



TERRY BROWN

To defend its capital Wellington against enemy aggression, New Zealand before and during the Second World War built a series of coastal gun batteries, anti-aircraft batteries and radar stations, most of them on the Miramar peninsula at the

entrance to the harbour. This is one of the two 6-inch guns of the battery emplaced at Point Dorset on the south-eastern shore of the peninsula. Note that the photographer has neatly captured the fall of shot landing beyond the distant reef.

WELLINGTON'S WWII HARBOUR DEFENCES

By Jeffrey Plowman

As was the case for all members of the British Empire, New Zealand had agreed at the 1923 Imperial Conference to assume responsibility for its own defence. What this meant in 1926, in the opinion of the United Kingdom's Committee for Imperial Defence (CID), was to develop adequate measures to deal with raids on New Zealand by cruisers, armed merchant cruisers or submarines. However, critical to this was the British proposal to establish a fortified naval base at Singapore. It was their view that this would rule out larger attacks or invasions, though this was based on the assumption that the Imperial Fleet, or part of it, could get to Singapore. However it was the realisation of this that was to prove problematic.

Though approval for the Singapore base had been given in 1921, work on it was suspended three years later, only to be resumed in 1926, albeit on a reduced scale due to cost-cutting measures. However, by 1931 work on it was said to be well underway, though even more whittled down in size because of further financial constraints. Nevertheless, the continued work on the base was no doubt justifiable as the Japanese attack on Manchuria in September of that year drew attention to Japan as a likely future threat to the region. Moreover, the CID was still confident that the base would be completed and that the main fleet would be able to reach it in time, should it be needed.

However, New Zealand had not exactly made a great effort towards developing its own defence works over this period. In 1926 the CID had recommended that what the country needed was 11 guns of 6-inch as the

main fixed coastal weapons, six or seven for Wellington alone, but this recommendation was not taken up by the government, post-war retrenchment being one of the main factors. Nor did Japan's moves in 1931 inspire much action in New Zealand either, a complacency inspired by the CID.

However, two years later the CID, in an about-face, said that they felt that the entire Far East and the coastlines of the Dominions

were open to attack. The only effect this had in New Zealand in 1933 was for the government to commission a report from the GOC, Major-General William Sinclair-Burgess, who, in turn set up a five-man committee to look into the matter. When their report eventually came out their conclusion was



JEFFREY PLOWMAN

The same view today, looking out towards Barrett's Reef. (This reef was the scene of one of New Zealand's major maritime disasters, when the ferry *Wahine* foundered on it in a storm in 1968 with the loss 51 lives.)



Located in a bay on the southern tip of North Island, Wellington's defences had to watch both the Cook Strait and the Tasman Sea.

that the country could not be defended and as such was highly dependent on the base at Singapore and the Imperial Fleet! They did, however, see the need for some local defence until the British fleet got to Singapore and put forward a suggestion that what was needed was some additional 6-inch guns in Auckland and, of lesser importance, some for Lyttleton (the port of Christchurch) and at Dunedin in the South Island. Two anti-aircraft guns for Auckland and Wellington were also thought necessary, along with some more modern aircraft.

It was as a result of this that the New Zealand Chiefs-of-Staff entered into discussions with the CID in London in 1934 over the defence needs of these two cities. The initial agreement was for eight coastal defence guns in both centres in addition to those already in place, including two 6-inch guns for Palmer Head in Wellington, but within six months the CID reported back that these would be insufficient and what was required were 9.2-inch guns. Thus began a debate that was to rage on for several years.

Nothing that happened over the next few years saw the diminishment of Japan as a threat and by 1935 it was being openly named in official papers as a potential enemy. Even at this stage, however, there was still considerable faith that British naval vessels operating out of Singapore would be able to contain them. In part this was based on the belief that New Zealand was too small a nation to be able defend itself and thus considered that it stood or fell with the Empire as a whole. Nevertheless there was a re-affirmation that some form of coastal defence was necessary against Japanese naval ships in New Zealand coastal waters or raids by landing parties should the Singapore policy fail. The view was that this should not be confined to the various ports but should also include mobile forces from all three services. This presented a further and critical complication because New Zealand would not be able to call on its own two cruisers as these were only on loan and would revert to British command in the event of war.

By 1937 the government had come to realise that the 'Singapore policy' might not meet New Zealand's needs. As a result there was a promise of an increase in defence expenditure and, after years of neglect, there were moves afoot to re-equip the coastal defence installations and expand the Army, though this did not exactly translate into events on the ground as the haggling over coastal artillery needs continued. Some

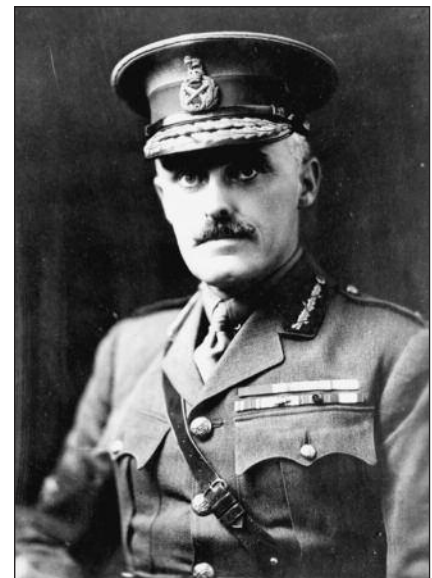
effort was also put into establishing a district pool of motor vehicles, though the assembly of 18 gun tractors and conversion of a number of civilian vehicles into military-purpose lorries and radio vans hardly amounted to a serious investment. On the negative side the Territorial Force was drastically cut in its establishment, with former regiments being reduced to companies or squadrons in composite units. One thing that did happen in 1938 was the creation of a Special Reserve of the Territorial Force to provide troops to garrison the defended ports in the Dominion. That year the Chiefs-of-Staff were also provided with disturbing evidence of German preparations for raiding commercial shipping in the Pacific.

In April 1939 New Zealand hosted the Pacific Defence Conference, representatives from the UK and Australia attending. It was at this conference that more disturbing news was received. The British High Commissioner to New Zealand informed them that if Britain found itself at war with Germany, Italy and Japan simultaneously — a quite likely scenario — and if the fleet sailed for Singapore, then the Mediterranean would be left undefended. Though he was quick to assure them that the fleet would sail for Singapore, regardless of the situation elsewhere, the government decided other steps were necessary. The following month they announced the formation of a National Military Reserve to be drawn from Class II personnel. Units of the Territorial Force were also restored to their pre-1937 establishments. That year also saw the arrival of the first armoured vehicles, six Bren No. 2 Mk I carriers arriving in February.

Nevertheless the government still seemed quite relaxed about the whole issue of the defence and, even though coastal batteries were 'stood to' over their guns, when war was eventually declared in September, the Army set about raising a 'special force' that was intended to be sent to support Britain's effort overseas. Remarkably this attitude continued for a time into 1940, to the extent that the Chiefs-of-Staff even considered reducing the scale of local defence. Mid-year, however, Britain finally put the nail in the coffin over their Singapore policy, announcing that it was highly unlikely that they could send adequate reinforcements to the Far East. Later that year, thanks to losses in France, they also began reviewing downwards the stores requested by each Dominion, that is apart from what could be made available for training establishments. Though

unhappy with this, there was little New Zealand could do about it. Instead they set about bringing the Territorial Force up to a war-like footing, both in strength and preparedness.

