

Grumman S-2 Tracker

S-2 Tracker



An S-2E from VS-41 ready for launching from the USS *Bennington* (CV-20)

Role	ASW aircraft
Manufacturer	Grumman
First flight	4 December 1952
Introduction	February 1954
Retired	1976, USN
Status	Active with the Argentine Naval Aviation
Primary users	United States Navy (historical) Royal Canadian Navy (historical) Royal Australian Navy (historical) Japan Maritime Self-Defense Force (historical)
Number built	1,284
Variants	Grumman C-1 Trader Grumman E-1 Tracer Conair Firecat

The **Grumman S-2 Tracker** (previously **S2F** prior to 1962) was the first purpose-built, single airframe anti-submarine warfare (ASW) aircraft to enter service with the US Navy.

Its predecessor, Grumman's AF-2 Guardian was the first purpose-built aircraft system for ASW, using two airframes, one with the detection gear, and the other with the weapons.



US Navy S-2 *Tracker* on the port catapult of USS *Lexington* (CVS-16) ready for take-off, 22 January 1963

The Tracker was eventually superseded for U.S. military use by the Lockheed S-3 Viking, the last USN Tracker squadron (VS-37 with S-2G models) was disestablished in 1976. The last Navy S-2 was withdrawn from service on 29 August 1976.^[2] A number live on as firefighting aircraft, however. Trackers continued to provide excellent service with the naval forces of other countries for years after the U.S. discontinued them. For example, the Royal Australian Navy continued to use Trackers as front line ASW assets until the mid 1980s.



MAPS S-2F, Bureau Number 136464

The S-2F Tracker that is hangared at the MAPS Air Museum was built by Grumman Corporation in Bethpage, New York. It was accepted by the United States Navy on 20 March 1956. Its first assignment was with Sea Control Squadron (VS) 36 at the Naval Air Station located in Norfolk, Virginia. In July of 1956,

136464 was relocated to the Naval Air Station, Pensacola, Florida where it was converted to an S2F-1S. In March of 1960, the aircraft was assigned to Sea Control Squadron 39 at the Naval Air Station, Quonset Point, Rhode Island with subsequent assignments to Sea Control Squadron 34 and Sea Control Squadron 20 also located at Quonset Point.

In July of 1962, the S-2F was transferred to the Naval Air Reserve Training Command (NART) at the Naval Air Station, Gross Ile, Michigan and redesignated to S-2B. In February of 1963, the aircraft was assigned to NAS, Pensacola, Florida and in September, back to Gross Ile.

In January of 1968, the Tracker was assigned to the naval Air Station, Pensacola, Florida and converted to an US-2A. In October of 1969 the aircraft was sent to the Naval Air Station in Atsuge, Japan. July 1970 saw the aircraft assigned to the Naval Antarctic Support Unit (NASU), Iwakuni, Japan and in September of that year back to Atsuga, Japan.

In April of 1971, 136464 returned to CONUS with assignment to the Naval Air Station, North Island, California. Three months later (July 1971), the S-2 was assigned to the Naval Air Reserve Unit (NARU) at Memphis, Tennessee.

In March of 1975 the aircraft was, once again, moved. This time to the Naval Air Reserve Unit, North Island, California followed in July by movement to the Naval Air Reserve Unit in Whidbey, Island Washington and to the Naval Air Reserve Unit in Memphis, Tennessee in June of 1978.

136464 was placed in storage at the Military Aviation Storage & Disposal Center (MASDC) at Davis-Monthan Air Force Base in Arizona.

In May of 1989, the aircraft was sold to a private owner who, in turn, sold it to the Aviation Business Corporation in March of

2000. The aircraft has been hangared at MAPS since May of 2007.

Variants

XS2F-1

Two prototype anti-submarine warfare aircraft powered by 1,450 hp R-1820-76WA engines.

YS2F-1

Designation of the first 15 production aircraft used for development redesignated YS-2A in 1962.

S2F-1

Initial production variant with two 1,525 hp R-1820-82WA engines, re-designated S-2A in 1962, 740 built.

S2F-1T

Trainer conversion of S2F-1, redesignated TS-2A in 1962.

S2F-1U

Utility conversion of S2F-1, redesignated US-2A in 1962.

S2F-1S

S2F-1 conversion with Julie/Jezebel detection equipment, redesignated S-2B in 1962. Survivors converted to US-2B after removal of ASW gear.

S2F-1S1

S2F-1S fitted with updated Julie/Jezebel equipment, redesignated S-2F in 1962.

