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Since the terrorist attacks of September 11, 2001, America has been at war with organized terrorist organizations worldwide. The majority of the military efforts have been centered on the Central-Asian country of Afghanistan and a terrorist organization called Al Qaeda, supported by an Islamic fundamentalist sect called the Taliban—who all pledge allegiance to a man named Osama bin Laden.

Since the very beginning of the combat operations against the Taliban and Al Qaeda forces in Afghanistan, known as Operation Enduring Freedom, Maritime Patrol Aircraft have been involved, especially the US Navy’s P-3 Orion.

Patrol Squadron Nine (VP-9), commanded by CDR Robert A. Lally, was one of the first Maritime Patrol Squadrons to respond after the attacks on the World Trade Center in New York and the Pentagon in Washington DC. VP-9 had been on a peaceful Persian Gulf Deployment when word of the attacks reached them. The squadron had been operating 10 P-3C aircraft from three different sites: Diego Garcia in the Indian Ocean, Bahrain, and Masirah in Oman, as part of their normal deployment to support ongoing United Nations-imposed sanctions against Iraq.

Squadron P-3s, as part of their normal deployment, had been conducting Maritime Interception Operations to stem the flow of illegal Iraqi oil exports. These missions usually included the detection and investigation of merchant-ship traffic in and around the Persian Gulf. In this kind of mission, P-3s transmit real-time imagery of suspected vessels to Destroyer Squadron Commanders who, in turn, send Naval Special Warfare units to intercept the vessels. Once the vessels are intercepted, boarding parties are sent to search the ships for contraband goods. One mission was further complicated when a Navy boarding party, searching a UAE-flagged oil tanker, was lost at sea when the ship suddenly sank. A P-3 from VP-9 was called in to search for the five-man boarding party. Only three members of the Navy interdiction team and several crewmen of the ship were located and rescued.

After 9/11, VP-9’s P-3s, began littoral Maritime Surveillance Missions to provide operational commanders with a clearer picture of the enemy positions. This support was followed by the quick and decisive response issued by the U.S. and its allies on October 7, 2001. P-3s participated in the initial night of attacks on Afghanistan. They fired approximately 10 extended-range AGM-84H stand-off, land-attack missiles (SLAM-ER), striking Taliban and Al Qaeda targets within Afghanistan. It has been reported that a number of buildings and an SA-13 missile control center were hit in the P-3 strike. P-3s first fired AGM-84E SLAM missiles in Bosnia, in 2000, against Serbian targets.

The P-3s were further tasked with providing post-strike, real-time battle-damage assessment to operational commanders in order to plan re-strikes or new strikes on Taliban and Al Qaeda positions.

Once air supremacy over Afghanistan was established on or about October 17, by the U.S.-led coalition air forces, VP-9 Orions and augmenting P-3s from VP-46 began over-land surveillance missions. The P-3s provided ground commanders with a day/night view of Special Forces operations, on the ground in Afghanistan to dislodge the Taliban and loyalist Al Qaeda fighters.

In the battle for Tora Bora, the mountainous region in the Miliawa Valley, P-3s provided reconnaissance of the cave complexes where the Taliban and Al Qaeda fighters were hiding. The Orions transmitted real-time imagery to operational commanders coordinating USAF B-52 and jet fighter strikes into the caves along the rugged mountain sides. P-3s went on to provide additional Taliban and Al Qaeda recognition (identification) in other regions of the country in an effort to locate senior Al Qaeda members escaping over the border with Pakistan.

P-3s further provided Force Protection real-time imagery to ground task force commanders when U.S. Marines arrived in-country and set up forward operating bases at Camp Rhino and at the airport in the southern region of Kandahar. This mission involved providing real-time overhead imagery to ground commanders allowing them to see well beyond their positions—giving them early warning of Taliban attacks on USMC ground troops.

Simultaneously, P-3s continued to support the Maritime Interdiction operations in the Persian Gulf. These missions were enhanced to include Armed Carrier Group Protection and Maritime Surveillance for the whole battle group task force. This encompassed providing protection from surface and sub-surface attacks. The P-3s were armed with Maverick missiles. This has been an added mission to Navy P-3s in recent years as the maritime missions of the carrier-borne S-3B Viking have been reduced.