Even so, it would appear that even the Japanese attack on Pearl Harbor on December 7, 1941, while accelerating defensive preparations in New Zealand, did not do so in a way that could be described as rapid. There still appeared to be the belief that the country's security rested on the fact that it was sufficiently remote from any bases that Japan might secure in the future, and that Singapore would still be able to act as a bulwark against anything the Japanese could throw against it — a perception that was shattered when Japan took it in February 1942 (see *After the Battle* No. 31). On the other hand it was not all bad — the Japanese attack had, after all, brought into the war a powerful ally in the form of the United States, one of the tangible benefits being the arrival of the first American divisions later that year.



Major-General William Sinclair-Burgess, the Commander of New Zealand Forces and chairman of the NZ Chiefs-of-Staff from 1931 to 1937, who took most of the decisions concerning the defence of the capital.



Sited on Miramar peninsula, from north to south, were an anti-aircraft battery on Point Halswell, coastal batteries at Fort Ballance, Fort Dorset and Palmer Head, and a radar station at

Moa Point. Further afield were Wrights Hill Fortress and (not on this map) Fort Opau, the latter overlooking the Tasman Sea at Makara on the west coast.

NEW ZEALAND'S COASTAL DEFENCE POLICY

With some 2,400 miles of coastline and a population of only 1.4 million at the start of the Second World War, New Zealand had serious issues over how to defend itself. To some extent it had relied on its remoteness from the rest of the world (the nearest friendly country, Australia, was 1,300 miles away) and the limitations of sea capability of any potential aggressor but its links with the UK were also considered crucial. What policy it did develop seemed to be based around its ports, in particular its four major ones.

During the re-organisation of 1937 these ports — Auckland, Wellington, Lyttleton and Dunedin — were given the status of a Defended Port and, along with its coastal artillery and all its local troops, were organised into a higher formation known as a Fortress Area. All the coastal artillery possessed by New Zealand was based in one of these fortress areas, much of it dating back to before the First World War and some even to the Russo-Turkish War scare of 1877-78. This was the situation up until the outbreak of war, at which point Dunedin much to its chagrin was removed from the list of major ports, only to be reinstated in 1941. In 1942 the Bay of Islands, north of Auckland, became the fifth Fortress Area, largely in response to a recommendation from a military advisor from Britain, General Sir Guy Williams. This was because he felt that it would have provided an invader with a sheltered anchorage with many beaches suitable for landing troops. That same year the smaller harbours around the country were defined as Minor Defended Ports, either because they had breakwaters that could only hold one or two ships at a time or, like Greymouth, had restricted access thanks to a bar at the mouth of their river.

At the start of the war each fortress area had for its garrison troops a fortress battalion (defined in 1936 as the senior Territorial Battalion of the district). In 1941 two National Reserve Battalions were added to each

fortress area. Further support for each fortress area came in the form of mobile forces outside it. The previous year three home defence brigades — the 1st, 2nd and 3rd Brigades — had been created from Territorial Force units in Northern, Central and Southern Military Districts, respectively. (The North Island was divided up into NMD and CMD, while SMD encompassed the whole of the South Island.) At the same time the 7th Brigade was formed from other battalions in NMD and CMD to act as a reserve unit. To these were added the embryonic 1st NZ Army Tank Brigade in September 1941, a unit that had to make do with 30 Valentine tanks until more could be made available. Troops from the National Military Reserve were also formed into infantry companies or mounted rifle squadrons. The latter were seen as being particularly useful for patrolling segments of the coast that the more mechanised units could not reach. They proved so useful in this role that they were retained in 1942 when the National Military Reserve was broken up and its personnel dispersed among the Territorial Force and the Home Guard, the fitter men going to the former.

COASTAL DEFENCES IN WELLINGTON

In 1934 the New Zealand Chiefs-of-Staff had entered into a debate with the CID over the deployment of coastal artillery in the capital, Wellington. Palmer Head had been chosen in 1933 as the site for two 6-inch guns to act as a counter-bombardment battery to cover the southern front, while, as early as 1926, Ohariu at Makara had been proposed as suitable site to defend Wellington from an attack from the westerly direction. However, by 1934 the CID came back with the view that what was now needed were 9.2-inch guns to deal with attacks by 8-inch cruisers. In Wellington's case these were to be sited at Wrights Hill in the suburb of Karori, something that would be in addition to the existing ordnance at Forts Ballance and Dorset and Palmer Head. One of the factors in the

favour of Wrights Hill was its elevation of 1,000 feet, allowing it to command much of Cook Strait separating the North from the South Island.

In the end, in what appeared to be an act of defiance, the 9.2-inch option was rejected by the NZ Chiefs-of-Staff on the basis of cost, being two and half times that of the 6-inch guns. Instead they pushed on with the latter, starting work on Palmer Head in 1936. Nevertheless the subject of 9.2-inch guns reared its ugly head again in 1937 when the War Office recommended the need for them. This time the New Zealand Cabinet approved this option, only to see the Chiefs-of-Staff defer it again. They did, however, approve three 16-inch searchlights covered by two 12-pounders for close-in defence of the port. They were no warmer to the idea of the 9.2-inch option the following year, on the basis that they could not justify the additional expenditure for them. In the end, however, persistence had its rewards and in 1942 approval was given to develop Wrights Hill for the 9.2-inch guns.

At the outset of the war there were numerous installations around Wellington, with quite a few concentrated at the entrance to the harbour on the Miramar peninsula. From north to south these consisted of the Point Halswell anti-aircraft battery, Fort Ballance, Fort Dorset and the Palmer Head Battery and Moa Head radar station. Further afield were Wrights Hill Fortress and Fort Opau, the latter located on a bluff overlooking the Tasman Sea at Makara on the west coast. In addition there were anti-aircraft batteries at five other sites, including Tinakori Hill, Mount Victoria, Matiu/Somes Island, Pol Hill in Brooklyn and on a hill between the suburbs of Newlands and Johnsonville. Backing up these were their associated fortress battalions and Wellington could also call upon two mobile units (both initially dependent on impressed civilian motorcycles, cars and lorries), the 2nd Brigade based in the Manawatu and the 7th Brigade in the Wairarapa.



JEFFREY PLOWMAN

Built in 1885, Fort Ballance (named after John Ballance, the country's Prime Minister from 1881-83) was decommissioned at the end of the First World War. During the Second World War the building to the right provided accommodation for battery personnel until more suitable 40-man huts could be built. Off limits for many years, the area is now accessible to the public.

FORT BALLANCE

Situated on the Point Gordon promontory at the northern end of the Miramar peninsula, where it commanded the inner reaches of the harbour, Fort Ballance had its origins in the defence-building boom of the 19th century. Work here dated back to 1885 with the initiation of the construction of emplacements for two 7-inch RML muzzle-loading guns, the southern one of these being replaced by a 6-inch disappearing gun in 1895. Its secondary armament consisted of two 6-pounders mounted on movable trolleys running on rails on either flank. With this arrangement if one got damaged during an engagement the other could be quickly switched to the other location. The structure also included two magazines, which were initially lined with wood and later brick, and bomb-proof casemates at the rear with accommodation for 40 men. The following year an 8-inch disappearing gun was added between them, with a second one being added 80 yards to the south in 1891.

