

A HARD RAIN

**OPERATION HAILSTONE : THE
US NAVY RAID ON TRUK LAGOON,
FEBRUARY 17–18, 1944**

Using official documents from the US Navy archives and other contemporary sources, **EDWARD M. YOUNG** provides a blow-by-blow account of the American action in the Caroline Islands over two days in February 1944 that revolutionised naval air warfare, proving the Fast Carrier Task Force's ability to take the battle to the heart of the enemy

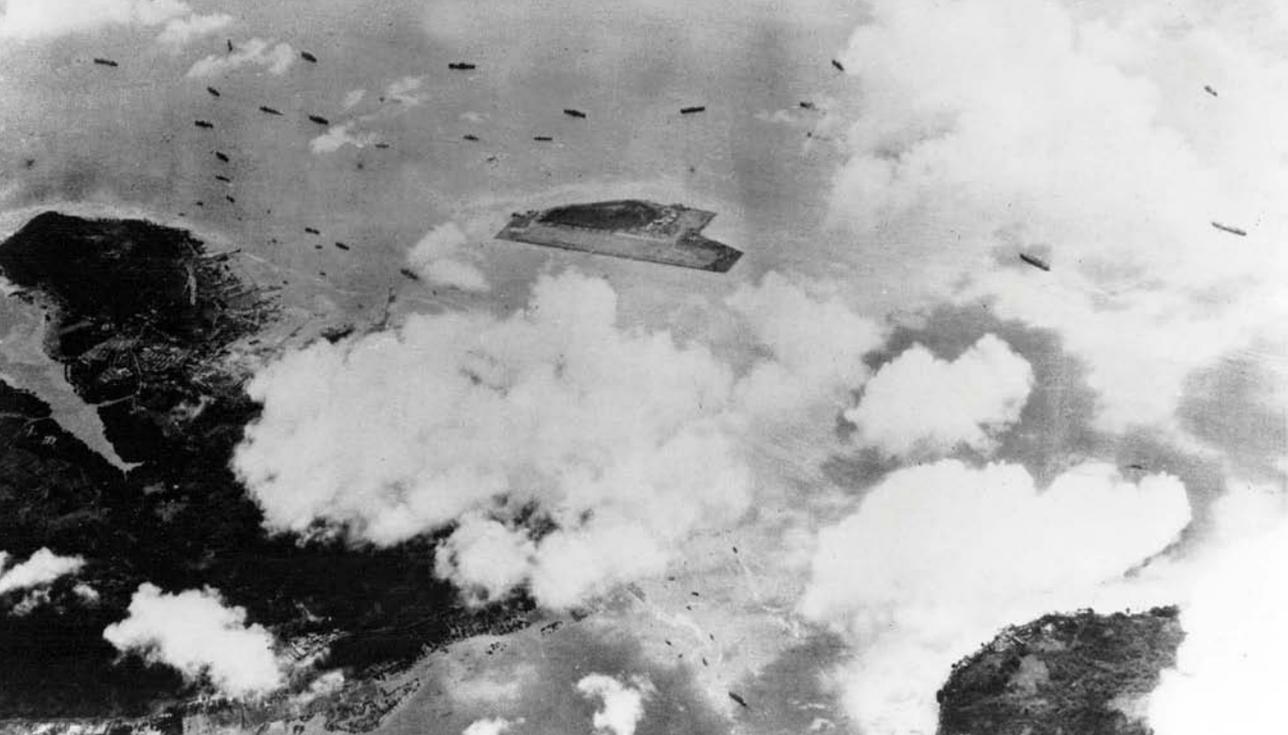
TRUK. MENTION of this Imperial Japanese Navy base in the Central Pacific's Caroline Islands stirred no little trepidation in the hearts and minds of many US Navy carrier aviators in early 1944. Shrouded in secrecy for more than a decade, rumoured to have been built into an impregnable fortress and anchorage for the Imperial Japanese Navy's Combined Fleet, Truk had acquired a reputation as the "Gibraltar of the Pacific", a veritable hornet's nest. Because of its strategic importance, in early February 1944 planners in the American Pacific Fleet turned their eyes on Truk as the next target for the Navy's Fast Carrier Task Force, TF 58, under the command of Rear Admiral Marc Mitscher.

America's War Plan Orange, the pre-war planning document outlining a strategy in the event of a war between the USA and Japan, envisioned an American march across the Central Pacific capturing island bases in the Gilberts and the Marshalls on the way to the Philippines, and an



The snarling Pratt & Whitney Double Wasp engines of the Grumman F6F Hellcats of US Navy squadron VF-10 were captured by an official war photographer as the fighters returned to the USS Enterprise after escorting an Air Group Ten strike on Truk during Operation Hailstone, one of the most significant air operations of the Pacific War. Eugene Valencia, a pilot with Hellcat unit VF-9, said on his return from a raid on Truk: "Those Grummans are beautiful aeroplanes; if they could cook I'd marry one!"





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ABOVE A southerly-facing photograph taken by one of the two Consolidated PB4Y-1s sent from Bougainville to photograph Truk on February 4, 1944. The curiously angular Eten Island and its airfield are clearly visible in the upper centre of the photograph, with the south-eastern corner of the much larger Dublon to the picture's left.

eventual blockade of Japan. By the summer of 1943 the US Navy had replaced its carriers lost in battle during 1942 with the newer *Essex*-class fleet carriers and the smaller *Independence*-class light carriers, and the air groups to man them. After "shakedown" strikes against Wake and Marcus Island, the Fast Carrier Task Force supported the invasion of the Gilbert Islands (Operation *Galvanic*) in November 1943 with the capture of Makin and Tarawa. The next target was the Marshall Islands (Operation *Flintlock*). The Navy's carrier force, now designated Task Force 58 under the command of Mitscher, began strikes against Kwajalein, Roi-Namur, Eniwetok and other Japanese bases in the Marshalls on January 29, 1944, three days before US Army and Marine Corps troops landed on Kwajalein. The latter fell on February 4, faster than expected.

THE NEED TO NEUTRALISE TRUK

The speed of the victory encouraged Admiral Chester Nimitz, Commander in Chief, Pacific Command (CINCPAC), to advance the timetable for follow-on operations. He proposed to Adm Raymond Spruance, Commander in Chief, Central Pacific Force (including TF 58), that American amphibious forces move quickly to seize Eniwetok, and at the same time launch a carrier strike on Truk to inflict severe damage on the base and prevent the Japanese from interfering with the Eniwetok operation. The date for both operations to begin was set for February 17.

The US Navy lacked intelligence about Japanese

defences and forces at Truk. On February 4 two US Marine Corps (USMC) Consolidated PB4Y-1s of VMD-254, flying out of Bougainville, made a high-altitude photo-run over Truk. Although the islands were partly covered in cloud, the aircraft obtained good coverage of most installations and photos of ships of the Japanese Combined Fleet and a large number of transports in Truk Lagoon.

