## = Battle of Midway =

The Battle of Midway was a decisive naval battle in the Pacific Theater of World War II . Between 4 and 7 June 1942 , only six months after Japan 's attack on Pearl Harbor and one month after the Battle of the Coral Sea , the United States Navy under Admirals Chester Nimitz , Frank Jack Fletcher , and Raymond A. Spruance decisively defeated an attacking fleet of the Imperial Japanese Navy under Admirals Isoroku Yamamoto , Chuichi Nagumo , and Nobutake Kondo near Midway Atoll , inflicting devastating damage on the Japanese fleet that proved irreparable . Military historian John Keegan called it " the most stunning and decisive blow in the history of naval warfare . "

The operation , like the earlier attack on Pearl Harbor , sought to eliminate the United States as a strategic power in the Pacific , thereby giving Japan a free hand in establishing its Greater East Asia Co @-@ Prosperity Sphere . The Japanese hoped another demoralizing defeat would force the U.S. to capitulate in the Pacific War and thus ensure Japanese dominance in the Pacific . Luring the American aircraft carriers into a trap and occupying Midway was part of an overall "barrier "strategy to extend Japan 's defensive perimeter , in response to the Doolittle air raid on Tokyo . This operation was also considered preparatory for further attacks against Fiji , Samoa , and Hawaii itself

The plan was handicapped by faulty Japanese assumptions of the American reaction and poor initial dispositions . Most significantly , American codebreakers were able to determine the date and location of the planned attack , enabling the forewarned U.S. Navy to prepare its own ambush . All four of Japan 's large aircraft carriers ? Akagi , Kaga , Soryu and Hiryu , part of the six @-@ carrier force that had attacked Pearl Harbor six months earlier ? and a heavy cruiser were sunk , while the U.S. lost only the carrier Yorktown and a destroyer . After Midway and the exhausting attrition of the Solomon Islands campaign , Japan 's capacity to replace its losses in materiel ( particularly aircraft carriers ) and men ( especially well @-@ trained pilots and maintenance crewmen ) rapidly became insufficient to cope with mounting casualties , while the United States ' massive industrial and training capabilities made losses far easier to replace . The Battle of Midway is considered a turning point in the Pacific War .

# = = Background = =

After expanding the war in the Pacific to include Western outposts , the Japanese Empire had attained its initial strategic goals quickly , taking the Philippines , Malaya , Singapore , and the Dutch East Indies ( now Indonesia ) ; the latter , with its vital oil resources , was particularly important to Japan . Because of this , preliminary planning for a second phase of operations commenced as early as January 1942 . There were strategic disagreements between the Imperial Army ( IJA ) and Imperial Navy ( IJN ) , and infighting between the Navy 's GHQ and Admiral Isoroku Yamamoto 's Combined Fleet , and a follow @-@ up strategy was not formed until April 1942 . Admiral Yamamoto finally succeeded in winning the bureaucratic struggle with a thinly veiled threat to resign , after which his plan for the Central Pacific was adopted .

Yamamoto 's primary strategic goal was the elimination of America 's carrier forces , which he regarded as the principal threat to the overall Pacific campaign . This concern was acutely heightened by the Doolittle Raid on 18 April 1942 , in which 16 U.S. Army Air Forces B @-@ 25 Mitchell bombers launched from USS Hornet bombed targets in Tokyo and several other Japanese cities . The raid , while militarily insignificant , was a shock to the Japanese and showed the existence of a gap in the defenses around the Japanese home islands as well as the accessibility of Japanese territory to American bombers .

This , and other successful hit @-@ and @-@ run raids by American carriers in the South Pacific , showed that they were still a threat , although seemingly reluctant to be drawn into an all @-@ out battle . Yamamoto reasoned that another air attack on the main U.S. Naval base at Pearl Harbor would induce all of the American fleet to sail out to fight , including the carriers . However , due to the increased strength of American land @-@ based air power on the Hawaiian Islands since the December 7 attack the previous year , he judged that it was now too risky to attack Pearl Harbor

directly.

Instead , Yamamoto selected Midway , a tiny atoll at the extreme northwest end of the Hawaiian Island chain , approximately 1 @,@ 300 miles ( 1 @,@ 100 nautical miles ; 2 @,@ 100 kilometres ) from Oahu . This meant that Midway was outside the effective range of almost all of the American aircraft stationed on the main Hawaiian islands . Midway was not especially important in the larger scheme of Japan 's intentions , but the Japanese felt the Americans would consider Midway a vital outpost of Pearl Harbor and would therefore be compelled to defend it vigorously . The U.S. did consider Midway vital ; after the battle , establishment of a U.S. submarine base on Midway allowed submarines operating from Pearl Harbor to refuel and re @-@ provision , extending their radius of operations by 1 @,@ 200 miles ( 1 @,@ 900 km ) . In addition to serving as a seaplane base , Midway 's airstrips also served as a forward staging point for bomber attacks on Wake Island .

## = = = Yamamoto 's plan : Operation MI = = =

Typical of Japanese naval planning during World War II , Yamamoto 's battle plan was exceedingly complex , requiring the careful and timely coordination of multiple battle groups over hundreds of miles of open sea . His design was predicated on optimistic intelligence suggesting that USS Enterprise and USS Hornet , forming Task Force 16 , were the only carriers available to the U.S. Pacific Fleet . During the Battle of the Coral Sea one month earlier , USS Lexington had been sunk and USS Yorktown damaged so severely that the Japanese believed she too had been lost . Yorktown deployed , after being hastily repaired at Pearl Harbor , and played a critical role in the discovery and eventual destruction of the Japanese fleet carriers at Midway . Much of Yamamoto 's planning , coinciding with the general feeling among the Japanese leadership at the time , was based on a gross misjudgement of American morale , which was believed to be debilitated from the string of Japanese victories in the preceding months .

Yamamoto felt deception would be required to lure the U.S. fleet into a fatally compromised situation . To this end , he dispersed his forces so that their full extent ( particularly his battleships ) would be unlikely to be discovered by the Americans prior to battle . Critically , Yamamoto 's supporting battleships and cruisers trailed Vice Admiral Ch?ichi Nagumo 's carrier force by several hundred miles . Japan 's heavy surface forces were intended to destroy whatever elements of the U.S. fleet might come to Midway 's defense once Nagumo 's carriers had weakened them sufficiently for a daylight gun duel ; this was typical of the battle doctrine of most major navies at the time .

