leading bomber and it began falling. “He is hit!” The burning aeroplane plunged vertically to the ground. After falling 6500 ft both wings tore away from the fuselage and the lead aeroplane smashed down south of the city like someone throwing down a pencil.’

On 15 May 1940 Imperial General Headquarters issued the Army–Navy Central Agreement Regarding Air Operations in China that set out a policy to destroy the enemy air forces as opportunity arose, to attack and destroy strategic and political objectives, and to support sea and land operations in order to crush enemy resistance. The IJNAF component of Japanese forces in central China at that time were the 1st and 2nd Combined Air Corps (Rengou Kokutai, abbreviated to RenKokutai).

In May 1940 the Japanese began their combined Army–Navy ‘101 Operation’ to bomb key targets deep in western China by day and night, this offensive continuing until the end of October. By July the unescorted daylight bombing sorties flown on oxygen in the Model 22 G3Ms at altitudes up to 26,000 ft had taken their toll on the Japanese aircrew involved, with the long-range missions against the city of Chungking requiring a seven-hour round trip that covered 900 miles in total. The higher altitudes employed by the bombers had previously prevented interception by Chinese fighters, but that month they were encountered flying above the G3M formations and adopting a new tactic of dropping parachute bombs in their path. The Chinese pilots involved told Claire Lee Chennault, the US advisor to the RoCAF, that they were also using ‘Russian tactics’ – diving vertically on the bomber formations from 3000 ft above them, firing as they went through, and pulling out at 5000 ft. When Chennault dismissed this as the wrong way to hit a bomber, the Chinese pilots countered that the Japanese gunners in the G3Ms could not hit them either!

Up to August 1940, 168 daylight raids (totalling 3715 sorties) had been flown by the IJNAF bombers, with 2060 tons of bombs dropped. Although only nine G3Ms were directly lost to Chinese fighter interception or anti-aircraft fire, a total of 297 had been damaged, with crewmen often being killed or wounded.

Tamotsu Yokoyama was one of the A5M pilots charged with defending the ‘Nells’ in China. He was born into a naval family in Yokosuka in 1909, both his father and grandfather being naval officers. Yokoyama had a determined and stubborn spirit, being gifted more in sports than academia. Indeed, he only passed the entrance examination to the Naval Academy at the second attempt. After graduation, Yokoyama served on board the battleship *Hyuga* and the high-speed heavy cruiser *Furutaka*.



Tamotsu Yokoyama, seated at far left in the middle row, was a member of the 26th Class of Air Students in 1934-35. During June 1940 he organised the first chutai of Experimental 12-Shi Carrier-Based Fighters at Yokosuka and later led a detachment of the new aircraft for operational evaluation with 12th Kokutai in China. He subsequently flew a colourful Zero-sen as the 3rd Kokutai hikotaicho during the initial attack on the Philippines (see Profile 16). Future ace Tadashi Kaneko is standing, second from left, in the rear row. Behind the students is what appears to be a Nakajima A3N1 Type 90 Trainer Fighter, which was a two-seat derivative of the A2N Type 90 Carrier Fighter (*Public domain*)

In 1934 his ambition to fly was achieved when he was accepted as an aviation student in the 26th Class at Kasumigaura, graduating in July 1935. From December 1937 to December 1939, Yokoyama served as a buntaicho on board the carrier *Soryu*, flying the A5M over China and gaining combat experience. He then served briefly as an instructor at Omura, before temporary attachment to Yokosuka in June 1940 for the special mission of organising the first chutai of 12-Shi fighters for operational evaluation at Yokosuka and then leading a detachment of Zero-sens to China. Once Yokoyama and his chutai were involved in working-up on the new fighter, a second chutai was formed at Yokosuka under Lt Saburo Shindo.

Several technical problems arose during this working-up period, including fuel vapour locks, the external fuel tank failing to detach and the 20 mm wing cannon jamming when the aircraft accelerated. All these problems were tackled and resolved, although an issue with engine-cylinder overheating during simulated combat and full-power climbs persisted. With operational deployment of the 12-Shi fighter urged by high command, Yokoyama was forced to take that problem to Hankow. He was, however, allocated experienced technical officers and a specialist maintenance team to work on it there.

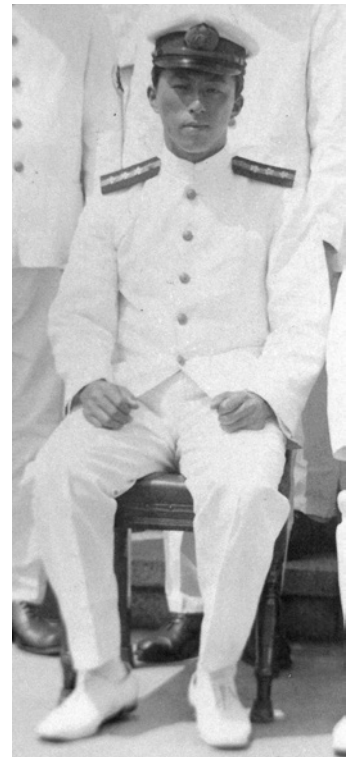
In China, Yokoyama's unit was to be subordinated to 12th Kokutai, a veteran air group that had operated in-theatre since July 1937, equipped at first with Nakajima A4N Type 95 biplane fighters and currently flying the A5M on air defence duties from Hankow. There, the unit had enjoyed a quiet period, being unable to provide escort duties for the continuing long-range bombing raids.

Very high summer temperatures at Hankow exacerbated the A6M2's engine overheating problem, and in attempting to resolve that Yokoyama found himself facing pressure from Rear Admirals Tamon Yamaguchi of 1st RenKokutai and Takijiro Onishi of 2nd RenKokutai to get his fighters into action as soon as possible. Yokoyama respectfully asked for more time, arguing that 'When a new fighter aircraft debuts, if it stumbles at the beginning it will be difficult for the battle after that. Our men will be demoralised and the morale of the enemy will increase.' He was given more time, and by the end of the month the overheating problem had been resolved and the 12-Shi fighter was formerly accepted into IJNAF service as the Type 0 Carrier Fighter. In the meantime, Lt Shindo had arrived in Hankow with nine more Zero-sens, and both officers intensified training in preparation for battle.

By the middle of August, Yokoyama felt ready to embark on offensive operations against the Chinese, and on the 19th of that month the A6M2 was committed to its first combat mission when he led 12 Zero-sens as fighter escort for 54 G3Ms on a raid against Chungking. Chinese fighters scrambled, intending to repeat the air-to-air bombing they had successfully conducted on 11 August, but aborted when they were warned that the Japanese bombers were being escorted by fighters. The G3Ms bombed without fighter opposition and the Zero-sen pilots had no opportunity for combat. More unopposed bombing raids were carried out the following day too.

On 13 September 12th Kokutai A6M2s were scheduled to escort 27 G3Ms of 13th Kokutai targeting Chungking once more. Lt Shindo led the formation of 13 fighters as 1st chutai leader in Zero-sen 3-161, flying with the 1st shotai led by APO1c Saburo Kitahata in 3-166, with APO2cs Yoshio Ohki (a future ace of the Tainan Kokutai) and Kihei Fujiwara as wingmen in 3-167 and 3-169, respectively. The 1st chutai's 2nd shotai was led by ACPO Koshiro Yamashita in 3-171, with wingmen APO2c Toshiyuka Sueda in 3-165 and APO3c Hatsumasa Yamaya in 3-173. The 2nd chutai was led by Lt(jg) Aya-o Shirane, flying 3-175, as 1st shotai leader, with wingmen APO1c Masayuki Mitsumasa in 3-162 and APO2c Tsutomu Iwai in 3-163. The 2nd chutai's 2nd shotai was led by APO1c Tora-ichi Takatsuka, flying 3-178, with wingmen APO2c Kazuki Mikami in 3-170 and APO3c Masaharu Hiramoto in 3-176.

As the Japanese formation approached the city, warnings were relayed to nearby Chinese airfields and a concentration of aircraft from the 4th and 5th Pursuit Groups (PGs) scrambled from the secondary base at Suining, about 90 miles northwest of the city. The RoCAF formation consisted of 19 Polikarpov I-15bis biplane fighters mainly from the 21st, 22nd and 23rd Pursuit Squadrons (PSs) of the 4th PG, with some of the aircraft being flown by the staff officers of the group. Six I-15bis from the 28th PS of the 3rd PG also scrambled, these fighters being led by Maj Clifford 'Long Legged' Léi Yán-jùn (usually romanised as Louie Yim-qun), a Chinese-American pilot who had served with the RoCAF since 1933. Nine Polikarpov I-16 'Rata' monoplane fighters of the 24th PS, led by Capt Yang Meng-ging, provided top cover. The Chinese fighters flew towards Chungking, the biplanes climbing to 11,500 ft and the I-16s taking station above them at 15,000 ft.



Lt(jg) Aya-o Shirane led the 2nd chutai of 12th Kokutai Zero-sens, flying 3-175, during the aircraft's combat debut over Chungking, China, on 13 September 1940. He later flew from the carriers *Akagi* and *Zuikaku*, being credited with nine victories. Shirane was killed in a Kawanishi N1K1-J Shiden fighter over Leyte on 24 November 1944 whilst leading 341st Kokutai against P-38 Lightnings of the USAAF's 475th FG (*Yasuho Izawa*)

#### OPPOSITE

AP01c Matsuo 'Hige' (Moustachio) Hagiri was one of four 12th Kokutai pilots who, on 4 October 1940, recklessly landed their Zero-sens on Taipingsze and, under fire, attempted to set RoCAF aircraft alight in their protected revetments. On 14 March 1941 Hagiri flew 3-171 in a sortie against Shwangliu airfield, claiming three I-153s shot down (this action is the subject of the book's cover art). He later served in 204th Kokutai, seeing action over the Solomons, and with the Yokosuka Kokutai in the defence of Japan. Wounded twice, Hagiri nevertheless survived the war credited with 13 victories (*Yasuho Izawa*)





APO2c Yoshio Ohki of 12th Kokutai claimed four aircraft shot down on 13 September 1940 as a member of Lt Shindo's 1st chutai, flying Zero 3-167. Ohki later served as a Flight Petty Officer 1st Class shotaicho with the Tainan Kokutai from July to November 1942, claiming two A-24s as probables on 29 July. By the time of his death on 16 June 1943, Ohki, flying with 251st Kokutai over the Russell Islands, had been credited with 17 victories (Yasuho Izawa)



Meanwhile, the G3Ms had bombed without opposition, and after escorting them out of the target area, Lt Shindo led the Zero-sens back over Chungking, where they were alerted by a Mitsubishi C5M1 reconnaissance aircraft that Chinese fighters were flying over Pi-shan (Bishan) just to the west of the city. The Japanese pilots involved in the interception that ensued maintained that this was part of a plan to surprise the RoCAF fighters that had been avoiding combat and appearing over the city only after the IJNAF aircraft had left. However, the RoCAF maintained that its fighters intended to intercept the bombing raid, but that the necessity of stationing them on airfields beyond the range of the Japanese inevitably delayed them in reaching the city.

Whatever the intention of Col Cheng Shao-yu, who was leading the Chinese fighters, they were bounced out of the sun by Lt Shindo's Zero-sens between Pi-shan and Chungking. The I-16 top cover was hit first and Capt Yang's aircraft flamed in the first pass. The A6M2 pilots dove through the surviving I-16s as they scattered and targeted the I-15s below them while the RoCAF biplanes in turn attempted to climb to engage the IJNAF fighters. Col

Cheng was wounded in this initial pass. The Chinese pilots fought back for 30 minutes, but they were outmatched by their opponents and only managed to damage four Zero-sens, none of them fatally.

The Chinese, on the other hand, admitted the loss of 13 aircraft destroyed and 11 damaged, with ten pilots killed and eight wounded (including Maj Léi, his I-15bis having been holed no fewer than 48 times) in what became known as the Air Battle of Pi-shan. In response to these losses, the RoCAF ordered a temporary cessation of fighter operations. Upon returning to Hankow, the Zero-sen pilots were jubilant, claiming 27 Chinese fighters shot down – every participating pilot was credited with at least one victory. Yamashita claimed five, Ohki claimed four in his first combat, Takatsuka claimed three and Iwai claimed two.

The 30-year-old Yamashita had already recorded his first victories over China in 1937 flying the A4N biplane as a carrier pilot from *Ryujo*, and he would eventually become the leading Zero-sen ace of 12th Kokutai. After a long period instructing in Japan, Yamashita returned to combat in 1944 and was killed in his first encounter with the Grumman F6F Hellcat over Palau on 30 March. He was officially credited with 11 victories at the time of his death. Oki would go on to achieve ace status with the Tainan Kokutai before being killed in action over the Russell Islands with 251st Kokutai on 16 June 1943, by which time he had been officially credited with 17 victories. Takatsuka also later served in the Tainan Kokutai over New Guinea prior to being killed in action during the Guadalcanal campaign on 13 September 1942, having accumulated an official score of 16 victories. Iwai, who subsequently became a Lieutenant (junior grade), would be the only one to survive the war, his tally of victories by then having reached 11.

Although the Air Battle of Pi-shan had indeed dealt the RoCAF a severe blow, which some historians have stated heralded the effective destruction of Chinese fighter opposition, the Polikarpov-equipped units nevertheless continued to engage the IJNAF, carefully husbanding their fighters. Furthermore, the Chinese were not forced to the negotiating table. Soviet aid to China was already diminishing, however, with only 80 I-15s and I-16s being delivered between January and November 1940. In an attempt to source aircraft from elsewhere, Chiang Kai-shek began appealing to the US government for assistance from July of that year. His requests for aid intensified following the Air Battle of Pi-shan.

On 4 October the Japanese launched a raid against Chengdu with 27 G3Ms of 13th Kokutai escorted by eight 12th Kokutai Zero-sens under the command of Yokoyama. In order to reach the city the fighter pilots had to land and refuel at Yichang airfield on the Yangtze. Over Chengdu, APO1c Matsuo Hagiri claimed a lone I-16 shot down in his first aerial combat, with the bombers otherwise attacking their target unopposed.

The 27-year-old Hagiri – known as ‘Hige Hagiri’ (‘Moustachio Hagiri’) for his flamboyant moustache – had served in the Yokosuka Kokutai since August 1935, with a stint on board the aircraft carrier *Soryu*. Hagiri was engaged in flight testing when he was transferred to 12th Kokutai in August 1940, ferrying one of the new Zero-sens to Hankow.

With the bombers having targeted Chengdu, Yokoyama then led the Zero-sens to Wenkiang (now Wenjiang), a major RoCAF airfield northwest of the city, but there were no enemy aircraft to be found there. The IJNAF fighter pilots duly flew south of Chengdu in the direction of the base at Taipingsze (now Taipingsi), where they found more than 30 aircraft parked in revetments. Hagiri was one of four Zero-sen pilots who reportedly landed on the airfield – the others being ACPO Ichiro Higashiyama, APO1c Hideo Oishi and APO3c Masayuki Nakase – in a reckless attempt to set fire to the enemy aircraft. This dangerous stunt almost backfired when they came under fire from Chinese defensive positions, although all four managed to take off again safely.

Once back in the air, Hagiri reportedly attacked three more I-16s, shooting down two of them, whilst Higashiyama and APO3c Iki Arita engaged Tupolev SB twin-engined bombers, claiming three destroyed. The I-16s were probably six Curtiss Hawk 75s of the 18th PS that had been ordered to evacuate Taipingsze and fly to Guanxian (now Dujiangyan) airfield to the northwest

#### OPPOSITE

Lt Mitsugu Kofukuda leads the Zero-sen detachment of 14th Kokutai's fighter hikotai over French Indochina in 9-182 during the autumn of 1940. The detachment was based at Hanoi, from where attacks were launched against the Chinese cities of Kunming and Yunnan Yi, and their nearby airfields (*Yasuho Izawa*)

12th Kokutai's APO3c Masayuki Nakase, the first Zero-sen ace, and PO3c Kunimori Nakakariya stand by the tail of Zero-sen 3-143, which Nakase flew during a sortie against Nanning on 26 May 1941, claiming three enemy aircraft shot down (*Yasuho Izawa*)





Lt Motonari Suho led the 14th Kokutai detachment's 2nd shotai into action over Kunming on 7 October 1940, claiming four victories. Suho was a reserved and competent China veteran who had already claimed three aircraft destroyed whilst flying the A5M with 12th Kokutai. He was the highest scoring IJNAF officer pilot over China, credited with 11 victories there, and survived the war with a tally of 15 after seeing further combat with 252nd Kokutai. He became a General in the post-war JASDF and passed away in April 1983 at the age of 71 (*Yasuho Izawa*)



of the city. One of the 18th PS Hawks shot down by Hagiri was No 5044, its pilot being killed when his parachute failed to open. Two other Chinese pilots were wounded and a second Hawk 75 was destroyed on the ground after it had returned to land at Taipingsze. The Zero-sens then strafed the airfield, claiming 19 aircraft destroyed on the ground.

Future ace 22-year-old Masayuki Nakase had already flown operationally over southern China with the fighter hikotai of 14th Kokutai in 1938, although he had seen no aerial combat while flying escort missions. After returning to Japan, Nakase served in the Yokosuka Kokutai, and from there he was selected to fly the Zero-sen with the 12th Kokutai. Unlike Nakase, Higashiyama had seen considerable action with 15th Kokutai during 1938, having shared victory claims for five SB bombers and two other Chinese aircraft. Also later posted to the Yokosuka Kokutai, he had performed the role of test pilot with the unit until he suffered a fractured skull and other injuries in a flying accident in

August 1939. Promoted to Chief Petty Officer while recovering, Higashiyama was posted to 12th Kokutai in May 1940. Following another stint of test flying with the Yokosuka Kokutai from March 1941, he eventually joined 261st Kokutai as a Lieutenant (junior grade) for the defence of Saipan in February 1944. It is believed that he perished in July of that year, by which time his confirmed score stood at nine victories.

On 26 October, 12th Kokutai returned to Chengdu and its surrounding airfields when the unit escorted another bombing raid. The Zero-sens, led by Lt Fusata Iida, with one of the shotai headed by APO1c Kitahata, claimed ten RoCAF aircraft shot down. Two trainers were destroyed over the airfield, with one of them falling to future ace and newly promoted APO2c Iwai for his third claim. The other trainer was credited to APO Kazuo Tsunoda for his first claim. Flying as second wingman in ACPO Yamashita's shotai, 22-year-old Tsunoda would later serve with distinction in several theatres during World War 2. He would see combat with 2nd and 582nd Kokutais in the Solomons and with 252nd Kokutai over Iwo Jima and in the Philippines, Okinawa and Taiwan in various special attack roles. Tsunoda also survived the war as a Lieutenant (junior grade) with nine officially credited victories, although he is believed to have achieved more.

## 14th KOKUTAI

In September 1940, the fighter hikotai of 14th Kokutai based at Hanoi, in French Indochina, was provided with nine Zero-sen fighters. On 7 October six A6M2s from the unit, led by Lt Mitsugu Kofukuda, escorted 27 G3Ms from 15th Kokutai in an attack on Kunming. The Zero-sens were flying as two shotai, with the 2nd shotai commanded by 28-year-old Lt Motonari Suho. He had previously served with 12th Kokutai in China, claiming three victories while flying the A5M with the unit.



Amongst the 14th Kokutai pilots he was leading that day was Takeo Okumura, the 20-year-old experiencing his first combat during the course of this mission. Having graduated from the 42nd Trainee Pilot Class in September 1938, he had joined 14th Kokutai in March 1940 after completing further training.

Over Kunming, which was surrounded by a concentration of major airfields, secondary strips and landing grounds, the Zero-sen pilots encountered a mixed formation of Chinese I-15s, I-16s and Hawks, claiming 14 shot down – both Suho and Okumura claimed four apiece. The latter would subsequently distinguish himself as an ace with the Tainan Kokutai and 201st Kokutai, being promoted to Flight Petty Officer First Class with 30 victories attributed to him in two stints of air-combat duty over the Solomons and New Guinea. He would not survive the second, however, being killed in combat on 22 September 1943. Suho also served in the Solomons after being appointed to lead 252nd Kokutai in December 1942. He survived the war credited with 15 victories, and later rose to the rank of General, flying jets in the post-war Japanese Air Self-Defence Force (JASDF).

On 12 December 1940, 14th Kokutai mounted a raid on Yunnan Yi airfield (also known as Siangyun, and now Xiangyun) from Hanoi with seven Zero-sens – an IJAAF reconnaissance aircraft provided navigation for the almost 700-mile round trip. Yunnan Yi was a major RoCAF airfield to the west of Kunming, with a satellite landing ground, and it was home to an aviation flying school for Chinese pilots. The Zero-sen pilots claimed 22 enemy aircraft destroyed on the ground without loss.

The air fighting over China continued into 1941 and on 21 February the first Zero-sen was lost to enemy action when ACPO Jiro Chono (a seven-victory ace of 14th Kokutai) was brought down over Kunming by anti-aircraft fire. The 34-year-old had claimed most of his victories flying the A5M over southern China from the carrier *Kaga*, his first victim being one of three Northrop 2EC light bombers of the RoCAF's 2nd Bomb Group that were attempting to attack the vessel on 11 November 1937. The following year, on 13 April, then APO1c Chono led *Kaga*'s fighter chutai as escorts for a raid on Canton after Lt Hideo Teshima was forced to abort the mission. The six A5M pilots engaged 18 Gloster Gladiators of the RoCAF's 28th and 29th PSs (part of the 5th PG) over Jiangchuan, and in fierce fighting Chono shot down Gladiator No 2913 flown by Capt 'Buffalo' Wong Sun-shui, who was wounded and forced to bail out. Minutes later Chono downed Gladiator No 2810, killing its pilot, Wu Bo-jun.

He tangled with Gladiators again on 30 August 1938 while flying as 2nd shotai leader in an attack against Namyung (now Nanxiong) airfield, northeast of Canton, claiming three shot down and one probable out of six lost by the 32nd PS. On this occasion Chono's A5M was also damaged. Promoted to Air Chief Petty Officer shortly thereafter, and after a period of home service in Japan, Chono was posted to 14th Kokutai in 1940. When his Zero-sen was fatally damaged by ground fire over Kunming, he realised he could not make it back to base and deliberately crash-dived the aircraft, killing himself.

In March 1941 Japanese reconnaissance aircraft had identified a concentration of about 30 new RoCAF I-153 fighters at Shwangliu (now



Future high-scoring ace Takeo Okumura flew with 14th Kokutai's Hanoi detachment, and over Kunming on 7 October 1940 he claimed four Chinese aircraft shot down during his first aerial combat. He later flew fighters from the carrier *Ryujo* and with the Tainan Kokutai during the early fighting over the Solomons, claiming 14 aircraft in two months. Okumura was killed flying with 201st Kokutai on 22 September 1943, and at the time of his death he was the fourth highest scoring IJNAF ace credited with at least 30 victories. He also held the Japanese record for the most victories in one day, claiming ten aircraft shot down on 14 September 1943 (*Yasuho Izawa*)







Six Zero-sens from 14th Kokutai return to Hanoi after their mission escorting 27 G3M bombers in an attack on Kunming on 7 October 1940. The Chinese city was surrounded by a concentration of major airfields, secondary strips and landing grounds, and the Zero-sen pilots encountered a mixed formation of RoCAF I-15s, I-16s and Hawks, claiming 14 of them shot down without loss (*Yasuho Izawa*)

Shuangliu), an airfield about ten miles southwest of Chengdu city. On 14 March it was scheduled for a visit by ten Nakajima B5N2 Type 97 Carrier Attack Aircraft (Allied codename 'Kate') escorted by 12 Zero-sens of 12th Kokutai led by Yokoyama. As usual, the Chinese had plenty of warning of the approach of the Japanese aircraft, and their fighters from the 3rd and 5th PGs began scrambling from the airfield – the last aircraft departed about 20 minutes before the IJNAF formation arrived. Seven Zero-sens came down to strafe the airfields at Taipingsze and Shwangliu, whilst five more remained at high altitude providing top cover.

The Zero-sens strafed the revetments alongside the empty field at Shwangliu, destroying two unserviceable aircraft and the radio hut, killing the operator, but not before the airborne Chinese flight leaders had been alerted to the attack. The I-153s and some I-15bis headed back to the field from Chengdu, where they had expected to find the Japanese fighters. While attempting to attack the strafing Zero-sens, the RoCAF pilots were in turn attacked by the five A6M2s acting as top cover. The CO of the 5th PG, six-victory ace Maj 'Buffalo' Wong Sun-shui, and his wingman Lt Ma Kwok-lim were both shot down, the mortally wounded Wong force-landing at Su Ma-tou village and Ma being killed when he crashed nearby.

In heavy mist and cloud, the remaining RoCAF fighters were engaged over the airfield by all 12 Zero-sens in a desperate low-altitude battle that lasted more than 30 minutes. The IJNAF pilots duly claimed 34 Chinese aircraft destroyed, including seven on the ground, and three probables, whilst the RoCAF admitted the loss of 13 I-153s, with a further five damaged. Eight pilots had been killed, including Capt Chen Tse-liu, deputy commander of the 5th PG, and Capt Chow Ling-hsu, CO of the 28th PS. Nakase claimed no fewer than five I-15s destroyed and one probable. Hagiri claimed three 'improved' I-15s whilst his second wingman Keishu Kamihira claimed three destroyed and one probable. Finally, Yamashita claimed two destroyed and one probable.

#### OPPOSITE

ACPO Jiro Chono was a seven-victory ace who had scored his victories flying the A5M from *Kaga* during 1937-38. Posted to 14th Kokutai in 1940, his Zero-sen was fatally damaged by ground fire over Kunming on 21 February 1941. Realising he could not make it back to base, Chono deliberately crash-dived the fighter, killing himself (*Yasuho Izawa*)

Future ace Kamihira later flew with the Tainan Kokutai at the beginning of the Japanese air offensive over the Philippines and the Dutch East Indies, later distinguishing himself in air-defence duties over Borneo and the Celebes with 381st Kokutai through the use of air-to-air bombing tactics against USAAF Consolidated B-24 Liberators. Kamihira survived the war credited with at least nine victories and three probables (17 estimated in total), only to be killed in a helicopter crash in 1970.

A flight of 11 A6M2s from 12th Kokutai, under the command of Lt Minoru Suzuki, flew a long-range attack against Tienshui and Nancheng from Ichang on 26 May. During this sortie Nakase claimed three enemy aircraft destroyed and future 16-victory ace PO3c Kunimori Nakakariya (in his first combat) two.

That same month newly promoted APO1c Saburo Sakai rejoined 12th Kokutai at Hankow following service with the Omura Kokutai in Japan. Sakai, then 23 years old, was destined to become one of the most famous Zero-sen aces in the West due to the publication of his memoirs in English in 1957. He had already served with 12th Kokutai in China, flying the A5M from September 1938 to October 1939 and claiming one victory. On 3 October 1939 Sakai was wounded during a devastating bombing raid on Hankow. Despite having been struck by shrapnel in his thighs and buttocks, he took off to pursue the nine Soviet volunteer-flown Ilyushin DB-3s that had conducted the raid – Sakai's A5M was the only to take to the air. He claimed hits on one of the bombers, seeing smoke trail from the port engine as it dropped out of formation and lost altitude. As he climbed above the DB-3 and turned, intending to deliver another attack, he realised the distance he had already travelled from Hankow and turned away, concerned that he might run out of fuel and have to force-land in enemy territory.

In Taiwan on his way back to China in 1941, Sakai found the new Zero-sen a dream to fly. Indeed, he proclaimed that it was the most sensitive aircraft he had ever flown, where even slight finger pressure brought an instant response.

In July 1941 a second intensive bombing campaign was launched against Chungking and Chengdu as 'Operation 102', involving both IJAAF and IJNAF bomber units. However, Sakai had no chance to try the Zero-sen in air combat until 11 August, when he participated in Operation *O-Gō*, intended to catch the elusive Chinese fighters on the ground at airfields around Chengdu. After several raids that met with no opposition, RoCAF fighters finally made a re-appearance on 28 July.

ACPO Koshiro Yamashita was 12th Kokutai's top scoring Zero-sen pilot, claiming five enemy aircraft shot down on 13 September when he led the 1st chutai's 2nd shotai in A6M2 3-171 and performed a low altitude victory loop over Pi-shan railway station with 1st shotai leader APO1c Saburo Kitahata. After a long period instructing in Japan, he returned to operational flying with 201st Kokutai in early 1944 and was killed over Palau on 30 March that year in his first encounter with US Navy Hellcats. Yamashita's official victory tally stood at 11 victories at the time of his death (Yasuho Izawa)





Officers of 12th Kokutai pose with much decorated Zero-sen 3-112, which displays 28 victory symbols – the accumulated score of several pilots who flew this aircraft, including Lt Minoru Suzuki, seen here standing with binoculars third from right (*Yasuho Izawa*)

*O-Go* involved 20 Zero-sens flying from Hankow to Ichang, from where a pre-dawn attack could be launched against the Chinese airfields. Nine of the recently introduced Mitsubishi G4M1 (Type 1 Land Based Attack Aircraft, Allied codename 'Betty') bombers from the Takao Kokutai, under the command of Lt Yogoro Seto, rendezvoused with the Zero-sens over Ichang to provide the fighters with navigational guidance in the pre-dawn darkness. The A6M2s targeted Wenkiang, another major Chinese airfield northwest of the city, and Shwangliu, where at 0505 hrs they caught RoCAF fighters still attempting to take off. Sakai flamed an I-16 as it was rolling down the runway.

While climbing for altitude, he saw three Zero-sens attempt to shoot down a 'brightly coloured' biplane flying low against the ground – possibly the aircraft of the 29th PS commander Capt Tang Zhou-li, and one of six I-153s to get off the ground. The biplane evaded the Zero-sens and Sakai dropped down to have a go at it, although he was soon involved in a hectic chase with four other IJNAF fighters as the Chinese pilot jinked and rolled to avoid the Japanese fire. The pursuit went on until the biplane had to climb to cross a low hill, the pilot slow-rolling as he went over. Presented with his aircraft's belly, Sakai fired a burst into it, probably killing the pilot. The biplane continued to roll into an uncontrolled spin, before slamming into a hill to become Sakai's second victory.

Fellow future Tainan Kokutai ace 22-year-old APO1c Gitaro Miyazaki claimed his second victory over Wenkiang, this aircraft almost certainly being one of four I-153s that were shot down here, killing pilots Wang Chong-shi and Huang Rong-fa, as well as Tang. His first claim had been an I-16 shot down over Hankow on 5 October 1938 when he was flying the A5M, and he would go on to lead a formidable shotai of Tainan Kokutai pilots over the Philippines, Dutch East Indies and New Guinea prior to his death in action on 1 June 1942.

Another 12th Kokutai pilot to score his first victories during 1941 was 21-year-old farmer's son APO3c Shizuo Ishi-i, who on 22 May

had claimed a RoCAF SB bomber over Chengdu for his first victory. After claiming two more victories in China, he would also see considerable action with the Tainan Kokutai in the opening offensive of the Pacific War and then over New Guinea and the Solomons with 204th Kokutai prior to being killed in action over Rabaul in October 1943. By then Ishi-i had been officially credited with no fewer than 29 victories, which put him in the top ten of IJNAF aces.

On 15 September 1941, with the IJNAF withdrawing from the China theatre to prepare for war against the British, Americans and Dutch, 12th and 14th Kokutais were disbanded, with their pilots transferred to the Tainan Kokutai and 3rd Kokutai, both of which were based on Formosa.



12th Kokutai Zero-sens fly over China in near line-abreast formation during the summer of 1941. The aircraft furthest from the camera with two fuselage bands is being flown by Lt Minoru Suzuki. The fuselage bands seen on these aircraft were introduced in the spring of 1941  
(*Yasuho Izawa*)

## ZERO-SEN INTELLIGENCE

Chennault and the British and American air attachés in China had begun passing back fairly accurate information about the Zero-sen through observations from RoCAF pilots in combat, prisoner interrogation and their own espionage at Japanese airfields during the second half of 1940 – in most cases to fall on deaf ears. It was not until 1941 that the examination of an actual Zero-sen from wreckage became possible. On 20 May 1941 APO1c Ei-ichi Kimura's aircraft was brought down by anti-aircraft fire and the fighter's remains were examined by the Chinese, a subsequent report on its characteristics and performance being passed to the British. That resulted in a sanguine response, with the publicly expressed view that the Brewster Buffalo was a match for the 'Navy 0 fighter' in performance and capability. A second Zero-sen fell in Chinese territory on 23 June 1941 when APO1c Kishiro Kobayashi's aircraft was also hit by ground fire over Lanchow.

Little of the information gleaned reached the Allied pilots who would soon face the IJNAF, with the exception of the US Navy, whose Bureau of Aeronautics issued detailed and fairly accurate performance details in a Fleet Air Tactical Bulletin to its squadrons on 22 September 1941. This provided US Navy Grumman F4F Wildcat fighter pilots with at least some knowledge of what to expect, and how to counter it.

All the reports failed to highlight the agility of the Zero-sen, however, in one case asserting that its pilots avoided aerobatics! And the British generally dismissed Japanese aircraft and aviators in what was largely a racially discriminating belief in their inferior flying ability, encouraging an undeserved confidence in their own capability that would cost them dearly. The strategic significance of the Zero-sen's very long-range capability, as demonstrated in the attacks against Chungking and Chengdu in 1940 and 1941, was not appreciated at all.





