



Divining

into History

Moose Peterson profiles the Dixie Wing's Dauntless and describes the type's role in the Pacific War

'Slow But Deadly' is what Dauntless pilots thought the initials of their beloved dive-bomber's designation stood for. Actually SBD denoted Scout Bomber Douglas. In the history of World War Two it's often overlooked, yet the aircraft changed the face of the Pacific war in five decisive minutes at Midway on June 4, 1942.

"A date which will live in infamy", December 7, 1941 marked America's entry into World War Two after the attack on Pearl Harbor: Japan's goal was not to conquer the US but force it to accept a treaty permitting the Japanese to keep all the territories they'd recently conquered. To make this happen, they needed to destroy America's ability to wage war in the Pacific.

By the time of Midway, Japan had conquered, with its carrier force, Malaya, Singapore, the Dutch East Indies, Borneo, Java, Sumatra, the Philippines, Thailand and Burma. Its sights were set on the east: further into China and to India. It was important to have the US

subdued and not venturing into the Pacific.

After Pearl Harbor, US Navy Admiral Chester Nimitz had three carriers available for offensive operations: the USS *Enterprise*, *Yorktown* and *Hornet*, all three carrying a maximum of 108 SBDs. *Enterprise* and *Yorktown* were older; *Hornet* was right out of the shipyard.

The US force was new and inexperienced compared with the seasoned Japanese pilots. Yet within six months of Pearl Harbor, the Americans were able to turn the tide of Japanese aggression. How?

It began when the US sent the carriers to the Marshall Islands, winning small and mostly insignificant battles, and demonstrating they were capable of hitting mainland Japan. Taking off from the *Hornet* on April 18, 1942, North American B-25 Mitchells struck the Japanese homeland during the famous 'Doolittle Raid'.

Securing a protective ring around their conquered territory, Japanese strategists knew they would have to take out all the US carriers in a decisive battle in the Pacific. With an attack on the Aleutian Islands as a

decoy strategy, they planned for the waters around Midway to be where the navies clashed.

Through sheer luck and dogged determination, SBDs dispatched the carriers *Akagi*, *Kaga*, *Sōryū* and *Hiryū*. The victory was not just about tonnage: going down with the vessels were valuable aircraft and irreplaceable, highly trained and battle-hardened pilots.

The victory at Midway has led many to think the SBD was pivotal in just that one battle, but in 1942, SBDs alone sent more than 200,000 tons of shipping to the bottom – all other US forces combined sank less than half of that amount.

Carrier killer

The SBD Dauntless traces its origins to 1935 and Northrop's BT-1. Douglas acquired Jack Northrop's El Segundo, California, facilities in 1937 along with the US Navy's BT-1 and updated BT-2. Most importantly, coming with the deal was one of the greatest aircraft designers ever, Ed Heinemann, who set about producing a better BT.

Top left

Moisture causing an unusual effect around the propeller of a Dauntless as it takes off to attack Kwajalein during a pre-landing bombardment in January 1944.

KEY COLLECTION

Left

Classic official image of an SBD releasing its bomb. Note the perforated dive brakes.

KEY COLLECTION

Below

Pilots walking out to their SBDs, already prepped by the crew chiefs.

KEY COLLECTION



In his book, *Aircraft Design*, Heinemann wrote: "One day when I was a young man just beginning to design airplanes, the great person who founded the company that bore his name, Donald Douglas, took me by the shoulder and taught me a lesson that was simple, though vital to success. At the time, we were trying to generate business from the US Navy. 'Navy planes take a beating,' he said."

In 1935 the BT dive-bomber was 'modern' with its metal skin, monoplane wing and semi-retractable landing gear. It had the unique feature of distinctive split dive brakes – with 300 holes, each about the diameter of a tennis ball, in them – to eliminate tail buffeting during a 70° dive-bombing mission.

The SBD-1 was armed with two forward-firing 0.50in M2 Browning machine guns mounted in the cowling above the 1,200hp Wright R-1820 Cyclone nine-cylinder radial. In the back the radioman had a rotating, rearward-firing flexible mount with a pair of 30-cal Brownings.