What Yamamoto did not know was that the U.S. had broken the main Japanese naval code (dubbed JN @-@ 25 by the Americans). His emphasis on dispersal also meant none of his formations were in a position to support each other. For instance, despite the fact Nagumo 's carriers were expected to carry out strikes against Midway and bear the brunt of American counterattacks, the only warships in his fleet larger than the screening force of twelve destroyers were two battleships, two heavy cruisers, and one light cruiser. By contrast, Yamamoto and Kondo had between them two light carriers, five battleships, four heavy cruisers, and two light cruisers, none of which saw action at Midway. The battleships and the small carriers of the trailing force were unable to keep pace with the carriers of the Kido Butai and so could not have sailed in company with them, while the distance between Yamamoto and Kondo 's forces and Nagumo 's carriers had grave implications during the battle: the invaluable reconnaissance capability of the scout planes carried by the cruisers and carriers, as well as the additional antiaircraft capability of the cruisers in the trailing force, was denied to Nagumo.

#### = = = Aleutian invasion = = =

In order to obtain support from the Imperial Japanese Army for the Midway operation, the Imperial Japanese Navy agreed to support their invasion of the Aleutian Islands. The IJA wished to occupy the western Aleutians to place the Japanese home islands out of range of U.S. land @-@ based bombers based in Alaska. The Japanese operations in the Aleutian Islands (Operation AL)

removed yet more ships that could otherwise have augmented the force striking Midway . Whereas many earlier historical accounts considered the Aleutians operation as a feint to draw American forces away , early twenty @-@ first century research has suggested that AL was intended to be launched simultaneously with the attack on Midway . A one @-@ day delay in the sailing of Nagumo 's task force resulted in Operation AL beginning a day before the Midway attack .

= = Prelude = =

= = = American reinforcements = = =

To do battle with an enemy expected to muster four or five carriers , Admiral Chester W. Nimitz , Commander in Chief , Pacific Ocean Areas , needed every available U.S. flight deck . He already had Vice Admiral William Halsey 's two @-@ carrier ( Enterprise and Hornet ) task force at hand , though Halsey was stricken with severe dermatitis and had to be replaced by Rear Admiral Raymond A. Spruance , Halsey 's escort commander . Nimitz also hurriedly recalled Rear Admiral Frank Jack Fletcher 's task force , including the carrier Yorktown , from the South West Pacific Area

Despite estimates that Yorktown , damaged in the Battle of the Coral Sea , would require several months of repairs at Puget Sound Naval Shipyard , her elevators were intact and her flight deck largely so . The Pearl Harbor Naval Shipyard worked around the clock , and in 72 hours she was restored to a battle @-@ ready state , judged good enough for two or three weeks of operations , as Nimitz required . Her flight deck was patched , whole sections of internal frames were cut out and replaced . Repairs continued even as she sortied , with work crews from the repair ship USS Vestal , herself damaged in the attack on Pearl Harbor six months earlier , still aboard .

Yorktown 's partially depleted air group was rebuilt using whatever planes and pilots could be found . The dive and torpedo squadrons were replaced with those from USS Saratoga , with Yorktown 's own dive bomber squadron remaining in the scout bomber role . The fighter squadron was reformed with replacement F4F @-@ 4 Wildcat aircraft and aircrew drawn from Saratoga . In addition , surviving pilots from USS Lexington , under the command of Lexington 's Lieutenant Commander John S. " Jimmy " Thach , were also assigned to Yorktown . Some of the aircrew were inexperienced , which may have contributed to an accident in which Thach 's executive officer was killed . Despite efforts to get Saratoga ( which had been undergoing repairs on the American West Coast ) ready for the coming engagement , the need to resupply and assemble sufficient escorts meant that she was not able to reach Midway until after the battle .

On Midway , by 4 June the USN had stationed four squadrons of PBYs ? 31 aircraft in total ? for long @-@ range reconnaissance duties , and 6 brand @-@ new TBF @-@ 1 Avengers , the latter a detachment from Hornet 's VT @-@ 8 . The Marine Corps stationed 19 SBD Dauntlesses , 7 F4F @-@ 3 Wildcats , 17 SB2U @-@ 3 Vindicators , and 21 F2A @-@ 3s . The USAAF contributed a squadron of 17 B @-@ 17 Flying Fortresses and 8 B @-@ 26 Marauders equipped with torpedoes : in total 126 aircraft . Although the F2As and SB2Us were already obsolete , they were the only aircraft available to the Marine Corps at the time .

= = = Japanese shortcomings = = =

During the Battle of the Coral Sea one month earlier, the Japanese light carrier Sh?h? had been sunk and the fleet carrier Sh?kaku had sustained three bomb hits, and was in drydock undergoing repairs. Although the carrier Zuikaku escaped the battle undamaged, she had lost almost half her air group, and was in port in Kure awaiting replacement planes and pilots. That there were none immediately available is attributable to the failure of the IJN crew training program, which already showed signs of being unable to replace losses. Instructors from the Yokosuka Air Corps were employed in an effort to make up the shortfall.

Historians Parshall and Tully believe that by combining the surviving aircraft and pilots from

Sh?kaku and Zuikaku , it is likely that Zuikaku could have been equipped with almost a full composite air group . They also note that doing so would have violated Japanese carrier doctrine , which stressed that carriers and their pilots must train as a single unit ( in contrast , American training was only conducted at the squadron level ) . In any case , the Japanese apparently made no serious attempt to get Zuikaku ready for the forthcoming battle .

Thus, Carrier Division 5, consisting of the two most advanced aircraft carriers of the Kido Butai would not be available, which meant that Admiral Nagumo had to rely on four fleet carriers: Kaga and Akagi forming Carrier Division 1 and Hiry? and S?ry? as Carrier Division 2. At least part of this was due to fatigue; Japanese carriers had been constantly on operations since 7 December 1941, including raids on Darwin and Colombo.

The main Japanese carrier @-@ borne strike aircraft were the D3A1 " Val " dive bomber and the B5N2 " Kate " , which was used either as a torpedo bomber or as a level bomber . The main carrier fighter was the fast and highly maneuverable A6M " Zero " . For a variety of reasons , production of the " Val " had been drastically reduced , while that of the " Kate " had been stopped completely and , as a consequence , there were none available to replace losses . In addition , many of the aircraft being used during the June 1942 operations had been operational since late November 1941 and , although they were well @-@ maintained , many were almost worn out and had become increasingly unreliable . These factors meant all carriers of the Kido Butai had fewer aircraft than their normal complement , with few spare aircraft or parts stored in the carriers ' hangars .