In the photo, VP-9 flight crew briefs on board their P-3C for an Operational Enduring Freedom mission. Opposite page, a rainbow arcs over a VP-9 Orion.
As weeks of the war went on, fleet P-3s, supported by EP-3Es, began surveillance missions, searching for high-profile Al Qaeda leaders and Osama bin Laden who might attempt to escape from Afghanistan by sea. The P-3s were employed to survey large areas of ocean for unusual shipping traffic, thus blocking the escape routes for terrorist leaders after a worldwide bulletin, issued on December 1, 2001, warned of this possibility. As it turned out, a worldwide ocean and port search ensued for a fleet of 23 merchant vessels believed to have been owned by Osama bin Laden.

Air Surveillance in Afghanistan subsequently became a multi-layered operation with the skies teeming with sophisticated surveillance aircraft. Navy fleet and Special Projects P-3 Orions operated at standoff altitudes just out of weapon ranges. Special Projects P-3s had been involved in operations in Afghanistan from the first, supporting air strikes by locating and identifying targets. Navy EP-3Es were involved in monitoring particular frequencies in coordination with carrier-based EA-6B EW jamming aircraft.

British Nimrods have also been participating in Afghan operations, supporting maritime surveillance missions out of Diego Garcia and conducting EW signals intelligence-gathering to locate Taliban hideouts. The EW-configured Nimrods operated over Afghanistan monitoring Taliban radio communications. They intercepted enemy radio communications, analyzed signals and passed of vital information on to coalition ground commanders.

Australia was another coalition country that contributed Maritime Patrol Aircraft to the war on terrorism. On October 17, 2000, the Royal Australian Air Force (RAAF) deployed two P-3C Orions and a detachment of 75 aircraft-support personnel to the area – as a component of the 1,550 personnel in the Australian Defense Force contingent to Afghanistan. The RAAF P-3s were assigned maritime reconnaissance missions in support of task force maritime interdiction operations.

Canada also recently contributed two CP-140 Aurora aircraft and three crews to the U.S.-led coalition. The Auroras provide maritime surveillance in the Arabian Sea for U.S. carrier battle groups. The Auroras are also providing surface and subsurface protection to the battle groups, freeing up U.S. Navy P-3s for increased surveillance missions over Afghanistan.

The Netherlands has proposed committing four of its P-3 Orions to support the maritime surveillance mission in the Persian Gulf. Their proposed missions will encompass monitoring and intercepting maritime shipping traffic. The Dutch P-3s, equipped with advanced electro-optics and infrared sensors, may even provide reconnaissance over southern Afghanistan to track refugees crossing the border with Pakistan, and in support of humanitarian relief efforts.

Since early January, U.S. Navy EP-3Es, British Nimrod RIs and French Atlantique Maritime Surveillance Aircraft have been flying missions over Somalia, looking for known Al Qaeda terrorists groups and monitoring suspected terrorist training camps. Somalia has long been suspected of harboring Al Qaeda terrorists, and many of its ruling war lords possess strong ties to Osama bin Laden. Somali rebel units are on the U.S. list of terrorist groups that the Bush administration has said it will eradicate in this war on terrorism.

The U.S. government has already stationed warships off the Somali coast to interdict suspicious vessels. It is currently looking to base surveillance aircraft and naval vessels in the area. The surveillance aircraft would support anti-terrorist operations in the region, prompting many to speculate that Somalia and Yemen may be the next to feel the brunt of U.S. resolve.

In early December 2001, VP-9 returned to its home base in Hawaii. All totaled, over 7,500 surveillance and maritime-interdiction patrols were flown by the squadron by the end of its assignment, doubling the mission hours flown in a normal deployment. The Orions supported the interdiction of over 40 vessels believed to be smuggling illicit oil contraband from Iraq, and protected the coalition battle groups from attack. This deployment sets a record for the most missions flown by a maritime patrol unit since the Vietnam War. P-3 aircraft from VP-4 have now deployed to the region to replace VP-9 and assume the challenge of the war on terrorism.

The Navy P-3 has established itself as a key surveillance asset to coalition and U.S. ground commanders in Afghanistan as well as to battle group commanders at sea. With its capabilities in high demand, the P-3 is guaranteed to be involved in the war on terrorism, no matter where it might occur.

**P-3 Surveillance Capabilities**

As operations continue in the war on terrorism in Afghanistan, Navy P-3s are once again demonstrating their capabilities to quickly adapt to non-standard missions, to become a key asset.