In developing his plan for the carrier strike, Mitscher introduced a new technique; the strike would begin with a dawn fighter sweep over the Japanese bases with 72 Grumman F6F Hellcats to knock out enemy air opposition before the slower dive- and torpedo-bombers came in to strike installations and shipping in the lagoon.

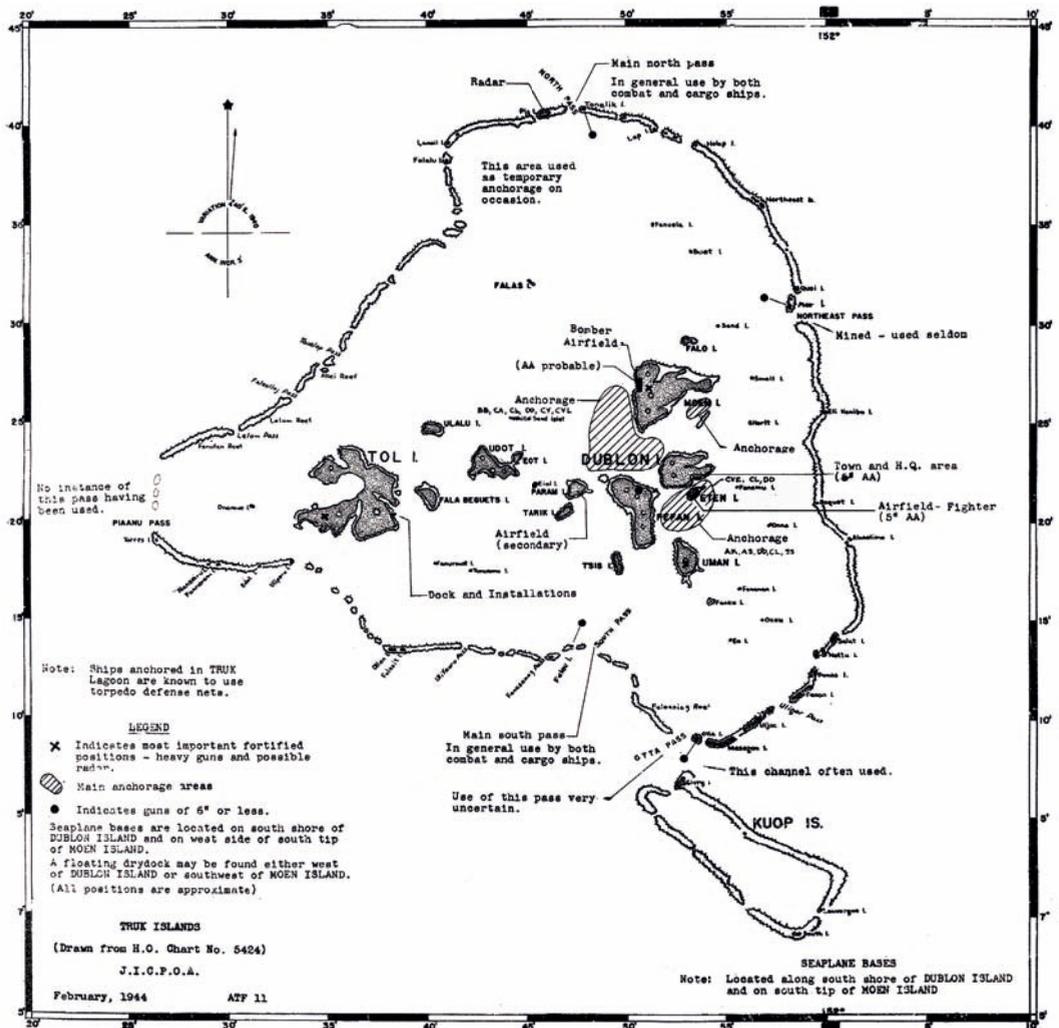
The operational plan for the first day of the attack called for a series of six strikes against Truk following the fighter sweep, labelled A to F, with each strike set 2hr apart to blanket Truk Lagoon during the entire day. The three Task Groups would send in their strike forces at 15min intervals, and each was assigned a specific anchorage to avoid duplication of attacks. When TF 58 was under way, the aircrews found out where they were headed. Commanding Air Group Nine on the *USS Essex*, Lt-Cdr Philip Torrey later said, "they announced our destination over the loudspeaker. It was Truk. My first instinct was to jump overboard".

The photo-reconnaissance of Truk prompted *Kaigun taishō* (Admiral) Mineichi Koga, commander of the Combined Fleet, to order its withdrawal to Palau, leaving two light cruisers,

TRUK LAGOON : JAPAN'S IMPREGNABLE PACIFIC FORTRESS?

LOCATED 1,120 MILES (1,800km) north-east of New Guinea, Truk Lagoon comprises 11 major islands surrounded by a reef 140 miles (225km) in circumference. Within this reef lies one of the best natural anchorages in the world, large enough to contain the Imperial Japanese Navy's (IJN) wartime Combined Fleet. Now part of the Federated States of Micronesia, Truk lay at the centre of the Japanese Mandated Islands, with Saipan to the north controlling the Marianas and Kwajalein to the east controlling the Marshall Islands, making the lagoon a natural base for the protection of these Japanese territories.

