SAPPERS OF THE SOUTH

THE ORIGINS AND IMPACT OF THE CORPS OF THE ROYAL NEW ZEALAND ENGINEERS

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ABSTRACT

This thesis traces the growth, leadership, changes in role, and strategic employments of the Royal New Zealand Engineers from their formation in 1902 until the present day. The writer has deliberately chosen to make his major concern the Corps development since the Second World War. However, because there was a military engineer presence in New Zealand prior to the Corps formation, indeed from the establishment of the first 'Redcoats' fighting force in New Zealand in the 1840's, a preliminary study has been done of the British and Volunteer New Zealand Sappers of the period prior to 1902.

This thesis is intended as a contribution to New Zealand's sparse military history. Concentration on the post-war World War Two period has seemed fitting in that, it is in this period that the Corps of the Royal New Zealand Engineers has provided specialist service, in diverse roles through the new regions of New Zealand's strategic interest - South East Asia, the Pacific and Antarctica.

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CHAPTER ONE

INTRODUCTION

This thesis is a study of the Corps of the Royal New Zealand Engineers since 1945. This study is not a regimental history of the 'old style' which examines the personalities, internal changes and problems of an army regiment. Rather this study concentrates upon the experiences of the Royal New Zealand Engineers within the context of New Zealand's changing post war role in global politics.

There is little literature on New Zealand's military history after the two World Wars, due partly to the unavailability of source documents, which have either been destroyed or are unavailable to historians because of security classification. There is rather more historical literature on New Zealand's international relations since 1945. This study brings both these aspects of history together - the history of the Corps of the Royal New Zealand Engineers being used as a means to examine aspects of New Zealand's military role within the framework of international relations. The military and international relations aspects are drawn together by examining the geographical deployment of the Royal New Zealand Engineers; the reasons for the deployments; who made the decisions to deploy; and what work was undertaken by the Corps.

The Royal New Zealand Engineers is one of the few Corps of the New Zealand Army which has been given a consistently active and overseas

role, both in war time and in times of peace. The construction and support skills of the sappers have been widely used in combat areas, civil aid, strategic and scientific programmes since 1945. The thesis focusses on both the 'civil' and military roles of the sappers since 1945 using them to illustrate New Zealand's changing international relationships and emergence as a nation participating in regional and global affairs. New Zealand's role and allegiances in international relations and the role of New Zealand Army have since 1945 been quite different from those prior to World War Two.

New Zealand's military and strategic loyalties and institutional links prior to World War Two were primarily with Great Britain and members of the British Empire. Britain was New Zealand's predominant, almost exclusive mentor in cultural, financial and trading matters; and protector and advisor on international matters. In the second chapter the links between Britain and New Zealand's military forces and their experiences are examined up to 1945, with special emphasis upon the development and deployment of the New Zealand Army Engineers.

During the Nineteenth Century New Zealand's development and security were the responsibility of Britain, which provided military forces to quell uprisings and advisors to assist in developing New Zealand's defences. Among these advisors were a small number of Royal Engineers who contributed much to New Zealand's defence programme and were instrumental in developing New Zealand's first Army Engineers.

As a result of these close cultural and military links, and given local expression to imperial loyalties, the New Zealand government

enthusiastically sent troops to assist in the Boer War and World War One. Being an ally of Britain, the greatest naval power in the world, ensured New Zealand's security.

After World War One, New Zealand's allegiances still remained with Britain although New Zealand did begin to move into 'world' politics. It signed the World War One peace settlement separately, joined as an independent nation in the League of Nations and later, under her own initiatives, negotiated commercial treaties with a number of foreign states.[1]

Again in 1939, New Zealand supported Britain in an European war, the bulk of New Zealand troops being sent to the Middle East. New Zealand remained secure under the promise of British protection should a Pacific war begin. On December 7, 1941 Japan attacked the United States force at Pearl Harbour and the Pacific war began. The consequential rise of the Japanese resulted in the surrender of the British base at Singapore and defeat of British forces generally in South East Asia, and left New Zealand and Australia vulnerable to Japanese attack. Reluctantly both nations moved towards gaining military security from the United States. The Americans staged troops through New Zealand and a New Zealand force, eventually of divisional strength, was sent to fight in the Pacific. Increasingly, the Pacific became an American 'lake' and both New Zealand and Australia strove to retain their autonomy and influence in the Pacific. One result was the 1944 Canberra Pact, "a kind of Monroe Doctrine against outside interference in the South Pacific". (2)

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1. Sinclair, K. A History of New Zealand, (3rd edition), 1980,p.246
2. Ibid, p.284

With the surrender of Japan, a multi-national occupation force was required to oversee Japan's political redevelopment according to American ideas of democracy, and the restoration of the Japanese economic system. New Zealand, because of its involvement in the Pacific war, the Japanese peace negotiations and through the Far East Commission, was invited to contribute to the occupation force. The small New Zealand contingent became part of the British Commonwealth Occupation Force which included soldiers from Australia, India, Great Britain and Canada. The New Zealanders were responsible for the Yamaguchi Prefecture, the Royal New Zealand Engineers being responsible for providing buildings, roads and other amenities for the New Zealand force.

By 1946 the United States showed little interest in a regional security agreement covering the South Pacific. New Zealand, although still having strong links with Britain, was reluctant to revert to the pre-war situation of sole dependence on Britain in the defence sphere.(3) The Fraser administration had high hopes for security through the new United Nations organisation, of which New Zealand was a founding member and an enthusiastic participant. However, the 'cold war' in Europe and changes in the political and strategic situation in areas bordering the Pacific produced new questions about New Zealand's security: during 1948 and 1949 political unrest in China, the establishment of a communist regime in China, and the spread of insurgency, often with communist leadership and participation, through parts of Asia caused concern within New Zealand. In 1950 communist North Korea, supported by Chinese communists, invaded South Korea. When the United States recommended that United Nations member nations

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3. Kenneway, R. New Zealand Foreign Policy 1951-1971, 1972, p.27

supply armed forces for a joint United Nations force under the command of General D. MacArthur, the New Zealand Government made an immediate response. The actual deployment of New Zealand forces was delayed however, as the Government awaited a commitment from Britain. The small size of the New Zealand force dictated that the Army contingent would be attached to commonwealth forces. Within Korea the Engineers had a dual battle and support role, assisting not only New Zealand troops but other commonwealth troops as well.

As a result of the post-war spread of insurgency and communism, and the Korean conflict, America developed a foreign defence policy which sought to contain the spread of what they perceived as communist aggression, through the construction of defensive military alliances around the globe. In September 1951 New Zealand, Australia and the United States of America signed the ANZUS agreement which was regarded as giving a guarantee of United States support in defence of the South West Pacific. The agreement, however, did not represent an immediate and complete shift away from New Zealand's defence links with Britain and the Commonwealth: "... it was seen as underwriting the existing position rather than superseding the Commonwealth policy".(4)

In September 1954 New Zealand's collective security links were further expanded to include the South East Asia Collective Defence Treaty (SEATO) also signed by the United States of America, Britain, France, Pakistan, Phillipines and Thailand. In creating defence alliances with the United States of America and Britain, New Zealand governments accepted they must take into account the interests of these nations while formulating their own policies, even where

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4. Jackson, W.K., New Zealand and South East Asia, Journal of Commonwealth Political Studies, Volume IX, Number 1, 1971, p.4

New Zealand interests were not directly involved.[5]

With New Zealand protected by the collective security agreements, the Government looked toward contributing defence forces to the British Commonwealth strategic force in the Middle East. Such a commitment, however, proved politically and logistically impractical and New Zealand, which through its treaties was already heavily committed to Asian defence, agreed to contribute to the South East Asian Commonwealth Strategic Reserve based in Malaya.

Communist and other insurgent elements had emerged in some British dependencies throughout Asia. Malaya was of particular concern to the British as the Asian nation was seeking independence. In 1948 the activities of communists in the area resulted in the deployment of British troops to Malaya. The peak of communist activity was in 1955, and this was a factor in the commitment of New Zealand troops to Asia rather than the Middle East.

New Zealand's first military contribution to this area was a unit of Special Air Services soldiers which remained in Malaya until 1960. Malaya gained independence in 1957. In 1964 the Indonesian Government, which claimed sovereign rights to Malaya, attempted to gain Malayan support for an Indonesian Malaya. The activities of the Indonesian Army in this programme brought a defensive response from the British Commonwealth forces. New Zealand as part of these forces deployed an infantry battalion, with support personnel, among them members of the Royal New Zealand Engineers. In 1971 following a decision to withdraw

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5. A.J.H.R., 1966, A.8, p.6

all British forces east of the Suez, the British withdrew from Malaya. As a result New Zealand's defence alliances and loyalties moved strongly towards the United States of America, which assumed a stronger role in the Asia and Pacific regions.

In 1964 the United States sent military forces to Vietnam. The American appraisal of the situation, which New Zealand adhered to, was that the Vietnam war would escalate and a prolonged civil war was inevitable. The Americans believed that without the intervention of non-communist support in Vietnam another communist dominated nation would emerge in the East. The New Zealand decision to commit troops to the Vietnam war is the clearest example of decision-making within an alliance context. Concern for national interest and concern for treaty obligations with America and other nations, were all significant factors in the New Zealand Government's decision to provide forces in Vietnam.[6]

Initially, the New Zealand Government was reluctant to commit forces, as it already had soldiers in Malaya. The American appraisal of a drawn out conflict also caused some consternation. The military authorities in New Zealand, however, supported the commitment as it would give the New Zealand Army much needed combat experience, something lacking in the 'peace-time force'. In June 1962 a proposal to send a military force was rejected by Government and a civilian aid team was sent instead to Vietnam. As the United States commitment increased so did the pressure upon the New Zealand Government to fulfil its obligations to the collective security agreements, particularly as a

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6. Kenneway, R., New Zealand Foreign Policy 1951-1971, 1972, p.69

partner of ANZUS.

In May 1963, the New Zealand Government reluctantly agreed to support in principle the sending of a military force to Vietnam. Due to its commitment to the Commonwealth Strategic Reserve and an impending election, the Government decided to 'show the flag' by sending a non-combatant military force to assist the South Vietnamese.

The force was a small detachment of Royal New Zealand Engineers which engaged in civil aid construction around the Vietnamese town of Thu Do Mot. Although their role of building roads and bridges was non-combatant, these roads were used by the South Vietnamese as supply routes to the battle areas. In May 1965 the New Zealand Government decided to send a combat force to Vietnam. As a result of this new combat commitment, the sappers were withdrawn, although smaller detachments were later deployed to support the combat units. Through the late 1960's and 1970's, opposition in New Zealand to the Vietnam war and New Zealand's participation steadily increased, and this influenced the decision to withdraw the combat troops in 1971. However, the Government still wished to maintain a 'presence' and the Royal New Zealand Engineers were once again called upon.

A small advisory group of engineers were sent to Vietnam as a component of the New Zealand Army Training Team. The sappers assisted in constructing the National Training Centre at Chi Lang as part of the training and education programme for the South Vietnamese forces. A change of government in December 1972 saw the Labour Government, which

opposed the use of New Zealand soldiers in Vietnam, withdraw all New Zealand forces from Vietnam.

The spread of insurgent movements in the Asian region was not always combated by confrontation. The Colombo Plan was instituted in 1950 to assist in raising the living standard of nations exposed to possible communist influence. Thailand, which bordered the communist state of Cambodia, was singled out for particular attention. In July 1965 the New Zealand Government who fully supported the Colombo Plan committed the Royal New Zealand Engineers to assist in building a highway between Borabu and Buriram to aid the economic development of northeast Thailand. This programme of road construction and the resources involved was one factor that prevented the despatch of a second engineer force to Vietnam in 1965. The road, which was completed in 1971, opened up the north-east of Thailand and allowed better movement of resources southward. The road also allowed for the rapid deployment of troops into the northeast area should insurgent groups cross into Thailand.

With the withdrawal of New Zealand's forces from Vietnam, New Zealand's foreign policy began to take more cognisance of the Pacific and Antarctic area. The economic and diplomatic involvement of the Russians in Pacific nations of Tonga and Western Samoa in the mid 1970's was viewed as an encroachment into the New Zealand and the United States sphere of influence. In 1974 the New Zealand Government responded by providing military training assistance and aid to Pacific Governments. The Royal New Zealand Engineers fulfilled a major function in the policy, providing construction expertise for building

programmes in the Cook Islands, the Solomon Islands, and Fiji; and training Pacific military forces in the School of Military Engineers at Linton Camp in New Zealand.

As interest increased in the Pacific the future of the Antarctic came under review. The Antarctic Treaty which defined land claims is due for renegotiation by 1986. To further strengthen New Zealand's claim to Ross Dependency, a rebuilding programme at Scott Base, the scientific base, was instigated. The programme, which was timetabled for 1976-1986 is being undertaken by the Royal New Zealand Engineers.

The post war deployments of the Royal New Zealand Engineers have been many and varied. The sappers have played a part in New Zealand's foreign policy and demonstrated their ability as combatants, teachers and diplomats.

Within New Zealand the Army engineers, apart from fulfilling their obligations to military training, have undertaken a number of specialist construction tasks and assisted in community aid projects and civil defence operations. The Corps organisation has had many structural changes since 1945, as a response to the new roles and military philosophies the New Zealand Army has adopted. These changes were designed to make the New Zealand Army and the Royal New Zealand Engineers better prepared to meet the needs of a modern military force.

Since 1945 the Royal New Zealand Engineers have effectively responded to the different roles they have been given as New Zealand's foreign

policy has broadened, developed and changed. Travelling to various parts of the globe in different capacities as active participants in and as instruments of Army and Government policies, the sappers have lived up to their motto "Ubique".

CHAPTER TWO

ORIGINS

THE NEW ZEALAND ENGINEERS 1840-1945

During the reign of Queen Victoria there was no Corps of the Royal New Zealand Engineers. However, the Royal Engineers were present in New Zealand from the time of the 'war in the north', not only as professional soldiers, but also as builders of roads, constructors of bridges, and wirers of telegraph, for successive New Zealand Governments preferred to use the soldiers that were paid by the British War Office rather than employ additional labour at the New Zealand taxpayers' expense.

When the Imperial Force left New Zealand, some Royal Engineers remained as advisors to the New Zealand Government, assisting in the formation of the volunteer system and the building of New Zealand's defences. When Britain had assumed the sovereignty of New Zealand on 6 February 1840, after the Treaty of Waitangi was signed, Governor Gipps of New South Wales despatched a small military detachment to assist in bringing law and order to the infant colony. This force arrived on 16 April 1840, and among this unit was the first Royal Engineer to serve in New Zealand. His services were quickly seized upon. He was the only engineer in the force and was given the taxing task of building defences for the military force around New Zealand.[1]

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1. Taylor, N.M. (ed), Journal of Ensign Best, 1837-1843, 1966, p.180

Lieutenant Lugard R.E., was required primarily to build defences for Kororareka, New Zealand's major town. The task was difficult given the meagre resources, manpower and equipment available. At Kororareka, he wrote,

> [I] had about 25 men from the 80th [Regiment] as artificers and was obliged to build a rustic blockhouse, temporary and not bullet proof due to the extreme paucity of means.(2)

Later Lugard began defence constructions in Auckland where his problems continued;

> We had no assistance from Sydney in the shape of materials. I had to make shingles and bricks - fell and saw timber - burn shells for lime - collect scoria for building - and none but soldiers to work with and only hand carts and a boat.(3)

The British maintained an often tenous hold over law and order in New Zealand. Periodically, disputes between Pakeha and Maori erupted into potential or actual armed conflict. On one such occasion, Lieutenant G. Bennett R.E., who was sent to replace Lugard, undertook the first military assessment of Maori Pa defences. Bennett's report, which outlined the strength and weaknesses of the pa fortification, was forwarded to the Inspector General of Fortifications in London and the Colonial Office (Appendix 1). Both chose to ignore the report and this was to prove an administrative blunder paid for in lives during future campaigns against the Maoris.

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2. Professional Papers of the Corps of the Royal Engineers (P.P.C.R.E), 1853, Volume 2, p.46

3. Ibid, p.46

In July 1844 came the first real test to British sovereignty. Led by Hone Heke, a group of Ngapuhi Maoris made punitive raids against Kororareka. Governor R. Fitzroy, fearing the rebellion might spread southwards to Auckland, instructed Bennett to put the British barracks, Fort Britomart, in a state of defence using whatever military or civilian labour was available. Bennett, using soldiers and local Maoris as labourers, constructed four blockhouses; one in each flank of the barrack square.[4]

British forces arrived from Australia in June 1845 to provide protection for the Northland settlement. Among them was Captain Marlow R.E., who was placed in charge of a small force and given the task of preparing fortifications and artillery emplacements for the British force. After the pacification of Hone Heke and his people, the Royal Engineers assisted in building defensive works for the Wakefield settlements. However, being poorly equipped and lacking in staff, few large engineering tasks could be undertaken by the Royal Engineers.

These manpower problems persisted through most of the 1840's and 1850's with Royal Engineers being sent to New Zealand only during Maori uprisings to provide fortifications and military roading. The peace and prosperity which existed during the 1850's did not last into the next decade. Land disputes arose in Taranaki and were the catalyst for a larger war with certain Maori groups. The early campaigns against the Taranaki Maoris saw heavy losses inflicted upon the British force. Major General T.S. Pratt, Commander of the British force, altered

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4. Fitzroy to Sinclair, 17 March 1845, IA 2/2

conventional tactics, preferring to attack Maori fortifications by sapping towards them. Digging a trench (sap) under cover of a large roll of manuka (sap roller) the British force advanced towards occupied pas. A small force of Royal Engineers led by Colonel Mould, Major Marlow, and Captain Pasley assisted in capturing seven pas.

The most famous of these victories was the capture of Te Arei Pa in which Pratt and his Royal Engineers sapped into British military history. Pratt's long sap as it became known, was the longest ever by a British force:

> The total length of the sap executed in this advance on Te Arei was 1626 yards (1487 metres), exclusive of the 45 yard (41 metres) double sap filled in after having been destroyed by the Maoris, and the final demi parallel 67 yards (61 metres). (5)

An uneasy peace settled upon Taranaki after the Maori defeat at Te Arei. The defeats of Taranaki campaign encouraged further growth in the strong Maori King (Kingite) movement, which the Auckland settlement believed was a military threat to their community. When Governor G. Grey arrived in 1862 to replace Governor Browne, he sanctioned the building of a road from Drury to the nearest point of the Waikato River, thus giving the military access into the Waikato stronghold of the Maori King movement.

Lieutenant-General D. Cameron, who had replaced Major-General Pratt, stayed at Drury and directed the road construction using a small force of Royal Engineers to supervise the work. Between January 1862 and

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5. Cowan, J., The New Zealand Wars, Volume 1, 1922, p.213

June 1862 twenty two miles of road were completed. Governor Grey also requested the building of redoubts along the road. Again the Engineers provided the expertise. The road construction worried the Waikato Maoris as it would inevitably mean the Waikato would be opened up for Pakeha settlement. A renewal of the violence in Taranaki in 1863 sparked fears of a possible invasion of Auckland by the Waikato Maoris. Under this pretext, Lieutenant-General Cameron advanced towards the Mangatawhiri stream, a rubicon that once crossed meant war.

In August the small Royal Engineer force was expanded with the arrival of Captain Brooke R.E., and 132 men of the Royal Engineers. The new Engineer force was deployed in mid-November, travelling up the Waikato River in the gunboats 'Pioneer' and 'Avon' to the Kingite defence points of Rangiriri, Paterangi, Piko-Piko and Orakau. The Engineers' expertise in explosives and sapping were valuable assets to the infantry.

> The officer commanding then determined to sap up to the pa, gabions having been prepared, the sap was commenced on the afternoon of the 31st of March, and carried on with great enterprise and activity, until the morning of the second of April, when the Lieutenant General from Pukerimu, accompanied by the Commanding Officer Royal Engineers who took charge of the work. A double sap was broken out from a single sap and carried to the ditch of a sort of outwork, which was then assaulted and captured. Cover was obtained in two of the ditches of this work, and gabions were rapidly placed and filled on the edge of the ditch of the south face, when the enemy suddenly evacuated the main-works broke through the cordon of troops and fled to the southward.(6)

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6. P.P.C.R.E., 1886, Volume 2, p.24-25

The defeat of the Maoris at Orakau Pa broke the Waikato Maori resistance.

However, peace did not reign in New Zealand as further hostilities began. For those Maoris defeated by the British, seeking revenge or aggrieved by the confiscation of Maori land, the Hauhau and Pai-mariri movements provided a medium for their grievances. The ubiquitous Royal Engineers provided support during these campaigns establishing a field telegraph network, roads and defensive work through the hostile regions of the Waikato and Taranaki.

In the year following the pacification of the Hauhau and Pai-mariri, most of the Royal Engineers departed from New Zealand, as there was no longer a need for a British military force. New Zealand assumed responsibility for its internal defence. Britain agreed to provide advisors to assist in the establishment of New Zealand's defence force and, if necessary, to assist in New Zealand's external defence.

New Zealand's defence force was made up of two components; the volunteers and a small force of permanent soldiers. Within the volunteers a small military engineering presence was maintained. The first volunteer engineer unit formed was in Canterbury 1865. This unit like many others formed in later years, had little funding or guidance, relying heavily upon local community and business support. Such support saw the Auckland Engineers Volunteers established in 1866, followed by other volunteer sapper companies in Thames (1869), Napier (1878) and Invercargill (1878). The second part of New Zealand's defence force was the full-time professional home defence force. Under the Armed

Constabulary Act 1867, a small force of 'soldiers' was maintained by the New Zealand Government in areas of past conflict; Taranaki, Waikato, Wanganui, East Cape, Tauranga and Taupo.

Recruits for the force came from the volunteer corps and disbanded militia. In times of conflict the Constabulary, assisted by 'friendly' Maoris, were deployed to quell uprisings. In peace time the Constabulary, was used to do public works in their area, providing roading, bridging, fencing and general maintenance of government property. The work of the Constabulary assisted in opening up much of New Zealand's interior. The small Royal Engineer advisory component provided engineering advice to the Constabulary.

In 1873 when the New Zealand Government proposed extending the Auckland railway line from Rangiriri to Newcastle (Ngaruawahia), they recruited migrant railway navvies to form a Volunteer Engineer militia. The militia fulfilled two functions: railway construction and military support. The sappers apart from construction were used as a defence force to prevent possible retribution from the Waikato Maoris who felt threatened by the encroachment of the railway. By late 1874 the line to Newcastle was completed, and it was decided to extend the track to Hamilton. When completed in August 1875, the militia disbanded although many navvies remained in New Zealand to form the nucleus of the main trunk line construction teams.

The activities of the Russians in the Pacific during the 1850's and 1860's were of great concern to New Zealand, especially when Anglo-Russian relations were strained. Fictional newspaper reports of

Russian raids against New Zealand ports caused sensation around the country in the early 1870's. Between 1876 and 1878 the Russian-Turkish conflict again caused a growth in the awareness of the poor state of New Zealand's defence and vulnerability to attack from Russia's Pacific fleet.

Although Britain guaranteed naval support for New Zealand, the New Zealand Government felt the dispersion of the British Navy through the Empire would still leave New Zealand vulnerable to attack by the Russians. To rectify this situation New Zealand commissioned a special report on coastal defences. In all, four reports on New Zealand's defence capabilities were submitted - three by Imperial Service Officers from the Royal Engineers. The first report by Colonel P.H. Scratchley R.E., (photograph 2.1) recommended the four main centres, Auckland, Wellington, Christchurch and Dunedin establish fixed artillery defences, Coastal Artillery Corps, Submarine Mining and Torpedo Corps and Electric Light Companies. The Coastal Artillery would be manned by the Armed Constabulary, Naval Brigades and Volunteers, while the Torpedo Corps and Electric Light Companies would be selected and trained from the Telegraph Department. At Auckland and Christchurch the Engineer Volunteer Officers would be employed to construct the necessary field work.[7]

The Government's reaction to Scratchley's report was to ponder his suggestions for two years. During that time the volunteer engineers were disbanded as the Army Board considered the volunteer engineers lacked sufficient training and competence to be considered or to

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7. A.J.H.R., 1882, H.10, p.2-3

PHOTOGRAPH 2.1

COLONEL P.H. SCRATCHLEY, CMG

ROYAL ENGINEER

operate as a proficient force. Harbour defence construction began in 1884 and for the first year construction was supervised by the Public Works Department, Defence Engineer. In mid-1885 Lieutenant Colonel E.M.T. Boddam R.E., arrived and assumed the appointment of Engineer for Defences and supervising officer for the harbour defence construction programme. Further reports were done on New Zealand's defence and harbour works by Major-General Sir G.S. Whitmore (1885), Major-General Shaw CB., R.E., (1887) and Major-General J. Bevan-Edwards CB., R.E., (1889).

The 1886 Defence Act saw the disbanding of the Armed Constabulary and the formation of the Permanent Militia to man the harbour defence schemes. The militia consisted of a Garrison Artillery (120), Field Artillery (30), Torpedo (50), Engineers (50) and Rifles (10). The artillery were divided among the four major ports of Auckland, Wellington, Christchurch and Dunedin while the Engineer and Torpedo Corps were based for training purposes in Wellington and Auckland.

By 1892 the Permanent Militia had attained a high degree of proficiency, the Submarine Mining Corp instructed by Royal Engineers Captain Falconers, Captain Powell and Sergeant-Major Gunn, being specially noted in the 1893 Defence Report. The Defence Engineer, F. Dillon Bell, was also complimented on his work, as was Major-General Shaw who had remained in New Zealand to advise on the defence works.[8]

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8. A.J.H.R., 1893, H.9, p.7

The volunteer forces, however, came under much criticism in the 1892 Defence Report. Years of neglect, lack of Government finance and training, were seen as the root problems. The volunteer engineers did not escape the criticism -

> Auckland Engineers - 17 August 1882
> General Remarks: Of the engineering works this Corps knows nothing.(9)

In response Fox sent Royal Engineers into the field to instruct and organise the volunteer engineer companies.

In 1897 the Permanent Militia was re-organised with the Artillery being re-designated Number One Service Company and the Torpedo Corps and its associated Field Engineers becoming Number Two Service Company. To improve the proficiency of Number Two Service Company and assist in training the Volunteer Submarine Mining and Torpedo Corps that were established in the 1899-1900, Lieutenant Symon of Two Service Company was sent to the Royal Engineer training school at Chatham. Symon's was given an intensive course on submarine mining.[10]

The outbreak of the Boer War in 1899 saw 6,500 New Zealanders volunteer for service. Those current or former sappers who served in the war did so not as engineers but as members of the Mounted Rifles. Only one engineer went to South Africa; Lieutenant Symthe of Number Two Service Company went with the ninth contingent as an observer.

On 15 October 1902 in recognition of the proficiency of the Permanent Militia Service Companies and their bonds with the British Army King

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9. Ibid, p.17
10. A.J.H.R., 1901, H.19, p.2

Edward VII bestowed the titles 'Royal New Zealand Engineers (RNZE)' on Number Two Service Company and 'Royal New Zealand Artillery' on Number One Service Company. For the Royal New Zealand Engineers the date became known as 'Sappers Day'.

With the beginning of the Edwardian age New Zealand had its own military engineering force. From its humble volunteer beginnings, and moulded by Royal Engineer advisors, New Zealand had developed a permanent military force which in combination with the large volunteer engineer force could capably meet New Zealand's defence requirements.

At the completion of New Zealand's harbour defence system in 1907, a re-organisation of the permanent force began. With a greatly diminished requirement for engineering work, the Royal New Zealand Engineers were absorbed into the Royal New Zealand Artillery to form the Electric Light Section. From 1907 the volunteer engineers were again New Zealand's primary military engineering force. In an effort to improve the range of engineering skills available to the military and employ modern technology in the battlefield, government departments were encouraged to assist in the formation of volunteer units. The engineer volunteer units also competed against each other for New Zealand Engineer Volunteers' Challenge Shield. Under the umbrella of the volunteer engineers the New Zealand Railways provided two Railway Battalions, the Post Office provided Signal, and Post and Telegraph battalions. (Appendix 2)

In 1914 when New Zealand joined Britain in war against Germany and Austria-Hungary, representatives of these volunteer battalions

accompanied the field engineers overseas. To the first theatre of war, Samoa, a large contingent of signals, railway and field engineers were sent. The Samoan expedition of August 1914 was the first 'victory' of the war, but there was no bloodshed. The second theatre of war for the New Zealand Engineers was in the Dardanelles, an area Winston Churchill described as 'the exposed underbelly of the German Army'. He believed that if the Dardanelles could be taken by the allied armies assistance could be given to the Russian forces fighting on the Eastern Front.

New Zealand and Australian troops were to form an important part of the force sent to open the Dardanelles. On 25 April 1915 the first New Zealand troops landed at Gallipolli, to force a route inland to attack the Turkish guns that guarded the Dardanelles. The landing was far from successful and the gradually augmented force made little progress against a well armed Turkish Army. Trench warfare became the most effective tactic and the skills of the New Zealand Engineers were in great demand to dig trenches, provide communications, build roads, provide water and construct tunnels.

By late July 1915 the Gallipolli campaign had achieved few of its objectives, the allied force having made little progress from their landing beaches. High casualties from unsuccessful offensives and serious health problems had greatly depleted the numbers in the force. During one unsuccessful advance Corporal C.R. Bassett New Zealand Engineer, was awarded the Victoria Cross (Appendix 3). In December, with fighting stopped by the harsh winter weather, the decision was made to evacuate Gallipolli. The evacuation was unique in the annals

of military history for despite the numerous unfavourable circumstances, the departure of the Australian and New Zealand soldiers was undetected by the Turkish Army. The New Zealand Engineers played a large part in the evacuation building jetties for landing craft and booby-trapping the roads, trenches, tunnels, communications equipment, weapons and stores which had to be left. After Gallipolli New Zealand forces were re-quipped and re-organised, some being retained in the Middle East, others sent on to the Western Front, the initial groups arriving in France on 8 April 1916. The New Zealand Engineers were sent to Armentieres to rebuild the French frontline trench defences. From the experience gained at Gallipolli, the New Zealand sappers taught their European allies improved trench construction. Large, well reinforced trenches were soon a common sight along the front.

During the many offensives of World War I the New Zealand Engineers were closely involved in support of the fighting units. The preparations for the third battle of Ypres, for example, required the New Zealand sappers to build roads, trenches and place camouflage nets as well as assist in the preparation of large mines being dug beneath the German lines. When the battle began there was no glorious advance for the sappers as they remained to build roads, supply lines and communications trenches through any newly occupied area.

The final German offensive began in March 1918, a last bid to breach the British lines and gain victory. The British reaction was to strengthen its defences both at the front and in reserved areas. The New Zealand sappers were sent to Hebuterne to build defence works.

> By the end of May a tremendous transformation had been affected in the whole area. The front and support system now consisted of a series of posts practically joined up by continuous lines of trenches, well wired and in good fighting trim. Communications trenches were numerous and generally in good order, though there was room for more cleaning and duckboarding, while the addition of fire steps to facilitate flanking fire had been noted for early attention.(11)

So complete was the reconstruction, new trench maps of New Zealand area were drawn.