Japanese strategic scouting arrangements prior to the battle were also in disarray . A picket line of Japanese submarines was late getting into position ( partly because of Yamamoto 's haste ) , which let the American carriers reach their assembly point northeast of Midway ( known as " Point Luck " ) without being detected . A second attempt at reconnaissance , using four @-@ engine H8K " Emily " flying boats to scout Pearl Harbor prior to the battle and detect whether the American carriers were present , part of Operation K , was thwarted when Japanese submarines assigned to refuel the search aircraft discovered that the intended refueling point ? a hitherto deserted bay off French Frigate Shoals ? was now occupied by American warships , because the Japanese had carried out an identical mission in March . Thus , Japan was deprived of any knowledge concerning the movements of the American carriers immediately before the battle .

Japanese radio intercepts did notice an increase in both American submarine activity and message traffic . This information was in Yamamoto 's hands prior to the battle . Japanese plans were not changed ; Yamamoto , at sea in Yamato , assumed Nagumo had received the same signal from Tokyo , and did not communicate with him by radio , so as not to reveal his position . These messages were , contrary to earlier historical accounts , also received by Nagumo before the battle began . For reasons which remain unclear , Nagumo did not alter his plans or take additional precautions .

## = = = Allied code @-@ breaking = = =

Admiral Nimitz had one priceless advantage: US cryptanalysts had partially broken the Japanese Navy 's JN @-@ 25b code. Since early 1942, the US had been decoding messages stating that there would soon be an operation at objective " AF ". It was not known where " AF " was, but Commander Joseph Rochefort and his team at Station HYPO were able to confirm that it was Midway; Captain Wilfred Holmes devised a ruse of telling the base at Midway (by secure undersea cable) to broadcast an uncoded radio message stating that Midway 's water purification system had broken down. Within 24 hours, the code breakers picked up a Japanese message that " AF was short on water." No Japanese radio operators who intercepted the message seemed concerned that the Americans were broadcasting uncoded that a major naval installation close to the Japanese threat ring was having a water shortage, which could have tipped off Japanese intelligence officers that it was a deliberate attempt at deception. HYPO was also able to determine the date of the attack as either 4 or 5 June, and to provide Nimitz with a complete IJN order of battle. Japan had a new codebook, but its introduction had been delayed, enabling HYPO to read messages for several crucial days; the new code, which had not yet been cracked, came into use on 24 May,

but the important breaks had already been made.

As a result , the Americans entered the battle with a very good picture of where , when , and in what strength the Japanese would appear . Nimitz knew that the Japanese had negated their numerical advantage by dividing their ships into four separate task groups , all too widely separated to be able to support each other . This dispersal resulted in few fast ships being available to escort the Carrier Striking Force , reducing the number of anti @-@ aircraft guns protecting the carriers . Nimitz calculated that the aircraft on his three carriers , plus those on Midway Island , gave the U.S. rough parity with Yamamoto 's four carriers , mainly because American carrier air groups were larger than Japanese ones . The Japanese , by contrast , remained almost totally unaware of their opponent 's true strength and dispositions even after the battle began .

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= = Battle = =

= = = Order of battle = = =

= = = Initial air attacks = = =
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At about 09:00 on 3 June, Ensign Jack Reid, piloting a PBY from U.S. Navy patrol squadron VP @-@ 44, spotted the Japanese Occupation Force 500 nautical miles (580 miles; 930 kilometres) to the west @-@ southwest of Midway. He mistakenly reported this group as the Main Force. Nine B @-@ 17s took off from Midway at 12:30 for the first air attack. Three hours later, they found Tanaka's transport group 570 nautical miles (660 miles; 1 @,@ 060 kilometres) to the west.

Under heavy anti @-@ aircraft fire, they dropped their bombs. Although their crews reported hitting 4 ships, none of the bombs actually hit and no significant damage was inflicted. Early the following morning Japanese oil tanker Akebono Maru sustained the first hit when a torpedo from an attacking PBY struck her around 01:00. This was the only successful air @-@ launched torpedo attack by the U.S. during the entire battle.

At 04:30 on 4 June, Nagumo launched his initial attack on Midway itself, consisting of 36 Aichi D3A dive bombers and 36 Nakajima B5N torpedo bombers, escorted by 36 Mitsubishi A6M Zero fighters. At the same time he launched his 8 search aircraft (one from the heavy cruiser Tone launched 30 minutes late). Japanese reconnaissance arrangements were flimsy, with too few aircraft to adequately cover the assigned search areas, laboring under poor weather conditions to the northeast and east of the task force. As Nagumo 's bombers and fighters were taking off, 11 PBYs were leaving Midway to run their search patterns. At 05:34, a PBY reported sighting 2 Japanese carriers and another spotted the inbound airstrike 10 minutes later.

American radar picked up the enemy at a distance of several miles , and interceptors were scrambled . Unescorted bombers headed off to attack the Japanese carriers , their fighter escorts remaining behind to defend Midway . At 06 : 20 , Japanese carrier aircraft bombed and heavily damaged the U.S. base . Midway @-@ based Marine fighters , which included 7 F4Fs and 21 F2As , intercepted the Japanese and suffered heavy losses , though they managed to destroy 4 B5Ns and at least 3 A6Ms . Within the first few minutes , 3 F4Fs and 13 F2As were destroyed , while most of the surviving U.S. planes were damaged , with only 2 remaining airworthy . American anti @-@ aircraft fire was intense and accurate , destroying 4 additional Japanese aircraft and damaging many more .

Of the 108 Japanese aircraft involved in this attack, 11 were destroyed, 14 were heavily damaged, and 29 were damaged to some degree. The initial Japanese attack did not succeed in neutralizing Midway: American bombers could still use the airbase to refuel and attack the Japanese invasion force, and most of Midway 's land @-@ based defenses were intact. Japanese pilots reported to Nagumo that a second aerial attack on Midway 's defenses would be necessary if troops were to go ashore by 7 June.

Having taken off prior to the Japanese attack, American bombers based on Midway made several

attacks on the Japanese carrier force . These included 6 Grumman Avengers , detached to Midway from the USS Hornet 's VT @-@ 8 ( Midway was the first combat mission for the VT @-@ 8 airmen , and the combat debut of the TBF ) , Marine Scout @-@ Bombing Squadron 241 ( VMSB @-@ 241 ) , consisting of 11 SB2U @-@ 3s and 16 SBDs , plus 4 USAAF B @-@ 26s , armed with torpedoes , and 15 B @-@ 17s . The Japanese repelled these attacks , losing 2 fighters while destroying 5 TBFs , 2 SB2Us , 8 SBDs , and 2 B @-@ 26s . The first Marine aviator to perish in the battle , Major Lofton R. Henderson of VMSB @-@ 241 , was killed while leading his inexperienced Dauntless squadron into action . The main airfield at Guadalcanal was named after him in August 1942 .