## CHAPTER THREE

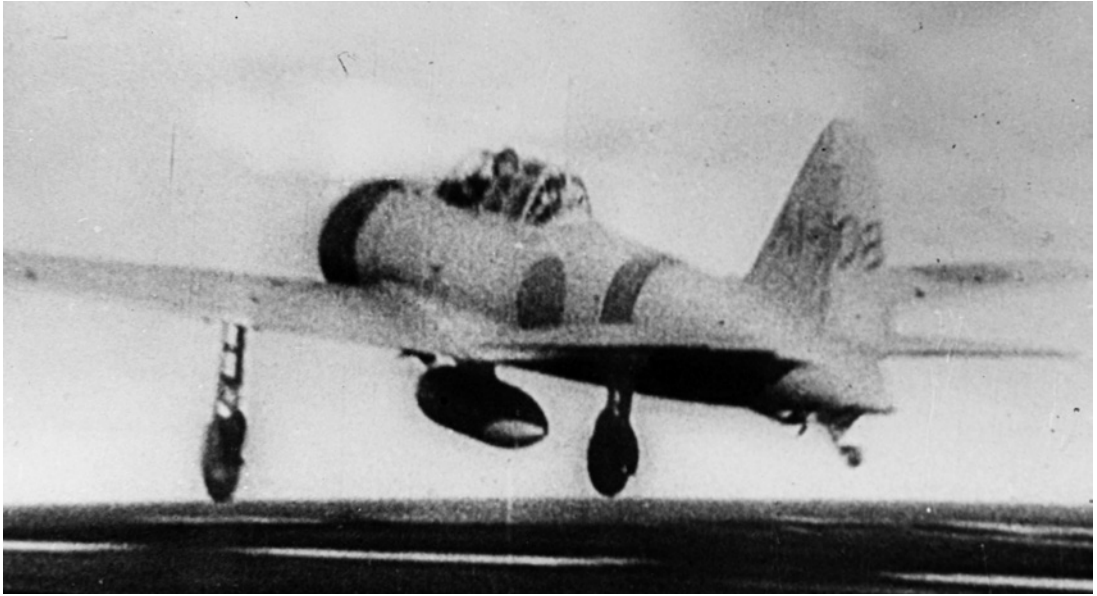
# THRUSTING THE BLADE — THE CARRIER ACES

A6M2 Zero-sens, their engines idling, prepare to take off en masse from the carrier *Zuikaku*. During the 'Hawaiian Operation' on 7 December 1941, only six Zero-sens from the carrier took part in the first wave attack, strafing NAS Kaneohe Bay. No fighters from *Zuikaku* were involved in the second wave, the aircraft instead undertaking CAP overhead the Japanese carrier force (*Yasuho Izawa*)

**S**ome 15 Zero-sen pilots achieved ace status flying from carriers during the first year of the Pacific War, with most having their tallies increased by previous and/or later service. The nature of carrier warfare provided pilots with less opportunity to engage the enemy compared to their land-based comrades, and the confusion in some aerial battles during this period has made it difficult, if not impossible, to identify individual combats and claims.

## PEARL HARBOR

A total of 81 Zero-sens participated in the attack on Pearl Harbor – the 'Hawaiian Operation' – on 7 December 1941, 45 of them in the first wave of six chutai commanded by Lt Cdr Shigeru Itaya and 36 in the second wave of four chutai commanded by recently promoted Lt Cdr Saburo Shindo. Although many accounts refer to their role as 'escort' for the torpedo- and dive-bomber groups, the IJNAF plan called for them to 'storm the skies' above the target and clear it of any enemy aerial opposition. Their secondary role was to strafe enemy aircraft on the ground. The first wave was to target Ford Island, Hickam and Wheeler Fields, and Naval Air Stations Barbers



Point and Kaneohe Bay. The second wave would attack the same targets, with the exception of Barbers Point.

The pilots had trained for all their roles, practising challenging air combat routines with mock dogfights that pitted one shotai of three Zero-sens against six enemy aircraft. They had also repeatedly performed very low-level strafing attacks against parked aircraft targets, and their extremely low flying was noted during the actual attack – in one case a Zero-sen pilot was observed scraping his belly tank along the ground. In addition, they had practiced defensive combat against enemy dive- and torpedo-bombers in order to protect the carriers from counter attack during the operation. That would prove unnecessary at Pearl Harbor, but these skills would be put to good use in future carrier battles.

A total of 24 IJNAF aces or future aces flew the Zero-sen in the ‘Hawaiian Operation’, six of them undertaking defensive combat air patrol (CAP) duties over the fleet. One of these pilots, F1c Tetsuzo Iwamoto, flying from the carrier *Zuikaku*, had already achieved 14-victory ace status in the A5M over China, and he would eventually have 80 victories attributed to him and survive the war as the IJNAF’s second leading ace. Iwamoto had scored his first victories on his very first day of aerial combat over China on 25 February 1938, downing three I-15s and an I-16 – Iwamoto also claimed a fourth I-15 as a probable. Although the 22-year-old A1c Iwamoto did not know it at the time, his groundcrew told him following his safe return to base that the A5M (tail number 4-133) he had flown was the highest scoring aircraft in 13th Kokutai, and had been flown in every combat since the start of the Battle of Shanghai on 13 August 1937.

Lt Cdr Itaya personally led the nine first wave *Akagi* Zero-sens in AI-155, escorting the carrier’s Aichi D3A1 Type 99 Carrier Bombers (Allied codename ‘Val’) southward along the leeward slopes of the Ko‘olau Mountain Range to attack Hickam Field. After the

An A6M2 takes off from the carrier *Akagi* for the attack on Pearl Harbor on the morning of 7 December 1941, nine Zero-sens from the vessel being involved in the first wave strike on the Hawaiian islands (*Yasuho Izawa*)

dive-bombers had made their attack, Itaya led the Zero-sens down to strafe the field just as B-17C Flying Fortress 40-2074, flown by Capt R T Swenson, of the 38th Reconnaissance Squadron (RS) was coming in to land. Itaya and his wingmen, PO1cs Takashi Hirano and Shinatsugu Iwama, made a line-astern run on the bomber from 'six o'clock' as it descended to 600 ft, setting fire to a box of magnesium flares in the radio compartment. The B-17's co-pilot 2Lt E L Reid pushed the throttles forward as Swenson climbed for the safety of nearby cloud, but the fire was consuming the centre fuselage so he turned the bomber back to Hickam and brought it down in a hard landing, which broke its back.

As the crew raced for safety from the burning bomber, they were strafed by the Zero-sens, with 38th RS flight surgeon 1Lt W R Schick, who had been a passenger in the bomber, being fatally wounded in the head and four others slightly injured.

The crew reported being attacked in the air by only two Zero-sens, and shortly afterwards Itaya's wingman Hirano went in so low in his strafing run on Hickam that his belly tank hit the ground and he lost control of the fighter, causing him to fatally crash. *Akagi's* 2nd shotai leader Lt Masanobu Ibusuki, in AI-103, reported the B-17 victory back to the carrier by radio, and later recorded that 'with other planes, I shot down a flying B-17'. The Flying Fortress was probably attacked by several of the Zero-sens as they descended to strafe the airfield, including Ibusuki and his wingmen, PO1c

The remains of PO1c Takeshi Hirano's A6M2 AI-154 (construction number 5289) from *Akagi* after crashing into Building 52 (Ordnance Machine Shop) at Fort Kamehameha during the attack on Pearl Harbor. Hirano had flown so low whilst strafing Hickam Field that he struck the ground, ripping the belly tank from his Zero-sen and damaging the propeller blades. Unable to regain proper control as he attempted to climb away, he struck palm trees and cartwheeled into the ground, being killed instantly. Hirano's Zero-sen was the first of nine A6M2s lost in the 'Hawaiian Operation' (NARA)





Yoshio Iwaki (eventually credited with eight victories before his death in the Solomons on 24 August 1942) and F1c Toichiro Hanyu.

Only two of the nine *Akagi* pilots involved in the attack on Pearl Harbor would survive the war, one being Ibusuki and the other 23-year-old F2c Masao Taniguchi, flying AI-158, who, although claiming no aircraft on 7 December, would eventually be credited with 14 victories following aerial battles over Ceylon, Midway and during 1943 in the Solomons with 201st Kokutai, where he claimed five enemy aircraft destroyed and three probables in a single month of operations. After near-continuous combat in the *Zero*-sen, Taniguchi was seriously wounded over the Philippines in October 1944 and invalided to Japan, not able to return to duty before the end of the war.

Five of *Akagi*'s 'Hawaiian Operation' fighter pilots were destined to die during 1942 – two at Midway, one at Santa Cruz, one during the Solomons campaign and the fifth in an accident.

FPO1c Yoshimi Minami was another A5M ace from China in the skies over Hawaii on 7 December. The one-time top-scoring pilot of 12th Kokutai (with nine victories to his name), he had survived deliberately ramming a RoCAF fighter over Hankow on 31 May 1938. At Pearl Harbor Minami flew one of the *Shokaku* *Zero*-sens without claiming any known victories. In subsequent service he would achieve a total of 15 victories before being killed in a kamikaze attack off the Philippines on 25 November 1944.

F2c Kenji Okabe also flew from *Shokaku* on CAP during the Pearl Harbor attack. Although he too had fought in China with 12th Kokutai, he had claimed no victories. However, he duly went on to achieve a total of 15 kills, and survived the war.

Future 18-victory ace F2c Sadamu Komachi had been assigned to *Shokaku* in 1941 and was another pilot who flew from the vessel during the attacks on Pearl Harbor and Ceylon, and saw action in the Pacific carrier battles of the Coral Sea, eastern Solomons and Santa Cruz, before

Another view of second wave A6M2s as seen from *Akagi*'s island superstructure on 7 December 1941. The fighter in the foreground is AI-101, with PO1c Tadao Kimura in the cockpit (*Yasuho Izawa*)







In a scene replicated on the morning of 7 December 1941, crewmen wait for the signal to remove the chocks from A6M2 El-120 on the flightdeck of *Shokaku*. The aircraft's external drop tank can be seen at the right of the photograph, it being a masterpiece of engineering in its own right. The tank greatly enhanced the A6M2's operating range that was already considered phenomenal at the time. The Zero-sen was the first truly long-range strategic escort fighter. Note that the pilot of the aircraft in the background has raised his seat (which could be adjusted up and down, but not moved forward or backward) to improve his view out of the cockpit on takeoff (*NARA*)

returning to Japan at the end of 1942. After service in the Ohmura Kokutai, he re-joined the fight with 204th and later 253rd Kokutais at Rabaul in 1943. He too survived the war.

The bearded FPO1c Akira Yamamoto led a shotai from *Kaga* in Zero-sen AII-168 during the first wave attack. The 28-year-old native of Shizuoka was another China veteran who had flown the A5M from the carrier *Hosho*, claiming his first victory in September 1937 during an attack on Canton, and served with 12th Kokutai from October 1939 until July 1940, when he became a flight instructor.

As there was no aerial opposition, buntaicho Lt Yoshio Shiga (in AII-105) took the *Kaga* formation down in wide spirals to strafe Hickam Field at about 0805 hrs. During the fighters' descent a yellow civilian aircraft was encountered and Yamamoto dropped out of formation to despatch it with a single burst of fire. He then claimed six aircraft destroyed on the ground during strafing runs over Hickam Field. The civilian aircraft had also been seen by Lt Shiga, who thought it looked like a yellow butterfly and hoped it would get out of the way. When Shiga discovered that Yamamoto had shot it down he was angry and tore him off a strip, calling him a 'Baka Yaro' ('idiot bastard').

The civilian aircraft was Piper J-3 Cub NC35111, being flown on a sightseeing flight by Sgt Henry Blackwell of the 251st Coast Artillery at Camp Malakole, with Sgt Warren D Rasmussen as his passenger. The Cub was lost and neither pilot nor passenger were ever seen again. This was claimed at the time as the first Japanese aerial kill of the Pacific War (see *Osprey Aircraft of the Aces 103 – Ki-27 'Nate' Aces* for details of the first actual victory).

After Pearl Harbor, Yamamoto was to fight with distinction in the Pacific carrier battles of 1942 and over Guadalcanal. However, on 24 November 1944, with his victory tally having reached 13, his career was cut short

when his aircraft was hit by a B-29 gunner over the Japanese homeland and his parachute failed to open.

Future ace Lt(jg) Iyozo Fujita flew from the carrier *Soryu* in Zero-sen BI-154 as a shotai leader in the second wave attack on Pearl Harbor, which faced heavier anti-aircraft fire. His buntai leader, Lt Fusata Iida, had stated before the attack that if his Zero-sen was damaged and unable to return to the carrier he would deliberately crash-dive his aircraft. Fujita later recalled;

‘We all agreed to do the same. We were flying in formation, Iida’s plane near mine. I was his senior wingman. Iida turned and saluted me, then pointed to his mouth and shook his head. This meant he had no more fuel. His plane had been hit. Then he pointed to himself and then straight down. Then he waved goodbye, made a quick, sharp turn and disappeared into the black smoke on the ground.’

Each of the three shotai in Iida’s chutai of nine Zero-sens made successive low-level strafing runs on NAS Kaneohe Bay, enduring fierce anti-aircraft fire in which the buntaicho’s aircraft was hit and began streaming fuel. After Iida’s deliberate crash dive Fujita took the lead as the third shotai, under the command of 29-year-old PO2c Ki-ichi Oda, descended to strafe. Oda was another A5M China veteran who had served on board the carrier *Kaga*, claiming two Chinese Hawks destroyed and one probable flying over Nanking on 19 September 1937 and a third Hawk destroyed on 7 October over Shaoguan. The latter, then known as Kukong or Qujiang, was an important city in northern Guangdong with a secondary airfield then in use by the Chinese 28th and 29th PSs flying Hawk II/III biplanes in the defence of Canton.

Fujita’s formation of five A6M2s was then joined by a lone Zero-sen from *Hiryu* flown by PO1c Tsuguo Matsuyama. He had led a two-aeroplane shotai from the carrier after his third wingman aborted, only to then become separated from his remaining wingman, PO1c Toshio Makinoda, after shooting down the P-40Bs flown by 2Lts George Whiteman and Samuel Bishop when they attempted to get airborne from Bellows Field.

As Fujita waited for his third shotai to return and rendezvous, the Zero-sens were bounced by four P-36s of the 45th and 46th PSs that had taken off from Wheeler Field in response to the Japanese attack. Their leader, 1Lt Lewis M Sanders, attacked Fujita, who immediately pulled up steeply to the right, stalling his aircraft. Fujita’s two wingmen half-rolled to the left. His right-hand wingman, PO2c Takashi Okamoto, was pursued by Sanders’ wingman 2Lt Gordon H Sterling (the 45th PS’s assistant flight engineer), whilst 2Lt John M Thacker, leading the second pair of P-36s, went after Fujita’s left-hand wingman, PO1c Sesaburo Takashi. However, Thacker’s guns jammed and he had to pull away from the fight to clear them.

2Lt Phillip M Rasmussen, flying on Thacker’s left wing, saw Fujita’s Zero-sen fall away and assumed Sanders had finished it, but Fujita quickly recovered control and pulled round in a right hand climbing turn to come face-to-face with Rasmussen’s P-36. Fujita decided on the spur of the moment to ram the USAAC fighter, believing a collision was inevitable anyway, but Rasmussen pulled up sharply, presenting the belly of his P-36. Fujita fired a burst at it and saw the American fighter fall away, believing he had shot it down.

Following the encounter with Rasmussen, who managed to survive his attack with a badly damaged aircraft, Fujita has been credited with shooting

down Sterling as he pursued Okamoto – the Zero-sen was hit twice. Sanders had climbed away out of the fight after firing at Fujita, and when he turned back towards the action he saw a Zero-sen attacking Sterling and went after it. He was too late to save the latter, however, the P-36 already trailing flames. Nevertheless, Sanders opened fire on Fujita's Zero-sen as all four aircraft dived into cloud. The IJNAF fighter was badly damaged, possibly in Sanders' second attack, its engine running roughly, and stopping and starting. Fujita managed to make it back to *Soryu*, and when he landed back on board the carrier his oil gauge was showing zero and one of his engine cylinders fell away. He thought it had been a close call.

Two other Zero-sen pilots from Iida's formation failed to return from the sortie, PO1c Takashi Atsumi and PO2c Saburo Ishii. They may have been hit by Rasmussen, who, after evading Fujita, reported firing 'potshots' at Zero-sens flying in a defensive circle. Thacker, coming back into the fight, was attacked by the third *Soryu* shotai as it returned from strafing Kaneohe Bay. PO2c Jiro Tanaka duly claimed the P-36 as a victory – the first of a total of eight kills, plus four shared and one probable, that he would claim over the course of the next year. However, although Thacker's P-36 had indeed been damaged by one of Tanaka's 20 mm shells and a few of his 7.7 mm rounds, he was able to evade into cloud and return to base.

The diminutive 25-year-old Lt Yasuhiro Shigematsu flew BII-121 from *Hiryu* as the youngest officer pilot participating in the attack. A future ace with at least ten victories to his name, he was a keen athlete known as 'Undo shinkei no katamari' ('a bundle of athletic vigour'). In January 1942, Shigematsu was appointed a buntaicho on board *Hiryu*. Also flying from *Hiryu* on 7 December was 22-year-old PO1c Kazuo Muranaka. Yet another A5M China veteran, he had scored both his and 14th Kokutai's first victory in December 1939. Hailing from Fukuoka Prefecture, he flew Zero-sen BII-112 as one of six A6M2s under the command of Lt Kiyokuma Okajima (in BII-101) in the first wave from *Hiryu*. The aircraft strafed Marine Corps Air Station Ewa Field at 0730 hrs and contributed to the destruction of 32 of the 47 aircraft concentrated on the ground there, but encountering none in the air.

## CEYLON

The Japanese carrier raid into the Indian Ocean, codenamed 'Operation C', was ordered on 9 March 1942, with the objectives of neutralising British naval forces and air power by attacking the ports of Colombo and Trincomalee in Ceylon (now Sri Lanka). By doing so, the Japanese hoped to undermine the stability of the British position in India. The task was assigned to Vice Admiral Chuichi Nagumo's First Air Fleet, consisting of five fleet carriers, four battlecruisers, two large aircraft-carrying cruisers, a light cruiser and 11 destroyers. The flagship *Akagi* carried 27 Zero-sens, *Hiryu* and *Soryu* 21 each, and *Shokaku* and *Zuikaku* 18 each, for a combined fighter strength of 105 fighters.

RAF fighter strength on Ceylon consisted of three Hurricane II units. No 30 Sqn was based at Ratmalana airfield, just inland to the south of Colombo on the west coast, whilst No 258 Sqn used Colombo Racecourse as an airfield. In addition, there were two Fleet Air Arm Fulmar II units, 803 and 806 Naval Air Squadrons (NAS), also at Ratmalana. The Fulmar



had been designed to an Air Ministry specification for a fleet defence fighter that was also capable of performing reconnaissance duties, the aircraft featuring a crew of two, pilot and observer (the latter also serving as the navigator and radio operator). The third Hurricane unit, No 261 Sqn, was based at the China Bay airfield at Trincomalee, with a detached flight at Kokkilai – a satellite airstrip on the coast about 15 miles north of the port. Finally, No 273 Sqn, which was partly equipped with Fulmars and crews transferred from the Fleet Air Arm, was also operating under RAF command on general reconnaissance duties.

On 4 April a Catalina flying boat was detected snooping on the Japanese fleet as it approached Ceylon. The CAP Zero-sens from the carriers gave chase, Lt(jg) Jiro Matsuda flying from *Shokaku* and PO1c Yoshio Iwaki from *Akagi* sharing its destruction with other pilots. Catalina I AJ155/QL-A of No 413 Sqn RCAF, flown by Sqn Ldr L J Birchall, caught fire and was forced down into the sea. The Zero-sens continued to attack the flying boat as it sank, as well as the surviving crew, three of whom were killed. The six wounded survivors were taken aboard the Japanese destroyer *Isokaze*. The 24-year-old Matsuda had already claimed two victories over China with 12th Kokutai, and he would achieve further successes during the carrier battles that lay ahead.

The first strike against Colombo was launched at 0600 hrs on 5 April, with Cdr Mitsuo Fuchida leading a force of 53 Aichi D3A1 'Val' dive-bombers, 38 B5N2 'Kates' in the level-bomber role and an escort of 36 Zero-sens, with nine each from *Akagi*, *Hiryu*, *Soryu* and *Zuikaku*. The A6M2s had already been in action against snooping Catalinas attempting to locate the Japanese fleet, and as they reached the target area they spotted a formation of six Swordfish torpedo-bombers from the hastily established

AGM2 EII-111 takes off from *Zuikaku* during 'Operation C' on 5 April 1942, the fighter being one of 36 Zero-sens that escorted 53 D3A1 'Val' dive-bombers and 38 B5N2 'Kates' from *Akagi*, *Hiryu*, *Soryu* and *Zuikaku* sent to attack Colombo in the opening strike of the campaign. Although often identified as the aircraft of Lt Hideki Shingo, the two broad fuselage bands on EII-111 suggest that it was probably being flown here by future eight-victory ace Lt Tadeshi Kaneko, who led the carrier's fighter group from September 1941 to April 1942. Note the apparent lack of command stripes on the fighter's tail (*Yasuho Izawa*)





F1c Kaname Harada flew from the carrier *Soryu* during 'Operation C', mounted against Ceylon, and the Battle of Midway, claiming eight and four shared victories and two probables. After Midway he served on board *Hiyo* and flew against Guadalcanal on 17 October 1942, being severely wounded by an F4F flown by future ace 2Lt William 'Big Bill' Freeman of VMF-121 after claiming a Wildcat shot down. Invalided back to Japan, Harada survived the war credited with nine victories (*Yasuho Izawa*)

that managed to get airborne and climb for altitude were soon engaged piecemeal against the Japanese attackers, the unit losing eight aircraft, plus one damaged, when attempting to take off. No 258 Sqn got its Hurricanes off from Colombo Racecourse without interference, and also engaged the attackers. The unit duly had seven aircraft shot down, with two more crash-landing with damage, when they tried to engage the bombers and were set upon by the Zero-sen escorts.

From *Soryu*, 3rd shotai leader F1c Kaname Harada claimed four Hurricanes shot down and two as probables. Following the mission, he reported that the Hawker fighters were faster than he expected. However, he had soon worked out that when he fired a burst over them, his opponents reacted by turning sharply and duly losing speed. Harada would then use the superior manoeuvrability of his A6M2 to cut inside their turns and gradually position himself for a zero-deflection shot from close range with both of his machine guns and cannon.

*Soryu's* PO2c Jiro Tanaka claimed two Hurricanes destroyed and shared a third, and PO2c Ki-ichi Oda claimed one Hurricane destroyed and two probables, raising his score to four confirmed and four probables. Finally, PO1c Yoshio Iwaki from *Akagi* also claimed a Hurricane as a probable.

Six Fulmars tried to take off from Ratmalana as the Zero-sens descended on their first strafing pass, with four Fleet Air Arm fighters being shot down as they attempted to climb away. The *Soryu* contingent leader, recently promoted Lt Iyozo Fujita, claimed one of them, while Harada attacked and forced down another Fulmar. He subsequently expressed his surprise

788 NAS on their way from China Bay to Ratmalana. The Swordfish, led by Lt S M de L 'Nipper' Longsdon, were flying strung out in line astern at 2000 ft to comply with local regulations for aircraft approaching Colombo. They were also carrying torpedoes in preparation for a planned strike against the Japanese fleet.

Six Zero-sens from *Hiryu* under the command of Lt Sumio Nono dropped down to engage the biplanes. The Swordfish crews at first misidentified the approaching fighters, and in Longsdon's aircraft his observer, Sub-Lt N R MacKay, flashed 'N' (the recognition letter of the day), whilst two green stars were fired from another aircraft. The Zero-sens opened fire at 600 yards, taking turns to make gunnery runs on the Swordfish and raking them with accurate fire. All six quickly went down, with five crew killed and five wounded, including Longsdon, who suffered a serious facial injury.

At Ratmalana, No 30 Sqn was scrambling its Hurricanes just as the D3A1s began their dive-bombing of the airfield, and those

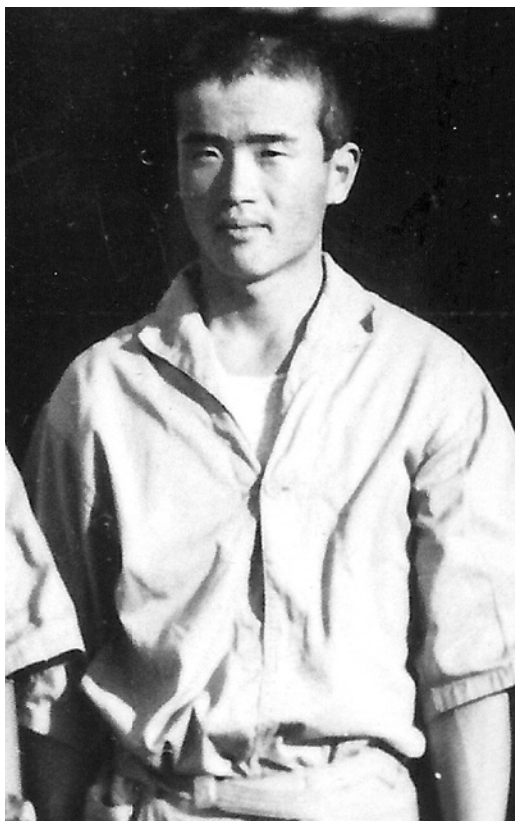
at the Fulmar's apparent manoeuvrability, the aircraft persistently skidding sideways whenever he tried to line it up. Harada could only engage the enemy aircraft with his cowling-mounted 7.7 mm machine guns, as his cannon were already out of ammunition. Many years after the war Harada would learn that the pilot of the Fulmar, Sub-Lt John Sykes of 806 NAS, had already lost control of the aircraft following his opening bursts of fire, and that his jinking was unintentional. He had just given up firing when the Fulmar slammed down into the mud in the middle of the airfield.

Although the 25-year-old Harada had been flying since 1936, he had experienced air combat for the first time on 5 April 1942 over Ceylon. His naval career had begun in 1933 as an ordinary seaman on board the destroyer *Ushio*, although Harada already had the ambition to fly. His inspiration had come from witnessing the 'Sanba Garasu' ('Three Ravens') IJNAF aerobatic display team, led by Lt Yoshito Kobayashi (and later Lt Minoru Genda as 'Genda's Circus'), with ACPOs Heichiro Mase and Yoshi Aoki, in 1931. After *Ushio*, Harada completed ordnance training and became an aircraft armourer on board the carrier *Hosho*. He succeeded in passing the written and physical tests to enter the 35th Soh-ju Renshu Sei (enlisted pilot trainee) class in June 1936.

After finishing initial flight training top of his class in February 1937, and being awarded the Onshi (Imperial Gift) silver watch, Harada completed advanced fighter training with the Saeki Kokutai at Kure. From October 1937 he flew the A4N1 (Type 95) biplane fighter in ground support sorties with 12th Kokutai in China, personally participating in the attack on USS *Panay* (PR-5) in December of that year. He then spent a long period in Japan as a flight instructor on A4N1s and A5Ms (with future ace Saburo Sakai being one of his pupils) in the Saeki, Tsukuba and Oita Kokutais, before being posted to the carrier *Soryu* in September 1941. At Pearl Harbor Harada flew CAP sorties, and although he was included in the attacking force against Wake Island, he had no opportunity to engage the enemy. He made up for that at Ceylon, and would go on to claim additional victories there on 9 April, at Midway and over Guadalcanal for a total of nine confirmed by war's end.

FPO1c Tetsuo Kikuchi was flying as one of Lt Cdr Shigeru Itaya's wingmen in the *Akagi* formation, and in the confused dogfighting over Ceylon he claimed three enemy fighters shot down and two probables. The stout 25-year-old, whose build belied his agility in the air and skill in combat, had served briefly in China with 14th Kokutai during 1939, without an opportunity to engage the enemy, and afterwards as an instructor at Kasumigaura. He had joined *Akagi* in September and also flown CAP at Pearl Harbor, so Ceylon was his first experience of air combat too. It would not be his last, for Kikuchi would go on to distinguish himself at Midway and later as a Flight Chief Petty Officer from the carrier *Shokaku* in operations over the Solomons and Guadalcanal, prior to being killed in action with 652nd Kokutai flying from the carrier *Ryujo* during the Battle of the Philippine Sea in June 1944. By then his official tally stood at 12 claims, although the actual figure could have been as high as 20 by the time of his death.

Only one Zero-sen (flown by F1c Sachio Higashi in *Soryu's* 1st shotai) was lost on 5 April, and in return the Japanese pilots claimed 33 enemy



Fifteen-victory ace F2c Kenji Okabe flew from *Shokaku*, claiming his first victories over Ceylon when he was credited with downing two Hurricanes. Promoted to Flight Petty Officer 1st Class shortly thereafter, he claimed more kills during the Battle of Midway. Like fellow ace Tetsuo Iwamoto, Okabe preferred to make single-pass attacks from higher altitude, regaining height after each one (*Yasuho Izawa*)

fighters shot down (including six credited to D3A1 crews) and 11 probables, plus eight Swordfish destroyed, against actual losses of 21 Hurricanes and six Swordfish. Including D3A1 losses, the kill ratio in favour of the Japanese was 3.4-to-1. Most of the over-claiming was due to aircraft firing at the same targets in the confusion of combat and ambiguity in reporting the shared results of each shotai, rather than from any deliberate falsification.

After further fleet manoeuvres, the second Japanese air strike against Ceylon, targeting Trincomalee, was launched at 0620 hrs on 9 April. This time, 41 Zero-sens escorted 91 B5N2s, with the D3A1 dive-bombers being reserved for an expected engagement with the British fleet. A Japanese reconnaissance flight over Trincomalee by a cruiser seaplane had been detected by British radar hours before the main strike, resulting in the port being alerted to expect an attack.

A flight of three Hurricanes under the command of future ace Flt Lt David Fulford of No 261 Sqn had taken off at 0652 hrs, and they were already patrolling over the port as the IJNAF formation approached. The incoming Japanese aircraft were detected by radar at 0706 hrs, at which point No 261 Sqn scrambled six more Hurricanes, led aloft by Flt Lt R B Cleaver, from China Bay at 0710 hrs and six from Kokkilai under the command of Flg Off J V Marshall at 0715 hrs. Unit CO Sqn Ldr A G Lewis took off separately a little later, followed by six Fulmars

of No 273 Sqn. The RAF fighters were able to climb to 20,000 ft before the arrival of the Japanese force, with the three patrolling Hurricanes at 15,000 ft when they first spotted enemy aircraft in two formations about a mile apart at the same height, with a rear top cover of fighters at 20,000 ft.

Using cloud cover, Fulford led his flight to 22,000 ft above the rear Japanese formation and then dived on *Zuikaku's* chutai of fighters, which were weaving behind it at 16,000 ft. The *Zuikaku* leader Lt Masatoshi Makino was shot down and killed in the attack, probably by Fulford himself in Hurricane Z5146, who saw the Zero-sen's canopy detach and the aircraft go down in a spin trailing smoke to 12,000 ft, where its right wing broke off. Sgt L T Rawnsley RAAF in BG786 fired a long burst into Makino's wingman, F1c Tatsu Matsumoto, whose Zero-sen disintegrated and went down as the Hurricane broke away. The remaining A6M2s, including one flown by the ace F1c Tetsuo Iwamoto, reacted quickly, six pursuing Fulford, who was climbing hard to regain height. When he realised that he could not out-climb them, Fulford rolled over into a vertical dive and performed a series of aileron turns until he pulled out at 7000 ft, having evaded his pursuers. Fulford subsequently engaged another group of Zero-sens escorting B5N2s from the target area at the same height, claiming one shot down into the sea.

