

THE ORIGINS OF ROYAL NEW ZEALAND AIR FORCE MARITIME OPERATIONS: AN OVERVIEW TO 1942

DR. JOHN MOREMON | MASSEY UNIVERSITY, NEW ZEALAND

Dr. John Moremon lectures in defence studies in the School of People, Environment and Planning, Massey University. He was previously a senior researcher (defence and security) for the Australian Parliament and a historian for Australia’s Department of Veterans’ Affairs. He has a BA(Hons) in History from the University of New England and a PhD in Military History/War Studies from the University of New South Wales, Canberra. He was also the RAAF’s Heritage Fellow (Research) for the period 2018-20.

AUTHOR BIO

In the 2018 edition of the *RNZAF Journal*, the author of the current article and co-writer Brian Oliver, of the RNZAF Air Power Studies Centre, observed the significance of the RNZAF’s maritime patrol capability to the defence and security of Aotearoa New Zealand. Maritime patrol is vital to multiagency operations aimed at securing our coastline, exclusive economic zone (EEZ) and regional waters.¹ Air activities include monitoring of shipping with a view to detecting border violations and illegal activities, such as people and drug smuggling; monitoring fisheries; rescues at sea; and assisting neighbouring states with monitoring their own maritime domains. The *Defence White Paper 2016* emphasised that these activities ensure ‘the protection and appropriate use of New Zealand’s natural resources, and that entry to the country is by legitimate means only’.²

At the time of the earlier article, the NZDF was still assessing options for replacing the long-serving

1 Moremon and Oliver, “Air Surveillance Capability”, 71-84.
2 New Zealand Government, *Defence White Paper 2016*, 19.

Lockheed P-3K2 Orion maritime patrol aircraft. The authors noted that selecting a replacement could be expected to be challenging, in part because of the array of missions and the operating radius requirement, ‘as the aircraft will be required to undertake a range of military and civilian roles around New Zealand and further afield’.³ In July 2018 the Government announced that four Boeing P-8A Poseidons would replace the six Orions operated by Whenuapai-based No. 5 Squadron. The Ministry of Defence reported that the P-8A was assessed to be the lowest cost and lowest risk option for New Zealand, being a proven design and utilised by key defence partners. The Ministry pointed out that the procurement would be ‘a once in a generation purchase, with the aircraft expected to be in service for at least 30 years’.⁴

The P-8A project has proceeded at a steady pace. Construction work at Ohakea, which will be the home of No. 5 Squadron when equipped with the P-8A, is progressing, and personnel have been training with the P-8A in the US and Australia. In July 2021, the NZDF reported that an RNZAF crew had completed the first New Zealand tactical flight in a P-8A while training at US Naval Air Station Jacksonville, in Florida.⁵

As the RNZAF looks ahead to the P-8A, it is timely to reflect on the place of maritime patrol in RNZAF history. The RNZAF has been responsible for maritime patrol for virtually its entire existence. This article considers the origins of RNZAF maritime patrol up to the mid-point of the Second World War, by which time the capability requirement was well-proven.

3 Moremon and Oliver, “Air Surveillance Capability”, 3.
4 Ministry of Defence, “Air Surveillance Maritime Patrol”.
5 Sgt. Lindsay, “Kiwis take over”, 18-19.

EARLY HISTORY

The maritime domain has always featured in New Zealand defence planning. Prior to the First World War, British Empire and New Zealand defence planners understood that any threat to New Zealand would involve naval forces. The assumption was that Great Britain would maintain a fleet in the region and dispatch a larger fleet from Europe should a threat against New Zealand or Australia eventuate. Under the imperial agreement, New Zealand was responsible for defence against lesser threats such as raids on coastal shipping lanes and harbours. The 1911 New Zealand Naval Defence Act created the New Zealand Naval Forces as a division of the Royal Navy, and a decade later New Zealand agreed to fund several warships to form the New Zealand Division of the Royal Navy. Meanwhile, the New Zealand Territorial Force was to be mobilised for land defence in the event of an attack.

Before 1914, aircraft were used primarily for reconnaissance. Generally they lacked the range and payload capability to be of much use in the maritime domain, except for short-ranged reconnaissance. The thinking around maritime air power evolved during the First World War, with a series of developments showing that aircraft could play a strong role at sea. In August 1915, Flight Commander Charles Edmonds, of Britain's Royal Naval Air Service (RNAS), conducted the first successful aerial torpedo attack, sinking an Ottoman ferry carrying supplies across the Sea of Marmara. By 1917, the RNAS had also recognised the potential of fighters to assist in protecting fleets from aerial observation and bombing – resulting also in the development of the aircraft carrier.