By May 1918 the German offensive had failed and the allies prepared for their advance. The offensive began on 21 August and small detachments of the New Zealand Engineers were deployed with the infantry to clear mines and booby traps. It was during one infantry advance that Sergeant Samuel Forsyth, New Zealand Engineer, was awarded the Victoria Cross (Appendix 3). He was later killed by a sniper. Other groups of sappers were used to build pontoon bridges as the allied armies advanced across the German lines.

Reeling from continual defeats the Germans signed an armistice which took affect on 11 November 1918. Marshall F. Foch, Commander of the French Forces paid special tribute to the work done by engineers.

> Without you, gentlemen of the Engineers, without your science, the war would not have been won. Your help will be as indispensible in the future as it has been in the past, and your country relies upon your prompt response should the necessity arise.(12)

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11. Annabel, N. (ed), History of the New Zealand Engineers, 1914-1919, 1921, p.191

12. Ibid, p.226

Foch's confidence in the future of the New Zealand Engineers was not shared in New Zealand. When the Regiment of New Zealand Engineers field companies and other specialist battalions returned to New Zealand many were disbanded, reverting to territorial force field companies. In 1923 the Regiment was re-designated as the Corps of the New Zealand Engineers. Three years later in recognition of the close bond between the Royal Engineers and the Corps of the New Zealand Engineers, the two Corps were allied.

As a result of the financial difficulties caused by the depression in 1931, the Government cut the Defence budget from £ 453,580 in 1928 to £ 156,311 in 1931. In an effort to keep the Engineer Volunteer Companies alive some volunteers paid to go to annual camp. In 1937, with economic recovery almost complete for New Zealand, the volunteer territorial force was re-organised and re-equipped. For the engineers, folding bridges, pontoon bridges, power tools and various other pieces of equipment were distributed throughout the field companies.

In 1939, when New Zealand again went to war alongside Britain, soldiers were familiar with modern equipment. Again government departments provided the manpower for the specialist engineer companies, i.e. Railways, Survey, Wharf Construction. In the course of this war the New Zealand Engineers served in the Middle East, Italy and the Pacific.

The first echelon of New Zealand Expeditioning Force troops departed for Egypt in January 1940. The bulk of the New Zealand Engineers for this force were drawn from the volunteer units. The territorial

volunteer units remained in New Zealand to form the Engineer Companies of the New Zealand Defence Force, the First, Fourth and Fifth Division. In Egypt, the New Zealand Engineers assisted the desert forces, constructing roads, laying mines, railway tracks and waterpipes in the frontline and reserve areas.

During March 1941, a force of eight New Zealand Engineer Companies were sent to Greece to assist the Greek forces fighting the Italians and Germans along the Bulgarian border. The role of the sappers was to keep the transport and communications links open to the front. When the Germans officially declared war upon the Greeks in April 1941, the sappers had a dual role to keep the roads open, and to prevent the advance of the Germans. Once Greek forces had retreated from an area teams of New Zealand Engineers laid mines along the road, booby trapped guns, vehicles and supplies left behind, and destroyed bridges, dams and railway lines.

By the end of April the fall of Greece was imminent and most sappers were awaiting evacuation from Greece. At Kulamata Beach 5,000 soldiers awaited embarkation aboard boats that could carry only 500. Many soldiers remained behind, others stole or were given boats by the Greeks and sailed for Crete. More than 130 New Zealand sappers were taken prisoner on Greece.[13]

Once Greece was taken the Germans advance moved towards Crete. Those soldiers evacuated from Greece to Crete were reinforced by soldiers from Egypt. German airporwer, however, remained supreme and there was little hope of holding Crete. Again the sappers tried to delay German

13. Cody, J.F., New Zealand Engineers - Middle East, 1961, p.98

occupation. They ploughed the airfields and laid mines across paddocks and roads. Two hundred and six New Zealand Engineers were taken as prisoners by the Germans who occupied the island by June 1940.[14]

During 1941 the New Zealand Engineers assisted in the allied campaigns at Bardia, Ed Duda and Gazala.

In 1942 the New Zealand Division was again in Egypt. The engineer companies were deployed in many areas and attached to different Allied Brigades, at Tobruk, Alamein and various Egyptian ports. During August 1942, Montgomery's forces which included the New Zealand Division were fighting Rommel's forces at Alamein. When Rommel's forces were halted, Montgomery began his advance. The speed of the advance was dependent upon the ability of the engineers to clear minefields, booby traps and barbed wire entanglements. By November 1942, Rommel was in retreat and in May 1943 the remaining North African German Army and Italian Forces surrendered.

From Egypt, the 2 Division New Zealand Engineers were sent to Italy to assist the advance against the Italian and German forces. The New Zealand Engineers provided Forestry, Construction and Field Companies. The bulk of the field engineers were posted to Cassino, to assist in the advance against German positions by minefield clearing, building corduroy roads and clearing barbed wire entanglements. By March 1944, it was clear that the entrenched Germans at Cassino could not be defeated, so 2 (NZ) Division withdrew and the airforce began bombing raids on the Monastry and town. The forestry sappers were deployed to

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14. Ibid, p.145

Calabria to provide timber resources for the advancing allied forces.

In April 1944, preparations for a Spring offensive began. The New Zealand Engineer field companies rejoined the Eighth Army and were responsible for maintaining supply routes for the infantry. When the Spring offensive began the speed of the advance was dictated by the skill of the bridge building sappers. The dry Italian summer made the Italian rivers shallow, so apart from destroying the bridges, the Germans mined the riverbed. Such tactics successfully slowed the Allied advance towards Florence. With the fall of Florence the New Zealand Engineers were ordered to assist in the advance to Savio. The efficient bridging techniques of the Kiwi sappers did not go unnoticed and their technique was adopted by the Royal Engineers in Italy.

In April 1943, the small British military force at Singapore surrendered. The British war effort required the Second New Zealand Division in Egypt so the bulk of New Zealand soldiers remained in the Middle East. This left New Zealand vulnerable to Japanese attack. After the fall of Singapore, to ensure New Zealand's security, the Government gained assistance from the United States of America who used New Zealand as a forward area for the South Pacific and Central Pacific commands.

In May 1942 the Third New Zealand Division was formed and deployed throughout the Pacific serving in Tonga, Norfolk, the Solomon Islands, Fiji, New Caledonia and the New Hebrides. The four engineer companies with the Division, were responsible for the construction of airfields, roads, defence works, military accommodations and hospitals to be used

by New Zealand soldiers. The equipment and manpower of the companies were drawn largely from New Zealand's Public Works Department. During September and October 1943, the sappers fought the Japanese at Vella Lavella and Mono Islands and took part in the reconnaissance and invasion of Green Island in 1944. The engineers cleared booby traps, minefields and barbed wire entanglements. This Division returned to New Zealand in August 1944.

During 1942 and 1943 New Zealand also raised a home force of three divisions (sometimes referred to as 'paper' divisions) to resist Japanese invasion of New Zealand. The First, Fourth and Fifth Divisions were based in the Northern (Auckland), Southern (Christchurch) and Central (Palmerston North) Military Districts. These Engineer Companies were largely volunteers from the Public Works Department and New Zealand Railways.

The Second World War had provided another test for the New Zealand Engineers and, despite the limited resources of the Army prior to 1939, the three Volunteer Engineer Field Companies were able to provide the nucleus of the Second and Third Division Engineers, as well as provide manpower for the smaller Divisions that served in New Zealand (Appendix 4). Overseas, the New Zealanders showed a flexibility and adaptability to the various situations of war, and they provided valuable tactical aid to those allied armies they served with. They gained the respect and admiration of their allied sappers in whatever theatre of war they served. Within New Zealand the 'home' army engineer units continued the necessary close links between the military and public engineers, and further cemented a bond created in World War One.

The first step in New Zealand's movement into post-war global politics was the deployment of New Zealand soldiers with the British Commonwealth Occupation Force, Japan. This New Zealand contingent was made up of volunteers, short-service veterans of the last stages of the war in Italy, and groups of reinforcements which had not seen action. Among them were the engineers, who formed 5 New Zealand Engineer Company. Thus began the post-war involvement of New Zealand Engineers in many parts of the world in war and peace.

CHAPTER THREE

JAYFORCE SAPPER
THE ROYAL NEW ZEALAND ENGINEERS IN JAPAN 1945-1948

On 15 August 1945, all hostilities against Japan ceased and the Pacific War ended.

Under the Potsdam Proclamation of 26 July 1945, a declaration that defined the terms of a possible Japanese surrender, it was necessary for an allied force to occupy and demilitarise Japan and establish a new democratic Japanese Government. Once these objectives had been fulfilled the allied force would be removed.[1]

Following this earlier agreement the occupation force would be made up of those nations who had ratified the proclamation, namely, Russia, China, the United Kingdom and the United States. After consultation with the governments of each of these nations the President of the United States appointed General Douglas MacArthur as Supreme Commander of all Allied Powers in Japan.[2]

Planning for Japan's occupation had begun well before the nation's surrender and the United States never intended upon having an international committee exercising control over the Supreme Commander. Instead, the Americans, invited the United Kingdom, Russia, China, Australia , New Zealand, Canada, France, India, the Netherlands and

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1. The Potsdam Proclamation, 26 July 1945, paragraphs 5-6, Kay, R., (ed), Documents on New Zealand's External Relations, vol.2, "The Occupation and Surrender of Japan, Document 6, 1982, pp.11-13
2. ibid, p.lxxxv

the Phillipines to participate in a Far East Commission. The Commission would formulate the policies for Japan's disarmament, demilitarisation, reparations payments, constitutional reform and economic policies, which the Supreme Commander would enforce.[3]

At the war's end the composition of the multi-national occupation force changed from that originally proposed under the Potsdam Proclamation. The Russians refused to place their forces under American command and withdrew from the occupation force. China was embroiled in a civil war. Chiang Kai-shek, fully occupied trying to regain North China from the communists, also withdrew. The occupation force therefore became largely United States and British in composition. However, because of New Zealand's involvement in the Pacific War, the Japanese peace negotiations and the Far East Commission, the New Zealand Government was invited to send a force to be included in a British Commonwealth Occupation Force (BCOF) which would also comprise detachments from the Australian and Indian armies. This Commonwealth Force would retain a degree of autonomy within the area designated for them in Japan, but the ultimate command rested with the Supreme Commander of the Allied Powers.[4]

By 21 August 1945, the New Zealand Government had accepted the offer to send a small New Zealand force. General B.C. Freyberg, Commander of 2 New Zealand Expeditionary Force (2NZEF) in Italy, was advised to draw volunteers from the eleventh to fifteenth reinforcements for a proposed 2NZEF (Japan) force of 5000 men. Freyberg rejected the volunteer system. He maintained:

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3. ibid, pp.lxxxv-lxxxvi
4. ibid, p.lxxxviii

(a) the force would not reach its 5000 man target;

(b) the force would lack the necessary proportion of officers to men;

(c) the force would lack specialist personnel.[5]

The New Zealand Government partially accepted General Freyberg's arguments and ordered the formation of 2NZEF (Japan), with a volunteer base; leavened if necessary with New Zealand trained regular force soldiers.

The broad objectives of the British Commonwealth Force in Japan laid out by the Far East Commission were:

(a) to ensure that Japan could not again menace the peace and security of the world;

(b) to bring about the eventual establishment of a peaceful and responsible Government. (6)

At brigade level the Commonwealth Force was to provide for:

(a) the collecting and dissemination of intelligence information;

(b) the provision of routine guards patrols and picquets for the safe custody of Allied property and the protection of the lives of Allied nationals;

(c) the preparation of disaster plans;

(d) internal security;

(e) the disposal of enemy equipment;

(f) the supervision of repatriation centres;
(Places for the reception of Japanese nationals deported from former colonies.)

(g) the maintenance of land communications;

(h) to assist the Military Government in its task of enforcing the directives of the Supreme Commander. (7)

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5. The General Officer Commanding 2NZEF to the Prime Minister (New Zealand), 22 August 1945, Kay, R., (ed), Documents on New Zealand's External Relations, vol.2,"The Occupation and Surrender of Japan", Document 526, 1982, p.1268

6. Diggle, I., A History of New Zealand's Military Forces 1840-1950 (Unpublished), 1950, p.49

7. ibid, pp.49-50

To achieve these objectives and provide the necessary logistical support, 2NZEF (Japan) would comprise of Artillery, Engineers, Infantry, Medical, Ordnance, Provost and Signals personnel.

News of the formation of a Japanese occupation force reached the 2NZEF soldiers in September 1945, and plans were instigated to form the necessary units. The other ranks were drawn from the single men of the thirteenth and fourteenth reinforcements, while the officers were drawn from the eleventh's and later reinforcements.[8]

The New Zealand Jayforce units began forming in September, the units varying in size from Infantry Battalions to small Medical detachments. The proposed Jayforce Engineers were to be a company of nine officers and 200 Other Ranks. Under the administrative control of Captain E. Farnell, Lance-Sergeant T. Neilson and Sapper G. Ellison, the sappers were selected in Florence.[9]

As Freyberg predicted, the response to the call for volunteers was slow. The New Zealand Government, realising it would be unable to fulfil its Jayforce commitment, examined the possibility of conscripting the necessary personnel from the New Zealand Division in Italy. Only after strong protest from the New Zealand Opposition Government was conscription rejected, the New Zealand Government deciding instead to reduce the New

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8. The [New Zealand] Prime Minister to the General Officer Commanding 2NZEF, 21 August 1945, Kay.R.(ed), Documents on New Zealand's External Relations, vol.2, "The Occupation and Surrender of Japan", Document 525, 1982, p.1267

9. 5 New Zealand Engineer Company War Diary, November-December 1945, Wa-J Series,Z023, National Archives, Wellington

Zealand Jayforce commitment to 4000 men.[10]

The size of the Engineer Company was not reduced despite Government cuts, and the fact that by late October only ninety-seven sappers had enlisted in the Jayforce Engineers. Undeterred by the low numbers, Captain Farnell and Captain G.K. Bunce (NZE), organised Engineer Platoons. Little was known of the Engineers likely role in Japan so four platoons were organised to cover most engineering tasks. The platoons were Headquarters, Stores and Water, Mechanical Equipment and Workshops. Due to an accommodation shortage in Florence, the Jayforce Engineers were relocated under canvas on the banks of the Arno River.[11]

An intense training programme began for the Jayforce volunteers as most were relatively new recruits. During the training period disciplinary problems emerged. The glamour of being an occupation force member wore thin under rigorous training especially when large number of New Zealand soldiers were enjoying Italian society with the promise of home. Such temptations caused many Jayforce soldiers to absent themselves from training.[12] The Jayforce ranks also included previously unruly soldiers coerced into joining Jayforce as an alternative to military punishment.

The return to duty of soldiers given special leave to Britain at the completion of the Italian campaign, provided Jayforce with many experienced

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10. Minister of External Affairs to the Secretary of State for Dominion Affairs, 7 September 1945 and 30 September 1945, Kay. R.(ed), Documents on New Zealand's External Relations, vol.2, "The Occupation and Surrender of Japan", Documents numbered 535 and 542, 1982 pp. 1278-1279 and pp. 1285-1288

11. 5 New Zealand Engineer Company War Diary, November-December 1945, Wa-J, Series Z023, National Archives, Wellington

12. Bunce, G.K., (Interview with Officer Commanding 5 NZ Engineer Company 1945-46), 9 July 1982

officers and men. Among them, Major D. Hudson (NZE), who assumed control of the Jayforce Engineers and under his command the sappers were moved from their training camp on the Arno River to the barrack facilities at the Aeronautical Academy in Florence.

At the Academy the engineers training programme assumed a more work related outlook as the sappers repaired and renovated the Academy buildings, water supply and roads in readiness for Jayforce's occupancy there.[13]

A visit by Brigadier F.M.H. Hanson CRE of the New Zealand Engineers provided the Jayforce Engineers with an opportunity to show their marching prowess, having a fortnight previously won a ceremonial parade competition between the New Zealand Jayforce units.

During the Christmas-New Year period of 1945, an accelerated training programme for Jayforce began with the news that all equipment and stores would be shipped to Japan in late January 1946. The New Zealand Government had originally hoped to get the force to Japan in November or December 1945 but the heavy post-war shipping demand prevented this.[14]

For the Engineers the collection of equipment and stores posed many problems. Little was known of the tasks to be undertaken in Japan so Major Hudson and his second-in-command, Captain Bunce, were forced to

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13. 5 New Zealand Engineer Company War Diary, November-December 1945, Wa-J, Series Z023, National Archives, Wellington

14. Minister of External Affairs to the Secretary of State for Dominion Affairs, 30 September 1945, Kay. R.(ed), Documents on New Zealand's External Relations, vol.2, "The Occupation and Surrender of Japan", 1982, Document 542, p.1286

estimate the equipment and manpower needed for the Engineer Company in Japan. Orders stated that the Engineers must provide all their own requirements, in parts as well as machinery, a difficult order.[15] However, the War Establishment and War Equipment Tables were drawn up and approved by the CRE Brigadier F.M.H. Hanson and 2 NZEF Commander General B.C. Freyberg. Having set the War Establishment the Jayforce Engineers, numbering twelve officers and 250 men, were officially designated as 5 New Zealand Engineer Field Company.[16]

To meet the War Equipment Table's demand for seventy-three vehicles proved difficult. The United States-New Zealand lend-lease agreement for equipment used during the war had expired and the Americans were at this stage giving their equipment to the Italian Government. A frantic search of the disbanded New Zealand Engineer Companies, a General Order, and some unusual 'bargaining' techniques soon provided numerous pieces of machinery and spare parts. The pride of place for the Engineer Company 'scroungers' was a fifteen ton Walderfrance Wrecker and Crane.[17]

The other Jayforce units also collected and packed equipment ready for shipment to Japan. Those Engineer platoons not gathering or packing their own equipment were employed building or packing cases for other units or assisting 6 New Zealand General Hospital.

By 11 January, the packing was complete and fifty-seven vehicles and

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15. Bunce, G.K., (Interview with Officer Commanding 5 NZ Engineer Company, 1945-46), 9 July 1982

16. Headquarters, 2NZEF (Japan) office files (General Staff), December 1945, Wa-J, Series Z002, National Archives, Wellington

17. 5 New Zealand Engineer Company War Diary, January 1946, Wa-J, Series Z023, National Archives, Wellington. This information was also provided by G.K. Bunce, 9 July 1982

122 men of 5 New Zealand Engineer Field Company began a three day trek from Florence to the port of Bari, where the equipment would be loaded for Japan. The trip was slow and eventful with breakdowns, near collisions and poor weather.[18]

In late January a New Zealand Jayforce Advance Party left for the Hiroshima Prefecture. Among the party was the small New Zealand Engineer detachment of Captain G. McGregor, Sergeant Buckley, Sapper Housby and Sapper Nettleton. The Commonwealth Force had been allocated Hiroshima Prefecture and this advance party was to reconnoitre possible sites for the New Zealand Jayforce units.[19]

For those who remained in Italy preparations for Japan continued. A detachment of seventy sappers was sent to Bari to assist in the packing and loading of supplies at the Jayforce Advance Administration Post. Training courses were introduced to prepare specialist detachments for work in Japan. The 5 NZ Field Engineers were to provide an unexploded bomb diffusing team for the New Zealand Jayforce. Captain G.K. Bunce, Second-Lieutenant A. Miller, Lance-Sergeant Robb, Corporal Naylor and Sapper Heilbram trained in Trieste with the bomb disposal team of the 13th Corps of Engineers. This New Zealand team was used only once in Japan, when a 1000 pound bomb was discovered. Their short course at Trieste had not covered bombs of this size, so the sappers blew up the bomb.[20]

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18. ibid,

19. ibid,

20. Bunce, G.K. (Interview with Officer Commanding 5 NZ Engineer Company 1945-46), 9 July 1982

Courses organised prior to leaving for Japan were not only related to work. Some New Zealand soldiers claimed notoriety in the Venereal Disease Clinics in Italy, a fact that incurred military wrath. Consequently, Brigadier K. Stewart the Commander of New Zealand Jayforce, ordered an intense anti-venereal disease campaign among Jayforce soldiers. Exaggerated rates of VD, a shortage of penicillin, and the physical, moral, social and military consequences of contracting the disease were expounded in an intense propaganda campaign that was to be continued in Japan.

Embarkation for Jayforce was set for 19 and 20 February, but prior to that, all Jayforce units would assemble for a final briefing at Lammie Transit Camp, Naples. The sappers left Florence on February 11th, after spending a few days sightseeing, having completed the packing of extra supplies. Until embarkation on 19 February, the sappers loaded the New Zealand Jayforce troopship, the Strathmore.[21]

By 20 February, the Strathmore was loaded to overcrowding with Jayforce personnel, their equipment and supplies. Under very cramped conditions the Corporals and Sappers of Headquarters, Workshops, and Stores and Water, had the starboard side while Mechanical Equipment shared the portside with the Jayforce Electrical and Mechanical Engineers. The various Jayforce units could be distinguished by the different coloured patches worn on the shoulder. The Engineers wore the blue patches.

The Strathmore remained in Naples until 21 February to allow the troops to settle in, and emergency procedure to be organised and practised.

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21. 5 New Zealand Engineer Company War Diary, February 1946, Wa-J, Series Z023, National Archives, Wellington

An outbreak of measles aboard ship was aggravated by overcrowding and dashed the troops' hopes of visiting exotic ports while in transit to Japan. The ship, as a result of the outbreak, was diverted from Trincomalee to Colombo. At the next port of call, Singapore, 150 New Zealand soldiers were evacuated to the Naval Hospital. Even after the sick had been evacuated the soldiers were not allowed to go ashore or trade with the armada of 'bumboats' laden with goods that met them at Singapore and Hong Kong. Shipboard life for most, consisted of seemingly endless regular fitness training programmes, drills and lectures, given on Japanese culture, religion, history and geography. As well, obligatory anti V.D. lectures were held. After a month of such shipboard life, the landfall of Japan was a welcome sight.[22]

The Strathmore dropped anchor in Kure harbour on 19 March to be greeted by the New Zealand Jayforce advance party who rowed out to the ship. Due to a smallpox epidemic in Kure, disembarkation was delayed as all personnel were checked for innoculation. Finally, on 23 March, the New Zealand soldiers were allowed ashore.

The British Commonwealth Occupation Force had originally been alloted one Japanese Prefecture, Hiroshima, by General D. MacArthur, the Supreme Commander for the Allied Powers (SCAP), but in early 1946 he had invited the Commonwealth Governments to take responsibility for further territory. The request was subsequently approved by the various Commonwealth Governments and the Commonwealth Force was allocated a total of nine

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22. 5 New Zealand Engineer Company War Diary, March 1946, Wa-J, Series Z023, National Archives, Wellington

Prefectures: Hiroshima, Yamaguchi, Tottori, Shimane, Okayama, Kagawa, Tokushima, Ehime and Kochi.[23]

The 2NZEF (Japan) force was allocated Yamaguchi Prefecture on the southwestern tip of Honshu. This area, covered approximately 2000 square miles and contained a population of 1.3 million. Having assumed control of the Prefecture from a United States force, Brigadier K.L. Stewart, Commander of 2NZEF (Japan), divided the Prefecture and force into three battalion areas. Headquarters 2NZEF (Japan), 22 NZ Infantry Battalion, Ordnance Depot and Headquarters Army Support Company were located at Chofu in the west; 27 NZ Infantry Battalion, 5 NZ Engineers Field Company, 25 NZ Field Battery and detachments from Army Support Company and New Zealand General Hospital were located at Yamaguchi in the centre; while 2 NZ Divisional Cavalry Regiment and 11 NZ Provost Company were at Mazubi in the southeast.

The location of the New Zealand units during the initial occupation of Yamaguchi was determined by the availability and quality of facilities. The overall quality of the facilities was poor as the United States force, realising their appointment to Yamaguchi Prefecture was for a limited time, had done little to improve facilities. Consequently, the role of 5 New Zealand Engineer Company was clear; to upgrade and construct the necessary facilities for the New Zealand Jayforce units.

The first task of the Engineers was to upgrade the military facilities in their area, particularly Yamaguchi Camp. The eight two-storey barrack

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23. Miller, D., Untitled manuscript on 2 NZEF (Japan), (Unpublished), History Department, University of Waikato

buildings were in need of total renovation, while the sanitation and drainage systems, a series of ineffective flotsam and jetsam pipes, needed complete reconstruction. The camp also lacked adequate messing facilities for the various ranks, a parade ground, roading and storage areas, necessary for a large military force.[24]

To assist in the camp reconstruction the Yamaguchi Government provided Japanese labourers who were supervised by the sappers. Such assistance to the New Zealand force was commonplace, and this close contact with the Japanese led to the development of 'Fraternisation Policies'. The initial policy was based upon the 'conqueror and conquered' attitude.

> We will probably find the Japanese polite and on the surface co-operative. Do not be misled. Remember they are our enemy, they hate us and cannot be trusted. We must suppress our natural inclinations to be friendly. Treat them firmly and fairly but do not make friends with them. (25)

However, the official viewpoint was less harsh by the end of March 1946. An official communique to Jayforce from the Australian and New Zealand Governments stated:

> Your relations with the defeated enemy must be guided largely by your own individual judgement and your sense of discipline. You must be formal and correct. You must not enter their homes or take part in their family life. Your unofficial dealings with the Japanese must be kept to a minimum. You must obey strictly all instructions regarding establishments or areas which are placed out of bounds to personnel of BCOF. (26)

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24. 5 New Zealand Engineer Company War Diary, March 1946, Wa-J, Series Z023, National Archives, Wellington

25. ibid

26. 5 New Zealand Engineer Company War Diary, April 1946, Wa-J, Series Z023, National Archives, Wellington

The sappers relied heavily upon Japanese labour so at all times tried to maintain an effective working relationship. Socially, the two nationalities rarely mixed the New Zealanders maintaining an 'isolationist' policy.

In April 1946, General Sir John Northcott, Commander in Chief of the British Commonwealth Occupation Force toured Yamaguchi Barracks. During the visit General Northcott confirmed the construction support role of 5 New Zealand Engineer Company for 2NZEF (Japan). General Northcott was impressed by the reconstruction work of the New Zealand Engineers, given the equipment and supply problem that had emerged.

The problems were numerous. Equipment sent from Italy arrived late and construction materials needed by the sappers and Japanese labourers were in short supply. The policy regarding supplies for the Commonwealth forces had been formulated by the Joint Chiefs of Staff (Australia). Supplies would be provided for the Commonwealth forces by the Australian Government and where applicable, supplies would be provided by Japanese local governments.

Although technically a sound policy, practically there were many problems that would persist through the occupation period and delay much of the future construction work undertaken by the Engineer Company.

> To date [October 1946] results have not been very encouraging - though they are improving slowly. BCOF have of course had to face great difficulties. There is a general world shortage of goods, particularly of food. Japan is well off the world's main shipping

> routes; the country itself is devastated by war (particularly in the BCOF area where two of the principal cities, Hiroshima and Shimonoseki have practically ceased to exist) so that local supplies are sparse; and finally the setting up of a Base Organisation in the devastated city of Kure to supply the need(s) of a large and varied force is a very difficult undertaking. None the less in a period of 8 months the results have been disappointing...(27)

The poor supply links created a number of problems. Clothing was in short supply and food supplies from Australia consisted of seemingly endless quantities of dehydrated vegetables and tinned meat, a much disliked diet of the New Zealand soldier. Fresh vegetables were not available as the Japanese method of cultivating vegetables in human excrement contravened military health regulations and the 'downstream' effect of the cultivation also ensured a lack of fresh fish and meat.

In those areas where the Engineer Company had yet to begin construction work, buildings remained in poor condition. The demands for the construction skills of the Engineers meant long hours were worked.

These many hardships shattered the illusion of a carefree occupation force and the complaints began to seep back to the New Zealand press and caused rumbles within the local populace and Parliament. One such letter was sent by an anonymous group at Yamaguchi calling themselves 'Bunce's Bootless Boys'.* The letter stated a number of Jayforce grievances:

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27. Commander 2NZEF (Japan) to the Chief of General Staff, 8 October 1946, Kay, R.(ed), Documents on New Zealand's External Relations, vol.2, "The Occupation and Surrender of Japan", Document 600, 1982, p.1420

* Major G.K. Bunce was Officer Commanding 5 New Zealand Engineer Company

As most of the New Zealand public has recently been reading of the 'wonders' that are to be available to occupation troops, I would like to say what a horrible mess there is here at present.

As occupation troops we are expected to set an example in behaviour and appearance but with the clothing we receive, this is a practical impossibility.

Fully 60% of the troops in this area are walking round in the proverbial bootlaces and the supply authorities are unable to provide new boots.

The summer uniforms are definitely disreputable, and in this unit there is about one whole pair of trousers to six men - a case of first up best dressed. Shirts with chewed and worn collars are the rule, while the backless type are also becoming very, very popular; and still Ordnance tell us to wait.

All this is in strange contrast to the appearance of Americans. Tommies and Aussies - and even our own Air Force; they can at least find one uniform that is decent. Surely an enquiry into the situation should be made so that New Zealanders in Japan don't get a reputation for being badly dressed and untidy.

Another thing that worried them - the release of defaulters...we seem to have struck the jackpot once more and would have been better off had we refused to fight for our country.

It's good to sit in a dirty smelly town with dark eyed Japs on all sides, and just think of the...walking the streets at home. It gives such confidence.

While all this goes on; horses cross the Tasman, victory contingent go to England, brides to America, Jap soldiers are repatriated, England footballers visit N.Z., cricketers fly the Tasman and countless civilians pursue their normal travels without a care.

And after the first draft leave Japan, there will still be 2000 men waiting to return, so as day passes day, the men of New Zealand's peacetime, ragtime army become more disreputable, more disgruntled and more disappointed.[28]

The letter got high media exposure and drew a retort from the Minister Defence, the Honourable J.M. Jones, who stated the claims were exaggerated.

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28. New Zealand Truth, 19 June 1946, p.16

He believed the New Zealanders were outfitted adequately and completely in the same uniforms as those supplied to 2NZEF in the Middle East and Italy.[29] The statement of the Minister of Defence however was in direct conflict with a report by Brigadier L. Potter, the Commander of Jayforce (from mid 1946). Brigadier Potter, in a report to the Chief of General Staff, claimed clothing supplies from Italy had been inadequate and the New Zealand soldiers issued with a variety of coloured uniforms.[30]

These letters of complaint from Jayforce servicemen had little effect upon the recruitment of volunteer replacements for Jayforce, although difficulties were experienced in getting suitably qualified replacements for the Engineer, Medical and Dental personnel in Japan.[31] Jayforce was portrayed in recruiting posters as "an overseas 'adventure' for young men in comfortable conditions," a direct contrast to press reports.

At the inception of a New Zealand Jayforce, the New Zealand Government stated that for those soldiers enlisting in Italy, only six months service in Japan was required. For those who enlisted for Jayforce in New Zealand, service in Japan was for twelve months.

In June 1946, the 'Italian Jayforce' began to be replaced with the first 'New Zealand' replacement draft, code named 'Wanganui', arriving in Japan. A second replacement draft, the 'Rotorua' draft, was training in New Zealand and was due to replace the remaining 'Italian Jayforce' in August 1946. The delay between the arrival of the replacements was

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29. ibid, 10 July 1946, p.16

30. Commander 2NZEF (Japan) to the Chief of General Staff, 8 October 1946, Kay, R.(ed), Documents on New Zealand's External Relations, vol.2, "The Occupation and Surrender of Japan", Document 600, 1982, p.1420

31. A.J.H.R., H.19, 1946, p.2

to ensure the 'new recruits' could work under the guidance of experienced Jayforce soldiers.

