CONTRIBUTED ESSAY

Forward operating bases: is there a place for them in Australia's new defence strategy?

D. R. Leece and I. M. C. Wolfe

Royal United Services Institute for Defence and Security Studies, New South Wales[1]

Australia's defence posture has been refocused on our immediate region, but with the intent of holding any potential enemy forces as far from the Australian mainland as is practicable. A similar strategy in World War II saw Australia deploying operating bases in the Indonesian-Melanesian archipelago. This paper examines that experience, compares more successful with less successful uses of forward bases [Norfolk Island is used as an example of the former], and seeks to draw enduring lessons from that experience for Australia's current defence.

A principle of the defence phase of war is 'defence in depth' *i.e.* defending key terrain as far forward and to the flanks of one's main defensive position as is practicable via disposition of forces and firepower, with a view to surveilling one's approaches, gaining early warning and time/space for manoeuvre, and imposing delay and attrition on the enemy before he reaches the main defensive position (Australian Army 1977: 8-2).

China now has a 'blue water' navy able to rival any other, including that of the United States (McDevitt 2020). It also is seeking forward operating bases to extend the reach of its maritime power. It has already established military bases in the South China Sea and at Djibouti (Gulf of Aden), and is using its Belt-and-Road Initiative to upgrade strategically-located ports/airfields around the Indian Ocean and South Pacific where the host nations agree – bases which could quickly be upgraded from civilian to military use should the need/opportunity arise. These include port/airfield redevelopments in Papua New Guinea (PNG) at Wewak, Kikori, Vanimo and Manus Island (Shugart 2020). In late 2020, China signed a memorandum of understanding with PNG to establish a 'fishing factory' on Daru Island in the Torres Strait, some 200km from the Australian mainland, despite the absence of commercial quantities of fish in the area (Tingle 2020).

In response, Australia has lauched a 'Pacific Step-up' – an increase in aid funding for Pacific nations (Foreign Affairs 2017); has refocused its defence posture on its immediate region with the intent of holding any potential enemy forces as far from the Australian mainland as is practicable (Defence 2020: 21); and reached agreement with PNG and the United States to upgrade the Lombrum Naval Base on Manus Island (Shugart 2020).

It is timely, therefore, to consider what role operating bases deployed forward of, and to the flanks of, the Australian mainland might play in our future defence. In this context, it is instructive to revisit our World War II experience. This essay will provide geostrategic context for, and examine the effect of, establishing forward operating bases in the archipelago to Australia's north and east during the war. It will seek to establish what worked well and what was less successful, and then draw enduring lessons from that experience for Australia's current defence.

World War II

During the 1941-1945 war in the Pacific, forward operating bases were established by the Allies for a range of purposes, the most common of which was to protect vital strategic assets, such as ports and airfields, either from capture and use by the Japanese or for use by the Allies as bases from which air, naval and amphibious power could be projected into Imperial Japan's Greater East Asia Co-Prosperity Sphere[2] and eventually towards the Japanese homeland (*e.g.* Wigmore 1957: 59).

From Australia's perspective (Horner 1982: 51-57), the British naval base at Singapore was viewed as the main operating base for Australia's forward defence[3]. Under Imperial defence arrangements, Singapore was to be defended by the Royal Navy. In the event, while there was a miscellany of British, Dutch, American and Australian warships in Singapore in late 1941, some under repair, the intended British Eastern Fleet was unable to be assembled and sent to Singapore as, two years into the war, the Royal Navy had suffered heavy

[1]David Leece and Ian Wolfe are members of the Institute's Special Interest Group on Strategy. These are their personal views. Email: office@rusinsw.org.au

[2]The Greater East Asia Co-Prosperity Sphere was intended to be a self-sufficient bloc of Asian and Pacific nations led by Japan and free from the rule of Western powers. It would provide the raw materials needed by Japanese industry. Initial occupation of territory in China began in 1931. Its other intended territories in east and southeast Asia and the Pacific were occupied in the three months following the Japanese attack on Pearl Harbour on 7 December 1941.