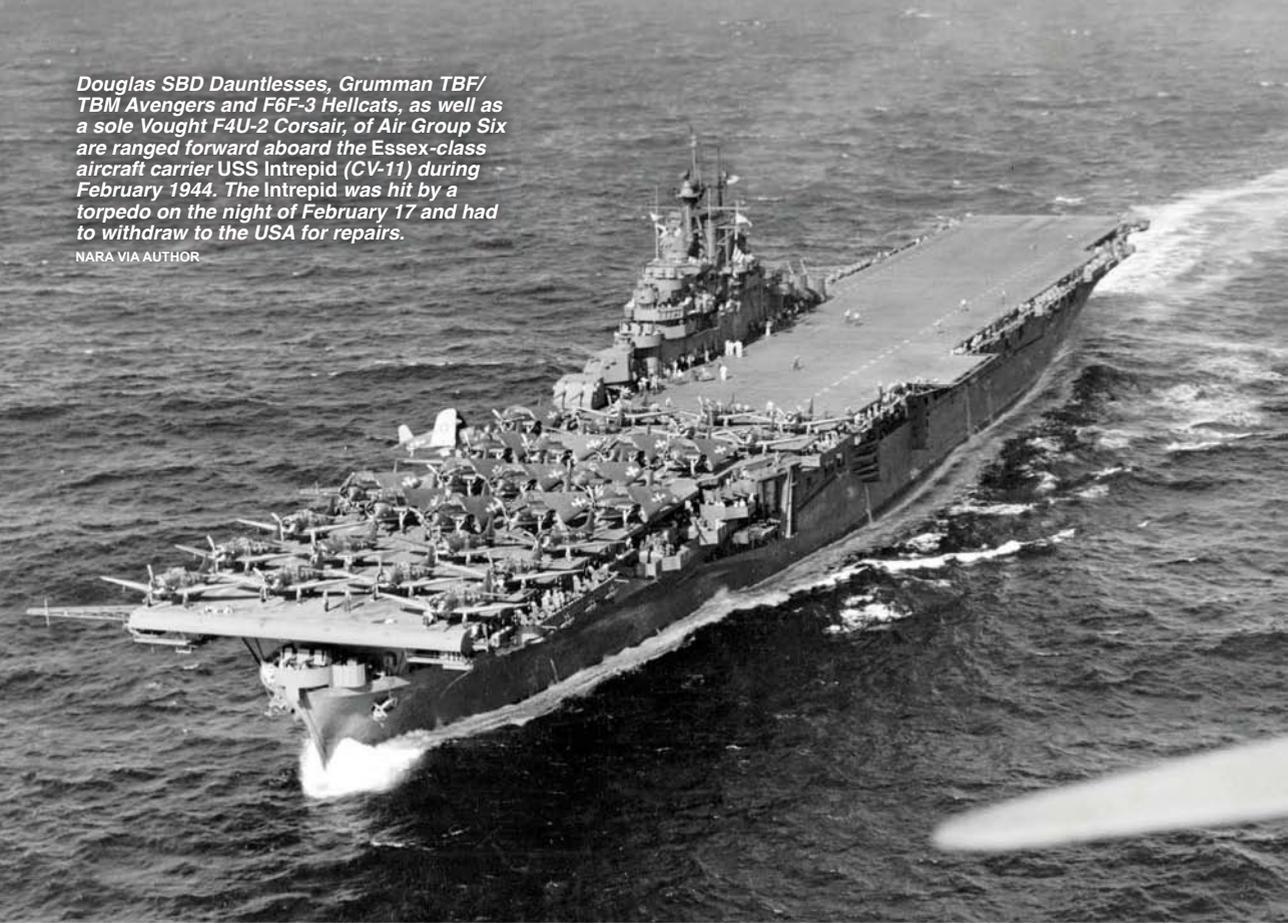
After Japanese forces captured positions in the Bismarck Archipelago and the Solomon Islands to extend Japan's defensive perimeter, Truk became an important staging post for war materiel destined for the South Pacific, and the base for the Combined Fleet from July 1942. By 1944 the IJN had built a seaplane base on Dublin and airfields on Moen, Eten, and Param, with another combined airfield and seaplane base on Moen. Replacement air units and aircraft used these bases for stopovers on their way to Rabaul. From Truk the IJN could also reinforce its bases in the Marshall Islands or the Marianas. **EMY**



ABOVE This official US Navy map of Truk Lagoon, marked with airfields, anchorages, minefields and radar installations, was created from the photographs taken by the US Marine Corps PB4Y-1s during their missions over Truk on February 4, 1944. A copy was given to all the aircrews participating in Operation Hailstone.

Douglas SBD Dauntlesses, Grumman TBF/TBM Avengers and F6F-3 Hellcats, as well as a sole Vought F4U-2 Corsair, of Air Group Six are ranged forward aboard the Essex-class aircraft carrier USS Intrepid (CV-11) during February 1944. The Intrepid was hit by a torpedo on the night of February 17 and had to withdraw to the USA for repairs.

NARA VIA AUTHOR



eight destroyers, and a number of auxiliary vessels. Fortuitously for the Americans, a large number of transports remained at Truk, as did upwards of 200 replacement aircraft awaiting pilots to ferry them south. These aircraft were parked close together on the packed airfields.

The Imperial Japanese Navy Air Force (IJNAF) had assigned the defence of Truk to the 26th *Kōkū Sentai* (Air Flotilla), which comprised the Mitsubishi A6M Zero fighters of the 201st, 204th and 501st *Kōkūtai* (Air Groups). The 4th *Konkyochitai* (Naval Base Force) incorporated the 902nd *Kōkūtai* with Mitsubishi F1M2 Type Zero Observation/Reconnaissance Seaplanes (Allied reporting name *Pete*) and Nakajima A6M2-N Navy Type 2 Floatplane Fighters (*Rufe*). There were also a number of other air units with land-based and carrier attack bombers, seaplanes and floatplanes. In total, on the day of the first carrier strike there were an estimated 365 Japanese aircraft on Truk's airfields and seaplane bases.

INTO ACTION

Coming in from the north-east, TF 58 began launching the fighter sweep a little over an hour before dawn on February 17, 1944. While the fighter squadrons on the light carriers stayed to provide combat air patrols (CAPs) over the Task Force, the larger fleet carriers sent their Hellcats

off to Truk, with the fighters from each Task Group assigned a specific altitude: 12 Hellcats from VF-10 and 12 from VF-5 went in at low level; VF-6 sent off 12 Hellcats and VF-9 sent off 11 to cover the medium altitudes, and VF-18 assigned 22 Hellcats to provide top cover at 25,000ft (7,620m). Launching in the pre-dawn darkness, the squadrons climbed to their assigned altitudes as they neared Truk Lagoon.

Japanese radar picked up the approaching carrier fighters about 30min before they reached the lagoon, but there was a delay in getting out an alarm to units on the three airfields. Not all the defending fighters got off in time. As Japanese fighters rose from Parem, Eten and Moen airfields, American Hellcats appeared overhead.

Lieutenant-Commander William "Killer" Kane, Air Group 10 commander and flight leader of the fighter sweep, brought the Hellcats of VF-10 in at 8,000ft (2,400m). He saw four Zero fighters (Allied reporting name *Zeke*) approaching from his right. The *Zekes* made a poorly executed pass against Kane and his wingman, Lt (jg) Vernon Ude, each shooting one down. Ude went after a third *Zeke* flying with one mainwheel down and set it on fire. Kane then led his wingman down to strafe Eten airfield, firing at two fighters he identified as *Tojos*, the Allied reporting name for the Imperial Japanese Army Air Force's (IJAAF) Nakajima

TASK FORCE 58 AND OPERATION HAILSTONE, FEB 17–18, 1944

FOR THE STRIKE against Truk, Task Force 58 marshalled three of its four Task Groups, organised as follows:

TASK GROUP 58.1

USS Enterprise (CV-6) / Air Group Ten

Units: VF-10 (32 x Grumman F6F-3); VB-10 (30 x Douglas SBD-5); VT-10 (18 x Grumman TBF-1); VF(N)-101, Detachment A (4 x Vought F4U-2)

USS Yorktown (CV-10) / Air Group Five

Units: VF-5 (36 x F6F-3); VB-5 (36 x SBD-5); VT-5 (18 x TBF-1); VF(N)-76, Detachment B (4 x F6F-3N)

USS Belleau Wood (CVL-24) / Air Group 24

Units: VF-24 (26 x F6F-3); VF-6 (12 x F6F-3); VC-22B (8 x TBF-1)

TASK GROUP 58.2

USS Essex (CV-9) / Air Group Nine

Units: VF-9 (36 x F6F-3); VB-9 (36 x SBD-5); VT-9 (17 x TBF-1, 2 x General Motors TBM-1 Avengers)