Just prior to arrival of the Wanganui draft, the 5 New Zealand Engineer Company underwent a major reorganisation. With the completion of renovations at Yamaguchi, the company was able to expand its role providing Garrison Engineer sections to assist in the reconstruction and development of facilities for the New Zealand Jayforce units located throughout Yamaguchi.

With the expanded role of the New Zealand Engineers, it was necessary to 'streamline' the construction planning procedure. To do this, Major D. Hudson NZE, was appointed Divisional Commander Royal Engineers (DCRE). The lack of a New Zealand Engineer adviser to the New Zealand Jayforce Headquarters and the occupation forces controlling body, the United States Eighth Army, had hindered many construction tasks. Major Hudson as DCRE was to provide a vital link between the occupation force administrators and the sappers of 5 New Zealand Engineer Company.[32]

The new role of the New Zealand Engineers was reflected in the wide range of tasks undertaken. The major construction work undertaken by the Company revolved around providing 2NZEF (Japan) with essential amenities. The construction of 6 New Zealand General Hospital at Kiwa and the building of roads to and from the hospital was to take over twenty months to complete. For some months prior to the hospital construction the Mechanical Equipment Platoon were upgrading roads, culverts

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32. 5 New Zealand Engineer Company War Diary, May 1946, Wa-J, Series Z023, National Archives, Wellington

and bridges in the region. The equipment brought from Italy proved of immense value, as the Japanese had little heavy machinery. The New Zealand Engineer also undertook the refurbishing of BCOF Rest Homes, rewired Headquarters 2NZEF (Japan) as well as upgrading the facilities of the New Zealand Signals Company, 19th Army Support Company and 22nd Infantry Battalion. The Workshop Platoon built furniture, firebuckets and equipment required by the New Zealand Jayforce units.[33]

For most 2NZEF (Japan) construction projects, Japanese contractors were employed to assist. They were supervised by the sappers and paid only if the completed job was approved by their New Zealand supervisors. If the contracts or instructions from Garrison Engineers were not adhered to by the Japanese contractors the Board of Reconstruction, who controlled the employment of Japanese labour, would exclude the contract firm from any other BCOF construction work.[34]

Supplies remained a problem for the New Zealand Engineers. However, if materials could not be provided by the BCOF stores, the soldiers could use 'Procurement Demands' which enabled them to buy supplies locally.

The procurement system was slow and cumbersome and remained in use for the entire occupation period. To gain engineering supplies a Works Project Request outlining the project, its labour input, estimated time for completion and a detailed list of the essential materials, was submitted to 2NZEF (Japan) Headquarters. Once approved, the project request

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33. 5 New Zealand Engineer Company War Diary, September 1946, Wa-J,Series Z023, National Archives, Wellington

34. Divisional Commander, Royal Engineers: Office files, August 1946, Wa-J, Series Z024, National Archives, Wellington

was sent to the American 8th Army Headquarters. If approved, the materials could be drawn from BCOF supplies or procurement demands served upon local Japanese firms. The Japanese would be reimbursed by their Government.

If materials could not be obtained then a request for supplies was made to the Bureau of Construction. For those items the Bureau could not provide, requests would go to the Ministry of Commerce and Industry or the Ministry of Agriculture and Fisheries. These Ministries would then authorise the Prefectural Government to acquire the items from within Japan or overseas.[35] At any stage, if papers were lost or mislaid, the procurement procedure ground to a halt until the requests were found or resubmitted.

Rather than use this cumbersome bureaucracy the sappers, along with other New Zealand units went directly to Japanese Government agencies in Yamaguchi Prefecture and commandeered material. This arbitrary action brought numerous memos from United States Eighth Army Headquarters to the Imperial Japanese Government. All memos had the same message:

> Members of the Occupation Force do not have the authority to serve a procurement demand on any Japanese individual or company, nor to negotiate for Japanese supplies, real estate, construction material and services, for use by the occupying forces. (36)

The original officers of 5 New Zealand Engineer Company (see Photograph

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35. Divisional Commander, Royal Engineers: Office files, July 1946, Wa-J, Series Z024, National Archives, Wellington

36. Divisional Commander, Royal Engineers: Office files, 21 August 1946, Wa-J, Series Z024, National Archives, Wellington

3.1), returned to New Zealand as their replacement officers assumed command. Major D. Hudson (DCRE) and Major G. Bunce (OC New Zealand Engineer Company) were replaced by Major King NZE and Captain Flynn NZE respectively.

By the end of October 1946, the replacement of the 'Italian Jayforce' was complete. The Engineer Company personnel establishment had been increased to 306 men to cope with the large construction workload. The demand for the skills of the sappers saw two more platoons created, a Works Platoon and a Transport Platoon. In November, in accordance with the new establishment and expanded role of the sappers, the Engineer Company was redesignated 5 New Zealand Works Company, New Zealand Engineers.[37]

During the next twelve months the Works Company was employed doing construction tasks at Yamaguchi Camp, Bofu, Chofu, Tokuyama, Tokio, Beppu, Kiwa and Ozuki. The detachments ranged in size from a few men, to a whole platoon.

The major construction jobs were expanding facilities at Yamaguchi camp, the building of a sea wall at Camp Wellington, Ozuki, and the continued construction of a New Zealand military hospital at Kiwa. The Ozuki sea wall construction was hampered by poor machinery and violent weather that destroyed parts of the wall. Supply problems continued for the sappers. The Kiwa hospital project was delayed by a lack of supplies and Japanese tradesmen. The project entailed

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37. 5 New Zealand Engineer Company War Diary, November 1946, Wa-J, Series Z024, National Archives, Wellington

PHOTOGRAPH 3.1

5 (NZ) ENGINEER COMPANY 2NZEF (Japan)

BRITISH COMMONWEALTH OCCUPATION FORCE (BCOF)

OFFICERS 1945-1946

BACK: (Left to Right): 2/Lt B. Falconer (HQ), 2/Lt A. Miller (Workshop), Lt S. Barnes (Mech.Eng.)

FRONT: (Left to Right): Capt. C. McLeod (Mech.Equip.), Capt. G. McGregor (Workshop), Major G. Bunce (OC), Capt. R. McMillan (Stores), Capt. D. Taylor (RMO)

ABSENT: Major D. Hudson (DCRE), Capt. A. Gibson (2IC)

Yamaguchi Camp, Japan

SOURCE: G.K. Bunce 1982

a rebuild of existing hospital amenities, as well as providing new accommodation for the Occupation Force medical staff.

The facilities available to the New Zealand soldiers slowly improved after the arrival of the 'Rotorua' draft. The improvement in welfare facilities was to a large degree the result of work carried out by the sappers. Canteen buildings, messes, cinemas, sports grounds and rest homes, built by the Engineers, were in most areas occupied by New Zealand soldiers. Battalion and Brigade sports and competitions against other New Zealand units was popular. Within the Engineer Company itself, a wide range of sports and activities were promoted, the sappers having rugby, hockey, tennis, table-tennis and basketball teams. Films were regularly shown at Yamaguchi Camp though the most attractive form of entertainment remained the mess bars. Despite occasional shortages of beer due to supply problems, most bars were well stocked with beverages. Various illegal breweries produced alcohol for sale to the soldiers during these lean times. Most of these illegal beverages were high in methylated spirit content while others proved poisonous.[38]

Yamaguchi and other large Japanese townships provided few nightspots for soldiers as the list of areas 'out of bounds' to soldiers was ever increasing. Despite the regular patrols by military police in the Yamaguchi streets, crimes against the Japanese by New Zealand soldiers did occur. Assaults, 'fraternisation', rape and theft occurred. One New Zealand sapper was convicted of the murder of a civilian Japanese.[39]

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38. 5 New Zealand Works Company War Diary, July 1946, Wa-J, Series Z023, National Archives, Wellington

39. 5 New Zealand Works Company War Diary, May 1947, Wa-J, Series Z023, National Archives, Wellington

The New Zealand offenders were harshly punished with prison sentences as these crimes did much to lower the prestige of the occupation force.

The ever present anti venereal disease campaign continued with punishments:

> Persons discharged from hospital after treatment for VD will not be permitted to leave unit lines for 16 days. Such persons are also forbidden to drink beer or other alcoholic beverages for the same period. (40)

and propaganda:

> Of the street women apprehended in Yamaguchi city during the month of January 1947, 100 percent were infected by one or more types of venereal disease.[41]

The campaign, coupled with the initially strict fraternization policy, achieved a large degree of success. Returns from the VD Treatment Centres showed, for a 6 month period (1 September 1946-28 February 1947), the average number infected was five percent of the total force as compared to over ten percent of the soldiers in 2NZEF Italy.

On the whole the behaviour of the New Zealand soldiers was good and the growing trust of the occupation force in the Japanese nationals led to the relaxation of the fraternization policy.

> Personnel may visit Japanese private homes subject to the following conditions:
>
> (a) That an invitation is received by the owner of the house

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40. 5 New Zealand Works Company War Diary, January 1947, Wa-J, Series Z023, National Archives, Wellington

41. 5 New Zealand Works Company War Diary, February 1947, Wa-J, Series Z023, National Archives, Wellington

(b) That the proposed visit is NOT for improper purposes and will in no way prejudicially affect the prestige of the Force.

(c) That personnel are in possession of an authority to visit the home signed by the OC or in the case of personnel at Ozuki and Bofu by the Detachment Commanders. (42)

Despite the improvement in the facilities available to the New Zealand Jayforce some problems remained. A continual flow of letters from disgruntled Jayforce soldiers ensured the New Zealand public were well informed of the supply and food problems. Unfortunately, little could be done to alleviate either problem as Japanese reconstruction absorbed materials and supplies. Due to heavy post-war shipping demands, food shipments from Australia remained irregular to Japan.

In March 1947, some Commonwealth nations began reassessing their position regarding deployments in Japan. In late March, India advised the Joint Chiefs of Staff (Australia) that pending American approval the Indian Army was withdrawing its troops from the Commonwealth Occupation Force. Indian independence, set for June 1948, meant a reorganisation in the Indian Army with a corresponding need to have all military forces within the nation.[43]

A call for New Zealand replacements for Japanese service had begun in January 1947 but had met with a poor response. Initially, the Government feared that volunteer numbers would be as low as 1200.

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42. 5 New Zealand Works Company War Diary, March 1947, Wa-J, Series Z023, National Archives, Wellington

43. The Secretary of State for Dominion Affairs to the Minister of External Affairs, 26 March 1947, Kay. R.(ed), Documents on New Zealand's External Relations, vol.2, "The Occupation and Surrender of Japan", Document 615, 1982, p.1449

Adverse newspaper reporting of the conditions in Japan, coupled with post-war economic and industrial growth in New Zealand, and a general disinterest in the Japanese occupation force, meant only 2000 men volunteered. Employers pressured Government to lower the number even more as there was a labour shortage in New Zealand.[44] In March, the Government announced a force of 2400 would be sent; 2000 men from New Zealand and 400 volunteers already serving in Japan. By May 1947, the Americans had agreed to the departure of the Indian Army and the reduction in the New Zealand component of BCOF.

The reduction in the size of 2NZEF (Japan) began in June 1947 with the departure of Jayforce personnel (designated 'Waitaki' draft) for New Zealand. As a result of the reduction in the New Zealand force, many units were disbanded while others were renamed or integrated into other units. Those disbanded were:

2 NZ Divisional Cavalry
25 NZ Field Battery
NZ Pipe Band
2 NZEF Vehicle Pool

Those disbanded then reformed:

27 NZ Infantry Battalion became
3 Battalion
22 NZ Infantry Battalion became
2 Battalion

Other units affected were Office of Senior Medical Officer, 2 NZ Mobile Dental Section, 16 NZ Optical Unit and 4 NZ Rest Home who were absorbed into 6 NZ General Hospital. Headquarters 2NZEF (Japan) absorbed 5 NZ Field Hygiene Section and NZ Labour Administration Office.[45] The reduction of

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44. Christchurch Press, 7 February 1947

45. Headquarters 2NZEF (Japan): Office file (General Staff), June 1947, Wa-J, Series 2004, National Archives, Wellington

the size of the force also meant a redistribution of the New Zealand contingent. The 5 New Zealand Works Company were sent to Bofu to replace 27 Battalion and to renovate the barrack facilities there.[46]

With the arrival, in August 1947, of the Jayforce replacement draft 'Wairarapa', 5 New Zealand Works Company Royal New Zealand Engineers* was reorganised to cope with the reduced staffing levels of 150. The number and size of Garrison Engineers detachments was reduced. Only three main depots remained, at Yamaguchi, Ozuki and Chofu. The position of Divisional Commander Royal Engineers was filled by Major Kerr who acted as advisor to both Brigadier L. Potter, Commander of 2NZEF (Japan) and Colonel A.J.T. Bull, Chief Engineer, British Commonwealth Occupation Force.[47]

The reduction in the size of the Works Company meant only essential New Zealand Jayforce projects could be instigated or completed. The hospital project at Kiwa continued, as did the rebuilding and extension of Yamaguchi Barracks. Both projects were completed in December 1947. The bulk of the engineer company was then located at Ozuki doing construction work at the New Zealand base camp, Wellington. Large stores buildings, aircraft hangars and barrack facilities were built for use by both the New Zealand force and other Commonwealth forces.

In November 1946, the British had advised the Joint Chiefs of Staff Australia, of their desire to withdraw from the British Commonwealth

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* The Corps of New Zealand Engineers became the Royal New Zealand Engineers, 12 July 1947

46. 5 New Zealand Works Company War Diary, June 1947, Wa-J, Series Z023, National Archives, Wellington

47. Headquarters 2NZEF (Japan): Office file (General Staff), August 1947, Wa-J, Series Z004, National Archives, Wellington

Occupation Force. The British commitment overseas was a strain financially and hampered the successful post-war reconstruction of Britain. The departure of the Indian contingent had set a precedent, and after twelve months of debate between Britain, Australia, New Zealand and the United States of America, Britain was allowed to withdraw its force.

The withdrawal of the British resulted in the dissolving of the Joint Chiefs of Staff Australia (JCOSA) on 31 December 1947. The effectiveness of JCOSA in supporting the occupation forces was summed up by the Chief of Australian General Staff:

> It [JCOSA] had been a valuable experiment but in his opinion, and this was agreed to by everybody else, the control of BCOF or any other Force could be much simpler if the excessive integration which was the essence of the experiment, had not been done. (49)

Supplies and stores for the New Zealanders were still to be provided by the Australian occupying force but the 5 New Zealand Works Company, requiring heavy machinery, now had to borrow equipment from the nearby Twenty-fourth United States Army.

By 1948, economic and industrial progress within Japan had diminished the role of the Occupation Force. Demilitarisation was well in hand and the Japanese were rebuilding their nation. As a result a scaling down operation began for the New Zealand forces. Apart from the Ozuki Barracks construction project, no major projects were undertaken by

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49. The Secretary of State for Dominion Affairs to the Minister of External Affairs, 11 November 1946, Kay, R.(ed), Documents on New Zealand External Relations, vol.2, "The Occupation and Surrender of Japan", Document 635, 1982, p.1473

5 NZ Works Company. The reduction in the work of Jayforce resulted in a new policy of concentrating 5 New Zealand Works Company at Ozuki. The reasons were:

1. Now all the major works in 2NZEF (Japan) Area are nearing completion it is essential that the force be concentrated as much as possible in order to (a) reduce administrative transport mileage to a minimum.

2. There is already evidence amongst Japanese employees of 2NZEF of a movement to civil employment. This movement which results directly from a belief that Occupation Force troops in this area will leave in the near future, is resulting in a deterioration in the standard and quantity of labour available. It is therefore essential that any task requiring a large labour force be completed before the position is further aggravated. (50)

The new policy saw the headquarters of the sappers moved from Bofu to Ozuki, where the Garrison Engineer groups were disbanded. Engineer works sections were established and attached to the New Zealand units in Yamaguchi Prefecture. By January 1948, the works sections were located in Ozuki with 2 Battalion New Zealand Regiment; at Bofu; at Chofu with Camp Headquarters 2NZEF (Japan); at Yamaguchi with 3 Battalion New Zealand Regiment and at Kiwa with 6 New Zealand General Hospital.[51] The sections remained under the control of headquarters 5 NZ Works Company Ozuki until 10 March 1948, when they were transferred into the unit to which they were currently attached. The unit maintenance sections, as they became known, were administered by the unit, but operated under the technical guidance of the officers of

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50. Headquarters 2NZEF (Japan): Office files (General Staff), November 1947, Wa-J, Series Z004, National Archives, Wellington

51. 5 New Zealand Works Company War Diary, January 1948, Wa-J, Series Z023, National Archives, Wellington

5 NZ Works Company. Overall administration of the Company and the engineer stores depot was performed by Headquarters 2NZEF (Japan).[52]

In April of 1948, the New Zealand Government decided that at the termination of the New Zealand soldiers 12 months tour of duty in Japan, the New Zealand component of the Japanese Occupation Force would be withdrawn from Japan. The Australians also withdrew. The BCOF area was to be occupied by the Americans.[53]

The engineers remained as the works section of the New Zealand units until the departure of 2NZEF (Japan) back to New Zealand in September 1948. Maintenance work for the unit was the sappers primary role during the final months of occupation. Upon its arrival in New Zealand the 5 New Zealand Works Company was disbanded.

The departure of the force from Japan was New Zealand's final act in World War Two. New Zealand's contribution was almost totally in Yamaguchi Prefecture. The New Zealand force had served as two basic parts, those who were directly responsible for achieving the British Commonwealth Occupation aims, and those in a support capacity for the New Zealand force.

The Royal New Zealand Engineers served in a support capacity and achieved much, despite the numerous administrative and supply problems

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52. Headquarters 2NZEF (Japan): Office files (General Staff), March 1948, Wa-J, Series Z004, National Archives, Wellington

53. The Minister of External Affairs to the Minister for External Affairs in Australia, 22 April 1948, Kay, R.(ed), Documents on New Zealand External Affairs, vol.2, "The Occupation and Surrender of Japan", Document 640, 1982, p.1487

that occurred. Initial occupation force facilities were poor and the sappers were given the enormous task of providing essential building, barracks and furniture for the New Zealand Force. Slowly but surely, the engineers improved the facilities available to the New Zealand soldier.

As the building needs of the force were met and the occupation aims neared fruition, the size and role of the Engineer Company diminished. During the final phase of the New Zealand Jayforce existence, the company was nothing more than a somewhat disjointed group of works sections. The 5 New Zealand Works Company, who had played an important role in Japan, left Yamaguchi as an old soldier leaves life - they quietly faded away.

CHAPTER FOUR

THE COMMONWEALTH ENGINEERS

THE ROYAL ENGINEERS IN KOREA 1950-1954

All day it keeps on raining
It's more than we can stand
But folk, we aren't complaining
For we are defenders of the land.

Now at the time of winter
With Jack Frost on his way
We are up very early in the morning
And out, and just as gay.

I know it's very tiring
And work has got to be done
But we are 12 Field Squadron
And we've got Chinky on the run.

(Excerpt from V.R. Rideout, "The Land's called Korea")

The establishment of a democratically elected government in Japan and the reconstruction of its economy and cities was the first priority for post-war Asia. With this priority in hand attention turned to helping rebuild the devastated colonies of the Japanese Empire. The communist powers of Russia and China showed intense interest in the rehabilitation of these colonies, and the United States and Europe feared the spread of China's and Russia's political philosophies into the South Asian region. Political and military tensions that led to the Korean War fuelled these fears.

In 1910, Japan annexed the Korean peninsula and began to exploit that nation for the benefit of Japanese industry. With the outbreak of war in 1939, and the eventual 'turning of the tide', the heads of Government

of the United States, the United Kingdom and China announced their determination to establish Korea as a free and independent state.* With the intervention of Russia into the war in July 1945, the Potsdam Declaration was signed reaffirming all the principles of the Cairo Declaration.[1]

On 10 August 1945, Japan surrendered. At the cease fire Russia was already occupying sections of North Korea whilst the American advance into the Japanese main islands stopped at Okinawa.

The United States proposed, for the purpose of administering the surrender of Japanese forces in Korea, that a notional line, the 38th Parallel, should divide Korea. The Japanese forces north of the line would surrender to the Russians, those in the south to the Americans. Once the Japanese forces had surrendered, a joint United States-Russian Commission was established to consult with the Koreans and formulate a political system which, for the first five years, would be subject to a four power trustee by the United States, the United Kingdom, Russia and China.[2]

After two years of negotiation the commission failed to reach an agreement, and the arbitrary dismemberment of Korea at the 38th Parallel took on a more permanent status.

In an effort to bring unity to Korea the newly established United Nations Organisation intervened and in 1949 established a temporary

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* The Potsdam Declaration, 1945

1. Department of External Affairs, New Zealand and the Korean Crisis, Publication No.96, 1950, p.3
2. ibid, p.3

commission to supervise and observe nationwide elections in Korea.[3]

Korea's hopes for unity were denied. Russia refused the commission entry to North Korea. Elections were completed in the south and the democratically elected government claimed sovereignty over all Korea. Above the 38th Parallel the North Koreans held elections. Although unsupervised by the United Nations Commission, the North Koreans believed their elections valid for all Korea and also claimed sovereignty over the entire Korean Peninsula.

The United Nations General Assembly refused to recognise the North Korean Government.

> The General Assembly...
>
> 2. Declares that there has been established a lawful government (the Government of the Republic of Korea) having effective control and jurisdiction over that part of Korea where the Temporary Commission was able to observe and consult and in which the greater majority of the people of Korea reside: that this Government is based on elections which are a valid expression of the free will of the electorate of that part of Korea and which were observed by the Temporary Commission: and that this is the only such Government in Korea. (4)

It was upon this resolution that New Zealand officially recognised the Government of the Republic of Korea.

The United Nations Commission continued its attempts to unify Korea but met with little success. It observed the withdrawal of United

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3. ibid, p.4
4. ibid, p.3

States forces after the elections, but was unable to verify the withdrawal of the Russian forces. A virtual state of undeclared war existed after the two major powers withdrew and within a very short time clashes between the North and South Korean Armies were occurring along the 38th Parallel.[5]

In October 1949, the United Nations Commission in Korea was asked by the United Nations General Assembly to monitor the military clashes and escalation along the demarcation line. On the day prior to the North Korean invasion, the Commission had reported no unusual activity along the 38th Parallel.[6]

The invasion of the South by North Korean forces began on 25 June 1950, and provoked an immediate call from the United Nations for the withdrawal of all hostile forces. This request was ignored and on 27 June, the United Nations Security Council recommended:

> ...that the members of the United Nations furnish such assistance to the Republic of Korea as may be necessary to repel the armed attack and restore international peace and security in the area. (7)

The United Nations was the world's second attempt at a collective security system, the first being the failed League of Nations. The Korean conflict was viewed by some nations as an attempt by the communists to undermine the United Nations in the interests of communist world conquest. The New Zealand Government full realised the situation.

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5. ibid, pp.4-5
6. ibid, p.5
7. ibid, p.15

> There is a definite challenge: the gauntlet has been thrown down, and we either have to take it up or confess that the United Nations Organisation will go the same way as the old League of Nations in which case I can see nothing for it but the law of the jungle. (8)

The New Zealand press supported the stance taken by the government.

> The issue is aggression, and that the assault on Southern Korea is an attack on the United Nations.[9]

America responded quickly, promising immediate military assistance. New Zealand's response however was indecisive as the government paused and waited for a hint of Britain's commitment. On 29 June 1950, the Prime Minister, the Right Honourable S.G. Holland, committed two New Zealand frigates, Pukaki and Tutira, to the United Nations forces. This naval force sailed to Korea on 3 July 1950.

By mid-July, the United Nations and South Korean forces were retreating to Pusan. Now faced by the possibility of total defeat, the United Nations requested more ground forces from its member nations.

For a month the New Zealand Government hesitated to commit ground troops as the Army lacked a large, trained standing force that could be quickly dispatched. The Minister of Defence, T.L. MacDonald, maintained, even in the face of United Nations defeats in Korea and pressure from such groups as the Returned Services Association, that New Zealand's contribution should be a small contingent of professional soldiers. He offered quality rather than quantity.[10]

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8. Address and Reply Debate, 14 July 1950, New Zealand Parliamentary Debates (NZPD), vol.286, p.448
9. Southern Cross, 28 June 1950
10. Otago Daily Times, 11 July 1950

Politically, the New Zealand Government awaited the decision of the Australian and United Kingdom Governments, as any New Zealand contribution would be incorporated into one or both of these national forces. It would then declare the nature of its force.

On 26 July 1950, the same day that Australia and the United Kingdom decided to send ground forces to Korea, the Prime Minister, the Right Honourable S.G. Holland announced in Parliament:

> In view of the gravity of the situation created by North Korean aggression, and of the further appeal by the United Nations for additional effective forces, particularly ground forces, we have given further consideration to the practicability of making an addition contribution in order to fulfil our obligations to the United Nations.
>
> After discussions with the Defence Committee - with the Service Chiefs present - and in Cabinet, the Government has been in further consultation with the United Kingdom as to the role of the proposed New Zealand unit in relation to other ground forces.
>
> Though the question of the role and type of a New Zealand ground force is still under consideration, I feel that I should, without further delay, announce that the New Zealand Government is immediately offering to the Secretary-General of the United Nations a special combat unit for service with other ground forces. Subject to the outcome of the consultations now proceeding, this will probably take the form of an artillery formation.
>
> Army offices will be open to receive volunteers for this combat unit from 8 a.m. tomorrow. (11)

The response of the New Zealand public to the call for volunteers was immediate with 2018 people volunteering during the first day of recruiting. Media coverage had fanned the anti-communist fervour,

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11. Statement by Prime Minister in House of Representatives, 26 July 1950, NZPD, vol.286, p.529

which had its roots in the industrial problems of 1950. The strong watersiders unions, reportedly communist inspired, had had wide media coverage. Korea therefore became part of a crusade against communism. The New Zealand Herald reported:

> ...the Communists will win a victory far transcending the boundaries of Korea...the situation is extremely dangerous. (12)

The enlistment total reached 5892 at the close of recruiting on 5 August 1950, although only 1044 would be sent in the first contingent to Korea. The limited defence budget and the desire to maintain the Compulsory Military Training system meant only a small Korea-force could be sent.

New Zealand's contribution was centred around the deployment of a Royal New Zealand Artillery Regiment, with small specialist units from the Royal New Zealand Corps of Signals, Royal New Zealand Ordnance Corps, Royal New Zealand Electrical and Mechanical Engineers and the Corps of the Royal New Zealand Engineers.[13] The Royal New Zealand Engineer section, numbering ten men, was schooled at the engineer training wings at Papakura and Burnham, before being assembled with the rest of Korea-force (K-force) at Waiouru Military Camp. The other specialist units, Signals, Ordnance and the Electrical Engineers, trained at Trentham.

Having stopped the North Korean advance, the United Nations forces were now succeeding in their offensive in Korea. The northward advance

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12. New Zealand Herald, 27 June 1950
13. A.J.H.R., 1951, H.19, p.3

of General MacArthur's forces however, was unnerving the newly formed government of Communist China, who responded to North Korean calls for support.

> The possibility of Chinese participation in the War developed as the United Nations forces scored more successes; the Yalu River was all that divided North Korea from the Chinese Province of Manchuria. On October 7 [1950] the General Assembly adopted a resolution recommending that 'all appropriate steps be taken to ensure conditions of stability in Korea' and this was taken as the signal for a full scale invasion of North Korea by the United Nations forces, which had by this time almost completely cleared the Northerners from Southern territory. As they advanced towards the northern border of Korea, they met stiffening resistance from Chinese forces which were gradually being thrown into the fray...On this day [15 October]she launched heavy attacks which quickly split the United Nations troops, sent them in headlong retreat our of North Korea and started what General MacArthur termed 'a new war'. (14)

On 11 December 1950, having completed three and a half months of training, a New Zealand force of 70 officers and 914 men, sailed for Korea. The force consisted of 16 Field Regiment, Royal New Zealand Artillery, a Signals troop, Light Aid detachment, Transport platoon and Engineer Section. The Engineer Section was ten men led by Second Lieutenant M.N. Velvin, ENZE. (See Photograph 4.1).[15]

The New Zealand force arrived in Pusan on 31 December 1950, unprepared for the northern hemisphere winter. Accommodation was limited and the environment uninviting.

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14. Power, T., New Zealand and the Korean War, Political Science, vol.16, No.2, September 1964, p.63

15. Parker, C.R., Kayforce, 15 January 1970, (Unpublished), Royal New Zealand Engineer Corps Memorial Centre, Linton. This two page unpublished manuscript was an attempt to record the work of the Royal New Zealand Enginner team in Korea

PHOTOGRAPH 4.1

MEMBERS OF THE FIRST ROYAL NEW ZEALAND ENGINEER SECTION IN KOREA 1951

FRONT: (Left to Right): Gunner F. McHugh, Second-Lieutenant M.N. Velvin, Gunner K. Matheson

BACK: (Left to Right): Sapper A. Green, Johnny (a house boy), Sappers C. Rosewarne, K.G. Hall, G. Clark, J. Fraser

SOURCE: K.G. Hall

> A very cold morning. Arrived Pusan yesterday morning. A dirty stinking hole. In 5 man tents, issued with a sleeping bag and 3 extra blankets making a total of 5. Still cold even with them. Went to the QMC this afternoon. Rotten roads, very narrow and winding. (16)

Prior to leaving for Korea, the New Zealand Government and its military leaders had negotiated for the New Zealand contingent to be attached to units of the British Army serving in Korea. The bulk of the New Zealand force was deployed with the 27th British Brigade, and the 16 Field Regiment went into action on 29 January 1951 at Yoju as part of the British Brigade. The small Engineer detachment was located in a frontal position by 4 January and was attached to the Royal Engineers of the 27th British Brigade at Taegu. The New Zealand Engineers were at once employed constructing Nissen huts at Brigade Headquarters, and supervising labour from the Korean Service Corps who were working at a nearby railway yard. At night the sappers worked as pickets and monitored the 7 p.m. curfew that existed at Taegu.[17]

Just prior to the arrival of the New Zealand soldiers, the United Nations forces had stemmed the southern advance of the North Korean forces, and had begun a series of northward offensives. The success of the offensives was registered by the North Korean attempts to secure ceasefire negotiations. The negotiations began in mid-January 1951, and a lull of activity was experienced on all fronts as commanders sought to prevent a major conflict stopping negotiations.

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16. Hall, K.G., Diary 1951. 1 January 1951, (Unpublished). Keith G. Hall kept a diary of daily events during his service as a sapper and later as a Second Lieutenant in the Royal New Zealand Engineer Section 1950-1953

17. ibid, 4 January, 1951

The Royal Engineer force was withdrawn from Taegu in early January 1951, but the small New Zealand force remained assuming responsibility for the engineering tasks in the Taegu military area. Second Lieutenant Velvin had overall administrative command for engineering tasks in the area.[18] On 17 January, the ceasefire negotiations broke down and the northward offensive began again. Ceasefire negotiations and their eventual breakdowns were to become a regular feature in the Korean war. It became an invaluable tactic in delaying an offensive, and allowed reserves to be brought forward and a reorganisation of Brigades.