S2F-2

As S2F-1 with asymmetrical (port-side) extension of bomb bay, slightly enlarged tail surfaces, 77 built, most redesignated S-2C in 1962.

S2F-2P

Photo reconnaissance conversion of S2F-2, redesignated RS-2C in 1962.

S2F-2U

Utility conversion of S2F-2/S-2C, redesignated US-2C in 1962. Some were used as target tugs.

S2F-3

Enlarged forward fuselage, enlarged tail surfaces, additional fuel capacity, and enlarged engine nacelles bays for 32 sonobouoys, redesignated S-2D in 1962, 100 built.

S2F-3S

As S2F-3 but with Julie/Jezebel equipment, redesignated S-2E in 1962, 252 built.

YS-2A

YS2F-1 redesignated in 1962.

S-2A

S2F-1 redesignated in 1962.

TS-2A

S2F-1T training version redesignated in 1962 and 207 conversion from S-2A.

US-2A

S-2A converted as light transports/target tugs, 51 conversions.

S-2B

S2F-1S redesignated in 1962.

US-2B

Utility and target tug conversions of S-2A and S-2B; most S-2Bs were converted and 66 S-2As.

S-2C

S2F-2 redesignated in 1962.

RS-2C

S2F-2P photo-reconnaissance version redesignated in 1962.

US-2C

S2F-2U utility version redesignated in 1962.

S-2D

S2F-3 redesignated in 1962.

YAS-2D/AS-2D

Proposed self-contained night attack aircraft to be developed under Operation Shed Light; none produced.

ES-2D

Electronic trainer conversion of the S-2D.

US-2S

Utility conversion of the S-2D.

S-2E

S2F-3S redesignated in 1962.

S-2F

S2F-1S1 redesignated in 1962.

US-2F

Transport conversion of S-2F.

S-2G

S-2E conversions with updated electronics (primarily AN/AQA-7 DIFAR sonobuoy processor and AN/ARR-75 sonobuoy receiver)

CS2F-1

Initial production run of anti-submarine warfare aircraft for Canada based on S2F-1. A total of 42 built by De Havilland Canada.

CS2F-2

Improved version of CS2F-1 with Litton Industries tactical navigation equipment. A total of 57 were built by De Havilland Canada.

CS2F-3

New designation given to 43 CS2F-2 aircraft upgraded with additional electronics.

CP-121

New designation given to all CS2F-1, -2, and -3 aircraft following unification of Canadian military in 1968.

S-2T Turbo Tracker For Argentina

6 upgraded S-2E turboprop engines conversion by IAI in 1990s for the Argentine Navy.

S-2T Turbo Tracker For Taiwan

27 out of 32 upgraded S-2E and S-2G turboprop engines conversion by Northrop Grumman in 1990s for then Taiwan/ROC Air Force, now operates by Taiwan/ROC Navy aviation.

S-2T Turbo Tracker

Civil conversion

S-2AT

Civil firefighter conversion.

S-2ET

Civil conversion.



CDF S-2F3AT Turbine Tracker landing at Fox Field, Lancaster, California, while fighting the North Fire.

Marsh S-2F3AT Turbo Tracker

Turboprop conversion, powered by two Garrett TPE331 engines; a total of 22 are operated by the CDF.

General characteristics (S-2F)

- **Crew:** four (two pilots, two detection systems operators)
- **Length:** 43 ft 6 in (13.26 m)
- **Wingspan:** 72 ft 7 in (22.12 m)
- **Height:** 17 ft 6 in (5.33 m)
- **Wing area:** 485 ft² (45.06 m²)
- **Empty weight:** 18,315 lb (8,310 kg)
- **Loaded weight:** 23,435 lb (10,630 kg)
- **Max takeoff weight:** 26,147 lb (11,860 kg)
- **Power plant:** 2 × Wright R-1820-82WA radial engines, 1,525 hp (kW) each

Performance

- **Maximum speed:** 280 mph (450 km/h) at sea level
- **Cruise speed:** 150 mph (240 km/h)
- **Range:** 1,350 mi (2,170 km) or 9 hours endurance
- **Service ceiling:** 22,000 ft (6,700 m)

Armament

- 4,800 lb (2,200 kg) of payload could be carried in the internal bomb bay and on 6× under-wing hard points
- Torpedoes: Mk. 41, Mk. 43, Mk. 34, or Mk. 44
- Depth charges: Mk. 54 or naval mines