USS Intrepid (CV-11) / Air Group Six

Units: VF-6 (36 x F6F-3); VB-6 (36 x SBD-5); VT-6 (14 x TBF-1, 5 x TBM-1); VF(N)-101, Detachment B (4 x F4U-2)

USS Cabot (CVL-28) / Air Group 31

Units: VF-31 (26 x F6F-3); VT-31 (8 x TBM-1C, 1 x TBF-1)

TASK GROUP 58.3

USS Bunker Hill (CV-17) / Air Group 17

Units: VF-18 (37 x F6F-3); VB-17 (31 x Curtiss SB2C-1); VT-17 (19 x TBF-1, 1 x TBM-1); VF(N)-76, Detachment A (4 x F6F-3N)

USS Monterey (CVL-26) / Air Group 30

Units: VF-30 (25 x F6F-3); VT-30 (5 x TBF-1, 4 x TBM-1)

USS Cowpens (CVL-25) / Air Group 25

Units: VF-25 (24 x F6F-3); VT-25 (9 x TBF-1)

TF 58's fourth Task Group, TG 58.4, was assigned to support Operation *Flintlock*, the landings on Eniwetok during February 17–23, 1944.

Source: Morrison, S.E.: *History of United States Naval Operations in World War II Volume 7: Aleutians, Gilberts and Marshalls, June 1942–April 1944* (Little, Brown & Co)

Ki-44 Shoki, as they were taking off, sending both down in flames. The pilots of VF-10 quickly became embroiled in a dogfight with formations of *Zekes* and *Rufes* that had managed to get off and climb to altitude before the attack began. Finding himself behind a *Zeke*, Lt (jg) Joseph "Frenchy" Reulet promptly shot it down before going after a *Rufe*, which pulled up into a loop to evade him. Reulet followed and fired just before his Hellcat stalled, sending the *Rufe* down in flames.

Reulet got his third kill of the morning when he shot down a Mitsubishi A6M3 Model 32 (a Zero modified with square wingtips, Allied reporting name *Hamp*) that was attacking another Hellcat. One pilot, Ens Linton Cox, was lost by VF-10 during the fighter sweep, probably to fire from a *Rufe*. In total VF-10's pilots claimed 14 Japanese aircraft shot down and a further five destroyed in the strafing attack on Eten.

On reaching Truk eight of VF-5's Hellcats went down to strafe the seaplane base at Dublon, while four remained above to cover them. The strafers claimed five flying-boats — three Kawanishi H6Ks (Allied reporting name *Mavis*) and two Kawanishi H8Ks (*Emily*) — as destroyed before they became involved in the developing mêlée. The Hellcat squadrons reported that they ran into between 20–30 *Zekes* and *Hamps* over Truk, 6–8 *Rufes*, 6–8 *Petes* and 6–8 Nakajima B5N

Kates. The VF-5 pilots claimed three *Zekes*, three *Rufes* and a single *Pete* for the loss of one Hellcat to anti-aircraft fire.

TUMULT IN THE CLOUDS

After making their rendezvous the Hellcats of VF-6 and VF-9 flew towards Truk at 1,000ft (300m). Around 15min before they reached the lagoon they climbed to 14,000ft (4,300m), observing the Hellcats of VF-5 and VF-10 below them. The two squadrons headed toward the airfield on Moen Island. As ten aircraft from VF-6 spiralled down to begin their strafing runs, Lt (jg) Alexander Vraciu and his wingman Ens Louis Little spotted a formation of *Zekes* above them that had taken off in time to climb to altitude.

Vraciu and Little turned in to the attack, forcing the leader of the Japanese formation to break off. As Vraciu reported later, "We noticed that the Jap pilots weren't reluctant to attack, but once they were cornered they'd dive steeply for the water or cloud cover. The Hellcat can outmanoeuvre the Zero at speeds of 250kt and better so we began to follow them down. I was able to follow three 'planes down in this manner, two being Zeroes and one a *Rufe*, and set them afire". Vraciu got one more *Zeke* dodging in and out of cloud. Another VF-6 pilot, Lt (jg) Cyrus Chambers, claimed three fighters shot down and a probable on a fourth,



ABOVE A Mitsubishi A6M Zero (Allied reporting name Zeke) is caught in the gunsight of a US Navy Hellcat during the fighter sweep over Truk on the first morning of Operation Hailstone. **LEFT** Lieutenant (junior grade) Alex Vraciu proudly displays nine rising-sun emblems on his F6F Hellcat, each depicting an aerial victory, including three Zekes and a Rufe floatplane fighter downed during operations over Truk.

almost equalling Vraciu's score. In strafing runs against the airfields on Moen and Parem Islands VF-6 claimed 24 aircraft destroyed to add to the claims of 11 in the air for the loss of one pilot, again to anti-aircraft fire.

Returning from the fighter sweep with the highest score against the Japanese, VF-9's three divisions had each fought a separate battle. The unit's assigned mission was to provide cover for the squadrons at lower altitude, with the secondary mission of strafing the airfields on Parem and Moen. As the three divisions arrived over the target area separately, Japanese fighters bounced the squadron's third division consisting of Lt Charles Moutenot and Lts (jg) Bill Bonnaeu and Eugene Valencia. Breaking away in violent evasive action, the three pilots became caught up in their own dogfights, Moutenot claiming one of his attackers and Bonnaeu dispatching a *Zeke* and three *Rufes*. Valencia dived from 14,000ft to low over the water with 6–8 *Zekes* bracketing his Hellcat. Two of the *Zekes* pulled up ahead of him and he shot them both down. Turning into two more of his attackers, he shot down the leader and headed for home.

At about the same time, VF-9's second division became embroiled in a series of dogfights lasting some 30min. Outnumbered, the division had a stiff fight against several formations of *Zekes*, losing one pilot, Lt (jg) H.A. Schiebler, who may have been shot down in error by another Hellcat. Violent evasive action and cloud cover broke up the division into sections, and the sections into individual fighters, even though their training stressed the necessity of never flying alone.

Leading the division, Lt Jack Kitchen shot down a *Rufe* in a head-on attack shortly before firing a

long burst into a *Zeke*, which went down in a dive, although Kitchen did not see it crash. Ensign John Franks, Kitchen's wingman, became separated and, under attack from a *Zeke* coming in from above, dived to gain speed before pulling up while dropping his flaps to turn inside the *Zeke*. As the Japanese fighter flew past, Franks fired and the *Zeke* exploded. Climbing back up, Franks encountered a single *Pete* and shot this down, the pilot and observer baling out. Franks's third kill came in a head-on run against a *Zeke*, which burst into flames, the pilot taking to the silk.

The commander of VF-9, Lt-Cdr Herbert Houck, was leading the first division, which did not come under attack. Seeing the other Hellcat squadrons dealing successfully with the Japanese fighters, Houck led his division down in a strafing attack on Moen airfield and seaplane base. In five successive runs, the four fighters set 10–12 aircraft on fire before moving on to the airfield on Parem Island, where the division set fire to another 15 aircraft in five runs across the field.