That same year work began on another battery of two 64-pounders on the foreshore of Point Gordon. Known as Low Battery, it was built to cover a minefield that was to stretch from there to Ward Island, the construction of this being completed in 1904. The guns in the fort could not cover it because the thick parapet they had to fire over and their height above sea level meant that there was a dead zone of some 650-700 yards out from the shoreline.

Finally in 1901 work began on Gordon Point Battery consisting of two 12-pounder QF Mk IA guns on a low shelf down the hill in front of the main guns of Fort Ballance. Because of the construction of this installation, Low Battery became progressively more redundant and in 1907 the removal of the submarine mining essentially ended its usefulness. Fort Ballance remained in service in the First World War but the disappearing guns were declared obsolete in 1922 and removed two years later, the 6-inch gun pits being converted into magazines and quartermaster stores. The 12-pounders were shifted to Fort Dorset.

At the start of the Second World War the only defences, as such, at Fort Ballance were a few 18-pounders sited in revetments adjacent to the old Gordon Point Battery site. In

Right: The fate of the gun emplacements is not clear though there is a suggestion that they were simply covered over with spoil sometime in 1970. Terry Brown worked his way up from the road to obtain this comparison.



TIM RYAN

On the bluff below Fort Ballance lay Gordon Point Battery. Its two 4-inch guns were shifted here from Fort Dorset in 1941, being installed in the old 12-pounder emplacements that had been built before the First World War. In 1959 Tim Ryan, learning of the plans to scrap the guns and demolish the old defence installations, took this photo of the battery and of many others before they disappeared.



TERRY BROWN

December 1939 a proposal was put forward to move two of the 4-inch guns from Fort Dorset, only to be repeated early in 1941. This time, however, it was acted upon, the guns being moved in May and erected in the old Gordon Point 12-pounder emplacements. They were proofed the following month and fitted with Department of Scientific and Industrial Research designed autosights a year later. In this position, manned by C Battery, 10th Heavy Regiment, they served as the support examination battery to Fort Dorset's 6-inch guns for the rest of the war. The only shots they fired were on July 24, 1945, a day after being fitted with one-inch aiming rifles, 40 proofing rounds of that calibre being fired on this occasion.

One other concern was the lack of suitable defence against motor torpedo boats. What was required was a quick-firing weapon. The British had developed a 6-pounder Twin for anti-motor torpedo boat (AMTB) defence in the 1920s that was finally ready for service in 1934. New Zealand ordered two on March 4, 1938, only to be told they would have to wait another four or five years to get theirs, the first ones going to higher priority areas like Singapore. By the time they did arrive the



ATL

In addition to the 4-inch guns, a quick-firing 6-pounder twin was installed on Point Gordon's foreshore in February 1944 as defence against enemy motor torpedo boats. The gun emplacement and its director tower were still in evidence in

August 1948 when this photo was taken. Across the road from it is the emplacement for Searchlight No. 4 and its associated engine room, the roof of which is just visible above the rocks on the left.

threat to New Zealand had moved away. As a stopgap measure the Americans made available two 75mm M1917 guns that had been fitted to coast artillery mounts but it was some time before they could be made effective. The guns actually arrived in October 1941 but lacked sights, range tables and even ammunition, the first shipment of the latter being lost to enemy action. Some ammunition was eventually obtained on loan from USMC stores but only after the guns had been installed on small concrete pads in the revetments used by the 18-pounders, that being complete on March 19, 1943. They continued in this role until February 1944 when a QF 6-pounder 10cwt twin gun was installed in a mounting beside the road at the base of the peninsula.

The old 1885 fortress itself was also put to use during the war, initially to provide accommodation. The first men, 30 in total, arrived in 1941, though their living space being underground was somewhat damp. Fortunately, they did not have to spend long there, three 40-man huts being erected six months later. There was a steady build-up of numbers over the next few years, the camp eventually accommodating 177 men, some in tents on the site of the old submarine mine facilities. The old fort continued on during the war as an ammunition store.



TERRY BROWN

The director tower was blown up in 1959 and the searchlight emplacement demolished in 1970. Terry Brown took this comparison beside Massey Road round the point from Scorching Bay and just past the site of Searchlight No. 6. The island in the distance is Matiu/Somes Island, itself the site of an anti-aircraft battery (see page 52).

A number of searchlights were also installed at Fort Ballance to augment the two that had been there since the First World War. One of these was on a ledge 25 feet above the road at the point where the road turned the corner

from Scorching Bay, the second was on the seaward side of the road near the site eventually occupied by the 6-pounder twin. During the course of the war four more searchlights were brought into action, two of them mobile.



TERRY BROWN

Though all foreshore installations were supposedly removed in 1970, Terry found the Engine Room for Searchlight No. 4 still intact just beyond the 6-pounder Twin site. (This is the building seen on the far right in the picture at the top of the page.) In all there were four searchlights at Gordon Point, two fixed and two fighting ones.



TERRY BROWN

Also apparently missed was the mount for Searchlight No. 4a. Terry, seen here scrambling down the hill, found it on the hillside across the road from the Engine Room for No. 4. (Of the other searchlights on the foreshore, only the concrete floors of No. 6 and the foundations for the Engine Rooms for Nos. 5 and 6 remain today.)



ATL

Located further south on the Miramar peninsula was Fort Dorset, named after the Surgeon-in-Chief, Dr John Dorset, who had been involved in the defence of Wellington from 1843-45. This picture of the fort was taken by Sydney Charles Smith in August 1925 during the visit to Wellington of the US fleet detachment under Admiral Robert E. Coontz — part of a tour of the US surface fleet to Australia and New Zealand undertaken to demonstrate Amer-

ica's strategic reach in the Pacific. Visible making their way up the harbour are the battleships *Pennsylvania* (the fleet flagship), *Oklahoma* and *Nevada*. Just visible is a crowd of Wellington residents lining the ridge of the promontory above the camp to watch the spectacle. Steeple Battery, first equipped with two 12-pounders and later with two one-inch guns, was located on the other side of the high point on the right.