[3]British and Australian strategic perspectives differed. What Australia viewed primarily as forward defences for Australia, the British viewed primarily as bases for the east-flank protection of the Indian Empire (which included Burma). Any benefit to Australia's defence was secondary.

losses in the Atlantic and Mediterranean and most ships still operational were required for higher-priority duties elsewhere in the Empire.

At the last minute, Britain did manage to send Force Z comprising two capital ships – HMS *Prince of Wales*, a battleship, and HMS *Repulse*, a battlecruiser – and four destroyers to Singapore under the command of Admiral Sir Tom S. V. Phillips – it arrived there on 2 December 1941. The intent had been to include an aircraft carrier in Force Z, but the nominated carrier ran aground *en route* and could not be replaced. On 8 December, Force Z was sent north into the South China Sea to intercept a Japanese fleet thought to be carrying a force to invade northern Malaya. It failed to find any Japanese fleet and, during its return to Singapore, Force Z was attacked by Japanese land-based aircraft and the two capital ships were sunk. No. 453 Squadron, Royal Australian Air Force, comprising ten Brewster F2A Buffalos, was on standby to give Force Z air cover, but its assistance was not requested until an hour after the Japanese attack had commenced. By the time the Australian planes arrived in the area, the battle was over.

As a consequence, the Commander-in-Chief British Far East Command, Air Chief-Marshal Sir Robert Brooke-Popham, now had at his disposal in Malaya only a land force comprised mainly of the pre-war colonial garrison and a small air force (four fighter and eight bomber squadrons) equipped principally with obsolescent pre-war aircraft with which to oppose the state-of-the-art Japanese Oscar and Zero aircraft. The land force was moderately reinforced during 1941, including with two infantry brigades of the 8th Australian Division (Horner 1982: 56). [The division's third brigade, the 23rd Infantry Brigade, initially was retained at home for Australia's immediate defence.] The British-Indian-Australian land force, while comprised mainly of well-trained professional soldiers, lacked combat experience and would prove no match for the battle hardened professional jungle fighters of the Imperial Japanese Army. When the Japanese invaded Malaya on 8 December 1941, the two 8th Division brigades and Australia's two fighter and two bomber squadrons contributed to the British Empire's delaying defence of the Malay peninsula and the subsequent battle for Singapore Island, which fell to the Japanese on 15 February 1942 (Wigmore 1957: 137-391).

As well as relying on Singapore, Australia established two lines of forward posts, an outer line running from Singapore, through the Dutch East Indies to New Britain and an inner line running from Darwin, through Papua and the Solomons, and thence down the east flank to Norfolk Island. Islands containing vital assets were garrisoned by small infantry-based forces to protect the assets against raids and the bases were linked by coastwatchers on other islands to form a chain of observation posts. This was barely adequate for the assigned task but was the best Australia could do at the time, especially as it had three infantry divisions deployed in the Middle East (Wigmore 1957) and its naval units were still largely integrated with those of the Royal Navy in 1941.

During 1941, the 23rd Infantry Brigade was deployed forward of the Australian mainland into the Dutch East Indies and Australian New Guinea both to provide early warning of the Japanese approach to the Australian mainland (a forward observation line) and to defend strategic infrastructure as follows:

- Gull Force – 2/21st Australian Infantry Battalion Group, tasked with defending the harbour and large, bomber-capable airfield on Ambon (Wigmore 1957: 418-441);
- Sparrow Force – 2/40th Australian Infantry Battalion Group, tasked with defending the port and the airfield at Koepang, Dutch Timor (Wigmore 1957: 466-494); and
- Lark Force – 2/22nd Australian Infantry Battalion Group, tasked with defending the port and airfield at each of Rabaul (New Britain) and Kavieng (New Ireland) (Wigmore 1957: 392-417).

The fate of this outer line of bases, and, indeed, of the Dutch East Indies and Australian New Guinea, was sealed when a hastily assembled fleet of 14 Dutch, American, British and Australian warships, including HMAS *Perth* (a light cruiser), was decisively defeated by the Imperial Japanese Navy in the Battle of the Java Sea on 27 February 1942. HMAS *Perth*, along with USS *Houston* (a heavy cruiser), survived the intial battle, but was trapped and sunk by the Japanese in the Sunda Strait on 1 March 1942 (Wigmore 1957: 496-508).