As hundreds of New Zealanders served in the British flying services, it was inevitable that some would gain

experience in maritime air operations. For instance, on 17 July 1918, Lieutenant Samuel Dawson, of Masterton, participated in the first air strike launched from an aircraft carrier when seven pilots took off in Sopwith Camels from HMS *Furious*, a modified battle cruiser, to raid a German airship base at Tondern, Denmark. New Zealanders also flew anti-submarine patrols and convoy escorts over the English Channel and along the coastlines of Britain and France where U-boats (submarines) posed a threat to shipping. In the war against the U-Boat, maritime aviation proved ‘an important force multiplier to surface anti-submarine forces’.⁶

The war showed that air power could also be important for the defence of New Zealand. Shortly after the war, Sir James Allan, Defence Minister, requested an RAF officer to assess New Zealand's defences and make recommendations in relation to air defences. Group Captain A. V. Bettington, who arrived in 1919, urged the Government to think of defence afresh ‘in three dimensions’ (land, sea, air). The country's long coastline and reliance on shipping for trade made protection of the sea lanes vital. Bettington noted how an air force could assist naval forces to defeat raids against shipping lanes and harbours.⁷ He advocated establishment of an air force comprising seven squadrons: two equipped with flying boats, one with torpedo bombers, one with day bombers, one with night bombers, and one with fighters (necessary for defence against air attacks that could be launched from aircraft carriers). The Government labelled Bettington's plan “impracticable” as the defence budget would not stretch to supporting an air force of this size.⁸

⁶ Abbatiello, *Anti-Submarine Warfare*, 172.

⁷ Moody, “Reflecting”, 55-64.

⁸ Spencer, *British Imperial Air Power*, 26-28.

While a strong air force was not an option, Great Britain gifted New Zealand thirty-four war-surplus aircraft to equip a new air force. Strangely, given the country's geography, none of these were particularly useful for maritime patrols.

ANZAC DAY EVENING CEREMONY AT MENIN GATE TOGETHER WITH THE AUSTRALIAN DEFENCE FORCE, LEPER, BELGIUM 2018.



The modest Air Force at first comprised four officers and two other ranks who served full-time, with approximately one hundred officer and airmen reservists. Most had served in the RNAS, Royal Flying Corps (RFC) or, later, the Royal Air Force (RAF); the RAF was the world's first independent air force, formed by merging the RFC and RNAS on 1 April 1918. The aircraft gifted included Avro 504 trainers, Airco DH.4 and DH.9 bombers, and Bristol F.2B Fighters. When the New Zealand Permanent Air Force (NZPAF) was established in 1923, the two Fighters and two DH.4 bombers were used for harbour patrols.

GEARING UP FOR WAR

Defence expenditure began increasing in the early 1930s, as governments worldwide responded to tensions in Europe and the Asia-Pacific. New Zealand's defence planners took steps to increase the maritime patrol capability. In 1934, the Government approved an order for twelve Vickers Vildebeests from Britain. The Vildebeest was designed in the late 1920s as a torpedo bomber, with the first delivery to the RAF in 1932. It was also available as a “general purpose” aircraft without torpedo gear so that it could be used for patrolling and bombing; an auxiliary fuel tank (in the shape of a torpedo, slung underneath the fuselage) effectively doubled its operating range to about 650 miles (1300 km). The NZPAF chose the general purpose variant. Press reports explained to the public that four aircraft would be based at Hobsonville to patrol over Auckland's harbour and that four would be based at Wigram, Christchurch, to patrol over the harbour there; the remaining aircraft would be held in reserve.⁹

⁹ *The Waikato Times*, “New Planes Ordered”, 5.

In late 1935, the new Labour Government of Prime Minister Michael Savage resolved to strengthen the country's defences, including by establishing an independent air force. This would bring New Zealand into line with most of the other dominions of the British Empire. Australia, Canada and South Africa had formed independent forces some years earlier. Wing Commander T. M. Wilkes, Director of Air Services and Controller of Civil Aviation, requested a senior RAF officer to report on the role and equipment needs of the new service. Group Captain Ralph Cochrane had joined the Royal Navy before the First World War, transferred to the RNAS as an airship pilot and after the formation of the RAF served mostly in land-based squadrons.¹⁰ He readily grasped that New Zealand's air force had a role to play in the maritime domain. He considered that the air force should be prepared to operate not only in the direct defence of New Zealand but further afield, with a forward defence strategy making it possible that air operations would be conducted from islands of the South Pacific. Cochrane recommended that two squadrons be equipped with bombers capable of intercepting warships well before they reached New Zealand's coastal waters and with sufficient range to operate from island bases.¹¹ In doing so, Cochrane was signaling an extension of the Air Force's maritime domain, which previously had been limited to inshore sea lanes and harbour entrances. This meant that an entirely new aircraft was needed.