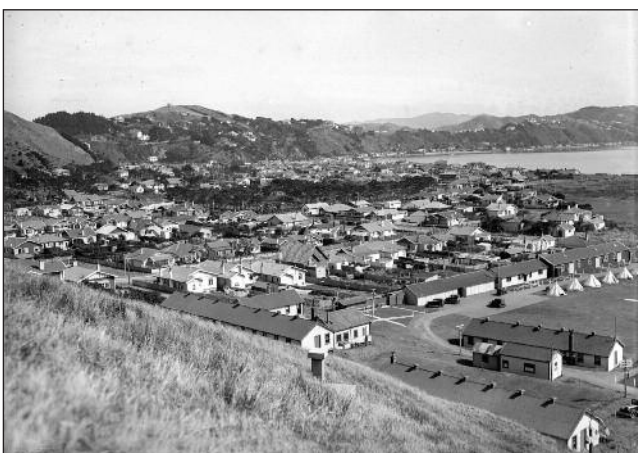
FORT DORSET

Fort Dorset had been surveyed as far back as 1880 as a site for a three-gun battery but nothing came of this at this stage. Then in 1906, at the insistence of the Imperial authorities, it was selected as the site for two 6-inch Mk VII guns. Around this time the New Zealand government had become somewhat jaded with regard to expenditure on its coastal defences but, nonetheless, took over some 54 acres of land at the Seatoun end of the Miramar peninsula. The emplacements were constructed to a standard Imperial design of open concrete pans for the guns

Right: The Army camp at Fort Dorset officially closed in 1991 and the former parade grounds and buildings have been replaced by the playing fields of Seatoun School, which opened in 2002.



JEFFREY FLOWMAN



ATL

Left: Sydney Charles Smith also took this photograph of the other part of Fort Dorset, with the suburb of Seatoun behind. By 1939, Fort Dorset had become the headquarters and home to all Wellington artillery, with additional accommodation for artillery personnel being progressively built during the war in nearby



JEFFREY FLOWMAN

Seatoun Park (the cluster of trees in the distance). For a time it also served as the headquarters of the Wellington Fortress Area. Right: With seven hectares on the southern end re-zoned for residential development in the late 1990s, many new houses now occupy the hill that overlooks the old campsite.



TERRY BROWN

The main defence installation at Fort Dorset was the 6-inch battery, which originated from before the First World War.

During WWII the battery was responsible for giving warning shots to unidentified or suspected ships entering the port.

over the magazine, with shell and cartridge hoists and a battery observation post behind. The guns were mounted and ready to man by September 1910 and the battery, which came to be referred to as the 6-inch Battery, was ready for action by January the following year.

Nevertheless there were issues with the placement of this design at the head of the harbour as there was no way that they could cover the examination anchorage. One recommendation was that the parapet of A2 gun be chipped away so it could swing around to achieve this but by the end of the First World War this had still not been done.

Right: Manned by men from 71st Heavy Battery of the 10th Heavy Regiment, the 6-inch guns were eventually provided with overhead cover in 1942 but by the following year were no longer operational. By the time Tim Ryan visited the site in 1959 the guns were gone.



TIM RYAN



JEFFREY PLOWMAN

Instead, at the start of that conflict two 12-pounders facing north were temporarily sited behind the 6-inch guns until the chipping could be done. They were refitted to ships later in the war.

Nothing really happened at Fort Dorset until 1925 when two 12-pounders were brought back for drill purposes. That year Dorset was also surveyed for two more sites for guns, one at the harbour entrance and the other in a saddle in the ridgeline, facing south over Breaker Bay, this latter site eventually

Left: The emplacements were removed in late 1970 and all that is left of them today is a jumble of concrete blocks. The view is looking across the harbour entrance towards the Orongorongo hills. The concrete platform and posts on the left mark the site of the Oruaiti Pa, a Maori palisaded village that guarded the entrance to the harbour in pre-European times.

JEFFREY PLOWMAN



The Night Battery Observation Post did not succumb to the demolition hammer. It was built on the hill above the guns in 1937 after problems were experienced with the main BOP.



TERRY BROWN

Another survivor is this radar post on the hillside above the Night BOP. It was added in November 1943 to house a British CD No. 1 Mk V set.

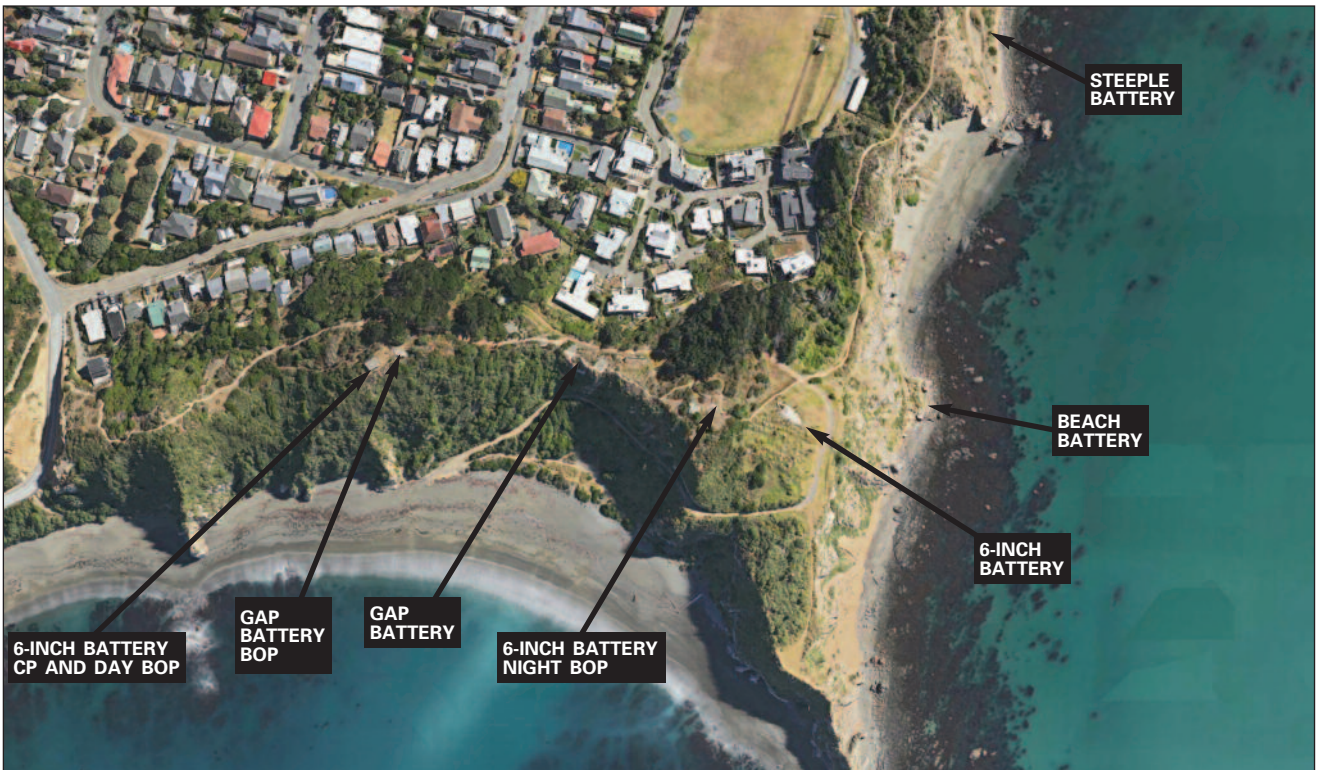
becoming the Gap Battery. However, it took another ten years before work actually commenced on that battery, construction of the four concrete gun pads being started in 1935. The guns themselves were 4-inch guns on Mk II* mountings with Mk III directional range-finders and came from a signalling battery at Point Jerningham at the northern end of the Roseneath peninsula between Wellington's harbour and airport.