The pilots caught several aircraft taking off from both fields. Houck claimed a *Pete* taking off from Moen seaplane base and a *Kate* taking off from Parem. Two *Petes* were shot down over Moen and two *Kates* over Parem by Lt (jg) Louis Menard. In total, VF-9 claimed 21 aircraft shot down in the air and another 25–27 destroyed on the ground. Flying top cover, VF-18 missed most of the fighting, claiming only one *Zeke* destroyed and another as a probable.

ENTER THE BOMBERS

Hard on the heels of the fighter sweep came the first strikes against shipping in the lagoon and the airfields. The strike forces from the three

IMPERIAL JAPANESE NAVY AIR FORCE UNITS ON TRUK

THE FOLLOWING IMPERIAL Japanese Navy Air Force (IJNAF) units were on Truk during February 1944:

4th *Konkyochitai* (Naval Base Force)

Units: 902nd *Kōkūtai* (25 x Aichi E13A Navy Type 0 Reconnaissance Seaplane, Allied reporting name *Jake*, unknown numbers of Nakajima A6M2-N Navy Type 2 Seaplane Fighters, reporting name *Rufe*, and Mitsubishi F1M Navy Type 0 Observation Seaplanes, reporting name *Pete*)

22nd *Kōkū Sentai* (Air Flotilla)

Units: 755th *Kōkūtai* (8 x Mitsubishi G4M Navy Type 1 Attack Bomber, reporting name *Betty*); 552nd *Kōkūtai* (15 x Nakajima B5N2 Navy Type 97-3 Carrier Attack Bomber, reporting name *Kate*)

26th *Kōkū Sentai*

Units: 204th *Kōkūtai* (31 x Mitsubishi A6M Navy Type 0 Carrier Fighter)*; 201st *Kōkūtai* (8 x Mitsubishi A6M Navy Type 0 Carrier Fighter); 501st *Kōkūtai* (25 x Mitsubishi A6M Navy Type 0 Carrier Fighter); 251st *Kōkūtai* (9 x Nakajima J1N1-S Navy Nightfighter, reporting name *Irving*); 582nd *Kōkūtai* (10 x Nakajima B6N1 *Jill*)

23rd *Kōkū Sentai*

Units: 753rd *Kōkūtai* (10 x Mitsubishi G4M *Betty*)

28th *Kōkū Sentai*

Units: 551st *Kōkūtai* (14 x Nakajima B6N1 *Jill*)

* Allied reporting name *Zeke*, except for Model 32 variants, reporting name *Hamp*

Source: Lindemann, Klaus: *Hailstorm Over Truk Lagoon* (Pacific Press/Maruzen, 1991)

Task Groups, composed of dive- and torpedo-bombers with an escort of Hellcats, arrived over Truk at 15min intervals. Air Group Ten from the *USS Enterprise* and Air Group Five from the *USS Yorktown* went in first, followed by Air Group Nine from the *USS Essex* and Air Group Six from the *USS Intrepid*, with Air Group 17 from the *USS Bunker Hill* coming in last.

While the divebombers and most of the torpedo-bombers went after shipping, seven Grumman TBF Avengers from VT-10 dropped fragmentation bombs and incendiary clusters on the airfield at Eten, then went down to strafe the aircraft lined up on the field. Fifteen minutes later nine TBFs from VT-6 came in to do the same on Moen seaplane base, reporting one *Mavis* and 13 *Rufes* destroyed in the attack. Winds interfered with the bombing, but, while none of the ships attacked sank outright, the Avengers, Douglas

SBD Dauntlesses and Curtiss SB2C Helldivers scored many hits on freighters, tankers and naval vessels, leaving a number smoking and on fire. This first strike cost TF 58 one SBD from VB-6 and one SB2C from VB-17.

The escorting Hellcats ran into several formations of Zeroes. Pulling up from a strafing run with the Avengers over Eten field, Lt (jg) Walter Harmon of VF-10 saw a Zero below him and with a 2sec burst at 30° deflection hit its engine, sending the Japanese fighter diving down into the water. Harmon damaged a second Zero, then caught a third after a 7min chase. Coming in from directly astern, Harmon saw the Zero's engine explode under his fire and the Japanese fighter slamming into the water. Harmon then caught a *Rufe* taking off and shot it down with a single burst. Other VF-10 pilots claimed five more aircraft destroyed, VF-6 adding another three.

A Hellcat of VF-9 prepares to launch from the USS Essex to escort Air Group Nine's Dauntlesses and Avengers to Truk. Hellcat pilots reported that at speeds above 200kt the F6F could match the Zero in manoeuvrability and that, when hit, the Japanese aircraft burned quickly.

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ABOVE Two VF-10 Hellcat pilots head back to the ready-room after returning from a mission over Truk. The unit was activated in June 1942 with Grumman F4F Wildcats, and completed its first combat tour aboard the *Enterprise* at Guadalcanal during 1942–43. Re-equipping with F6Fs, the unit rejoined the ship and sailed for the South Pacific.

The second strike series began 1hr 15min later, the Air Groups again coming in over the lagoon at 15min intervals. The TBFs of VT-10 went after the light cruiser *Katori* and the destroyer *Maikaze*, both trying to escape Truk Lagoon, scoring hits on both. Other freighters and tankers in the lagoon came under continued attack. The Dauntlesses of VB-10 scored hits on a 19,200-ton converted whaling ship, two 1,000lb (455kg) bombs blowing up the ship's stern and leaving it sinking, at the cost of one SBD lost to flak.

STIFFENING RESISTANCE

More Zeroes got off from the damaged airfields and went after the attackers. The second division of VB-10 came under attack from four Zeroes and a *Rufe*. The Japanese fighters concentrated on Ens Bob Wilson's SBD, his gunner Howard Honea claiming one *Zeke* shot down and another damaged before Wilson could get his damaged Dauntless into nearby clouds to escape.

One of VF-10's divisions had a stiff battle with a formation of determined Zeroes that lasted 20min, Lts (jg) Peter Shonk and John Shinneman, with Ensigns John Kincaid and Perrault, taking on three *Zekes* in a head-on attack. Shonk damaged one as it flew past and, as the remaining two Japanese fighters turned back to fight, three more *Zekes* joined the fight. Shinneman shot a *Zeke* off Perrault's tail and sent it down smoking. Kincaid then shot a *Zeke* off Shinneman's tail. Shonk, Shinneman and Kincaid managed to damage one *Zeke* each but all three returned to

the *Enterprise* with their Hellcats shot up, lucky to have survived.