Cochrane was appointed as the RNZAF's first Chief of Air Staff (CAS). The Air Force was allotted three principal roles: co-operation with land and naval forces for the defence of New Zealand, co-operation with naval forces for the protection of maritime trade,

and training of aircrew and ground staff for both the RNZAF and RAF.¹² In April 1939, a British-Australian-New Zealand defence conference concluded that a war against Germany was likely and that it was possible there would be concurrent wars against Germany and Japan. In either event, trans-Pacific and trans-Tasman trade would be vulnerable. During the First World War, German raiders (armed merchant cruisers) operated in the South Pacific, and after the First World War, Japan was granted possession of former German colonies north of the equator, making it possible to conduct naval operations into the South Pacific.

The New Zealand Government accepted that the RNZAF needed the bombers Cochrane had recommended, both to extend the radius of patrols around New Zealand and to deploy to island bases. It authorised an order for thirty Vickers Wellington bombers from Britain. Unfortunately, the Wellingtons had not been delivered when war broke out in September 1939. They were offered to the RAF to equip a bomber squadron in Britain, which would become the famous No. 75 (New Zealand) Squadron. While the offer was well-received, it left the RNZAF without aircraft for long-range maritime patrols. The RNZAF continued operating obsolescent biplanes, including the Vildebeests and a couple of dozen Blackburn Baffin naval torpedo bombers acquired secondhand from the Royal Navy Fleet Air Arm. The truth was that the RNZAF was woefully ill-prepared for operations in the maritime domain.

EARLY IN THE SECOND WORLD WAR

There was an obvious need for patrols over New Zealand waters following the outbreak of war. Defence planners anticipated that raiders and possibly submarines would be encountered. The RNZAF's first wartime operational sortie was a search by Auckland-based aircrews for a submarine reported to be in the area. No submarine was detected - the report was a false alarm - but the Air Force then organised for regular maritime patrols around the harbour. Henceforth, all shipping entering or leaving Auckland would be given air cover. Most patrols were conducted within a fifty-mile (eighty-kilometre) radius of Auckland. They tended to be uneventful and monotonous, although there was the possibility of a breaching whale being mistaken for a submarine.

After the 2nd New Zealand Division deployed to the Middle East in 1940, New Zealand's home defences were built up as a safeguard in case of a war against Japan. The problem for the RNZAF was that its aircraft, equipment and training were found wanting. Britain supplied several dozen training aircraft for the RNZAF to contribute to the British Commonwealth Air Training Plan, and amongst these were eighty Vildebeests and Vincents - essentially the same aircraft but with no torpedo equipment option - retired from RAF service. Most were used for training, but some Vildebeests and Vincents were engaged in maritime patrols. With only lumbering biplanes for patrols, the RNZAF had little hope of detecting enemy warships. This became a problem in 1940 when German raiders started operating in the region. On the night of 13 June, the raider *Orion* laid mines in the entrance to the Hauraki Gulf, but by daylight it had withdrawn beyond the range of the aircraft. Less than a week later, the SS *Niagara*

struck two mines after leaving Auckland, becoming the first merchant ship sunk in New Zealand waters during the war.

In August 1940, the *Orion* intercepted and sank another merchant ship 400 miles out to sea. The raider returned again in November, this time sinking two merchant ships in New Zealand waters. These episodes confirmed the shortcomings of the RNZAF's maritime patrol aircraft; had Wellingtons been available, the situation would have been different. The *Orion* was able to threaten shipping while remaining outside the operating radius of any RNZAF aircraft. The RNZAF resorted to engaging Tasman Empire Airways (TEA) to conduct patrols using Short Empire flying boats normally used for passenger services.¹³ On one occasion, the *Orion*'s crew spotted an Empire about 500 miles from the New Zealand coastline, but the aircraft crew did not spot the raider.

RNZAF officers understood the need for better aircraft, but Britain controlled procurement at this stage of the war. The British Admiralty, which had a strong interest in protecting merchant shipping, urged the British Air Ministry to release six Lockheed Hudson maritime patrol bombers to New Zealand, but with the Battle of the Atlantic underway the Air Ministry would not oblige. J. M. Ross, official historian of the RNZAF, explained the situation:

“To give full protection to shipping in New Zealand waters, a small striking force as well as reconnaissance aircraft would have been necessary, and the machines just could not be spared [by the Air Ministry]. The risks involved in carrying on with obsolescent aircraft had to be balanced against the

¹⁰ Orange, “Cochrane.”