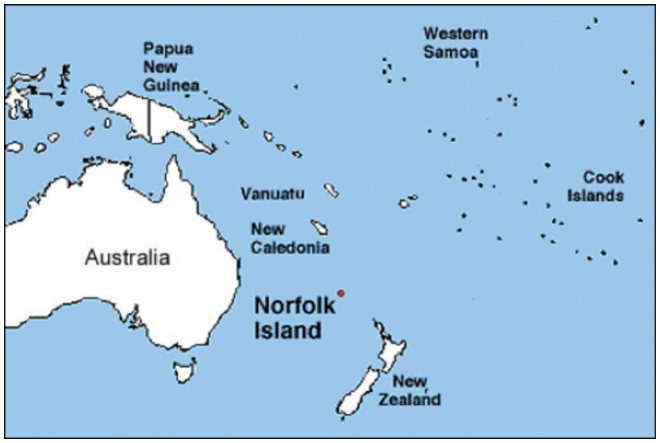
Among the problems now faced by Australia's forward operating bases was that they were too dispersed to be mutually supporting, they had no effective air or naval support on call, and they were severely challenged logistically. Further, each lacked the combat power to resist the combat power that the Japanese could concentrate against them individually whenever Japan so chose – Japan could, and did, pick them off at will.

The inner line of operating bases established on Australian territory experienced a more propitious fate, *e.g.* at Darwin (Wigmore 1957; McCarthy 1959), Port Moresby (McCarthy 1959), Milne Bay (McCarthy 1959: 147-192) and Norfolk Island (Gillespie 1952: 300-304). Although Darwin was bombed by the Japanese and largely destroyed as a military base on 19 February 1942, it would be resurrected and become a key operational and logstics base as the war progressed, depite numerous subsequent damaging air attacks. Other than Darwin, which is on the Australian mainland, the only one of the offshore forward operating bases to remain Australian territory today is Norfolk Island, so we will use it as a case study.

Norfolk Island – a case study

Norfolk Island is located in an isolated part the South Pacific some 1400km east of Brisbane, 700km

south of New Caledonia, and 750km north-west of New Zealand (Map 1). The island is *c.* 8km long by 5km wide, is sub-tropical and originally supported a dense sub-tropical rainforest, but 19th century settlers cleared 90 per cent of the island to create a largely self-sufficient agricultural community. The coastline consists almost entirely of cliffs 60-80m high – there is no natural harbour, but there are two roadsteads. Dependent on the direction of the wind, cargo is craned from ships into lighters, which are then towed to small landing wharves for unloading.



Map 1: *Location of Norfolk Island in the southwest Pacific Ocean [Source: https://www.discovernorfolkisland.com/maps/norfolk-island-australia-map.html]*

Norfolk Island became a strategic point in 1902 when it became a key node in the around-the-world British undersea telegraphic cable route (Hitch 1992). The submarine cable ran from Brisbane to a repeater station on Norfolk where a branch cable from New Zealand joined it, before continuing on to Fiji, and thence to Canada. The cable allowed revolutionary enhancements in commerce, diplomacy, as well as military and social interaction, across the British Empire.

In World War I, German Navy cruisers from their Asiatic Squadron cut the cable at Fanning Island in the central Pacific and were interrupted while attempting to do so at Cocos Island in the Indian Ocean. Norfolk Island, similarly, was a potential target for the German cruisers and commerce raiders who operated in the area. After World War I, an aerial route from Australia to the island was established in 1931 when Sir Francis Chichester landed a small floatplane at Emily Bay.

World War II

Before World War II, coastwatchers had been deployed on Norfolk Island and a Militia unit, the Norfolk Island Infantry Detachment (NIID), had been formed (Hitch 1992). Its commander-in-chief was the Administrator of Norfolk Island, Major-General Sir Charles Rosenthal[4], who had commanded the 2nd Australian Division in the latter stages of the Great War (Hill 1988).