Fulford's second wingman, Sgt J W Walton in BG690, was shot down and killed almost immediately, whilst Rawnsley was slightly wounded  
(*text continues on page 47*)



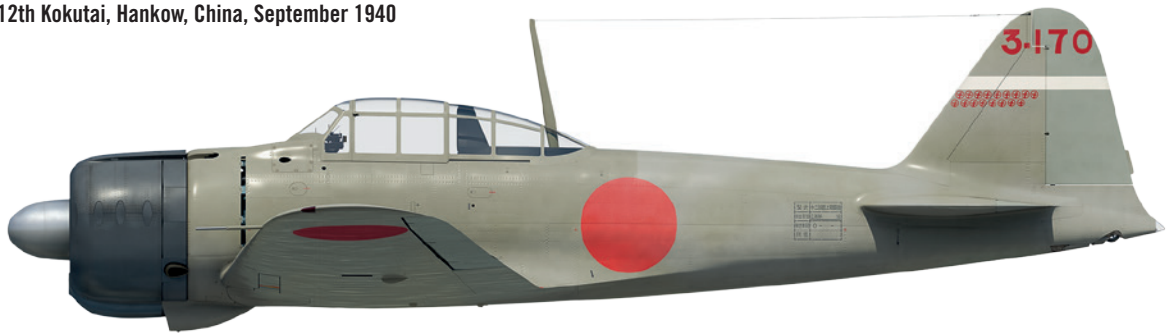
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A6M2 Model 11 3-163 of AP02c Tsutomu Iwai,  
12th Kokutai, Hankow, China, September 1940



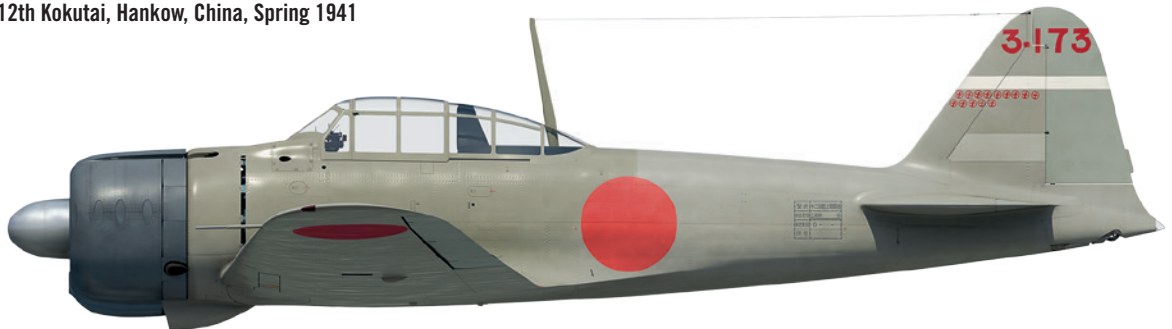
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A6M2 Model 11 3-165 of ACPO Koshiro Yamashita,  
12th Kokutai, Hankow, China, September 1940



3

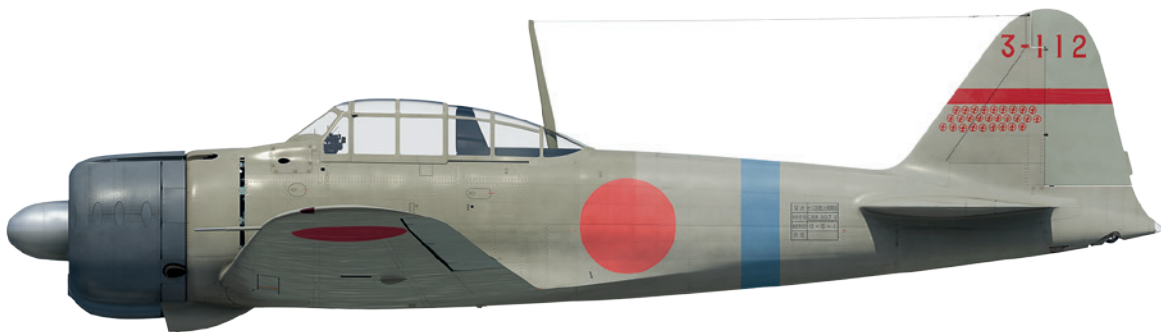
A6M2 Model 11 3-170 of A1c Masayuki Nakase,  
12th Kokutai, Hankow, China, Spring 1941



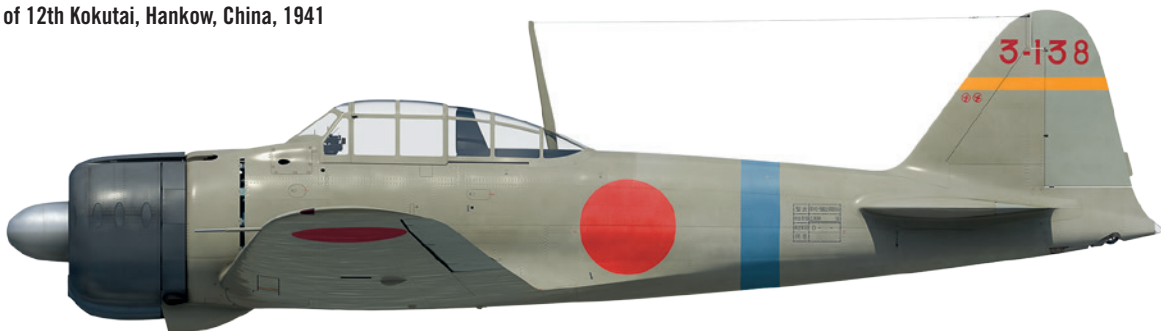
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A6M2 Model 11 3-173 of AP02c Hideo Oishi,  
12th Kokutai, Hankow, China, March 1941

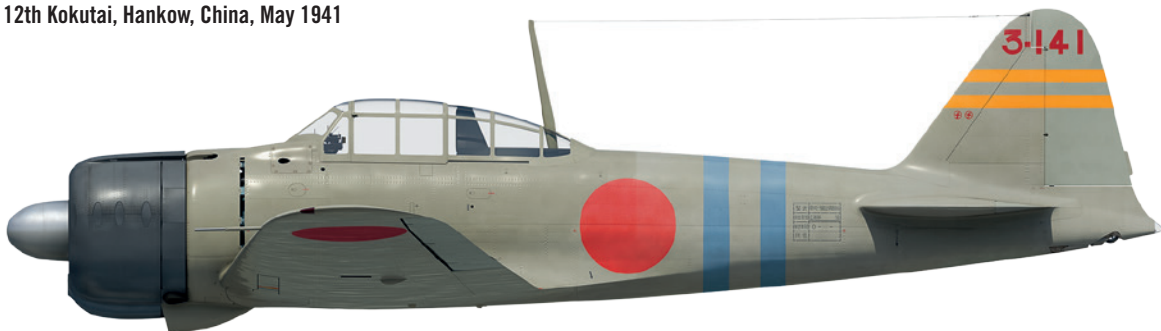




5  
A6M2 Model 11 3-112 (construction number 807)  
of 12th Kokutai, Hankow, China, 1941



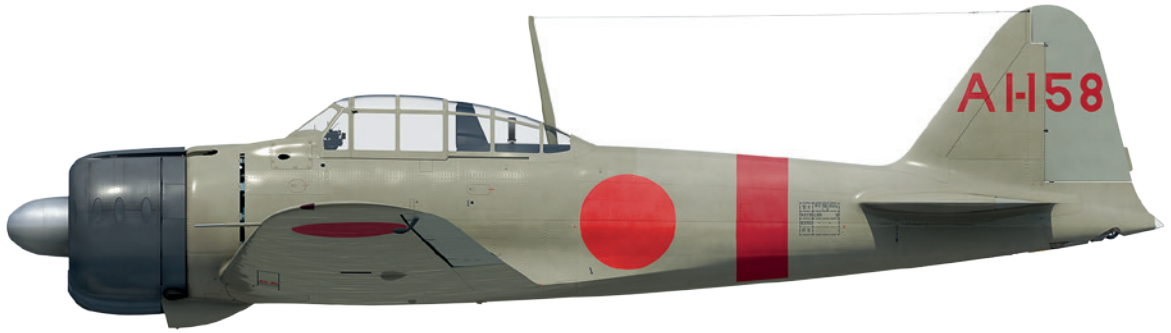
6  
A6M2 Model 11 3-138 of A3c Kunimori Nakakariya,  
12th Kokutai, Hankow, China, May 1941



7  
A6M2 Model 11 3-141 of Lt Minoru Suzuki,  
12th Kokutai, Hankow, China, May 1941



8  
A6M2 Model 11 9-182 of Lt Mitsugu Kofukada, 14th Kokutai  
fighter hikotai, Hanoi, French Indochina, October 1940



9

A6M2 Model 21 AI-158 of FP01c Masao  
Taniguchi, *Akagi*, Pacific, December 1941



10

A6M2 Model 21 AII-168 of FP01c Akira  
Yamamoto, *Kaga*, Pacific, December 1941



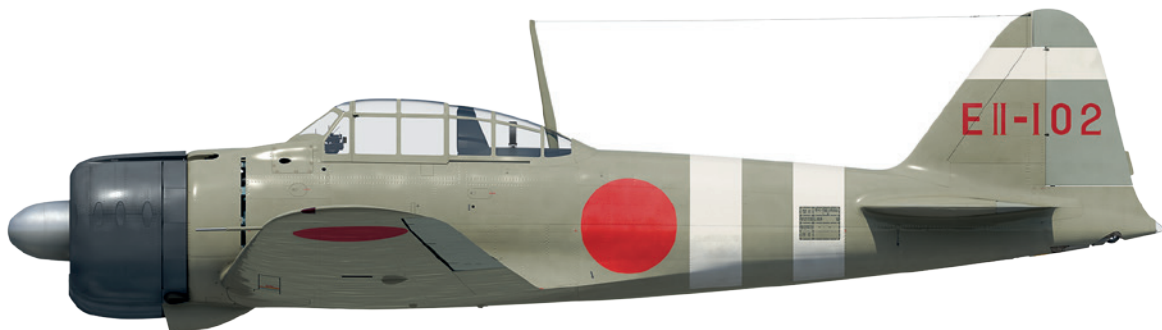
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A6M2 Model 21 BI-150 of FP01c Ki-ichi Oda,  
*Soryu*, Pacific, December 1941

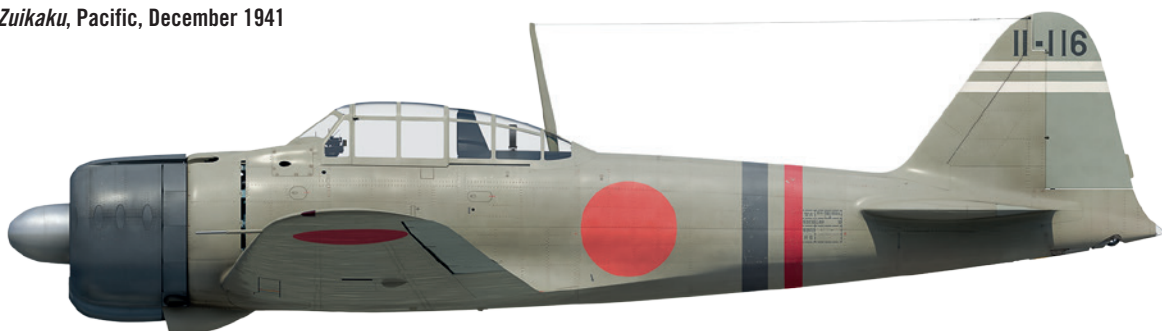


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A6M2 Model 21 BII-121 of Lt Yasuhiro Shigematsu,  
*Hiryu*, Pacific, December 1941



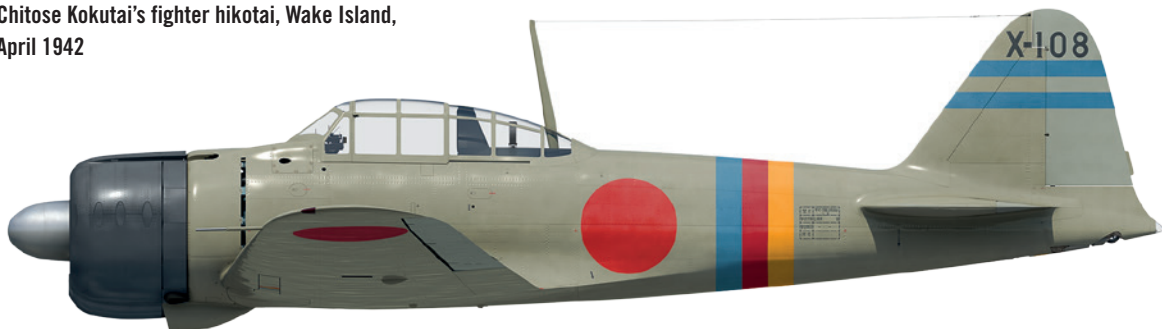
13  
A6M2 Model 21 E11-102 of F1c Tetsuzo Iwamoto,  
*Zuikaku*, Pacific, December 1941



14  
A6M2 Model 21 II-116 of 22nd Koku Sentai Shireibu Fuzoku  
Sentokitai, Soc Trang, French Indochina,  
December 1941



15  
A6M2 Model 21 S-171 *Houkoku-437* of FP03c Hideo Watanabe,  
Chitose Kokutai's fighter hikotai, Wake Island,  
April 1942



16  
A6M2 Model 21 X-108 of Lt Tamotsu Yokoyama,  
3rd Kokutai, Takao, Taiwan, December 1941



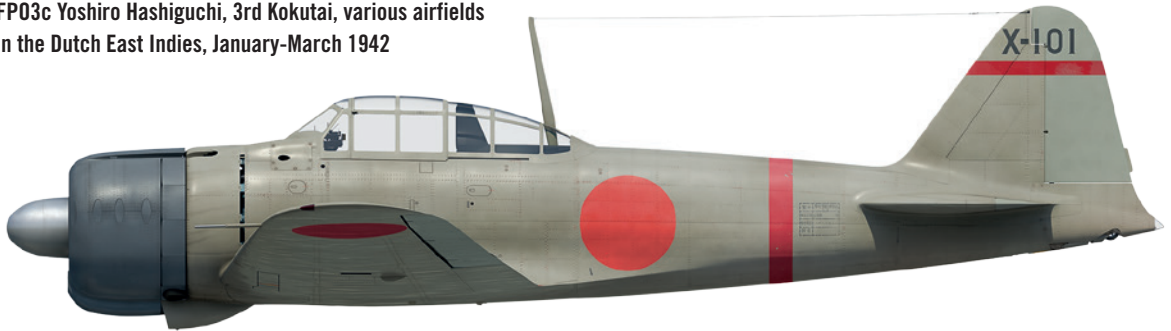
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A6M2 Model 21 X-182 of Lt Zenjiro Miyano, 3rd Kokutai,  
Poeleti (Penfui), Timor, March 1942



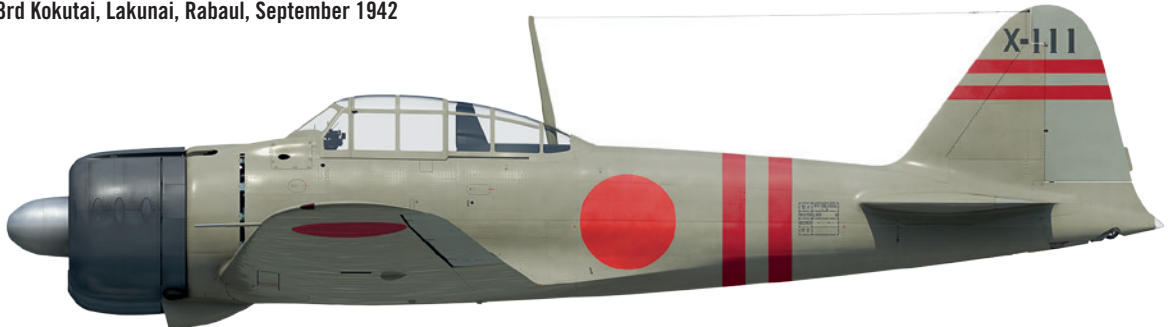
18

A6M2 Model 21 X-183 (construction number 5404) of  
FP03c Yoshiro Hashiguchi, 3rd Kokutai, various airfields  
in the Dutch East Indies, January-March 1942



19

A6M2 Model 21 X-101 of FP02c Yoshiro Hashiguchi,  
3rd Kokutai, Lakunai, Rabaul, September 1942



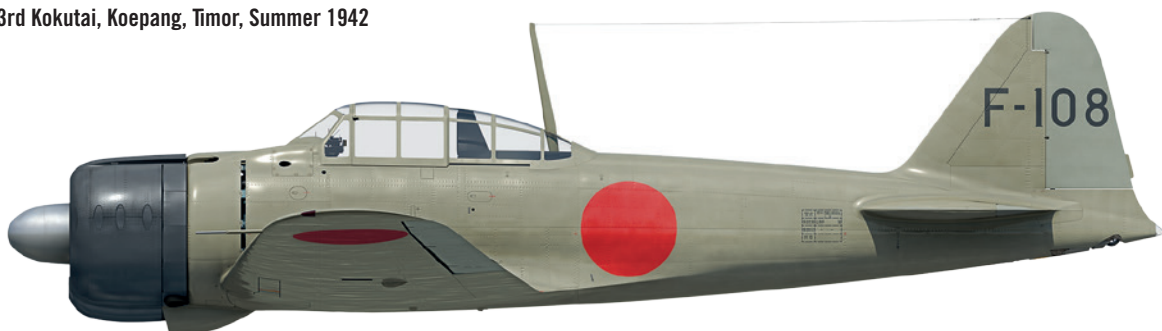
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A6M2 Model 21 X-111 of Lt Takahide Aioi, 3rd  
Kokutai, Lakunai, Rabaul, September 1942

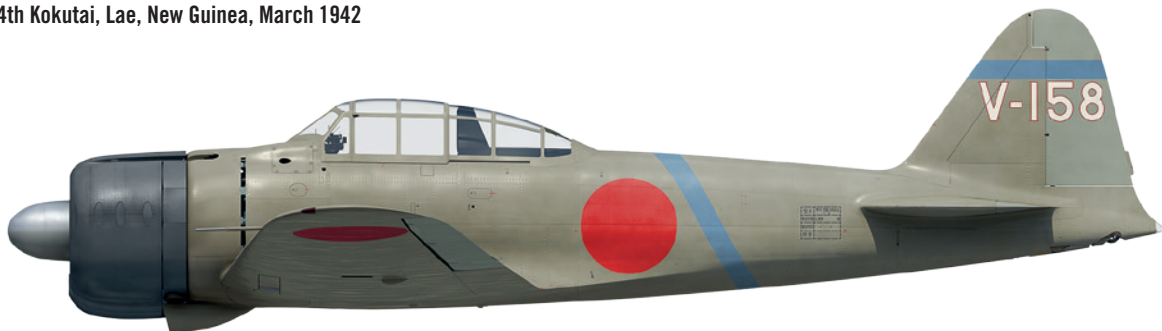




21  
AGM2 Model 21 X-138 of FP03c Kunimori Nakakariya,  
3rd Kokutai, Koepang, Timor, Summer 1942



22  
AGM2 Model 21 F-108 of FP01c Hiroyoshi Nishizawa,  
4th Kokutai, Lae, New Guinea, March 1942



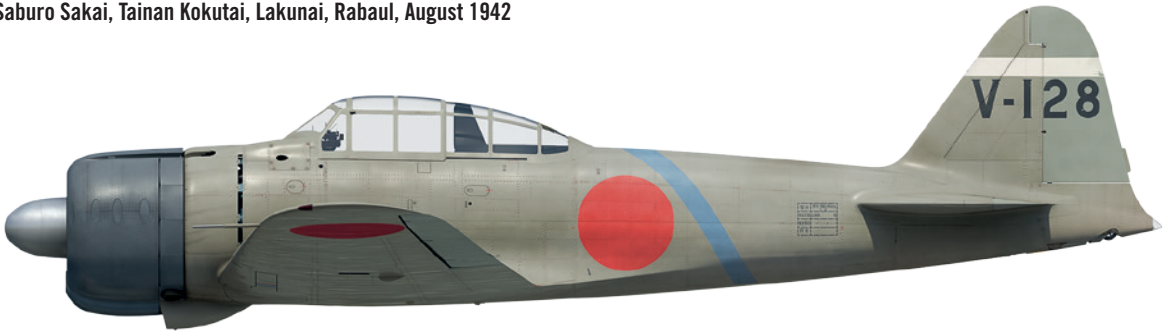
23  
AGM2 Model 21 V-158 of FP02c Susumi Ishihara,  
Tainan Kokutai, Denpasar airfield, Bali, March 1942



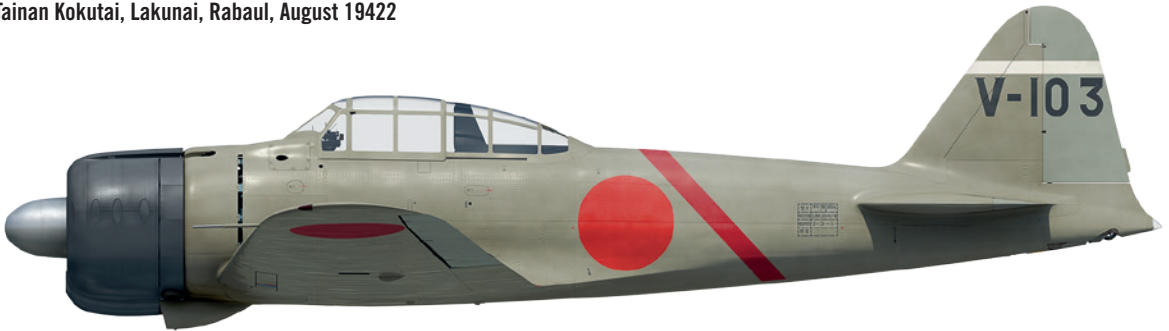
24  
AGM2 Model 21 V-141 *Houkoku-439* of FP02c Yoshisuke Arita,  
Tainan Kokutai, Denpasar airfield, Bali, March 1942



**25**  
 A6M2 Model 21 V-172 (construction number 5784) of FP01c  
 Saburo Sakai, Tainan Kokutai, Lakunai, Rabaul, August 1942



**26**  
 A6M2 Model 21 V-128 of FP01c Saburo Sakai,  
 Tainan Kokutai, Lakunai, Rabaul, August 1942



**27**  
 A6M2 Model 21 V-103 (construction number 3647) of FCPO Tora-ichi  
 Takatsuka, Tainan Kokutai, Lakunai, Rabaul, September 1942

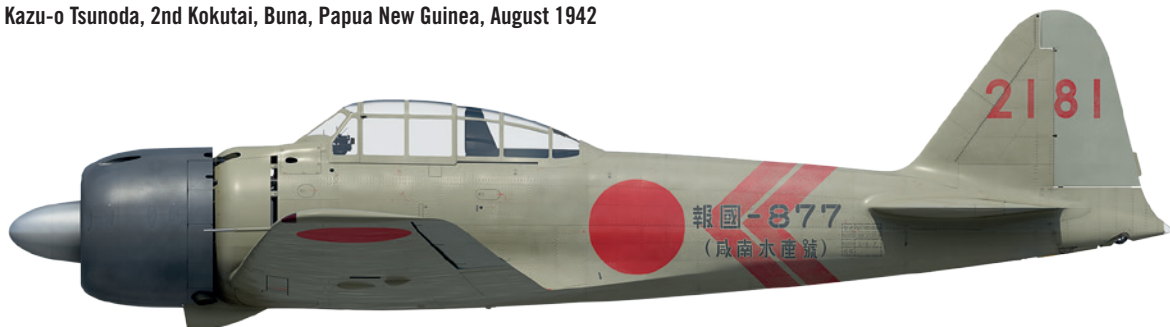


**28**  
 A6M2 Model 21 2185 (construction number 1503) of FCPO Kan-ichi  
 Kashimura, 582nd Kokutai, Buin and Munda, February/March 1943



29

A6M3 Model 32 Q-102 *Houkoku-872* (construction number 3030) of FCPO Kazuo Tsunoda, 2nd Kokutai, Buna, Papua New Guinea, August 1942



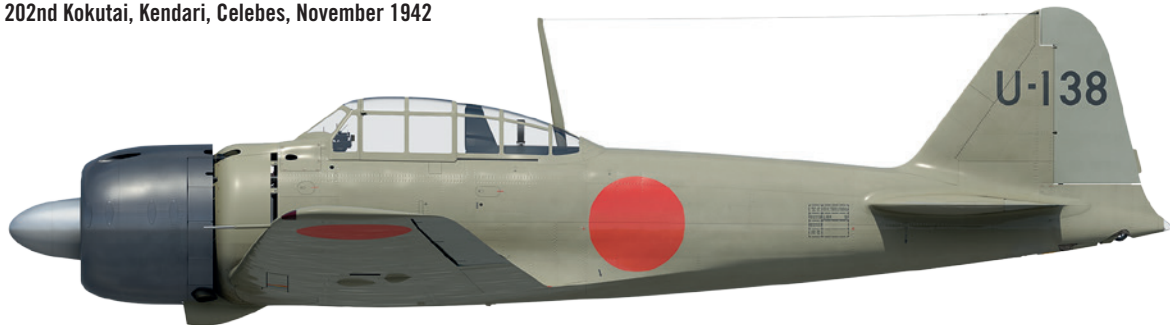
30

A6M3 Model 32 2181 *Houkoku-877* (construction number 3035) of 2nd Kokutai, Lae, New Guinea, late 1942



31

A6M3 Model 32 X-151 *Houkokui-994* of F1c Kiyoshi Ito, 202nd Kokutai, Kendari, Celebes, November 1942



32

A6M3 Model 32 U-138 of 6th Kokutai Advance Detachment, Rabaul, August 1942



5  
A6M2 Model 11 3-112 (construction number 807)  
of 12th Kokutai, Hankow, China, 1941

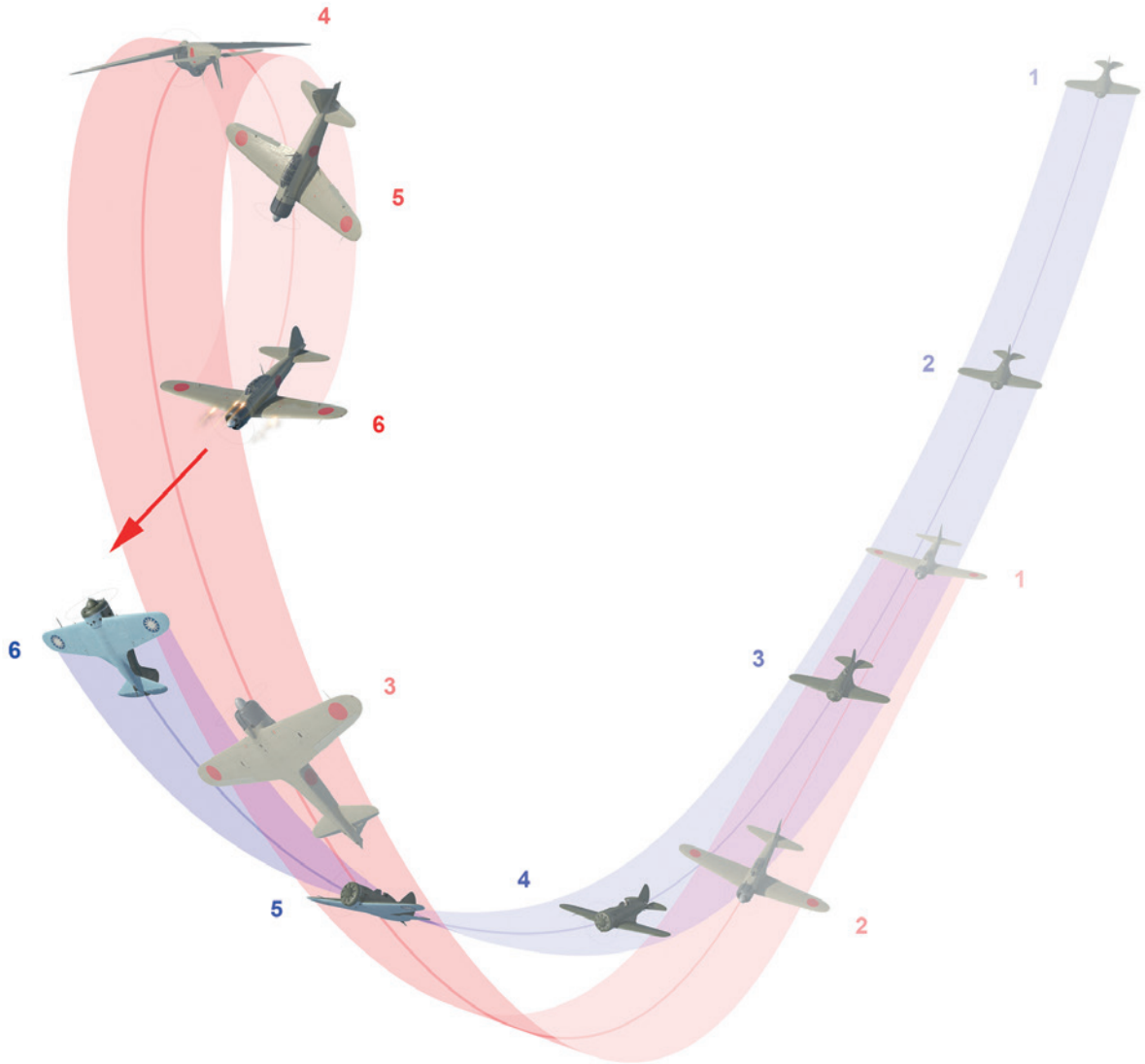






30  
AGM3 Model 32 2181 *Houkoku-877*  
(construction number 3035) of 2nd Kokutai,  
Lae, New Guinea, late 1942





### Hineri-komi manoeuvre

Somewhat similar to a rapid and violently executed Immelmann turn (the original stall turn, not the later re-invention of a roll off the top of a loop), this 'turning-in' manoeuvre executed at the top of a near vertical and rapid climb was commonly used by Zero-sen pilots both to evade an attack and turn the tables on a pursuer, as well as to make repeated diving attacks on slower targets

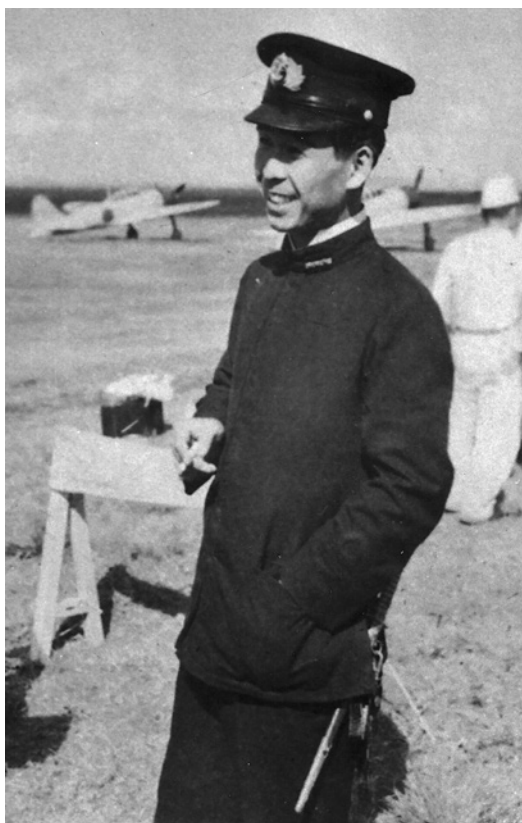
by one of the pursuing Zero-sens after breaking away from Matsumoto. His Hurricane was badly damaged when he was chased until he crash-landed at China Bay, Rawnsley's persistent opponent also wounding squadronmate Flt Lt E F Edsall as he helped Rawnsley vacate his shot-up Hurricane. Iwamoto was credited with four Hurricanes shot down over Trincomalee.

The remaining fighters from No 261 Sqn did not engage the IJNAF formation until the first bombs were dropping on the harbour, and they were quickly set upon by the escorting Zero-sens before they could do much damage to the B5N2s. Fighter pilots from all four carriers claimed Hurricanes shot down. F2c Masao Taniguchi from *Akagi* was credited with a single example for his first victory. F2c Kenji Okabe from *Shokaku* also claimed his first victories over Ceylon, shooting down two Hurricanes from a total of 12 claimed by the carrier's Zero-sen pilots. Fellow *Shokaku* pilot (and buntai leader) Lt Tadashi Kaneko achieved ace status that day, his previous successes having come over Baoshan, Shanghai, on 22 August 1937 when he claimed two Chinese Hawks shot down from a total of six credited to his shotai of only four A4N fighters from *Ryujo*. Kaneko's formation had surprised 18 enemy aircraft from the 4th and 5th PGs, and amongst the Chinese pilots lost to his shotai was the acting 4th PG commander, Capt Wang Tien-hsang.

On the same day that the IJNAF targeted Trincomalee, a force of nine Blenheim IV bombers from No 11 Sqn, led by Sqn Ldr K Ault, attacked the Japanese fleet. Without interference from the Zero-sen CAPs, they managed a bombing run on *Akagi* from 10,000 ft, although no hits were achieved. The Zero-sen CAPs only reacted as the Blenheim IVs were egressing their target area, with *Soryu*'s Harada, Oda and Tanaka making shared claims for three bombers shot down and two probables. The two shotai from *Akagi* and *Zuikaku* also made claims, apparently for the same three bombers. Harada identified the two bombers that his shotai claimed shot down as 'Hudsons', and later described how he had attacked them from their blind spots;

'I pulled in from below and behind, very close, aimed at an engine and gave him several short bursts – he was finished. I did the same with the second one.'

Four Blenheims were actually shot down by the CAP Zero-sens, with the loss of all crews. The surviving five then ran into *Hiryu*'s Zero-sens and 'Kates' returning to their carrier from the Trincomalee raid. PO1c Tsuguo Matsuyama's shotai claimed a fifth Blenheim IV shot down (probably V5592 flown by Sqn Ldr Ault), although he lost wingman F1c Toshio Makinoda to return fire from the bombers. One of the surviving Blenheim IVs crashed on landing when its damaged undercarriage collapsed and two others returned with damage from the battle, although all three were deemed repairable.