¹¹ Ross, *The Royal New Zealand Air Force*, 25-26.

¹² New Zealand, *Parliamentary Debates*, 19 July 1939, 563.

¹³ Waters, *The Royal New Zealand Navy*, 138-140.

*urgent needs of other theatres, and the diversion of modern aircraft to New Zealand would not have been justified.*¹⁴

In essence, the RNZAF was a maritime patrol force still lacking maritime patrol capability.

FORWARD DEFENCE

In this same period, New Zealand dispatched a military force to Fiji, which was considered vulnerable in the event Japan entered the war. The RNZAF considered sending Vildebeests and Vincents for maritime patrols, but these aircraft were thought to be unsuitable for service in the tropical islands. Instead a flight of De Havilland Dragon Rapides – biplane airliners impressed into service and converted into navigation and light bombing trainers – were sent. It was with these unarmed aircraft that air patrols around Fiji commenced.¹⁵ Later, several Vincents were also dispatched.

Prime Minister (from April 1940) Peter Fraser pleaded with his British counterpart, British Prime Minister Winston Churchill, for more modern aircraft, to no avail. Fraser informed Churchill that he was ‘keenly disappointed’ at the lack of response, particularly given that his government had willingly handed over the Wellingtons to the RAF. He noted that ‘if only a few [of the Wellingtons] had been delivered here, [it] would have relieved us of our present very grave

anxieties’.¹⁶ Desperate for long-range aircraft, Fraser next approached the Australian Government. The Australians had ordered Short Sunderland flying boats before the war, intending that they be used over the Indian and Pacific Oceans. Still awaiting delivery when the war broke out, the Australians offered the flying boats and their crews to RAF Coastal Command. The Royal Australian Air Force (RAAF) requisitioned two Empire flying boats from Qantas Empire Airways for long-range patrols around Papua and Guinea, but found them ‘unsatisfactory and inefficient’.¹⁷ The Australians then managed to order a dozen Consolidated-Vultee PBV Catalina flying boats from the US. Fraser requested that three be transferred to the RNZAF. However, the Australians had not received their first Catalina – they were delivered over an eight-month period during 1941 – and, not surprisingly, responded that none could be spared.¹⁸

The situation began changing in late 1941 when Britain agreed to supply Hudsons to the Australian, Canadian, New Zealand and South African air forces to boost maritime patrol capabilities. By the time the Pacific War started in December 1941, the RNZAF had thirty-five Vincent biplanes and thirty-six Hudsons for maritime patrols and bombing; it also had secured four antiquated Short Singapore flying boats from the RAF. Most of the aircraft were based in New Zealand, but several Vincents and the Singapores were based in Fiji.¹⁹ The war with Japan would also see the RNZAF receive

further Hudsons, as well as fighters. As the new aircraft were not expected to arrive until March or April of 1942, the RNZAF made plans to use trainers in combat roles, including, potentially, coastal patrols and anti-shiping strikes, in the event of an invasion.²⁰

Long-range maritime patrolling in the South Pacific began with Australian and American use of flying boats. In January 1942, US Navy Patrol Squadron 23 (VP-23) started patrolling between Canton Island and Fiji. Canton-based Catalina crews would complete a 1250-mile (2000 km) first leg by landing at Suva, where RNZAF personnel refueled the aircraft and hosted the crews, before flying north on their return leg. The New Zealanders, meanwhile, utilised Vincents and Singapores around Fiji, while Hudsons patrolled New Zealand waters. In late January 1942, a Japanese submarine fired on a merchant cruiser off Fiji, but did no damage; aerial patrols failed to locate the submarine. Other than an invasion scare in mid-February 1942, there was no further action around Fiji.²¹

RNZAF squadrons in the South Pacific were placed under the control of the USN’s Commander, Aircraft, South Pacific (COMAIRSOPAC). Those in Fiji were allotted to Task Group 63, an air task force that comprised USN, US Marine Corps, the US Army Air Forces and RNZAF land-based and flying boat squadrons and ancillary units. The task force was widely dispersed across New Caledonia, Fiji, Tonga, Samoa and the New Hebrides. The squadrons were responsible for the air defence of island bases and patrolling broad expanses of ocean to protect Allied shipping and attack enemy shipping and bases. To begin with, the New Zealanders played a modest role,

but the maritime patrol capability built up since 1939 was seen as important when the Americans assembled shipping for naval and amphibious operations in the Solomon Islands. Faced with a shortage of patrol aircraft, the Americans requested that several Vincents be transferred from Fiji to New Caledonia; they probably did not understand that these were antiquated biplanes. The RNZAF determined that Hudsons would be more suitable as they had greater range and were better armed. From July 1942, the newly formed No. 9 Squadron began operating from New Caledonia, with the patrol area stretching out to 400 miles [644 kms] north towards the New Hebrides.²² Despite there being no confirmed sightings of Japanese submarines or warships, the experience proved beneficial as it gave the New Zealanders an opportunity to work with their American allies, demonstrate their patrol capabilities, and start practising anti-shiping strikes.²³

