# P-3C Training Solutions



#### Overview

Around the world, navy and air forces are operating in increasingly harsh and demanding maritime environments as they perform a range of missions. CAE is an experienced training systems integrator in the air domain and today we play a key role in preparing pilots and rear crews to effectively operate maritime patrol aircraft. For many years, CAE has been a leading provider of P-3C training systems and services that help contribute to the safety, efficiency, and mission readiness of P-3C Orion aircrews.

#### P-3C Missions

Manufactured by Lockheed Martin, the P-3C Orion aircraft has been a leading platform for long-range maritime patrol since it was introduced into service by the United States Navy in the 1960's, and for almost that long, CAE has been the leading provider of P-3C training systems and services.

The P-3C Orion plays a key role in maritime patrol, reconnaissance, anti-submarine warfare, anti-surface warfare, and search and rescue. It is widely used by navies and air forces around the world and is easily recognizable by its distinctive boom attached at the tail-end of the aircraft.

The boom is typically equipped with a magnetic anomaly detection (MAD) system, often provided by CAE, and is used to detect underwater objects such as submarines. More than 700 P-3C aircraft have been delivered by Lockheed Martin with 123 operational aircraft worldwide in 16 countries.

The P-3C's extensive use as a multimission, long-endurance maritime patrol aircraft means this platform will be serving militaries for many years to come

# Aircrew Training Systems and Services

CAE offers P-3C training solutions designed to fit the customer's need and budget. We provide the full range of training services including academic and classroom instruction, simulator training, and support for live flying training. CAE designs training systems that span from desktop and procedural part-task trainers through to full-motion operational flight trainers and full-mission simulators.

CAE's P-3C Orion operational flight trainers and full-mission simulators provide pilots with a fully immersive training experience featuring our leading-edge synthetic environments which include visual solutions and Open Geospatial Consortium Common Database (OGC CDB) architecture. In addition, we design and develop operational tactics trainers and rear crew trainers to support the training required by airborne sensor operators. The full suite of CAE's P-3C training devices can be networked to provide full-crew mission training.







### CAE Magnetic Anomaly Detection (MAD) Operational System

CAE is the world leader in the design, manufacture, and integration of magnetic anomaly detection (MAD) operational systems. The CAE MAD system is mounted on live aircraft such as the P-3C Orion and provides the capability to detect, locate, and confirm subsurface targets by identifying magnetic variations or anomalies, such as those caused by a submarine, in the Earth's magnetic field.

CAE has delivered more than 2,000 MAD systems for various aircraft platforms to military forces around the world. Over the past several years, CAE has developed a next-generation magnetic anomaly detection system called the CAE MAD-XR, which stands for magnetic anomaly detection-extended role (MAD-XR). This new system is much more compact and lighter than previous MAD systems.

## **P-3C Orion Training Experience**

CAE is the world's most experienced provider of P-3C Orion training systems and services. We have developed, delivered and supported P-3C training systems for a range of customers worldwide, including:

- United States Navy CAE performed major upgrades to the U.S. Navy's P-3C operational flight trainers;
- Royal Canadian Air Force (CP-140) CAE designed and developed the RCAF's CP-140 full-mission simulator and cockpit procedures trainer, and now provides maintenance support services on the CP-140 training systems;
- German Navy CAE designed and developed the German Navy's P-3C operational flight trainer and operational tactics trainer, and now operates and supports the simulator in Nordholz;
- Taiwan Air Force under a foreign military sale contract from the U.S. Navy, CAE developed the Taiwan Air Force's P-3C full-mission simulator and operational tactics trainer;
- Royal Australian Air Force (AP-3C) CAE provides maintenance and support services on the RAAF's AP-3C operational flight trainer, which was manufactured by another company and has been significantly upgraded by CAE with a range of CAE technologies.







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