The Royal New Zealand Engineers remained in Taegu until 9 February 1951, being replaced by the 54th United States Army Engineers. The New Zealand Engineer section was then redeployed to Pusan as part of 12 Field Squadron Royal Engineers, to begin construction of a new British Army Headquarters. Nissen huts made up the bulk of the new camp, with the Royal New Zealand Engineers constructing headquarters for the Royal Engineers and Royal Army Service Corps and supervising the laying of waterpipes and roading.[19]

The New Zealand Engineers also superintended a quarry to provide shingle for roads to the front and around the headquarters. Base construction had been carried out by a large force of Korean Service Corpsmen, but because a United States Detention Centre was nearby the detainees provided the labour in the quarry. Between thirty-five and forty prisoners, guarded by twenty military police, assisted the sappers. The detainees proved good workers, but provided the military police with no end of trouble.

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18. ibid, 12 January 1951
19. ibid, 9 February - 26 February 1951

> At the quarry as usual all day. After lunch when we returned, we found two prisoners had escaped. The guard who saw them go was suspended on the spot. That makes three escapes in a week. The prisoner on the bulldozer pulled the wire away and then he and his mate made tracks over the hill. (20)

The bulk of quarried gravel was sent to the front for roading and during April, with the beginning of the spring thaw and the start of a series of North Korean and Chinese offensives, the demand far exceeded available supplies. Roads in Korea were often nothing more than tracks which were easily damaged by rainfall or heavy vehicles. During a battle it was essential that these roads were passable so supplies could get through to the front.

The Chinese offensive was halted by the end of April, the major battle of the campaign being fought by the Gloucester Regiment on the Imjin River, north of Choksong. In memory of those killed during the battle, the area was renamed Gloucester Crossing.[21]

The New Zealand 16 Field Regiment RNZA, fought north of Chongchon-Ni in support of the 19th Republic of Korea Regiment, and later in support of the Australians in the Kapyong Valley.

> From 22-24 April the Kapyong Valley raged in "some of the bloodiest and fiercest fighting ever to take place in Anzac history" according to many observers. During thirty hours of incessantly heavy fighting the brunt was taken by the Australian Battalion with the New Zealand gunners in massive and deadly artillery support.[22]

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20. ibid, 21 April 1951
21. Barclay, N.C., The First Commonwealth Division, 1954, p.65
22. Ministry of National Defence, History of United Nations Forces in Korea, Republic of Korea, vol.1, 1972, p.428

A minor reorganisation of the Commonwealth forces took place soon after the Chinese offensive, with the 27th Brigade being reformed into the 28th Commonwealth Brigade. A number of smaller Commonwealth units were united into a multi-national Brigade.

Pusan, however, remained the domicile of the Royal New Zealand Engineers Section who continued supervising the construction programme for the British. The New Zealand sappers were disappointed at being used in reserve, but they took heart from rumours of a possible deployment with 55 Field Squadron, Royal Engineers, or their being formed into a New Zealand Mechanical Equipment Platoon.[23]

The desire to go to the front stemmed also in part from the strained working relationship the sappers had with their British counterparts. The rigid, formal discipline of the British was in contrast to the 'relaxed' yet efficient discipline system the New Zealand Army had evolved from its earlier campaigns. To the credit of the British officers and Lieutenant Velvin, who was often working away from his men, the New Zealand sappers gained a sympathetic ear.

> First thing this morning we had a moan and groan session with Major Pleasants. Reckons we should co-operate with the Bines.* He's got a lot of hope with us. Sooner we get out of here, the better. Boys very dissatisfied. (24)

On June 9, the Royal New Zealand Engineer Section was moved to P.O.W.3

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* Bines: a term given to the British soldier.

23. Hall, K.G., Diary 1951, 15 May and 21 May 1951, (Unpublished).

24. ibid, 3 June 1951

area to undertake the building of Seaforth Camp, the new Headquarters for the proposed Commonwealth Division. The section had to complete the buildings by 24 June 1951, so the Headquarters staff could begin preparations for the formation of the Division. Command of the construction was given to Lieutenant Velvin.

On arrival the sappers built a barbed wire perimeter. The prefabricated construction material arrived by 11 June, and sites were prepared for the lightweight wooden 'Tropical' shelters. Much of the labouring was done by the Korean Service Corps who provided sixty workers a day. All the concrete for the site was hand mixed. As the finishing date loomed closer the sappers worked longer hours.

Friday 22:	Worked all day on the job and until 9.30 at night. Laying screeds for concrete all around one of the shelters. Should be able to lay a concrete path by the time I finish this job. Finished the screeds after tea and then went on mixing and laying. Got three bays done...
Saturday 23:	Worked all day and thru [sic] until 2.30 a.m...
Sunday 24:	Back at work at 9.00 a.m.
Monday 25:	Had eggs and sausages 1.30 this morning and four cups of coffee...finally finished at 5.15. Brass all over the place. From Brigs downwards. Haven't shaved for three days now. We all look [like] a hangmans crew. Everyone tired as hell but we got the job finished...(25)

The Commonwealth Division wasted no time in moving into the new Headquarters in preparation for its formation. The New Zealand Engineer Section split into two groups, one group remaining at Pusan, the other

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25. ibid, 22-25 June 1951

going to Hiro, Japan, to construct an armoury at the British Commonwealth Occupation Force Headquarters, and to enjoy the leisure facilities available for Commonwealth soldiers.[26]

By 26 July 1951, the three British-Commonwealth Divisions were located together along the Imjin River line between Chokson and Hantan. In May the Canadians had sent a large reinforcement group of two infantry battalions, an artillery regiment and support unit, thus increasing the 25th Canadian Brigade.[27]

At mid-day on 28 July 1951, the 1st Commonwealth Division was established and Major-General A.J.H. Cassels CB, CBE, DSO, was appointed Divisional Commander.

The creation of the Division meant a reorganisation of the engineer units on a divisional basis. The divisional engineers comprised a Commonwealth amalgamation of:

> ...a Headquarters, Royal Engineers, 28th Field Engineer Regiment, and 64th Field Park Squadron. 28th Field Engineer Regiment consisted of 12 Field Squadron, Royal Engineers (soon joined by a section of the Royal New Zealand Engineers, and an officer of the Royal Australian Engineers), 55th Field Squadron, Royal Engineers, and the 75th Independent Field Squadron, Royal Canadian Engineers, later replaced in turn by the 23rd and the 59th Field Squadrons, Royal Canadian Engineers. (28)

The Royal New Zealand Engineers in Hiro returned and reformed in Pusan in late July, to prepare for the visit of the Right Honourable T.L.

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26. ibid, 1 July 1951

27. Barclay, N.C., The First Commonwealth Division, 1954, p.77

28. ibid, p.178

MacDonald, New Zealand's Minister of Defence, who was touring the New Zealand K-force units and Commonwealth Division.

On 12 August the New Zealand sappers left Pusan for Uijombu and a brief training period before being sent forward to the 55th and 12th Field Squadron Headquarters on the Imjin River.[29] The 1st Commonwealth Division had been located along the I Corps Line, covering a 10,000 metre front along the Imjin River.

A number of minor operations had been planned for August and September and the Royal New Zealand Engineers were to play a vital part in their success. Operations 'Slam' and 'Dirk' were aimed at testing the strength of enemy forces on the opposite side of the Imjin River. No bridging existed across the river, crossing being provided by cabled ferries.[30] The New Zealand sappers were in charge of the ferry at Gloucester Crossing. During Operation 'Dirk' the ferry cable broke leaving a large number of infantrymen stranded on the enemy bank. After locating the ferry half a mile downstream, the Engineers repaired the broken cable, and the infantry were brought back to the allied lines.[31]

Soon after, the Division was ordered to retreat to behind the rear defensive system, the Kansas Line, and to prepare for a possible major Chinese attack. As a defensive measure the New Zealand Engineers booby-trapped the ferries, cables and defensive position along the river. The emergency ended after three days, with no Chinese attack.[32]

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29. Hall, K.G., Diary 1951, August 1951. (Unpublished)
30. Barclay, N.C., The First Commonwealth Division, 1954, p.87
31. Hall, K.G., Diary 1951, 20-28 August 1951. (Unpublished)
32. ibid, 5 September 1951

The Engineer Section returned to their position, dismantled the booby traps, and were redeployed to the 57th Independent Field Squadron, Royal Canadian Engineers, at Salmon Crossing. A Canadian patrol was pinned down on the enemy side of the Imjin River, so the New Zealanders operated a ferry across the river for Australian infantry support.[33]

In early September Operation 'Minden' began, the first attempt at establishing forward bases across the Imjin River. By 11 September, this operation had succeeded with the Royal New Zealand Engineer section being deployed with 12 Field Squadron to build defences on the opposite bank of the Imjin River. Roading was laid to the river in preparation for pontoon bridging which was necessary for the second part of the offensive, Operation Commando, which was due to begin in October 1951.

General Cassel's Operation Commando was to be a 5000-8000 metre advance planned to take place in three Phases:

Phase 1:

> An attack on the right on D Day by the 28th Commonwealth Infantry Brigade to secure a dominating feature, Pt 355.

Phase 2:

> An advance by the 25th Canadian Infantry Brigade on the left on D plus 1 to secure a line of high ground about 3000 yards from their present positions.

Phase 3:

> Exploitation to the Divisional Line by 25th Canadian Infantry Brigade on the left and the 28th Commonwealth Infantry Brigade on the right. (34)

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33. ibid, 5 September 1951

34. Barclay, N.C., The First Commonwealth Division, 1954, p.95

It was essential that this advance be completed before the fast approaching winter set in. The capture of Hill (Pt) 355 was crucial to the success of the operation. The knoll was the highest point in the area.

The Royal New Zealand Engineer Section went forward with the Australian infantry and Korean Tank Corps assigned to the 28th Commonwealth Brigade, clearing mines and booby traps. Preparations for the Operation began on 1 October and by 4 October the Brigade had achieved its objectives.

October 1.

Spent all morning at a lecture on mines, detection, picking up and disarming. Enlarged our dugout a bit. We were cramped last night. During the night it rained but only a little got thru [sic]. Cold morning, Saw a Chow hill get a going over by three planes. Napalm and rockets. Plenty of gun fire all day, told after tea that a big 'do' opens tomorrow and some of us are going with infantry and some with tanks. Operation is to get a bald-nobbed hill commanding a view for miles around. Going to be quite a big show.

October 2.

Had a briefing at Parade this morning as to the proposed operation. Cy and I are on the mine detectors. We are supposed start after dark and have our section of the road cleared by 6 am. The Aussies and the K.S.L.T. are assault troops on 355. Chief, Clarkie and Greenie are going off with the tanks for 3 days. Got webbing etc. ready after lunch. Still waiting for final orders. Started out at 6.45 pm and were on the job about 8.30 pm. Slow tedious work. Detectors pick up every scrap of metal and had us digging up cartridge cases and bits of stone. Didn't strike any mines. Quite a few flares around us. Cleared 1500 yards. Artillery pounding away. Cold night.

October 3.

Went out again to HQ, up a gully. Stopped there all afternoon. Got mortared ½ dozen times but no damage done. Boys hit slities and dugouts like rabbits. 1 Gook got a

> bit in the back. Indian Ambulance CCP up in the same place. Quite a few wounded brought in. Some blokes in a mess. 355 not taken today. Arty and Mortars pounding away at the hill.
>
> October 4.
>
> Up at 3.45 and out lifting again by 7.30. War correspondents out taking pictures. Some blokes took mine. Worked about 1½ miles of road. No mines at all. Two Centurions followed us all the way. Hill 355 taken by KOSB about 11. A few wounded prisoners brought out. Mortared once. Crawled along the road for a way. Went 200 yards further than we were supposed to. Chows on one side of us. Glad to get back from there. (35)

The immediate need after securing the Operation's objectives was to consolidate defensive positions and improve access roads and communications to the forward area, as a Chinese counter offensive could be expected. The Royal New Zealand Engineer Section was deployed to build an access road to Hill 217, held by the Royal Northumberland Fusiliers.

Large minefields were laid and on the exposed hill tops bunkers and strong defensive positions were established. The New Zealand Section worked on the defences for Hills 355 and 359.

In early November, the Chinese launched a strong offensive against the Commonwealth Division. The Fusiliers had been replaced by the Royal Leicester Regiment on Hill 217, however the New Zealand Engineer Section had remained. The brunt of the Chinese attack was against the forces on Hill 355, though Commonwealth Force on 217, led by Lieutenant Velvin, came under fire.

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35. Hall, K.G., Diary 1951, 1 October - 4 October 1951, (Unpublished)

> 7 November.
>
> Stand to at 0600 and a bit of a flap on. Some Chinks dug-out 200 yards in front of us but 4 or 5 got away. We didn't see them but some of our boys went to cover a Lester [sic] patrol. Nothing doing tho! [sic] Plane strikes most of the afternoon...
>
> ...About 8.30 a Chinese attack started and a hell of a commotion went on. We were reinforced with a section of the Lesters [sic]. We were heavily shelled, mortared and at one stage rockets came in. Stood to till 2300. No casualties. Hectic night. (36)

The Chinese offensive gained control of Hill 355 only to have their position overrun by United Nations reinforcements.[37]

The Commonwealth Division held the 'Jamestown Line', gained during Operation Commando. The onset of the Korean winter prevented further Chinese attacks, and gave sufficient time for strong defensive positions to be established by the United Nations forces. The 'Jamestown Line' remained almost static for twelve months, no major offensives taking place, with probing attacks being the tactic adopted by both sides.

This change in tactics, to limited probing, also stemmed from the protracted ceasefire negotiations first instigated by the North Korean and Chinese Governments on 10 July 1951. The negotiations dragged on until June 1953, and were an integrated part of the strategy for both the Chinese and United Nations forces.

> ...these talks were never intended by the communists to produce an early peace, or even an early ceasefire.

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36. ibid, 7 November 1951

37. Barclay, N.C., The First Commonwealth Division, 1954, p.103

> They were used primarily to gain some military advantage and as machinery for ending hostilities quickly if, and when, it suited them. (38)

For the Divisional Engineers the completion of defences, roading and construction dominated their work days. The Royal New Zealand Engineer Section remained with 12 Field Squadron, Royal Engineers, working between the Imjin River and the 'Jamestown Line'.[39]

The work of the Royal New Zealand Engineer Section did not go unnoticed. The success of operational deployments since the section arrived in Korea was due to a large extent to the capable and efficient leadership shown by Lieutenant M.N. Velvin. As recognition of his services in recent operations, Lieutenant Velvin was awarded a Mention in Despatched (mid) on 12 November 1951, the Royal New Zealand Engineers first combat acknowledgement since the end of World War Two.[40] In a visit in late November 1951, the small Engineer Section was singled out for praise by the Commander Royal Engineers, Brigadier Park, and Brigadier Gentry, Adjutant-General of the New Zealand Army.[41]

By late 1951, a consolidation programme was top priority for the United Nations force. General Cassels, the Commonwealth Division Commander, believed a full scale Chinese offensive could quickly overrun positions gained in the last offensive.[42]

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38. ibid, 1954, p.99
39. Hall, K.G., Diary 1951, October - November 1951, (Unpublished)
40. No citation for Lieutenant Velvin's award could be found among New Zealand Army files or United Nations publications. Sapper K.G. Hall's diary makes mention of the reasons for the award, 12 November 1951
41. Hall, K.G., Diary 1951, 29 November 1951, (Unpublished)
42. Barclay, N.C., The First Commonwealth Division, 1954, p.100

The Royal New Zealand Engineer Section was deployed minelaying around the Leicestershire Regiment's position with sappers from 12 Field Squadron. Forward minelaying under enemy observation was a difficult task at any time, but winter made it even more complex and dangerous. Frozen ground, often to a depth of three feet, made laying the mines difficult while forzen, or frost bitten, fingers made arming the mine an even more intricate and dangerous job. The minelaying feats of the sappers were soon applauded by New Zealand's newspapers.

> The main duty of the 80-odd men in the troop has been minelaying. In the last few weeks they have laid mines along a 50ft wide path 14,000 yards long. At night they have been laying mines in "no-mans land". The troop believes it is the holder of the Korean record for minelaying under Chinese observation and mortar fire. (43)

The Engineer Section was withdrawn to the rear of the Division in December 1951 and given new duties. They were deployed at Pintail Crossing, operating a raft across the Imjin River, which ferried equipment, men and supplies to forward positions. Roading in the Commonwealth Division sector was upgraded with the Section's help, labour being supplied by the Korean Service Corps. This Corps, who had a Regiment attached to the Commonwealth Division, were a part of the Republic of Korea Army. These Koreans were employed in a multiplicity of jobs, and although not given the same rights as Korean soldiers, undertook difficult and dangerous tasks.

> They were employed as porters, on the road repairs, loading and unloading vehicles and digging. Very often they carried up ammunition and supplies to

43. Auckland Star, 27 December 1951

> the forward posts, frequently under shell fire. They worked under the executive command of their own officers and NCOs but for security reasons were always closely supervised by Commonwealth personnel. Originally it was intended that they should be armed with Japanese weapons, but this was never carried out and they remained unarmed.44

Few of the Korean Service Corps members were volunteers and all were poorly paid, as the Royal New Zealand Engineer officers who acted as pay clerks for this Corps under New Zealand supervision soon discovered.[45]

In November 1951, the New Zealand Government called for volunteers to replace the men in Korea. In 1950, special legislation was enacted to provide for the raising of the force to fulfil New Zealand's United Nations obligations and to provide regulations safeguarding the interests of servicemen and their dependents. The original personnel had enlisted for the period of the conflict and six months thereafter, but as the conflict continued the Government proceeded with a scheme to replace all original personnel after serving eighteen to twenty-one months in Korea.[46] New Zealand had increased its contribution throughout 1951, sending small groups of reinforcements and special units to the Division, so by 31 March 1952, the New Zealand 'Kayforce' consisted of eighty-one officers and 1497 other ranks.[47]

When recruiting closed on 16 February 1951, 2247 recruits had volunteered for twelve months service in Korea, sufficient to replace and increase the Korea force.

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44. Barclay, N.C., The First Commonwealth Division, 1954, p.100
45. Hall, K.G., Interview with a member of RNZE Korea force 1950-53, 9 July 1982
46. A.J.H.R., H.19, 1951, p.3
47. A.J.H.R., H.19, 1952, p.5

The replacement troops undertook three months training and were transported by air to Korea in small drafts chosen by appointment or trades. Once in Korea the recruits replaced their opposite numbers after an appropriate period of familiarisation.[48]

The replacements for the Royal New Zealand Engineer Section arrived in small groups, the final total of replacements being larger than the original force they replaced. The team, numbering sixteen sappers, was led by Second Lieutenant G.S. Butcher RNZE, who had arrived in April 1952. After a short changeover period Captain M.N. Velvin and some team members returned to New Zealand. The new Section, like the old, was deployed with 1 Troop, 12 Field Squadron, Royal Engineers.[49]

Until their departure, Captain Velvin's team had remained at the Imjin River providing roading and cableways to supply the front line. Hundreds of miles of roading were constructed in the Divisional Sector, the work being done by the Korean Service Corps under divisional engineer supervision. The American Army Engineers had constructed a high level steel bridge at Teal crossing and the New Zealand Engineers assisted in building the approach roads. Minelaying, both in forward and rear defensive lines, was also undertaken.

With the arrival of Second Lieutenant Butcher and the replacement sappers these tasks were expanded, and Lieutenant Butcher worked in close liaison with the Royal Engineers. The New Zealand Section was, as much as possible, kept as a unit but with the ubiquitous nature of the tasks

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48. ibid, p.5

49. Butcher, G., Interview with Officer Commanding, RNZE Korea force, 1952-1953, 29 June 1983

ordered, this was not always possible. Soon the Section rarely worked as a group, being split into small supervisory teams.[50]

One of the first tasks undertaken by the new Engineer Section was the design and construction of a cableway across the Imjin River. The rivers were to play a major part in the work of the Commonwealth Division Engineers.

> Rivers, a mere trickle in autumn, would freeze to a depth of a foot or more in the winter and tear the rubber pontoon bridges if the ice was not kept away from them by the ice clearing teams equipped with explosives and amphibious vehicles. In the summer rains, these rivers would quickly become raging torrents. The Imjin River, a thousand feet wide, would rise from a fordable three feet to over forty feet in little more than a day: its speed would rise from a mere three feet per second to fifteen feet per second or more. At the height of the floods no floating bridge or ferries could be operated across it, and heavy debris brought down in the torrent was liable to carry away even the most substantial steel bridge. (51)

At all times it was vital to keep communication and supply routes open between the sides of the Imjin River to ensure that should the bridges be destroyed supplies could still get forward. The value of the New Zealand designed cableway was that it was built well above the highest flood marks. The cableway cage could carry over 600lbs of material and with an efficient crew had a turn around time of under five minutes. (See Photograph 4.2)[52]

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50. Hall, K.G., Interview with a member of RNZE Korea force 1950-1953, 9 July 1982

51. Barclay, N.C., The First Commonwealth Division, 1954, pp.178-179

52. New Zealand Army Public Relations, 23.7.1952, Narrative from photograph, Alexander Turnbull Library (Photographic Section)

PHOTOGRAPH 4.2

THE CABLEWAY ON THE IMJIN RIVER DESIGNED AND BUILT BY THE ROYAL NEW ZEALAND ENGINEERS

Controlling the winch are Sappers R.G. Parkes and T. Reyland: Sappers Duncan and J. McNab control the cage.

SOURCE: Alexander Turnbull Library

In August 1952, the Imjin River flooded and the Teal crossing bridge was near collapse as debris piled against its piers. Second Lieutenant Butcher in a valiant effort, attempted to blow the debris away. His attempts failed, but Second Lieutenant Butcher persisted until ordered off the bridge, which then collapsed. This was to be the first of many acts of valour that were cited for Second Lieutenant Butcher when he received a Military Cross (Appendix 5).[53]

In late August, a second Royal New Zealand Engineer officer arrived in Korea, Second Lieutenant K.G. Hall, who had previously served as a Sapper with the first team and who returned after being commissioned. Second Lieutenant Hall was placed in command of road construction at the 3 Royal Australian Regiment's position at the front. This construction was done by the 9th and 18th Companies of the Korean Service Corps, but was hampered by the weather.

> 24 August.
>
> Up at 0400 and back at the jeep track. Dozer refused to op. Camouflage netting blown down. What a mess. Fords and culverts being washed out everywhere. Dumping tons of rock in culvers to keep traffic going thru [sic]. What a shambles. Pintail bridge feared for.
>
> 25 August.
>
> Did a road recce at 0530 and found most roads jeepable but needing plenty of work. One stretch of road unusable due to a rising spring in the middle of the road and washing a gap 10ft wide and 2ft deep across the road. Congratulations from the CO plus our rum rations. Both sappers and our gook gang have done sterling work. (54)

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53. Lieutenant Butcher's Citation is taken from material at the Royal New Zealand Engineers Corp Memorial Centre. The original source is unknown.

54. Hall, K.G., Diary 1952, 24-25 August 1952, (Unpublished)

Part of the Royal New Zealand Engineer Section worked in the minefields around the Australians position, and were assisted by an assault pioneer platoon from the Australian Regiment.

In October, the section left the front and moved back to Teal Crossing to work in support of the 1 Royal Australian Regiment and 16 Field Regiment, RNZA, preparing defences along the secondary defence line, the Kansas Line. For some sappers their appointment to the task was short as they were sent further behind the line to operate a sawmill. Large quantities of timber were required by the Commonwealth Division for the construction of bunkers that could withstand both the Chinese Artillery and the extremes of the Korean climate. To acquire this timber, a large contingent of Korean Service Corps worked with the sappers. In the month spent at the forest, code name 'Nuthatch', the New Zealand Engineer Team and the Korean Service Corps far exceeded their quota of eight logs per man. At the end of October the team was replaced by a support unit drawn from the 23 Field Squadron, Royal Canadian Engineers.[55]

In November 1952, the Royal New Zealand Engineer Section moved forward again with 12 Field Squadron, Royal Engineers, to occupy a position beneath Hill 355. The New Zealanders continued their minelaying and construction tasks, though this time under the watchful eye of the Chinese. Defensive positions were built for the Australian Regiment occupying the hill and small numbers of engineers were deployed on forward operations with the infantry. It was during one of these operations

55. ibid, 29 October 1952

that Second Lieutenant Butcher again displayed courage and coolness, extracting an infantry patrol from a minefield while under mortar attack from the Chinese.[56]

As a result of cease fire negotiations, the war now remained static, except for small raids against defensive positions. Instead, another type of warfare developed, psychological warfare. The propaganda battle began with both sides dropping leaflets on each other's territory. Just prior to Christmas, the New Zealand Engineers found Christmas cards from the Chinese pinned to the barbed wire around the forward minefield. The cards were aimed at lowering the morale of the troops:

> British Officers and Soldiers,
>
> It is 28 months since the Yanks dragged Britain into this war. Nearly 10,000 British lads have been killed or wounded in this period (actual number of casualties to September 1952 - 9393).
>
> The Gloucester Regiment has suffered particularly heavy losses as a result of American selfishness. Now British soldiers have also been rushed into Koje Island, where the Yanks have been committing the most terrible crimes against Prisoners of War. They want you to share their responsibility. Though, all over Britain, the people are longing for peace, yet the so-called United Nations delegation - which is run entirely by the US without a single Britisher on it - has been sabotaging the truce talks. They are forcing you to face another grim winter in Korea.
>
> Is it not true that almost every letter you get from home mentions how prices are going up - food, clothing, fares and nearly everything else?
>
> The Ministry of Labour has reported there are now 517,000 unemployed in Britain.
>
> Where is Britain getting to as a result of tailing behind the Yanks, the American Big Business millionaires who want to grab the whole world for their profits?

56. See Appendix 5, Citation for Second Lieutenant G. Butcher

Is it not quite plain -

> That only peace will put a stop to further, unnecessary casualties for all you lads; that only peace will save your folks from the growing burden of armaments expenditure; and peace will give you the chance of spending Christmas along with your dear ones.

Even US Airmen have lately been refusing to fly in the Korean War.

Friends! Don't fight for the Yanks any more! Without you, they cannot keep up this war!

The Korean People's Army
The Chinese People's Army[57]

The leaflets did nothing more than strengthen morale among the soldiers, who made good use of the leaflets to fuel the fires against the Korean winter.

The sappers themselves were not immune to this form of warfare. On occasions, the Royal Engineers and Royal New Zealand Engineer Section would spend the hours of darkness laying a minefield, only to return the next day to find the Chinese had lifted the minefield, disarmed the mines and stacked them in a corner of the minefield. Carefully laid barbed wire barriers also met the same fate, being rolled up and left for the sappers to find.[58]

During minelaying tasks at the front, the Royal New Zealand Engineers in Korea gained their third combat award. On 16 January, as a result of bravery shown while recovering the body of a British solder in a minefield,

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57. Christmas Card 1952, Hall, K.G., Interview with a member of RNZE, Korea force 1950-1953, 9 July 1982

58. Grieve, G., Interview with the Sergeant of the Royal New Zealand Engineers Section in Korea 1953, 30 March 1983

Second Lieutenant K.G. Hall received a Mentioned in Despatches (mid) (Appendix 6).

The Commonwealth Division had been in combat since its formation, with some Brigades being at the front well before the Division's creation. In late January, the Commonwealth Division was withdrawn from the front for a rest and recreation period and were replaced by 2 United States Division.

Two months of rest and retraining were enjoyed well south of the Imjin River. As many soldiers as possible were given five days leave at the British Commonwealth Occupation Force facilities at Tokyo. The small Royal New Zealand Engineer Section did maintenance work around the camp and undertook a training programme with the Royal Engineers. The section formed its own rugby team, challenging with some success, British, Australian and other New Zealand teams.

In early April 1953, the Commonwealth Division returned to the front and relieved 2 United States Division. The Royal New Zealand Engineer Section returned with 12 Field Squadron, Royal Engineers, to Hill 355. The section was tasked with building a command post bunker, with small teams assisting in roading, camouflage works and supervising Korean Service Corps Labour.[59]

Armistice negotiations which had faltered since 1951, were rejuvenated in March 1953, with some success. The possibility of a peace settlement saw both sides attempt to increase or retain whatever tactical advantage

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59. Hall, K.G., Diary 1953, 6 April 1953, (Unpublished)

they had. The United Nations forces held much of the higher ground which overlooked North Korean and Chinese positions. Control of this topography would give the South Koreans a possible advantage in the future. In May, the Chinese began attacks against the area known as 'The Hook', a spur southwest of Umdalmal and on the western side of the Samichon River. The top of the Hook provided a panoramic view in all four directions. The Royal Engineers had sunk a number of tunnels into the Hook to provide protection and storage for men and materials.[60]

When Chinese attacks began, Operation Cotswold was instigated. Divisional Engineers constructed and expanded the tunnels on the spur. At a prearranged time, the infantry, who were under attack from two Brigades of Chinese enemy, withdrew into the tunnels. Divisional artillery was then concentrated on the regions just north of 'The Hook'. The operation proved successful, and the Chinese advance was stopped.

There was little Chinese activity during June 1953, and the New Zealand section worked on the roading around Hill 355, and completed a gun position on Hill 355, for a 17 pound gun which was hoisted to the top by one of the cableways which operated on the hill.[61] Since the construction of the cableways Sapper E.W. Pitman had been responsible for their upkeep. His service over the period the cableways operated was exceptional. He was available whenever maintenance, repairs or use of the cableway was required. For his devotion to duty he was awarded the British Empire Medal (BEM) (Appendix 7.). Additionally, on 2 June 1953, to celebrate

60. Barclay, N.C., The First Commonwealth Division 1954, p.81

61. New Zealand Field Engineer Section, Monthly Reports, June 1953, DAK, Series 1, 3/1/1, National Archives, Wellington

the coronation of Queen Elizabeth II (the new Colonel in Chief of the Royal New Zealand Engineers), and as a reward for outstanding service in Korea, Corporal T.L. Walker was presented with the Coronation Medal by Major-General M.M. West.

In early July, the Section left the front and were replaced by 59 Canadian Field Squadron, Royal Canadian Engineers. The Royal New Zealand Engineer Section returned to Teal Crossing.[62]

July 1953 saw the Royal New Zealand Engineers deserving their motto 'ubique'; they were everywhere. Lieutenant Butcher was intelligence officer for the Royal Engineers at the crossing. Second Lieutenant Hall and two sappers took over the Teal Crossing cableway, Sergeant G. Grieve and two sappers worked in the Wyoming defensive line, minelaying; Corporal Walker and six sappers worked for the Royal Engineers constructing mess facilities at Teal Crossing, Corporal Malloch worked with the Royal Canadian Engineers in the Kansas minefield, and five sappers constructed a tent site at 12 Field Squadron Headquarters.[63]

In mid-July, the spring rains began and the Chinese resumed attacks against some United Nations positions. The Imjin River rose quickly to flood level, roads were washed out and there was a real fear that some forward positions would be isolated. The New Zealand Engineers at Teal cableway kept a steady flow of supplies moving forward while Sergeant G. Grieve and Corporal Malloch used assault boats to ferry wounded across the river to field ambulance stations, and to ferry reinforcements across.[64]

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62. New Zealand Field Engineer Section, Monthly Reports, July 1953, DAK, Series 1, 3/1/1, National Archives, Wellington

63. ibid

64. ibid

When the Chinese offensive faltered the section was sent forward onto the Hook where teams worked connecting the numerous tunnels and rebuilding bunkers.