The Americans appeared reluctant to utilize RNZAF squadrons further north in the Solomons, but the new CAS, Air Commodore R.V. Goddard, predicted that this situation would change as the Americans experienced shortages of aircraft and manpower. He realised that RNZAF squadrons would be attractive, as the New Zealanders were well-trained and shared with their allies a ‘common language and, in general, common doctrine’; interoperability was achievable given the RNZAF squadrons utilised American-manufactured aircraft and equipment.²⁴ Within a short time of the Guadalcanal landing in August 1942, the Americans, recognising that the New Zealanders provided a niche maritime patrol capability, requested support. The Hudson-equipped No. 3 Squadron

¹⁴ Ross, *Royal New Zealand Air Force*, 70.

¹⁵ Gillespie, *The Pacific*, 19-20; Ross, *Royal New Zealand Air Force*, 71-72.

¹⁶ Governor-General of NZ to Secretary for Dominion Affairs, *Documents Relating to*, 214-215.

¹⁷ Director-General of Supply and Production to Air Board, “Supply of Seven (7) PBV-5 Flying Boats”.

¹⁸ Telegram from Australian Department of Defence Coordination, 17 January 1941.

¹⁹ One of the Singapores was on its delivery flight from Singapore. Ross, *Royal New Zealand Air Force*, 109.

²⁰ *Ibid.*, 109-111.

²¹ *Ibid.*, 125-126.

²² Miller, *Guadalcanal*, 32-33.

²³ Ross, *Royal New Zealand Air Force*, 131-133.

²⁴ Goddard, “Proposals”.

deployed to the New Hebrides, with the Americans entrusting the squadron to patrol shipping lanes leading to and from Guadalcanal.²⁵ The squadron commenced operations from Espiritu Santo in October 1942 and then sent six Hudsons to Guadalcanal for armed maritime reconnaissance sorties. The crews patrolled over shipping lanes used by the Japanese for getting reinforcements to the forward area. A senior RNZAF officer noted that their 'steady and efficient plodding ... really made the reputation here for the RNZAF'.²⁶ Meanwhile, their comrades on Espiritu Santo and back at New Caledonia continued patrolling the sea lanes utilised by American ships, searching for Japanese submarines.

The maritime operations in 1942 were, for the most part, uneventful (except for those based out of Guadalcanal), but they were vitally important. They confirmed that the RNZAF needed a maritime patrol capability. This required aircraft capable of long-range and armed patrols, which the RNZAF lacked until shortly before the war against Japan, when Hudson bombers were delivered. With the need for such capability confirmed and the New Zealanders recognised as having developed proficiency in maritime patrol work, the Americans ensured that in 1943-44 the New Zealanders received newer Ventura bombers, to replace war-weary Hudsons, as well as Catalina flying boats. With these aircraft, maritime patrols over the South Pacific continued through until the war's end, albeit with little chance of action, as American successes pushed the war northwards.

The experience of the RNZAF before the Second World War and in the South Pacific during the war

²⁵ Ross, *Royal New Zealand Air Force*, 137-38.

²⁶ Wallingford to Issit, 4 June 1943.

established that long-range aircraft for operations over the maritime domain are essential for New Zealand's defence. Catalinas continued to be utilised for this until the early 1950s when they were replaced by the next generation of RNZAF maritime patrol aircraft, the Short Sunderland MR.5. These ex-RAF aircraft were in fact late wartime models of the flying boat made famous by the Battle of the Atlantic. They continued plying their trade until the late 1960s, by which time their replacement was badly needed. The next generation of maritime patrol aircraft, the P-3B Orion, was ordered for the RNZAF in 1964 and entered service in 1966. With successive upgrades, the Orions have continued serving, ultimately as the P-3K2, through five and a half decades, during which time their role expanded from anti-submarine patrols and naval support to interagency security of the country's maritime resources. The P-8A represents the next generation - and no doubt the aircraft and its crews will forge a new chapter in the history of RNZAF operations in the maritime domain. This is a history that stretches back to, and indeed beyond, the foundation of the RNZAF.



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