*Shokaku* pilot and buntai leader Lt Tadashi Kaneko achieved ace status over Ceylon on 9 April 1942 when he claimed three Hurricanes shot down during the IJNAF attack on Trincomalee. He had previously been credited with the destruction of two RoCAF Hawks over Baoshan, Shanghai, on 22 August 1937 while flying Type 95 Carrier-based Fighters from *Ryujo*. Having also seen action at Pearl Harbor, over New Guinea and during the Battle of Midway, Kaneko was eventually killed in action on 14 November 1942 when he was shot down by SBD radioman-gunner ACRM G C Gardner of VB-10 whilst leading a land-based fighter detachment from the carrier *Hiryu* on convoy escort duty from Buin, on Bougainville. He had claimed three F4Fs 72 hours earlier to bring his final tally to eight victories (*Yasuho Izawa*)

## THE CORAL SEA

The Japanese plan to capture Port Moresby, codenamed Operation *Mo*, by landing naval forces led to the first carrier battle of the war in early May 1942. The Japanese fleet carriers *Zuikaku* and *Shokaku*, and light carrier *Shoho*, were duly pitted against two US naval task forces, TF 11, with the carrier USS *Lexington* (CV-2), and TF 17, with the carrier USS *Yorktown* (CV-5).

On the second day of the battle (8 May) FPO1c Tetsuzo Iwamoto was leading the 13th shotai of three Zero-sens from *Zuikaku* on CAP over the carrier at 20,000 ft when, at just after 1030 hrs, he spotted *Yorktown's* incoming strike force at 17,000 ft. Targeting the SBD Dauntless dive-bombers of VS-5, he led his shotai after them just as they began an attacking pass on *Shokaku*. Plunging after the enemy aircraft as they entered their 70-degree dives at 11,000 ft, Iwamoto targeted the leading SBD flown by *Yorktown's* strike leader, Lt Cdr W O Burch Jr, and gave it a burst of 20 mm fire as he flashed past – his closing speed was too fast from the diving pursuit to prevent him overshooting his target. Burch survived Iwamoto's attack, although the latter thought he had shot the SBD down.

The trio of Zero-sens zoomed up above the SBDs and then dived back into the action as the Dauntlesses released their bombs and began pulling out of their attack runs. Iwamoto and his two wingmen concentrated on an SBD damaged by an anti-aircraft shell, peppering it with fire and wounding pilot Ens J H Jorgenson. As the damaged SBDs raced away from the target area at low level, Iwamoto broke off the pursuit and led his shotai in a climb back up to altitude once again, his duty to protect the carriers from other attacks being of primary importance. Lt Kiyokuma Okajima's shotai of four Zero-sens, launching from *Zuikaku* during the attack, also made a head-on gunnery run on the departing SBDs of VS-5, inflicting further damage on the Dauntlesses but failing to shoot any of them down before racing off in the direction of a developing attack by VB-5's SBDs on *Shokaku*.

Newly promoted FPO1c Kenji Okabe, 16th shotai leader embarked in *Shokaku*, also participated in CAP sorties defending the carrier from enemy attacks on 8 May. Okabe's shotai was patrolling at 13,000 ft when *Yorktown's* strike force approached the Japanese carriers at just after 1030 hrs. At first Okabe did not spot the enemy

Having seen no action while flying CAP from *Zuikaku* during the Pearl Harbor attack, newly promoted FPO1c Tetsuzo Iwamoto (who was already a 14-victory China ace) made up for this by claiming four Hurricanes destroyed over Trincomalee on 9 April 1942 and several SBDs and F4Fs during the Coral Sea clash on 8 May that same year. He was eventually credited with an estimated 80 victories, his diary recording 202 attacks against enemy aircraft utilising single pass hit-and-run dives from higher altitude (*Yasuho Izawa*)





aircraft and remained ignorant of warnings from the carrier as his radio had malfunctioned. The IJN carriers, without radar, were highly dependent on the CAP spotting any incoming threats in order to launch the bulk of their fighters. Okabe led his shotai into action only after *Shokaku's* anti-aircraft guns had opened fire, alerting him to the developing attack.

Deciding to disregard the SBDs of VS-5 that were already being chased by Iwamoto's shotai, Okabe instead climbed to intercept VB-5's SBDs as they prepared to make their diving attacks from 17,000 ft above *Shokaku*. He reached their altitude just as the last SBDs began their dives, following them down but finding it difficult not to overshoot. The shotai pilots had to manoeuvre to slow their own aircraft down, which in turn reduced their opportunities for firing. Nevertheless, 2Lt J J Powers' SBD was hit by 20 mm fire, setting it ablaze and wounding both the pilot and his gunner, but not preventing the launch of their 1000-lb bomb, which hit *Shokaku* and started fires on the flightdeck and in the hangar deck.

As the SBDs pulled out of their dives and egressed at low level, Okabe continued to make dive-and-zoom attacks on them. Another SBD flown by Ens D E Chaffee failed to return from the strike and was possibly brought down by Okabe's shotai. The surviving SBDs claimed seven Zero-sens shot down, although none were actually lost.

FPO1c Yoshimi Minami's 15th shotai was at readiness on *Shokaku's* flightdeck when the US Navy strike arrived, and it was immediately launched in pursuit of survivors from VS-5's dive-bombing attack – straight into the developing attack from VT-5's nine TBD Devastator torpedo-bombers boring in at 200 ft. The TBDs were being escorted by

Many of these A6M2 pilots assigned to *Shokaku* were involved in the pivotal campaigns of 1941-42, including the attacks on Pearl Harbor and Ceylon and the Battle of the Coral Sea. Amongst their number are aces Ichiro Yamamoto (front row, extreme left), Masao Sasakibara (sat next to Yamamoto), Masao Iizuka (second row, second from left), Jiro Matsuda (third row, third from left), Kenji Okabe (third row, fourth from left), Sadamu Komachi (third row, fifth from left) and Yoshimi Minami (fourth row, second from left) (*Yasuho Iizawa*)



four F4F Wildcats from VF-42, led by future ace Lt(jg) Bill Leonard, flying above them at about 2000 ft. Minami, climbing away from *Shokaku*, spotted two of the Wildcats at his '11 o'clock' and about 1000 ft below. Cutting his speed, he reefed into a left turn to make a gunnery run on the second Wildcat, flown by Lt(jg) Scott McCuskey (who also later made ace), flying above and to the right of Leonard.

As Minami dived after the second F4F, McCuskey pulled into a tight left climbing turn, evading Minami's burst of fire. The latter flashed past and started to pull up, but then saw Leonard ahead of him. As he came up on the tail of the lead Wildcat, Leonard also pulled into a tight turn before Minami had the chance to open fire. The Zero-sen pilot attempted to follow the Wildcat in its turn, but he could not get a shot at it. After two turns, Leonard evaded into cloud and Minami turned his attention to the TBDs threatening the carrier.

Minami's second wingman, FPO2c Hisashi Ichinose, attempted a run on the Wildcat as it evaded his shotaicho, but McCuskey also turned into him before he could fire. Having evaded both Zero-sens, McCuskey dipped his nose to gain flying speed and started pulling round in a tight climbing turn to put Ichinose in his gunsight. The latter either miscalculated his own speed or the Wildcat's as he pulled up too slowly in an apparent attempt to perform a hineri-komi manoeuvre. As Ichinose's speed bled off in the climb, his Zero-sen was fatally raked by McCuskey's guns, killing him.

Minami's first wingman, FPO1c Takeo Miyazawa, had been late turning towards the Wildcats, instead flying on slightly past the engagement and having to turn back into it. He also tried a run on McCuskey's Wildcat as it emerged from shooting down Ichinose, but again a hard turn into him prevented Miyazawa from firing and the Wildcat evaded into cloud. The Zero-sen pilots had quickly discovered that the Wildcats were not easy opponents to beat.

As Minami and Miyazawa attempted to take on the VT-5 torpedo-bombers, the second pair of Wildcats from Leonard's escort bounced them. Minami was closing with one of the TBDs when he was hit by fire from the Wildcat flown by Lt(jg) W S Woollen and had a fuel tank punctured. The Japanese fighter pilots evaded by performing a series of steep climbs and turns, and in turn found that their attempted dive-and-zoom attacks on the low-flying torpedo-bombers were continuously thwarted by the Wildcats. Although Miyazawa claimed two of the Devastators shot down, none were actually lost.

Iwamoto's shotai roared back into action when he spotted the Wildcats engaging Minami's Zero-sens. He made a run on one,

Akira Yamamoto was a China veteran who flew from *Kaga* during the attack on Pearl Harbor and at Midway. He later served on board *Zuiho* during the Battle of Santa Cruz and flew land-based Zero-sens in the Solomons campaign. Yamamoto was killed attacking B-29s on 24 November 1944 when his parachute failed after bailing out from his fatally damaged aircraft. His victory tally had reached 13 by the time of his death (*Yasuho Izawa*)



claiming it as shot down, while his two wingmen claimed another. All the F4Fs survived his attack, however. The Wildcats had proven tough customers for the Zero-sens to take on, and had defeated them in their efforts to destroy the torpedo-bombers.

## MIDWAY

The great naval battle of Midway from 4-7 June 1942 represented the first real reversal of the Zero-sen's fortunes in combat. Although individual pilots distinguished themselves, the A6M2 CAPs were unable to prevent the destruction of four carriers by US Navy aircraft. That was not just the result of shortcomings in the deployment of the CAP Zero-sens, but a combination of other factors, including the inadequacy of radio communications and of air defence coordination.

On 4 June, Lt Iyozo Fujita had just led his shotai on CAP over *Soryu* to join Harada's shotai, which was already up, when the first US attack on the Japanese fleet came in. Six TBF Avengers from VT-8 and four torpedo-armed USAAF B-26 Marauder bombers from the 38th and 22nd Bombardment Groups (BGs), led by Capt James F Collins Jr of the 69th Bombardment Squadron (BS), had sortied from Midway Atoll devoid of fighter escort. The Avengers headed for *Hiryu*, which was protected by a six-Zero-sen CAP of two shotai, to be joined by a seventh A6M2 that had been in a landing pattern from a previous CAP when the attack came in. The B-26s flew at 200 ft towards *Akagi*, also protected by a six-Zero-sen CAP of two shotai, with a third, led by Lt Tadashi Kaneko, about to take off. The latter consisted of fighters from a 6th Kokutai detachment that was being ferried by the carrier and intended to become part of the Midway garrison when the atoll was taken.

The CAPs from all four carriers responded to the attack, including two shotai of seven Zero-sens from *Kaga* led by PO1c Akira Yamamoto and Ens Hiroyuki Yamaguchi. With at least 30 A6M2s in the air, the Avengers and B-26s were outnumbered three-to-one and suffered accordingly – five Avengers and two B-26s were downed either by Zero-sens or anti-aircraft fire or both. Inevitably, the IJNAF fighter pilots involved made shared claims, thus duplicating claims for the number of enemy aircraft shot down. Both surviving B-26s, flown by Collins and Lt James P Muri (in *Suzie Q*), were heavily damaged and crash-landed upon their return to Midway Atoll. Muri's aircraft had three wounded gunners on board, their aircraft having been hit more than 500 times.

Iyozo Fujita was in combat again later that morning when the IJN fleet came under attack from US Navy carrier air groups. After sparring with the Wildcat escorts and claiming one and two shared destroyed, he claimed a TBD Devastator and three more shared destroyed and one probable from VT-3. Fujita's Zero-sen was then burst into flames after it was hit by anti-aircraft fire from a Japanese ship as he attempted to pursue SBDs. He bailed out at low level, and after spending four hours in the water was rescued by the destroyer *Nowaki*.

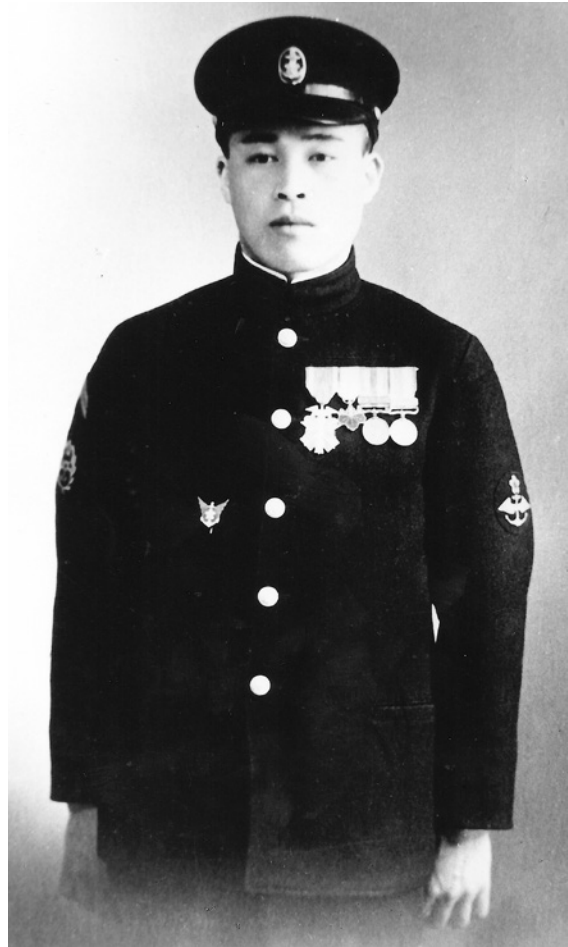
Akira Yamamoto was also in the air again later that morning, and during the confused fighting over *Kaga* he claimed one of ten TBDs and four of 20 SBDs lost in that attack. With *Kaga* on fire, he

landed on board *Hiryu* and subsequently flew escort that afternoon to the carrier's B5N 'Kates' in an attack on *Yorktown*. There were only six Zero-sens in the escort, led by Lt Shigeru Mori, in three shotai of two each, with one shotai covering each B5N chutai of five and Yamamoto leading the 3rd in a top-cover position.

A single VF-3 Wildcat flown by AMM1c D C 'Tom' Barnes attempted to engage the second B5N chutai escorted by Mori and his wingman, but he was in turn set upon by the two Zero-sens. Two more Wildcats flown by Lt(jg) Scott McCuskey, formerly of VF-42 and now with VF-3, and his wingman Ens M C Roach arrived on the scene and dived on Barnes' two attackers, flaming both of them. Although Yamamoto was too late to intervene, he duly went after Barnes too, his pursuit being spotted by Wildcat pilots AP1c H S Packard and Ens M V Kleinmann Jr of VF-6. Yamamoto expertly evaded their diving attack with a hard climbing turn, then turned the tables as Packard attempted to follow him. As the Wildcat pilot lost speed and levelled out, Yamamoto made a head-on run on him, trading shots, before pulling up to perform a hineri-komi manoeuvre and coming in for another run. Packard was able to turn his faltering Wildcat into the attack, however, and as he passed below unscathed Yamamoto climbed for another attack. After several unsuccessful attempts to nail Packard's descending but stubbornly surviving Wildcat, Yamamoto broke away.

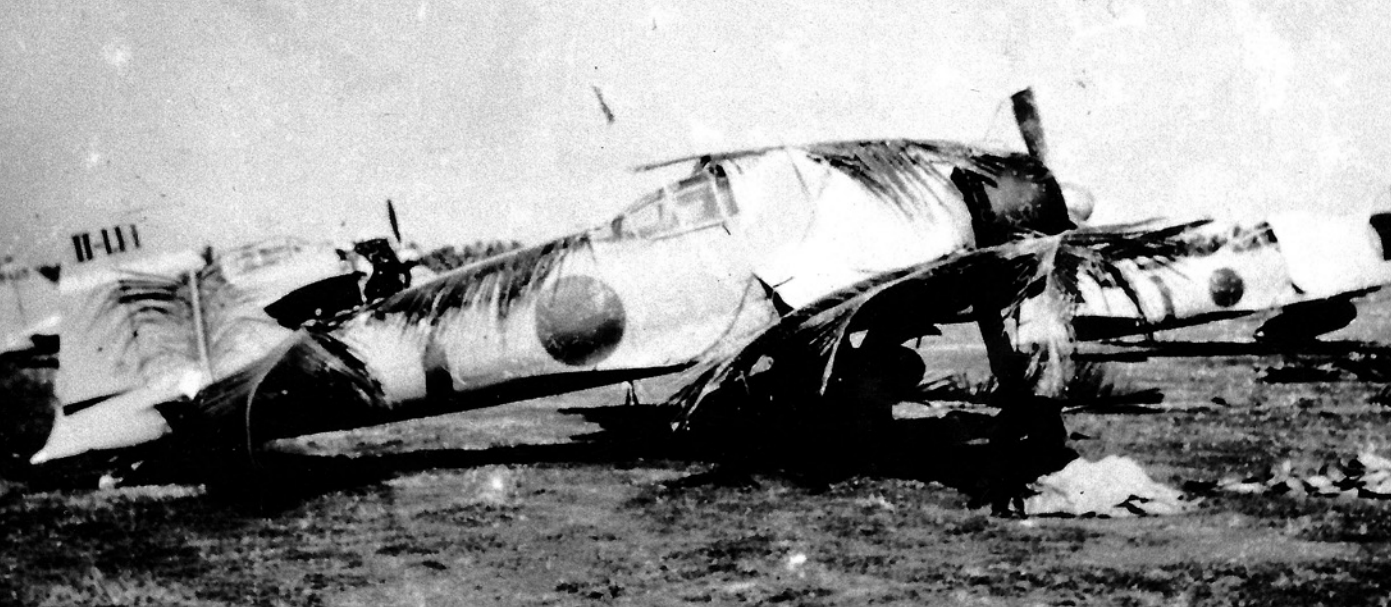
McCuskey, meanwhile, had recovered altitude and made a gunnery run from above on Yamamoto's wingman, PO3c Makoto Bando, who had not yet fired his guns. Bando lost control when the Wildcat's fire smashed his windscreen and canopy, and McCuskey thought he had shot the Zero-sen down as it dropped away with an apparently dead pilot. However, Bando recovered at sea level and headed back to the carrier.

After breaking away from Packard, Yamamoto was attacked by another Wildcat, this time flown by the redoubtable Lt Cdr J S 'Jimmy' Thatch, CO of VF-3, whose attempt at a low stern attack was foiled when Yamamoto looped up and over in another perfectly flown hineri-komi. With Yamamoto on his tail and firing, Thatch made discretion the better part of valour and evaded into a nearby cloud. Finally returning to *Hiryu* after a very long sortie, Yamamoto arrived too late to save his carrier. It was fatally struck by SBDs and began burning as he circled the vessel, waiting to land. Yamamoto was forced to ditch his Zero-sen, after which he was plucked from the water by a destroyer – a fate shared by other A6M2 pilots during the battle. In the fight against the Wildcats he had claimed four shot down.



A calm but determined pilot, FCPO Shigetaka Ohmori was a shotaicho on *Akagi* who flew several sorties at Midway and claimed eight US Navy aircraft shot down before finally ditching his Zero-sen when his own carrier and *Hiryu* were ablaze. During the Battle of Santa Cruz, whilst flying from *Shokaku*, he made repeated head-on diving attacks against SBDs of VS-8 from *Hornet* that were threatening his carrier. When Ohmori's oncoming Zero-sen was fatally damaged by formation leader Lt Cdr W J Widhelm, the IJNAF ace attempted to ram the SBD and was credited with its destruction (taking his final tally to 13 victories), even though Widhelm managed to evade and survive. Ohmori, who perished, was posthumously promoted two ranks to Ensign (*Yasuho Izawa*)





## CHAPTER FOUR

# SLASHING BLADE – ACROSS THE ISLANDS

These crudely camouflaged A6M2s, possibly at Soc Trang airfield in French Indochina, are from the 22nd Air Flotilla Headquarters Attached Fighter Unit, which fought in the Malayan campaign supporting IJNAF land-based bomber units. The Attached Fighter Unit was formed from two buntai of pilots and aircraft drawn from the Tainan and 3rd Kokutais, led by Lts Kiku-ichi Inano and Tadatsune Tokaji, respectively, under Cdr Yutaka Yamada. As with most land-based Zero-sen units, the system of variously coloured command and sub-unit tail stripes and fuselage bands employed by the Yamada-tai (as the Attached Fighter Unit was also known) is uncertain (*Yasuko Izawa*).

**P**rior to the outbreak of the Pacific War, the IJNAF assigned land-based bombers of the 22nd Air Flotilla to support the invasion of Malaya. The units involved were the Genzan and Mihoro Kokutais, flying G3M 'Nells', and a detachment from the Kanoya Kokutai equipped with G4M Type 1 Land-Based Attack Aircraft (Allied code name 'Betty' – see *Osprey Combat Aircraft 22 – Mitsubishi Type 1 Rikko 'Betty' Units of World War 2*).

For escort duties, and to achieve local air superiority, a fighter unit was deployed with the bomber force as 22nd Koku Sentai Shireibu Fuzoku Sentokitai (22nd Air Flotilla Headquarters Attached Fighter Unit) formed under Cdr Yutaka Yamada as the Yamada-tai (Yamada unit). It was equipped with 14 A6M2s from the Tainan Kokutai under Lt Kiku-ichi Inano and 13 A6M2s from 3rd Kokutai commanded by Lt Tadatsune Tokaji, both based in Taiwan, together with a small number of C5M reconnaissance aircraft from both units.

During the movement of the detached Tainan Kokutai aircraft to join the 22nd Air Flotilla in Indochina on 26 November 1941, the first intact A6M2 fell into Allied hands when two pilots became lost in fog en route to their staging post on Hainan Island and force-landed on a beach near

Teitsan (now Quian Shan) on the Luichow Peninsula in southern China. One of the aircraft, V-174 flown by PO2c Taka-aki Shimohigashi, was badly damaged in the landing, but the other, V-172 flown by PO1c Shimezoh Inoue, landed almost intact. This aircraft was disassembled and passed on to Chinese forces, later being test flown in RoCAF markings as P-5016 by the American Volunteer Group and eventually shipped back to the USA from India.

From 6 December 1941, the Yamada-tai provided air cover by rotational shifts from Soc Trang airfield in southern Indochina for the Malayan invasion force landing at Singora. At about 0930 hrs on 8 December, eight Zero-sens of the Tokaji buntai that were patrolling over the invasion convoy about 30 miles from Singora intercepted a snooping 'Blenheim' intruder and claimed it as shot down. In fact, the 'Blenheim' was Beaufort T9540 of No 100 Sqn on a reconnaissance mission from Kota Bharu. Its pilot, Flt Lt P D F Mitchell, pulled into a steep turn when attacked then rolled and went into a spin from 20,000 ft down to 10,000 ft after the aircraft's port engine was hit. Mitchell recovered control of the bomber and sought refuge in cloud, returning safely to Kota Bharu despite the airfield already being under attack. The Beaufort's two air gunners had both been wounded in the clash, but one of them had managed to fatally damage the engine of Lt Tokaji's Zero-sen, forcing him to ditch in the sea.

From 22 December the Inano buntai of nine Zero-sens and nine G3Ms of the Mihoro Kokutai operated from a small airstrip at Miri, on the north coast of Sarawak, Borneo, which had been captured by Japanese forces six days earlier. The A6M2s provided escorts to the G3Ms raiding Tarakan, as well as undertaking air defence for Miri (which had an oil refinery being re-commissioned by Japanese engineers) and protection of convoys sailing between Miri and Kutching, 274 miles further down the coast.

Six days later, F2c Kozaburo Yasui of the Inano buntai participated with four other pilots in the pursuit of three enemy aircraft identified as 'Blenheims'. The bombers were in fact Dutch Glenn Martin Model 139WHs of 1-VIG-I of the Royal Netherlands East Indies Army Air Force. FCPO Hachitaro Hayashi's shotai claimed two of the bombers shot down and a probable, with Yasui's Zero-sen being damaged by return fire. In fact, only one bomber was actually shot down, with another being badly damaged in the chase but able to return to base and the third forced to ditch in the sea after running out of fuel.

The 25-year-old Yasui had served with 14th Kokutai in China in 1939-40 and then as a flight instructor in Japan. He was the Yamada-tai's best-known ace, and later served in the Tainan Kokutai, being credited with 11 victories prior to his death in action over the Marianas with 652nd Kokutai in June 1944. Less well-known is 19-year-old F2c Ken-ichi Abe, who served in the Yamada-tai without seeing action but who later claimed ten victories (five shared) and two probables in the Solomons campaign with the Kanoya Kokutai's fighter hikotai (later 253rd Kokutai) prior to being badly wounded in combat on 6 May 1943. Abe spent the rest of the war invalided in Japan and without returning to flight duties.

On 26 December the Tokaji buntai moved from Soc Trang to Kota Bharu, Malaya, with 19 Zero-sens and five C5Ms to continue operations against Singapore. Miri was vacated four days later as the airstrip proved

too small for G3M operations, the Inano buntai subsequently re-joining the main unit at Kota Bharu. From there, it escorted bombers raiding Singapore and C5Ms conducting pre-bombing reconnaissance sorties, encountering defending fighters but with inconclusive results. On 16 January 1942, 12 Zero-sens escorted a raid on Seletar airfield by 24 G3Ms of the Genzan Kokutai, reporting a fight with 20 RAF Buffalos, ten of which it claimed shot down. The latter figure proved to be wildly exaggerated, for only a few Buffalos from No 243 Sqn tangled with the escort and none were shot down.

## THE PHILIPPINES AND THE EAST INDIES

For the initial attack against US airfields in the Philippines the IJN deployed two strong land-based Zero-sen Kokutais from Taiwan. This decision was made after contentious debate about whether aircraft carriers should be used or whether it was possible to launch the fighters directly from Taiwan on the 900-1020-mile round trip against Clark and Nichols Fields, with air-combat time expected over the targets. Those in favour argued on the basis that the Zero-sen had already been successfully flown for similar distances in China, and their argument won the day.

Intensive training then began to teach pilots how to conserve fuel and extend the range of the Zero-sen. It was determined that a cruising speed of 132 mph at 12,000-13,000 ft, with carefully adjusted propeller pitch and mixture control, would permit fighter units to reach and return from Luzon non-stop, with 20 minutes allowed for combat over the target. By this means, average fuel consumption was reduced to 70 litres per hour – well below the maximum acceptable consumption for the operation of 90 litres per hour – and allowing almost ten hours of flight. FPO1c Saburo Sakai bettered this when he claimed a record in the Tainan Kokutai by reducing his own fuel consumption to ‘less than 17 gallons’ (this was disputed by one source, however, which claimed he used 67 litres, or 17.7 gallons).

The drop tanks (330 litres) would supply fuel whilst cruising to the target, and then be jettisoned before combat, with the wing and fuselage tanks (390 and 145 litres, respectively) used for the return. Even by March 1942, Allied intelligence was underestimating the performance of the Zero-sen, presuming consumption at cruising speed of 159 litres per hour

With their engines idling, A6M2s of 3rd Kokutai sit chocked at Takao, on the south coast of Formosa, on December 8, 1941. Shortly after this photograph was taken, the fighters took off and headed south for Luzon, in the Philippines, some 500 miles away. Here, they successfully attacked USAAC aircraft both in the air and on the ground. Many of these Zero-sens were being flown by former 12th Kokutai pilots who had seen combat in China prior to being transferred to 3rd Kokutai following its switch from G4M1 bombers to A6M2 fighters at Takao in mid-September 1941 (*Yasuho Izawa*)





and an achievable range of 740 miles (370 miles out and 370 miles back) even with the drop tank.

From Tainan, on the south coast of Formosa, the Tainan Kokutai would launch 36 Zero-sen fighters under the command of Lt Hideki Shingo on 8 December 1941. These were organised in four chutai of nine A6M2s each, flying in three shotai of three Zero-sens. 3rd Kokutai would escort 53 G4M 'Betty' bombers from the Takao and Kanoya Kokutais against Nichols Field on Luzon, whilst Tainan Kokutai would escort another 27 G4Ms of the Takao Kokutai and 27 G3Ms of 1st Kokutai against Clark Field.

A total of 24 aces would serve in the Tainan Kokutai, including FPO1c Kuniyoshi Tanaka, flying as wingman to Shingo. Tanaka would become something of a recognised anti-B-17 specialist in the unit until his return to Japan in April (by which time his tally had reached 17 claims) to become a flying instructor with the Oita Kokutai. The 24-year-old Tanaka, a native of Saga Prefecture, had joined the Tainan Kokutai in October 1941, and he was another China veteran. He had served in 13th Kokutai during 1937-38 as its youngest pilot, although Tanaka's age had not prevented him from claiming an impressive 12 victories.

From Takao, also on the south coast of Formosa, 3rd Kokutai would launch 45 A6M2s, with Zero-sen pioneer Lt Tamotsu Yokoyama as hikotaicho. 3rd Kokutai had originated as a bomber unit in April 1941 but had re-organised as a fighter unit in September of that year and moved to Takao the following month. A detachment of 13 Zero-sens from 3rd Kokutai under Lt Tadatsune Tokaji was transferred to serve as the 22nd Air Flotilla Headquarters Fighter Squadron. An additional chutai of nine Zero-sens from the Tainan Kokutai under Lt Yukio Maki was attached to 3rd Kokutai for the operation.

Yokoyama's command chutai of six Zero-sens would lead, with Lt Hasuo Takaichi's six fighters as rear defence. The remaining six chutai, each of six Zero-sens, were grouped in pairs into three larger Daitai under the command of the senior chutaichos, Lts Takeo Kurosawa, Ichiro Mukai and Zenjiro Miyano, with Maki's detachment as Miyano's 2nd chutai. Recently promoted 12th Kokutai veteran 24-year-old Miyano, 3rd Daitai leader, would establish a reputation for himself as an exceptional fighter pilot, with distinguished service in 3rd Kokutai during the first four months of

#### ABOVE LEFT

Lt Zenjiro Miyano was a leading ace of 3rd Kokutai, and he also served as a senior chutaicho within the unit. Eventually credited with 16 victories, he led the long-range attack on the Western Australian port town of Broome on 3 March 1942, shooting down Royal Netherlands Indies Airlines DC-3 PK-AFV (see page 64). Miyano pioneered the transition from three to four-aeroplane shotai, the latter consisting of tactical pairs, and fought in the Solomons campaign with 6th (later 204th) Kokutai until his death in action on 16 June 1943 (*Yasuho Izawa*)

#### ABOVE RIGHT

A6M2 X-182 of 3rd Kokutai at Lakunai, near Rabaul. This Zero-sen was reputedly flown by ace Lt Zenjiro Miyano prior to his departure from the unit in April 1942 (see Profile 17), and is seen here with one command band and tail stripe, together with cherry blossom victory markings, crudely overpainted (*Yasuho Izawa*)

#### OPPOSITE

ACPO Shigeo Sugi-o was a leading ace with 3rd Kokutai, his shotai claiming eight P-26 fighters shot down over Batangas on 12 December 1941 (although only three were lost and two badly damaged, these aircraft being flown by the Philippine Army Air Corps' 6th PS). A China veteran, Sugi-o subsequently saw combat during a number of long-range missions to Darwin from Timor in 1942-43, as de facto chutaicho of 3rd Kokutai's Rabaul detachment in the autumn of 1942 and, in 1944, back in China again with the Haikow Kokutai. He ended the war as a Shiden-kai instructor with the Tsukuba Kokutai, credited with more than 20 victories (*Yasuho Izawa*)





CFPO Sadaaki Akamatsu, a leading IJNAF ace credited with 27 victories (although he personally claimed 350), flew as a shotaicho with 3rd Kokutai in the early months of the Pacific campaign. He was one of 22 aces who would fly Zero-sens with 3rd Kokutai in 1941-42 (*Yasuho Izawa*)

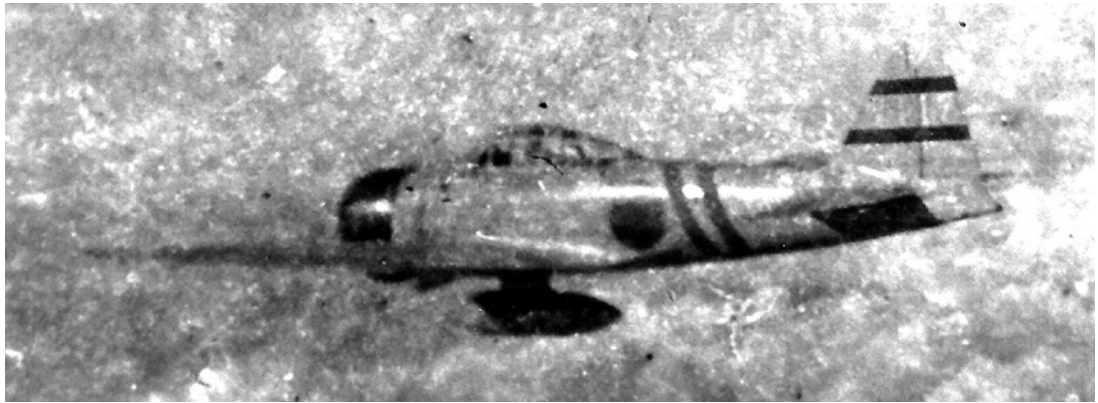
the war. He was eventually credited with 16 victories. The 3rd shotai of Miyano's 1st chutai consisted of only two pilots, FPO1c Juzo Okamoto and FPO3c Yashiro Hashiguchi, both of whom would become aces with nine and ten plus claims, respectively.