One B @-@ 26, after being seriously damaged by anti @-@ aircraft fire, veered into a steep dive straight toward Akagi. Making no attempt to pull out of its run, the aircraft narrowly missed crashing directly into the carrier 's bridge, which could have killed Nagumo and his command staff. This experience may well have contributed to Nagumo 's determination to launch another attack on Midway, in direct violation of Yamamoto 's order to keep the reserve strike force armed for anti @-@ ship operations.

# = = = Nagumo 's dilemma = = =

In accordance with Japanese carrier doctrine at the time, Admiral Nagumo had kept half of his aircraft in reserve. These comprised two squadrons each of dive bombers and torpedo bombers. The dive bombers were as yet unarmed. The torpedo bombers were armed with torpedoes should any American warships be located.

At 07:15, Nagumo ordered his reserve planes to be re @-@ armed with contact @-@ fused general purpose bombs for use against land targets. This was a result of the attacks from Midway, as well as of the morning flight leader 's recommendation of a second strike. This had been under way for about 30 minutes when, at 07:40, the delayed scout plane from Tone signaled that it had sighted a sizable American naval force to the east, but neglected to describe its composition. Later evidence suggests Nagumo did not receive the sighting report until 08:00.

Nagumo quickly reversed his order to re @-@ arm the bombers with general purpose bombs and demanded that the scout plane ascertain the composition of the American force . Another 20 ? 40 minutes elapsed before Tone 's scout finally radioed the presence of a single carrier in the American force . This was one of the carriers from Task Force 16 . The other carrier was not sighted .

Nagumo was now in a quandary . Rear Admiral Tamon Yamaguchi , leading Carrier Division 2 ( Hiry? and S?ry? ) , recommended that Nagumo strike immediately with the forces at hand : 18 Aichi D3A1 dive bombers each on S?ry? and Hiry? , and half the ready cover patrol aircraft . Nagumo 's opportunity to hit the American ships was now limited by the imminent return of his Midway strike force . The returning strike force needed to land promptly or it would have to ditch into the sea . Because of the constant flight deck activity associated with combat air patrol operations during the preceding hour , the Japanese never had an opportunity to position ( " spot " ) their reserve planes on the flight deck for launch .

The few aircraft on the Japanese flight decks at the time of the attack were either defensive fighters or , in the case of S?ry? , fighters being spotted to augment the Combat Air Patrol . Spotting his flight decks and launching aircraft would have required at least 30 to 45 minutes . Furthermore , by spotting and launching immediately , Nagumo would be committing some of his reserve to battle without proper anti @-@ ship armament ; he had just witnessed how easily unescorted American bombers had been shot down . Poor discipline caused many of the Japanese bombers to ditch their bombs and attempt to dogfight intercepting F4Fs .

Japanese carrier doctrine preferred the launching of fully constituted strikes rather than piecemeal attacks . Without confirmation of whether the American force included carriers ( not received until 08 : 20 ) , Nagumo 's reaction was doctrinaire . In addition , the arrival of another land based American air strike at 07 : 53 gave weight to the need to attack the island again . In the end , Nagumo decided to wait for his first strike force to land , then launch the reserve , which would by then be properly armed with torpedoes .

In the final analysis, it made no difference; Fletcher's carriers had launched their planes beginning

at 07:00, so the aircraft that would deliver the crushing blow were already on their way. Even if Nagumo had not strictly followed carrier doctrine, he could not have prevented the launch of the American attack.

= = = Attacks on the Japanese fleet = = =

The Americans had already launched their carrier aircraft against the Japanese . Fletcher , in overall command aboard Yorktown , and benefiting from PBY sighting reports from the early morning , ordered Spruance to launch against the Japanese as soon as was practical , while initially holding Yorktown in reserve in case any other Japanese carriers were found .

Spruance judged that , though the range was extreme , a strike could succeed and gave the order to launch the attack . He then left Halsey 's Chief of Staff , Captain Miles Browning , to work out the details and oversee the launch . The carriers had to launch into the wind , so the light southeasterly breeze would require them to steam away from the Japanese at high speed . Browning therefore suggested a launch time of 07:00, giving the carriers an hour to close on the Japanese at 25 knots ( 46 km / h ; 29 mph ) . This would place them at about 155 nautical miles ( 287 km ; 178 mi ) from the Japanese fleet , assuming it did not change course . The first plane took off from Spruance 's carriers Enterprise and Hornet a few minutes after 07:00 . Fletcher , upon completing his own scouting flights , followed suit at 08:00 from Yorktown .

Fletcher , along with Yorktown 's commanding officer , Captain Elliott Buckmaster , and their staffs , had acquired first @-@ hand experience in organizing and launching a full strike against an enemy force in the Coral Sea , but there was no time to pass these lessons on to Enterprise and Hornet which were tasked with launching the first strike . Spruance ordered the striking aircraft to proceed to target immediately , rather than waste time waiting for the strike force to assemble , since neutralizing enemy carriers was the key to the survival of his own task force .

While the Japanese were able to launch 108 aircraft in just seven minutes , it took Enterprise and Hornet over an hour to launch 117 . Spruance judged that the need to throw something at the enemy as soon as possible was greater than the need to coordinate the attack by aircraft of different types and speeds (fighters , bombers , and torpedo bombers ) . Accordingly , American squadrons were launched piecemeal and proceeded to the target in several different groups . It was accepted that the lack of coordination would diminish the impact of the American attacks and increase their casualties , but Spruance calculated that this was worthwhile , since keeping the Japanese under aerial attack impaired their ability to launch a counterstrike ( Japanese tactics preferred fully constituted attacks ) , and he gambled that he would find Nagumo with his flight decks at their most vulnerable .

American carrier aircraft had difficulty locating the target , despite the positions they had been given . The strike from Hornet , led by Commander Stanhope C. Ring , followed an incorrect heading of 265 degrees rather than the 240 degrees indicated by the contact report . As a result , Air Group Eight 's dive bombers missed the Japanese carriers . Torpedo Squadron 8 ( VT @-@ 8 , from Hornet ) , led by Lieutenant Commander John C. Waldron , broke formation from Ring and followed the correct heading . The 10 F4Fs from Hornet had run out of fuel and had to ditch .

