

# THE STOOF

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Good News: Our Stooft aircraft, which was recently located on the Flight Deck, is now located on the Hangar Deck, where it is within easy access for docents giving a Special Weapons tour.

*What in the world is a Stooft?*

A **Stooft** is the Navy's first ASW aircraft designed specifically to aid in detecting, targeting, and attacking submarines. Its proper name is **Tracker**, but its naval designation is S-2F, which, when read out loud, is pronounced Stooft.

*Was this aircraft used during WWII?*

The plane looks old enough, but in reality, it was not designed until 1952. The Tracker was of great service to the Hornet during the Viet Nam Era.

*Why was it driven by propellers during the Jet Age?*

The Tracker was not designed for speed or beauty. It was large and clumsy looking, but it was surprisingly very maneuverable. It was designed to carry heavy loads and to fly close to the ground. It had a top speed of only 280 MPH.

*What kind of crew did this plane require?*

It required a crew of four men: a pilot, a copilot, a weapons officer, and a communications officer.

*What kind of weapons could it carry?*

It had an internal torpedo bay capable of carrying two lightweight aerial torpedoes, or one nuclear depth charge. Additionally, under the wings it had six external brackets called *hard points*. From these hard points, they could launch conventional depth charges, rockets, or additional torpedoes.

*Besides ASW weapons, what type of ASW detection equipment could it carry?*

The Tracker could be fitted with Sonobouy launching tubes. A **sonobouy** is an expendable, underwater listening device which can record and transmit data concerning a submarine's location. The launching tubes also could fire two 5-inch rockets.

The Tracker could be fitted with a **radome**, (which is Navy slang for radar dome). The radome was used to receive data coming from the sonobouys, and send this data to the AEW (Airborne Early Warning) room. This room is located on the gallery deck, just above the Security Desk on the Hornet. After the AEW room receives this data, they will immediately relay it to the ASCAC room (Anti-Submarine Classification and Analysis Center). There, the data will be processed, analyzed, and disseminated. The ASCAC room is located on the Hornet on 02 Level, inboard from the Combat Information Center.

The Tracker was also fitted with a **magnetic anomaly detector** (MAD). The MAD is an instrument used to detect minute variations in the Earth's magnetic field. From high in the air, it could detect surface ships or underwater submarines. The way it works is by detecting large metallic objects which get in the way of the magnetic lines of Earth's force field. It is basically detecting a "hole" in the Earth's magnetic field.

The Tracker is also fitted with an **Autolytus**, also known as a **sniffer**. The sniffer scans the atmosphere over the ocean looking for signs of a submarine. The sniffer is effective even if the submarine is submerged and breathing through its snorkel. When they find traces of smoke, the sniffer zooms in to determine what kind of smoke it is. Heavy gases reflect or absorb sunlight, each in its own unique way. By doing a

spectrographic analysis, they can identify what kind of gas it is, and if it is diesel exhaust, they have found their submarine. This method is the same as the one used by astronomers to identify gases on other planets.

One more detection device seen on our Tracker is a 12-inch, 1000-watt, incandescent, 70-million candlepower searchlight mounted on the starboard wing. The use of searchlights was popular during WWII for spotting submarines that had surfaced at night to charge their batteries, but during the Viet Nam Era, their use was virtually nil. With the use of radar, sonar, acoustical locators, sonobuoys, magnetic anomaly detectors, and gas sniffers, the use of searchlights and binoculars was pretty much obsolete.