SBD Dauntless

A-24 Banshee



Type <u>Dive bomber</u>

Manufacturer Douglas

Maiden flight 1 May 1940

Introduced 1940

Retired 1949?

Primary users United States Navy

U.S. Army Air Force

Fleet Air Arm

Free French Air Force

Number built 5,936

Developed from Northrop BT



SBD-5

Design and development

The Northrop BT-1 provided the basis for the SBD, which began manufacture in 1940. It was designed by designers team lead by Ed Heinemann with a 1,000 horsepower Wright Cyclone powerplant. A year earlier, both the U.S. Navy and Marine Corps had placed orders for the new dive bombers, aptly designated the SBD-1 and SBD-2 (the latter had increased fuel capacity and different armament). The former went to the Marine Corps in late 1940, and the latter went to the Navy in early 1941.

The next version, designated **SBD-3**, began manufacture in early 1941. It provided increased protection, <u>self-sealing fuel tanks</u>, and four machine guns. The **SBD-4** provided a 12-volt (from 6) electrical system, and a few were converted onto **SBD-4P** <u>reconnaissance</u> platforms.

The next (and most produced) variant, the **SBD-5**, was primarily produced at the Douglas plant at <u>Tulsa</u>, <u>Oklahoma</u>. It was equipped with a 1,200 hp (895 kW) engine and increased ammunition. Over 2,400 were built, and a few were shipped to the <u>Royal Navy</u> for evaluation. In addition to American service, the type saw combat against the Japanese with No. 25 Squadron of the <u>Royal New Zealand Air Force</u> which soon replaced them with <u>F4U Corsairs</u>, and against the Germans with the Free French Air Force. A few were also sent to <u>Mexico</u>. The final version, the **SBD-6**, provided more improvements but production ended in the summer of 1944.

The <u>U.S. Army</u> had its own version of the SBD, known as the **A-24 Banshee**, which was essentially the same aircraft with a few changes (the removal of the unnecessary <u>arresting hook</u> and different tires). Two versions (the A-24A and A-24B) were produced and used by the Army during and after the war.

[edit] Operational history



SBD Dauntless goes around for another landing attempt, after being "waved off" by the Landing Signal Officer on USS Ranger CV-4, circa June 1942



SBD Dauntless Being salvaged from Lake Michigan

The <u>Douglas</u> SBD Dauntless was the <u>U.S. Navy</u>'s main <u>dive bomber</u> from mid-1940 until late 1943, when it was supplemented (although not entirely replaced) by the <u>SB2C Helldiver</u>. The SBD was involved in combat from the first day of the Pacific War, as Dauntlesses arriving at Hawaii from USS <u>Enterprise</u> were caught in the Pearl Harbor attack. The type's first major use was in the <u>Battle of the Coral Sea</u>, when SBDs and <u>TBDs</u> sank the <u>Japanese aircraft carrier Shōhō</u>. SBDs were also used as anti-torpedo <u>combat air patrol</u> and scored several times against Japanese aircraft trying to attack <u>USS Lexington</u> and <u>USS Yorktown</u>. Their relatively heavy gun armament (two forward firing .50 calibre machine guns, one to two rear flexible-mount .30 calibre machine guns) was more than just a sinecure against the lightly built Japanese fighters, and many pilot-gunner combinations took an extremely aggressive attitude to fighters which attacked them. One pilot, "Swede" Vejtasa, was attacked by 8 <u>A6M Zero</u> fighters and managed to hold them off and down 3 in the process [1]. His skill as a fighter pilot was clear and he was immediately transferred to fighters. In October 1942 he downed 7 enemy planes in one day. However, the SBD's most important contribution to the American war effort probably came during the <u>Battle of Midway</u> (early June <u>1942</u>), when SBD dive bomber

attacks sank all four of the Japanese aircraft carriers (the <u>Akagi</u>, <u>Kaga</u>, <u>Sōryū</u>, and <u>Hiryū</u>) as well as heavily damaging two Japanese <u>cruisers</u> (including the <u>Mikuma</u>, which sank before a Japanese <u>destroyer</u> could scuttle it.)

At Midway, Marine SBDs were not as effective. One squadron, operating off Midway Island, was not trained in the "Helldiving" technique; instead, the new pilots resorted to the slower but easier glide bombing technique, which led to heavy losses. The carrier-borne squadrons, on the other hand, were much more effective, combined with their F4F Wildcat fighter escorts. It should also be mentioned that the success of dive bombing was due to two important circumstances: First and foremost, the fact that the Japanese carriers were at their most vulnerable: Readying bombers for battle, with full fuel hoses and armed ordnance strewn across their hangar decks. Secondly, that the valiant but doomed assault of the TBD Devastator squadrons from the American carriers had drawn the Japanese fighter cover down and away from the approach vector of the dive bombers, making it impossible for them to intercept the Dauntlesses thereby allowing the SBD attacks to go unhindered.