That year too, more-formal emplacements were established for the 12-pounders at a

Right: The need to guard against enemy motor torpedo boats led to the establishment of a battery on the shore below the 6-inch battery. Initially comprising two 18-pounder field guns on improvised emplacements, two 2-pounder guns were later added to it, the latter being replaced by two 12-pounders in February 1942. They remained in service until late 1944 when the 6-pounder Twin at Fort Ballance was put into operation, taking over the anti-MTB role. This is all that remains of Beach Battery today.



TERRY BROWN



In all there were four coastal batteries with their associated observation posts distributed around Dorset Point.



ATL

Above: Located in the saddle of the ridge around which Fort Dorset sprawled, overlooking Breaker Bay, was Gap Battery. Initially it was armed with four 4-inch guns but two of them were shifted to Fort Ballance in 1941, leaving Gap Battery with just two. On August 12, 1958, a party of government ministers visited Fort Dorset to assess its potential for housing development. By then one of the guns had already been removed, its shield dumped beside it. One nice touch was that all the scrap metal was then sold to the Japanese! **Below:** Terry Brown took this comparison from near the battery's magazine, looking west.

new site along the promontory that flanked the eastern side of the camp, this new position becoming known as Steeple Battery. Two years later another observation post was built for the 6-inch Battery on the hill above it because of problems with the main Battery Observation Post (BOP), this new construction becoming the Night BOP.



TERRY BROWN

At the start of the war the examination service was quickly revived and this role was taken over by the 6-inch Battery, apparently because Steeple Battery had been converted to fire one-inch aiming rifle rounds in practice instead of full 12-pounder rounds. It was not long before the 6-inch Battery had the chance to fulfil its examination role when at 9.45 a.m. on September 3, 1939 the British steamer SS *City of Delhi* was ordered to stop by the Examination Vessel *Janie Seddon*. One of the battery guns loosed off a shot at 800-900 yards range. Though that shell missed, hitting the cliffs on the other side of the harbour entrance, the second was right on target, striking the water just in front of the steamer. Naturally with that much attention the ship complied. Aiming was apparently not a strongpoint of the gun crews of Steeple Battery either as many of their 12-pounder rounds ended up across the harbour in Gollans Valley, one even hitting a farmhouse.

As the war developed there were further improvements to the gun positions. The two remaining 4-inch guns of the Gap Battery had autosights fitted in July 1942 and later had shields added. Overhead cover for the 6-inch guns was also added that year, however the following year the guns were no longer operational.

In November 1943 the Naval anti-submarine radar station consisting of a British CD No. 1 Mk V set, was moved to Fort Dorset and set up in a splinter-proof building behind the 6-inch Night BOP. Improvements were also made to the facilities at Steeple Battery because the command post proved to be useless, being in the area affected by the blast with its view partly blocked by the gun mountings. As a result a new command post and battery observation post were added to the rear of the guns, while shields and overhead covers provided for the guns themselves.

Some 18-pounder guns from the 2nd Field Regiment were also installed below the 6-inch Battery on improvised 'beach platforms' in an AMTB role. Later, they were augmented by 2-pounder anti-tank guns

Right: Though the guns were removed, their concrete emplacements remain and can be reached by a walking track that roughly follows the line of the road that served both the 4-inch and 6-inch batteries. The battery's magazine can be seen beside the left-hand track leading to the 6-inch gun position. The steps lead up to the radar post and the Night Battery Observation Post.



TIM RYAN

The other gun was still in place when Tim Ryan visited the site in 1959. The discarded shield of the other one lies in the lower left corner.



JEFFREY FLOWMAN



TERRY BROWN

Two more observation posts were built on the hill on the other (western) side of Gap Battery. The one in the foreground is that for Gap Battery itself, while the one behind it is the Day Observation and Command Post for the 6-inch battery.

from the 22nd Anti-tank Battery. Then on February 22, 1942, two 12-pounders, obtained on loan from the Royal Australian Navy and mated on spare mounts from stores, were installed on an emplacement down below the 6-inch gun position. A two-storied, combined magazine/command post was added three months later. Known as Beach Battery, this position had a short life, being abandoned in late 1944 when the 6-pounder Twin became operational at Fort Ballance.

Following the establishment of fortress areas on November 1, 1940, Fort Dorset became the headquarters for Wellington Fortress Area, a role it fulfilled until December the following year when this HQ moved to Wellington College, having outgrown the space available. Fort Dorset was also the home for all of Wellington's artillery with tented accommodation being added in Seatoun Park shortly after the start of the war and quarters for the WAACs added in September 1942. During the war the guns were manned by 71st Heavy Battery of the 10th Heavy Field Regiment, RNZA, the unit going from strength to strength. The total number manning the guns, including radar operators, was 280 in November 1941, 268 in September 1942, 172 in 1943 and 108 in 1944.

Right: At the southern end of Miramar peninsula was the 6-inch battery at Palmer Head (named after George Palmer, a director of the New Zealand Company in 1825 and Member of Parliament). This oblique aerial was taken sometime between the start of work on the pit for the third gun in December 1942 and the installation of its gun in September 1943. Once in place, it was designated No.1, and the two existing guns re-designated Nos. 2 and 3 (from left to right respectively). Two barracks buildings can be seen behind the empty pit, while there is another on the other side of the parade ground. The T-shaped building behind No. 1 and No. 2 guns is the Mess, with a series of small ablution blocks next to it. The Battery Observation Post was on the small hill to the right and the underground plotting rooms were dug into this same knoll. The water expanse visible at upper left is Lyall Bay.

PALMER HEAD

Palmer Head had been selected as a site for coastal artillery as early as 1887 but it was not until 1925 that interest was shown in it as a possible site for two of HMS *New Zealand's* 4-inch guns, not that anything came of this. Thus it was not until 1933 that approval was given for the siting of two 6-inch guns there. Work did not begin on surveying the site for another two years, starting in January 1935, along with the bulldozing of a road up from Tarakena Bay, but the guns themselves were not received until 1936. These were the rare Mark XXI 6-inch guns, being standard Mk VII barrels with larger chambers, on 45-degree mounts, which gave them capability of firing out to 20,000 yards.

They were trucked up to the site in June 1936, though not without incident for one gun when a section of the road sank under the combined weight of it and its trailer. Even so they could not be installed because the emplacements for them were still under construction. Work on these had started in March 1936 but was not complete until January the following year, while work on the rest of the site carried on until June. The guns were then mounted in six weeks over September and October 1937 but were still not fully functional when war began, a result of much of the ancillary equipment having not arrived or having been mishandled. Critically they lacked telescopes, sighting equipment or aut sights.

They were eventually calibrated in March 1940, though not terribly successfully



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because they were using the wrong type of rammer. It worked fine when the gun was level but on raising it to 45 degrees the shell slipped back on the cartridge. On this occasion the minesweeper HMS *Tui* had been engaged to tow a target 1,200 yards behind it. The first two shots were under, one only travelling some 500 yards. However, the third time, when the *Tui*, target and battery were in line, the shells went over. Fortunately they did not hit the minesweeper as it was carrying 20 400lb depth charges at the time!