After the outbreak of war in 1939, a Royal Australian Air Force survey party found four suitable sites for short airfields, but the Australian government, while willing to protect the cable station, decided not to construct an airfield, considering it would be more a strategic hindrance than a help (Gillespie 1952: 300). Then, German commerce raiders (*Orion* and *Pinguin*) made a reappearance in the South Pacific. An Australian infantry detachment of 57 all ranks was despatched to Norfolk to reinforce the NIID and prevent sabotage of the cable station (Gillespie 1952: 300).

Japan attacked Pearl Harbour and Malaya on 7-8 December 1941 and had achieved its key objectives, including the occupation of Australia's forward bases at Singapore, Ambon, Timor and Rabaul, by late February 1942. The battle of the Coral Sea (4-8 May), the midget-submarine raid on Sydney Harbour (31 May/1 June) and the Japanese commencing to build Henderson Airfield on Guadalcanal (southern Solomons) in early July, focused Allied minds.

The Allies knew little of the actual Japanese plans for Norfolk Island. They assessed that the Japanese were planning to use Henderson Airfield to support two thrusts: one down through New Caledonia, to secure the nickel mines and to protect the thrusts' western flank; and the other to Fiji, to cut the lines of communication from the United States to Australia. They anticipated that standard Imperial Japanese Navy tactics would be followed, *i.e.* secure their flanks by submarine reconnaissance, followed by aircraft carrier strikes. The Allies decided to position themselves to counter this threat.

The Australian government considered that the defence of Norfolk was primarily a naval responsibility. Vice-Admiral Robert L. Ghormley USN, Commander, South Pacific Command, noting that Norfolk was almost equidistant from New Caledonia, New Zealand and Australia and that a site for an airfield was available, viewed the island as a 'stationary aircraft carrier'. Ghormley argued that an airfield, once constructed, could become a base for anti-submarine patrols, a refuge for aircraft in distress, and a staging depot for land-based aircraft moving between New Zealand, Australia, New Caledonia, and the Solomons. Ghormley also assessed that an adequate garrison would be necessary for the airfield's defence and to deny it to possible enemy raiding parties (Gillespie 1952: 300-301).

South Pacific Command immediately implemented plans for the construction of an airfield. In April 1942, a United States Army party surveyed sites for an airfield with long runways, so as to able to accommodate the heavier and multi-engine aircraft then coming into service. In early September, 4000 tonnes of construction equipment and supervising engineers were despatched to Norfolk along with 200 workmen of the Australian Commonwealth Main Roads Department to begin preliminary work (Gillespie 1952: 301).

[4]Sir Charles had been President of the United Service Institution of New South Wales from 1921-1923.

For defence and protection, Ghormley requested from New Zealand a minimum garrison force of one infantry battalion, three batteries of artillery, a hospital and other services and, when the airfield was complete, one flight each of fighter and dive-bomber aircraft. On 29 September, the New Zealand War Cabinet approved the despatch of the necessary garrison force to Norfolk (Gillespie 1952: 301).

Norfolk ('N') Force

The Norfolk garrison was to be a 1488-strong force of New Zealand infantry and artillery to be styled N Force[5] and to be commanded by Lieutenant-Colonel J. W. Barry (Evans 1948, Chapter 13; Gillespie 1952: 300-304; Hitch 1992; McGibbon 2000). The advance party arrived on 26 September, liaised with the Administrator and the existing garrison, and then commenced preparing camps for the main body. The main body arrived from New Zealand in two echelons, the first on 9 October and the second on 14 October, in the troop-ship *Wahine*, escorted by HMNZS *Monowai* (an armed merchant cruiser) and USS *Clark* (a destroyer). Following a handover, N Force relieved much of the Australian infantry detachment which had been sup-porting the NIID and that detachment returned to Australia. N Force consisted of:

- 36th Battalion, 3rd New Zealand Division, a territorial infantry battalion, including a 10-vehicle universal (Bren gun) carrier platoon to give protected mobility to the battalion's 3-inch mortars and Vickers medium machine-guns, act as an armoured ready-reaction force and provide fire support for counter penetration and counter attack forces (Gillespie 1952: 301);
- 152nd Heavy Battery comprised of four 155mm GPF guns (the United States version of the Great War French *Grande Puissance Filloux* gun) to engage Japanese warships and troop transports – two were deployed to the highest ground on the island, being the ridge line between Mount Pitt (318m) and Mount Bates (319m), and two on the bluffs overlooking the primary landing stage at Kingston (Map 2) – later, all the guns were concentrated on the Mount Pitt/Mount Bates ridgeline (Evans 1948; Gillespie 1952: 301-302);
- 215th Composite Anti-Aircraft Battery with a troop of four 3.7-inch anti-aircraft guns deployed near the airfield, a troop of four 40mm Bofors guns at Anson Bay to protect the cable station, and a troop of four 40mm Bofors guns at Kingston – later, the 3.7s were relocated to the coastal cliff line at the end of the runways, in order to give them a secondary coastal defence role (Evans 1948; Gillespie 1952: 302);
- an independent field artillery troop – a mobile troop of four 25-pounder field guns, to deploy as required to counter infantry landings (Evans 1948; Gillespie 1952: 302); and
- miscellaneous engineer, Army Service Corps and ordnance detachments (Gillespie 1952: 301).

Map 2: *Norfolk Island, showing Mount Bates, Mount Pitt, Anson Bay, Kingston and the airfield. [Source: https://www.discovernorfolkisland.com/maps/detailed-norfolk-island-map.html]*

N Force (Gillespie 1952: 303) was tasked to defend against multi-facetted threats from the Japanese forces comprised of:

- harassing raids by Japanese submarines – using their deck guns to shell the roadsteads and airfield;
- reconnaissance flights by floatplanes launched from Japanese aircraft-carrying submarines;
- countering small parties of reconnaissance or sabotage troops landed from submarines;
- cruiser raids to shell the roadsteads and the airfield;
- anti-aircraft defence against long-range harassing raids by large four-engined flying boats from the Solomon Islands;
- anti-aircraft defence against destruction raids by aircraft from Japanese aircraft carriers; and
- in the worst case, fighting off a deliberate operation to invade and capture Norfolk Island by the Japanese, so that they could then use it as a forward operating base for aircraft and naval forces.

Colonel Barry established N Force Headquarters centrally in *Devon* house and grounds. Unit camps were deployed in sites round the 37km of rugged coastline. A 24-hour watch was instituted, and the task of defending the island and its installations against sudden raids from enemy submarines was begun (Gillespie 1952: 302).

As a natural barrier of cliffs defends most of the Norfolk coastline, coastwatchers were deployed around

[5]Officially *Norfolk Force*, the New Zealand soldiers comprising the contingent referred to themselves as *Nuts Force*.

the coast and were linked with a central operations room. The tactical plan involved defending only certain possible landing areas. Units and guns were tactically sited to meet such an eventuality, with mobility being the underlying principle (Gillespie 1952: 303).

The gunners' work-up training (Evans 1948, Chapter 13) involved a number of live shoots where the small, uninhabited Philip Island, 7 km to the south, was used for target practice (Figure 1).

As soon as defence plans had been exercised to operational efficiency, a roading and camp construction plan was started by the engineers. They built a 20-bed hospital; and metalled the earth and clay roads which served the airfield and camps. The engineers took over maintenance of the airfield on 5 March.

The Army Service Corps detachment extended the scope of its supply activities by producing fresh vegetables in quantity. To ensure a regular supply of fresh meat and overcome the tendency to reduce too drastically the island's limited stock of beef, a flock of 300 sheep reached the island on 1 January 1943 (Gillespie 1952: 303).

The Airfield

The construction of the airfield (Figure 1) involved a degree of cutting and levelling, as well as the destruction of a number of farms. Despite this, the population of Norfolk provided a workforce of 300 men to build the airfield, including the laying 1524m of Marston matting.