The ceasefire negotiations which had been continuing since 1951, proved successful. The end of hostilities had been set at 2200 hours on 27 July. However, fighting continued up until the last minute as the Chinese attempted to gain more ground. Their artillery was so intense upon 'The Hook' that a Royal New Zealand Engineer shift was trapped in the tunnels for over four hours.

The battle ceased at 2200 hours, though both sides remained on full alert. The following morning the New Zealand Sappers crossed 'no man's land' and spent a few hours in Chinese lines.[65]

The Armistice Agreement established criteria for an effective and efficient settlement of the war. The main points of the armistice were:

I. The Demarcation Line was defined and ran approximately along the front lines of the opposing forces. Both sides were to withdraw two kilometres from the Demarcation Line in order to establish a Demilitarized Zone.

II. Hostilities were to cease twelve hours after the signing of the armistice (i.e., at 2200 hours on 27th July). Within seventy-two hours all troops were to be withdrawn from the Demilitarized Zone.

Neither side was to reinforce its troops, but normal rotation reliefs were permitted.

Both sides were to afford help and protection for the various Commissions and Inspecting Teams set up by the Agreement.

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65. ibid, The diary report was confirmed in an interview with G. Grieve on 30 March 1983.

III. Prisoners of War

All prisoners who wished to be repatriated were to be handed over within sixty days.

IV. The Military Commanders on both sides recommended to their Governments that a Political Conference to be set up within ninety days to draw up a Korean Treaty.[66]

The withdrawal of the Commonwealth Forces was treated as a full military operation. Operation Swanlake would withdraw the Commonwealth Division to locations along the Imjin River, where two years previously, the Division had been formed. The withdrawing forces remained on full alert should there be a breach of the Armistice Agreement.

For the sappers the ceasefire although welcomed, did not reduce their work load. During Operation Swanlake the sappers dismantled buildings, lifted mines and completely evacuated supplies and materials from The Hook, only to reassemble most of the equipment upon reaching the new location of 12 Field Squadron.[67]

With the withdrawal of the Commonwealth Division to post-armistice positions, it became apparent that troops should be ready at any time to resume hostilities. Commander of the Commonwealth Division, Major-General West, laid out criteria for the Division's new role:

(a) The maintenance of the existing high morale and standard of discipline.

(b) The construction of such defensive works, and accommodation, as were considered necessary in the new area, before the heavy frost of winter made digging too difficult.

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66. Barclay, N.C., The First Commonwealth Division 1954, pp.157-158

67. New Zealand Field Engineer Section, Monthly Reports, 27-31 July 1953, DAK, Series 1, 3/1/1, National Archives, Wellington

(c) Training for offensive and defensive operations. In this connection the Divisional Commander laid emphasis on the importance of patrolling, which had been such a feature of infantry work during the last eighteen months of hostilities.

As a general rule the week was divided up as follows:

Work on positions and in constructional work	4 days
Training and Maintenance	2 days
Holiday	1 day [68]

Though these functions were to become important for the New Zealand Engineer Section the immediate role of the group was to provide assistance in the establishment of the Demilitarized Zone. By the terms of the armistice, unarmed parties were permitted to enter the zone during a forty-five day period, but only for strictly defined tasks, one being survey duties. Lieutenant Butcher, with a small Royal New Zealand Engineer party was deployed with the American Engineers to breach minefields around Hill 355 and the Yong Dong area, to give access to survey teams.[69]

In September, the section was again working in the Demilitarized Zone, locating the bodies of soldiers for burial in the United Nations Cemetery near Pusan. The task was undertaken as a military operation, Finder, and although an unpleasant task was recognised as an important one.[70]

Once access to the zone was closed, the section assumed the support role as intended by Major-General West's guidlines. Work undertaken covered a multitude of tasks, the section building division canteens,

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68. Barclay, N.C., The First Commonwealth Division 1954, p.159

69. New Zealand Field Engineer Section, Monthly Reports, August 1953, DAK, Series 1, 3/1/1, National Archives, Wellington

70. Grieve, G., Interview with the Sergeant of the Royal New Zealand Engineer Section in Korea 1953, 30 March 1983

cookhouses, stores and drying rooms, minelaying in the Lozenge feature, as well as operating the Divisional quarry near the Imjin River. The Section provided the necessary facilities for 3 Royal Australian Regiment and 16 Field Regiment, Royal New Zealand Artillery.[71]

To keep the Divisional infantry soldiers at maximum efficiency, a number of training offensive and defensive operations were planned. Operation Boomerang, a battalion exercise conducted by the 28th Brigade, was planned for October to November 1953. This exercise was in four battle stages, with the Royal New Zealand Engineer Section providing smoke screens, communications cables, and battle noises, for all four stages. Lieutenant Butcher was in charge of the organisation of the battle noise, a task that did not earn many friends among the infantry.

> 10 and 20lb charges in craters filled with water were most effective but it is doubtful if the infantry appreciated it, after getting covered in muddy water. (72)

Prior to November, replacements for the second Royal New Zealand Engineer K force team began arriving. As New Zealand's commitment to the Korean conflict increased, so did the size of the Royal New Zealand Engineer Section, the new team numbering over twenty-two. The team leader was Captain C.G. Hunt, RNZE.

The new team undertook a short familiarisation period, being deployed with Lieutenant Butcher's Section to work in the Demilitarized Zone,

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71. New Zealand Field Engineer Section, Monthly Reports, October 1953, DAK, Series 1, 3/1/1, National Archives, Wellington

72. New Zealand Field Engineer Section, Monthly Reports, November 1953, DAK, Series 1, 3/1/1, National Archives, Wellington

erecting notices warning of minefields. Since the entry to the zone was now restricted, the Engineer Section had to dress as Demilitarized Zone Military Police, before entering the area.[73]

The tasks of the new team were almost entirely concerned with the locating of a semi-permanent Brigade position. Apart from construction work, water points were operated by the Section providing 42,000 gallons of treated water daily for the Commonwealth Division. Water supply had been a constant problem in Korea with equipment problems, sub-zero temperatures and polluted water making constant supply almost impossible.[74]

At the cessation of hostilities, the 28th Field Engineer Regiment, Royal Engineers, established a field engineering training school on the banks of the Imjin River. The school was to provide theoretical and practical training for the various Commonwealth engineering groups, and at various stages Royal New Zealand Engineers were sent for training.

Just prior to the arrival of Captain Hunt's team, another team of Royal New Zealand Engineers was dispatched to Korea. The team of ten sappers led by Lieutenant R. Bowman, RNZE, was deployed just south of the Demilitarized Zone, near Tokchon. With the cessation of hostilities, it was necessary to establish permanent bases for the United Nations forces. To assist in this task, United Nations governments were requested to send assistance. New Zealand's assistance was an Engineer team to

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73. ibid

74. New Zealand Army Public Relations, 16 February 1954, Narrative from photograph, Alexander Turnbull Library, (Photographic Section)

rebuild and renovate the facilities at the Canadian Field Dressing Station, Tokchon.[75]

This United Nations request was a matter of urgency for the construction had to be completed before the Korean winter set in. Due to the urgency of the matter the Chief Engineer, Lieutenant-Colonel A.R. Currie, decided to deploy a 'regular force' sapper team drawn from the three District Construction Squadrons. Previous requests for soldiers in Korea had been met by volunteers, but for this situation there was not the time to prepare volunteers for the task.[76] The team was assembled within two weeks, and left for Korea on 6 October 1953.[77]

The speed with which the team was dispatched caused a number of problems. On arrival at Seoul the authorities knew nothing of the hospital. For three days, while Lieutenant Bowman, and the second-in-command of the team, Sergeant Allingham, negotiated with the military authorities, the team remained within the confines of the Seoul Detention Barracks. No other accommodation was available and a United Nations forces curfew existed.[78]

The team had arrived in Korea with no tools or equipment, expecting to borrow them from the Canadians or Americans. Instead they received Korean tool kits.

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75. Bowman, R. (Captain), Army Hospital in Korea, undated, (Unpublished manuscript), Korea File, Royal New Zealand Engineer Corps, Memorial Centre, Linton

76. Bowman, R. (Captain), Interview with the Officer in Charge of Royal New Zealand Engineer Section at Tokchon Hospital, 3 May 1983

77. Roberts, D., Interview with Royal New Zealand Engineer team member for Tokchon Hospital, 3 May 1983

78. Bowman, R. (Captain), Interview with the Officer in Charge of Royal New Zealand Engineer Section at Tokchon Hospital, 3 May 1983

> The only tools available were those used by the Koreans, which consisted of a saw sharpened on both sides, which cut when drawn towards the body. Their hammers are half hammer, half axe - depending on how you want to use it. Their rules unfold some 8 times and a square completes their tool kits. (79)

Adaptability is a gift every sapper enjoys and this gift was put to the test at Tokchon. Within a short while preparations for construction had begun.

Employed with the New Zealanders were thirty 'Katcoms'* and fifteen 'Vandoes'* so at times communications were a problem. Fortunately all the nationalities involved knew a smattering of each other's language but when language difficulties arose gesturing had to suffice.[80]

The United Nations provided $10,800 for material for this task which once itemised, was sent to the United States Army Stores at Seoul. Terminology varied greatly, the New Zealanders ordering kegs of cement and nails, crates of corrugated iron and 2 inch by 4 inch timber, rather than four-by-two.[81]

Collection of material proved a difficult task as different materials were located at various Engineer Stores Depots (ESD) spread around the United Nations front. The local Canadian Transport Company provided a number of vehicles for this task, and within the two month deployment of the team covered 3700 miles.[82]

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79. Bowman, R. (Captain), Army Hospital in Korea, undated, (Unpublished manuscript), Korea File, Royal New Zealand Engineers Corps Memorial Centre, Linton

80. ibid

81. ibid

82. ibid

* Katcoms: Koreans attached to the Commonwealth Division
* Vandoes: French Canadians in Canadian Forces

Other tools and equipment began to arrive, with the 59th Field Squadron providing picks and shovels and the Australians providing one carpenter's tool kit. The Americans gave the sappers a jeep engine which was modified to drive a power saw to cut timber for construction.

The construction task was a race against the Korean winter which upon arrival would freeze the ground to a depth of eighteen inches and severely limit outdoor construction. The Royal New Zealand Engineer team modified their construction procedure to suit the climate. The shell of some building was constructed first, then once enclosed, the concrete floor was laid inside, protected from the harsh elements. The procedure proved more than adequate.[83]

For some sections of the team it was necessary to improvise due to supply problems. The work of the team's electrician was a case in point.

> All the material we had managed to get for him was a single strand wire - (all black) - sugarbags of porcelain ceiling roses and three inch porcelain wire holding bars. To save many hours, we ran this wire along the ceiling between two of the porcelain bars, with two nails - one at each end - to hold them to the ceiling. Fuses, as far as we could find out, were not heard of. To take their place the electrician mounted ceiling roses in long rows connecting the two metal fittings with fuse wire - these seemed to do the job quite satisfactorily. The inch wide buzzbar was cut from a shell case, insulated from the back of the metal shell case with wood blocks. This, believe it or not, was the switchboard for the hospital. (84)

As each section of the hospital was completed it was occupied. At no stage did the construction of the hospital impair its function.

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83. Bowman, R. (Captain), Interview with the Officer in Charge of the Royal New Zealand Engineer Section at Tokchon Hospital, 3 May 1983

84. Bowman, R. (Captain), Army Hospital in Korea, undated, (Unpublished manuscript), Korea File, Royal New Zealand Engineer Corps Memorial Centre, Linton

Parts of the hospital construction required special attention by the multinational construction team. The floor of the operating theatre needed a very smooth finish to allow for washing and dustproofing. The Katcoms and Vandoes showed exceptional speed and skill at mixing the necessary concrete which was laid using a steel float to give the smooth finish. Since a steel float was unavailable the New Zealand team built their own from a 25lb shell case.[85]

No task was too small for the team who attempted to provide the best facilities at the hospital. The most outstanding piece of construction was the X-ray room at the hospital. In a time of supply shortages the New Zealanders were able to acquire a roll of lead lining for the X-ray room. This lining prevented the dissipation of the X-rays and provided what some medical staff said was the best X-ray room in Korea.[86]

The estimated completion time for the Tokchon Hospital (see Photograph 4.3) had been five months according to official authorities. The Royal New Zealand Engineer team assisted by the Katcoms and Vandoes completed the task in fifty-eight days, deservedly winning seven days leave in Japan. The work of the team did not escape comments in the newspapers.

> Canada has opened what is almost a complete and modern general hospital near Tokchon in Korea. This actually was a re-opening of the 150-bed field dressing station in a new form as the unit has never ceased to function while it was transformed from a collection of huts into one structure under a single roof.

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85. ibid

86. ibid

PHOTOGRAPH 4.3

THE COMPLETED TOKCHON HOSPITAL

> Only about 20 miles from the demilitarised zone, the hospital is something unusual for a theatre of war. In addition to being self-contained the facilities found there are those which are usually found only in the rear areas.
>
> The five wards are bright and cheery with curtained windows. The kitchen and dining room compare favourably with any at home, there is a large dispensary and medical stores and an up-to-date X-ray department. In addition to optometry, physiotherapy and psychiatric departments there are three operating rooms for plastic, general and "dirty" surgery and a complete staff from Commonwealth components including Canadian nursing sisters and Canadian and British Red Cross. (87)

Captain Hunt's team remained in Korea until September 1954. Support role for the 28th Commonwealth Brigade still remained the primary task of the engineer units in Korea and the Royal New Zealand Engineer Section continued its role in road maintenance, water supply, prefabricated building construction, and quarrying for the brigade units.[88]

The reduction of New Zealand's commitment was in conformity with similar reductions by other Commonwealth Nations and the United States. As early as September 1953, opposition to the cost of maintaining a New Zealand force in Korea had made itself known in Parliament.[89]

New Zealand's commitment to Korea through 1954 centred around the 10th Company, Royal New Zealand Army Service Corps. A small number of soldiers from disbanded units transferred to the Company, among them sappers from the Engineer detachment. One regular force member of the

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87. The Japan News, 4 January 1954

88. Parker, C.R., Kayforce, 15 January 1970 (Unpublished), Royal New Royal New Zealand Engineer Corps Memorial Centre, Linton

89. Statement by Reverend C. Carr, (Timaru), 3 September 1953, NZPD, p.933

team stayed with 12 Field Squadron, Royal Engineers, as the troop Sergeant before returning to New Zealand.[90]

Back in New Zealand the Korean Engineer veterans were quickly absorbed into units where their war experience and technical skills acquired from their association with allied engineers, were put to speedy use.

90. Parker, C.R., Kayforce, 15 January 1970 (Unpublished), Royal New Zealand Engineer Corps Memorial Centre, Linton

CHAPTER FIVE

THE MALAYSIA CONNECTION

THE ROYAL NEW ZEALAND ENGINEERS IN MALAYA 1955-1982

The seeds of communism found the soil of Britain's Colonies in South East Asia receptive in the late 1940's and early 1950's. Within post-war Malaya a strong Malayan Communist Party had been formed comprising a small number of indigenous Malays and larger groups of Chinese, led by some who had fled southward during World War Two. The Malayan Communist Party's aim was to rid Malaya of British rule and replace it with a communist one party government. The Party's beliefs were much in conflict with the majority of Malayans who accepted British rule with polite indifference, their real loyalty being directed to the Sultans of the Malayan Federation. The nine Sultans from Jahore, Pahang, Negri Sembilan, Selangor, Perak, Kedah, Perles, Kelantan and Trengganu formed the basis of the Federation of Malaya in which the British acted as advisors.[1]

In 1948, the small outlawed Communist Party went into hiding in the Malayan jungle from where they began guerilla raids against British plantation owners and native supporters of British rule. Assassinations, raids on police stations, and intimidation suddenly became part of Malayan life. Almost overnight, Malaya was transformed into a nation rent by civil war and in June 1948, a Malayan Emergency was declared. For the next seven years, the Malayan police, together with units of British troops, were engaged in battling the communist terrorists.

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1. Barber, N., The War of the Running Dogs, 1971, p.15

New Zealand was not persuaded that the Malayan conflict was a product of awakened nationalism as the British were reviewing the prospect of Malayan independence. Rather, the Malayan Emergency was viewed by New Zealand politicians as further evidence of the communist desire for domination in South East Asia.

By 1955, the Malayan situation was no nearer resolution, and a request for reinforcements to assist the British forces was favourably received by the New Zealand Government. The British Government also requested that the New Zealand Army transfer its strategic epicentre from the Middle East to the Far East. A new eastern force, known as the British Commonwealth Far East Strategic Reserve, was formed and was based in Malaya. This Reserve was designed to form a 'fire brigade' force, and an advance guard to which New Zealand would contribute defence personnel.[2]

New Zealand's first commitment to the Commonwealth Reserve was made in December 1955. The force dispatched was 1 Special Air Services (SAS) Squadron, a force of six officers and 127 men.[3] Among this force were a small number of Royal New Zealand Engineers who had volunteered for service against the Malayan communists. These engineers formed the basis for Assault Pioneer Platoons, used on operations in the jungle to locate and destroy booby traps, tunnels and deserted communist positions.

The Squadron remained on jungle operations for seventeen months, returning to New Zealand in December 1957. The replacement New Zealand

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2. Ministry of Defence, The New Zealand Army in Vietnam 1964-1972, A Report on the Chief of General Staff Exercise 1972, Army File 212/11/556/GS, 1973, p.3

3. A.J.H.R., 1955, H.19, p.5

force, 1 Battalion of the New Zealand Regiment, was a much larger New Zealand commitment to the Strategic Reserve and the Malayan emergency. This infantry unit of thirty-eight officers and 702 other ranks undertook initial training at Kola Tinggi in a Far East Land Forces training centre.[4]

In March 1958, having completed jungle training, the battalion was moved to Perak in Northern Malaya, to undertake patrols on the border between Thailand and Malaya. As well as the infantry companies, small support units of signals, mortar and engineers were deployed to the north. The engineers were again, as had been the case with the SAS, employed with the infantry as assault pioneers. There was little spare time for the troops deployed as four major operations were undertaken by the battalion in the area around Ipoh during their two year tour of duty.

The assault pioneers quickly and continually proved their value, destroying booby traps, communist supplies and shelters. The Malayan campaign was the first campaign where the helicopter was to play a vital role in rapid New Zealand troop deployment. This new technology of warfare entailed a new task for the sappers who were given the task of cleaning helicopter drop zones.

In June 1958, preparations began for the establishment of a permanent base at Terendak near Malacca for the Strategic Reserve, 28th Commonwealth Brigade. Malayan civilian contractors were used for foundation and

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4. 1 Battalion New Zealand Regiment, War diaries and annex, 1957-1959, Wa-M, Series 1, 1/1, National Archives, Wellington

building work and the centre was almost complete when 2 Battalion, New Zealand Regiment, arrived to succeed 1 Battalion in December 1959.

Seven months after the arrival of 2 Battalion the Malayan emergency ended, with the defeat of the communist forces. The small Royal New Zealand Engineer force that had been deployed as Assault Pioneers were now redeployed into a Tradesman Pioneer Section, providing the necessary construction support needed for the completion of the New Zealanders base at Terendak.

The sappers undertook a variety of construction tasks, the largest being the building of a road through the Perak State Forest to construct a rest camp for the battalion at Din Ding, south west of Ipoh. The construction section was assisted by infantry assault pioneers in building and bridging a four mile road (see Photograph 5.1). As the necessary plant was not readily available to the New Zealanders, essential equipment was donated by the Royal Engineers units attached to the Commonwealth Reserve.[5]

In 1964, New Zealand increased its commitment to the Commonwealth Reserve, as part of an expanded New Zealand role in South East Asia. A reorganisation of the army was necessary and resulted in the amalgamation of 1 and 2 Battalions to form the 1st Battalion, Royal New Zealand Infantry Regiment.[6]

Soon after this reorganisation, South East Asia was further troubled by political storms as Indonesian infiltrators, agents of Sukarno's

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5. Watson, E., Interview with Royal New Zealand Engineer, 1 Battalion, New Zealand Regiment, 17 December 1982

6. Wickstead, M.(Compiler), The New Zealand Army, A History from the 1840's to the 1980's, 1982, p.71

PHOTOGRAPH 5.1

TRADE AND ASSAULT PIONEERS BUILDING THE ROAD TO DIN DING

'confrontation' began to land in Malaysia hoping to win popular support for an Indonesian - Malaysian amalgamation, under Indonesian rule. These raids escalated into a confrontation situation.

In August 1964, as part of the 28 Commonwealth Infantry Brigade, the newly formed 1 Battalion, Royal New Zealand Infantry Regiment, went into action south of Malacca to assist in routing some Indonesian infiltrators.

For two months the New Zealand infantry and support units pursued the Indonesian forces through the jungles of Southern Malaya. By mid-November 1964, all the infiltrators had been captured.

The Indonesian Government finding they had little success with their raids into mainland Malaya turned their attentions to the Malaysian state of Sarawak (Borneo), sending small invasion forces across the nearby Kalimatain (Indonesian Borneo) into the jungles of Sarawak, again to try and gain popular support for the amalgamation.

Once again Commonwealth Forces were deployed to capture the infiltrators. In May 1965, 1 Battalion, Royal New Zealand Infantry Regiment, was deployed to Sarawak (Borneo) attached to the 19th British Infantry Brigade.

The New Zealand soldiers were initially deployed to Simmangang on the River Batang Lupar to assist the Civil Administration forces in the Second Division, Sarawak. The national was geographically divided into

five divisions, number one being in the South and number five in the North.

In June 1965, the New Zealand infantry were deployed along the Kalimantan (Indonesian Borneo) border at Lubok Antu. The Assault Pioneer Section, which included a number of Royal New Zealand Engineers, was split into smaller units and deployed with the infantry companies. These companies covered a large geographic area, 'Alpha' Company being at Lubok Antu, 'Bravo' Company at Jambu, 'Charlie' Company at Batu and 'Delta' Company at Plaman Mapu. For each company the assault pioneer units were to provide the necessary construction support needs, building and reinforcing bunkers, laying booby traps and minefields around the camp perimeter and providing a water supply. When required, members of the unit were deployed with the infantry on operations.[7]

In October 1965, the Battalion returned to Terendak for six months of jungle exercises in the Perak and Jahore States. With the completion of their training exercise in Jahore, the Battalion returned to Borneo and was deployed with the 99th Gurkha Infantry Brigade. The Battalion Headquarters was based at Balai Ringin. Apart from meeting the battalions support needs, the small Royal New Zealand Engineer component instigated civil aid work for the local native community. Funded entirely by the New Zealand soldiers in Borneo, the engineers and infantrymen upgraded the classroom facilities at the Balai Ringin school and built a basketball court on the school grounds. The soldiers also purchased educational materials from New Zealand, and donated these to the school.[8]

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7. Chamberlain, H.E., Interview with Royal New Zealand Engineer in Borneo, 1 June 1983

By August 1966, all Indonesian attempts to infiltrate Eastern and Western Malaysia had failed and the confrontation ended.

New Zealand retained its military presence in Malaya after confrontation to fulfil its obligations to the Commonwealth Reserve and to [illegible] maintain a staging point for future deployments of soldiers into South East Asia if this was needed.

In January 1968, the 'Last Post' was sounded for the Commonwealth Reserve when the United Kingdom announced its intention to withdraw its forces east of the Suez by 1971. A year later, following negotiations between Australia, New Zealand and the United Kingdom, New Zealand and Australia agreed to fill the vacuum left by British withdrawal.[9]

Preparation for New Zealand's increased commitment began with the move of New Zealand forces to Singapore in 1969. The withdrawal of British support units meant each Commonwealth nation in Malaysia became responsible for its own units. Consequently, the Royal New Zealand Engineer presence in Singapore increased to meet New Zealand's construction support needs.

Soon after the withdrawal of the British forces in 1971, Australia reconsidered its contributions to the Commonwealth Reserve, and announced that all Australian forces would be withdrawn from Singapore. Again the New Zealand Government decided to maintain its force in Singapore and

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9. Ministry of Defence, The New Zealand Army in Vietnam 1964-1972, A Report on the Chief of General Staff Exercise 1972, Army File 212/11/556/GS, 1973, p.28

instructed the Army to fill the vacuum now left by the departing Australian force. New Zealand was now responsible for all the logistic, support and revictualling needs of its Singapore force.

In 1975, as a response to the reassessment of the role of the support units in Singapore, a Royal New Zealand Engineer Works Services unit was established to cater for the construction support needs of the base. This unit, created on 1 September 1975, is unique in the annals of New Zealand military history for this Royal New Zealand Engineer unit could be commanded by officers of all three services. Since its establishment, however, only Royal New Zealand Airforce and New Zealand Army Commanders have been appointed Directors of the Works Services unit. The Navy has yet to make an appointment. The sections leaders since 1975 have been:

1975 - 1977	Group-Captain Dickie RNZAF
1977 - 1978	Squadron-Leader Knowles RNZAF
1978 - 1980	Major R.A. Barrett RNZE
1980 - 1982	Squadron-Leader Moore RNZAF
1982-	Major J. Hollander RNZE (10)

The Works Services Unit is the only remaining presence of the Royal New Zealand Engineers within South East Asia, and as its work is vital to the success of the New Zealand force in Singapore, it is likely to remain as long as a large New Zealand force in maintained in Singapore.

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10. Barrett, R.A., Interview with the Director of Works for the Works Services Unit, 30 March 1983

CHAPTER SIX

CAU TUN TAY LUN
THE ROYAL NEW ZEALAND ENGINEERS IN VIETNAM 1964-1972

Through the 1950's, with New Zealand's involvement in Korea and Malaya, the Asian region had become a region of intense interest to New Zealand security. The ideas of the 'Domino Theory' were being accepted as communism spread southward from the settled Korean conflict.

Vietnam had become war torn during the early 1950's as the communist Vietminh clashed with the military machine deployed by the French colonial rulers. New Zealand had supported the French forces by providing surplus war arms and ammunition to the French forces in 1952.[1]

The activities of the Vietminh continued and escalated, the final confrontation between the forces being at Dien Bien Phu in May 1954. The communist forces were victorious and when the Geneva Peace Settlement was signed in July 1954, Vietnam was divided at the 17th Parallel to form a Communist Vietnam in the north, and a non-communist South Vietnam.

New Zealand supported the Geneva Settlement hoping it would assist in forming an effective barrier against communism. Defence policy also tended towards collective security treaties which would enhance New Zealand's defence system. In 1951, the ANZUS Treaty was signed, recognising the importance the United States forces had in global politics.

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1. Ministry of Defence, The New Zealand Army in Vietnam 1964-1972, A Report on the Chief of General Staff's Exercise 1972, Army File 212/11/556/GS, 1973, p.2

Even so, New Zealand did not desert its traditional defence ally Britain. Up until 1954, New Zealand's wartime commitment had been to assist Britain in the Middle East. However, the political stabilisation of the Middle East in the 1950's, and the emergence of independence movements in British Asian colonies saw the establishment of a Commonwealth Strategic Reserve in Malaya, and a movement in New Zealand's defence commitments to South East Asia. The web of collective security was further extended for New Zealand with the signing of the Manila Treaty in 1954, from which would emerge the South East Asia Treaty Organisation (SEATO); New Zealand's defence commitment was firmly entrenched in Asia by the mid-1950's.

The Vietnamese situation remained tense without conflict, through the late 1950's with both nations consolidating and expanding their economies. The neighbouring nations of Laos and Cambodia had military problems which were resolved with another Geneva settlement in 1962. Both the Commonwealth Reserve and the United States had been prepared under the auspices of SEATO to intervene in the Laos situation had it not been resolved.[2]

Soon after the 1962 settlement, communist guerilla attacks began against South Vietnam began. As the numbers and size of the attacks escalated, the political stability of the South Vietnamese nation began to crumble as President Diem lacked the political support to unify the nation against the communists.[3]

The American appraisal of the situation tended towards an escalating

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2. ibid, p.3

3. MacGibbon, I., New Zealand Involvement in the Vietnam War 1960-1965, (Unpublished), Ministry of Defence, 1974, Chapter 2, p.2

and prolonged civil war, which without the intervention of non-communist support,would result in the formation of another communist state. In February 1962, the United States sent a Military Assistance Command of 9800 men to Vietnam. In July 1962, Australia, at the request of the United States,sent a thirty man Australian Army Training Team (AATTV), to assist the Army of South Vietnam.(ARVN).[4]

New Zealand's defence loyalties were divided between its commitment to maintaining the ANZUS alliance and the contribution of the New Zealand Army to the Commonwealth Strategic Reserve who had become involved since 1956 in the Indonesia-Malaysia confrontation.

Elements within the New Zealand General Staff favoured deployment to Vietnam, to broaden the experience and combat training of the New Zealand Military forces. This was hardly surprising, for since World War Two, the New Zealand services had had combat experience of a limited duration in Korea and Malaya.[5]

The decision was not a military but a political one. Proposals were put forward in June 1962 for the deployment of a military team to Vietnam which would include Navy hydrographers, instructors from the Royal New Zealand Engineers and Royal New Zealand Electrical and Mechanical Engineers, soldiers of the Royal New Zealand Army Service Corps, and New Zealand Air Force Technicians.[6]

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4. Ministry of Defence, The New Zealand Army in Vietnam 1964-1972, A Report on the Chief of General Staff Exercise 1972, Army File 212/11/556/ GS, 1973, p.7

5. ibid, p.7

6. MacGibbon, I., New Zealand's Involvement in the Vietnam War 1960-65, (Unpublished), Ministry of Defence, 1974, Chapter 2, p.11

At the time the proposal was rejected by the Government who had just committed additional New Zealand troops to assist the Thai forces on the Laos border.