Waldron 's squadron sighted the enemy carriers and began attacking at 09:20, followed by Torpedo Squadron 6 ( VT @-@ 6 , from Enterprise ) whose Wildcat fighter escorts also ran low on fuel and had to turn back at 09:40. Without fighter escort , all 15 TBD Devastators of VT @-@ 8 were shot down without being able to inflict any damage , with Ensign George H. Gay , Jr . , the only survivor . VT @-@ 6 lost 10 of their 14 Devastators , and 10 of Yorktown 's VT @-@ 3 's 12 Devastators were shot down with no hits to show for their effort , thanks in part to the abysmal performance of their Mark 13 torpedoes . Midway was the last time the TBD Devastator was used in combat .

Senior Navy and Bureau of Ordnance officers never questioned why half a dozen torpedoes, released so close to the Japanese carriers, produced no results. The Japanese combat air patrol, flying Mitsubishi A6M2 Zeros made short work of the unescorted, slow, under @-@ armed TBDs. A few TBDs managed to get within a few ship @-@ lengths range of their targets before dropping

their torpedoes? close enough to be able to strafe the enemy ships and force the Japanese carriers to make sharp evasive maneuvers? but all of their torpedoes either missed or failed to explode. The abysmal performance of American torpedoes in the early months of the war became a scandal. Torpedo after torpedo either missed by running directly under the target, prematurely exploded, or struck targets with textbook right angle hits (sometimes with an audible clang) and failed to explode

Despite their failure to score any hits , the American torpedo attacks indirectly achieved three important results . First , they kept the Japanese carriers off balance and unable to prepare and launch their own counterstrike . Second , they pulled the Japanese combat air patrol ( CAP ) out of position . Third , many of the Zeros ran low on ammunition and fuel . The appearance of a third torpedo plane attack from the southeast by Torpedo Squadron 3 ( VT @-@ 3 from Yorktown ) at 10 : 00 very quickly drew the majority of the Japanese CAP to the southeast quadrant of the fleet . Better discipline , and the employment of a greater number of Zeroes for the CAP might have enabled Nagumo to prevent ( or at least mitigate the damage caused by ) the coming American attacks .

By chance , at the same time VT @-@ 3 was sighted by the Japanese , three squadrons of SBDs from Enterprise and Yorktown ( VB @-@ 6 , VS @-@ 6 and VB @-@ 3 , respectively ) were approaching from the southwest and northeast . The Yorktown squadron ( VB @-@ 3 ) had flown just behind VT @-@ 3 but elected to attack from a different course . The two squadrons from Enterprise were running low on fuel because of the time spent looking for the enemy . Squadron commander C. Wade McClusky , Jr. decided to continue the search , and by good fortune spotted the wake of the Japanese destroyer Arashi , steaming at full speed to rejoin Nagumo 's carriers after having unsuccessfully depth @-@ charged U.S. submarine Nautilus , which had unsuccessfully attacked the battleship Kirishima . Some bombers were lost from fuel exhaustion before the attack commenced .

McClusky 's decision to continue the search and his judgment , in the opinion of Admiral Chester Nimitz , " decided the fate of our carrier task force and our forces at Midway ... " All three American dive @-@ bomber squadrons ( VB @-@ 6 , VS @-@ 6 and VB @-@ 3 ) arrived almost simultaneously at the perfect time , locations and altitudes to attack . Most of the Japanese CAP was focusing on the torpedo planes of VT @-@ 3 and were out of position , armed Japanese strike aircraft filled the hangar decks , fuel hoses snaked across the decks as refueling operations were hastily being completed , and the repeated change of ordnance meant that bombs and torpedoes were stacked around the hangars , rather than stowed safely in the magazines , making the Japanese carriers extraordinarily vulnerable .

Beginning at 10:22, the two squadrons of Enterprise 's air group split up with the intention of sending one squadron each to attack Kaga and Akagi. A miscommunication caused both of the squadrons to dive at the Kaga. Recognizing the error, Lieutenant Commander Richard Halsey Best and his two wingmen were able to pull out of their dive and, after judging that Kaga was doomed, headed north to attack Akagi. Coming under an onslaught of bombs from almost two full squadrons, Kaga sustained four or five direct hits, which caused heavy damage and started multiple fires. One of the bombs landed near the bridge, killing Captain Jisaku Okada and most of the ship 's senior officers. Lieutenant Clarence E. Dickinson, part of McClusky 's group, dove on the Kaga:

We were coming down in all directions on the port side of the carrier ... I recognized her as the Kaga; and she was enormous ... The target was utterly satisfying ... I saw a bomb hit just behind where I was aiming ... I saw the deck rippling and curling back in all directions exposing a great section of the hangar below ... I saw [ my ] 500 @-@ pound bomb hit right abreast of the [ carrier 's ] island . The two 100 @-@ pound bombs struck in the forward area of the parked planes ...

Several minutes later, Best and his two wingmen dived on the Akagi. Mitsuo Fuchida, the Japanese aviator who led the attack on Pearl Harbor, was on the Akagi when it was hit, and described the attack:

A look @-@ out screamed : " Hell @-@ Divers ! " I looked up to see three black enemy planes plummeting towards our ship . Some of our machineguns managed to fire a few frantic bursts at them , but it was too late . The plump silhouettes of the American Dauntless dive @-@ bombers

quickly grew larger, and then a number of black objects suddenly floated eerily from their wings.

Although Akagi sustained only one direct hit ( almost certainly dropped by Lieutenant Commander Best ) , it proved to be a fatal blow ; the bomb struck the edge of the mid @-@ ship deck elevator and penetrated to the upper hangar deck , where it exploded among the armed and fueled aircraft in the vicinity . Nagumo 's chief of staff , Ry?nosuke Kusaka , recorded " a terrific fire ... bodies all over the place ... Planes stood tail up , belching livid flames and jet @-@ black smoke , making it impossible to bring the fires under control . " Another bomb exploded under water very close astern ; the resulting geyser bent the flight deck upward " in grotesque configurations " and caused crucial rudder damage .

Simultaneously , Yorktown 's VB @-@ 3 , commanded by Max Leslie , went for S?ry? , scoring at least three hits and causing extensive damage . Some of Leslie 's bombers did not have bombs as they were accidentally released when the pilots attempted to use electrical arming switches . Nevertheless , Leslie and others still dive @-@ bombed , strafing carrier decks and providing covers for those with bombs . Gasoline ignited , creating an " inferno , " while stacked bombs and ammunition detonated . VT @-@ 3 targeted Hiry? , which was hemmed in by S?ry? , Kaga , and Akagi , but achieved no hits .