No fewer than 22 aces would serve in 3rd Kokutai, including APO2c Yukiharu Ozeki, wingman to the 2nd Daitai leader Lt Ichiro Mukai, who would claim a further six victories over the Philippines in the first three days of war to add to his 12th Kokutai tally over China. Two more aces would be credited with more than 20 victories. The 31-year-old eccentric CFPO Sadaaki Akamatsu, who would eventually be credited with 27 victories but personally claimed 350(!), flew as 2nd shotai leader in Yokoyama's command chutai. He was another 12th Kokutai China veteran with 11 claims made during 1938. ACPO Shigeo Sugi-o was the 2nd shotai leader in Kurosawa's 1st Daitai's 1st chutai and yet another 12th Kokutai veteran. Over China, he had only claimed a single enemy transport aircraft destroyed, but was destined to survive the war after varied and distinguished service with claims for more than 20 victories. Finally, FPO1c Masayuki Nakase, who was now leading the 2nd shotai in 1st Daitai's 2nd chutai, was considered a stalwart of the unit, having been credited with 18 victories (including claims over China). He was destined to be killed while strafing Dutch armoured cars in the fighting over the Dutch East Indies on 9 February 1942.

The operational plan for the attack on the Philippines was similar to that for the strike against Pearl Harbor. The Zero-sens would protect the bombers, sweep any fighter opposition from the skies above the targets and then, after the bombing runs, conduct low-level strafing attacks against the airfields.

After takeoff just before 1000 hrs on 8 December 1941, FPO1c Yoshimichi Saeki's 23rd shotai (2nd chutai's 3rd shotai) from the Tainan Kokutai lost a wingman when FPO2c Yoshimi Hidaka found he was unable to retract his Zero-sen's undercarriage and aborted the mission. Less than 20 minutes later Saeki lost his second wingman, FPO3c Shizuo Ishii, during an abortive attack on misidentified IJAAF bombers seen approaching Taiwan as the fighters flew south. These aircraft were in fact 18 Mitsubishi Ki-21 'Sally' bombers of 14th Sentai returning to Chosu (Chaozhou) airfield on Taiwan after bombing Camp John Hay at Baguio in the mistaken belief that Gen Douglas MacArthur would be there. As nine Zero-sens swept in to attack them, the IJAAF bombers rocked their wings to show their hinomaru (sun's disc) insignia, and they were identified before any shots were fired. After the aborted attack, Ishii found





himself alone and decided to return to Tainan rather than pressing on independently of his shotai. Saeki then attached himself to his chutai leader Lt Masuzo Seto's shotai.

Facing the IJNAF fighter force of 81 Zero-sens were 117 USAAC fighters based at four airfields on Luzon – Clark, Del Carmen, Iba and Nichols. The HQ of the 24th PG and the 20th PS were at Clark Field, 50 miles northwest of Manila, with 24 P-40Bs. The 34th PS was at Del Carmen Field, just south of Clark Field, with 22 P-35As. The 3rd PS was at Iba Field, on the coast about 73 miles northwest of Manila, with 24 P-40E Warhawks and four P-35As. Finally, the 17th and 21st PSs were at Nichols Field, just south of Manila, with 21 and 22 P-40Es, respectively.

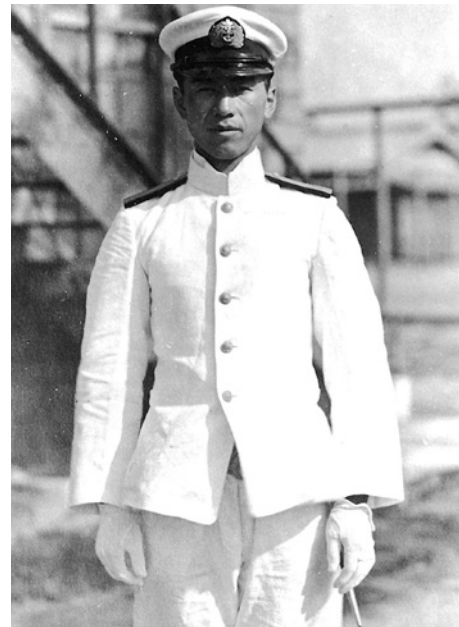
Despite radar warning of the approach of the Japanese formations at Iba, the USAAC response was both hesitant and uncoordinated, effectively negating their superiority in fighter strength. Although there were P-40Es from the 3rd PS in the air over Iba when the IJNAF arrived, and several pilots attempted to climb to intercept the two formations of Japanese bombers, the latter dropped their loads without interference or loss. Lt Koshiro Yokomizo of the Takao Kokutai reported seeing enemy fighters climbing far below him and being set upon by Zero-sens.

As CFPO Chitoshi Isozaki was leading the 2nd shotai of the Tainan Kokutai detachment with 3rd Kokutai to strafe Iba Field, he noticed a single P-40 attacking his wingmen from head on. He attempted to engage it without breaking away from his strafing run, but was unable to do so. The P-40 was probably being flown by 1Lt Herb Ellis of the 3rd PS, who made four passes against the strafing Zero-sens before his guns stopped working.

Most of the claims made by Zero-sen pilots were for aircraft strafed on the ground, with the Tainan Kokutai reporting five destroyed and 20 burning and 3rd Kokutai reporting 34 aircraft of various types burning or destroyed. The Tainan Kokutai also claimed eight destroyed and four probables in the air for four missing – three from Lt Wakao's 4th chutai – and six damaged, including Wakao's 2nd shotai leader CFPO Yoshimitsu Harada and his wingman FPO1c Keishu Kamihara, whose Zero-sens

A poor but rare image of a Tainan Kokutai Zero-sen in flight. V-117 has been attributed to buntaicho Lt Masuzo Seto, with red fuselage bands and blue tail stripes. The white tail code indicates an aircraft in use prior to the unit moving from Bali to Rabaul in April 1942 (*Yasuho Izawa*)

China veteran Ens Fujikazu Koizumi served with 3rd Kokutai from September 1941 until May 1943, by which time he was credited with 13 victories. He began the war as a Flight Chief Petty Officer leading the 2nd chutai of the 2nd daitai, and was promoted to Ensign during service in the Southeast Asia area and attacks against northern Australia. He was killed on his first sortie from Rabaul as a *Hijo* detachment buntaicho on 25 January 1944 (*Yasuho Izawa*)





FPO1c Keishu Kamihira claimed his first victories flying the Zero-sen with 12th Kokutai on 14 March 1941 when he was credited with three I-15s destroyed and a fourth as a probable over Shwangliu, near Chengdu. His next victory came with the Tainan Kokutai in the Philippines, and he continued to fly with the unit until April 1942, when he was transferred to 6th Kokutai. He survived the war credited with 17 victories, and was subsequently killed in a helicopter crash in 1970 (*Yasuho Izawa*)

FPO3c Yoshiro Hashiguchi smiles from the cockpit of his 3rd Kokutai A6M2. He served with distinction in the unit during the opening months of the Pacific War and with its detachment at Rabaul in operations against Guadalcanal in the autumn of 1942. He had been credited with more than ten victories by the time he was reported missing in action serving with 653rd Kokutai after the sinking of the carrier *Chiyoda* in the Battle of Cape Engano on 25 October 1944 (*Yasuho Izawa*)

had been hit ten and 12 times, respectively. Saburo Sakai claimed that he had shot down the first American aeroplane to fall in the Philippines, the P-40 being one of five that bounced his shotai as it was strafing B-17s on Clark Field;

'I jerked the stick and rudder pedal and spiralled sharply to the left, then yanked back on the stick for a sudden climb. The manoeuvre threw the enemy attack off, and all five P-40s abruptly rolled back and scattered. Four of the aeroplanes arced up and over into the thick columns of black smoke boiling up over the field and were gone. The fifth aeroplane spiralled to the left – a mistake. Had he remained with his own group he could have escaped within the thick smoke. Immediately, I swung up and approached the P-40 from below. The American half-rolled and began a high loop. At 200 yards the aeroplane's belly moved into my sights. I rammed the throttle forward and closed the distance to 50 yards as the P-40 tried desperately to turn away. He was as good as finished, and a short burst from my guns and cannon walked into the cockpit, blowing the canopy off the aeroplane. The fighter seemed to stagger in the air, then fell off and dove into the ground.'

3rd Kokutai's 2nd and 3rd Daitai engaged P-40s and P-35s in the air, claiming a single P-35 and six P-40s shot down. One of them and another probable were credited to Lt Zenjiro Miyano and his wingman, whilst Miyano's 3rd shotai pair of Okamoto and Hashiguchi were credited with two P-40s destroyed. Lt Takaichi's six rear-defence fighters also engaged the enemy, claiming a seventh P-40 shot down and a probable. Three 3rd Kokutai Zero-sens were





missing after the various combats and ten had suffered damage. By day's end 34 P-40s had been shot down or destroyed on the ground, and this was just the beginning.

## COMBAT WITH B-17s

Following the initial Japanese attacks, the USAAC began mounting effective harassing bombing raids against newly captured airfields and invasion shipping using the B-17 Flying Fortress. Zero-sen pilots considered the Boeing bomber a formidable adversary, being both fast and heavily armed, which in turn made it difficult to shoot down. Sakai had first encountered the Flying Fortress over Vigan, in the Philippines, when he was one of several Tainan Kokutai

pilots who intercepted and shot down Capt C P Kelly Jr's B-17C 40-2045 of the 30th BS/19th BG on its return to Clark Field after bombing IJN invasion shipping. The shoot down was recorded as a 'probable' because the Zero-sen pilots did not see the B-17 hit the ground (the burning bomber had in fact exploded in mid-air after Kelly had ordered the crew to bail out).

The B-17C had no tail gun position, so Zero-sen pilots took advantage by attacking from astern at 'six o'clock high', attempting to rake the bomber from tail to nose as they flew over it. When they began encountering B-17Es with tail guns, the Zero-sen pilots switched to making head-on passes from '12 o'clock', as a result of which the Flying Fortress crews began installing 0.50-calibre machine guns in the nose. At first, a single gun was fitted, and then a pair firing through an aperture in the Plexiglas above and to the right of the bombsight. Sakai claimed their attacks changed from astern to head on not so much because of the tail guns but because they were more effective. The field-fitted nose guns could not be depressed much below the horizontal, so the Zero-sen pilots began making their head-on passes from '12 o'clock low', facing defensive fire only from the much-maligned Bendix ventral turrets that were difficult to use.

On 24 January 1942 Kuniyoshi Tanaka and several other Zero-sen pilots from the Tainan Kokutai intercepted eight B-17s from the 7th and 19th BGs that were attacking Balikpapan, damaging three of them. 'We caught the bombers just right', Tanaka later recalled. 'I could see the bullets hitting and the cannon shells exploding in the aeroplanes. But they wouldn't go down. These damned bombers are impossible when they work into their defensive formations.' All eight B-17s returned safely.

Five days later, two Tainan Kokutai Zero-sens on CAP, a returning patrol of five more A6M2s led by Lt Jun-ichi Sasai and six Zero-sens



A6M2 X-183 (construction number 5404) displaying 11 cherry blossom victory symbols on its fin, reportedly pink in colour. Believed to have been photographed at Koepang, on Timor, the aircraft was principally flown by ace FPO3c Yoshiro Hashiguchi (*Yasuho Izawa*)





FPO1c Kuniyoshi Tanaka was credited with 12 victories in just six engagements over China flying the A5M with 13th Kokutai in 1937-38. Joining the Tainan Kokutai in October 1941, he soon gained a reputation for successfully tackling the USAAC's formidable B-17 following a series of clashes over the Netherlands East Indies in early 1942. Tanaka was posted back to Japan in April 1942, and the onset of a heart condition prevented him from returning to combat operations. He saw out the war as a flying instructor, surviving with a total of 17 victory claims (*Yasuho Izawa*)

scrambled from Balikpapan engaged five B-17s from the 7th and 19th BGs for 30 minutes. Again, the pilots could claim no shoot downs and reported only three of the bombers trailing smoke. Three B-17s had indeed been damaged in the fight, one of which was fatally crippled. 41-2476, flown by Capt W W Sparks, with 7th BG CO Maj S K Robinson as observer, crashed into the sea on the return flight with no survivors.

During the same engagement, the Tainan Kokutai's F1c Toshio Ohta, the popular, always smiling 22-year-old son of a farmer from Nagasaki-ken who would later gain fame as one of the unit's 'clean up trio' with Hiroyoshi Nishizawa and Saburo Sakai, and become the IJNAF's fifth-ranking ace, was badly wounded by return fire from a B-17. Ohta had served briefly in China with 12th Kokutai from June 1941 until its disbandment in September without experiencing any air combat, after which he was posted to the Tainan Kokutai upon its formation in October.

Fellow future high-scoring ace Lt Sasai, a graduate of the Etajima Naval Academy who had joined the Tainan Kokutai in November 1941, had been nicknamed 'shamo' (gamecock – in Japan, a fighting cock) during his training because of his pugnacity in judo. He was destined to claim 27 victories in just six

months of combat, but had yet to achieve his first success when he engaged the B-17s on 29 January.

Saburo Sakai observed that Sasai demonstrated an unusual attention to the health and welfare of the enlisted pilots under his command, gaining an extraordinary loyalty from them. Later, he would become known as 'the flying tiger', not just for his aerial prowess but for the silver belt buckle he wore, engraved with the head of a roaring tiger, that had been presented to him by his father, a retired IJN Captain. The tiger, which in Japanese lore could run and hunt for 1000 Ri (3927 km or 2240 miles) and then return to its lair, was thought to be especially protective of its cubs, so images of it also became associated with prayers for the health and safety of children. The tiger-head belt buckle symbolised his father's wish that Jun-ichi would travel far to fight like a tiger against the enemy, but return safely home to him – a wish that was ultimately fated for disappointment.

On 8 February, Tanaka and nine other Zero-sen pilots led by Lt Shingo intercepted B-17s of the 7th BG when they attempted to bomb Kendari field from their base at Singosari, in eastern Java. The Flying Fortress crews, led by Capt 'Duke' Dufrane in B-17E 41-2456, at first believed the Zero-sens approaching from astern were in fact friendly fighters, some claiming that they were displaying crudely painted US star insignia –

‘a white splash of markings on the fuselage’ – as they drew alongside about 3000 yards from the bombers. The Zero-sens then split into two groups, before turning in to make coordinated attacks from head on and the front quarter. Lt W J Prichard’s B-17E 41-2492 exploded in the first pass as incendiary rounds found the auxiliary fuel tank fitted in the bomb-bay.

Tanaka also hit 41-2546 in a head-on pass, killing both Dufrane and his co-pilot in the cockpit and setting fire to the Fortress. When the bomb-bay fuel tank in Lt Preston’s B-17E 41-2455 was also hit in the attack and caught fire, he was able to jettison it. Lt Strother’s B-17E 41-2471 and Lt Lindsey’s B-17E 41-2483 were both badly damaged by the Zero-sens, although they made it home – where Lindsey’s Flying Fortress was duly written off. Tanaka and his comrades claimed two B-17s shot down, although the damage they had caused to the 7th BG and its effect on the bomber crews’ morale was much greater.

## THE DUTCH EAST INDIES

Just after midday on 3 February, a large IJNAF force of 53 G4M ‘Betty’s’ from the Takao and Kanoya Kokutais and 19 G3M ‘Nells’ from 1st Kokutai attacked Malang, Sourabaya and Madiun, in eastern Java, escorted by 17 Zero-sens from the Tainan Kokutai under Lt Shingo and 27 Zero-sens of 3rd Kokutai led by Lt Yokoyama. Nine of the Tainan Kokutai A6M2s covered the Singosari airfield at Malang, with three more dropping down to strafe before it was bombed, setting fire to three Flying Fortresses of the 19th BG (B-17Ds 40-3074 and 40-3078, and B-17E 41-2470), whilst B-17E 41-2427 exploded spectacularly when its 4800-lb load of



WO Masao Masuyama was yet another 3rd Kokutai ace, and he flew in combat with the unit for 16 months from December 1941. He was credited with 17 victories by the time he returned to Japan to become a test pilot in April 1943 (*Yasuho Izawa*)

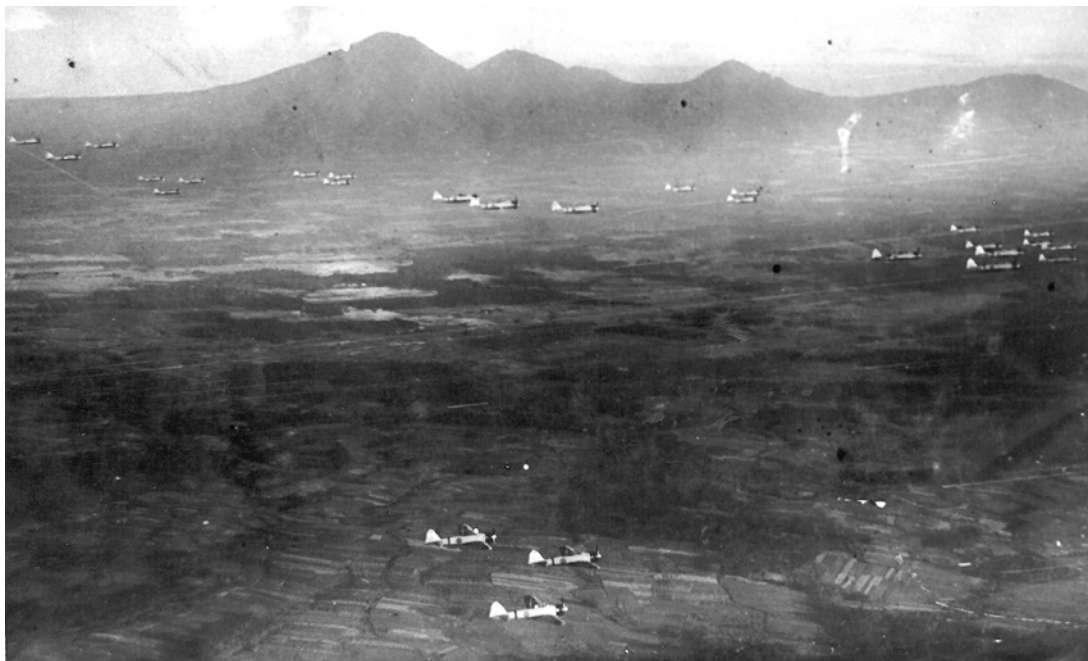
demolition bombs detonated. B-17C 40-2062 was attacked by the Tainan Kokutai Zero-sens as it returned to the field from a test flight, its pilot, 1Lt R L Cox, attempting to escape. However, the B-17 was pursued and shot down 20 miles from Malang by F2c Yoshiri Hidaka, with the loss of its crew.

As the 1st Kokutai 'Nells' egressed from the target at 21,000 ft, they were seen and pursued from 17,000 ft by three climbing 17th PS P-40s flown by Lts E C Gilmore, W L Cross and J M Rowland. As they approached the Japanese formation, the USAAC pilots noticed six escorting Tainan Kokutai Zero-sens directly above them. The stalking P-40s had also been spotted, and the A6M2s rolled over and dived down on them, with one shotai making a head-on attack against Cross and Rowland and the other curving around to get behind Gilmore. Cross and Rowland fired at the Zero-sens as they closed then dived away, whilst Gilmore, under fire from behind, pulled his P-40 round to the left and down to evade.

After their dive, Cross and Rowland climbed again and saw six more Zero-sens above them, two of which broke away and came down at them, one behind the other. Cross turned up into them and fired at the oncoming fighters, causing the leader to trail smoke, but the second Zero-sen passed apparently unharmed. As he evaded the second A6M2, Cross saw Rowland's P-40 going straight down smoking with another Zero-sen following it. Cross then attacked and fired at a third formation of six fighters, the trailing aircraft of the rear shotai erupting in a ball of flame – his victim was probably F1c Kyoji Kobayashi.

Rowland's loss (his body was found the next day by Dutch soldiers) is usually attributed to 3rd Kokutai Zero-sens but it seems likely that he was the victim of a Tainan Kokutai pilot and possibly shot down by Lt Sasai, who was credited with his first victory – a 'Buffalo' – on the same day,

Some 27 A6M2s (split into shotai of three – the IJNAF's basic fighter formation) from 3rd Kokutai, led by hikotaicho, and ace, Lt Takahide Aioi, fly over southern Celebes (now Sulawesi) as they head for Kendari, in the Netherlands East Indies, in early 1942. Built for the Royal Netherlands East Indies Army Air Force in 1939-40 and captured by the Japanese in January 1942, Kendari was the main base for the Zero-sens and 'Bettys' that targeted northern Australia in 1942-43. A close examination of the original print reveals A6M2s with both dark- and light-coloured fuselage bands (Yasuho Izawa)





shared with FPO1c Susumu Ishihara and F1c Shizuki (or Shizuyoshi) Nishiyama. No Buffalos were in the air over Malang, however, whilst 3rd Kokutai encountered Dutch Hawk 75As of 1-VIG-IV and CW-21Bs of 2-VIG-IV.

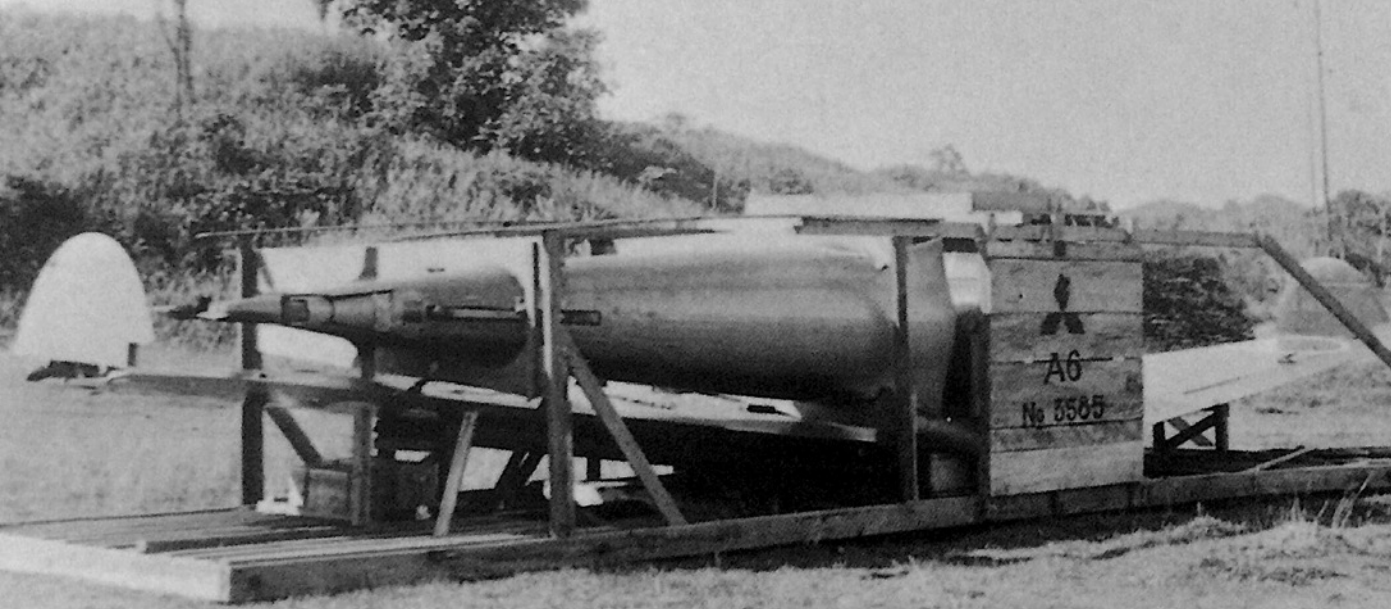
Ishihara had claimed his first victory on 10 December over Del Carmen, in the Philippines, and he would later become an ace flying with 204th and 202nd Kokutais in the last months of 1942. Nishiyama is a largely unrecognised Zero-sen ace who was credited with three personal and five shared victories and five probables with the Tainan Kokutai between December 1941 and March 1942. He subsequently claimed three more personal and 15 shared victories and three probables with 6th and 204th Kokutais between September 1942 and 3 March 1943, when he was posted missing in action following a convoy escort mission.

On 18 February 1942 Lt Sasai claimed his second victory whilst leading eight Zero-sens escorting 21 G4Ms of the Takao Kokutai attacking Sourabaya. The bombers were intercepted by P-40s from the 17th PS as they approached the target, losing four of their number before the escorting A6M2s could engage. Lt Sasai's victory was one of six P-40s optimistically claimed as destroyed and three probables, but only one USAAC fighter had actually been lost, attributed to the 'Betty's' stepped-up formation rear gunners – Lt Morris C Caldwell's P-40 was shot to pieces by them, although he managed to bail out.

Lt Paul B Gambonini's P-40 was hit by the Zero-sens as he dived away from the bombers, with a 20 mm round narrowly missing him in the cockpit. The rear of his aircraft was riddled with around 40 7.7 mm hits, however, after a Zero-sen followed him down. Gambonini managed to evade by escaping in cloud, and he landed his damaged aircraft successfully. Lt F E Adkins was also chased out of the fight by an IJNAF fighter, losing his way but landing at Singosari with damaged guns and a holed fuel tank. Once he was on the ground, the shock of combat caused him to vomit over his cockpit.

On 3 March 1942, Royal Netherlands Indies Airlines DC-3 PK-AFV was heading from Bandung to Broome with five evacuated Dutch pilots and four civilians on board when it was intercepted off the Western Australian coast by Lt Zenziro Miyano's three-aircraft shotai. The pilot of the airliner, Russian World War 1 ace Capt Ivan Smirnov, used all of his experience to fend off the trio of 3rd Kokutai pilots. Eventually, the DC-3's port engine was set on fire and the wounded Smirnov crash-landed in the surf on a beach. The Zero-sens continued to strafe the downed DC-3 as the survivors scrambled to safety, killing four of them (*Ronnie Olsthoorn*)





## CHAPTER FIVE

# PARRYING BLADE — 4th KOKUTAI

A crated A6M2 awaiting assembly, possibly at Rabaul following its capture in January 1942. New Zero-sens arrived in New Guinea either crated like this one, already assembled and then craned off from auxiliary transports or flown in directly from light carriers (*NARA*)

**A**fter the capture of Rabaul, measures were taken to provide an air defence for the newly acquired base, and to consolidate forces for the continued offensive prosecution of the war against the Allies forces in Port Moresby. On 25 January 1942 the auxiliary transport *Meiten Maru* delivered a cadre of pilots drawn from the Tainan and 3rd Kokutais under the command of Lt Shiro Kawai, together with three crated Zero-sen fighters, spare parts and maintenance personnel. From Truk came a detachment from the Chitose Kokutai's fighter hikotai under Lt Harutoshi Okamoto, the senior buntai leader, with 16 obsolescent A5M4s.

One of the pilots in the Okamoto-tai was future leading IJNAF ace and former factory textile worker 22-year-old FPO1c Hiroyoshi Nishizawa, who had enlisted in the Reserve Trainee Programme (Yokaren, for Yoka Renshu Sei). This three-year course recruited non-commissioned pilot trainees directly from higher primary school graduates who had successfully passed an entrance examination. Although he had completed his flying training in 1939, Nishizawa had no operational combat experience prior to joining the Chitose Kokutai in October 1941.

On 27 January 1942, the Okamoto-tai A5Ms arrived from Truk on board the carriers *Shokaku* and *Zuikaku*, flying into Kavieng, on the northern tip of New Ireland, when bad weather prevented them from reaching Rabaul. The weather front had initially forced the A5Ms to turn back and land on the carriers, which they managed successfully despite many of the pilots not being qualified to do so. One aircraft was lost in a landing accident at Kavieng, but on 31 January the remainder flew on to Rabaul, landing at Lakunai airfield.

On the night of 3 February Lt Shiro Kawai led an interception sortie of three A5Ms (the remaining two aircraft being flown by FPO1c Nishizawa and WO Keijiro Kato) from Lakunai against five intruding RAAF PBY-5 Catalina flying boats. During this sortie Nishizawa made his first aerial victory claim, reporting that he had intercepted a Catalina and 'shot it down'. His intended victim was probably the Catalina flown by Flt Lt B H 'Tubby' Higgins of No 11 Sqn RAAF, who, on being attacked, had evaded by diving his aircraft steeply to 1000 ft through the smoke pall of the Rabaul volcanoes and was able to return safely to base.

Nishizawa's victim has previously been identified as Catalina A24-5 flown by Higgins' squadronmate Flt Lt G Hemsworth, its port and starboard wing tanks being hit, an oil line severed and the port propeller damaged by an attacking A5M. However, the damage as described corresponds more closely to the Catalina attacked by Lt Kawai, who reported 'considerable fuel leaking from the target's left fuel tank, but was unable to shoot it down'. Hemsworth was an experienced former commercial pilot with QANTAS, and he had dived his aircraft steeply after being attacked, feathering the damaged propeller, with fuel vapour streaming from the port wing. His waist gunner fired at the attacking A5M and it was seen to spin towards the sea and crash, being claimed as a 'probable'. The splash seen was probably from the Catalina's bombs, which were jettisoned when it came under fire.

Five hours later, Hemsworth landed the Catalina off Salamaua on the way back to Port Moresby to try to make repairs. He subsequently returned to base by flying around the Papuan Peninsula because the aircraft could not climb over the mountainous Owen Stanley Range, arriving 25 hours after setting out on his mission. The Catalina had suffered more than 100 hits in Kawai's attack.

On 10 February, 4th Kokutai was formed at Rabaul as a mixed air group of bombers and fighters, the Okamoto-tai being re-designated as its



Although WO Mototsuna Yoshida had served with 12th Kokutai in China during 1939-40, he had to wait until 23 February 1942 to claim his first success when he was credited with a B-17 shot down over Rabaul with 4th Kokutai. Yoshida enjoyed further aerial success with the Tainan Kokutai until 7 August 1942, when he was shot down and killed by F4F pilot Lt(jg) G E Firebaugh of VF-6 during a dogfight over Guadalcanal. His tally by then had reached 12 and two shared destroyed and one probable (*Yasuho Izawa*)

fighter hikotai under the command of Lt Okamoto. The bomber hikotai was equipped with the G4M 'Betty'. Five days later the light carrier *Shoho* delivered seven more Zero-sens. The A6M2s were initially hampered in offensive operations by their lack of drop tanks, restricting them to air-defence sorties from Rabaul and Surumi (Gasmata), on the south coast of New Britain.

On 23 February future ace WO Mototsuna Yoshida, flying a Zero-sen, was credited with the single-handed destruction of a B-17. Yoshida had only joined 4th Kokutai that month after serving as an instructor with the Yokosuka Kokutai. He had previously served with 12th Kokutai in China in 1939-40. On that day Rabaul harbour came under attack from five B-17Es of the 14th RS on their first mission.

The first two Flying Fortresses over the target bombed with difficulty in cloudy conditions and became separated when 41-2446, flown by Lt F C Eaton Jr, had to make a second run before its bombs could be released. As the two bombers left the target area Eaton's B-17, already damaged by an anti-aircraft shell that had punched through the starboard wing without exploding, was engaged first by two A5Ms and then pursued by Zero-sens that caught it over Gasmata. In a running fight, further damage was inflicted on the aircraft before the fighters gave up the chase. With the B-17 losing fuel as it approached the north coast of New Guinea, Eaton realised that the Flying Fortress would never make it over the Owen Stanley mountains. He duly force-landed the aircraft in Agaiambo swamp, where its intact remains were discovered in 1972, eventually being retrieved and shipped back to the USA almost 40 years later.

4th Kokutai's first offensive mission was flown on 28 February when six Zero-sens led by hikotaicho Okamoto escorted a formation of 1st Kokutai G3Ms in a raid on the Allied base at Port Moresby. No aerial opposition was encountered, and after the bombing run was completed the Zero-sens conducted strafing attacks on the RAAF Catalinas moored in the bay, destroying A24-3, A24-6 and A24-7. Nishizawa did not participate in this mission, during which the Zero-sen flown by F1c Katsuro Nagatomo was lost to ground fire. Nagatomo bailed out of his aircraft with badly burned legs and was captured.

On 9 March, *Shoho* returned to Rabaul to deliver 19 more Zero-sens, bringing 4th Kokutai's A6M2 component up to full hikotai strength. Two days later Lt Nobuhiro Iwasaki, appointed 2nd chutai leader, led 11 Zero-sens to the recently captured airfield at Lae, on the north coast of New Guinea. Nishizawa and future Tainan Kokutai aces APO1c Satoshi Yoshino and FPO2c Ichirobei Yamazaki were amongst those pilots sent to Lae.

Yoshino, eventually credited with 15 victories, had already made claims flying the A5M as part

WO Satoshi Yoshino saw action with both the 4th and Tainan Kokutais, distinguishing himself by claiming 15 victories in just four months of combat over New Guinea. He was shot down and killed by future ace 2Lt Curran 'Jack' Jones of the 39th FS on 9 June 1942, the latter flying a P-400 in the defence of B-26s from the 22nd BG that had just attacked Lae (*Yasuho Izawa*)



of the 4th Kokutai detachment sent to operate from Gasmata when, on 11 February, he and the three other detachment pilots had downed two of three Hudsons (A16-91, A16-103 and A16-126) attacking Japanese transport ships there. The IJNAF pilots involved claimed all three bombers destroyed, but the surviving pilot of A16-91, Wg Cdr J M Lerew, believed that his aircraft was brought down by anti-aircraft fire after downing one Japanese fighter and damaging another, whilst A16-103 flown by Flt Lt W 'Pedro' Pedrina returned with damage and a mortally wounded crew member, also claiming one of the Japanese fighters (none were lost). As Lerew was descending by parachute, he caught sight of another Hudson being pursued by three enemy fighters. Flg Off G 'Bill' Gibson, flying A16-126, perished with all his crew when their Hudson was shot down.