A trapeze mount under the fuselage could carry a 500lb (226kg) or 1,000lb bomb and 250- or 500-pounders on wing racks. The bomb combination determined range, with missions normally out to only 250 miles (402km). Compared with the Japanese Aichi D3A *Val* dive-bomber, the SBD was short in all departments but one: with its armour plating and self-sealing tanks the *Dauntless* was tougher and capable of

The SBDs of VB-6 were destroyed during the attack on Pearl Harbor. Three days after the raid, a *Dauntless* sunk a Japanese submarine, the first US Navy aircraft to take out an enemy ship.

At Midway, the Marines of VMSB-241 received SBDs on May 26, 1942, only nine days before the battle. Its pilots had little time to train and lacked dive-bombing experience, but nevertheless some 52 SBD-2s and 56 -3s were in action at Midway.

The SBD-2 had a higher fuel capacity, at 310 gallons (1,173 litres), achieved by eliminating the centre auxiliary tank and replacing it with outer wing tanks. The figure later reduced to 260 gallons in some aircraft when the fuel cells were



Above
An SBD is prepared for take-off aboard the USS 'Santee' in November 1942; F4F Wildcat behind.
KEY COLLECTION

Above right
A mixture of Grumman F6F Hellcats and SBDs on the deck of the USS 'Lexington', off the Marshall and Gilbert Islands in November 1943.
KEY COLLECTION

"Compared with the Japanese Aichi D3A *Val* dive-bomber, the SBD was short in all departments but one: with its armour plating and self-sealing tanks the *Dauntless* was tougher and capable of taking much more punishment"

In what became the SBD, Heinemann made use of a new material, aluminium, which made for lighter yet much stronger structures, enabling him to break with common carrier practice by not adopting folding wings. By using the revolutionary metal, Heinemann created smaller, stubbier wings that lacked folding mechanisms and were light and strong.

Heinemann's team went with a relatively new hydraulic system in the SBD which powered the fully retractable undercarriage (no longer requiring hand-cranking), the perforated dive brakes and the flaps. The El Segundo design office added leading edge slots and improved ailerons and elevators.

taking much more punishment.

When those dive brakes were in use and the SBD was in its 70° dive, all these innovations came together, making it a lethal carrier killer.

Ready for combat

The US Navy signed the contract for the *Dauntless* in April 1939 and took on its first SBD-1 in September. The original order for 36 then rose to 144, including SBD-1s and -2s.

Marine Corps Squadron VMB-2 was the first unit to receive the *Dauntless*, in late 1940, while the first navy squadron to be equipped with SBD-2s – VB-6 – embarked on the USS *Enterprise* and *Lexington* in late 1941.

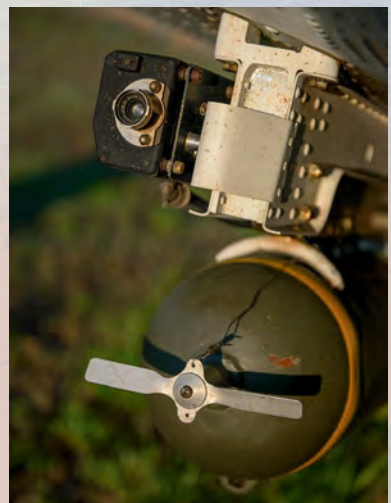
replaced with self-sealing units.

All the major changes were incorporated in the SBD-3 which came from the factory ready for combat. By the end of its production in 1944, four more versions of the SBD *Dauntless* had appeared, including a reconnaissance variant.

The USAAF version, the A-24 *Banshee*, had a pneumatic tail wheel rather than the navy's solid tyre, and no arrestor gear. In all, production totalled 5,936 SBDs.

Skywriter and photo-ship

The Commemorative Air Force Dixie Wing's SBD-5, N82GA, is one of only two flying today, the other being the Lone Star Flight



Above and left
The Commemorative Air Force Dixie Dauntless N82CA honours those who flew SBDs during the Battles of the Philippine Sea and Okinawa.

Left centre
The trapeze bomb rack launched the central bomb outside the propeller arc.

Left
The right-hand weapon pylon includes a bomb camera.

Museum's N93RW. The origins of the Dixie Dauntless were once clouded, as research gave two possibilities: El Segundo as a navy SBD; or Tulsa, Oklahoma, as a USAAF A-24B. The confusion likely came from two aircraft having '54532' in their identities: A-24B 42-54532 and SBD-5 Bureau of Aeronautics Number (BuNo) 54532.