Within six minutes, S?ry? and Kaga were ablaze from stem to stern, as fires continued to spread through the ships. Akagi, having been struck by only one bomb, took longer to burn, but the resulting fires quickly expanded and soon proved impossible to extinguish; she too was eventually consumed by the flames and had to be abandoned. All remained temporarily afloat, as none had suffered damage below the waterline, other than the rudder damage to Akagi caused by the near miss close astern. Despite initial hopes that Akagi could be saved or at least towed back to Japan, all three carriers were eventually abandoned and scuttled.

## = = = Japanese counterattacks = = =

Hiry? , the sole surviving Japanese aircraft carrier , wasted little time in counterattacking . Hiry? 's first attack wave , consisting of 18 D3As and 6 fighter escorts , followed the retreating American aircraft and attacked the first carrier they encountered , Yorktown , hitting her with three bombs , which blew a hole in the deck , snuffed out her boilers , and destroyed one anti @-@ aircraft mount . The damage also forced Admiral Fletcher to move his command staff to the heavy cruiser Astoria . Repair teams were able to temporarily patch the flight deck and restore power to several boilers within an hour , giving her a speed of 19 knots ( 35 km / h ; 22 mph ) and enabling her to resume air operations . Thirteen dive bombers and three escorting fighters were lost in this attack ( two escorting fighters turned back early after they were damaged attacking some of Enterprise 's SBDs returning from their attack on the Japanese carriers ) .

Approximately one hour later , Hiry? 's second attack wave , consisting of ten B5Ns and six escorting A6Ms , arrived over the Yorktown ; the repair efforts had been so effective that the Japanese pilots assumed that Yorktown must be a different , undamaged carrier . They attacked , crippling Yorktown with two torpedoes ; she lost all power and developed a 23 @-@ degree list to port . Five torpedo bombers and two fighters were shot down in this attack .

News of the two strikes , with the reports each had sunk an American carrier ( actually both strikes had damaged , but not sunk , Yorktown ) , greatly improved morale in the Japanese carrier task force . Its few surviving aircraft were all recovered aboard Hiry? . Despite the heavy losses , the Japanese believed that they could scrape together enough aircraft for one more strike against what was believed to be the only remaining American carrier .

#### = = = American counterattack = = =

Late in the afternoon , a Yorktown scout aircraft located Hiry? , prompting Enterprise to launch a final strike of 24 dive bombers (including 6 SBDs from VS @-@ 6 , 4 SBDs from VB @-@ 6 , and 14 SBDs from Yorktown 's VB @-@ 3 ) . Despite Hiry? being defended by a strong cover of more than a dozen Zero fighters , the attack by Enterprise and orphaned Yorktown aircraft launched from

Enterprise was successful: four, possibly five bombs hit Hiry?, leaving her ablaze and unable to operate aircraft. Hornet 's strike, launched late because of a communications error, concentrated on the remaining escort ships but failed to score any hits.

After futile attempts at controlling the blaze , most of the crew remaining on Hiry? were evacuated and the remainder of the fleet continued sailing northeast in an attempt to intercept the American carriers . Despite a scuttling attempt by a Japanese destroyer that hit her with a torpedo and then departed quickly , Hiry? stayed afloat for several more hours , being discovered early the next morning by an aircraft from the escort carrier H?sh? and prompting hopes she could be saved , or at least towed back to Japan . Soon after being spotted , Hiry? sank . Rear @-@ Admiral Tamon Yamaguchi , together with the ship 's captain Tomeo Kaku , chose to go down with the ship , costing Japan perhaps her best carrier officer .

As darkness fell , both sides took stock and made tentative plans for continuing the action . Admiral Fletcher , obliged to abandon the derelict Yorktown and feeling he could not adequately command from a cruiser , ceded operational command to Spruance . Spruance knew the United States had won a great victory , but he was still unsure of what Japanese forces remained and was determined to safeguard both Midway and his carriers . To aid his aviators , who had launched at extreme range , he had continued to close with Nagumo during the day and persisted as night fell .

Finally , fearing a possible night encounter with Japanese surface forces , and believing Yamamoto still intended to invade , based in part on a misleading contact report from Tambor , Spruance changed course and withdrew to the east , turning back west towards the enemy at midnight . For his part , Yamamoto initially decided to continue the engagement and sent his remaining surface forces searching eastward for the American carriers . Simultaneously , he detached a cruiser raiding force to bombard the island . The Japanese surface forces failed to make contact with the Americans due to Spruance 's decision to briefly withdraw eastward , and Yamamoto ordered a general withdrawal to the west . It was fortunate Spruance did not pursue , for had he come in contact with Yamamoto 's heavy ships , including Yamato , in the dark and considering the Japanese Navy 's superiority in night @-@ attack tactics at the time , his cruisers would have been overwhelmed and his carriers sunk .

Spruance failed to regain contact with Yamamoto 's forces on 5 June despite extensive searches . Towards the end of the day he launched a search @-@ and @-@ destroy mission to seek out any remnants of Nagumo 's carrier force . This late afternoon strike narrowly missed detecting Yamamoto 's main body and failed to score hits on a straggling Japanese destroyer . The strike planes returned to the carriers after nightfall , prompting Spruance to order Enterprise and Hornet to turn on their lights to aid the landings .

At 02:15 on the night of 5 / 6 June , Commander John Murphy 's Tambor , lying 90 nautical miles ( 170 km; 100 mi ) west of Midway , made the second of the submarine force 's two major contributions to the battle 's outcome , although its impact was heavily blunted by Murphy himself . Sighting several ships , neither Murphy nor his executive officer , Ray Spruance , Jr . , could identify them . Uncertain of whether they were friendly or not and unwilling to approach any closer to verify their heading or type , Murphy decided to send a vague report of " four large ships " to Admiral Robert English , Commander , Submarine Force , Pacific Fleet ( COMSUBPAC ) . This report was passed on by English to Nimitz , who then sent it to Spruance . Spruance , a former submarine commander , was " understandably furious " at the vagueness of Murphy 's report , as it provided him with little more than suspicion and no concrete information on which to make his preparations . Unaware of the exact location of Yamamoto 's " Main Body " ( a persistent problem since the time PBYs had first sighted the Japanese ) , Spruance was forced to assume the " four large ships " reported by Tambor represented the main invasion force and so he moved to block it , while staying 100 nautical miles ( 190 km ; 120 mi ) northeast of Midway .