Yamazaki, whose final victory tally would reach 14, was a 22-year-old native of Honohara-mura, a mountain village in the western Tokyo metropolis, with five years of service in the IJN. He had joined 4th Kokutai at Rabaul in February 1942 from the Oita Kokutai, and would soon establish himself as a stalwart flyer and fighter in the Tainan Kokutai, making his first claims with that unit on 13 May.

Two days later, on 11 March, Nishizawa and three other Zero-sen pilots (including Yoshino and Yamazaki) attempted to intercept B-17s of the 14th RS attacking shipping off Lae and Salamaua, but the combat was inconclusive. Nishizawa reported that he had attacked one of the B-17s, expended 250 rounds of ammunition and 'confirmed many hits but no result'. The bomber crews reported two Zero-sens shot down and two more damaged for no loss!

That same day Yoshino and his wingman FPO2c Yoshimi Sakai encountered Hudson A16-136 of No 32 Sqn, this aircraft being christened 'The Gutless Wonder' because of its habit of dropping fuel pressure during the climb over the Owen Stanley Range – the crew had to take turns pumping up the pressure by hand. Only Yoshino attacked, as Sakai covered him, and he reported that the Hudson had dived from 10,000 ft down to 1000 ft whilst taking evasive action. Yoshino made seven gunnery runs on the bomber before claiming that it had hit a mountain whilst in a right hand bank. In fact 'The Gutless Wonder' had evaded Yoshino and returned safely to 7-Mile Drome near Port Moresby.

The following day (12 March) six more Zero-sens were flown into Lae, and 48 hours later 4th Kokutai despatched 12 A6M2s from there as escorts for eight G4Ms sent to bomb Horn Island (Noerupai) in the Torres Strait, off the northern tip of Queensland. Their target was the small RAAF staging airfield on the island that had recently become home to nine P-40Es of the USAAF's 7th FS/49th FG. Nishizawa was flying Zero-sen F-108 as wingman to 2nd chutai leader Lt Iwasaki in its 1st shotai, with Yamazaki in the third Zero-sen.

After the bombing run, Lt Kawai led the 1st chutai of six Zero-sens down to strafe the airfield, where Yoshino and his wingman destroyed Hudson A16-136, which blew up after its bombs detonated, as well as claiming two other Hudsons destroyed by strafing – Yoshino had got 'The Gutless Wonder' after all. Iwasaki's 2nd chutai were escorting the bombers away from the target area when a lone P-40 attacked the





Ace FPO2c Ichirobei Yamazaki was posted to Rabaul in February 1942 as part of the 4th Kokutai detachment that included Hiroyoshi Nishizawa, having previously been assigned to the Oita Kokutai at the start of the Pacific War. In April he transferred to the Tainan Kokutai, after which Yamazaki found himself in the thick of the action over Port Moresby, Buna, Lae and Rabaul. He survived a forced landing in the mountains after his fighter was hit by defensive fire from an RAAF Hudson, returning to base with the help of local villagers, and being wounded over Port Moresby by an Airacobra. On 16 August he was hit again, resulting in him having to make an emergency landing. This time Yamazaki was so badly wounded that he was evacuated to Japan. Posted to 251st Kokutai in May 1943 after his recuperation, Yamazaki returned with the unit to Rabaul and was killed in action on 4 July that year over Rendova Island. By then he had been officially credited with 14 aircraft shot down (*Yasuho Izawa*)

formation from the left. As Iwasaki's six Zero-sens went after it they were bounced from their left rear by other Warhawks. A brief, wild encounter followed in which the IJNAF pilots reported that they had tangled with ten P-40s, shot down six and claimed two probables, whilst losing the chutai leader Iwasaki and PO1c Genkichi Oishi, who was flying the third Zero-sen in the 2nd shotai. In fact not a single P-40 had been shot down.

At Horn Island, the 7th FS had scrambled its nine P-40s in response to an alert that a large formation of Japanese aircraft was approaching at 20,000 ft. As the Warhawks climbed for altitude in two flights of four and five, the squadron leader, Capt Robert Morrissey, found that he could not charge his guns and returned to base to correct the problem. When he caught up with the Warhawks 45 minutes later, they were strung out in a straggling line. As Morrissey tried to pull the fighters back into formation, one of his pilots, 2Lt C Sanford, trailed far behind and another, 2Lt H Martin, had already set off alone in pursuit of the Japanese bombers. B Flight leader 2Lt W Reddington aborted shortly thereafter with inoperative guns, leaving Morrissey leading just five aircraft.

Meanwhile, Martin had caught up with the Japanese bombers and made a single beam attack, claiming hits on one of them before diving away with return fire damage from the 'Betty' gunners.

As Morrissey and his Warhawks gained on the bombers, now heading back to New Guinea in a fast, shallow dive from 23,000 ft, he noticed Iwasaki's chutai of Zero-sens to his right at a slightly lower altitude.

Morrissey immediately attacked them, flaming the rearmost A6M2 in the left hand shotai (probably Oishi) and then going on to engage the bombers. The remaining five Zero-sen pilots evaded by pulling sharply into near vertical climbs and performing the hineri-komi manoeuvre to come back at the Warhawks from above and behind. The USAAF pilots were quickly bested by their opponents, with 2Lt C Burnette of A Flight having his aircraft so badly shot up that he was forced to dive away from the fight. Sanford was seen being chased by a single Zero-sen, and although it did not get him, he became lost trying to return to Horn Island and was forced to bail out of his P-40 when it ran out of fuel near Cape Arnhem, 400 miles west of home.

After firing at a Zero-sen, 2Lts Wilson 'Chip' Chapman and C T Johnson of B Flight were both wounded by another fighter. They immediately dived steeply away into the haze and thick cumulus below so as to evade their attacker. 2Lt S Andrews' Warhawk was also damaged, causing him to break off.

A Zero-sen (probably Iwasaki) attacked Morrissey and 2Lt A T House, whose guns had failed. The latter ramméd the IJNAF fighter, chopping into its canopy with his right wing tip. 'I continued my course directly at the enemy aircraft, expecting to get his fuselage in the heavy part of my wing. He had started firing, but must have observed my approach, and changed course. I continued to dive, and the leading edge of my right wing went through his fuselage, approximately in the middle of the canopy', with the result that 'there were pieces on fire falling everywhere'. House's P-40 fell away, flipping onto its back as it did so. After struggling to get his oxygen mask away from his eyes, House was able to regain control and land the damaged Warhawk safely after three attempts. He found that he had to keep his airspeed above 150 mph so as to avoid the starboard wing stalling and the aircraft flicking over.

All the P-40 pilots had survived their first encounter with the Zero-sen, claiming three confirmed kills, but one Warhawk had been lost and five damaged in the fight.

On 22 March 4th Kokutai's Zero-sen striking force at Lae was severely blunted when five P-40Es from the newly arrived No 75 Sqn RAAF at 7-Mile Drome conducted an early morning surprise strafing attack, catching the majority of the aircraft on the ground and claiming nine



Nicknamed 'the Devil' by his fellow pilots, Hiroyoshi Nishizawa became the IJNAF's greatest ace. Long associated with the Tainan Kokutai, he actually began his outstanding combat career with 4th Kokutai. He was credited with 87 victories prior to his death aboard a transport aircraft on 26 October 1944 over Mindoro Island, in the Philippines (*Yasuho Izawa*)

A6M2s burned. As the five Australian pilots were strafing, their top cover of four more P-40Es were engaged by the CAP over Lae, with Zero-sen pilots FPO3cs Kiyoji Ishikawa and Yutaka Kimura reporting that they attacked nine fighters and shot down three. FO W Wackett, flying A29-6/'F' with the top cover, was shot down. Ditching offshore, he eventually made his way back to Port Moresby. One of the strafing fighters, A29-16/'Y' flown by Flt Lt B H Anderson, was also shot down by anti-aircraft fire. The Australian pilot is believed to have been captured and taken to Rabaul, where he was subsequently executed.

The IJNAF acknowledged that eight Zero-sens had been destroyed and seven damaged, with only one of the latter repairable at unit. Shortly afterwards, a Hudson from No 32 Sqn approached Lae to photograph the results of the attack and was engaged by the day's second CAP of Yamazaki and APO3c Keiji Kikuchi (who had relieved Ishikawa and Kimura). After a brief chase, Kikuchi was shot down and killed by return fire from the Hudson, which also fatally damaged Yamazaki's Zero-sen. Yamazaki had to force-land about 80 miles from Lae, and he eventually returned by river journey on 27 March after local people had helped him build a raft.

In retaliation, on 23 March five 4th Kokutai pilots, including Yoshino, conducted a very low-level strafing attack on 7-Mile Drome, claiming four 'Spitfires' burned and two damaged on the ground. No 75 Sqn suffered two P-40E losses (A29-10 and A29-25), with two more damaged (A29-18 and A29-23). Flt Lt Ted 'Cathedral' Church described the strafing as the Zero-sens streaked across the airfield at less than 50 ft;

'It was an awe inspiring sight. The down run was directed at small heaps of petrol drums scattered on the edge of the runway, and those dumps "went up". They set one Kittyhawk on fire and, as they reached the end of the runway, they zoomed up and turned almost in their own length, and then dived for another run.'

One of the Zero-sens was shot down by anti-aircraft fire and crashed into the side of Morris Hill, its pilot, FPO2c Kyoichi Yoshii, having been hit in his right temple by a single round fired by the Australian machine gunners.

The following day Nishizawa's shotai flew in support of another bombing raid against Port Moresby by 19 G3Ms of 1st Kokutai, the 'Nells' being led by Lt Saihei Maruyama. The Zero-sen pilots reported engaging a 'Spitfire' that had attacked them head on. The shotai fired at the enemy fighter, claiming it as a probable, and the Zero-sens were then attacked from above by another 'Spitfire', which the IJNAF pilots claimed to have shot down. The 'Spitfires' were of course P-40Es from No 75 Sqn, and the head-on attack had been made by the unit's CO, and ace, Sqn Ldr J F 'Old John' Jackson, who claimed that one of the three Zero-sens he engaged had been seen to crash in heavily wooded country.

Satoshi Yoshino was in action again on 27 March, supporting another bombing raid against Port Moresby. The Japanese formation was intercepted by four No 75 Sqn P-40Es 30 miles east of Port Moresby. Yoshino and his wingman, FPO2c Tsutomu Ito, reported spotting two enemy fighters, surprising them and shooting them both down, while the

third member of his shotai, FPO3c Masami Nii, provided cover and did not participate in the combat. The enemy fighters were probably flown by Plt Off R K C O'Connor (in A29-19/'J'), who was listed as missing in action after the engagement, and Flg Off J Woods (in A29-15/'S'), who evaded the Zero-sens after receiving hits to his fighter and was able to land safely.

With the A6M2 pilots distracted, the two remaining No 75 Sqn fighters, flown by Flg Off J W Piper and Sgt R S Bailey, attacked the G4M bombers. Piper fatally damaged the 'Betty' of PO1c Takeshi Fujii by setting fire to its port engine, the G4M trailing flames as it dived for the protection of cloud. Bailey then fired at its starboard engine, at which point his fighter received hits from the gunners' return fire.

On 28 March Nishizawa again led a shotai of three Zero-sens in support of a bombing raid against Port Moresby, accompanied by a second shotai of only two fighters. Five G4Ms set out but two aborted with engine trouble, leaving just three to press on. Nishizawa's 1st shotai swept ahead and below the bombers, with the 2nd shotai of two A6M2s flying top-cover above and behind the 'Bettys' at 24,000-25,000 ft. The Japanese formation was 40 miles northwest of Port Moresby when four enemy fighters were encountered. Nishizawa's 1st shotai bounced the two No 75 Sqn P-40Es, again flown by Flg Off J W Piper and Sgt R S Bailey, out of the sun in a near-vertical attack as they were manoeuvring to attack the bomber formation from its lower port quarter, claiming both shot down. Piper, flying A29-12/'T', turned into the attack and then stalled-out trying to follow a Zero-sen on Bailey's tail. He was unable to re-engage, escaping with bullet holes in his wing and fuselage tank. Bailey, flying A29-5/'E', was shot down and killed as he attempted to dive away.

The 2nd shotai top-cover pilots Ishikawa and Kimura attacked the remaining two P-40Es flown by Plt Off O J 'Ossie' Channon and Flg Off J Woods as they were attempting to close with Nishizawa's shotai, claiming one shot down. Channon, flying A29-11/'Z', saw the Zero-sens coming and turned into them, evading attacks by side-slipping into the Japanese fighters. He was then shot up and wounded from behind as he fired at an A6M2 that crossed in front of him as it pursued a P-40E – he claimed to have damaged the Zero-sen. Woods, flying A29-7/'A', was hit in both wings during the pursuit, although he too fired a short burst at another fighter as it dived past. He then fired a long burst in a climbing beam attack from 300-400 yards at a Zero-sen that was in a stall turn, claiming it as a probable, and another short burst at a fighter from its lower front quarter, before disengaging and diving away. Both pilots returned safely, although Channon landed 'hot' with his elevators and rudder badly damaged, flaps inoperable and bullet holes in the fuselage, petrol tank and starboard wing of his fighter.

Piper noted that the Zero-sens had made dive-and-zoom attacks, Woods reported their apparently superior rate of climb at the altitude at which they were encountered and Channon recalled that his opponents had used frequent stall turns (probably the hineri-komi manoeuvre) during the combat.





## CHAPTER SIX

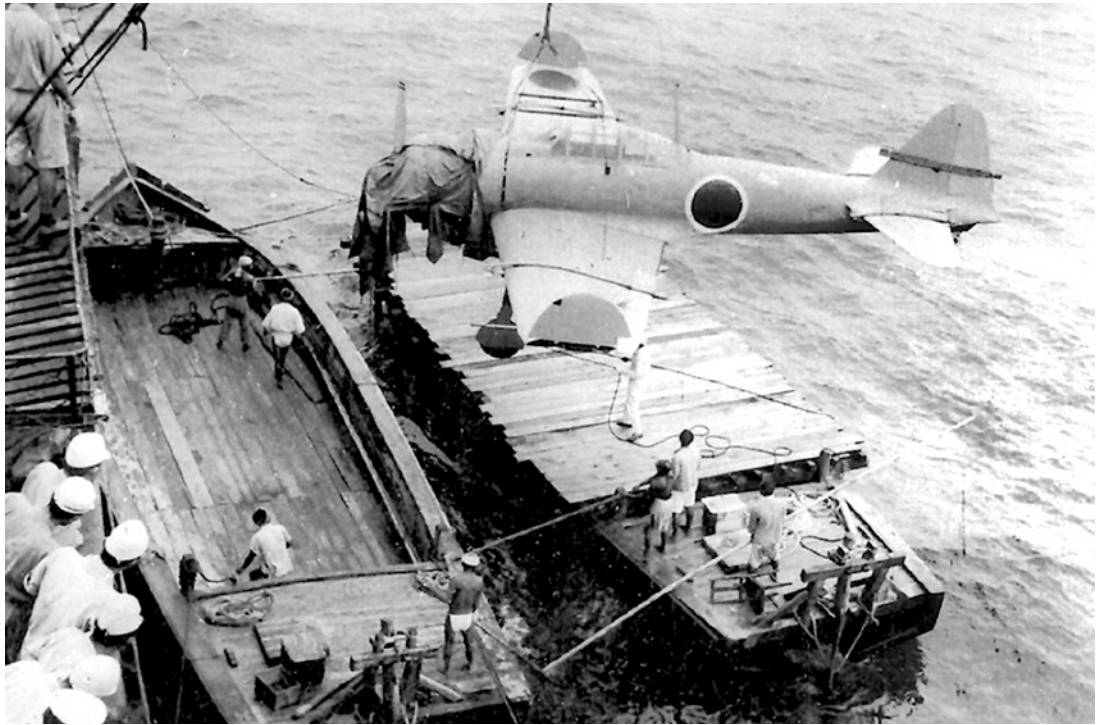
# RELENTLESS BLADE – TAINAN KOKUTAI

Tainan Kokutai pilots parade before take-off, probably at Rabaul, in August 1942. Hikotaicho Lt Cdr Tadashi Nakajima is at extreme left, saluting. PO3c Hiroshi Okano is at extreme right – he was one of several pilots detached from other kokutai, in his case 1st Kokutai, to reinforce the Tainan Kokutai. Okano flew with the unit from May to November 1942 and survived the war with 19 victories credited to him (*Yasuho Izawa*)

From 1 April 1942 Japanese air strength was re-organised with the formation of the 25th Air Flotilla, established under the command of Rear Admiral Sadayoshi Yamada, to take over operations from Rabaul and nearby eastern New Guinea and the Solomon Islands. The Tainan Kokutai at Denpasar, on Bali, was transferred to Rabaul and incorporated the surviving Zero-sens and pilots of 4th Kokutai's fighter hikotai. At Rabaul and Lae, there were only 20 Zero-sens left by early April, and not all of them were serviceable. The main cadre of the Tainan Kokutai pilots left their aircraft in Bali and sailed to Rabaul on board the transport ship *Komaki Maru*.

In the meantime, the former 4th Kokutai Zero-sen contingent continued to conduct operations under the Tainan Kokutai banner, and additional A6M2s were soon delivered to Rabaul – 20 via the aircraft transport ship *Goshu Maru* on 4 April and a further 24 on board the escort carrier *Taiyo* eight days later. As Rabaul was the coming under frequent air attack, *Taiyo* moored at Buka Island on the northwest tip of Bougainville and a group of Tainan Kokutai pilots, including Saburo Sakai, were flown there by flying boat to collect the new Zero-sens.

With the Tainan Kokutai taking up the fight over eastern New Guinea, there began a slogging air campaign of give and take as each side attempted



to build up its air strength and prevent the enemy from doing so. The recently arrived new Hikotaicho of the Tainan Kokutai, Lt Cdr Tadashi Nakajima, put an end to the previous unit's practice of painting blue cherry blossom victory symbols on the starboard tailfins of the Zero-sens, instead emphasising the need for teamwork. This was to have an impact on the way victories were claimed, with many more shared by shotai rather than being attributed to individuals. This teamwork was noted in a report by ace Lt Col Boyd D 'Buzz' Wagner, US Fighter Director in Australia, who referred to combats he had experienced on 30 April and 1 May 1942;

'Japanese fighter teamwork in these combats was excellent. They flew what was apparently a three-ship stagger formation. No 2 flew approximately 100 yards behind the leader, and No 3 about the same distance behind No 2. During an attack on a single enemy aircraft, in an attempt to "box" their victim, first one and then another would place his plane behind the (target), firing intermittent bursts for about ten seconds, then zoom up to either side to be replaced by the most forward plane on that side. Accuracy of fire was not very high, especially at long range (against a jinking target).'

By 31 March No 75 Sqn had only ten serviceable P-40Es left at Port Moresby – 19 had been flown in just ten days earlier. On 5 April the first contingent of USAAF fighters arrived in the form of five P-39 Airacobras of the 36th FS/8th FG. Led in by 1Lt L Meng, the Americans were there as an advance party to learn about Japanese tactics from the Australian pilots before the rest of their squadron joined the fray.

Two of the Airacobras were in action the following day when Meng and 1Lt C Faletta attempted to intercept an incoming raid by seven G4Ms

Its wingtips carefully folded up, a brand new Nakajima-built A6M2 Model 21 is slowly lowered onto a lighter from the auxiliary transport *Mogumigawa Maru* off Truk. The white border to the fuselage roundel was applied in accordance with Naval General Staff Order No 162 issued by Admiral Osami Nagano on 21 August 1942. Nakajima complied with this requirement almost at once, whereas Mitsubishi had ceased production of the A6M2 in June (Michael Claringbould)

of 4th Kokutai. The bombers were flying at 21,000 ft, escorted by five Zero-sens led by FCPO Yoshino. The A6M2s were again in two shotai of three and two, respectively. The two top cover Zero-sens engaged the Airacobras and claimed both shot down, although the American pilots were unaware of having been attacked! They had in turn both conducted diving beam attacks on the Japanese bomber formation, each claiming a single 'Betty' damaged, but had experienced problems trying to fire the P-39's nose-mounted 37 mm cannon. Fallata recalled, 'We were all keen to use the "one-shot bomber-buster". The problem was that all we usually got was the one shot before the gun jammed'.

Yoshino's shotai tackled a number of No 75 Sqn P-40Es that had also attempted to intercept the bombers and he claimed two shot down, whilst his wingman FPO2c Yukihiisa Tan claimed one. Three of the RAAF fighters attempting to attack the bombers had indeed been driven off by the Zero-sens, Channon in A29-11/'Z', Flt Sgt V J Sims in A29-21/'K' and Flg Off P A 'Poison Pete' Masters in A29-48/'Y'. Flt Lt Les Jackson, Sqn Ldr Jackson's younger brother, flying A29-9/'N', had been shot down by them in a head-on attack, ditching in six feet of water on a reef at Bootless Inlet ten miles southeast of Port Moresby but surviving the experience. He claimed to have damaged two of the Zero-sens in Yoshino's shotai prior to being brought. Plt Off E J Johnson in A29-32 was bounced from behind by the Japanese fighters as he attempted to fire at one of the bombers above him and his engine suffered fatal damage, forcing him to belly land in swampland about 15 miles southeast of Port Moresby. His P-40E was later recovered and returned to service.

On 11 April Yoshino was leading a CAP over Lae that intercepted an early morning raid by nine USAAF A-24 Banshee dive-bombers of the 8th BS, which had arrived at Port Moresby on 31 March, escorted by No 75 Sqn P-40Es. Yoshino shot down the dive-bomber flown by 2Lt G Kitchens and Sgt G Kehoe, killing both of them.

Six days later, Yoshino and his shotai claimed another victim in a chance encounter with two No 75 Sqn P-40Es whilst he was flying as 2nd chutai leader in a formation of 13 Tainan Kokutai Zero-sens that were on their way from Lae to rendezvous with seven 4th Kokutai G4Ms scheduled to raid Port Moresby again. His wingmen were FPO3cs Toshiaki Honda and Goto Tatsusuke. The Australians were conducting an early morning reconnaissance mission over Lae, with Flg Off Woods leading in A29-12/'T', as a familiarisation flight for Sqn Ldr B B 'Barney' Creswell, the CO of newly formed No 76 Sqn RAAF, who was flying A29-7/'A'. The Zero-sens surprised the Australian pilots, with Woods attempting to warn Creswell by wagging his wings, before diving into cloud to evade. Creswell was shot down and killed.

On 18 April Lt Kawai led 12 Zero-sens on a sweep towards Port Moresby. WO Yoshino was leading the 2nd chutai, but he did not engage the eight P-40s that attempted to intercept the Japanese formation 30 miles southeast of 7-Mile Drome. A shotai of Zero-sens led by FPO1c Toshio Ohta (who had re-joined the Tainan Kokutai that month after recovering from the wounds inflicted over Balikpapan on 29 January) that included FPO2c Hideo Izumi engaged the P-40s, claiming five shot down and two probables. Sgt R J Granville in A29-21/'K' was shot down

and killed, whilst Les Jackson's P-40 A29-30/'X' sustained damage to its propeller, the left side of the canopy, fuel tanks and tail. After evading the Zero-sens' initial attack, Flt Lt A H Boyd in A29-47/'R' also sustained hits during a head-on confrontation with one of the Japanese fighters. Sgt M S Butler, who had alerted his comrades to the presence of the enemy, was out-turned by an A6M2 that he had attempted to follow and was forced to dive away.

On the same day two B-26 Marauders of the 22nd BG's 33rd BS made successful low-level attacks on Rabaul harbour and Lakunai airfield. Six had set off on the mission but three had turned back, and one, flown by squadron CO 1Lt W Garnett, was late taking off. The Tainan Kokutai had two shotai in the air over Rabaul on CAP, and one of them, led by Lt Sasai, raced after the two intruders as they fled the scene. Although the Zero-sens failed to catch the fast-flying bombers, Lt Garnett's B-26 unluckily ran into them as he approached Rabaul. The B-26 pilot tried to dive away, but Sasai caught the bomber and set its right engine on fire. Two of the crew managed to bail out to become PoWs but Garnett and four other crewmen were killed when the Marauder crashed into the sea.

On 24 April Sasai led the 2nd chutai on a strafing sortie against 7-Mile Drome, with FPO2c Hideo Izumi as his wingman, in the first shotai of three. China 12th Kokutai Zero-sen veteran WO Gitaro Miyazaki led the 2nd shotai of two, as one of its pilots had aborted. Over the target, they were engaged by two groups of No 75 Sqn P-40s – a patrolling pair at 5000 ft (Les Jackson in A29-11/'Z' and Flt Sgt R W Crawford in A29-76/'T') and four more led by Flg Off O J 'Ozzie' Channon in A29-43/'P'. The latter fighters had scrambled in anticipation of the Japanese raid, climbing to 25,000 ft and then being called down into the fight when it broke out at the lower altitude.

Izumi was busy over Port Moresby, claiming a B-26 that was attempting to egress 7-Mile Drome to escape the raid (possibly 40-1428 flown by 1Lt G Kersting, which was damaged but later landed safely) and a P-40 destroyed and a P-39 as a probable – a few 36th FS aircraft were at the airfield at the time of this raid, although none were reported lost. Miyazaki claimed a P-40 and a PB4-Y (A24-5, destroyed at its mooring with a single burst), whilst Sasai was also credited with a P-40, his Zero-sen receiving a hit in return. Crawford had been set upon by two Zero-sens and was badly shot up, forcing him to ditch in the sea, from where he was rescued. Channon was shot down and killed by a single Zero-sen, whilst Flt Sgt M S Butler in A29-29/'I' was pursued by an A6M2 that damaged his oil cooler, forcing him to slam the P-40 down into a swamp at more than 200 mph, breaking it in two. He survived the experience, however.

The Tainan Kokutai mounted another fairly heavy escort for the bombers of 4th Kokutai at 0710 hrs on 28 April, deploying 11 Zero-sens in two chutai under the overall command of Lt Masao Yamashita, who led the 1st chutai's 1st shotai with FPO1c Toshio Ohta and FPO2c Yoshisuke Arita (who had claimed one P-40 destroyed and one probable over Sourabaya on 18 February) as his wingmen. The 2nd shotai consisted of only two Zero-sens flown by FCPO Watari Handa and F1c Yoshio Motoyoshi (who had claimed a probable on 18 February). The 2nd chutai and its 1st shotai were commanded by Lt Jun-ichi Sasai, with FPO2c Hideo Izumi and F1c





Almost an ace, FPO2c Yoshisuke Arita of the Tainan Kokutai (seen here with A6M2 V-141 *Houkoku-439* at Denpasar airfield on the island of Bali in March 1942) claimed three and one shared victories prior to becoming the first confirmed kill of the 36th FS/8th FG whilst strafing 7-Mile Drome at low level on 1 May 1942. Close examination of the original print of this often depicted aircraft reveals a shotaicho tail stripe, possibly yellow or overpainted. It has been suggested that V-141 was one of the first Nakajima-built Zero-sens to reach a frontline unit (*Yasuho Izawa*)

Haruo Kawanishi as his wingmen. Nishizawa led the 2nd shotai with FPO3cs Takeo Kokutaime and Masuaki Endo in direct close support of the bombers.

Over Port Moresby at 1015 hrs, flying at 22,000 ft, they engaged seven P-40s but reported inconclusive results apart from one RAAF fighter claimed shot down by Izumi. In fact, five P-40Es of No 75 Sqn had attempted to intercept the Japanese formation, the fighters being led by unit CO Sqn Ldr John Jackson. Struggling at that altitude, the RAAF aircraft were slowly approaching the flank of the bomber formation when the 1st chutai and Sasai's shotai engaged them. Izumi was credited with shooting down a single P-40 – either Jackson in A29-8/'H' or Flg Off B M Cox in A29-47/'R', both of whom failed to return and were killed. Masters, in A29-48/'Y', had managed to engage the bombers in an almost vertical climb before stalling out and falling away in a flat spin, whilst Flg Off J Brereton in A29-30/'X' and Sgt W Cowe in A29-41/'M' had lagged behind Jackson, attacking the bombers from the rear before the former's P-40E was shot up by two Zero-sens, forcing him to disengage and dive away.

The poor performance of the Curtiss fighter at the altitudes at which the Japanese were flying was not the only challenge facing the Australian pilots. Ace Flt Lt Peter Turnbull described problems with the reflector gunsight, its bulb frequently fusing and no replacements being available in-theatre. Furthermore, there was no ready modification that could be made to improve the situation. In such circumstances pilots had to rely on tracer rounds to guide their firing, and crude 'ring and bead' sights were also made up from 3-in. water pipe and fitted to one side of the windscreen. They were better than nothing but awkward to use in high-speed combat,

and Turnbull was convinced that No 75 Sqn would have achieved twice as many claims whilst at 7-Mile Drome had the reflector gunsights been more reliable.

On 30 April Lae came under attack by Allied bombers and the Airacobras of the 8th FG sortied 17 aircraft on their first offensive mission. The 8th's formation was led by Lt Col Wagner, and after aborts just 11 Airacobras made it to the target. They achieved complete surprise, hitting Lae from 200 ft and racing on to strafe Salamaua – three A6M2s were destroyed and seven damaged. The four trailing fighters were caught by two pairs of Lae CAP fighters led by Lt Sasai and four scrambling Zero-sens, including three flown by the formidable Ohta, Arita and 31-year-old WO Watari Handa. The latter, already succumbing to the tuberculosis that would eventually send him home, was a veteran pilot recalled from the reserve who had claimed six victories flying the A5M in China during 1937-38.

The Zero-sens and Airacobras engaged in a very low-level running battle along the coast for 30 miles. The USAAF pilots found that they could gradually outrun the Zero-sens, although the acceleration of the IJNAF fighter was better. Being forced to turn and climb over the Owen Stanley Range put the Airacobra pilots at a serious disadvantage, with some choosing to stick to the coast as they headed back south. Seeing the four trailing fighters engaged by Zero-sens, Wagner led the remaining six back into the fight and a frantic dogfight ensued. The losses suffered by the 8th FG were rather underplayed in most Western accounts, with one pilot (Lt Edward Durand) being killed and three returning after forced landings. Wagner, however, admitted three of his aircraft had been shot down, and 1Lt Arthur E Andres described how he had put his fighter down wheels-up on the beach at Buna after running out of fuel 'full of holes from Jap [*sic*] bullets'.

Arita was credited with one of two Airacobras claimed as destroyed by the Zero-sen pilots while Ohta was credited with one of two probables. The Tainan Kokutai in turn lost the Zero-sen flown by ace FPO2c Hideo Izumi, who was shot down and killed, probably by Capt George Greene. The exuberant USAAF pilots actually claimed four Zero-sens shot down, three by Wagner himself. Izumi was ultimately credited with nine victories, although it is apparent that some of these were shared claims.

No 75 Sqn departed 7-Mile Drome for Australia on 7 May, with the 8th FG's 35th and 36th FSs established there in its place, to be joined by the 39th and 40th FSs of the 35th FG. This in turn meant that the Tainan Kokutai pilots increasingly engaged Airacobras during the next three months in a see-saw campaign of strafing and bombing attacks against each other's airfields. The Zero-sen pilots undertook a mixture of offensive and defensive missions, the former involving bomber escorts, fighter sweeps and strafing attacks against enemy airfields and targets of opportunity around Port Moresby.