With New Zealand's defence forces fully stretched, the Government looked at the deployment of a civilian team to provide a New Zealand presence and thus demonstrate our unity with other ANZUS members. In February 1963, a civilian New Zealand Surgical Team was deployed to the Qui Nhon area of South Vietnam.[7]

The United States commitment to South Vietnam deepened in 1963, and New Zealand to show its support, was expected to expand its commitment. New Zealand, however, could not afford the expense of another overseas commitment and with the recent reintroduction of National Service Training, had no reserve of trained officers and NCO's available for a large scale overseas operation. The Americans however were not necessarily interested in a combat commitment, for their primary concern was political; to have a visible demonstration of New Zealand support even if only in a non-combatant role.[8]

On 27 May 1963, at an ANZUS Council Meeting, New Zealand supported in principle, the commitment of a New Zealand force to Vietnam. Its intended non-combatant role temporarily appeased the United States and New Zealand interventionists while not embarrassing a government sensitive to New Zealand voter reactions before an imminent election.[9]

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7. ibid, Chapter 2, p.15
8. ibid, Chapter 3, p.3
9. ibid, p.7

A debate on how the proposed force was to be composed took place between the Royal New Zealand Air Force and the New Zealand Army. These services would have the technical skills that could be used in the non-combatant and advisory role:

> Thornton and Morrison backed contribution from their respective services. The former was doubtful if the desired political effect would be achieved for the ordinary Vietnamese by an air contribution. An engineer unit would be better in this regard. Morrison, however, argued that New Zealand would get greater training value for cost by sending pilots. (10)

After much debate, the Air Force view was rejected as Government considered its deployment would be too costly and too closely aligned to a combatant role. The desirability of deploying an Army Engineer team was further enhanced by the comments of the New Zealand Ambassador to Vietnam, Major-General Sir Stephen Weir, who favoured the deployment of sappers as they could provide practical civil aid to the South Vietnamese Government.[11]

The sending of a New Zealand team was delayed by the assassination of Diem and the overthrow of his government in November 1963. The New Zealand Government, involved in an election campaign, refused to commit New Zealand troops to the confused political situation in Vietnam.[12]

As a result of South Vietnamese political instability, the United States commitment to South Vietnam increased, and again pressure was

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10. ibid, p.14
11. ibid, p.15
12. Ministry of Defence, The New Zealand Army in Vietnam 1964-1972, A Report on the Chief of General Staff Exercise 1972, Army File 212/11/556/GS, 1973, p.11

placed on the New Zealand Government to send military assistance. A visit to Saigon by the Prime Minister, K. Holyoake, in April 1964, proved the turning point for Holyoake was impressed by the new Vietnamese leader Major-General Nguyen Khanh. The new leader outlined his proposed reforms to help develop Vietnam's economy. He suggested that rather than send combat troops, the New Zealand Army could deploy a team to assist in economic development, by rebuilding roads and bridges.[13]

Pressure also came from American political visitors to New Zealand who wanted a show of New Zealand support for the common cause. Such help was of assistance to President L.B. Johnson in his Presidential election campaign.

New Zealand's commitment was further complicated by the views of newly appointed Secretary of Defence, R.K. Hunn. In early 1964, the New Zealand defence framework had been modified to form a combined defence service organisation, the Ministry of Defence, which was headed by the Minister, the Secretary of Defence and the Chiefs of Defence Staff.[14]

R.K. Hunn opposed the deployment of troops to Vietnam. He believed that soldiers could not be disguised as non-combatants and that New Zealand's real defence commitment was Malaya not Vietnam. The most fearful aspect of the Vietnam commitment, Hunn believed, was its potential for escalation. If United States commitment increased, so would that of the Communist forces, accelerating the possibility of a

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13. MacGibbon, I., New Zealand Involvement in the Vietnam War 1960-1965, (Unpublished), Ministry of Defence, 1974, Chapter 4, p.4

14. ibid, p.7

war of attrition. With New Zealand commited to Vietnam, and thus entrapped in the escalation, it would be difficult for New Zealand forces to withdraw without damaging United States credibility as the leader of a broad based democratic pact bonded to defend South Vietnam.[15]

Major-General Sir Stephen Weir's favourable report on possible New Zealand involvement in Vietnam proved a turning point, and Munn's opposition proved insufficient to persuade the Government.

When the official request for New Zealand assistance in Vietnam was received on 12 May 1964, the New Zealand Government at last supported the commitment of troops to Vietnam.

The Army considered two main possibilities for the Vietnam force, an engineer detachment or a medical detachment. Due to a shortage of medical staff and Vietnam's previously stated preference, the Army engineers were considered to be the most useful contribution.

> An Engineer detachment of two officers and twenty Other Ranks could be produced from the Regular Force and would be capable of undertaking small engineering tasks and undertaking some training of Vietnamese military engineers. The type of work for which the section would be suited would depend upon the equipment available but it will include the rebuilding of roads and bridges. (16)

The Army's selection was received favourably by a Government Committee on 20 May 1964. As funding of the team was negotiated, Colonel P.H.G. Hamilton RNZE, the previous New Zealand Army Chief Engineer, left for

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15. ibid, p.8
16. ibid, p.13

Saigon to investigate the costs and other arrangements for the Royal New Zealand Engineer Party.[17] No suitable Royal New Zealand Engineer Regular Force unit existed for deployment to Vietnam so personnel were drawn from a number of Royal New Zealand Engineer squadrons.

The newly authorised unit, officially known as the New Zealand Aid Detachment Vietnam (NZADV), was formed at Linton on 4 June 1964. The team exercised at Linton for two weeks before departure revising knowledge of weapons handling, mine warfare, booby traps, demolition and bridging skills. The thirty soldiers assembled had advanced trade qualifications sufficient to enable the advisory function of the team to be fulfilled.[18]

With the return of Colonel P.H.C. Hamilton RNZE, the role and tasks of the team were clearly defined:

> The team will assist the Vietnam Ministry of Works in reconstruction and development work, providing advisors and manpower in bridge, village and road construction. All the equipment would be provided by the United States or the Vietnam Ministry of Works and the works would be financed by the American Civilian Aid fund. (19)

The final selection of the New Zealand Aid Detachment (Vietnam) took place in mid-June and the team departed from Whenuapai on 23 June 1964 following an official farewell by the New Zealand Minister of Defence, the Honourable D.J. Eyre.[20]

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17. Ministry of Defence, The New Zealand Army in Vietnam 1964-1972, A Report on the Chief of General Staff's Exercise 1972, Army File 212/11/556/GS, 1973, p.12
18. Parker, C. (Major), CGS Exercise 1972, RNZE Detachment in Vietnam 1964-1965, Final Rehearsal Draft, 1972, p.1, RNZE Corps Memorial Centre, Linton
19. ibid, p.2
20. ibid, pp.1-3

The team led by Lieutenant-Colonel W.C.T. Foley, Royal New Zealand Armoured Corps, consisted of twenty-six men. Sappers made up the bulk of the team, with a small command and administration unit, a Royal New Zealand Electrical and Mechanical Engineer Section, and a representative of the Royal New Zealand Army Medical Corps.[21]

The twenty-two man Engineer team was led by Major B.W. Brighouse. His role was vital throughout the detachment's tour in Vietnam.

> His (Major B.W. Brighouse) main task whilst away was that of establishing policy and liaison channels for the New Zealand team. Concurrently he was advisor to the District Engineer of the Ministry of Public Works for a specific military plan covering some 17 provinces. This of course involved much detailed planning and inspection of areas in various provinces. (22)

During the absence of the team leader the tasks were supervised by Captain G. Kelly and Lieutenant D.J. O'Brien.

The political significance of New Zealand's commitment of military support to the South Vietnamese Government was borne out by the tumultuous welcome the detachment received on its arrival at Saigon on 29 June 1964. The official welcoming party included the New Zealand Ambassador, Major-General Sir Stephen Weir, the Commander United States Military Assistance Command Vietnam, General Westmoreland, and the Vietnamese Minister of Defence.[23]

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21. Public Relations (Army), A Brief History of the New Zealand Army in South Vietnam 1964-72 (Unpublished), undated, p.4, Ministry of Defence

22. The Vietnameer, January 1965, vol.1, Part 2. (The Vietnameer was a quarterly magazine produced by WO2 C.R. Parker for the men in the New Zealand Army Detachment in Vietnam)

23. The Vietnameer, August 1964, vol.1, Part 1,

The sappers were issued with United States Army Identity Cards, and after an initial training session in Saigon, were sent to Thu Dau Mot the capital of Binh Duong Province. The aid team were attached to the United States Advisory Command, of Advisory Team 91. The team came under the operational control of the United States Military Assistance Command, Vietnam.[24]

Although working with the Americans, the New Zealanders tried to retain their national identity. This desire stemmed partly from national pride, and partly for self-preservation as the combatant role of the United States made them vulnerable to Vietcong attack. Some New Zealander's took the added precaution of wearing shoulder tags saying 'Tun Tay Lun', Vietnamese for New Zealanders.[25]

The tasks of the New Zealand Sappers were decided by the Vietnamese Ministry of Works Provincial Engineer who was advised by the United States Operations Mission. The projects revolved around bridging, roading and building construction. The sappers received all equipment and supplies from Vietnamese sources and often delays occurred because of the strict financial controls on American Aid spending. Rarely, however, were projects not completed on time.

The first task to be tackled was the replacement of a bolted steel truss, Eiffel Bridge,on the outskirts of Thu Dau Mot. The bridge was forty-two metres long and similar to the Bailey bridges used by the New

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24. ibid,

25. Sergeant G. Grieve, Interview, 30 March 1982. (Sergeant Grieve was a member of the New Zealand Army Aid Detachment)

26. Parker, C. (Major), CGS Exercise 1972, RNZE Detachment in Vietnam 1964-1965, p.4, RNZE Corps Memorial Centre, Linton

New Zealand Army. This background meant the first and later bridging tasks were relatively simple.

> The two new spans were built on the narrow roadway on each side of the existing bridge leaving sufficient room for the delaunching and dismantling of the old spans. Stripped of their rotten decking the old spans were wrenched to land and dismantled. The head of the bridge was supported on a barge during delaunching and the dismantling operation saw much use of the gas cutting torch. Full use was made of the tides to position the barge and bailey rollers were eventually used upon failure of the locally produced affairs. The disruption of market traffic was very evident during this phase of the work. One enterprising local resident, who we christened 'King Harry of the Ferry', set up business as a boatman and was eventually to become the proud owner of a power cycle. (27)

The completed bridge was named 'Cau Tan Tay Lun' (Bridge New Zealand). Being the first operation by the New Zealand Military in Vietnam, it was given wide coverage and the official opening of the bridge was performed by the South Vietnamese Head of State, Major-General Nguyen Khanh.

Through August, September, October and November, the bridging tasks continued. Small teams of five sappers, assisted by local labour from the Ministry of Public Works, constructed seven Eiffel span bridges. Three of the bridges were along route sixteen, a major road leading into Vietcong territory.[28]

Road construction proceeded apace with bridging. It was not feasible to use mechanical equipment on this type of road construction so large

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27. The Vietnameer, August 1964, vol.1, Part 1. This information was further supplemented and confirmed by an interview with Major C.R. Parker, 30 March 1983

28. The Vietnameer, January 1965, vol.1, Part 2

numbers of local labour were employed and supervised by the Royal New Zealand Engineer roading teams.

> About 40 labourers handplaced laterite rocks on the cambered subgrade, the interces filled by chipping off high spots with a sledge hammer, a light dressing of smaller rocks, a good number of passes with the lightest roller we could find, and we had produced a good all-weather road. (29)

Not all the efforts of the sappers were appreciated by the local Vietnamese, especially the farmers bordering the road.

> ...Our biggest bugbear was the twice daily flooding of a major portion of the 'causeway'. All of our difficulties would have been solved if only the local farmers would have allowed us to use the culverts we have constructed. They were blocked and were blocked again if we cleared them because of the flooding and consequent drowning of rice crops had they remained open. (30)

The other major work undertaken by the aid detachment was the civic action projects. The projects were aimed at improving the facilities of the local villages around Thu Dau Mot. The construction section built two basic types of building, a 'grand' sixty square metre brick building and a 'basic' sixty square metre timber trussed aluminium covered structure. These buildings were used either for local markets or as village brick making factories.[31]

Civic action projects also extended into the education system and

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29. ibid

30. ibid

31. ibid. The design of the two buildings was formulated by Sergeant G. Grieve RNZE.

the sappers constructing four school rooms and a large playground in the town. The sappers also helped in a rehousing project for the dependents of South Vietnamese soldiers.

During all tasks, local labour was employed and wherever possible provided with basic engineering training. The popularity of the Army Engineers with the local Vietnamese was at most times high with large crowds turning out to watch every project. From their first bridging task, the New Zealanders were conscious that they were vulnerable to Vietcong booby traps. Soon after arriving an attempt was made to prevent Vietcong harassment. Propaganda leaflets describing the aid activities of the New Zealanders, and photographs of them working with Vietnamese, were widely distributed by the Americans in the areas the sappers were to work in.[32]

The leaflets were not completely effective as the non-combatant Engineers did come under attack. During the Thu Dau Mot civic action project the building site was booby trapped twice. Perceptive sappers noticed villagers standing well away from the building site. The villagers, intimidated by the Vietcong, were too afraid to warn the sappers. The traps, fortunately, were poorly laid and were promptly dealt with by the Engineers.

News of the booby traps reached New Zealand and brought home the fact that even though non-combatants, the presence of a New Zealand Army Team and its support for the Government of Major-General Khanh, was

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32. Parker, C.R. (Major) and Grieve, G. (Sergeant, members of New Zealand Aid Detachment, Interview 30 March 1983

reason enough for Vietcong retaliatory action. As a result of the booby trap incidents a Vietnamese local militia group was provided to protect the team.[33]

The propaganda value of the aid team's work was fully exploited by the South Vietnamese, Americans and Australians. Media teams from these nations covered the frequent visits of dignitaries to aid work sites, the relatively minor involvement of New Zealand being greatly emphasised to show global opposition to communism, and the value of New Zealand help. Visitors from New Zealand were frequent with the New Zealand Ambassador to Vietnam, Major-General Sir Stephen Weir, and the Chief of General Staff, Major-General B. Thornton, visiting and speaking to the Sappers.[34] Such supportive media coverage assisted in persuading the New Zealand Government to keep forces within Vietnam. Coverage of the general Vietnam situation was less positive. As the military and political situation began to deteriorate, the New Zealand public became less persuaded of the merit of the involvement.

Major-General Khanh's position as Head of State became increasingly tenuous as Buddhist and student unrest grew. His planned offensives against the North Vietnamese were unsuccessful and opposition to the military government grew. On 16 August 1964, a new constitution was proclaimed, Major-General Khanh as President. This did not end the nation's unrest, and the new constitution was abolished after nine days.[35]

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33. The Manawatu Evening Standard, 9 December 1964

34. The Vietnameer, January 1965, vol.1, Part 2

35. MacGibbon, I., New Zealand Involvement in the Vietnam War 1960-65, (Unpublished), Ministry of Defence 1974, Chapter 5, p.2

In October, the military returned some power to the civilians, though Khanh remained overall power as Commander-in-Chief. The new government, an inexperienced civilian government, was very fragile.

Militarily, the South Vietnamese Government's hold on the countryside was by early 1964 eroding, as Vietcong guerilla forces increased their rural activities. The United States and Australia responded by greatly increasing their military commitments to Vietnam. Between 1964 and 1965, the American military presence rose from 23,000 to 185,000; the Australian commitment from sixty to 1400.[36] Renewed pressure was placed on the New Zealand Government to play its part in the ANZUS Treaty and collective defence treaties of South East Asia. However, New Zealand appraisal of the situation could see no ready solution to the Vietnam conflict.

> In the first place, New Zealand was doubtful about the effects of introducing outside combat forces into conflict. They might postpone the collapse in South Vietnam, but they would not resolve the real problems in the South. Such forces would be costly both in terms of resources and international reputation. In all probability, they would be but the beginning of a continuous build up of outside forces in South Vietnam, forces upon which the South Vietnam would become increasingly dependent. (37)

New Zealand's decision to commit combat troops was further complicated by the commitment to the Commonwealth Strategic Reserve now involved in the Borneo conflict.

New Zealand acknowledged its commitment to the United States and

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36. Ministry of Defence, The New Zealand Army in Vietnam 1964-72, A Report on the Chief of the General Staff Exercise 1972, Army File 212/11/556/GS, 1975, Annex A-2
37. ibid, p.13

Australia when on 20 April 1965, the New Zealand Government Cabinet decided to send combat troops to Vietnam.[38] The exact nature of the combat commitment would be decided by the Chief of General Staff. The Army offered a range of cheap and effective units. Suggested contributions were an artillery unit, a company from the battalion in Malaya, armour, a field ambulance or the expansion of the non-combatant Engineers unit into a combat unit.[39]

Those considered most suitable for consideration were an artillery unit or a field ambulance.

> With regard to infantry the existing commitments of the Army were the main consideration. Both the 1st Battalion RNZIR and 1 Ranger Squadron New Zealand SAS were on active service in Borneo. Moreover the Battalion is declared to SEATO. A rifle company was not considered a suitable form of assistance for it was not designed to be an independent unit. The engineers were already committed in Thailand to the Colombo Plan Feeder Road Scheme, and it was hoped the manpower problems of this deployment would be eased by the withdrawal of NZADV. Armour was considered unsuitable for employment in Vietnam, though in the light of subsequent experience this assumption was not proved valid. (40)

The commitment of the 1st Battalion Royal Australian Regiment (1RAR) to Vietnam provided New Zealand with the necessary logistic support. Historically and tactically there were good reasons for the New Zealand deployment joining the Australians. In past wars the New Zealand and

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38. MacGibbon, I., New Zealand Involvement in the Vietnam War 1960-65, (Unpublished), Ministry of Defence, 1974, Chapter 5, p.19

39. Ministry of Defence, The New Zealand Army in Vietnam 1964-1972, A Report on the Chief of the General Staff Exercise 1972, Army File 212/11/556/GS, 1973, p.14

40. ibid, p.16

Australian forces had worked together and being a larger force the Australians would get a wider range of field information from the American forces. The final decision on the type of New Zealand's deployment was made after negotiations with the Australians, who recommended an artillery battery for direct support of 1 RAR.

The New Zealand Government announced the deployment of a combat force on 27 May 1965. An artillery battery of four guns would be located at Bien Hoa with the Australians, as part of the 173 Airborne Brigade. The New Zealand Aid Detachment Vietnam (NZADV) would be withdrawn from Vietnam after the arrival of 161 Battery RNZA in June 1965.[41]

The work progress of the New Zealand Aid Detachment Engineers was so far ahead of the project planning that the team was underemployed. Work tasks allocated a week for completion, were being done in a matter of days. The sappers had expanded their work aims, undertaking project reconnaissance in various villages for future aid teams being sent to Vietnam. A changeover of team members in March 1965, had not dampened the team's enthusiasm. In July 1965, once the decision had been made to deploy 161 Battery RNZA, New Zealand's sappers aid team was sent to Bien Hoa to build facilities for the New Zealanders. When the battery finally arrived the camp was complete for the New Zealanders, The Australians, however, were not so well prepared.[42]

Public reaction to the Government decision to send a combat force was unfavourable, though as yet, the anti-Vietnam lobby was unable to make a

41. ibid, p.16

42. ibid, p.66

major political impression. The Secretary of Defence, R.K. Hunn, again opposed the deployment of a combat force. His predictions on the escalation of New Zealand involvement had proved correct as well as his prediction that no stable Vietnamese Government would be formed. Major-General Khanh had been replaced by Air Marshal N.C. Ky, who was purging the corrupt government officials and military and political dissidents as well.

The operational element of 161 Battery RNZA arrived in Vietnam in July 1965. Upon their arrival the New Zealand Aid Detachment left. The detachment was disbanded when they arrived in New Zealand on 21 July 1965.

The operational elements of 161 Battery included a logistic detachment drawn from personnel of the Royal New Zealand Army Service Corps, Royal New Zealand Army Medical Corps and Royal New Zealand Electrical and Mechanical Engineers.[43] During the battery's deployment from July 1965 to May 1971, nine sappers provided the combat engineering skills required by the battery. The Army Engineers were involved in the preparation of the artillery site, booby trap clearance and the building of defences and were awarded, along with the rest of 161 Battery, the South Vietnamese Presidential Citation.

In August 1965, Australia's commitment to Vietnam increased and 161 Battery's field role was reduced in status. The Australian Government

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43. ibid, p.63

reinforced the 1st Royal Australian Regiment by 450 men including sections of artillery, engineers, signals and other logistical support units, thus forming an Australian national battalion. The ANZAC orientation that the New Zealand military wanted for the Vietnam theatre had now radically altered. The New Zealand battery however, was not withdrawn, and remained with 1 RAR. While at Bien Hoa the battery took part in seventeen operations around Bien Hoa and two into Phuoc Tuy province.[44]

In March 1966, Australian announced it would be further expanding its force to form a two battalion Task Force, the 1st Australian Task Force (1 ATF). The United States and Australia had negotiated that Australia should be responsible for the Phuoc Tuy Province. The New Zealand Government and military faced a number of decisions on the New Zealand contingent's future deployment. Would New Zealand remain with 173rd American Brigade or go to Phuoc Tuy Province? The political and tactical advantages were weighed towards remaining with the Australians.

> The military reasons in particular were sound. The Battery's doctrine, training and tactic were compatible, while an ANZAC association was acceptable to both the New Zealand public and Army. In addition, its equipment was compatible and, in many respects identical with the Australian equipment, whereas in order to operate alone in the American environment it would have had to be virtually re-equipped. (45)

In June 1966, 161 Battery moved to Nui Dat in Phuoc Tuy Province and were attached to the 4th Field Regiment, Royal Australian Artillery.

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44. ibid, p.17

45. ibid, p.18

No facilities existed at Nui Dat for the New Zealand battery, so a six man Royal New Zealand Engineer team was deployed to build facilities. The team led by Sergeant O.H. Geldard arrived at Nui Dat from New Zealand in mid-June 1966. The team, assisted by members of the battery, constructed a kitchen, ablution and mess facilities. Accommodation at this time was in tents.[46]

Construction equipment, and the prefabricated Lissette and Kingstrand buildings, were provided by the Australians. The team was organised so each sapper had a team of six gunners to assist in construction. The optimum level of forty-two men was rarely attained and lack of assistance meant long hours were worked by the sappers. The location task was completed in the three months allocated and the Engineer team returned to New Zealand in October 1966.[47]

In order to meet the logistic needs of 161 Battery, the New Zealand support element was absorbed into the Australian logistic units of 1 ATF and the 1st Australian Logistic Support Group (1 A LSG). The Royal New Zealand Engineer component in Vietnam was further expanded with the arrival of New Zealand Infantry, to include a small New Zealand Section with the 1st Australian Logistic Support Group. The total number of New Zealand troops in Vietnam remained at around 130 men, a level acceptable both politically and socially in New Zealand.

During 1966-67, major changes in British Defence policy were to have ramifications for New Zealand's Defence policy and deployment in Vietnam.

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46. Bruce, E.W. (Corporal 1966 RNZE Works Detachment), Interview 30 May 1983

47. ibid

The confrontation situation in Malaya was ending and Britain began to reconsider its position in Asia. In mid-April 1967, the United Kingdom decided to withdraw its forces east of Suez by late 1971. The future of New Zealand's forces in Malaya and Singapore now became clouded in uncertainty as did New Zealand's role in SEATO and the Commonwealth Strategic Reserve.[48]

The cessation of 'Confrontation' also meant the battalion by battalion replacement of 1 Royal New Zealand Infantry Regiment in Malaysia was altered to a company reinforcement system. New Zealand, because of reduced commitments, now had the potential to increase its military contribution to Vietnam.

While the military commitment of the United States and Australian increased, New Zealand remained uncommitted to increasing its force. In October 1966, President Lyndon B. Johnson came to New Zealand in an attempt to win a greater New Zealand commitment to the war.

President Johnson's visit excited the anti-Vietnam war lobby and large protests greeted the United States leader. Protest groups were diverse, incorporating both conservative and radical elements. Individuals, churches, student groups, political parties, and various committees on Vietnam formed the protest movement. With such a diverse grouping a split eventually occurred between the strong conservative church protest groups and the more radical political and student groups. Protest and

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48. Ministry of Defence, The New Zealand Army in Vietnam 1964-72, A Report on the Chief of General Staff Exercise 1972, Army File 212/11/556/GS, 1973, p.19

reactions to protest grew and became more violent as New Zealand's commitment to Vietnam grew.[49]

The visit of President Johnson and subsequent negotiations, proved fruitful although the military dividend was not finally announced until March 1967. The New Zealand Army Board was instructed then to consider expanding the Vietnam force.

A battalion was precluded, as conscription would be needed to maintain such a commitment, and this would have been politically unacceptable. The cost of deploying a Royal New Zealand Navy frigate, or Royal New Zealand Air Force Canberra crews, was considered too high. However, the deployment of a rifle company and a Special Air Services troop, preferably from the combat experienced New Zealand Infantry Battalions in Malaysia, was considered viable. It was believed that this was the most economically viable and productive combat aid New Zealand could give. The company would be placed under the operational control of the Australian Battalion as the previous New Zealand-Australian liaison had proved compatible.[50]

A rifle company from 1st Battalion Royal New Zealand Infantry Regiment, reinforced by mortar and pioneer platoon sections, was selected and redesignated 'V' (Victor) Company. The company led by Major J.A. Mace RNZIR, was based with 1 ATF at Nui Dat and were part of the newly arrived 2nd Battalion Royal Australian Regiment. After this deployment was made

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49. Shadbolt, T., Bullshit and Jellybeans, December 1971, pp.92-93

50. Public Relations (Army), A Brief History of the New Zealand Army in South Vietnam 1964-1972, (Unpublished), Ministry of Defence, undated, pp.6-7

planning for a further contribution began. The military and New Zealand Government acknowledged that financial and political problems prevented the deployment of an Infantry Battalion but it was possible, should it be desired, for another rifle company to be deployed in Vietnam. In December 1967, 170 soldiers from Whisky Company, 1 RNZIR and Support Groups, were committed to the Vietnam theatre.[51]

To cope with the expansion of the New Zealand force in Vietnam, new accommodation facilities were required at Nui Dat. The task of doing the construction went to the Royal New Zealand Engineers who deployed a thirteen man team to Vietnam on 8 November 1967.[52]

The New Zealand Engineer Team was led by Lieutenant D. McLean, who upon arrival in Vietnam, found the Royal New Zealand Engineer team had been attached to 17 Construction Squadron, Royal Australian Engineers, a part of the 1st Australian Task Force. The 'Anzac' engineers were formed so the limited engineering resources of both the construction units could be used to the greatest advantage. The reorganisation of the New Zealand Engineers meant they would be constructing facilities for both the New Zealand and Australian infantry groups at Nui Dat. To improve liaison between the two groups of army engineers, Lieutenant D. McLean and Staff-Sergeant J.T. Bennett were appointed to the administration staff of 17 Construction Squadron.[53]

Throughout the three month tour of duty in Vietnam the sappers worked

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51. ibid, pp.6-7

52. Bennett, J.T., Letter from Staff-Sergeant RNZE Works Detachment 1967, 22 June 1983

53. ibid

long hours assembling the prefabricated huts, mixing concrete and installing the necessary plumbing and electrical fittings. At night the sappers manned the weapons pits. During January 1968, this was a vital task as Vietcong activity had increased around Nui Dat as a result of the 'Tet' offensive.

By February 1968, the Australian and New Zealand facilities were completed and the Royal New Zealand Engineers returned home. The work of the 'Anzac' engineers had forged another bond between the Royal Australian Engineers and the Royal New Zealand Engineers, a bond which would be maintained by later deployments of Royal New Zealand Engineers to Vietnam.[54]

Victor Company remained in Vietnam from 1967 until December 1971. Whisky Company served from December 1967 until November 1970. Six Victor Company's and three Whisky Company's served in Vietnam.

An important aspect of any infantry company while serving in the field is the role played by the Assault Pioneer Platoons. These platoons assist the infantry in the location, clearance and destruction of mines, booby traps, tunnels, tracks and 'hides'. The pioneer platoons of Victor and Whisky Companies were formed around a nucleus of experienced Royal New Zealand Engineers. The average size of the platoon was seventeen men, although where necessary, combat mini-teams were formed.

Twenty-two members of the Royal New Zealand Engineers served with Victor and Whisky Companies during their deployment in Vietnam, from

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54. ibid

May 1967 to December 1971. (See Table 6.1)[55]

Only one Royal New Zealand Engineer Officer, Lieutenant D.A. Cormack, served in the Assault Pioneer Infantry Groups. Lieutenant Cormack led the Assault Pioneer Section for Victor 3 Company, serving with distinction during 'Operation Federal', a major deployment in the Phuoc Tuy Province.[56]

It was while serving with the infantry companies that the Corp gained its first and only combat valour decoration in Vietnam, the first since the Korean War. Sapper W.H. Kahika was awarded a mention in despatches (mid) for commendable endurance, toughness of character and devotion to duty, during a patrol on 22 June 1968. (Appendix 8).

Prior to the arrival of the rifle companies, only one sapper had been injured while serving in Vietnam. Sapper W.A. Davies was injured while serving with 161 Battery. However, with the deployment of Army engineers with the assault pioneer platoons, and because of the hazardous nature of the operations undertaken by the infantry in Phuoc Tuy Province, casualties did occur.

Sapper R.H. Brown died of wounds received while serving with Whisky 2 Company during Operation Mundingburra in Phuoc Tuy Province in August 1969. Sapper Brown had already served twelve months in Vietnam as a member of Whisky 1 Company. The experience he had gained during his first tour of duty was one of the contributing factors to the success

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55. Chamberlain, H.E., Vietnam Service, The Corps of the Royal New Zealand Engineers, (Unpublished), School of Military Engineering, August 1977

56. ibid

TABLE 6.1

RNZE PERSONNEL IN ASSAULT PIONEER PLATOONS

VIETNAM 1967 - 1971

COMPANY	DEPLOYMENT	RNZE COMPONENT
Victor 1	May 1967 - December 1967	2
Victor 2	December 1967 - May 1968	0
Victor 3	May 1968 - May 1969	3
Victor 4	May 1969 - May 1970	7
Victor 5	May 1970 - May 1971	2
Victor 6	May 1971 - December 1971	1
Whisky 1	December 1967 - November 1968	2
Whisky 2	November 1968 - November 1969	4*
Whisky 3	November 1969 - November 1970	3

* RNZE from Whisky 1 remained to service in Shisky 2

SOURCES: Chamberlain, H.E., Vietnam Service, The Corps of the Royal New Zealand Engineers, (Unpublished), School of Military Engineering, 1977.

Public Relations: A Brief History of the New Zealand Army in South Vietnam 1964-1972, (Unpublished), Ministry of Defence, undated, p.6

of the Assault Pioneer Section of Whisky 2 Company. His known ability in the field and his willingness to share his experiences made him a popular man among the infantrymen and engineers, both in Vietnam and New Zealand.

Three months later while on operations in the 'Horseshoe' area of Phuoc Tuy Province, Sapper J.T. Barrett was killed in action. Victor Four Company, of which he was a member, had been deployed on a long patrol to cover the approaches to Dat Do and the roadway, Route 44. Sapper Barrett had completed half of his tour of duty in Vietnam, and had proven himself to be a capable and efficient soldier, well respected and liked by the soldiers who had served with him.

In recognition of their contribution not only in the Vietnam War, but to the Corps of the Royal New Zealand Engineers, Sappers J.T. Barrett and R.J. Brown were awarded the Queen Elizabeth II Memorial Cross.[57]

The only other casualty was Sapper D.N. Steven who was wounded in action while serving with Victor Five Company.

Throughout New Zealand's deployment in Vietnam a close liaison was maintained between New Zealand and Australian forces. This association would be later consolidated by the formation of an ANZAC Battalion. To help maintain the ANZAC ideal various members of the New Zealand Army served their tour of duty with their Australian counterparts. Sergeant

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57. Chamberlain, H.E., Vietnam Service, The Corps of the Royal New Zealand Engineers, (Unpublished), School of Military Engineering, August 1977

D.L. Bailey RNZE and Corporal P.A. McKeany RNZE, both served with 1 Field Squadron Royal Australian Engineers who were deployed at Nui Dat. The Royal New Zealand Engineers ANZAC links were further expanded with the deployment of personnel to 198 Works Section of the Australian force. Between 1967 and 1972, five senior non-commissioned officers served in this section. The Works Section were involved in the forward planning of military engineering and civilian aid projects in the Nui Dat area. New Zealand's gunners and infantry were supplied with the necessary engineering material by 198 Works Section.[58]

In an attempt to balance the heavy combat commitment of the New Zealand Army in Vietnam, the New Zealand Government sent 1 New Zealand Service Medical Team to assist at Qui Nhon in the Binh Dinh Province. The team was later deployed at Bong Son, the locations being well away from New Zealand's combat involvement.