At the start of the war 71 men from the 15th Heavy Battery took over the guns, though their first battle was with a bush fire around the magazines. To add to their woes they were forced to live in tents until the first barracks building was finished in February 1941. Over the course of the rest of the year cookhouses, messes, a quartermaster building and other facilities were added. In January 1942 work began on excavating a hill behind the guns for plotting and wireless

rooms, this not being finished until July the following year. However, the facility suffered from leaks and it took another four years of repairs to fix them.

There were other problems with the site as well, mainly concerning the battery observation post. Built on the knoll behind the guns, it suffered from two blind spots, one by the battery command post just behind the guns and the other by a small hilltop towards the south. Starting in April 1942 the Army set about relocating the command post and levelling the hill, both jobs being complete by the end of the year. They also decided to add a third gun and set about digging the pit for it in December 1942. They ordered another Mark XXI from Woolwich and by September the following year had installed it but could not get it into operation until the end of the war. This was largely because of the lack of a bracket connecting the gun to the cradle. Consideration was also given to providing overhead cover for the guns but abandoned shortly after work had begun on them.



TIM RYAN

Though the two Mark XXI guns for Palmer Head were received early in 1936 they were not installed until September/October 1937. Once in place, they had a commanding view of the whole harbour. The guns were still there in 1959 when Tim Ryan took this photo, most probably of No. 3 gun, the access road built for this battery from Tarakena Bay being visible in the distance on the right.



JEFFREY PLOWMAN

With the guns long gone, there is nothing to challenge the Cook Strait ferries as they head out of Wellington harbour. These days access to the site is from a road that runs past the wartime radar station at Moa Point up to the modern radio navigational beacons of Airways New Zealand. Jeff took this comparison from below the beacons and beside the old parade ground.

TIMI RYAN



Left: Gun No. 1, pictured by Tim Ryan in 1959. Despite being installed in September 1943, the gun did not come into service until the end of the war, largely because of the lack of a bracket connecting the gun to the cradle. By then the battery was



TERRY BROWN

already being wound down. Right: The area around the gun pits is now hidden under a heavy covering of scrub and gorse, so in the circumstances this is the best comparison Terry Brown could achieve.

DARCY WATERS



The battery's underground plotting rooms still exist but access to them is restricted due to the hill's current use by Airways New Zealand. These pictures were taken by Darcy Waters in 1998, who had to sign a safety disclaimer before he could borrow the key for the tunnel's access gate.



DARCY WATERS

The underground installation was never fully operational due to leaks and Darcy found the L-shaped tunnel partially blocked and still flooded. This is the Battery Plotting Room, still featuring the pedestal for the coordinate converter. The hatch in the wall connects to the Fortress Plotting Room.

A number of radar sets were also installed at Palmer Head, the first in 1939 in the Fortress observation post being a DPF Type O Mk I. This was later moved over to Fort Opau in June and replaced by a Z No. 2. In June 1940 a CD (NZ) Mk 1 radar set was installed between the guns for battery ranging and early warning. Two years later in April, a CD (NZ) Mk 2 was installed and made operational within the month. This was actually achieved before the completion

of the installation of an Australian Shore Defence (ShD) Mk I set down at Moa Point, work on which had started in March that same year. This latter set was finally finished in December, apart from the aerial drive, which was not made functional until January the following year. In October 1943 a CD No. 1, Mk V (UK) was installed. Both these sets were eventually replaced by a microwave CA No. 1 Mk II/1 in 1944 to the east of the battery.

The Palmer Head battery was wound down on March 27, 1944, most of its personnel being withdrawn, leaving only a small cadre to maintain the guns. Following on from the capitulation of Japan the Coastal Regiment was pulled off Palmer Head on September 6, 1945 and disbanded. The next month two of the searchlights and No. 2 engine room were dismantled and placed in storage, the other two being put into care and maintenance.

ATL



Left: The radar station at Moa Point below Palmer Head was set up in April 1942. The two lower buildings were for an imported Australian ShD (Shore Defence) Mk I set. The upper



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structure was built later for a CA No. 1 microwave radar installed in 1944. Right: Both buildings survive intact, albeit adorned in colourful graffiti.

Right: Located on a bluff overlooking the Tasman Sea at Makara, the 6-inch battery at Fort Opau covered Wellington's western approach. Judging by the camouflage over the two gun casemates, the Battery Observation Post and the smaller OP behind the guns, this oblique aerial was probably taken sometime after its completion in 1942 and possibly before September 1943. The camouflage was quite effective too, though the paths leading to the various installations would have been a give-away.

FORT OPAU

Located overlooking Cook Strait and the Tasman Sea on a promontory separating Opau Bay from Wharehou and Ohariu Bays, this site was first recommended by the War Office in London in 1926. However it was not until March 1941 that the Royal New Zealand Artillery finally gave approval for the construction of a battery at this site, the Admiralty sourcing two 6-inch guns in the East Indies. Originally intended for Papeete they eventually arrived in April on the RMS *Rangitiki* along with 180 shells from the Royal Indian Naval Ordnance Depot in Bombay. Unfortunately the emplacements were incomplete so once overhauled the guns were stored at Fort Dorset. In fact work



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TERRY BROWN

While the Army decided not to fit overhead cover to the guns at Palmer Head, they had no hesitation at Fort Opau and these are the only examples to survive in the Wellington area. Just what a commanding view the two guns had over the Tasman Sea and Cook Strait can be seen from this photo (*above*) taken by Terry Brown from the Battery OP (*below*). Gun A1 is nearest the camera.



TERRY BROWN

on the emplacements dragged on for quite some time and was not complete until the end of the year. The first gun was mounted on December 22 and the second on January 1, 1942.

Unfortunately little forethought seems to have been given to the rest of the battery facilities as construction of the BOP only started around the time the first gun was installed. As to the other installations, among them the underground command post, war shelters and engine rooms, the Army had planned for these to be similar to those at Palmer Head but eventually cancelled that idea in 1942 in favour of surface-based, splinter-proof buildings. Work on the command post began after the fall of Singapore in February 1942, an event that also provided incentive for the construction of overhead covers for the guns. One thing that was not built was the engine room for the searchlights, the Army deciding on installing radar there instead.

The battery was eventually wound down on September 6, 1943, and the guns removed in June the following year. For the period of its existence Fort Opau was manned by 73rd Heavy Battery, 10th Heavy Field Regiment.

Right: Wrights Hill took its name from John Fortescue Evelyn Wright, a local farmer who in 1876 had been granted some additional land encompassing the hill (see the map on page 38). It was chosen as the site for a 9.2-inch gun battery, construction beginning in November 1942. However, from early 1943 onwards it was afforded a lower priority, work not being completed until 1949.

WRIGHTS HILL

As has been seen, the issue of 9.2-inch guns for the fortress areas was one of the more-contentious issues in New Zealand's Second World War fixed coastal defences. As it happened, the debate over the need for them, and other delays in their construction, meant that by the time they were ready they were no longer required.