To support the operation and defence of the airfield, a COL[6] Mark V radar with a notional range of nearly 300km, but a proven range in this location of 115km, was installed on the summit of Mount Bates. It was operated by the Royal New Zealand Air Force (RNZAF) 51st Radar Station from May 1943 and was used successfully, in particular, to provide assistance to aircraft in distress. It was retained at Norfolk until the end end of the war (Simmonds and Smith 1995: 157, 262).

Figure 1: *Norfolk Island airfield from Mount Pitt, with Philip Island beyond – photographed in 2020 [Source: Ian Wolfe]*

[6]Chain Overseas Low radar.

A RNZAF Hudson bomber landed on the partially completed airfield on 25 December 1942. Two Hudson bombers landed on 28 December and three the following day. The era of dawn-to-dusk patrols from Norfolk then began (Gillespie 1952: 304). The airfield was officially opened on 13 February 1943, after the final works had been completed.

Had the Japanese won the battle of the Solomons, the airfield could have been on the front line immediately (Ross 1955). Hence, it was used initially as an operational airfield for RNZAF bomber patrols in anticipation of a second Japanese thrust into the South Pacific. Its role, however, became increasingly logistic as:

- a base for maritime reconnaissance and anti-submarine patrols;
- a base for rapid air-sea rescue response; and
- a vital transit airfield on the route between Australia or New Zealand to New Caledonia or Fiji for aerial reinforcement of the Solomons and beyond.

The transit role (Ross 1955) saw 130 to 230 aircraft fly through per month (an average of up to seven per day) over 1943-1944. Aircraft types included: bombers: Hudsons, B-17s, Venturas, Liberators, Mitchells, Avengers, Lincolns and Catalinas; fighters: Kittyhawks and Corsairs; and transports: C-47s, C-54s, C-60s (Lodestar) and C-63s.

N Force: Relief-in-Place and Transfer of Defence Responsibility to the RNZAF

Following the Japanese withdrawal from Guadalcanal in the southern Solomons, the 36th Battalion and the artillery units were progressively sent north to rejoin the 3rd Division in New Caledonia (Gillespie 1952: 304-305). From 29 March to 7 April 1943, the 36th Battalion was relieved-in-place by the 1st Battalion, Wellington-West Coast Regiment, under Lieutenant-Colonel A. R. Cockerell DSO, who took over command of the island's defences from Barry on 9 April. Cockerell inherited an organisation which required little change. Artillery units from New Zealand replaced those returning to the 3rd Division, and detachments of other services similarly took over.

Three months after the relief-in-place, however, the strength of N Force was reduced (Gillespie 1952: 304-305). All Grade I servicemen between the ages of 19 and 37 were recalled to New Zealand in July. By September, the strategic situation was such that South Pacific Command considered a garrison was no longer necessary, except to operate and maintain the airfield. The New Zealand War Cabinet approved the withdrawal of the force on 15 November, and, on 8 December, 478 members of the garrison embarked for Auckland. A small rear party remained until 11 February 1944 when command passed to the officer commanding the RNZAF station at the airfield. Norfolk became a RNZAF and NIID responsibility until the end of hostilities.

Towards the latter stages of the war, a regular air-transport service was provided from Norfolk to Bou-

gainville. Royal New Zealand Navy corvettes and Fairmile motor gun-boats also stopped off to refuel as they moved north. In July 1946, the last RNZAF personnel were withdrawn from Norfolk (Ross 1955).

Aftermath

After World War II ended, clean-up operations continued on Norfolk until 1948, when the airfield was handed over to the civil authorities (Hitch 1992). Separately, the colonial territories in the archipelago, other than New Caledonia, obtained independence over ensuing decades, but Norfolk Island remains an Australian territory.

The Norfolk Island airfield became a primary staging base for *Operation Morris Dance*, the Australian Defence Force (ADF) response to the 1987 *coup d'état* in Fiji, during which the ADF conducted a non-combatant evacuation operation to extract stranded tourists (Breen 2016). It also has been the staging base for numerous ADF operations when conducting disaster relief in the wake of hurricanes and other natural disasters which regularly hit the islands of the South Pacific. In recognition of the continuing geostrategic and operational importance of Norfolk Island, the airfield recently was upgraded by the Australian government at a cost of AUD$43 million[7].