In reality , the ships sighted by Tambor were the detachment of four cruisers and two destroyers Yamamoto had sent to bombard Midway . At 02:55 these ships received Yamamoto 's order to retire and changed course to comply . At about the same time as this change of course , Tambor was sighted and during maneuvers designed to avoid a submarine attack , Mogami and Mikuma collided , inflicting serious damage on Mogami 's bow . The less severely damaged Mikuma slowed

to 12 knots ( 22 km / h ; 14 mph ) to keep pace . Only at 04 : 12 did the sky brighten enough for Murphy to be certain the ships were Japanese , by which time staying surfaced was hazardous and he dived to approach for an attack . The attack was unsuccessful and at around 06 : 00 he finally reported two westbound Mogami @-@ class cruisers , before diving again and playing no further role in the battle . Limping along on a straight course at 12 knots ? roughly one @-@ third their top speed and only 1 knot faster than Tambor while submerged ? Mogami and Mikuma had been almost perfect targets for a submarine attack . As soon as Tambor returned to port , Spruance had Murphy relieved of duty and reassigned to a shore station , citing his confusing contact report , poor torpedo shooting during his attack run and general lack of aggression , especially as compared to Nautilus , the oldest of the 12 boats at Midway and the only one which had successfully placed a torpedo on target ( albeit a dud ) . This was in the context as referenced above , of mistaken criticism of submariner performance for severe ineffectiveness of navy torpedoes , already reported as technical by submariners , but unaddressed until 1943 .

Over the following two days , first Midway and then Spruance 's carriers launched several strikes against the stragglers . Mikuma was eventually sunk by Dauntlesses , while Mogami survived further severe damage to return home for repairs . The destroyers Arashio and Asashio were also bombed and strafed during the last of these attacks . Captain Richard E. Fleming , a U.S. Marine Corps aviator , was killed while executing a glide bomb run on Mikuma and was posthumously awarded the Medal of Honor .

Meanwhile , salvage efforts on Yorktown were encouraging , and she was taken in tow by USS Vireo . In the late afternoon of 6 June , the Japanese submarine I @-@ 168 , which had managed to slip through the cordon of destroyers ( possibly due to the large amount of debris in the water ) , fired a salvo of torpedoes , two of which struck Yorktown . There were few casualties aboard , since most of the crew had already been evacuated , but a third torpedo from this salvo struck the destroyer USS Hammann , which had been providing auxiliary power to Yorktown . Hammann broke in two and sank with the loss of 80 lives , mostly due to her own depth charges exploding . With further salvage efforts deemed hopeless , the remaining repair crews were evacuated from Yorktown , which sank just after 05 : 00 on 7 June .

## = = Japanese casualties = =

By the time the battle ended , 3 @,@ 057 Japanese had died . Casualties aboard the four carriers were : Akagi : 267 ; Kaga : 811 ; Hiryu : 392 ; Soryu : 711 ; a total of 2 @,@ 181 . The heavy cruisers Mikuma ( sunk ; 700 casualties ) and Mogami ( badly damaged ; 92 ) accounted for another 792 deaths .

In addition , the destroyers Arashio ( bombed ; 35 ) and Asashio ( strafed by aircraft ; 21 ) were both damaged during the air attacks which sank Mikuma and caused further damage to Mogami . Floatplanes were lost from the cruisers Chikuma ( 3 ) and Tone ( 2 ) . Dead aboard the destroyers Tanikaze ( 11 ) , Arashi ( 1 ) , Kazagumo ( 1 ) and the fleet oiler Akebono Maru ( 10 ) made up the remaining 23 casualties .

#### = = Aftermath = =

After winning a clear victory , and as pursuit became too hazardous near Wake , American forces retired . Spruance once again withdrew to the east to refuel his destroyers and rendezvous with the carrier Saratoga , which was ferrying much @-@ needed replacement aircraft . Fletcher transferred his flag to Saratoga on the afternoon of 8 June and resumed command of the carrier force . For the remainder of that day and then 9 June , Fletcher continued to launch search missions from the three carriers to ensure the Japanese was no longer advancing on Midway . Late on 10 June a decision was made to leave the area and the American carriers eventually returned to Pearl Harbor .

Historian Samuel E. Morison noted in 1949 that Spruance was subjected to much criticism for not pursuing the retreating Japanese, thus allowing their surface fleet to escape. Clay Blair argued in 1975 that had Spruance pressed on, he would have been unable to launch his aircraft after nightfall

, and his cruisers would have been overwhelmed by Yamamoto 's powerful surface units , including Yamato . Furthermore , the American air groups had suffered considerable losses , including most of their torpedo bombers . This made it unlikely that they would be effective in an airstrike against the Japanese battleships , even if they had managed to catch them during daytime . Also , by this time Spruance 's destroyers were critically low on fuel .

On 10 June , the Imperial Japanese Navy conveyed to the military liaison conference an incomplete picture of the results of the battle . Ch?ichi Nagumo 's detailed battle report was submitted to the high command on 15 June . It was intended only for the highest echelons in the Japanese Navy and government , and was guarded closely throughout the war . In it , one of the more striking revelations is the comment on the Mobile Force Commander 's ( Nagumo 's ) estimates : " The enemy is not aware of our plans ( we were not discovered until early in the morning of the 5th at the earliest ) . " In reality , the whole operation had been compromised from the beginning due to Allied code @-@ breaking efforts .

The Japanese public and much of the military command structure were kept in the dark about the extent of the defeat: Japanese news announced a great victory. Only Emperor Hirohito and the highest Navy command personnel were accurately informed of the carrier and pilot losses. Consequently, even the Imperial Japanese Army (IJA) continued to believe, for at least a short time, that the fleet was in good condition.

On the return of the Japanese fleet to Hashirajima on 14 June the wounded were immediately transferred to naval hospitals; most were classified as "secret patients", placed in isolation wards and quarantined from other patients and their own families to keep this major defeat secret. The remaining officers and men were quickly dispersed to other units of the fleet and, without being allowed to see family or friends, were shipped to units in the South Pacific, where the majority died in battle. None of the flag officers or staff of the Combined Fleet was penalized, with Nagumo later being placed in command of the rebuilt carrier force.

As a result of the defeat , new procedures were adopted whereby more Japanese aircraft were refueled and re @-@ armed on the flight deck , rather than in the hangars , and the practice of draining all unused fuel lines was adopted . The new carriers being built were redesigned to incorporate only two flight deck elevators and new firefighting equipment . More carrier crew members were trained in damage @-@ control and firefighting techniques , although the losses later in the war of Sh?kaku , Hiy? , and especially Taih? suggest that there were still problems in this area .

Replacement pilots were pushed through an abbreviated training regimen in order to meet the short @-@ term needs of the fleet . This led to a sharp decline in the quality of the aviators produced . These inexperienced pilots were fed into front @-@ line units , while the veterans who remained after Midway and the Solomons campaign were forced to share an increased workload as conditions grew more desperate , with few being given a chance to rest in rear areas or in the home islands . As a result , Japanese naval air groups as a whole progressively deteriorated during the war while their American adversaries continued to improve .