After approval to go ahead with the 9.2-inch gun option in 1942 the whole project was accorded a Top Secret status, being referred to as Site 'W'. Prior to construction of the installations themselves, an access road was pushed up from Campbell Street and at its end a camp to accommodate 150 men constructed. Work was initially assigned to the Public Works Department and later jointly carried out by them and the Army. With the road complete, work on the underground facilities started in November 1942, top priority being given to its construction until the end of 1943 when the situation in the Pacific had become more settled. This involved building 2,030 feet of interconnect-



ing tunnels with three magazines, shafts for ammunition hoists for the guns, an engine room, gun stores, a command post, and stair-

ways and landings to the three guns. At four of the five tunnel portals, shelters consisting of a concrete building were also constructed.



TIM RYAN

Left: Once again Tim Ryan was there to record the site before the guns were finally scrapped. This is No. 1 gun. Right: All the gun pits were filled in in 1964 to prevent children and, some say, sheep falling into them but in recent years the Wrights Hill



TERRY BROWN

Preservation Society have begun to excavate them, No. 1 now having been completely cleaned out. As Wright Hill is listed as a recreational reserve by Wellington City Council, a fence has been built around the pit as a safety measure.



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Above-ground facilities included an observation post at the eastern end of the fortress, a battery workshop and store, and a miniature range in a two-storied building, as well as a parade ground. Not that this facility was complete at war's end, in fact work on the site continued on until 1949. The guns themselves arrived in 1944 and were towed up to the site by a D8 tractor, albeit not without incident, a large piece of the gun carriage becoming stuck on one corner. It took two hours to free it.

One thing still remained contentious, the need for the third gun. On October 1, 1943 New Zealand was informed that the third gun for each battery had been deferred due to a delay in their manufacture; in the case of the one for Wrights Hill this meant shifting its installation from July 1944 to April 1945.

Left: It is easy to see why the concrete pit is fenced off from this photo by Terry Brown. The protractor markings on the upper rim were repainted by a diligent member of the preservation society over a period of several months. The bolts for fastening the gun are clearly evident.

TIM RYAN



Left: Gun No. 2 pictured by Tim Ryan in 1959. **Right: The preservation society has only partly excavated the gun pit, slowly**



TERRY BROWN

developing it as a sheltered picnic spot. (There are long-term plans to also excavate the third gun pit.)

In the mind's eye of some people this called into question whether the third gun was needed at all. The main argument in favour of three guns came from the Senior Staff Officer (Artillery), namely that this was considered the minimum number needed for suppressing fire from an 8-inch cruiser, usually with straddle fire. The Chief of the New Zealand Forces, Lieutenant-General Sir Edward Puttick, was not happy with this and

approached the Minister of Defence, Frederick Jones, on January 24, 1944 with the view to cancelling the order as it would save £50,000 each for the three batteries the guns had been sought for. Two days later the War Cabinet approved this cancellation.

The two guns on Wrights Hill were never fired in anger during the war but the Army did receive permission to fire No. 1 in 1946, the great event taking place on June 28. On

this occasion three rounds were fired into Cook Strait with a super charge of 125 lbs of cordite. The test was announced as a great success, though the neighbours were probably not impressed, several houses suffering broken windows. Not surprisingly the battery did not fare too well either, losing many of its windows. Though the guns were never fired again, Wrights Hill continued on as a training facility well into the 1950s.

ATL



Left: The Wrights Hill Battery included extensive underground facilities. This picture of one of the three access stairways was taken in 1957. **Right: Access to the subterranean installation is today only possible on public holidays and Terry Brown took**



TERRY BROWN

his comparisons on Waitangi Day, 2014. The three stairways all look alike but this is the one leading up to gun pit No. 2. Of course access to the pit itself is not possible because of the spoil still in it.

ATL

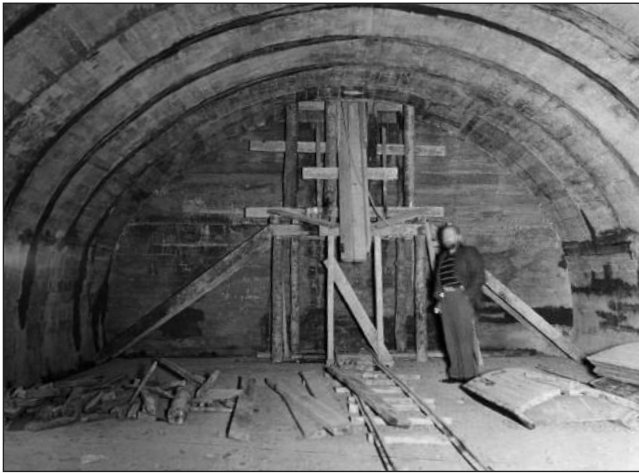


Left: These photos are part of a series taken by E. J. Wright on May 1, 1943, when the underground facilities were still under construction. This is the Battery Plotting Room, looking out to



its anteroom. It was later divided into two rooms. Right: The Wrights Hill Preservation Society is in the throes of its reconstruction.

TERRY BROWN



ATL

Left: Scaffolding was still in evidence at one end of the No. 2 magazine, a narrow-gauge track leading to what would be the



TERRY BROWN

site of the ammunition hoist. Right: All the clutter had gone when Terry Brown visited Wrights Hill.

ANTI-AIRCRAFT DEFENCES

New Zealand did not reach the decision regarding anti-aircraft protection until 1934 when they put in a request for a two-gun section of QF 3-inch 20cwt guns for Auckland and another for Wellington. The UK was unable to release any from their stocks until 1936, the first arriving in February of that year. Those for Wellington were initially based at Fort Dorset in a shed built the previous year, along with predictors, range- and height-finders, sound and ranging equipment and three searchlights. There they remained until September 1939 when they were moved onto their newly-built concrete pads on Mount Victoria on the 4th of that month. In mid-1940, following the appearance of German raiders off the coast, they were towed to various places around the city for live shoots. Then in December 1941 they were dispatched to Fiji, leaving the capital's anti-aircraft defence in the hands of machine gunners!

Nevertheless it was only a matter of time before proper anti-aircraft equipment arrived to replace them, 16 Bofors 40mm light AA guns arriving in early 1942, along with the same number of QF 3.7-inch AA guns. The Bofors were essentially deployed as mobile anti-aircraft units, one gun of the first battery being lifted onto the roof of the freezing works and another onto the roof of the railway station, while the rest were deployed on Aotea Quay. For the heavy anti-aircraft guns the Army set about establishing six permanent sites around Wellington, the first 3.7-inch battery being set up on Mount Victoria in April 1942. At this stage

work on their emplacements was still ongoing, so it was not until the following month that they were complete and guns proof-fired. A second heavy battery was installed that month on Tinakori hill, while work had started on a third position on Pol Hill in the suburb of Brooklyn. Both batteries were proof-fired in June, along with another battery at Hallswell Point at the northern end of the Miramar peninsula. Later on emplacements for a fifth battery were built on Matiu/Somes Island, being completed early in 1943, while the sixth and final battery was established at Johnsonville, though in the end only partially completed.

The harbour defences included several 3.7-inch anti-aircraft batteries. One of them was at Hallswell Point (named after Edmond Hallswell, who became Commissioner of Native Reserves after his arrival in 1841) at the north end of the Miramar peninsula. Here emplacements were built for four guns, initially manned by B Troop, 74th Heavy AA Battery (later 160th Heavy AA Battery). It is still currently Defence land but soon to become part of a public reserve. This the northernmost emplacement, pictured for us by Peter Hodge.