The recent implementation of the Avionics Improvement Program (AIP) upgrade to the Navy's fleet of P-3s has paid off. The AIP P-3s' real-time surveillance sensors and communications interoperability have been in high demand by operational commanders in this war on terrorism. The AIP-equipped Orions have been providing real-time surveillance and reconnaissance imagery for targeting strikes, as well as force protection of combat troops on the ground.
**From the Fleet**

The AIP upgrade, designed to improve anti-submarine operations and surveillance at sea, encompasses the installation of a new multi-mode imaging radar with both ISAR and SAR radar modes, which are ideal for targeting and target identification. Additionally, the upgrade program includes advanced infrared and electro-optical surveillance sensors. These are advanced-generation imaging sensors that provide long-range, stand-off surveillance capabilities.

AIP P-3s also possess an upgraded ESM system, improved C4I communications capabilities (via SATCOM) and the OTCIXS combat tactical link networks.

The AIP program also upgrades the P-3 weapons capabilities for the targeting and launching of Maverick and SLAM-ER missiles. The Maverick gives the P-3 a new low-cost anti-ship missile in support of Armed Carrier Group Protection missions. The SLAM-ER, is a land-attack variant of the P-3’s inherent Harpoon missile system and, as the name suggests, provides for a stand-off, land-attack capability that has been proven in Bosnia and now in Afghanistan.

Still more AIP improvements provide for the increased survivability of the aircraft: a missile warning system, missile countermeasures (chaff/flare) dispensers, and explosive suppressant foam in the fuel tanks.

Published accounts report efforts by the Taliban and Al Qaeda forces to shoot down Navy P-3s with anti-aircraft artillery fire and surface-to-air-missiles. Despite their low-altitude operation envelope, no P-3 has been damaged in Afghan operations.

There are plans to further upgrade the AIP P-3 in the near future. Improvements proposed include the addition of a moving target indicator (MTI), SAR radar system, Link 16, enhanced ESM with selective emitter indicator (SEI), and a dynamic video downlink to better transmit real-time imagery to operational commanders.

Although the U.S. Navy will primarily use its P-3s in a maritime role, its improved sensor systems have proved that it also may be a reliable augment to over-land operations.

The Orion’s sensor management, integration and dissemination of organic and inorganic data are positive aspects, and should be the basis for any future MMA aircraft.

This article is reprinted (with minor editing) courtesy of Maritime Patrol Aviation magazine. Author Reade is the Manager, P-3 Business Development, International Marketing for IMP Aerospace in Halifax, Nova Scotia Canada. He is also a freelance journalist who has written many informative articles on the P-3 Orion and the book, “The Age of Orion.”

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**Tomcat Squadron Transitions to Super Hornet**

By JO3 Christopher C. Folwier

NAS Lemoore, California based VFA-14 has earned the ‘safe for flight’ certification to fly the Navy’s premier strike-fighter, the F/A-18/E Super Hornet. The Tophatters became the first operational (non-FRS) squadron in the Navy to transition from the F-14 to the Super Hornet.

The Tophatters lineage has spanned the breadth of nearly all of Naval Aviation, with 85 years of continuous active service. Since September 1919, the Tophatters have flown 28 different aircraft from 20 carriers, including USS Langley (CV-1), and have had their designation changed 14 times.

CO CDR Bruce W. Focht, the 74th Tophatter skipper, said, “With so many firsts in our distinguished history, I think it is appropriate that the Tophatters have become the Navy’s first squadron to make the transition from Tomcats to Super Hornets.”

Certification as ‘safe for flight’ is the culmination of successfully completing a rigorous series of inspections and reviews of everything from maintenance procedures and documentation to tools and safety programs.

PO1 William J. Lumbra, airframe line division quality assurance representative, said, “Everyone has worked extremely hard (for certification). “Having COMSTKFITWINGPAC proclaim us Tomcat folks certified Super Hornet maintainers means we are moving on to bigger and better things.”

Said Focht, “With each flight I am increasingly confident that the Navy has taken the right step in maintaining both maritime & air supremacy for the foreseeable future. Unlike the Tomcat, which has limited room for growth and digital enhancements, the Super Hornet was built with future growth in mind. We are already seeing new weapons and systems on the drawing board.”

The ability to provide air superiority and maritime dominance in a wide range of threat environments marks the Super Hornet as the next step in the evolution of Naval Aviation in the 21st century.

Said Focht, “It has truly been an honor and a privilege to be a part of the history of the Tophatters during this transition. Personally, I know this new jet is fantastic for the future of Naval Aviation, but I think the F-14 era will never truly end in the hearts of those who flew her. Soon enough the bumper stickers and T-shirts will be out saying, “TOMCATS FOREVER.”