Lockheed P-3C Orion

The Hickory Aviation Museum's P-3C Orion Bureau Number 156515 is on loan from the National Museum of Naval Aviation. VP-30 flew this aircraft into Hickory Regional Airport from NAS Jacksonville, FL September 2017. Coordinated by Kyle and Kregg Kirby.

Role	Maritime Patrol Aircraft
National origin	United States of America
Manufacturer	Lockheed/Lockheed Martin/Kawasaki Heavy Industries
First flight	25 November 1959
Introduction	13 August 1962
Status	Active
Primary users	United States Navy 17 Other Countries
Produced	1969–1990
Number built	Lockheed -650, Kawasaki – 107 total of 757
Propulsion	4 x Allison T-56-A-14 Turboprop Engines
Unit cost	US$36 million (1987)

The Lockheed P-3 Orion is a four-engine turboprop anti-submarine warfare and maritime surveillance aircraft developed for the United States Navy and introduced in the 1962. Lockheed based it on the L-188 Electra commercial airliner. The aircraft is easily distinguished from the Electra by its distinctive tail stinger or "MAD Boom", used for the magnetic detection of submarines.

Over the years, the aircraft has seen numerous design developments, most notably in its electronics packages. Numerous navies and air forces around the world continue to use the P-3 Orion, primarily for maritime patrol, reconnaissance, anti-surface warfare and anti-submarine warfare. A total of 757 P-3s have been built, and in 2012, it joined the handful of military aircraft including the Boeing B-52 Stratofortress, Boeing KC-135 Stratotanker, Lockheed C-130 Hercules and the Lockheed U-2 that have seen over 50 years of continuous use by the United States military. The Boeing P-8 Poseidon will eventually replace the U.S. Navy's remaining P-3C aircraft.

General characteristics	**Performance**
Crew: 11 (12, prior to elimination of in-flight ordnanceman in USN aircraft) **Length:** 116 ft 10 in (35.6 m) **Wingspan:** 99 ft 8 in (30.4 m) **Height:** 38 ft 8 in (11.8 m) **Wing area:** 1,300 ft² (120.8 m²) **Empty weight:** 77,200 lb (35,000 kg) **Loaded weight:** 135,000 lb (61,400 kg) **Max. takeoff weight:** 142,000 lb (64,400 kg) **Powerplant:** 4 × Allison T-56-A-14 turboprop engines **Horsepower:** 4,600 shp (3,430 kW) each **Maximum fuel capacity:** 8,955 gallons (33,898 liters)	**Maximum speed:** 411 kts (750 km/hr) **Combat radius:** 1,346 nmi (2,490 km) 3 hours onstation at 1,500 ft **Ferry range:** 4,830 nmi (8,944 km) **Service ceiling:** 28,300+ ft (8,625 m) **Rate of climb:** >3,140 ft/min (16 m/s) **Armament** **Hardpoints:** 18 total. 10 wing (AGM-64 Maverick, AGM-84 Harpoon, 500/1000/2000 bombs) and 8 bomb bay (MK44/46/48/54 torpedoes, B-57, various mines)

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Operational history

US Navy

Developed during the Cold War, the P-3's primary mission was to track Soviet Navy Ballistic Missile and Fast Attack Submarines and to eliminate them in the event of full-scale war. At its height, the U.S. Navy's P-3 community consisted of twenty-four active duty "Fleet" patrol squadrons home based at air stations in the states of Florida and Hawaii as well as bases which formerly had P-3 operations in Maryland, Maine, and California. There were also thirteen Naval Reserve patrol squadrons identical to their active duty "Fleet" counterparts, said Reserve "Fleet" squadrons being based in Florida, Pennsylvania, Maryland, Michigan, Massachusetts (later relocated to Maine), Illinois, Tennessee, Louisiana, California and Washington. Two Fleet Replacement Squadrons (FRS), also called "RAG" squadrons (from the historic "Replacement Air Group" nomenclature) were located in California and Florida. The since-deactivated VP-31 in California provided P-3 training for the Pacific Fleet, while VP-30 in Florida performed the task for the Atlantic Fleet. These squadrons were also augmented by a test and evaluation squadron in Maryland, two additional test and evaluation units that were part of an air development center in Pennsylvania and a test center in California, an oceanographic development squadron in Maryland, and two active duty "special projects" units in Maine and Hawaii, the latter being slightly smaller than a typical squadron.

Reconnaissance missions in international waters led to occasions where Soviet fighters would "bump" a P-3, either operated by the U.S. Navy or other operators such as the Royal Norwegian Air Force. On 1 April 2001, a midair collision between a United States Navy EP-3E ARIES II signals surveillance aircraft and a People’s Liberation Army Navy J-8II jet fighter-interceptor resulted in an international dispute between the U.S. and the People's Republic of China (PRC).

More than 40 combatant and noncombatant P-3 variants have demonstrated the rugged reliability displayed by the platform flying 12-hour plus missions 200 ft (61 m) over salt water while maintaining an excellent safety record. Versions have been developed for the National Oceanic and Atmospheric Administration (NOAA) for research and hurricane hunting/hurricane wall busting, for the U.S. Customs Service (now U.S. Customs and Border Protection) for drug interdiction and aerial surveillance mission with a rotodome adapted from the Grumman E-2 Hawkeye or an AN/APG-66 radar adapted from the General Dynamics F-16 Fighting Falcon, and for NASA for research and development.

In January 2011, the U.S. Navy revealed that P-3s have been used to hunt down "third generation" narco submarines. This is significant because as recently as July 2009, fully submersible submarines have been used in smuggling operations.

Although the P-3 is a Maritime Patrol Aircraft, armament and sensor upgrades in the Anti-surface Warfare Improvement Program (AIP) have made it suitable for sustained combat air support over land. In what became known as the "Decade in the Desert", Navy P-3C crews patrolled combat zones in the middle east and southwest Asia. Since the start of the current war in Afghanistan, U.S. Navy P-3 aircraft have been operating from Kandahar in that role.

2019 will signal the final active duty P-3C deployments and the aircraft will be done with its service within the next two years, replaced by the Boeing P-8Poseidon.

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