Like everything they do, the team at Dixie Wing diligently researched the matter. They found that A-24B 42-54532 had 'CON' on its history card, dated July 31, 1944, meaning it was condemned, whereas the navy accepted SBD BuNo 54532 on March 3, 1944, clearing up the mystery to confirm that Dixie's machine is an SBD-5.

During its short US Navy career from March to August 1944, SBD 54532 never operated from a carrier. It later joined the Bureau of Aeronautics General Representative (BAR) in Los Angeles, California,

where it appears it served as a personal transport. In June 1945 it went to BAR Baltimore, Maryland, until December 1946 and retirement to the Naval Air Station at Norfolk, Virginia.

Struck off the inventory on February 8, 1947, it transferred to the War Assets Administration (WAA), civil-registered as N1339V, with its pedigree given as 6046 SBD-5 BuNo 54532. Interestingly the WAA sale document lists the serial number as 42-54532.

Andy Stinis bought the SBD-5 for use as a high-altitude skywriter for his Skywriting Corporation of America. But, discovering its fuel consumption was twice that of his North American T-6 Texans, it was sold.

Purchased by Luis Struck's company Mexicana Aerofoto on October 18, 1951, the aircraft took the Mexican registration XB-QUC. Between 1951 and 1966 *Uniform-Charlie* clocked up hundreds of

thousands of miles as an aerial photo-ship.

Flying commemoration

On January 11, 1966, the Dauntless was sold to Ed Maloney of the Movie World Planes of Fame Museum for \$1,600 and displayed at Ontario, California, until March 4, 1971 when it was sold on to Robert Griffin. As well as the SBD, Griffin donated a Curtiss SB2C-5 Helldiver N92879 and a Grumman FM-2 Wildcat to the Confederate Air Force (CAF, changing its name to Commemorative Air Force in 2002). He gave the Dauntless the name *Speedy D*.

In 1975, it finally put its wheels down on a carrier deck. As part of the retirement ceremonies for Admiral Ralph W Cousins, who flew the type in the Pacific, it was hoisted on board the USS *Nimitz*.

Sporting a new paint job in the colours of an SBD flown by



Dauntlesses with Roundels

Nine SBD-5s were given British serial numbers in 1943-1944: JS997 to JS999 and JT923 to JT928. Of these, three - JT924 to JT926 - transferred from Royal Navy charge to the RAF, but appear not to have been operated. The remainder were used largely for evaluation, mostly at the Royal Aircraft Establishment, Farnborough. At least two were used by the Naval Air Fighting Development Unit, 787 Squadron, at Wittering, near Stamford.



Dauntless JS997 at Boscombe Down in December 1943 in between trials at Farnborough. KEY COLLECTION

Above right
A flypast from the CAF Dixie Wing's Douglas Dauntless N92GA.

Below
The Dixie Wing's SBD-5 honours those who flew the type in the 'Great Marianas Turkey Shoot' and Operation Iceberg. ALL IMAGES AUTHOR UNLESS NOTED

Cousins, it sat next to the navy's newest jet at the time, a Grumman F-14 Tomcat. Cousins had been credited with a hit on the Japanese carrier *Shoho* during the Battle of the Coral Sea in May 1942, and was pleased to see *Speedy D*.

In the 1980s the SBD became hangar-bound at the then CAF headquarters, Harlingen, Texas, before being transferred to the organisation's Dixie Wing for a full restoration in 1991. Led by Mike Rettke, Gerald Calson and Tex Layton and the team's volunteers,



54532 was restored to an exceptional standard.

In February 1999, as N92GA, it took to the air again – its current paint scheme honouring those who flew SBDs in the 'Great Marianas Turkey Shoot' during the Battle of the Philippine Sea in June 1944 and Operation Iceberg, part of the Battle of Okinawa, between April and June 1945.

The details put into the restoration are extensive, with a dummy 1,000lb bomb on the centre rack and two 100-pounders on the wing mounts.

On the right pylon is an authentic bombing camera. While there are two 50-cal machine guns in the rear gunner's station that really marks the quality: with the canopy totally operational, the twin 30-cals could still track an enemy.

The Dixie Wing's Dauntless SBD-5 flies frequently, reminding us about this unique piece of American aviation history. The type's role in winning the Pacific war needs to be better understood and celebrated by all. ●

