

Grumman A-6E “Intruder”

The Hickory Aviation Museum’s A-6E, Bureau Number 155629 is on loan from the National Museum of Naval Aviation. It was delivered in October 2021. Coordinated by Kyle and Kregg Kirby.



The Grumman A-6E Intruder was an all-weather attack aircraft for Navy long-range interdiction missions and with STOL (Short Take Off/Landing) capability for Marine close air support. It replaced the piston engine Douglas A-1 Skyraider. Operated by a crew of two in a side-by-side seating configuration, the workload was divided between the pilot and weapons officer (bombardier/navigator (BN)). The Intruder had a maximum takeoff weight of 60,400 pounds (empty weight 26,600 pounds) and had a top speed of more than 640 miles per hour.

Role	All Weather Attack Aircraft
National Origin	United States
Manufacturer	Grumman
First flight	19 April 1960
Introduction	February 1963
Retired	1997, U.S. Navy 1993, USMC
Status	Retired
Primary users	United States Navy United States Marine Corps
Produced	1962–1992
Number built	693
Propulsion	2 x Pratt-Whitney J52-P8B Turbojets
Unit cost	US\$26mil (FY80)
Variants	A-6A/B/C/E/F, KA-6D Tanker, EA-6B Prowler Electronic Warfare

General characteristics

Crew: Two, Pilot and Bombardier/Navigator
 Length: 54 ft 9 in (16.69 m)
 Wingspan: 53 ft 0 in (16.15 m)
 Height: 16 ft 2 in (4.93 m)
 Wing area: 528.9 ft² (49.14 m²)
 Empty weight: 26,660 lb (12,093 kg)
 Loaded weight: 18,300 lb (8,318 kg)
 Max. takeoff weight: 60,400 lb (27,397 kg)
 Powerplant: 2 × Pratt & Whitney J52-P8B turbojet,
 9,300 lbf (41 kN)

Performance

Maximum speed: 560 kn (640 mph, 1,040 km/h)
Range: 2,818 nmi (3,243 mi, 5,219 km)
Combat radius: 878 nmi, (1,010 km)
Service ceiling: 42,400 ft (12,900 m)
Rate of climb: 7,620 ft/min (38.7 m/s)
Wing loading: 70.7 lb/ft² (344.4 kg/m²)
 G-limit: -2.4 to 6.5 g
Armament Hardpoints:
 Rockets (Zuni), Missiles (Harpoon, Maverick, Walleye, Harm, Sidewinder), Bombs (MK 82/83/84, GBU/CBU), Mines (MK 60 Captor), Baggage pods, Chaff, Flares, Practice Stores

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Design and Development

As a result of the fair-weather limitation of the propeller-driven A-1 Skyraider in the Korean War and the advent of turbine engines, the United States Navy issued preliminary requirements in 1955 for an all-weather carrier-based attack aircraft. The U.S. Navy published an operational requirement document for it in October 1956. It released a request for proposals (RFP) in February 1957. This request called for a 'close air support attack bomber capable of hitting the enemy at any time'. The U.S. Navy announced the selection of Grumman on 2 January 1958. The company was awarded a contract for the development of their submission, which had been re-designated *A2F-1*, in February 1958. The *A2F-1* design incorporated several cutting-edge features for the era. In the early 1960s, it was novel for a fighter-sized aircraft to have sophisticated avionics that used multiple computers. The first prototype YA2F-1, lacking radar and the navigational and attack avionics, made its first flight on 19 April 1960, with the second prototype flying on 28 July 1960.

Operational History

The Intruder received a new standardized US DOD designation of *A-6A* in the Autumn of 1962, and entered squadron service in February 1963. The A-6 became both the U.S. Navy's and U.S. Marine Corps's principal medium and all-weather/night attack aircraft from the mid-1960s through the 1990s and as an aerial tanker either in the dedicated *KA-6D* version or by use of a Buddy Store (*D-704*).

A-6 Intruders first saw action during the Vietnam War, where the craft were used extensively against targets in Vietnam. The aircraft's long range and heavy payload (18,000 pounds or 8,200 kilograms) coupled with its ability to fly in all weather made it invaluable during the war. However, its typical mission profile of flying low to deliver its payload made it especially vulnerable to anti-aircraft fire, and in the eight years the Intruder was used during the Vietnam War, the U.S. Navy and U.S. Marine Corps lost a total of 84 A-6 aircraft of various series. Of the 84 Intruders lost to all causes during the war, ten were shot down by surface to air missiles (SAMs), two were shot down by MiGs, 16 were lost to operational causes, and 56 were lost to conventional ground fire and AAA.

A-6 Intruders were later used in support of other operations, such as the Multinational Force in Lebanon in 1983, the bombing of Libya in 1986 and Operation Desert Shield/Desert Storm in 1990-1991. During the Gulf War in 1991, U.S. Navy and U.S. Marine Corps A-6s flew more than 4,700 combat sorties, providing close air support, destroying enemy air defenses, attacking Iraqi naval units, and hitting strategic targets. They were also the U.S. Navy's primary strike platform for delivering laser-guided bombs.

The A-6 was intended to be replaced by the McDonnell Douglas A-12 Avenger II, but that program was canceled due to cost overruns. The Intruder remained in service for a few more years before being retired in favor of the LANTIRN-equipped F-14D Tomcat, which was in turn replaced by the F/A-18E/F Super Hornet in the U.S. Navy and the twin-seat F/A-18D Hornet in the U.S. Marine Corps. The final deployment of the Intruder was onboard CVN-65 USS ENTERPRISE with VA-75 “Sunday Punchers” and The last Intruders were retired on 28 February 1997.