FPO1c Saburo Sakai, seen here at Lae, became one of the most famous Zero-sen aces known in the West postwar as a result of the biography *Samurai!*, published in English in 1957 and written by Martin Caidin based on interviews with Sakai by Fred Saito. The book is now considered controversial due to revisionist research. Sakai has been credited with 64 victories, although it has been asserted that only 28 of these are officially recorded (*Yasuho Izawa*)

#### RIGHT

A poor but rare photograph of a shotai of early Zero-sens in flight. The slanting fuselage bands suggest these fighters are from the Tainan Kokutai, although the leading aircraft has a vertical band that makes positive unit identification uncertain (*Michael Claringbould*)



Lt Jun-ichi Sasai, buntaicho of the Tainan Kokutai and celebrated in Saburo Sakai's biography *Samurai*. He joined the Tainan Kokutai in November 1941, and in six months of combat he was credited with 27 claims – Sasai, however, stated that he had downed twice that number in a letter he wrote home in early August 1942. He met his death in aerial combat over Guadalcanal on 26 August 1942, having fallen victim to F4Fs of VMF-223 (*Yasuho Izawa*)

Saburo Sakai rated the P-39 as 'not much better than the P-40', having declared the latter 'no match for the Zero', but other Zero-sen pilots were more circumspect, having a healthy respect for the Airacobra's 37 mm armament – especially if they were caught by the fighter at low altitude. Later that year, FCPO Kazuo Tsunoda, then flying Zero-sens with 2nd Kokutai from Buna, recalled the aircraft of three wingmen being flamed by strafing P-39s as they attempted to take off ahead of him;

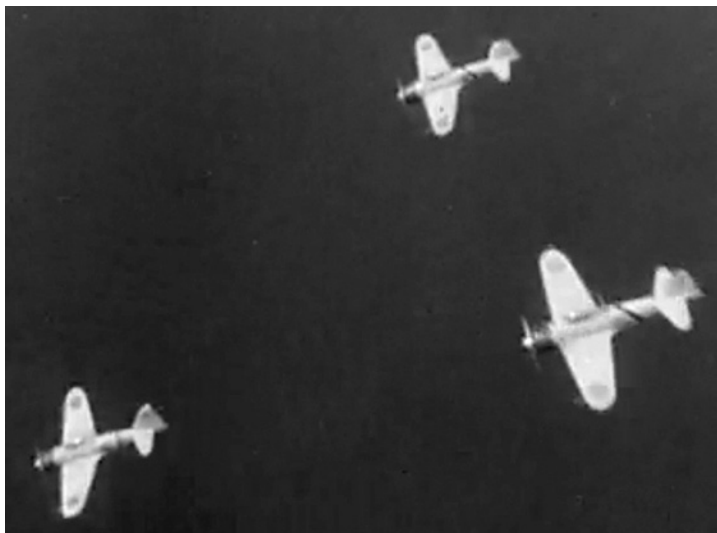
'The P-39 was equipped with a 37 mm gun. Once you got shot by that gun you became a fireball. All my men became fireballs and exploded.'

## SASAI'S TRIPLE AIRACOBRA CLAIM

Saburo Sakai described Jun-ichi Sasai as a talented pilot. However, he had seen little aerial combat during April and May 1942. Instead, he was schooled in air-fighting techniques by Sakai, Nishizawa, Ohta and Takatsuka. Sakai recalled that on 12 May Sasai single-handedly shot down three Airacobras in just 20 seconds, although this claim on that date is not supported by Japanese or Allied records.

On that day five fighters from the 35th FS had attempted to intercept a Japanese fighter sweep of 14 Zero-sens. The Tainan Kokutai's 2nd chutai of six Zero-sens, designated for strafing and led by Lt Kawai, with Sakai leading the 2nd shotai, engaged the Airacobras and claimed two in the air and two on the ground at 7-Mile Drome. The USAAF pilots in turn claimed three Zero-sens for the loss of one of their number (2Lt Bob Wilde, who was shot down and initially posted missing in action until he was found dead in the cockpit of his crashed fighter more than two months later), although Lt Alva Hawkins' Airacobra was also badly shot up and he had to force-land it on Vari Island.

Sasai was not recorded as having been in this particular engagement with the 35th FS, and the circumstances in which it took place do not match Sakai's description. He stated that Sasai had spotted three Airacobras flying at a lower altitude in a strung-out trail formation and had signalled that he was going to attack them. Sasai flamed the trailing fighter in a pass from above and behind, rolling to the right as he closed in and then zooming up to a position above and to the left of the second Airacobra, which took no evasive action. Again, Sasai rolled to the right and raked the fighter from



nose to tail, causing it to lurch and spin out of control towards the ground. The pilot of the third machine then attempted to evade, pulling up into a steep climb as Sasai began his third climbing-and-rolling attack. His burst of fire caught the Airacobra whilst it was still in the vertical plane, blowing its left wing off. The stricken aircraft dropped away in a flat and fatal spin.

Sakai observed that the exploit had made Sasai an ace, which fits with his record of claims at that time, but did it really happen? Intriguingly, eight days earlier on 4 May, four Airacobras from the 8th FG failed to return from ten that had sortied against Lae – 1Lt V R Talbot in 41-7145 and 2Lt J Hooker in 41-6825, both from the 35th FS, and the 36th FS's 2Lts P M Armstrong in 41-6971 and C Schwimmer in 41-6956. The USAAF formation had broken up in bad weather, with only five reaching Lae to strafe 'Bettys' on the field, where a single fighter had been claimed by WO Watari Handa's shotai – probably Talbot's who, although in the same flight as the other missing pilots, was seen strafing and had possibly engaged the CAP Zero-sens. Handa's shotai claimed a second Airacobra that day in a follow-up raid on 7-Mile Drome – probably 35th FS pilot 2Lt H J Chivers in 41-7207, who scrambled and engaged but was subsequently posted as missing.

It is just possible, therefore, that Sasai had shot down the three missing fighters of Hooker, Armstrong and Schwimmer on 4 May, lost in the bad weather and flying together in a loose string formation as described by Sakai, but that he confused the date and, for some reason, this exploit was not officially or fully recorded. Indeed, the Tactical Operations Record for this aerial battle unusually names only three of the 16 pilots involved. It assigns the P-39 claims to the Handa-led formation as a whole, rather than crediting individual pilots, for it was a day of much aerial activity.

On 13 May Handa led the 1st shotai of three Zero-sens on a sweep to Port Moresby and claimed again. He was flying with Sakai's usual wingman, FPO3c Toshiaki Honda, as his own, having 'borrowed' him for the sortie against his wishes with Sakai encouraging him to go. Nishizawa was leading the 2nd shotai of three, with FPO2c Ichirobel Yamazaki as his wingman. Over 7-Mile Drome, the Zero-sens encountered a damaged B-26 from the 408th BS/22nd BG coming in to land after a raid on Rabaul's Vunakanau airfield, and they claimed it shot down. Handa, Nishizawa and Yamazaki shared the credit with the other pilots, although the Marauder crew reported being attacked by only three Zero-sens. B-26 *Glen Win* managed to make a wheels-up landing on the airfield, the Japanese fighters having killed the tail gunner and wounded the navigator and pilot, 1Lt M C Barnard.

The Zero-sens were then engaged in a dogfight with six Airacobras from the 35th FS that had scrambled from 12-Mile Drome, joined later



Tainan Kokutai hikotaicho Lt Cdr Tadashi Nakajima poses, novel in hand, at Rabaul in July 1942. He had taken charge of the unit three months earlier, and, by all accounts, was a model leader. Nakajima did, however, forbid the practice of painting individual victory symbols on aircraft from the Tainan Kokutai in an effort to emphasise the need for teamwork (*Yasuho Izawa*)

#### OPPOSITE

Tainan Kokutai pilots gather in front of the command post at Lae airfield for a group photograph in July 1942. They are, standing, from left to right, FPO3cs Tadashi Nakamoto and Sadao Uehara, FPO2cs Ichirobel Yamazaki (14 victories), Shigetoshi Kudo (C5M pilot) and Eisaku Shimizu (C5M pilot), FPO3c Yutaka Kimura, FPO2c Ichiki Toshiyuki and FPO3c Kiyoshi Nakano. In front of the row, from left to right, are unidentified, F1c Ken'ichiro Yamamoto, Lt Cdr Tadashi Nakajima, WO Tora-ichi Takatsuka (16 victories) and FPO1c Hiroyoshi Nishizawa (87 victories). All of the pilots, bar unit CO Lt Cdr Nakajima, are wearing standard issue kapok lifejackets (*Yasuho Izawa*)





PO2c Kazushi Uto, who routinely flew as Saburo Sakai's wingman, was one of the lesser known aces of the Tainan Kokutai, claiming 19 victories from 10 April through to 13 September 1942 when he was shot down and killed west of Lunga by Lt(jg) E T 'Smokey' Stover of VF-5 – the latter was credited with 4.5 victories (*Yasuho Izawa*)

by two more 36th FS fighters from 7-Mile Drome. During this fight Honda was shot down and killed, probably by one of the two 36th FS aircraft flown by Capt P Brown and Lt E Graham, who each claimed a Zero-sen. In return, the Japanese pilots shared a claim for an Airacobra destroyed – probably the fighter flown by Lt H Carpenter, which was damaged in the fight and force-landed at Redscar Bay, to the northwest of Port Moresby. Carpenter survived the landing and was able to return to 12-Mile Drome the following day.

Upon returning to Lae, Handa was mortified at losing Sakai's regular wingman, and apologised to him. Handa did not seem to recover from this episode and was not credited with any more victories, returning to Japan in August 1942 as his tuberculosis worsened. He died from the illness in 1948, whereupon his widow wrote to Sakai beseeching forgiveness on her husband's behalf for the loss of Honda.

According to Sakai, Handa claimed that his shotai had been bounced by Airacobras at 7000 ft as they circled 7-Mile Drome looking for aircraft on the ground. If true, it suggests that the two shotai may have separated over the target, and that the shared claims were recorded in accordance with Lt Cdr Nakajima's stricture rather than attributed to individuals.

On 18 May Lae was alerted to the approach of eight B-25 bombers from the 13th and 90th BSs of the 3rd BG, led by Capt H Lowery, CO of the 13th in 41-12441 *The Cajun*. The Mitchell crews were intent on performing a low-level bombing run on the Japanese airfield. The standby reserve of six Zero-sens scrambled immediately, and 13 other crack Tainan Kokutai pilots, including Sasai, Yoshino, Sakai, Miyazaki and Ohta, together with future aces FPO3c Kazushi Uto (19 victory claims)



and FPO3c Take'ichi Kokubu (eight and three shared victory claims and two probables), rushed to get airborne.

As the B-25s raced across the field, the Zero-sens fell on the four trailing bombers of the 90th BS, but in such a disorganised cluster that they got in each others' way. 1Lt B G Wilson's B-25 41-12450 was fatally damaged offshore and went down quickly, with no survivors. The bombers dropped to 30 ft over the sea as they egressed the target area as fast as they could, hampering the attempts of the pursuing Zero-sens to make effective gunnery runs on them. F1c Masao Watanabe tried a steep firing attack on one of the bombers and never pulled up, slamming into the sea.

Twenty minutes out from Lae, 1Lt I H Shearer had to ditch 41-12498 in flames off Salamaua with the port engine out, a dead bombardier and a wounded engineer and top gunner. Shearer and the rest of the crew survived the ditching, despite being strafed in their life raft. Capt Lowery's *The Cajun* was also shot down into the sea with the loss of its entire crew, followed by 1Lt A R Rullson's 41-12466 *Oscar XIII*, from which only the co-pilot, 2Lt D C Mitchell, managed to bail out and survive. 1Lt J E Hesselbarth's B-25 41-12448 was the fifth B-25 shot down, and there were no survivors. A sixth B-25, 41-12422 *Irene* flown by 2Lt R P Talley, was damaged but made it back to 7-Mile Drome, where it crash-landed. The Mitchell was later repaired and flown again. The Tainan Kokutai flyers were jubilant, claiming six bombers, but Sakai was less than impressed by their undisciplined individualism. Nevertheless, the victories were shared by all the pilots.

Sasai and Sakai claimed bombers again on 28 May when five B-26s from the 22nd BG struck Lae. Sakai was on CAP with FPO2c Kumagaya, whilst Sasai took off with other pilots as the enemy bombers approached. 1Lt S R Lanford and his crew from the 33rd BS ditched their B-26 in flames after it came under attack from three Zero-sens.

Earlier that same day, the Tainan Kokutai had sortied 27 A6M2s against Port Moresby, the fighters being led by Lt Cdr Nakajima. He commanded both the 1st chutai and its 1st shotai of three, with Yamazaki leading the 2nd shotai and Ohta the 3rd. Yoshino took command of the 2nd chutai when Lt Kawai had to turn back with engine problems, with Nishizawa leading its 3rd shotai. Tasked with escorting G3Ms of the Genzan and 4th Kokutais, plus nine G4Ms from 4th Kokutai, the fighters failed to rendezvous with the bombers, which turned back as a result, while the Zero-sen formation pressed on.

As usual, coastwatchers reported the Japanese raid, and the 35th FS reacted by scrambling six Airacobra, whilst the 36th FS sortied 12 more and a single P-40E. In the combat that ensued, Yamazaki claimed a single Airacobra shot down, Ohta was credited with two and Nishizawa also claimed one from an optimistic total of nine destroyed and four damaged. Capt W Exum of the 36th FS was forced to bail out when a Zero-sen he attacked with just his 0.30-calibre guns working turned smartly onto his tail and began hammering his P-39F 41-7190. Exum tried to make it to 30-Mile Drome but abandoned his fighter at 500 ft in a flat guide just as another Airacobra came to his aid. Lt J F Ward Jr bellied badly damaged P-39D 41-6970 onto the beach near Gaile, 25 miles southeast



FPO1c Toshio Ohta gained fame as one of the Tainan Kokutai's 'clean-up trio' with Nishizawa and Sakai, and he was the unit's highest scoring ace after this illustrious pair – the majority of his victories were claimed in the six months from April to October 1942. Ohta was the leading Tainan Kokutai ace killed in the fighting over Guadalcanal, being shot down on 21 October 1942 by ace 1Lt Frank Drury of VMF-212 immediately after he had downed the F4F of ace Machine Gunner H B 'Tex' Hamilton for his 34th victory (*Yasuho Izawa*)

of Port Moresby, while 2Lt Arthur Andres of the 35th FS was attacked by a Zero-sen as he climbed out from the field at 5000 ft and hastily bailed out of P-400 BX168. He described being wounded in the leg when the Japanese fighter shot at him in his parachute. The 36th FS claimed three Zero-sens shot down, but in fact none were lost.

During fighter combat in May the Tainan Kokutai had accounted for 16 P-39s of the 8th FG and one from the 35th FG for the loss of five of its own pilots. The ratio was 3.4-to-1, yet despite this, the IJNAF had not achieved air superiority and the Allied build-up continued. In June the unit destroyed 12 P-39s of the 35th FG for the loss of three pilots, improving the ratio to 4-to-1, although two of those killed were aces Miyazaki and Yoshino.

On 1 June the Tainan Kokutai sortied four chutai with 21 Zero-sens as escorts for 19 G3Ms of the Genzan Kokutai targeting Port Moresby. On this occasion Nishizawa was flying as wingman to the 1st chutai leader Lt Masao Yamashita, with Miyazaki leading its 2nd shotai. Lt Sasai led the 2nd chutai of six, with Sakai leading its 2nd shotai. The 'Nells' bombed the port and came under attack from 36th FS Airacobras as they egressed from the target. During the combats that ensued, the Tainan Kokutai pilots were credited with downing seven USAAF fighters, with Nishizawa claiming one of three

destroyed and two probables credited to Yamashita's shotai. Capt W G Bennett, in return, claimed a bomber destroyed as he dived through their formation, but it is likely that his fire hit Miyazaki's Zero-sen, which burst into flames and almost immediately exploded. Only one P-39 was missing after the fight, 41-6942 flown by 2Lt T O Rooney.

Following his death, Miyazaki, officially credited with 13 victories, was mentioned in a Zengun Fukoku (All Units Bulletin, the approximate equivalent Mentioned in Dispatches) and received a posthumous two-rank promotion to Lieutenant (junior grade) in recognition of the fact that he had participated in 37 air combats, leading a shotai credited with destroying 80 enemy aircraft.

On 9 June Yoshino's career as a Zero-sen ace was also brought to an end when he was shot down and killed by future ace 2Lt Curran 'Jack' Jones of the 39th FS. Flying a P-400, he was one of eight Airacobra pilots that went to the aid of 22nd BG B-26s racing back from an attack on Lae with 25 Tainan Kokutai Zero-sens in pursuit – several of the latter were being flown by aces, including Sasai, Kawai and, of course, Yoshino.

Jones' flight was in trail as he engaged the Zero-sens, allowing Yoshino to slide in behind his fourth wingman, 2Lt John Price. Jones heard Price query the identity of the fighter behind him over the radio, and seeing the Zero-sen, pulled out in a tight right-hand turn to curve around the back of his flight and engage it;

'I still had a good bit of speed and was running wide open when the Zero started his usual vertical climb so that I was able to go up a good distance with him. I started firing short bursts. I realised my speed was getting low,

but I was too busy to be concerned. Most fortunately, I saw what I think to be one of my 20 mm shells explode in front of the [Zero-sen's] cockpit. By then the Zero had sort of flattened out, and there was a movement of the pilot as I approached, and I realised that he was climbing out of the cockpit. I tried to pull in a little tighter to shoot him off the wing but would have stalled out as I was down, I believe, to around 140 mph with wide-open throttle. As I passed behind his crate he was holding onto the cockpit and looking back at me, and the nose of his Zero was just beginning to drop. He had no parachute. There were two red diagonal stripes just after the cockpit around the fuselage. I told the fellows that he looked at me as though I was the last man he would see alive.'

The description of the markings on Yoshino's Zero-sen poses a question, as the two red chevrons were usually attributed to the Tainan Kokutai's 1st chutai leader, Lt Kawai, who was also in the air that day. If Yoshino had 'borrowed' the chutai leader's aircraft, as has been asserted, was he leading the mission, and if so, why? At the time of his death, Yoshino had been credited with 15 victories, although that number has been disputed following recent research of actual Allied losses.

On 16 June another fighter sweep over Port Moresby resulted in five Airacobras being knocked down and two damaged – the Tainan Kokutai pilots claimed 17 and two probables, and they were absolutely jubilant over their apparent success. Nishizawa's 3rd shotai in the 1st chutai claimed two P-39s destroyed whilst Lt Sasai, leading the 3rd chutai, claimed one and his wingman Ohta claimed two destroyed. Sakai, leading the 3rd shotai in Sasai's chutai, claimed no fewer than four destroyed and a fifth as a probable. The reality was that three of the Airacobra pilots survived to fly and fight again.

1Lt Francis Royal's flight of four 39th FS fighters was at 22,000 ft, with future high-scoring ace 1Lt Tommy Lynch below and behind in P-400 AP348 attempting to catch up, when 18 Zero-sens were spotted 3000 ft above them. At least one shotai of fighters dropped down and caught the flight's 'tail-end-charlie', 2Lt H E Rehrer in 41-7204, before he could react. With its unjettisoned drop tank hit, the P-39F burst into flames and went down in an inverted spin. Although considered lost by other members of his flight, Rehrer managed to kick open the cockpit door and bail out, dislocating his shoulder in the process.

1Lt Bob Faurot received a burst of fire as he turned into the attack, although he was able to evade and dive away. When Lynch attempted to engage two of the Zero-sens, four more attacked him and severely

FCPO Gitaro Miyazaki was a stalwart Tainan Kokutai shotai leader and 12th Kokutai veteran who had claimed his first victory in the Zero-sen over China on 11 August 1941. His third success came over Clark Field on 8 December 1941 whilst he was leading the 2nd shotai of the unit's 3rd chutai. Miyazaki participated in 37 air combats with 44 reported shoot downs, six probables and 30 aircraft destroyed on the ground by the time of his death over Port Moresby on 1 June 1942. According to Saburo Sakai, Miyazaki had looked unwell that day after a long bout of sickness, but insisted on joining the mission despite being told he was unfit to fly (*Yasuo Izawa*)







FCPO Tora-ichi Takatsuka was one of the veteran Zero-sen pilots of 12th Kokutai who had fought over China during 1940-41 and then became a reservist. Re-mobilised at the age of 27, he joined the Tainan Kokutai and flew in combat from June to September 1942, claiming 13 victories. Takatsuka was killed in action over Guadalcanal on 13 September 1942, having almost certainly fallen victim to F4F ace Maj John Smith of VMF-223 (*Yasuo Izawa*)

damaged his P-400. He dived away and headed over the sea back to 7-Mile Drome, but at 7000 ft his engine exploded. Lynch tried to make land, and a forced landing, but when his fighter began to rapidly lose altitude he bailed out at 800 ft, breaking his arm on the tailplane as he did so. 2Lt W Hutcheson of the 40th FS was also bounced and his fighter (P-39F 41-7222) fatally hit whilst his attention was focused on switching fuel tanks – he managed to bail out and survive. Finally, 40th FS pilots 2Lt S F Rice (in P-39F 41-7136) and 2Lt P J Magre (in P-39D 41-6941) were listed as missing following the engagement, but the circumstances of their loss remain unknown. Magre and the wreck of his fighter were later discovered washed up near Bau village, but Rice was never found.

The pattern of fighting continued into July, with little evidence of either side being worn down or defeated. The Tainan Kokutai aces continued to claim steadily, with seven P-39s and P-400s confirmed shot down in four missions. A B-26, a Hudson, two B-25s and four A-24s also fell during this period of intense aerial action. On 21 July the Japanese began landing forces at Buna and Gona in Operation *Ri* in preparation for an overland assault across the Owen Stanley Range. Allied aircraft reacted immediately, with attacks being mounted on the Japanese landing barges. The Tainan Kokutai's operations duly switched from the slog against Port Moresby to covering the landings.

On 22 July, while Lt Sasai led the third covering patrol of the day to Buna, with Ohta as his wingman and Sakai leading the 2nd shotai, RAAF Hudson A16-201 of No 32 Sqn, flown by Plt Off W F Cowan, overflew the beachhead on an armed reconnaissance mission and dropped its modest bombload. As it was racing away in a dive, the Hudson was spotted by the Zero-sen pilots. Sakai's shotai dropped their tanks and went after it. As soon as Sakai was in range he opened fire, and Cowan immediately pulled round using a wing-stall turn with full engine power and came back at him also firing. Sakai was forced to break away as the remaining IJNAF pilots engaged the bomber.

Cowan continued to fly the Hudson like a fighter, using stall turns and firing at the Zero-sens with his fixed, nose-mounted 0.303-in. machine guns whenever he had the opportunity, with his turret-gunner blazing away as well. Sakai made several runs on the Hudson, eventually puncturing its right-wing tanks and killing the turret gunner. Out of cannon rounds, he closed in to 30 yards and fired 200 rounds with his 7.7 mm cowling guns, finally setting the Hudson on fire. Cowan tried to force-land the bomber, but as it hit the trees the aircraft exploded in a fireball. Impressed by the bravery and skill of their foe, the Zero-sen pilots had been stunned by the way the Hudson had been handled during this hard-fought combat.

## A NEW ZERO-SEN VARIANT

On 29 July *Nisshin Maru* delivered 20 crated A6M3 Model 32 Zero-sens to Rabaul and on 6 August the carrier *Un'yo* ferried in 2nd Kokutai – a mixed unit with an establishment of 16 A6M3 in its fighter hikotai and 16 D3A 'Val' dive-bombers.



The new type designation A6M3 Model 22 had been assigned for the marriage of a developed Sakae 21 engine – with a two-speed, two-stage supercharger, down draught carburettor (with the air intake in the upper cowling lip rather than beneath the cowling as in the A6M2) and a re-gearred 10-foot diameter propeller – to the A6M2 Model 21 airframe. With the Model 22, Mitsubishi had intended to improve the Zero-sen's high-altitude performance and rate of climb. However, during flight testing, the prototypes demonstrated poor overall performance, and the test pilots advised eliminating the folding wingtips of the A6M2. Doing this, fairing over the wingtips to create a clipped, square-tipped wing with shorter wingspan and modified ailerons, resulted in other improvements – a better roll rate, reduced control-column forces and a faster level speed – so the planned Model 22 was shelved and the re-designed type ordered into production instead. There was initially some discussion about the designation of this improved version before it was settled on as A6M3 Model 32 (Allied code name 'Hamp').

From the fourth A6M3 airframe the ammunition for the Type 99 20 mm machine guns in the wings was increased by using a 100-round drum magazine. This enhancement had been introduced in A6M2s manufactured by Nakajima from July 1942.

Despite these improvements, IJNAF pilots in the frontline did not like the A6M3 Model 32 for various reasons. The principal problem was its limited range (the 'Hamp' carried 22 gallons less than the A6M2 and was a heavier aircraft), which meant that the new fighter became a strategic liability, forcing units to exclusively employ earlier A6M2s on long-range sorties. Units sent to the Southwest Pacific that were equipped with the new Model 32 fighter limited IJNAF capability during the crucial early months of the Solomons campaign – a serious problem that had not been foreseen. The operational requirements for

An A6M3 being serviced at Rabaul, probably from 2nd Kokutai. This unit arrived in-theatre on 6 August 1942 with a mixed compliment of 16 Zero-sens and 16 D3A 'Val' dive-bombers (*Michael Claringbould*)

longer range were then urgently incorporated into the improved engine design, with a reversion to the original wider wing (but without the folding tips) to accommodate additional fuel tanks in the outer section and aileron balancing tabs to reduce the control forces on the longer aileron. Although this variant followed the Model 32 in sequence, the previously intended designation of Model 22 was reinstated and used for this later version.

The Model 32 was manufactured exclusively by Mitsubishi, with the first 24 production examples emerging from the factory in June 1942. A total of 340 had been produced by the time the last aircraft was delivered in December 1942 and production switched to the Model 22. From that same month onwards, half of the Zero-sens manufactured by Mitsubishi were to be fitted with the long-barrelled Type 99 Mk 2 20 mm wing cannon. It is apparent that some of the last production A6M3 were also armed with these weapons.

By the autumn of 1942, test flying of the 'Akutan Zero', found virtually intact on Akutan Island, in the Aleutians, after it had force-landed following damage from ground fire during the 4 June attack on nearby Dutch Harbor, was proving fruitful, with advice on exploiting its weaknesses filtering down to Allied fighter pilots in the frontline. To evade the agile fighter, an abrupt dive and hard roll to the right challenged its dive-stiffening ailerons, gravity fuel feed and slower right roll. The admonition to avoid a dogfight – a turning combat in the horizontal plane – was reinforced, although it was already a lesson being learned from bitter experience. The spectre of the Zero-sen was not laid, the fighter still being viewed as a formidable opponent. However, the myth of invincibility surrounding the aircraft, already effectively challenged in the fighting zones, was now being chipped away in training too.

## GUADALCANAL

On 7 August 1942 US forces began landing on the island of Guadalcanal, in the eastern Solomon Islands, where the Japanese had just finished constructing an airfield at Lunga Point. This completely changed the strategic situation in the Southwest Pacific, and presented a new front – and a formidable challenge – for the air power assets of the IJNAF's 5th Air Attack Force, which was responsible for operations in the Bismarck Archipelago and eastern New Guinea.

Fighter assets at this time were limited to 60 A6M2s of the Tainan Kokutai, of which only 24 were available for operations, and 16 A6M3s of the fighter hikotai of 2nd Kokutai, which for the time being were restricted to operations over eastern New Guinea. Rear Admiral Sadayoshi Yamada, commanding the 5th Air Attack Force, demanded an immediate strike by 4th Kokutai G4Ms and 2nd Kokutai D3A 'Vals' on the US invasion force at Guadalcanal. The Tainan Kokutai's Zero-sen pilots would be required to fly escort, with a maximum effort – all available aeroplanes – being ordered. When they were briefed on the mission, the pilots were astonished, and they began examining their charts to find that their new target was 560 miles away – a good 50 miles further than their flight from Taiwan to the Philippines the previous December.

## APPENDICES

## Zero-sen Aces 1940-42

Name	Total	Unit(s)/Carrier
Hiroyoshi Nishizawa	87	4th and Tainan Kokutais
Tetsuzo Iwamoto	80	12th Kokutai and <i>Zuikaku</i> *
Saburo Sakai	64	12th and Tainan Kokutais*
Toshio Ohta	34	Tainan Kokutai
Takeo Okumura	30 (approximately)	14th Kokutai, <i>Ryujō</i> and Tainan Kokutai*
Shizuo Ishi-i	29	12th and Tainan Kokutais*
Kaneyoshi Muto	28	3rd and Genzan/252nd Kokutais
Jun-ichi Sasai	27	Tainan Kokutai
Sadaaki Akamatsu	27	13th Kokutai, <i>Soryū</i> and 3rd Kokutai*
Shogeo Sugio	20+	12th and 3rd Kokutais (including Rabaul detachment)*
Kazushi Uto	19	Tainan Kokutai
Hiroshi Okano	19	Tainan Kokutai (on detachment from 1st Kokutai)
Sadamu Komachi	18	<i>Shokaku</i>
Masayuki Nakase	18	12th and 3rd Kokutais*
Kiyoshi Ito	18	3rd Kokutai (including Rabaul detachment)
Yoshio Ohki	17	12th and Tainan Kokutais*
Kuniyoshi Tanaka	17	13th and Tainan Kokutais*
Masao Masuyama	17	14th and 3rd Kokutais (including Rabaul detachment)*
Keishu Kamihira	17	12th and Tainan Kokutais*
Tora-ichi Takatsuka	16	12th and Tainan Kokutais*
Zenjiro Miyano	16	3rd and 202nd Kokutais
Kunimori Nakakariya	16	12th and 3rd Kokutais*
Yoshimi Minami	15	<i>Shokaku</i>
Satoshi Yoshino	15	4th and Tainan Kokutais
Motonari Suho	15	12th and 14th Kokutais (later 252nd Kokutai)
Kenji Okabe	15	<i>Shokaku</i>
Ichirobei Yamazaki	14	4th and Tainan Kokutais
Mototsuna Yoshida	14	4th and Tainan Kokutais
Masao Taniguchi	14	<i>Akagi</i> and <i>Shokaku</i>
Yukiharu Ozeki	14	3rd and 204th Kokutais
Watari Handa	13	Tainan Kokutai
Akira Yamamoto	13	<i>Kaga</i> , <i>Hiryū</i> and <i>Zuihō</i>
Gitaro Miyazaki	13	11th, 12th and Tainan Kokutais
Shigetaka Ohmori	13	<i>Akagi</i> and <i>Shokaku</i>
Matsuo Hagiri	13	12th Kokutai*
Fujikazu Koizumi	13	3rd Kokutai
Iyozo Fujita	13	<i>Soryū</i>
Masa-ichi Kondo	13	<i>Ryujō</i> , 12th Kokutai, <i>Zuihō</i> and <i>Junyō</i> *
Keisaku Yoshimura	12	22nd Air Flotilla and Tainan Kokutai
Tetsuo Kikuchi	12	<i>Akagi</i> and <i>Shokaku</i>
Kozaburo Yasui	11	22nd Air Flotilla and Tainan Kokutai
Take-ichi Kokubu	11	4th and Tainan Kokutais
Ichiro Yamamoto	11	<i>Shokaku</i>
Saburo Kitahata	10	12th Kokutai and <i>Junyō</i>
Jiro Tanaka	10	<i>Soryū</i> and <i>Hiyo</i>
Yoshikazu Nagahama	10	<i>Kaga</i> and <i>Zuikaku</i>
Yoshiro Hashiguchi	10+	3rd Kokutai
Yasuhiro Shigematsu	10+	<i>Hiryū</i> and <i>Junyō</i>



Kashiro Yamashita	10+	12th Kokutai
Takahide Aioi	10	3rd Kokutai
Aya-o Shirane	9	12th Kokutai, <i>Akagi</i> and <i>Zuikaku</i>
Kiyonobu Suzuki	9	<i>Kaga</i> and <i>Junyo</i>
Juzo Okamoto	9	3rd and 6th Kokutais (and <i>Junyo</i> operations)
Ki-ichi Oda	9	<i>Soryu</i>
Kazu-o Tsunoda	9	12th and 2nd Kokutais
Jiro Matsuda	9	12th Kokutai and <i>Shokaku</i>
Kaname Harada	9	<i>Soryu</i> and <i>Hiyo</i>
Hideo Izumi	9	Tainan Kokutai
Matsuki Susumu	9	3rd and Tainan Kokutais
Ichiro Higashiyama	9	12th Kokutai
Tadashi Kaneko	8	<i>Shokaku</i> , 6th Kokutai (and <i>Akagi</i> operations) and <i>Hiyo</i>
Takeyoshi Ohno	8	Tainan Kokutai
Yoshio Iwaki	8	<i>Akagi</i> and <i>Shokaku</i>
Koichi Magara	8	2nd Kokutai
Shigeru Yano	8	3rd Kokutai
Yoshinao Tokuji	8	3rd Kokutai
Jiro Chono	7	14th Kokutai
Kazu-o Muranaka	6	<i>Hiryu</i> , <i>Shokaku</i> and <i>Junyo</i>

**Note** – Names are recorded in Western style, with surnames following the given name. Those Zero-sen aces whose record of victories began during the Guadalcanal campaign have not been included, and they will be listed in volume two. An asterisk indicates a China War veteran.

12th Kokutai pilots are debriefed following a mission to Chengdu on 4 October 1940 – the day four of these pilots recklessly landed their Zero-sens under fire on the airfield at Taipingsze (now Taipings) in order to try to set fire to RoCAF aircraft protected in revetments. Vice-Admiral Shigetano Shimada, Commander-in-Chief China Area, can be seen facing his pilots. Amongst the latter are, in the front row, from left to right, Lt Tamotsu Yokohama, APO1c Matuso Hagiri (who claimed an I-16 destroyed on this date), ACPO Ichiro Higashiyama, Lt Saburo Shindo, unknown and Lt(jg) Aya-o Shirane. Hagiri, Higashiyama and Shirane would all subsequently become Zero-sen aces (*Yasuho Izawa*)



## COLOUR PLATES

### 1

#### **A6M2 Model 11 3-163 of APO2c Tsutomu Iwai, 12th Kokutai, Hankow, China, September 1940**

Iwai, who would survive the war as an ace credited with 11 victories (all of these, bar his three successes in China in 1940, came after January 1943), flew this Zero-sen on the 13 September 1940 mission against Chungking as third wingman in the 1st shotai of Lt(jg) Shirane's 2nd chutai. This was one of 19 A6M2s (3-161 to 3-179) issued to the unit from July 1940, and it was an early production Model 11 with transparent rear canopy, 'pinched' carburettor air intake under the cowling and original exhaust position. The angled tail stripe may have been added later, as it is usually associated with shotaicho aircraft.