The news of the deployment of 'Whisky' Company in July 1967, brought a renewed growth in opposition to the war. Media speculation was rife about the possible deployment of a third company and the introduction of conscription for overseas service.

> With present resources, New Zealand could manage a third infantry company for Vietnam service some time in the future should the situation warrant, but any further call for infantry after this would almost certainly force the conscription issue. (59)

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58. Lamb, I.E., Interview on his deployment as Staff Sergeant to 198 Works Section 1970-71, 2 June 1983

59. Evening Post, 18 October 1967

A possible increased commitment or conscription was not acceptable to the New Zealand Government.

> Any more infantry draw off after this will reduce the New Zealand presence in the area to little more than a training and staging element, unless balanced off by an increased manpower pool.
>
> Conscription for overseas service, long a fact in the United States and Australia, will be an unsavoury pill for New Zealand politicians and it is certain every measure will be taken to avoid the swallow. (60)

The two companies sent to Vietnam were still not large enough to warrant the formation of an independent New Zealand unit in Vietnam. In March 1968, an old traditional link was reinforced beteen the Australian and New Zealand armies when the 2nd Royal Australian Regiment merged with Victor and Whisky Companies to form 2 Royal Australian Regiment/New Zealand (ANZAC) Battalion.[61] However, the New Zealand Army did not abandon hope of forming an independent New Zealand battalion. A 'mini battalion' of three rifle companies, a headquarters, and an administration and support section totalling 610 men, was proposed. The proposal was rejected for manpower problems, public opinion and logistical problems could not be resolved.[62]

The ANZAC Battalion composition alternated between the Royal Australian Regiments (Infantry) most of whom did two tours of duty to Vietnam. The battalion finally disbanded when Victor Company returned to New Zealand in December 1971.

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60. ibid, 18 October 1967

61. Public Relations (Army), A Brief History of the New Zealand Army in South Vietnam 1964-1972 (Unpublished), Ministry of Defence, undated, p.6

62. Ministry of Defence, The New Zealand Army in Vietnam 1964-1972, A Report on the Chief of General Staff Exercise 1972, Army File 212/11/556/GS, 1973, p.27

In September 1968, Lieutenant-Colonel K.C. Fenton was appointed Commander of New Zealand Forces in Saigon. His appointment was from 1968-1970. The command position was held by four senior officers each from the major army corps. Commander V Force was the New Zealand Army liaison with the United States and Australian forces and the New Zealand Government. The Commander was also responsible for issuing directives to New Zealand Unit Commanders, and whenever in the field, Colonel Fenton made a point of visiting the small Royal New Zealand Engineer groups distributed through the New Zealand and Australian forces.

Near the close of 1968, New Zealand again increased its military commitment deploying 4 Troop, New Zealand Special Air Services (SAS). The total number of New Zealand soldiers in Vietnam had escalated from twenty-five in 1964 to 543 in 1968.[63]

Despite an increased commitment by all the allied governments with troops in Vietnam, the victory was nowhere in sight. The North Vietnamese and Vietcong forces had increased in effectiveness. The 'Tet' offensive of January 1968 had failed and the South Vietnamese state remained politically unstable. Through 1968, opposition to American, Australian and New Zealand involvement rapidly grew. A strong political lobby against Vietnam involvement grew and it became obvious that military strategy would have to alter.

In early 1969, Richard Nixon was elected President of the United States. The election had been fought over American combat involvement in Vietnam

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63. ibid, Annex A.

and Nixon who favoured withdrawal of forces was elected. By the middle of 1969, Nixon's 'Vietnamisation' policy had been clarified:

> United States forces would be withdrawn, leaving not more than perhaps a 'residual force', and the capability of the Vietnamese Air Force would be increased. The Nixon Doctrine was announced at this time, with its emphasis on the nations of South East Asia building up their own security forces and on the United States taking more of a background role. Both steps gave cause for New Zealand to re-examine its general position. (64)

The American background role was to act as suppliers of arms and as advisors to the South Vietnamese forces. The number of United States combat forces now began to drop.

Without a large United States troop commitment in Vietnam, both New Zealand and Australia bereft of logistics were forced to consider withdrawal from Vietnam. The financial cost of maintaining and supplying their small and vulnerable forces was too high. New Zealand followed the United States Government and began a gradual reduction in the size of its force.

The withdrawal of New Zealand troops began in November 1970, when Whisky Company returned to Malaysia. At the same time the New Zealand Government was approached by the South Vietnamese Government to begin a new commitment to Vietnam.[65]

> The Minister of Defence (The Honourable D.S. Thompson) further announced that a 25 man Army Training Team

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64. ibid, p.29

65. A.J.H.R., H.4, 1971, p.4

> would be contributed to a joint South Vietnam-New Zealand training wing at Chi Lang National Training Centre in the Chau Doc Province, in the Delta. (66)

The Training Team's objective was to assist in the training of the ARVN Regional Force, and Popular Force soldiers, who were to take over positions left by the United States withdrawals. Before the programme could begin the training centres had to be constructed. The New Zealand Government contributed $US32,000 towards the project.[67]

This construction task was given to the Royal New Zealand Engineers and a team of twelve men led by Lieutenant J. MacDonald RNZE was sent to Saigon with the Advance Party of New Zealand's Army Training Team Vietnam (NZATTV). The team arrived in December 1970 but bureaucratic interference and material problems slowed the progress of construction.

> On arrival in Saigon our first task was to obtain Federal Stock Numbers for all the building materials. After much chasing around the Inventory Control Centre, we were able to identify most of the items and presumed that we were in a position to submit our stores demands. This of course was not the case, as before any stores are released there must be an authority for the construction task. As this authority had not been applied for prior to our arrival, this has caused a great deal of delay in the time when we should have been gathering stores together...
>
> Our efforts to hurry this clearance through has met with very little success to date. Although this project is totally financed by the New Zealand Government, the U.S. system does not seem to allow for any deviation from their normal procedures, hence the delay in having the task approved. (68)

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66. ibid, p.4

67. Radford, R.W. (Captain), Royal New Zealand Engineer Construction Party-Chi Lang, Audio Visual display, undated, RNZE Corps Memorial Centre, Linton

68. Lieutenant J. MacDonald RNZE, to Lieutenant-Colonel R. McL. Dickie RNZE, Chief Engineer, 12 December 1970. The letter is a progress report on the Chi Lang Construction programme. The letter is held in the Vietnam File at the RNZE Corps Memorial Centre, Linton

While awaiting final approval the sappers went to Chi Lang to prepare the site for the construction of mess blocks, barracks, storerooms and three lecture rooms. However, getting to Chi Lang proved a problem as the Americans transporting the Army Engineers, had never heard of Chi Lang. Eventually the problem was resolved when it was discovered that Chi Lang was known as 'That Song' to the Americans.[69]

Upon arrival at Chi Lang, the sappers established a tented camp and began to gather materials from American sources. Despite their reliance upon the Americans for transport to Chi Lang, the New Zealand troops had been advised to have as little as possible to do with the Americans. Association with the Americans meant the New Zealanders were vulnerable to attack from the Vietcong.

This provided an unfortunate dilemma for the New Zealand sappers who arrived at Chi Lang with very little equipment or materials. If the project was to begin, the New Zealanders needed the support and co-operation of the local American troops who had many of the resources the New Zealanders required.

To establish good liaison between the New Zealand sappers and the Americans, the engineers opened their facilities to American servicemen. This goodwill gesture paid dividends for the sappers who found little trouble getting the necessary equipment, materials and vehicles from the nearby American force.70

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69. Bruce, E.W. Interview with Sergeant 1970-71 Works Detachment, Vietnam, 1 June 1982

70. ibid

Supply problems from official sources were further compounded by the rundown of the United States forces which drew off construction material to be used for packing equipment. The Chi Lang project was low priority and received irregular and variable quality of material.

> Most of the material had been in (the) country for some time, and had deteriorated quite markedly. Timber on receipt contained dry rot and termites, and cement had started hydrating. (71)

It soon became obvious that a close association between the Royal New Zealand Engineer party and the local United States force was essential for the project's completion. The close liaison between the sappers and the United States forces came to the fore when a United States training team exercising Cambodian troops was ambushed by North Vietnamese forces. For two days the New Zealand sappers assisted in the refuelling of American helicopters operating against the Vietnamese ambushers.[72]

The machinery for the Chi Lang project was provided by the United States. Power generators were installed by the American contractors of Pacific Architects and Engineers. Water had been a scarce commodity at the training centre until, with New Zealand Army Engineer assistance, a large water tank and purification system was constructed.

When the first party had completed their six month tour of duty, the construction task was 65 percent complete. The replacement team of seven Army Engineers, led by Captain R.W. Radford RNZE, arrived in June 1971 to complete the task. (See Photograph 6.1)

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71. Radford, R.W. (Captain), RNZE Construction Party-Chi Lang, Audio Visual Display, undated, RNZE Corps Memorial Centre, Linton

72. Bruce, E.W. Interview with Sergeant 1970-71 Works Detachment, Vietnam, 1 June 1982

PHOTOGRAPH 6.1

THE NEW ZEALAND ARMY TRAINING CENTRE, CHI LANG

Throughout the project, members of the New Zealand Advisory Team assisted in construction. The team was set an excellent example by their senior officers, Major Ogilvy and Captain B. Martin, who led by example, being found on numerous occasions mixing cement with the Engineer team. The assistance of the Advisory Team became more important when the Army Engineer team decreased in number to only three persons.[73]

The Chi Lang construction programme was only part of the team's responsibilities, the other being to assist in the New Zealand Vietnam Force Civil Aid Programme. The programme, known as 'Kiwi Hoanga', undertook two projects. The first team constructed a dispensary at the local village. Unfortunately,because of Vietcong intimidation, the dispensary was not used while the sappers were at Chi Lang. The second team was deployed on aid reconnaissance work and assisted in the construction of school classrooms at TeTe.

The first New Zealand Army Training Team (Vietnam) (NZATTV), began its training programme in January 1971. With the return of the second Army Engineer Team to New Zealand, two members of the Royal New Zealand Engineers were appointed to the training team, Lieutenant R.A. Barrett RNZE, and Warrant Officer (second class) W.A. Kearney.[74] Lieutenant Barrett was appointed to the General Subjects Committee for formulate a programme for engineer training. He also fulfilled the role as Engineer Advisor to the National Training Centre and 1 NZATTV.

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73. Radford, R.W. (Captain), RNZE Construction Party-Chi Lang, Audio Visual Display, undated, RNZE Corps Memorial Centre, Linton

74. ibid

The New Zealand Army Engineers supervised the Vietnamese working on the completion of drainage works and compound construction. The American Army Engineers provided plant machinery and a plant advisor, Sergeant R.D. Keirn, USAE, to work with the New Zealand Engineer Advisors. During the first year, the twenty-five New Zealand Advisors trained 8000 students, the majority undergoing courses in the use of small arms and minor tactics.

In February 1972, at the request of the Cambodian Government, New Zealand sent a second advisory team to Vietnam to assist in training Cambodian soldiers. Training in Cambodia was politically unacceptable and the deployment of New Zealand troops to help Cambodian forces was further complicated by premature press leaks in New Zealand. The offer was finally carried through and a small team was sent to Dong Ba Thin in March 1972.[75]

Rumours of the team being deployed in Cambodia persisted throughout the deployment of the aid team. Staff at Chi Lang were accused of being advisors in Cambodia. The continuing public debate of the Vietnam situation was to be a major factor in the forthcoming 1972 election.

Politically, the training teams kept the New Zealand flag flying in Indo China, thus pleasing our allies. Militarily, valuable experience was gained through training foreign soldiers and the changing form of jungle warfare. The Royal New Zealand Engineer staff gained valuable combat training and work experience, something the Corps had not experienced since the Korean War.

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75. Ministry of Defence, The New Zealand Army in Vietnam 1964-72, A Report on the Chief of General Staff Exercise 1972, Army File 212/11/556/GS, 1973, p.33

New Zealand's diminished role in the Vietnam War was not enough for the New Zealand public and the Labour Party's stand against Vietnam contributed to its success in the 1972 election. Consequently, a month after the elections, the Army Training Teams and the Headquarters New Zealand Army Training Group, Vietnam were withdrawn.

The withdrawal of the team ended a long and controversial association between New Zealand and South Vietnam. Many of the New Zealand Army Corps had been in the limelight in Vietnam. The deployment of 161 Battery, 1 Royal New Zealand Infantry Regiment and the New Zealand Special Air Services are all well remembered and recorded in military histories of our allies. (New Zealand's historical assessment of the war is very limited). But the original bridge to Vietnam was forged by the non-combatant aid work of the Royal New Zealand Engineers, a compromise group, decided upon by the politicians and supported by the Army which gently introduced New Zealand to the Vietnam War. In retrospect, the Royal New Zealand Engineer contribution in South Vietnam shows a movement from civil aid to combat support and from combat support to military advice.

The expertise of the Engineers bridged the gap between New Zealand's political duty and limited military capacity. The 'bridge' was always on tenuous political supports that swayed with the political tides within Australian and United States governments who by late 1964, were wanting a combat commitment to Vietnam. The New Zealand military fully supported such a commitment, the politicians however, were more reluctant. The compromise was the deployment of a small Royal New Zealand Artillery Battery and the evacuation, for their own safety, of the New Zealand Engineer Aid Team.

Hopes of sending a large combat engineering team were dispelled by the commitment of the Royal New Zealand Engineers to the Feeder Road Project in Thailand. Instead, the Engineers returned to Vietnam as a small group of combat engineers for 161 Battery. This background task of the Engineers remained for the rest of the Vietnam War, with works section and assault pioneer platoons supporting the main Infantry and command units in Vietnam.

The construction works detachments, apart from fulfilling the military engineering requirements of the Army, continued a valuable aid input, which is rarely, if ever, mentioned in histories of the Vietnam War.

As New Zealand's total commitment to the Vietnam War fluctuated so did the numbers of Royal New Zealand Engineer personnel in Vietnam. The largest single group was the 1964 Aid Detachment.

The close liaison between the New Zealand and Australian Armies and the formation of the ANZAC Battalion saw New Zealand soldiers working side by side with the Australians. The New Zealand Army Engineers were no exception with sappers being deployed with 17 Construction Squadron, 198 Works Section, 1 Australian Logistic Support Groups and 1 Field Squadron, Royal Australian Engineers.

As the political mood again changed and the combat commitment was replaced by an advisory commitment, the Royal New Zealand Engineers were again to the fore, building the Chi Lang Training Centre. Under trying conditions, and with United States support, the two teams gathered materials to construct the Centre, while taking time to provide much needed aid tasks to the villages around Chi Lang.

A small component of Army Engineer training staff provided the ability and initiative for the military engineering programme at the Centre.

New Zealand's involvement finally ended with the complete withdrawal of all its forces along with those of the United States of America and Australia. Within a short time the South Vietnamese Army was defeated.

The versatility and capability of the Royal New Zealand Engineers was well illustrated by the diverse roles it had to play. The sappers provided aid, infantry support, construction support and fulfilled a valuable advisory role. All these factors were an important part of the New Zealand Army's deployment in Vietnam.

CHAPTER SEVEN

FROM BORABU TO BURIRAM
THE ROYAL NEW ZEALAND ENGINEERS IN THAILAND 1964-1971

The victory of communism in China in 1949 did much to engender an Asian sense of regional insecurity. Unstable developing economies and insecure government through much of Asia, were seen by some Western nations as possible grounds for the spread of communism.

In early 1950, with the outbreak of the Korean War, Commonwealth nations met in Colombo to discuss diplomatic recognition of communist China and the spread of communism in Asia. The meeting, although reaching no final conclusions, called for the development of an aid plan to fight communism. It was argued that with a higher living standard for all, communism would not find Asia a fertile ground.

The aid plan, fully supported by the New Zealand Government, became known as the Colombo Plan.

> The purpose of the plan is to raise the living standards of millions of people who are below subsistence level. So long as these vast populations are forced through a lack of adequate facilities to endure starvation, undernourishment, lack of shelter and intolerable living conditions, the rest of mankind has a duty to assist in ending this unhappy state of affairs which is no fault of the individuals themselves.
>
> Prosperity, like peace, is indivisible, and in our own long term interests we must do whatever we can to eliminate poverty, especially in the area adjacent to the Pacific. The ferment that was stirring in Asia is of terrifying proportions. Communism finds

> its most fertile breeding ground where the conditions I have described exist, and indeed, in my view there is no other way of stemming the tide of communism than by raising living standards nearer to a level which we ourselves enjoy, and giving the people those conditions of comfort and decency which would render communism as intolerable to them as it is to us. (1)

It soon became obvious that in some Asian nations aid was not sufficient to stem the 'tide of communism' and confrontation situations developed. New Zealand supported this stance to varying degrees committing forces of different sizes and roles in turn to Korea, Malaya, Borneo and Vietnam.

New Zealand, despite its commitments to Asian wars, maintained its aid initiatives under the auspices of the Colombo Plan. Financial and advisory contributions were given thoughout Asia, in Vietnam, Malaya, the Philippines and Thailand.

Although a politically stable nation, Thailand was bordered by communist states who on occasions had crossed the Mekong River and in so doing infiltrated the north east region of Thailand. This region, because of its geographic isolation, had a low standard of living, and was therefore considered vulnerable to communism. Fears of continued communist incursions were reinforced by the border crossing activities of Laotian and Cambodian insurgents. The Thai military forces were unable to prevent the insurgents crossing as the region lacked an all-weather roading system.[2]

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1. Doidge, F.W. (Honourable), External Affairs Review, vol.1, No.1, April 1951, pp.2-3

2. Fenton, K.C., "Thai-New Zealand Feeder Road Project", The Royal Engineers Journal, vol.LXXX, June 1966, p.100

In an effort to raise living standards and develop the nation's economy, Thailand embarked upon a series of quinquennial programmes, known as National Economic Development Plans.

Part of New Zealand's Colombo Plan contributions were directed to assist in Thailand's development plans, instigated in 1961, 1966 and 1971. Much of New Zealand's contribution was directed towards developing the northeast region, where New Zealand provided technical advisers and finance for the building of a hydro-electric power project at Naen Pong and a university at Khon Kaen. At the university New Zealand and American staff established faculties of agriculture and engineering.[3]

The New Zealand contribution to Thailand's development was expanded in March 1964, to include military assistance. In November 1963, the British Government agreed to construct a 1500 metre medium range tactical airfield seventeen miles west of the Mekong River, near Mukdahan. This new airfield was to be an air attack base against insurgent forces that crossed the river.[4]

The construction, because of its location, was undertaken by Army Engineers, drawn from The Royal Engineers, the Royal Australian Engineers and the Royal New Zealand Engineers.[5] The total task, called Operation Crown, employed 500 troops, the New Zealand Engineers contribution being two officers and thirty-one other ranks. The New Zealand

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3. ibid, pp.101-102

4. Bennett, R.T., Operation Crown, (Script of an audio-visual display given at cessation of project), Undated, p.2, RNZE Corps Memorial Centre, Linton

5. Munro, L. (Sir) KCMG, KCVO, MP, "Foreign Aid by New Zealand", 24 June 1964, New Zealand Parliamentary Debates (NZPD), vol.338, p.328

team, a Plant Troop, was selected carefully after a search of all Royal New Zealand Engineer units.

The New Zealand troop arrived in Thailand in mid-March 1964. By this time work had already commenced on stripping the airfield site and constructing accommodation. The New Zealanders, who were commanded by the Commander Royal Engineers (CRE) in Thailand, did not remain as a separate entity and were at once employed with the already established composite troops, workshop, construction, stores and catering sections.[6]

The Royal New Zealand Engineer troop remained in Thailand until July 1964, and returned to New Zealand during the Asian wet season which halted all work on the project. A new troop was then formed during the dry season and took its predecessors place in Thailand in September 1964.

The airfield construction was complete by June 1965, when the airfield was officially opened. Problems followed. The following wet season revealed the load bearing capacity was below the standard required by some aircraft, and Operation Crown was renewed to lay an eight inch thick concrete pad over the entire runway.[7]

The New Zealand sappers remained to assist the Royal Engineers until August 1965. During their deployment in Thailand the New Zealanders acquired new skills. Here they first learnt and applied detailed soil testing, a skill which has been a part of engineer training since. The competence shown by the New Zealand sappers at Mukdahan prompted the

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6. Bennett, R.T., Operation Crown, (Script of an audio-visual display given at cessation of project), Undated, p.3

7. ibid, undated, p.3

Royal Thailand Government to approach the New Zealand Government for further help, in particular assistance with feeder road construction in the northeast region.

The New Zealand Government agreed and allocated its Colombo Plan funds in Thailand for the purchase of equipment for the Thai's road project. The Royal New Zealand Engineers and the Royal New Zealand Electrical and Mechanical Engineers provided the expertise for the project. The New Zealand Government's limited Colombo Plan budget precluded the use of any outside contractors and as the northeast region was still susceptible to Laotian insurgent activity, the use of New Zealand's military was considered apt.

Initial negotiations between New Zealand Army engineers and Thai officials were undertaken by Lieutenant-Colonel K.C. Fenton, the Chief Engineer (RNZE), and a preliminary survey of a road was undertaken by Lieutenant H.E. Wedde (RNZE).[8]

By July 1965, a Memorandum of Understanding had been signed between the New Zealand Government and the Royal Thai Government. This memorandum established:

> ...the contributions and responsibilities of the respective governments with regard to the construction of a feeder road to run from Borabu toward Buriram, over a route to be surveyed jointly and agreed between the Rhai and New Zealand authorities. (9)

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8. Fenton, K.C.,"Thai-New Zealand Feeder Road Project", Royal Engineer Journal, vol.LXXX, June 1966, p.116

9. ibid, p.102

The New Zealand Government's precise project commitments were to supply supervisory staff, pay their salaries and expenses, provide a range of earthmoving and road construction equipment, workshop equipment, build a soil mechanic's laboratory, deliver survey equipment, erect a prefabricated steel building for an advance workshop area and provide a range of spare parts. The New Zealand financial commitment, drawn from Colombo Plan aid funds, was set at ₤300,000 to be paid over three years. In March 1966, it was realised that this sum was inadequate and New Zealand adjusted its pledge to ₤450,000, over five years.[10]

The Royal Thai Government for their part provided roading machinery and staff for the project and constructed a camp base at Maha Sarakham (see Map 3), with housing, workshops and offices for the New Zealand and Thai staff.

The northeast region had been the site of major road construction since the inception of the National Economic Development Plan. The role of the roading was twofold; to enhance the economic development and potential of the region, and to provide an efficient transport system to allow the rapid deployment of Thai troops close to the Laotian border. The region had originally been opened up by the construction of the 'Friendship Highway', from Bangkok to Korat and the Northeast Highway, from Korat to Nongkhai.

With the completion of these main arterial systems, Thailand's road construction programme altered to the construction of feeder roads.

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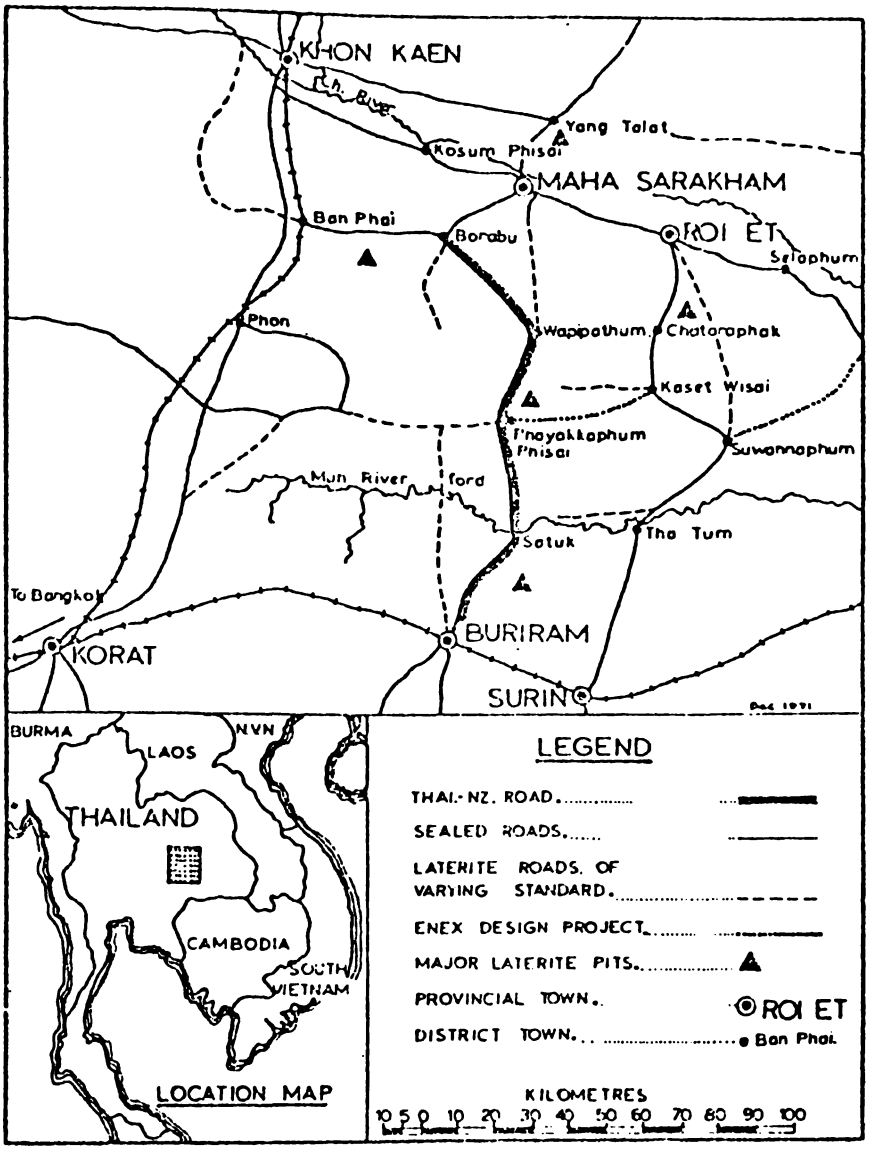
10. ibid, p.102



MAP THREE

LOCATION MAP FOR THE NEW ZEALAND ENGINEER FEEDER ROAD PROJECT

SOURCE: Dickie, R.McL., "The Thai-New Zealand Road Project", New Zealand Engineering, 15 March 1973

These feeder roads would open the northeast interior enabling the exploitation of national resources in the region and allowing Thai military surveillance. The Australian Government was among the first to contribute to the feeder road programme. The Royal Australian Engineers embarked upon a road building programme that linked the city Khon Kaen with its hinterland. The New Zealand contribution to the road programme was to turn a 145 kilometre track between Borabu and Buriram into a sealed, all weather highway. (See Photograph 7.1).

The New Zealand Engineers were formed into a compact military unit and designated 5 Specialist Team (Road Construction) RNZE, on 15 December 1965.[11] The team comprised a Royal New Zealand Engineer section, responsible for road construction supervision, and a Royal New Zealand Electrical and Mechanical Engineer section, responsible for plant maintenance. Appointments to the team were for a work period between six months and two years and it was one of the few projects undertaken by the Army where soldiers were accompanied by their families.

Preparations for the deployment of 5 Specialist Team began in August 1965 when the New Zealand Government called world wide tenders for the project plant. Tenders from the United States, the United Kingdom, Australia and Japan were accepted, the variety of plant being delivered to a small advance party in Thailand during November 1965.[12]

The Army engineers had limited knowledge of road construction, so attended a training course with the roading division of the Tauranga

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11. ibid, p.116
12. ibid, p.116

PHOTOGRAPH 7.1

THE ORIGINAL TRACK BETWEEN BORABU AND BURIRAM

County Council. The course proved of immense value and by mid-December the 'roading education' of the sappers was complete.[13]

The main body of 5 Specialist Team, led by Major R.K. Rutherford, arrived at Maha Sarakham in January 1966 following the completion of the accommodation and workshop buildings at the project base. Reconnaissance and surveying of the future road, prospecting for the road base course material and the arrival of equipment were near completion when the New Zealand team arrived. Tenders had been called by the Thai Government for the road's bridging, culverting and for laterite extraction. The project helped diminish local unemployment. Private companies and the public works sector of the project provided numerous jobs for villagers along the proposed route.

The route of the feeder road was across flat rolling terrain which included large areas of floodplain. The road ran through the town of Borabu, Wapipathum, Phayakkaphum, Phisai and Satuk to Buriram. The road itself was to be a six metre pavement on an eight metre formation, with the crown of the road being well above the flood water level. (See Map 3).[14]

Overall control of the project was provided by the Royal Thailand Highway Department. However, at a construction level, careful consideration was given to the organisation of project staff.

> Following a conference amongst the project staff some changes were made to the organisation of work. This

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13. ibid, p.117

14. 5 Specialist Team (Road Construction) RNZE, Monthly Report, December 1965, Army File 239/4/125, vol.1, Ministry of Defence

was necessary to avoid any impression that there were two national channels of communication on the project.[15]

This decision of April 1966, meant New Zealanders were under the supervision of Thai staff and vice versa. The project organisation was divided into two parts, the construction section and the workshops. The construction section consisted of ten to fifty men, with three to twenty plant items, supervised by an engineer or technician, who was directly responsible to the project manager. The New Zealand Project Manager was Major R.K. Rutherford RNZE.[16] The team's workshops were responsible for the servicing and repair of mechanical equipment. Captain J.N. Staines RNZEME was the New Zealand Workshop Manager with supervising control over the five sections that made up the workshop team. The workshop sections provided a field repair section for on-the-job repairs, a base repair section for major repairs, a plant servicing section, a B vehicle servicing section, and a parts store.[17]

This organisation remained in operation for the duration of the road construction. There were problems however as liaison between the Thai and New Zealand project staff was sometimes difficult. In the field, language difficulties were not easily overcome, and few local Thais were prepared to take orders from the New Zealanders. At an administrative level delays in the arrival of equipment and spare parts from Thai and New Zealand sources, together with financial difficulties, delayed the project.[18]

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15. 5 Specialist Team (Road Construction) RNZE, Monthly Report, April 1965, Army File 239/4/125, vol.1, Ministry of Defence

16. Annual Report for Feeder Road Project 1967, Army File 239/4/125, vol.1, Ministry of Defence

17. ibid,

18. Army File New Zealand Ambassadors Report on Feeder Road Project, 239/4/125, March 1966, vol.1, Ministry of Defence

Work on the road did not begin until April 1966. This was in part due to the non-arrival of roading equipment from New Zealand, equipment that was to be used to build access roads into the laterite pits, and to build up reserves of the basecourse material. Despite these delays the Thai contractors began culverting and bridging tasks, the first bridge was completed by late April 1966.[19]

In June the project was officially opened by the Prime Minister of Thailand, a function attended by representatives of both nations. Up until this point little progress had been made on the feeder road itself as service roads to the project needed completion before work could begin. The project once opened however, was further delayed by the arrival of the seasonal monsoon rains. The wet season lasted for five months of the year, and during that time the Korat Plateau, across which the feeder road ran, was either in flood or a quagmire under the wheels of heavy machinery.