Commanding Air Group Nine, Philip Torrey led a formation from the *Essex* and *Intrepid*. Air Group Nine sent out 14 VF-9 Hellcats to escort nine TBFs of VT-9 and 12 SBDs from VB-9, while Air Group Six sent out the same number of aircraft from VF-6, VB-6 and VT-6. As the bombers approached the lagoon, Torrey scouted ahead to locate targets for the bombers. Seeing that most of the Japanese ships were near Dublon, he sent VB-9, VT-9 and VT-6 to attack shipping and ordered VB-6 and three aircraft from VT-6 to bomb the seaplane base at Moen and the airfield on Eten.

The Avengers and Dauntlesses split up into small groups of three and six aircraft to attack the ships below. As they began their attacks, the bombers could see some 15–20 Japanese fighters in the air over the islands. Torrey led his division of Hellcats down with the bombers to strafe the ships, but just as the bombers began their dives Lt A.B. Smith, leading the second element of Torrey's division, saw tracers fly past his fighter. He threw his aircraft into a skid and chopped the throttle. His Japanese attacker pulled up into a steep climb. Smith had no trouble following the Zero, getting in a burst that set the Zero's wing on fire, sending it spinning down into the lagoon. Seeing two Zeroes taking off from Moen airfield, Smith went after them and shot both down. Returning to the *Essex*, Smith ran out of gas and had to ditch, but a destroyer rescued him.

The Zero that attacked Smith was one of around



ABOVE Even in the heat of battle the US Navy made sure official war photographers were on hand to document the action. One of numerous excellent images captured during the raid on Truk, this example shows a deck handler directing forward a VB-10 Dauntless with a 500lb bomb under the fuselage, for launch from the Enterprise.

15 *Zekes* and *Hamps* that the VF-9 pilots saw flying at 10,000ft (3,050m) and 3,000ft (915m). Leading the second division, Lt Mike Hadden had dived down to strafe with his wingman, Ens Lewis Matthews, not having seen the approaching Japanese fighters. As he pulled up from his strafing run, Hadden and Matthews came under attack from a single Zero, but turned in to the attack, forcing the Zero to break off and head into cloud. The pair went in pursuit, coming in behind the Zero as it emerged. The Zero pulled up in a loop, Hadden getting in a good burst as it reached the top. Undeterred, the Zero pilot attempted to come in behind the two Hellcats, but Hadden outmaneuvered the Japanese pilot and sent him down in flames. Continuing to fly around the area, Hadden attacked and shot down two more Zeros, as did Matthews.

Leading Hadden's second element, Lt (jg) Hamilton McWhorter saw three *Zekes* off to his left just as he was about to follow Hadden down in a strafing attack. Instead, he turned into the Japanese fighters. The first *Zeke* in the formation flew past him. McWhorter fired on the second, causing the engine to burst into flames and the pilot to bale out. He fired on the third *Zeke* as it came at him and shot this fighter down as well.

McWhorter's wingman, Lt (jg) Bill Gehoe, was in a perfect position as the first *Zeke* flew past McWhorter. Firing head-on, Gehoe saw the *Zeke* start to smoke and explode in front of him. Gehoe then found himself in a head-on attack on a second *Zeke*, and again opened fire, the Japanese

fighter exploding almost immediately. Shortly thereafter McWhorter closed on a *Hamp* making a climbing turn to port ahead of him. Opening fire from the port quarter, McWhorter saw the *Hamp* begin to smoke and then start a "Split-S". McWhorter followed, getting off several more bursts that set the *Hamp* on fire, the Japanese pilot baling out into the lagoon below.

MEANWHILE...

Air Group Nine's SBDs attacked a destroyer and a large freighter near Dublon, getting hits on both. The TBFs of VT-9 had better luck, claiming two ships sunk and two more severely damaged in bombing attacks. Three VT-6 TBMs (General Motors-built Avengers) dropped 2,000lb (900kg) bombs on Eten Island's airfield, while the others went after shipping with 500lb (225kg) bombs. Lieutenant James E. Bridges was lost when he dodged anti-aircraft fire to make a successful run on a freighter that proved to be an ammunition ship, which exploded just as Bridges passed over. *Zekes* attacked another VT-6 TBM that ditched outside the lagoon, the crew being rescued.

The SBDs of VB-6 attacked the seaplane base and a large freighter, getting hits on the freighter and destroying four aircraft at the seaplane base. Hellcat pilots Lts (jg) Herschel Pahl and Wilton Hutt of VF-6 each claimed a *Zeke* shot down, but other Japanese fighters attacked the SBD formation and shot down one of the Dauntlesses.

Taking off 15min after Air Group Six and Air Group Nine, Air Group 17 followed with 17

Helldivers and nine TBMs with an escort of four Hellcats from VF-18 and 17 from VF-25 from the *USS Cowpens*. The TBMs and two of the SB2Cs attacked the *Katori*, getting more hits and slowing the light cruiser down to a crawl. The rest of the Helldivers scored hits on a freighter.

The third and fourth strikes of the day went in late in the morning and shortly after noon. The Air Groups directed most of their efforts at hitting vessels trying to leave Truk Lagoon via the North Pass, the *Katori* and *Maikaze* coming under repeated pounding. On these strikes many of the Avengers carried torpedoes, VT-9 scoring three hits amidships on the *Katori*, stopping it dead in the water. In contrast, VB-9's SBDs failed to damage the *Maikaze*, getting only near misses. On the fourth strike the SBDs of VB-6 hit the *Maikaze* in the bow, bringing the destroyer to a halt. The accompanying Hellcats made repeated strafing runs on the damaged ships and shortly afterwards American ships sank both with gunfire.

Anti-aircraft fire over the lagoon was still heavy, claiming two bombers from the *Intrepid* during the third strike, but in the middle of the day Japanese air resistance was sporadic. The Zero units had suffered heavily in the early-morning fighter sweep and the airfields on Eten and Moen remained under attack at regular intervals.

Some Zeroes were able to put up some resistance in the afternoon (see *Avenger vs Zero* panel on page 87), and one of them may have claimed the life of Lt-Cdr John Philips, commander of Air Group Six, and his wingman, Ens John Ogg. Philips was flying a Hellcat as Target Observer, directing and co-ordinating the attacks of the Air Group's dive- and torpedo-bombers. He and Ogg failed to return from the third strike and were listed as missing in action.

MAINTAINING THE PRESSURE

During the fifth strike of the day the bombers concentrated mostly on shipping in and around the anchorages near Dublon, Fefan, Eten, Uman and Moen islands and the airfield on Parem Island. The bombers scored hits on numerous ships, leaving a tanker burning and several freighters on fire. The Hellcats of VF-10 strafed Parem airfield, claiming five aircraft destroyed. Shortly thereafter VT-9 attacked the airfield with fragmentation bombs, claiming another five aircraft. Launching from the *Intrepid*, VB-6 fielded 12 SBDs, escorted by 12 Hellcats from VF-6, to attack a small convoy west of Truk. The divebombers sank a tanker and damaged a freighter that sank sometime later.