### 2

#### **A6M2 Model 11 3-165 of ACPO Koshiro Yamashita, 12th Kokutai, Hankow, China, September 1940**

Yamashita had led the 2nd shotai of the 1st chutai on the 13 September 1940 mission flying 3-171, whilst 3-165 was flown by A2c Toshiyuki Yoneda. This early production aircraft has been previously profiled with blue tail stripes and ten victory symbols on the starboard side of the tail fin. The paint applied to early Zero-sens has been the subject of much controversy, and it was described in an official report of February 1942 as grey, leaning slightly towards 'ameiro'. 'Ame' is the word for a type of rice sugar or toffee, but as a colour (+ 'iro') means amber or yellowish-brown. It had a similar colour value to the German RLM 02 Grau and the modern camouflage beige, or 'hemp', of the RAF. When new, the amber-grey paint had lustre and a slight olive or greenish undertone. With exposure, especially in tropical or sub-tropical climates, the paint surface chalked to become dull, lighter and more grey in appearance.

### 3

#### **A6M2 Model 11 3-170 of A1c Masayuki Nakase, 12th Kokutai, Hankow, China, Spring 1941**

Nakase flew 3-170, an early production Model 11 with a transparent rear canopy fairing, on the 14 March 1941 mission to Chengdu, claiming five I-152s destroyed and one probable after firing 110 20 mm rounds and 575 7.7 mm rounds. He was considered a master of precision firing at close range, and claimed three more I-152s during the 26 May 1941 attack against Nanning when he flew 3-143 as wingman to Lt Suzuki. In September 1941 Nakase was transferred to 3rd Kokutai, participating in the attacks on the Philippines and the Dutch East Indies. On 9 February 1942 he was shot down and killed whilst strafing Dutch armoured cars at Makassar, in the Celebes, receiving a posthumous two-grade promotion to Ensign. At the time of his death, Nakase's 3rd Kokutai Zero-sen was reputed to have displayed 20 cherry blossom victory symbols on the side of the fuselage beneath the cockpit, although he was officially credited with 18 victories.

### 4

#### **A6M2 Model 11 3-173 of APO2c Hideo Oishi, 12th Kokutai, Hankow, China, March 1941**

Oishi was one of the four pilots who, on 4 October 1940, recklessly landed their Zero-sens on the Chinese airfield at Taipingsze (now Taipingsi), south of Chengdu, and attempted to set fire to the aircraft parked there. This early production Model 11 had previously been flown by A3c Hatsumasa Yamaya on the 13 September 1940 mission and had accumulated 14 victory symbols since then, two added by Oishi for his 14 March 1941 claims. 'Oscar' Oishi, a skilled pilot and aerial photographer who, flying 3-139, took the in-flight photographs of 12th Kokutai on their way to Nanning on 26 May 1941, was one of the first pilots involved in the ferrying of Zero-sens to China for 12th Kokutai. Prior to this, Oishi had served as wingman to Lt Yokoyama when they were both flying A5Ms from the carrier *Soryu* in 1938. After service in 12th Kokutai he became a test pilot, returning to operational flying with 201st Kokutai in the Philippines in June 1944. Oishi was killed in action over Cebu on 12 September 1944, by which point he had been credited with six victories.

### 5

#### **A6M2 Model 11 3-112 (construction number 807) of 12th Kokutai, Hankow, China, 1941**

The impressive scoreboard of 28 victories on the tail of this seventh production Model 11 was accumulated by the various 12th Kokutai pilots who flew it on different missions – including Lt Minoru Suzuki, who was unofficially credited with 8-10 victories. The curious two-tone effect of the paint seen in some photographs (see also the planform views of this aircraft) is the subject of debate, with some suggesting it was caused by protective covers placed over the canopy and mid-fuselage area, whilst others point to the testing of two types of paint. The former suggestion seems more convincing, as close examination of photographs reveals a diffused and varied demarcation between the two hues.

### 6

#### **A6M2 Model 11 3-138 of A3c Kunimori Nakakariya, 12th Kokutai, Hankow, China, May 1941**

Nakakariya, who had joined 12th Kokutai in April 1941 after service in the Oita, Omura and Kanoya Kokutais, flew this mid-production Model 11 with revised exhaust position on the 26 May mission against Nanning as wingman to Lt Suzuki. During the course of this sortie he engaged I-15s over Tiansu, claiming the two victories marked on the tail fin as his first successes. After further service in 3rd, 636th and 601st Kokutais, Nakakariya survived the war credited with 16 victories. The fuselage band is depicted as blue in accordance with a painting by Rikyu Watanabe showing 3-138 being flown by Nakakariya on the 26 May mission, although aircraft from the 12th Kokutai formation seen in the distance in this same artwork display red bands. 12th Kokutai's

kodochosho (combat records) for the 26 May mission records a total of 20 Zero-sens organised into two separate formations, described as No 1 Sentoki-tai (fighter unit) of nine aircraft, and No 2 Sentoki-tai of 11 aircraft. Nakakariya is listed in No 2 Sentoki-tai. This gives some credence to Watanabe's artwork, which shows two formations, one with red and one with blue fuselage bands. It is clear, however, that the two formations flew separately in two distinct waves, No 1 Sentoki-tai taking off at 1000 hrs, while No 2 took off an hour later. Please see further discussion of this topic in the commentary for Profile 7.

## 7

### **A6M2 Model 11 3-141 of Lt Minoru Suzuki, 12th Kokutai, Hankow, China, May 1941**

Lt Suzuki flew 3-141, a late-production Model 11 with a solid rear canopy fairing, on the 26 May 1941 mission against Nanning. One source suggests that the two fuselage bands should be red, although Suzuki's wingman was Nakase, flying 3-143, with Nakakariya in the same formation, flying 3-138, and both are shown with a blue band in Rikyu Watanabe's painting (see Profile 6). Another source suggests that blue bands were adopted for all aircraft, and that the individual buntai were distinguished by red, white, yellow or blue tail stripes. However, some evidence for the early use of chutai distinguishing colours in 12th Kokutai comes from Tetsuzo Iwamoto, who transferred to that unit when it absorbed the fighter hikotai of 13th Kokutai in late March 1938. The fighter component of 12th Kokutai was then increased to 30 aircraft. Iwamoto stated that the aircraft (A5M) were organised into two formations (larger than the usual nine-aircraft chutai), which he referred to as 1st and 2nd hikotai, and at the time of the attack against Hankow on 29 April 1938 aircraft from 1st hikotai had their fixed undercarriage covers painted red, while those of 2nd hikotai were painted blue. This practice was eventually discontinued, although it may have been resurrected for 12th Kokutai around April 1941, when fuselage bands were applied to their aircraft.

## 8

### **A6M2 Model 11 9-182 of Lt Mitsugu Kofukada, 14th Kokutai fighter hikotai, Hanoi, French Indochina, October 1940**

Kofukada was photographed flying 9-182 over Indochina during the autumn of 1940. This late-production Model 11 was identical to the Model 21 except that it was not equipped for carrier operations, lacking the folding wingtips and arrestor hook beneath the rear fuselage. 14th Kokutai employed a chutai-sized detachment of Zero-sens in long-range attacks against Kunming and Yunnan-yi from Hanoi, with IJAAF reconnaissance aircraft providing navigation support. The unit was disbanded in September 1941. Kofukada was a distinguished officer who later served as hikotai in 6th Kokutai during the Guadalcanal campaign in late 1942. In August 1942 he led 18 Zero-sens on an epic 3000-mile overwater reinforcement flight from Japan to Rabaul, staging through island bases with navigation assistance from two G4Ms, reaching Rabaul with 13 Zero-sens on 31 August.

## 9

### **A6M2 Model 21 AI-158 of FP01c Masao Taniguchi, *Akagi*, Pacific, December 1941**

Taniguchi flew this early production Model 21, with steel aileron balance weights and RDF loop, from the carrier *Akagi* in the first-wave attack on Pearl Harbor. He claimed his first victory over Ceylon on 9 April 1942 and went on to fight at Midway, leading various shotai on CAP duties, then from *Shokaku* during the Solomons campaign. After service in Japan with the Ohmura Kokutai, Taniguchi returned to operations with 331st Kokutai, seeing combat over Calcutta in December 1943, then with 201st Kokutai in the Solomons again. He was wounded in air combat over the Philippines and had not recovered by the time the war ended, surviving with 14 credited victories.

## 10

### **A6M2 Model 21 AII-168 of FP01c Akira Yamamoto, *Kaga*, Pacific, December 1941**

Yamamoto flew this Model 21 from the carrier *Kaga* during the first-wave attack on Pearl Harbor, shooting down a civil-registered Piper Cub for the first IJNAF Pacific War claim, and attracting the ire of his buntaicho, Lt Yoshio Shiga. He fought at Midway, claiming four enemy fighters, and subsequently flew from *Zuiho* during the Solomons campaign. Yamamoto had been credited with 13 victories by the time he was killed in combat engaging B-29s over Japan on 24 November 1944.

## 11

### **A6M2 Model 21 BI-150 of FP01c Ki-ichi Oda, *Soryu*, Pacific, December 1941**

Oda was an intrepid aviator and China veteran who had pressed on alone in an escort against Nanking on 19 September 1937, claiming two enemy fighters destroyed and a probable. At Pearl Harbor, he flew as shotaicho in the second-wave attack and fought in all subsequent carrier battles, returning to Japan after Midway. Oda was called back from the reserve after promotion to Flight Chief Petty Officer to serve as a flying instructor with the Iwakuni and Kure Kokutais. He returned to operations with 261st Kokutai in the Marianas, but was lost whilst returning to Japan when submarine I-365 was attacked on the surface and sunk by the USS *Scabbardfish* (SS-397) on 29 November 1944. At the time of his death he was credited with nine victories. The IJNAF had two colour standards for blue, a darker royal blue hue and a lighter, slightly greyish blue. Both have been used to depict *Soryu* and *Hiryu* Zero-sens, and we chose to depict the lighter blue as more commonly used.

## 12

### **A6M2 Model 21 BII-121 of Lt Yasuhiro Shigematsu, *Hiryu*, Pacific, December 1941**

Shigematsu was a 1938 graduate of Eta Jima and completed his flying training in April 1941. After Pearl Harbor, he was designated as a buntaicho and at Midway led the 2nd chutai off *Soryu* to attack the island. Later, leading an escort of six Zero-sens for a carrier bomber strike against

the American fleet, Shigematsu engaged SBDs from USS *Enterprise* (CV-6), losing his 2nd shotai leader and wingman who had to turn back with damage. The four remaining Zero-sens engaged Wildcats from VF-3 and VF-8, with only Shigematsu returning alive to claim that his chutai had downed five of them, with two more as probables. His four Zero-sens were in turn reported as 18 by the US Navy pilots! After Midway, Shigematsu served on board *Junyo* during the Guadalcanal campaign, and by February 1944 he was commanding 263rd Kokutai over the Marianas. He was killed in action over Yap on 8 July leading the last five remaining Zero-sens of the unit, receiving an honourable mention in an all-units bulletin and posthumous promotion to Commander. At the time of his death Shigematsu had been credited with more than ten victories.

### 13

#### **A6M2 Model 21 E1I-102 of F1c Tetsuzo Iwamoto, *Zuikaku*, Pacific, December 1941**

Iwamoto was a China veteran already credited with 14 victories when he flew on CAP duties at Pearl Harbor, seeing no action. He made claims for four Hurricanes over Ceylon in April 1942 and further claims for SBDs and Wildcats the following month during the Battle of the Coral Sea. In August he was sent back to Japan to serve as a flying instructor with the Oppama Kokutai, returning to operational duties with 281st Kokutai in March 1943 and subsequently going to Rabaul in a reinforcing detachment. Here, Iwamoto served in 204th Kokutai, claiming 20 victories and five probables in a single month, and 253rd Kokutai. He then fought in the Philippines, over Taiwan and Okinawa with 252nd and 203rd Kokutais, surviving the war but dying of blood poisoning in 1954. Iwamoto's technique of single hit-and-run attacks in near-vertical dives from very high altitude resulted in many claims that were not substantiated. However, his diary recorded 202 such attacks, and he has been credited with an estimated 80 victories, making him the IJNAF's second highest and longest serving ace.

### 14

#### **A6M2 Model 21 II-116 of 22nd Koku Sentai Shireibu Fuzoku Sentokitai, Soc Trang, French Indochina, December 1941**

The pilot of this Zero-sen, representative of 22nd Koku Sentai Shireibu Fuzoku Sentokitai and based on a photograph, is unknown but the command markings (the colours of which are speculative) may indicate it is the aircraft of one of the two buntaichos (either Lts Inano or Tokaji) whose cadres from 3rd and Tainan Kokutais contributed the aircraft. The unit was formed to provide escort duties and achieve air superiority for the IJNAF bombers participating in the Malayan campaign.

### 15

#### **A6M2 Model 21 S-171 *Houkoku-437* of FP03c Hideo Watanabe, Chitose Kokutai's fighter hikotai, Wake Island, April 1942**

At the outbreak of the Pacific War Chitose Kokutai's fighter hikotai provided air defence for the Marshall Islands, flying the A5M,

although it began re-equipping with the Zero-sen from March 1942. At the end of May the unit sent detachments to Rabaul to fly with the Tainan Kokutai. Watanabe flew S-171 with the *Houkoku-437* subscription dedication (from the Sixth Obayashi-gumi Factory) from Wake prior to joining 204th Kokutai in March 1943. He would distinguish himself with the latter unit flying from Rabaul and Buin during the Solomons campaign, leading the 204th when all other officers and warrant officers had been either killed or wounded until he received a serious head wound in combat on 26 August and was invalided back to Japan. Watanabe, who never returned to operations, was credited with 16 victories.

### 16

#### **A6M2 Model 21 X-108 of Lt Tamotsu Yokoyama, 3rd Kokutai, Takao, Taiwan, December 1941**

Lt Yokoyama, who had led the Yokosuka experimental detachment of Zero-sens to China in 1940, flew this aircraft as hikotaicho and leader of the command chutai during 3rd Kokutai's initial operations in the Philippines. The unusual command markings are based on careful examination of photographs. On 8 December 1941 he was credited with a P-40 shot down, shared with other pilots, as well as several B-17s destroyed in strafing attacks. On 10 December Yokoyama had to ditch this aircraft in the sea, and seeing that he did not fly again until 30 January, he may have been injured in the crash. On 3 February Yokoyama shared claims for a Royal Netherlands East Indies Army Air Force Hawk shot down and a B-17 destroyed on the ground, whilst on 27 February he led the 3rd Kokutai strafing attack on the aircraft carrier USS *Langley* (CV-1), loaded with P-40s. Although not officially credited as such, several Japanese sources attribute Yokoyama with ace status. He survived the war and rose to a senior rank in the post-war JASDF.

### 17

#### **A6M2 Model 21 X-182 of Lt Zenjiro Miyano, 3rd Kokutai, Poretai (Penfui), Timor, March 1942**

Miyano, born in Osaka in 1917, was an innovative buntai leader in 3rd Kokutai who led the 3 March 1942 attack against Broome, Western Australia. On the way back from that attack Miyano's shotai encountered Royal Netherlands Indies Airlines DC-3 PK-AFV from Bandung, flown by Russian World War 1 ace Capt Ivan Smirnov, heading towards Broome with five evacuated Dutch pilots and four civilians on board. The trio of Zero-sens attacked the DC-3 and, despite 'the greatest show of flying anybody in the world will ever see' from the wounded Smirnov, set the DC-3's port engine on fire and forced the Russian pilot to crash-land in the surf on a beach. The Zero-sens continued to strafe the downed DC-3 as the survivors scrambled to safety, killing four. Miyano later served with 6th/204th Kokutai and flew A6M3 Model 32 Zero-sens from Buin in the Solomons campaign prior to his death in action on 16 June 1943. He also pioneered the transition in the IJNAF to a tactical formation



of four aircraft in two pairs, rather than the three aircraft 'vic'. At the time of his death he was credited with 16 victories. The command bands and stripes on this aircraft are usually depicted as red, but may have been black or blue-black. In photographs of this aircraft taken after Miyano's departure from the unit in April 1942, when it was in use by 3rd Kokutai's Rabaul detachment in September, the forward fuselage band and lower tail stripe appear overpainted, as do an estimated six victory markings on the fin. (see photograph on page 56)

## 18

### **A6M2 Model 21 X-183 (construction number 5404) of FP03c Yoshiro Hashiguchi, 3rd Kokutai, various airfields in the Dutch East Indies, January-March 1942**

Hashiguchi had flown in Miyano's 3rd Daitai, 1st chutai's two-Zero-sen 3rd shotai as wingman to FP01c Juzo Okamoto during the initial assault on the Philippines, the pair claiming two P-40s. On 9 February 1942 he was wounded in the right thigh by ground fire strafing a radio station at Saumlaki, on Yamdena Island, during a reconnaissance mission from Ambon. Having bandaged the wound whilst flying his fighter, Hashiguchi completed the rest of the mission and landed safely nearly three hours later. By the time 3rd Kokutai settled into Koepang, on Timor, at the end of March, Hashiguchi's favourite X-183, manufactured in November 1941, was displaying 11 cherry blossom victory symbols on the tail.

## 19

### **A6M2 Model 21 X-101 of FP02c Yoshiro Hashiguchi, 3rd Kokutai, Lakunai, Rabaul, September 1942**

This profile is based on a personally annotated photograph showing the aircraft markings of Aioi (Profile 20) and Hashiguchi. On 17 September 1942 the escort carrier *Taiyo* had brought 27 pilots and 21 Zero-sens from 3rd Kokutai to Rabaul. Hashiguchi probably flew this aircraft as a shotaicho and wingman to hikotaicho Lt Aioi during 3rd Kokutai's September-November 1942 detachment to Rabaul and their participation in the Guadalcanal campaign. On 27 September 1942 it was damaged in combat and claimed as a kill by future ace Lt(jg) J M Wesolowski, who was flying a Wildcat with VF-5. However, Hashiguchi survived the encounter, and on 18 October his shotai claimed five F4Fs shot down and two probables. At the time of his death in October 1944, flying from the carrier *Chiyoda*, Hashiguchi was credited with ten victories.

## 20

### **A6M2 Model 21 X-111 of Lt Takahide Aioi, 3rd Kokutai, Lakunai, Rabaul, September 1942**

As with the previous profile, this artwork is based on a personally annotated photograph showing the aircraft markings of Aioi and Hashiguchi. When 30-year-old Aioi joined 3rd Kokutai in February 1942 as hikotaicho, he already had extensive experience in both

carrier- and land-based fighter aviation dating back to 1937. In September 1942 he led a substantial 3rd Kokutai detachment to Rabaul to participate in the Guadalcanal campaign, returning to Timor in November when 3rd Kokutai was re-designated as 202nd Kokutai. Later, Aioi served as hikotaicho of 601st Kokutai and executive officer of 343rd Kokutai, surviving the war. He subsequently served in the Japanese Maritime Self-Defense Force, rising to the rank of Admiral and becoming its Commander-in-Chief. Aioi was unofficially credited with 'scores' of enemy aircraft shot down, although his official tally was ten.

## 21

### **A6M2 Model 21 X-138 of FP03c Kunimori Nakakariya, 3rd Kokutai, Koepang, Timor, Summer 1942**

Nakakariya (see Profile 6) remained at Koepang and was not part of 3rd Kokutai's detachment to Rabaul, instead continuing to fly air-defence patrols and sorties against Darwin. The system of coloured fuselage bands and tail stripes used by 3rd Kokutai is uncertain, but it is apparent that colours other than red were used. FP02c Saburo Horita had served with 3rd Kokutai from April to June 1942, flying a single mission against Darwin, and as a PoW captured in the Russell Islands on 31 January 1943 whilst flying with 582nd Kokutai, he described 3rd Kokutai markings in his interrogation report. Horita stated that each aircraft had one white, red, black or yellow band six inches wide painted vertically near the tailplane, although he claimed not to know the significance of those markings. He also stated all aircraft had an 'X' on the tail, followed by '101', '102', onwards. He also noted that he had seen the numbers '120' and '150'.

## 22

### **A6M2 Model 21 F-108 of FP01c Hiroyoshi Nishizawa, 4th Kokutai, Lae, New Guinea, March 1942**

Nishizawa flew F-108 as wingman to Lt Nobuhiro Iwasaki in the 2nd chutai of 4th Kokutai during the unit's attack on Horn Island on 11 March 1942. Long attributed as an aircraft flown by the IJNAF's leading ace, F-108 was first depicted in profile in the April 1968 issue of the Japanese *Aireview* magazine. From 1 April 1942, 4th Kokutai's pilots and aircraft were incorporated into the Tainan Kokutai, where Nishizawa continued to demonstrate his prowess. Saburo Sakai said that Nishizawa was known to all as 'the Devil'. 'He was unpredictable in the air, a genius, a poet who seemed to make his fighter respond obediently to his gentle, sure touch at the controls. Never have I seen a man with a fighter plane do what Nishizawa would do with his Zero. His aerobatics were all at once breathtaking, brilliant, totally unpredictable, impossible and heart-stirring to witness.'

## 23

### **A6M2 Model 21 V-158 of FP02c Susumi Ishihara, Tainan Kokutai, Denpasar airfield, Bali, March 1942**

Although Ishihara had flown the A5M over China with 1st Kokutai,

he did not claim his first victory until 10 December 1941, when he shot down one of ten USAAC P-40s that engaged his shotai over Del Carmen airfield in the Philippines. On 28 January he and Lt Jun'ichi Sasai destroyed two Dutch Buffaloes at Samarinda II (Melak) airfield in Borneo. In April 1942 Ishihara returned to Japan as a flying instructor at the Tushima Kokutai. His second tour of duty in the Southwest Pacific was with 204th Kokutai (formerly 6th Kokutai) from June 1943, with whom he gained a reputation for successfully downing bombers, and subsequently with 202nd Kokutai (formerly 3rd Kokutai). Ishihara later fought in the Marianas and in the air defence of Japan, flying Zero-sens and J2M Raidens against B-29s. This formidable fighter pilot survived the war credited with 16 victories and later served in the JSDF until he was killed in a flying accident. From December 1941 to April 1942 the tail codes worn by the Zero-sens assigned to the Tainan Kokutai were white, outlined red. Like most Tainan Kokutai A6Ms, the aerial mast and near-useless radio (due to interference from unshielded spark plugs) has been removed from this aircraft to save weight.

## 24

### **A6M2 Model 21 V-141 *Houkoku-439* of FP02c Yoshisuke Arita, Tainan Kokutai, Denpasar airfield, Bali, March 1942**

V-141 is usually depicted with a white tail stripe, but careful examination of original photographs suggests that it may have been yellow. Of note is that this aircraft carries a Nakajima-style Houkoku dedication, which would indicate that it is one of the first Nakajima-produced Zero-sens to reach the frontline. Some historians have stated that the photograph on which this profile is based might have been altered for propaganda purposes, as it seems unlikely that any Nakajima-produced aircraft could have reached Bali by the time this photograph was taken. FP01c Arita flew as wingman to 33rd shotai leader FP01c Sakai Toshiyuki in the 3rd chutai of the Tainan Kokutai during the initial attack against the Philippines on 8 December 1941. On 2 February 1942, leading 32nd shotai, Arita and his wingman F1c Yoshio Motokichi shot down 19th BG B-18 Bolo 36-338 near Dedjong Ponkau, Java. The aircraft, flown by Maj J A Burch, was transporting Col W H Murphy, a radar expert, his staff and Maj A A Straubel, who had been assigned to take command of the 7th BG. On 1 May 1942 Arita was bounced whilst strafing 7-Mile Drome at low level and fatally shot down by future ace 1Lt Don McGee in P-39D 41-6941, the Zero-sen being the first confirmed victory for the 36th FS/8th FG. After downing the IJNAF fighter, McGee's Airacobra was badly shot up by Arita's companions, and although the American pilot got down safely, 41-6941 had to be rebuilt using major components from crash-landed P-39 41-6943 to become a 'hybrid' of the two.

## 25

### **A6M2 Model 21 V-172 (construction number 5784) of FP01c Saburo Sakai, Tainan Kokutai, Lakunai, Rabaul, August 1942**

Manufactured in May 1942 and almost certainly delivered to the Tainan Kokutai the following months, this aircraft was reputedly

flown by Saburo Sakai and is displayed within the Australian War Memorial in Canberra with the tail code V-173. Despite several meritorious hypotheses, the colour sequence and system of Tainan Kokutai fuselage bands and tail stripes have not been confirmed and inconsistencies or anomalies persist. One Japanese researcher suggests that the fuselage chevrons identified chutai in tactical formations and were not specific to the buntai personnel. In other words, the aircraft were allocated to the pilots of whichever buntai was designated to fly as that particular chutai on a given mission. Another researcher has suggested that the black or blue-black chevron represents the 4th chutai, surmised by the tail code V-172, which was reportedly allocated the codes V-161 to V-179.

## 26

### **A6M2 Model 21 V-128 of FP01c Saburo Sakai, Tainan Kokutai, Lakunai, Rabaul, August 1942**

Long associated with Sakai and his fateful 7 August 1942 mission, this aircraft has more recently been depicted with a red tail stripe as the 22nd shotaicho aircraft. However, Sakai was flying as the 32nd shotaicho that day, with Lt Sasai leading the 3rd chutai, which it has been suggested displayed yellow fuselage chevrons. It has also been claimed that aircraft with tail codes from V-121 to V-135 displayed the blue chevrons usually associated with Sakai and the Tainan Kokutai, which is therefore contradictory. We have chosen to depict the 'traditional' combination of blue chevron and white tail stripe.

## 27

### **A6M2 Model 21 V-103 (construction number 3647) of FCPO Tora-ichi Takatsuka, Tainan Kokutai, Lakunai, Rabaul, September 1942**

This aircraft is associated with Saburo Sakai, probably because he flew a Zero-sen with the tail code V-103 in the original compliment of Tainan Kokutai fighters prior to the unit moving to Rabaul and collecting new aircraft. This particular fighter had plain black tail codes applied, and the new hikotaicho, Lt Cdr Tadashi Nakajima, forbade the previous practice of painting victory symbols on the aircraft, emphasising instead successful teamwork over individual achievement. V-103, flown by FCPO Tora-ichi Takatsuka, was shot down over Guadalcanal on 13 September 1942, the likely victim of an F4F Wildcat flown by ace Maj J L Smith of VMF-223 – its remains were salvaged from the swamp where it had fallen in 1993. The 28-year-old Takatsuka, who had been flying since 1933, had been one of the original Zero-sen pioneers in China during 1940, claiming three victories on 13 September as an Airman First Class while leading Lt(jg) Shirane's 2nd shotai. He was promoted to Flight Chief Petty Officer in October 1941, then joined the Tainan Kokutai from the reserve. Scoring steadily, with a reputation for careful tactics, Takatsuka had been credited with 16 victories by the time of his death.

**28****A6M2 Model 21 2185 (construction number 1503) of FCPO Kan-ichi Kashimura, 582nd Kokutai, Buin and Munda, February/March 1943**

This unusually marked Nakajima-built A6M2 with long spinner and fixed trim tabs was shot down over the Russell Islands on 6 March 1943, killing pilot FCPO Kan-ichi Kashimura, who had been flying with 582nd Kokutai (formerly 2nd Kokutai) since December 1942. Kashimura was renowned for his feat of successfully landing an A5M with almost half of its port wing missing after a collision with a Chinese fighter on 22 November 1937, and at the time of his death was credited with 12 victories. The yellow wing leading edge identification friend or foe strips were introduced following a joint Army–Navy agreement in accordance with Naval General Staff Order No 162 of 21 August 1942 issued by Admiral Osami Nagano. This also required the painting of a white border on the fuselage hinomaru, introduced by Nakajima soon after the new order. The purpose of the white stripe on the cowling, which appears to have been applied to both sides, is unknown, but was also displayed on some aircraft of 3rd Kokutai's Rabaul detachment.

**29****A6M3 Model 32 Q-102 Houkoku-872 (construction number 3030) of FCPO Kazu-o Tsunoda, 2nd Kokutai, Buna, Papua New Guinea, August 1942**

Tsunoda was flying this A6M3 (Allied codename 'Hamp') manufactured on 30 June 1942 with Houkoku presentation number 872 (donated by a Korean businessman 'Bang Uiseok', or 'Hou Gisyaku' in Japanese) when his two wingmen were shot down and killed by P-400s of the 80th FS as they attempted to take off from Buna on 26 August 1942. He managed to avoid their fate and land his damaged Zero-sen, which had been hit ten times, back at Buna, where it was abandoned. 2nd Kokutai had arrived in Rabaul on 6 August 1942, and with their A6M3s hampered by lack of range for operations against Guadalcanal, undertook air defence duties, as well as providing a forward detachment at Buna. Tsunoda was another veteran of Zero-sen operations in China, claiming a RoCAF trainer over Chengdu on 26 October 1940 for his first victory. He flew with 2nd Kokutai (582nd Kokutai from November 1942) until May 1943, when he returned to Japan to become a flying instructor. After further combat service with 252nd and 205th Kokutais, during which he volunteered for Special Attack (kamikaze) duty, Tsunoda survived the war officially credited with nine victories.

**30****A6M3 Model 32 2181 Houkoku-877 (construction number 3035) of 2nd Kokutai, Lae, New Guinea, late 1942**

This A6M3, with Houkoku subscription dedication 877 from Hannan Fishery Products, was delivered to the IJNAF on 7 June 1942. It displays a similar double red chevron marking as seen on the aircraft depicted in Profile 28. In August 1942, 2nd Kokutai was equipped with 16 A6M3 'Hamps', but by October, despite additional reinforcements, it was down to eight aircraft. In November 2nd Kokutai was re-designated as 582nd Kokutai, and in early 1943 it began operating from airfields at Buin, on Bougainville, and Munda, on New Georgia.

**31****A6M3 Model 32 X-151 Houkokui-994 of F1c Kiyoshi Ito, 202nd Kokutai, Kendari, Celebes, November 1942**

3rd Kokutai was re-designated as 202nd Kokutai from November 1942. Ito had joined 3rd Kokutai before the outbreak of war, but as a junior pilot he had no opportunity for aerial combat until 4 April 1942 when he claimed a P-40 – possibly the 9th FS aircraft flown by 2Lt J L Livingstone, who was killed attempting to force-land his damaged aircraft at 34-Mile strip, near Darwin. Ito participated in the September–November Rabaul detachment Guadalcanal operations and then continued to serve with 202nd Kokutai during operations over northern Australia until November 1943, when he returned to Japan. Surviving the war with the rank of Flight Chief Petty Officer, Ito was credited with 18 victories and 14 damaged in 30 combats, receiving a special commendation for his successes.

**32****A6M3 Model 32 U-138 of 6th Kokutai Advance Detachment, Rabaul, August 1942**

6th Kokutai was originally intended as the garrison air-defence unit for Midway Island, but it lost all of its aircraft in the battle. At the end of August Lt Mitsugu Kofukada led an advance detachment of A6M3 'Hamps' to Rabaul to support the Guadalcanal campaign, the fighters' shorter range at first restricting them to operations over eastern New Guinea. By September 1942 the detachment was operating 12 A6M2s and 11 A6M3s. At that time the ratio of Southeast Area fighter strength was 62 per cent Model 21 and 37 per cent Model 32. However, by 10 October 1942, when the unit had moved to Buin, it was exclusively operating 28 A6M3s.

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**This book is dedicated to the memory of my late father who inspired a passion for aircraft and their history.**

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### **Front Cover**

Massacre in the mist. On 14 March 1941 the Japanese reacted to a reported concentration of Chinese I-153 fighters on airfields around Chengdu with a raid by B5N2 attack aircraft escorted by 12 Zero-sens of 12th Kokutai, the pioneering unit for Mitsubishi's fighter. In low clouds and mist, the strafing Zero-sens were engaged by Chinese fighters in a desperate, low-altitude battle that lasted 30 minutes. The robust and powerful 27-year-old AP01c Matsuo Hagiri was aloft in A6M2 3-171 and claimed three 'improved' I-15s (probably I-153s) shot down.

Hagiri was one of four pilots who, on 4 October 1940, had recklessly landed their Zero-sens under fire on Chengdu airfield at Taipingsze (now Taipingsi) in order to try to set fire to Chinese aircraft protected in revetments. Assailed by heavy ground fire, which thwarted their intentions, they all managed to get airborne again and avoid delivering intact Zero-sen fighters to the enemy! After promotion to Flight Chief Petty Officer and a stint as a flying instructor, Hagiri returned to operations in the Solomons with 204th Kokutai until he was seriously wounded and evacuated to Japan. On recovery, he participated in the air defence of his homeland, being the first pilot to be credited with a victory flying the N1K2 Shiden-Kai (see *Osprey Aircraft of the Aces 129 – J2M Raiden and N1K1/2 Shiden/Shiden-Kai Aces*) prior to being wounded again whilst intercepting B-29s. Hagiri survived the war with the rank of Ensign, being credited with 13 victories (Cover artwork by Ronnie Olsthoorn)