Discussion

It may well be that, in the future, Australia acquires the missile and satellite capability that enables it to surveille and strike strategic and tactical targets in the Indo-Pacific region from the Australian mainland. That day, however, is not yet with us. Further, our current combat aircraft, the fifth-generation F-35A Lightning-II Joint Strike Fighter, has a limited range – range 2200km; combat radius 1093km. Air-to-air refuelling can extend the range and, if we had aircraft carriers in our fleet, they could extend the range, too. But there is no plan to introduce aircraft carriers or to modify our two amphibious assault ships (LHDs) or any future ones to enable the carrier-compatible F-35B or F-35C models to operate from them.

As our World War II experience demonstrated, another option to extend the range of our F-35A combat aircraft is to acquire forward operating bases (stationary aircraft carriers) in the Indonesian-Melanesian archipelago. The only Australian territories now available, however, are the Cocos (Keeling) Islands and Christmas Island in the eastern Indian Ocean, and Norfolk Island in the South Pacific. The emergence of independent nation-states in the archipelago since World War II necessitates that future forward bases in the area be established by Australia only at the invitation of the relevant nation-state with a view to strengthening the host's own defences[8]. Any benefits accruing to Australia's defences from such activities would be secondary.

Whether such bases are on Australian territory or that of other nations, it would be essential that each base be garrisoned in sufficient strength to repel enemy raids (whether by air, land and/or sea) and have sufficient air and naval combat power on call to defeat any attempted invasion/occupation. It also would need a supply chain (sea and air lines of communication) able to sustain the base logistically and which was defended by naval and air power. Further, measures including long-range land-based artillery and/or missiles, coupled with sea and air power, would be needed to avoid the base being bypassed and isolated.

While the New Zealand army and air force together with the United States Navy were able to satisfy these requirements at Norfolk Island in World War II, Australia, operating on its own, was unable to achieve the same success further afield at Ambon, Koepang (Timor) and Rabaul. Given Australia's continued limited resources, such requirements might be very difficult to sustain today unless assisted by regional allies.

Conclusion

Australia's experience in World War II shows that operating bases deployed forward of and to the east flank of the Australian mainland on islands in the Indonesian-Melanesian archipelago can be used successfully to provide surveillance/early warning and strategic depth to the defence, to defend vital assets and to serve as a springboard for advances further north. Such 'stationary aircraft carriers', however, require stringent requirements to be met for their protection, requirements which may be difficult for Australia to satisfy in any future conflict.

Norfolk Island in World War II continues to serve as an example of a successful forward operating base, including the application of coastal and anti-aircraft artillery defence techniques to an isolated island. While it fell largely to New Zealand and to the United States Navy to protect the Norfolk base in World War II, it has since become a vital ADF staging base for peacekeeping and disaster-relief operations in the South Pacific.

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The Authors

Brigadier D. R. (David) Leece AM PSM RFD ED (Ret'd), a member of the Institute's Special Interest Group on Strategy, is a former Army Reserve infantryman who commanded the 8th Infantry Brigade Group

[7]Norfolk Island Airport Repair and Rehabilitation Question & Answer Sheet September 2019 No. 2.

[8]PNG has invited Australia and the United States to upgrade PNG's patrol boat base on Manus Island but has selected a Chinese company to upgrade the Manus airfield (Shugart 2020).

from 1988 to 1990. In civilian life, he was a research scientist and then a senior public administrator. He is a past president of the Institute and edits *United Service*.

Lieutenant Colonel I. M. C. (Ian) Wolfe CSM RFD, also a member of the Special Interest Group on Strategy, is an Army Reserve infantryman who commanded the Sydney University Regiment from 1998 to 2000 and subsequently has held a range of staff and training appointments, including in Defence Headquarters and the Department of Defence. In civilian life, he was a programme manager in financial services. He is now semi-retired and pursues his interests in bushwalking and global travel, in addition to military strategy and history.

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