The Hellcats of the *Yorktown's* VF-5 came under attack from a formation of 10–15 *Zekes* while escorting the TBFs of VT-10. Coming in toward the lagoon, three divisions of Hellcats went in

with the TBFs, while a fourth division covered the SBDs. Just as the TBFs reached their pushover point at 14,000ft to begin their attacks, a formation of *Zekes* dived down out of the sun on Lt (jg) Robert Duncan's Hellcat division. A dogfight developed, with the *Zekes* making repeated passes against the Hellcats, but these attacks were uncoordinated and concluded with poor recovery techniques. This enabled the Hellcat pilots to break up the Japanese attacks and claim six Zeroes destroyed and two probables. Duncan, who had two previous victories, claimed four Zeroes destroyed, making him an "ace" (a pilot with five or more confirmed aerial "kills").

Other Hellcats also ran into *Zekes* while covering the Avengers. The second element leader, Lt (jg) B.L. Taylor, claimed one shot down and his wingman claimed a second. Division leader Lt (jg) Theodore Schofield started a strafing run on the airfield on Eten, but pulled up when he saw *Zekes* flying above him, two of which he dispatched, his wingman Ens James Brosnahan claiming a third. One of the Zeroes they claimed crashed into three *Kate* bombers on Eten airfield, all four aircraft bursting into flames. Leading a division of four Hellcats as Target Observer, Lt-Cdr E.E. Stebbins, commander of Air Group Five, ran into a formation of Japanese fighters, claiming a *Hamp* shot down, his wingman claiming a second.

The sixth and last strike of the day brought more attacks on the airfields and the last air combats of Operation *Hailstone*. Mitscher wanted to make sure that Truk's airfields could not be used to launch night raids against TF 58, so he sent the air groups out to disable the airfields and drop delayed-action bombs that would go off through the night.

Air Group Ten bombed the airfield on Moen. The TBFs of VT-10 flew over the field dropping 100lb (45kg) fragmentation bombs, followed by the SBDs of VB-10, which attacked revetments, claiming nine Mitsubishi G4M *Betty* bombers destroyed. Five of the 12 VF-10 Hellcats escorting the bombers dropped single 1,000lb bombs with delayed-action fuzes on the runway. Two divisions followed, strafing aircraft on the airfield and setting 11 fighters on fire.

Air Group Five went to Parem, bombing the airfield there and dropping delayed-action bombs. Following on, Air Group Nine bombed and strafed Parem, working over the aircraft that had been strafed during earlier strikes, while Air Group Six took on Moen. Air Group 17 attacked the airfield on Eten, accompanied by five Hellcats from VF-25, each carrying a single 1,000lb bomb. After the Hellcats had dropped their bombs, the SB2Cs of VB-17 went into their dives through heavy anti-aircraft fire that killed one of the Helldiver gunners, dropping their bombs on the service apron and along the runway.

As he led his division away from Moen airfield after its second strafing pass, Walter Harmon saw a *Zeke* 1,500ft (455m) below him, then a second on his starboard beam. Harmon made a high-side run on the *Zeke* below him, but the Japanese pilot turned into the attack, firing on Lt (jg) Woodward Hampton, Harmon's section leader, who was heading after the second *Zeke*. Harmon continued after the first *Zeke*, which was being flown by a pilot of real ability. Harmon and the Japanese pilot fought for 15min, an exceptional length of time in air combat, until Harmon got in a burst that apparently killed his opponent. The *Zeke* went straight into the side of a mountain on Moen.

While Harmon was fighting his extended combat, two more Zeroes entered the fray, latching on to Lt (jg) Larry Richardson, Hampton's wingman. Hampton had been forced to withdraw after a *Zeke* had damaged his tail, and headed for the Northeast Pass. Richardson fought off the Zeroes as best he could, until one Japanese pilot latched on to his tail and peppered the Hellcat with cannon and machine-gun fire. Harmon returned in time to drive the *Zeke* off Richardson's tail. Returning to the *Enterprise*, Richardson found that he could not lower the undercarriage, so ditched alongside a destroyer.

Meanwhile, Hampton had hoped to find friendly aircraft around the Northeast Pass, but instead found a *Hamp*, a *Zeke* and a *Rufe* in the area awaiting crippled American aircraft. All three made repeated attacks on Hampton, who noticed that the pilot of the *Hamp* would pull out of his runs close to his Hellcat. Hampton pulled up and fired on the *Hamp*, finally hitting the Japanese fighter. The *Hamp* started smoking, rolled over and headed down toward the sea. After several more runs, the *Zeke* pilot made the same mistake, pulling up ahead of Hampton, who opened fire. The *Zeke* burst into flames and rolled away to port. By now Hampton had only his three port machine-guns firing. As the *Rufe* came in on him, he chopped the throttle and fired on the floatplane fighter as it flew past. The *Rufe* climbed away and did not return. Returning to the Task Force, Hampton found that his controls were damaged, so he also ditched successfully near a destroyer.

THE EMPIRE STRIKES BACK

The night of February 17 was eventful for both sides. During the night a small formation of IJNAF *Kate* torpedo-bombers came after TF 58. The aircraft came in singly from around 2100hr. Nightfighters were launched to hunt down the Japanese bombers, but without success. The Task Force's radars identified a contact at around midnight. This aircraft made an attack on the



AVENGER vs ZERO

DESPITE HEAVY LOSSES during the first early-morning wave of strikes on February 17, some IJNAF Zeroes managed to take off against the afternoon attacks, and one of these nearly shot down one of VT-10's TBFs. As the US Navy squadron's formation began an attack on shipping on a large freighter steaming near Dublon Island, Lt (jg) Bob Jones found himself separated from the rest of his section and alone. Flying a single Avenger over Truk Lagoon was not for the faint-hearted and Jones soon attracted the unwanted attention of a *Zeke*. His first inkling of trouble came when bullets began raking his wings and cockpit. Jones looked out to see flames pouring out of his port wingroot. Alerting his crew to prepare for a ditching, he dived down to the sea to escape his attacker.

Jones's unlikely rescuer was fellow VT-10 pilot Lt (jg) Charles Henderson. Heading back to the rendezvous, Henderson spotted a TBF ahead of him trailing smoke with a *Zeke* on his tail. Despite the fact that he was flying the portly Avenger and not a Hellcat, Henderson dived down to get on the *Zeke*'s tail, only to discover that his wing guns were out of ammunition from an earlier attack on a *Pete* floatplane. He told his turret gunner that he was going to pull up alongside the *Zeke* to give the gunner a clear shot, but this attempt made the Japanese pilot "mad as hell", although it did distract him away from Jones's damaged Avenger.

Henderson then engaged in a remarkable one-on-one combat with the Japanese pilot. As the *Zeke* came in on a high-side run, Henderson turned in to the attack and did a half snap-roll just before the *Zeke* could open fire. The Avenger and the *Zeke* went at each other four times, until the Japanese pilot ran out of ammunition. With a waggle of wings, he flew off to his base.

Jones, meanwhile, had made it back to the *USS Enterprise*, where his extensively battered aircraft was promptly pushed over the side.