## = = = American prisoners = = =

Three U.S. airmen , Ensign Wesley Osmus , a pilot from Yorktown , Ensign Frank O 'Flaherty , a pilot from Enterprise and Aviation Machinist 's Mate B. F. ( or B. P. ) Bruno Gaido , the radioman @-@ gunner of O 'Flaherty 's SBD , were captured by the Japanese during the battle . Osmus was held on Arashi ; O 'Flaherty and Gaido on the cruiser Nagara ( or destroyer Makigumo , sources vary ) ; all three were interrogated , and then killed by being tied to water @-@ filled kerosene cans and thrown overboard to drown . The report filed by Nagumo tersely states of Ensign Osmus , " He died on 6 June and was buried at sea " ; O 'Flaherty and Gaido 's fates were not mentioned in Nagumo 's report . The execution of Ensign Wesley Osmus in this manner was apparently ordered by Arashi 's captain , Watanabe Yasumasa . Had Watanabe survived the war ( he died in December 1943 ) , he would have likely been tried as a war criminal .

Two enlisted men from Mikuma were rescued from a life raft on 9 June by USS Trout and brought to Pearl Harbor . After receiving medical care , at least one of these sailors cooperated during interrogation and provided intelligence . Another 35 crewmen from Hiryu were taken from a lifeboat by USS Ballard on 19 June after being spotted by an American search plane . They were brought to Midway and then transferred to Pearl Harbor on USS Sirius .

## = = Impact = =

The Battle of Midway has often been called "the turning point of the Pacific". It was the Allies 'first major naval victory against the Japanese. Although the Japanese continued to try to secure more territory, and the U.S. did not move from a state of naval parity to one of supremacy until after several more months of hard combat, Midway allowed the Allies to switch to the strategic initiative, paving the way for the landings on Guadalcanal and the prolonged attrition of the Solomon Islands campaign. Midway allowed this to occur before the first of the new Essex @-@ class fleet carriers became available at the end of 1942.

Some authors have stated heavy losses in carriers and veteran aircrews at Midway permanently weakened the Imperial Japanese Navy . Parshall and Tully have stated that the heavy losses in veteran aircrew ( 110 , just under 25 % of the aircrew embarked on the four carriers ) , were not crippling to the Japanese naval air corps as a whole ; the Japanese navy had 2 @,@ 000 carrier @-@ qualified aircrew at the start of the Pacific war . The loss of four large fleet carriers and over 40 % of the carriers ' highly trained aircraft mechanics and technicians , plus the essential flight @-@ deck crews and armorers , and the loss of organizational knowledge embodied in such highly trained crew , were still heavy blows to the Japanese carrier fleet . A few months after Midway , the JNAF sustained similar casualty rates in the Battle of the Eastern Solomons and Battle of Santa Cruz , and it was these battles , combined with the constant attrition of veterans during the Solomons campaign , which were the catalyst for the sharp downward spiral in operational capability

After the battle Sh?kaku and Zuikaku were the only large carriers of the original Pearl Harbor strike force left for offensive actions . Of Japan 's other carriers , Taih? , which was not commissioned until early 1944 , would be the only fleet carrier worth teaming with Sh?kaku and Zuikaku ; Ry?j? and Zuih? were light carriers , while Jun 'y? and Hiy? , although technically classified as fleet carriers , were second @-@ rate ships of comparatively limited effectiveness . In the time it took Japan to build three carriers , the U.S. Navy commissioned more than two dozen fleet and light fleet carriers , and numerous escort carriers . By 1942 the United States was already three years into a shipbuilding program mandated by the Second Vinson Act , intended to make the navy larger than all the Axis navies combined , plus the British and French navies , which it was feared might fall into Axis hands .

Both the United States and Japan stepped up the training of aircrew, but the United States had a more effective pilot rotation system, which meant that more veterans survived and went on to training or command billets, where they were able to pass on lessons they had learned in training rather than in combat, where errors were more likely to be fatal. By the time of the Battle of the Philippine Sea in June 1944, the Japanese had nearly rebuilt their carrier forces in terms of numbers, but their planes, many of which were obsolescent, were largely flown by inexperienced and poorly trained pilots.

Midway showed the worth of pre @-@ war naval cryptanalysis and intelligence @-@ gathering . These efforts continued and were expanded throughout the war in both the Pacific and Atlantic theaters . Successes were numerous and significant . For instance , cryptanalysis made possible the shooting down of Admiral Yamamoto 's airplane in 1943 .

Because of the extreme depth of the ocean in the area of the battle ( more than 17 @,@ 000 ft or 5 @,@ 200 m ), researching the battlefield has presented extraordinary difficulties. On 19 May 1998, Robert Ballard and a team of scientists and Midway veterans from both sides located and photographed Yorktown. The ship was remarkably intact for a vessel that had sunk in 1942; much of the original equipment and even the original paint scheme were still visible.

Ballard 's subsequent search for the Japanese carriers was unsuccessful . In September 1999 , a joint expedition between Nauticos Corp. and the U.S. Naval Oceanographic Office searched for the Japanese aircraft carriers . Using advanced renavigation techniques in conjunction with the ship 's log of the submarine USS Nautilus , the expedition located a large piece of wreckage , subsequently identified as having come from the upper hangar deck of Kaga . The main wreck of Kaga has yet to be located .

#### = = Remembrances = =

Chicago Municipal Airport, important to the war effort in World War II, was renamed Chicago Midway International Airport (or simply Midway Airport) in 1949 in honor of the battle.

Waldron Field, an outlying training landing strip, at Corpus Christi NAS as well Waldron Road leading to the strip, was named in honor of the commander of USS Hornet 's Torpedo Squadron 8. Yorktown Boulevard leading away from the strip was named for the U.S. carrier sunk in the battle.

Henderson Field ( Guadalcanal ) was named in honor of United States Marine Corps Major Lofton Henderson , who was the first Marine aviator to perish during the battle .

An escort carrier , USS Midway ( CVE @-@ 63 ) was commissioned on 17 August 1943 . She was renamed St. Lo on 10 October 1944 to clear the name Midway for a large fleet aircraft carrier , USS Midway ( CV @-@ 41 ) , which was commissioned on 10 September 1945 , eight days after the Japanese surrender , and is now docked in San Diego , California , as the USS Midway Museum . On 13 September 2000 , Secretary of the Interior Bruce Babbitt designated the lands and waters of

Midway Atoll National Wildlife Refuge as the Battle of Midway National Memorial .