Next, SBDs participated in the <u>Guadalcanal campaign</u>, both from American carriers and <u>Henderson Field</u> on <u>Guadalcanal Island</u>. Dauntlesses contributed to the heavy loss of Japanese shipping during the campaign, including the carrier <u>Ryūjō</u> near the <u>Solomon Islands</u> on <u>August 24</u>, damaging three others during the six-month campaign. SBDs proceeded to sink one cruiser and nine transports during the decisive <u>Naval Battle</u> of <u>Guadalcanal</u>.

During the decisive time of the <u>Pacific Campaign</u>, the SBD's strengths and weaknesses became evident. Interestingly, while the American strength was dive bombing, the Japanese stressed their <u>Nakajima B5N</u> "Kate" <u>torpedo bombers</u>, which caused the bulk of the damage at <u>Pearl Harbor</u>.

Although it was already reaching obsolescence by 1941, the SBD was used until 1944 when the Dauntless undertook its last major action during the <u>Battle of the Philippine Sea</u>. However, some Marine squadrons utilized Dauntlesses until the end of the war. It had already been replaced by the <u>SB2C Helldiver</u> in the U.S. Navy, much to the dismay of the pilots, many of whom believed that the "Slow But Deadly" Dauntless was a better aircraft than the Helldiver, which gained the nickname "Son of a Bitch 2nd Class." The Dauntless was one of the most important aircraft in the Pacific Theatre of World War II, sinking more enemy shipping in the Pacific war than any other US or Allied aircraft. In addition, Barrett Tilman, in his book on the Dauntless, claims that the Dauntless has a "plus" score against enemy aircraft, a rare event for a nominal "bomber" indeed.

5,936 SBDs were produced in World War II.

Operators



SBD Dauntless landing aboard <u>USS Ranger CV-4</u>

Australia

Royal Australian Air Force operated A-24B Banshees.



• Chilean Air Force operated A-24B Banshees.

France

• French Air Force

■ Mexico

Mexican Air Force

New Zealand

• Royal New Zealand Air Force

United Kingdom

Fleet Air Arm

United States

- United States Army Air Force
- United States Marine Corps
- United States Navy

Specifications (Douglas SBD Dauntless)



Gunner of an SBD Dauntless aims his plane's twin .30 caliber machine guns aboard <u>USS</u> <u>Independence</u>, during the shakedown period, 30 April 1943.

General characteristics

Crew: Two

Length: 33 ft 1 in (10.08 m)
Wingspan: 41 ft 6 in (12.65 m)
Height: 13 ft 7 in (4.14 m)

- Wing area: 325 ft² (30.19 m²)
 Empty weight: 6,404 lb (2,905 kg)
- Loaded weight: 10,676 lb (4,843 kg)
 Max takeoff weight: 10,700 lb (4,853 kg)
- Powerplant: 1x Wright R-1820-60 radial engine, 1,200 hp (895 kW)

Performance

- Maximum speed: 255 mph (410.38 km/h)
- Range: 773 mi (1243.8 km)
- <u>Service ceiling</u>: 25,530 ft (7,780 m)
- Rate of climb: 1,700 ft/min (8.6 m/s)
- Wing loading: 32.8 lb/ft² (160.4 kg/m²)
- Power/mass: 0.11 hp/lb (0.18 kW/kg)

Armament

- 2x 0.5 in (12.7 mm) forward-firing machine guns
- 1x 0.3 in (7.62 mm) flexible-mounted machine guns (later versions fitted with 2x machine guns of the same caliber)
- 2,250 lb (1,020 kg) of bombs

External links

- Warbird Alley: SBD
- The SBD Shipborne Dive Bomber
- Aero-Web.org: SBD-5 Dauntless

Related development

- Northrop YA-13
- Northrop A-17
- Northrop BT

Comparable aircraft

- Aichi D3A
- Blackburn Skua
- Junkers Ju 87
- SB2C Helldiver

Designation sequence

- Navy: <u>SBC</u> <u>SB2C</u> <u>SB3C</u> <u>SBD</u> <u>XSB2D</u> <u>SBU</u> <u>SB2U</u>
- Army: XA-21 A-22 A-23 A-24 A-25 A-26 A-27

Related lists

- List of military aircraft of the United States (naval)
- List of military aircraft of the United States