PETER HODGE



DEREK QUINN

The other 3.7-inch AA battery site remaining is the one on Matiu/Somes Island (Joseph Somes being the deputy governor of the New Zealand Company) and manned by 104th Heavy AA Battery. It is now a predator-free scientific reserve managed by the Department of Conservation. This is the battery command post.

THE DECONSTRUCTION OF THE HARBOUR DEFENCES

In 1957 the government finally decided that the country's coastal defences were no longer needed and set in motion their decommissioning. In Wellington this resulted in all of the guns at Palmer Head, Fort Dorset and Wrights Hill being scrapped in 1960, ironically the scrap metal being sold to their former aggressors, the Japanese! The Wellington City Council then decided to remove all traces of the defence works and while they may have started this process they certainly never carried it out to completion.

When it came to the removal of other facilities the first things to go at Fort Balance were the barracks buildings. Then in November 1959 the control tower of the 6-pounder Twin was blown up by Army engineers as part of a training exercise. Nothing further happened for another ten years when plans were drawn up to remove what remained. These were brought into effect in June 1970 with the demolition of the installations along the foreshore and supporting facilities for the Gordon Point gun emplacements. The intention was to remove the emplacements next but what happened is not clear from records. The remaining buildings were certainly demolished but there is a suggestion that the emplacements were simply buried.

Though the 6-inch Battery was demolished in late 1970, Fort Dorset survived a lot longer because it had become the site for coastal artillery training on the introduction of Compulsory Military Training in 1950. The camp provided accommodation for 200 Air Force, Army and Navy personnel, as well as messing facilities for Army General Staff and Defence HQ personnel, many of its buildings being refurbished over that period. Fort Dorset remained in Army use until 1991 when it was demilitarised, though the barracks continued to be used by Territorial units until 1999, demolition of these starting that year. In 1997 the Ministry of Education received permission to purchase 2.5 hectares for a school, another 7.5 hectares being rezoned for residential use. Part of the site was also taken over temporarily for the construction of a medieval village, possibly as a film set. Construction of the school started in 2001 and was complete the following year, the school shifting in during April. Though the installations for the 6-inch guns were removed, the BOP and radar installation were kept, as were the mounts for the 4-inch guns, their associated Night BOP and maga-

zine. The whole area is now a public walkway and interpretative panels have been added identifying the various surviving features.

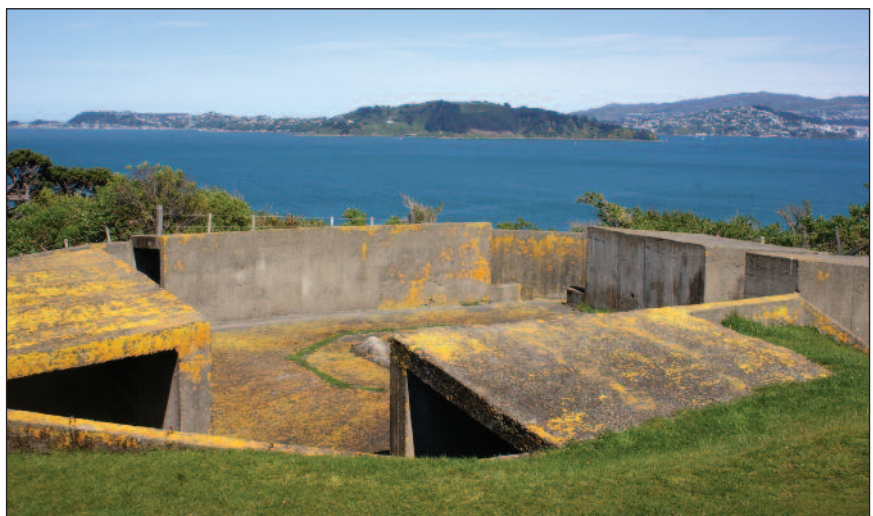
The Army continued to use the Palmer Head site briefly after the war, installing a No. 10 radio set with a microwave link to Wrights Hill as part of its fire-control communications. Later the Civil Aviation Authority (CAA) took over and ran the radar station at Moa Point. It was their use of it and other facilities at Palmer Head that resulted in the shelving in 1961 of plans for a sub-division running up from Tarakena Bay to the top of the hill. However, in 1970, it was finally decided to remove the gun emplacements and other constructions because they were considered to be notorious places for children and undesirables to congregate. In July 1970 three searchlight emplacements at the base of the hill were levelled and the rubble buried on site. Work then began on the main facilities at Palmer Head. Gun emplacement No. 1 was demolished to emplacement base level with explosives on August 17, 1970, while Nos. 2 and 3 were demolished to their existing ground level, the rubble from them being dumped in a gully between the two positions. What was left of

them was then covered over with spoil from the hill behind.

The Moa Point radar station was also considered for demolition but because it was still being used by the CAA it survived. Likewise the underground plotting rooms also survived because the CAA (now Airways New Zealand) took over the hill above them as a base for a Doppler VOR short-range radio navigational system for aircraft, the ventilation shaft remaining exposed until finally being buried in 1990. One thing that does remain beside the Airways NZ compound is the old Miniature Range. In more recent times Palmer Head was incorporated into a walkway running up from Ahuriri Street in the suburb of Strathmore Park, part of it following the road that ran down from the parade ground to the radar station.

At Wrights Hill Fortress some of the tunnel entrances were filled in in 1961, a year after the removal of the guns. However, the land and some of the buildings continued in use for some years as a site for a VHF radio station for mobile radio users such as taxis and a site for a trunk-line microwave radio station for toll calls to the South Island, while the Post Office used some of the tunnels for storage. The Department of Scientific and Industrial Research also installed some seismic monitoring equipment adjacent to those storage facilities and inside the tunnels. The gun pits were not filled in until three years later to prevent children (and some say sheep) falling into them. In 1988 the site was rescued by the Karori Lions Club. They set about digging out the gun pits, one at least completely, cleaning up the tunnels, waterproofing and rewiring them and restoring the command post and radio room. It was first opened up to the public on ANZAC Day (April 25) the following year. This and subsequent open days help to fund the restoration work, and with a grant received from the Lottery Board they were able to replace all the wooden doors outside. In 1992 custodianship was taken over by the Wrights Hill Preservation Society. To commemorate the 50th anniversary of the installation of the original guns a replica gun was constructed from wood and trucked up to the site. It is currently on display in one of the tunnels.

Jeffrey Plowman extends his appreciation to Terry Brown; Peter Cooke, author of Defending New Zealand; Peter Hodge; Derek Quinn; Malcolm Thomas and Darcy Waters, webmaster of the Capital Defence website, for their help in the preparation of this article.



DEREK QUINN

Part-way through the building programme the Army came up with the idea of using the AA guns against shipping. To save money and to allow them to be used in this role, the Public Works Department developed a simpler design, octagonal in shape, known as the Type C. This is the southern-most of the battery's three gun emplacements. (The emplacements for the anti-aircraft battery at Johnsonville were similar to this.)