TOP Bob Jones climbs out of his Avenger on the *Enterprise* having been mauled by a *Zeke*; note the bullet holes in the leading edge of the TBF's wing.



LEFT Pilots of VF-10 — the “Fighting Ten” — share a laugh with their Air Group Ten Commander, Cdr William “Killer” Kane, seated at far right. Among the pilots are Joseph “Frenchy” Reulet, seated second from left, and Lt (jg) Philip Kirkwood, seated third from left, who was credited with four kills in the Hellcat and another eight when the unit converted to the F4U Corsair in 1945. NARA

OPPOSITE PAGE The final strike of Operation Hailstone on February 18, 1944, set fire to the oil storage tanks on Dublon Island, creating a huge pall of black smoke that rose thousands of feet into the air above the lagoon. This attack was left until last so as not to reduce visibility.

Intrepid, launching a torpedo that struck the carrier astern, jamming the rudder and opening a hole in the hull. The *Intrepid* had to withdraw from Task Force 58.2 and return to the USA.

At around 0400hr on the morning of February 18, 12 TBFs of VT-10 launched from the *Enterprise* for the US Navy’s first low-altitude night-bombing attack on enemy shipping from a carrier. Before leaving for combat in the Pacific, the crews of VT-10 had practised such attacks for months, using radar to identify targets. The three divisions of Avengers flew the 88 miles (140km) to Truk, where they split up, five aircraft circling the Northeast Pass, while the other seven flew across the lagoon to circle the north-west corner. The Avengers went in individually on their radar-guided attack runs, the aircraft circling the Northeast Pass covering the anchorages around Moen and Eten islands, their colleagues to the north-west taking the large anchorage area west of Moen and Dublon islands.

Each Avenger carried four 500lb (225kg) bombs. The procedure VT-10 had practised called for the pilots to identify a target on radar, approach the target at an altitude of 1,500ft (450m) and a speed of 180kt, and count for 2sec once the target had disappeared under the nose of the Avenger before releasing the bombs. Most pilots went in at a much lower altitude to make sure of hitting their target. The bombs had 5sec-delay fuzes to allow the Avenger to escape the blast. The profusion of ships and small islets in the lagoon made it difficult to identify targets on the radar, requiring several approaches.

As the Avengers began their runs into the lagoon, a red flare bloomed above Moen signalling an American attack. The night sky erupted with

anti-aircraft fire as batteries on the islands and ships sought out the American aircraft, firing blindly up into the sky. As the aircraft came closer, the gunners could aim at their exhaust flames, and several Avengers were hit as they went over the anchorages. As one pilot finished his run, he would call on the radio for the next crew to begin its attack. The attacks went on for 30min. In return for the loss of one Avenger to anti-aircraft fire, VT-10 claimed eight ships destroyed and five damaged during the night attack.

The second day of strikes against Truk was something of an anti-climax. The attacks began with another fighter sweep to clear the air of any Japanese aircraft before the bombers arrived. Fighters from the *Enterprise*, *Yorktown*, *Essex* and *Bunker Hill* came in over Truk to find not one Japanese aircraft in the air. The Japanese had apparently flown out any remaining operational aircraft during the night.

Units VF-5 and VF-10 went down to strafe the airfields on Eten, Moen and Parem, raking aircraft already damaged in previous attacks. The Hellcats of VF-9 strafed Moen, then went after shipping. During the last strafing attack anti-aircraft fire hit Lt (jg) George Blair’s Hellcat, forcing him to ditch within Truk Lagoon south of Uman Island. While calling for a rescue, nine of his squadron mates circled above protecting him, each leaving only when their fuel was low. When a Japanese destroyer headed toward Blair’s liferaft, the Hellcats made strafing runs, forcing the destroyer to turn away. This went on for 30min, until there were only two Hellcats remaining with enough fuel to cover the downed airman. The Japanese destroyer eventually steamed away.

By this time the *USS Baltimore* had launched a



Vought OS2U-3 Kingfisher rescue floatplane. With an escort of Hellcats from VF-9, Lt (jg) Denver Baxter set off for Truk Lagoon. Baxter alighted near the exhausted fighter pilot, the Kingfisher's radioman, Reuben Hickman, stepping out on to the wing to help Blair into the rear cockpit. When the Kingfisher was hoisted aboard the *Baltimore* on its return, there was one pint of fuel remaining in the aircraft.

Over the next few hours the air groups completed three strikes against the remaining ships in the lagoon. While no Japanese fighters rose up in defence, the anti-aircraft fire remained heavy over some of the islands. One TBF of VT-5 was lost to anti-aircraft fire, but the crew was rescued. The escorting fighters continued their strafing attacks on shipping and airfields.

On the third and last strike of the day, Air Group Ten went after oil storage tanks on Dublon. Mitscher had saved this target for last so that the smoke from burning oil would not interfere with attacks on shipping in the nearby anchorages. The Dauntlesses and Avengers of VB-10 and VT-10 respectively bombed the tanks, leaving a huge column of oily black smoke rising over Dublon. When the last aircraft had alighted, TF 58 withdrew, heading north for the Marianas.

PROOF POSITIVE

In two days of strikes on Truk TF 58 had inflicted severe damage, leaving the Japanese naval base practically defenceless. The Task Force's bombers had destroyed ten IJN vessels, including three light cruisers, three destroyers, a seaplane tender and a submarine tender, and sank 31 valuable merchant ships. The air battles over the lagoon and the attacks on the airfields had destroyed

approximately 270 of 365 Japanese aircraft on the islands at the time of the attack. Not surprisingly given the intensity of the combat, fewer aircraft were actually shot down than were claimed, and conversely more were destroyed on the ground than originally estimated. Task Force 58's squadrons claimed 127 Japanese aircraft shot down and 152 destroyed on the ground or water, while the actual losses were some 235 aircraft destroyed or severely damaged on the ground and around 50–70 in the air.

The IJNAF air units were hard hit. The 204th Kōkūtai lost 18 of 31 Zero pilots, while the 902nd Kōkūtai lost all nine of its A6M2-N *Rufe* fighters. Critically, the attack on Truk destroyed large numbers of replacement aircraft destined for Rabaul on New Britain (now Papua New Guinea) and other important Japanese bases. In return, Task Force 58 lost 25 aircraft shot down or damaged beyond repair and 26 of its crewmen.

Beyond the destruction of Japanese war materiel and the shattering of the myth of Truk's impregnability, the US Navy's carrier raid on Truk and subsequent strikes on the Marianas represented a revolution in naval air warfare. Operation *Hailstone* had demonstrated that the Navy's Fast Carrier Task Force had the mobility and striking power to disrupt Japanese air and naval forces and limit their ability to hamper American amphibious operations. Rather than covering the landings on Eniwetok from a short distance away, Task Force 58 used the bulk of its force to strike deep into Japanese-controlled territory in a strategic rather than tactical way, establishing a pattern for later battles around the Marianas, Philippines and Okinawa.