The monsoon rains also diminished the availability of local labour for the project as workers returned to plant rice for their villages. With rice planting completed the villagers would return to the project only to leave again at the end of the wet season to harvest and store their crops.[20]

A typical wet season monthly report read

> There had been just enough rain during the month to stop further progress. (21)

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19. 5 Specialist Team (Road Construction) RNZE, Monthly Report April April 1966, Army File 239/4/125, vol.1, Ministry of Defence

20. 5 Specialist Team (Road Construction) RNZE, Monthly Report June 1966, Army File 239/4/125, vol.1, Ministry of Defence

21. 5 Specialist Team (Road Construction) RNZE, Monthly Report July 1966, Army File 239/4/125, vol.1, Ministry of Defence

The early monthly reports also reveal the first of many disputes to develop between the Thai contractors and the Thai-New Zealander project staff.

> [A] haulage contractor failed to carry on after the first three days. During the month he has been going to start work in "three days" but the difficulties of wet weather, poor trucks, unlicensed drivers, inability to produce more than six trucks (contract minimum was forty), disagreement over measuring truck capacity and disagreement with the width of the haul road, have followed in succession. He is now due to start "soon". (22)

The New Zealand staff had come to Thailand to assist in the building of a feeder road according to a New Zealand Plan. They soon found that New Zealand military work attitudes did not apply to the Thai people who had a completely different perception of, and attitude to, work, an attitude which was in keeping with their social and cultural beliefs.

> The newcomer to the project will find some aspects of his work rather frustrating. The Thai has a different attitude to life from the westerner. There is a greater emphasis on leading a pleasant life than on rushing about. All at the project must be prepared to look at any problem with a wider view than at home. A good solution in New Zealand may be impracticable in South East Asia. If one keeps an open mind without lowering the technical standards below the essentials, most problems can be overcome with patience. (23)

In an effort to improve relations between the Thai and New Zealand staff the Army prepared a brief for all feeder road staff. The brief outlined the social structure, religion and language of Thailand, as

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22. 5 Specialist Team (Road Construction) PNZE, Monthly Report September 1966, Army File 239/4/125, vol.1, Ministry of Defence

23. Brief for Feeder Roads Team Members - Thailand, March 1967, Army File 239/4/125, Ministry of Defence

well as matters of protocol considered important in maintaining cohesion between the two national groups.

An understanding of Thai customs and language was to prove invaluable for the New Zealanders who operated the training scheme for the Thai workers. Selected Thai workers were trained in the operation and maintenance of construction plant, road construction techniques and personnel management. The training programme was aimed at improving the skills of local people, who would ultimately be employed in other construction activities, in the northeast region. As an incentive to Thai employees a certificate of competency was awarded to graduating staff. In the five years of building the feeder road 600 personnel were trained.[24] This training programme was further extended to encompass engineering undergraduates from Khon Kaen University who regularly visited the feeder road project.

The project on the whole suffered because of the training programme. It was self defeating. As the Thais gained their certificates or served their bonds they departed for better paying jobs with American companies in Thailand. Overall, Thailand benefited, but the immediate staff shortage caused problems, a fact recognised by the Chief Engineer, Lieutenant-Colonel K.C. Fenton. His November 1966 report recommended increasing New Zealand's staff numbers from fifteen to eighteen, proposed introducing a three month Thai language course for project replacements.[25] The course was adopted, but staffing levels remained the same.

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24. Dickie, R.McL.,"The Thai-New Zealand Road Project," New Zealand Engineering, vol.28, 15 March 1973, p.71

25. Fenton, K.C., Report on the Inspection of the Thai-New Zealand Feeder Road, Army File 239/4/125, November 1966, Ministry of Defence

The availability of plant, and access to adequate supplies of spare parts, were to become serious problems for the project. The availability of spare parts was hampered by the distance from the project field to Maha Sarakham and the limited range of parts available, a problem accentuated by a demand for parts by United States forces fighting in Vietnam. This unavailability of parts in turn caused the unavailability of plant.

As the project progressed and breakdowns increased, the unsuitability of the plant in Thai conditions was revealed. Mistakes had been made as the New Zealand press pointed out:

> Cheapest was the Winner
>
> The purchase of the earthmoving and road building equipment was put in Army hands. Working by the rule-book the Army invited separate tenders for the supply of each piece of equipment - and then bought the cheapest of each. As a result there are many different makes of machinery from several different countries with virtually no spare parts interchangeable. In fact, spare parts for some machines were unobtainable in Thailand. And to make things worse some machines turned out to be unsuitable for the conditions in which they were to be used. (26)

There were other problems. The equipment and plant could not cope with the extremes of temperature and the fine laterite dust which clogged filters.

By the end of 1966, the project's earthworks were complete up to the fourteen kilometre mark, and a base camp had been established at that mark and at the twenty kilometre peg.

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26. Evening Post, 8 November 1968.

For this project a method of road construction had been developed by the Thai Highways Department that used local resources as much as possible. Once the proposed route was cleared, a compacted subgrade as much as three metres in depth was laid. A sub base of fifteen centimetres was then laid followed by a base course layer. The base course layer was a mixture of cement and either laterite, silty sand or crushed stone, depending on which source was most readily available and suitable. The first 100 kilometres of the road used laterite base course while the last forty kilometres used basalt. These materials, when mixed with cement and water, formed a hard base upon which the seal was laid.[27]

Throughout the project there was a constant need for information on the location and suitability of local construction materials, many of which proved unsuitable as roading material. To meet this need a soils laboratory was established with a geological prospecting team, and with a team to monitor and test the construction material at each phase of the road building.[28] The soil testing skills learnt by the New Zealand sappers while working on Operation Crown and with the Tauranga County Council prior to embarkation, were now proved to be invaluable.

This ambitious feeder road project was the largest aid programme undertaken by New Zealand in its total commitment to the Colombo Plan. The project was regularly visited by members of Thai local government and my municipal officers, as well as senior Thai Government officials. New Zealand's Ambassadors in Thailand, Major-General Sir S. Weir and

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27. Dickie, R. McL., "The Thai-New Zealand Road Project", New Zealand Engineering, vol.28, March 1973, pp.67-68

28. ibid, p.68

the Honourable E.H. Halstead, regularly visited the project, escorting such New Zealand dignitaries as the Minister of Defence, the Honourable D.S. Thompson, Lieutenant-General L.W. Thornton and Mr Norman Kirk MP, Leader of the Opposition. Military dignitaries from other nations also visited the project, with representatives from the American Army, the Royal Engineers and Royal Australian Engineers paying particular attention to the work of the New Zealand Sappers. Indeed, during the five years of the project over one thousand people visited the project, half of the number being accommodated at 5 Specialist Team's base at Maha Sarakham. (See Photograph 7.2).

By July 1967, the earthworks for the road had progressed to the 25 kilometre mark, but work had slowed dramatically with the arrival of monsoon rains. The heavy rain invariably damaged the earthworks, often washing out culverting.[29] Only another 4 kilometres of earthworks were completed by December 1967 - the project being assessed at 21% complete. The slow progress resulted from a manpower shortage which continued despite two extra New Zealand servicemen being sent to Thailand.

> The project does not have enough manpower in the workshops to keep the equipment serviceable to enable all the project's functions to proceed simultaneously. (30)

The team's staffing problem was further accentuated by the departure of the original staff. An increased New Zealand commitment to South Vietnam made it difficult to increase the establishment of 5 Specialist

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29. 5 Specialist Team (Road Construction) RNZE, Monthly Report July 1967, Army File 239/4/125, vol.1, Ministry of Defence

30. Annual Report of Thai-New Zealand Road Project for 1967, Army File 239/4/125, vol.1, Ministry of Defence

PHOTOGRAPH 7.2

NEW ZEALAND DIGNITARIES VISITING THE PROJECT

Left to Right: Major R.K. Rutherford and the Thai Project Manager Suphol Dhevaphalin show a handful of laterite to Major-General W.S. Mekinnon during his visit in 1966

SOURCE: Programme for Dedication Ceremony of Borabu-Buriram Highway, December 15, 1971

Team. The instigation of a Thai language course for replacements also limited the amount of time available for the new staff to familiarise themselves with their responsibilities.[31]

The replacement of 5 Specialist Team RNZE senior officers in November 1967 saw Major R. McL. Dickie appointed New Zealand Project Manager, while Major R.T. Bennett and Major F.A. Woollam (RNZEME) assumed command as New Zealand Project Engineer, and New Zealand Workshop Manager respectively. The New Zealand staff number was increased to eighteen members, with two mechanical engineering staff being appointed to the Workshop in an attempt to improve machinery availability.

Roading progress was slow through 1968 as Thai contractors failed to fulfil contracts. Many of the contractors were undertaking other work and in their attempts to make up the contract deficiencies on the feeder road project were overloading vehicles.

> Thai trucks carrying loads of laterite for use on the road are normally loaded to twice the normal truck capacity. Labourers shovelling the loose red material are cheaper than a tipping device, so the Thai contractors load 17 ton on a high-sided 10 tonner and simply have the labouring gang unload it with shovels. To carry such a load tyre pressure must equal 90 lbs. (32)

The damage done by the overloaded trucks meant completed roading was constantly under repair.

In March 1968, many of the project's problems were discussed during a Thai-New Zealand Conference on the road project. The conference,

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31. ibid,

32. The Waikato Times, 28 October 1968

although deploring the delays, believed that the building of the road and the simultaneous training of Thai personnel were being achieved successfully.[33]

Even so, the project delays were also of concern to the Thai National Economic and Development Board who employed an economist, Dr W.M. Wallace, to examine the problems of the feeder road project. His report, released in March 1969, was forwarded to the New Zealand Project Manager. The Report outlined a number of socio-economic problems which were serously affecting the project but could offer no solutions to the problems.

The report stated that because of the limited project budget the wages were poor compared with staff on private projects. The Thai workers responded accordingly by reducing their worktime from eight hours to three or four hours a day, so their hourly rate for actual work was competitive with that being paid in the private sector.

To supplement the poor wage, or in the contractor's case, to pay traffic fines for overloading, the project workers would use project equipment to do private work for landowners or villages.

For those who were unable to have access to prebendal income supplements, some would take on-the-job leisure:

> The operator or mechanic, having little access to income supplements, simply takes his in the form of on-the-job leisure. He does so both indirectly

33. 5 Specialist Team (Road Construction) RNZE, Month Report March 1968, Army File 239/4/125, vol.1, Ministry of Defence

> and ruinously. The operator must create excuses not to work and the optimum form of behaviour, given his goals, is systematically to ignore equipment maintenance checks. Thus engines burn out for lack of oil or failure to clean dust cleaners. Simple lube jobs are not done so bearings will burn out. He probably stops short of deliberate sabotage but this isn't necessary to achieve his goal of a 3-4 hour average work day. Besides the job can be hot and very dusty.[34]

There was little the small New Zealand or Thai project staff could do. The 'system' was self-reinforcing and self-perpetuating and occupied many levels of the project hierarchy.

> Supervisors realise what is going on and why. They both sympathise with it and support it, again indirectly. They also feel helpless to stop it. They feel this way because they are helpless. To create the facade of legitimization supervisors may give only verbal spares requisitions which, of course, are easily 'forgotten'. When badgered into written requisitions, these are often processed by too many hands and each reviewing official may let them sit for days in his desk before approving them, etc. Thus equipment remains on deadline weeks or months longer than necessary. But, if equipment clearly does not work, the operator's on-the-job leisure time is legitimized as is the mechanic's. (35)

Attempts were made to increase supervision of workers and contractors but due to the nature of the problems and the small number of senior project staff little could be done.

One delaying factor that could never be altered was the arrival of the monsoon season. As a consequence, this period of non-construction

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34. Wallace, W.M., "Transportation Sectoral Goals:on Strategy: A Reappraisal", 4 February 1969. (A paper presented to the National Economic Development Board, Ministry of National Development, Thailand). 5 Specialist Team (Road Construction) RNZE, Monthly Report February 1969, Army File 239/4/125, vol.2, p.2, Ministry of Defence
35. ibid, pp.2-3

was used to overhaul the roadmaking machinery. The hard physical conditions under which this machinery worked meant regular overhauls were necessary. As spare parts for machinery were always in short supply, a condition further accentuated by the pilfering that occurred from the workshop store, it was difficult to keep machinery operational. In one case stolen machinery parts were eventually located 500 kilometres away in the spare parts store of a Thai contractor who had similar equipment to that being used by the New Zealanders.[36]

In June 1968, the project's slow progress became an issue in the Thai press. An unidentified Thai official claimed that the New Zealand Army Engineers on the feeder road project were 'greenhorns' who knew nothing about road building.[37]

There was one small smattering of truth in this statement as the New Zealand team experience at building sealed roads was limited. Being unfamiliar with Thai conditions the New Zealand Army Engineers had relied upon guidance from the more experienced Thai engineers, and over the past eighteen months of the project had become proficient at sealed road construction. Advisers from the New Zealand Ministry of Works had also been appointed in April 1968 to provide additional expertise in sealed road construction.

A visit by New Zealand journalists in October 1968 reviewed the project at various levels. Reporters from all the major newspapers visited the base camp at Maha Sarakham and traversed the completed portion of the

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36. Chick, F., (Interview with Stores Adviser for Project November 1969-October 1970). 28 December 1982.

37. Evening Post, 5 November 1968

road. A reporter for the Evening Post recognised that difficulties in staffing were consistent with other road projects undertaken by the Japanese and Australian teams working in the Thailand feeder road programme. He noted that a major problem for the New Zealand-Thai Project was mechanical breakdowns, and the lack of spare parts, factors which escalated the costs and delayed the completion. He insisted:

> New Zealand will have to pay out substantial amounts for equipment and spares if it is to prevent its own road scheme becoming an embarrassment. Basically it is a sound project and one which New Zealand could feel proud of if it were moving ahead faster. Originally it was scheduled for completion in 1971. Now it will be at least 1973. (38)

The journalists were also interested in the families who had accompanied their husbands for the duration of their feeder road tour of duty.

How did these families fare? Upon arrival at the Base Camp at Maha Sarakham, few facilities were available. Medical care was provided at the Maha Sarakham hospital and at the United States Army hospital at Korat. Medical advice was essential during the initial settling in period as the families adjusted to the humid conditions and dietary changes. No educational facilities were provided for the project children, all schooling being done by correspondence course, under the supervision of the parents.

By February 1969, the base camp had been extended to provide a swimming pool, library, and a recreation building for both the New Zealand

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38. Evening Post, 5 November 1968. A similar statement is recorded in the Chief Engineer's Report for 1967

and Thai staff. Films were held regularly and throughout the project 5 Specialist Team sports representatives played cricket, rugby and baseball against teams from Maha Sarakham Teachers College, Khon Kaen University, and the American soldiers based at Korat and Roi Et. The New Zealand team, whenever possible, assisted the Americans and helped to rebuild a bridge at the entrance to the United States camp at Roi Et. On one occasion the sappers had provided directions to a lost American Chinook helicopter crew that landed at the feeder road twenty-nine kilometre mark.[39]

By January 1969, work had advanced only to the fifty-five kilometre mark and the project was behind schedule. Machinery availability was now at its lowest with almost none of the large dozers or scrapers available for use. The wet season had lasted longer than usual, into January, with eighty-one millimetres of rain falling instead of the normal average rainfall of 3.8 millimetres.[40]

To speed the project's completion the Thai Government increased its machinery commitment to the project in May 1969. Until that point, of the ninety-eight units of roading equipment used, the New Zealand Government had contributed forty-two. The extra equipment was drawn from the Thai Highway Department's reserve stock while some equipment was taken from other roading tasks.[41]

Although increasing its machinery commitment to the feeder road project

39. 5 Specialist Team (Road Construction) RNZE, Monthly Report January 1969, Army File 239/4/125, vol.2, Ministry of Defence

40. ibid,

41. Dickie, R. McL., "The Thai-New Zealand Road Project", New Zealand Engineering, vol.28, March 1973, p.67

Thai internal financial difficulties forced the Thai Government to reduce its financial commitment to the project. Thailand faced a deficit for the 1969-70 year from twenty million baht (NZ$857,000) to eighteen million baht (NZ$771,000). A supplementary budget was submitted for seven million baht (NZ$300,000) by the Project Managers who were advised by the Director of Thailand's Provisional Roads Division:

> ...that this can only be justified by a substantial additional plant contribution from New Zealand and that if the project believes it will use more than 18 million baht, he will have to consider withdrawing some of the equipment recently sent to the project. (42)

Not wanting any more delays, the New Zealand Government sent the necessary machinery. The commitment of machinery to the project by both Thailand and New Zealand assured success. Between February 1969 and February 1971, the equipment inventory increased from ninety-eight pieces of equipment to 220. New Zealand's contribution to the equipment total was ninety-six pieces. The increased amount of machinery, however, only aggravated the spare parts problem. However, the New Zealand Government, when resupplying the project, tendered for compatible equipment the parts of which could be interchanged with Thai machinery availability.[43]

At the end of the wet season, 1969, the New Zealand staff was replaced, with Major B. Jenkins being appointed New Zealand Project Manager, Major D.J. O'Brien New Zealand Project Engineer and Major P.Q. Hogan (RNZEME) New Zealand Workshop Manager. To take full advantage of the renewed commitment of the New Zealand and Thai Governments, the team was increased to include two more members from the New Zealand Ministry of Works. To

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42. 5 Specialist Team (Road Construction) RNZE, Monthly Report July 1969, Army File 239/4/125, vol.2, Ministry of Defence

43. Dickie, R.McL., "The Thai-New Zealand Road Project", New Zealand Engineering, vol.28, 15 March 1973, p.67

facilitate better planning and coordination of all aspects of the project, fortnightly conferences between the Thai and New Zealand staff were instigated. These conferences enabled construction problems to be resolved quickly and improved coordination between the various construction and maintenance teams.[44]

Improved weather during the final months of 1969 was a major factor in the increased output from the project. By January 1970, the earthworks had reached the halfway mark, the seventy-seven kilometre peg. In order to maintain the project's momentum it was necessary for the Thai Government to increase its road budget from eighteen million baht (NZ$771,000) to twenty-eight million baht (NZ$1.2 million). The ten million baht (NZ$429,000) supplementary budget proved a financial stumbling block, with the Thai House of Representatives delaying the approval of the new budget until August 1970. This delay caused problems as no long term financial commitments could be made and economies were instigated throughout the project to prevent possible overspending.[45]

Now that the earthworks had reached the half way mark it became necessary to establish a sub-camp at Phayakkaphum Phisai. This camp provided facilities for the project employees and a large workshop to enable all repairs to equipment to be done. A smaller camp had been established at Wapipathum while the sections Borabu-Wapipathum and Wapipathum-Phayakkaphum Phaisi were under construction. A mobile workshop team operated in conjunction with each of the sub-base workshops

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44. 5 Specialist Team (Road Construction) NZRE, Monthly Report December 1969, Army File 239/4/125, vol.2, Ministry of Defence

45. 5 Specialist Team (Road Construction) NZRE, Monthly Report July 1970, Army File 239/4/125, vol.2, Ministry of Defence

providing on the spot repairs for machinery overhaul work being sent either to the sub-base camps or base camp at Maha Sarakham.[46]

The increased quantity of machinery being used was not balanced by an increase in the number of trained machinery operators. To meet this shortage the workshop employed a number of untrained Thai personnel to assist. However, because of a lack of suitably qualified staff the trainees could not be fully supervised. The result was a number of accidents as inexperienced drivers ran machinery into holes, a scraper demolished half of the Phayakkaphum Phisai workshop and 'runaway' vehicles damaged parked equipment.[47]

The project unfortunately was not completed without death to Thai and New Zealand staff. Motor vehicle accidents claimed the lives of two members of the 5 Specialist (Road Construction) Team, Sergeant H.G. Shawcroft (RNZE) and Corporal H.J. Hapeta (RNZEME). In honour of their memory, and as recognition of their contribution to the project, their families were awarded the Most Noble Order of the Crown of Thailand (fourth class) by the Royal Thai Government.[48]

By March 1970, earthworks were at the ninety-seven kilometre mark and forty-three kilometres of road had been sealed. Unfortunately, apart from completing earthworks, little else could be done as contractors failed to fulfil base course contracts. By May 1970 the position was critical.

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46. 5 Specialist Team (Road Construction) RNZE, Monthly Report December 1969, Army File 239/4/125, vol.2, Ministry of Defence

47. 5 Specialist Team (Road Construction) RNZE, Monthly Report February 1970, Army File 239/4/125, Ministry of Defence

48. Programme for Dedication Ceremony of Borabu-Duriram Highway, December 15, 1971, p.7

> The project continues to be hampered by contract failures and delays. No stabilisation has been possible since January solely as a result of the procrastination by the base-course contractors. This contract was let in June 1969 and negotiations have continued since that time... the renegotiation of this contract would mean a loss to the project budget of the full contract price at a time when finance is extremely limited. (49)

The laterite contract for the fifty-seven to sixty-seven kilometre section of the road was fulfilled in August 1970, seventeen months after the contract had been let, while the seventy-four to eighty-four kilometre section was grossly undersupplied with material. A policy change took place as a result of the problems. Contracts were cancelled and project trucks transported laterite to the road.[50]

The 1970 monsoon season did little to assist the project's final stages:

> August saw the worst flooding in over a decade in parts of North and Northeast Thailand, with very heavy loss of life and property. Mahasarakhum and Buriram provinces escaped comparatively lightly although fairly considerable damage was done on the incompleted section. (51)

However, despite these setbacks, the 5 Specialist Team predicted that the project would be finished by December 1971.

The benefits from those sections of the new road now completed soon showed with an increase in the volume of traffic moving into the northeast

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49. 5 Specialist Team (Road Construction) RNZE, Monthly Report May 1970, Army File 230/4/125, vol.2, Ministry of Defence

50. 5 Specialist Team (Road Construction(RNZE, Monthly Report September 1970, Army File 230/4/125, vol.2, Ministry of Defence

51 5 Specialist Team (Road Construction) RNZE, Monthly Report August 1970, Army File 230/4/125, vol.2, Ministry of Defence

region. Cash cropping became a viable source of income as goods could now be transported to the main centres. The building of the road also had wider benefits for the local economies. In building the road, fill was required to raise the road level above the estimated flood levels. To provide the fill large borrow pits were dug. Enterprising peasants soon found a use for the cavities:

> In the wet season all borrow areas were filled with water and became appreciable assets to the peasant farmers who used them variously, as wallowing holes for buffaloes, as fish farms, as the basis for an all-year-round vegetable garden that flourised in the hot dry months, as a location to ret or prepare their kenaf (jute) crop for sale and in conjunction with portable pumps as a source of water for local irrigation. (52)

By January 1971, the belief that the project would be completed by December 1971 was well justified. Earthworks were complete up to the 124 kilometre mark, with the sealing complete to the half-way mark. During this month the New Zealand Chief of Defence Staff, Lieutenant-General Sir Leonard Thornton KCB CBE, and the Secretary of Defence Mr J.F. Robertson, visited the project to review the situation regarding staffing and the possible reduction of New Zealand's commitment to the project. The delaying of the decision on the future of 5 Specialist Team made project planning difficult.

> Until a decision has been promulgated to the project regarding overhaul programmes and rundown of New Zealand personnel, no serious detailed planning can be undertaken in respect of the wet season overhaul this year. (53)

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52. Dickie, R.McL., "The Thai-New Zealand Road Project", New Zealand Engineering, vol.28, March 1973, p.69

53. 5 Specialist Team (Road Construction) NZE, Monthly Report February 1971, Army File 239/4/125, vol.2, Ministry of Defence

Planning was further complicated by a major fire at the sub-base camp at Phayakaphum Phisai on 19 February 1971, a fire which destroyed an oil storage depot and road construction machinery. The fire damage was confined due to the efforts of Sergeant M.R.A. Carter (RNZEME), and Mr C.B. Collins of the New Zealand Ministry of Works. For their exemplary conduct they received a letter of commendation from the New Zealand Ambassador.[54]

The completion of the roading earthworks to Buriram in March 1971 was the beginning of the end for 5 Specialist Team as the return of personnel to New Zealand began. However, the roading equipment provided by New Zealand remained in Thailand as a gift to the Thailand Highway Department.

By May 1971, the feeder road was sealed to the 114 kilometre mark and in the following three months fourteen members of 5 Specialist Team returned to New Zealand. By this time the Thailand Highway Department had trained personnel capable of completing the road. The sub-camp at Phayakkaphum Phisai was dismantled and the road was signposted. A small team remained behind to assist in the wet season vehicle repair programme which was completed in November.[55]

The road (see Photograph 7.3) was completed in early December and opened by the Deputy Chairman of Thailand's Nation Executive Council on 15 December 1971. The New Zealand Ambassador, the Hon. E.H. Halstead, the Chief of General Staff, Major-General L.A. Pearce CBE, and Major

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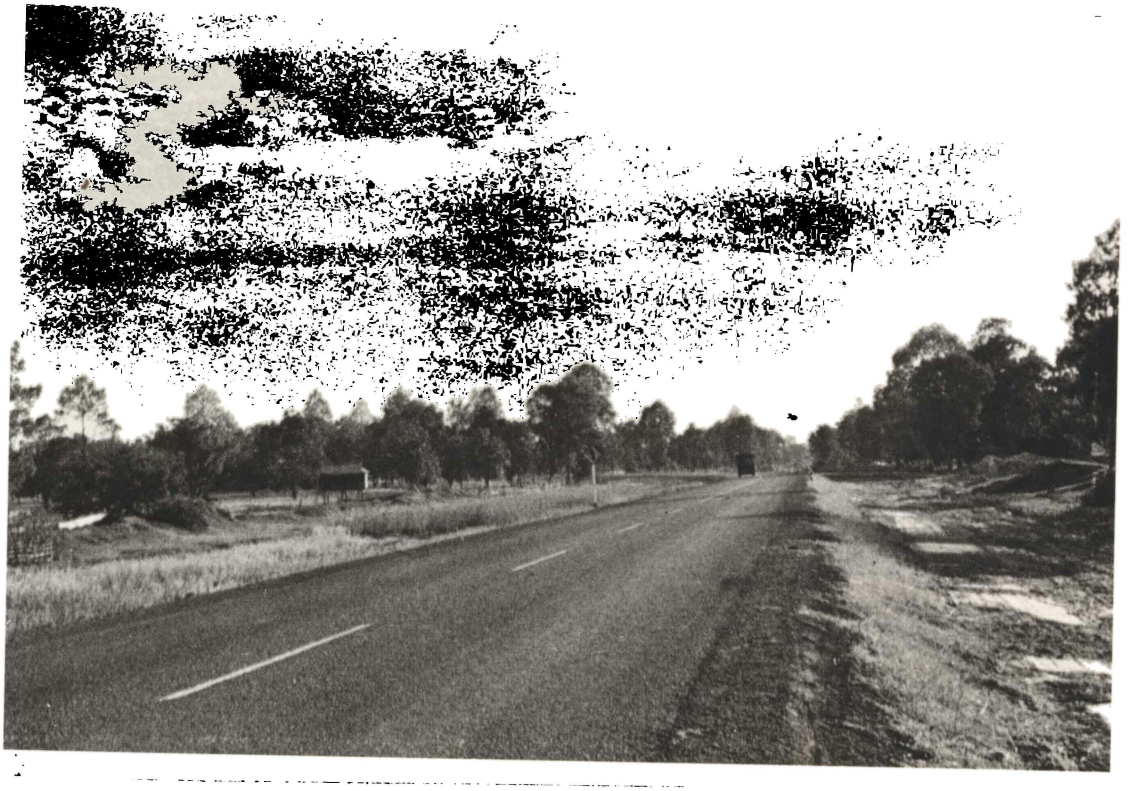
54. ibid,

55. 5 Specialist Team (Road Construction) RNZE, Monthly Report November 1971., Army File 239/4/125, vol.2, Ministry of Defence



PHOTOGRAPH 7.3

THE COMPLETED BORABU-BURIRAM ROAD

B.G. Jenkins represented the New Zealand Government, the New Zealand Army and the men and families of the Royal New Zealand Engineer and Royal Electrical and Mechanical Engineers who built the road.

There is no doubt of the benefits the feeder road project brought to the local Thai economy through the development of the northeast region and Thailand. Since its completion the region has shown substantial economic growth.

> Fares from villages to district towns have been halved and travel time reduced to almost a quarter. Farmers are changing to cash cropping and there has been an upsurge of trading in produce and consumer goods in the shops, many of which have been built since 1968. A new salt extraction industry has developed near Wapipathum and the extraction of timber has been made easier south of Satuk.
>
> The Government has accelerated administrative improvements. New schools, post offices, housing and water treatment stations and reticulation have been built, and market places, police stations and other government offices have been upgraded. Many more children are able to attend secondary school and other government staff who are now able to commute daily from the provincial and district town to the many villages. (56)

The training of Thai staff was an important aspect of the project. Despite language difficulties over 600 Thais received training in various aspects of engineering. These trained personnel have now been absorbed into other construction activities in the region, thus reducing Thailand's dependence on overseas expertise. The project also provided work skills for local labour.[57]

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56. Dickie, R.McL., "The Thai-New Zealand Road Project", New Zealand Engineering, vol.28, March 15, 1973, p.72

57. Address by H.E. The Honourable E.H. Halstead, New Zealand Ambassador. Programme for Dedication Ceremony Borabu-Buriram Highway, 15 December 1971, p.2

The Colombo Plan financed project therefore achieved its primary aim of benefitting the economic development of the northeast region. In doing so it may have averted the spread of communism into Thailand but only time will tell.

If the activity of communist insurgents resumes in Thailand, then the work of the New Zealand Engineers will be of important strategic value. The airport built during Operation Crown in 1964, can be used as originally intended, as a medium range tactical airfield for operations against insurgents. The feeder road will allow better and faster access for ground forces into areas previously used by insurgent forces.

The New Zealand Government's commitment to the project was NZ$2.57 million. The figure if adjusted to include the residual values of spare parts, machinery and buildings which remained in Thailand for use in future highway construction, may be as high as NZ$3.66 million.[58]

For the New Zealand Army Engineers who served in Thailand, the project has provided invaluable experience in tropical road construction techniques especially laterite construction methods and soil testing. The project was one of the most taxing undertaken by the Royal New Zealand Engineers. The project's completion was hailed with a sigh of relief.

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58. Dickie, R.McL., "The Thai-New Zealand Road Project", New Zealand Engineering, 15 March 1973, p.72

CHAPTER EIGHT

SONS OF THE ISLANDS

THE ROYAL NEW ZEALAND ENGINEERS IN THE PACIFIC 1945-1981

New Zealand's defence establishments have a long and varied relationship with the Pacific region. During World War I, the Pacific was New Zealand's first theatre of war, with the bloodless capture of the German colony of Samoa in August 1914. In World War II the Pacific islands of Fiji, Tonga, New Caledonia, the Solomon Islands and Norfolk Island, formed the periphery of New Zealand's defences. In both wars the New Zealand Army engineers played a role in either securing possession of the Pacific islands or building their defences.

Since World War II and until the early 1970's, New Zealand's military commitments have been within the storm centres of Southeast Asia. New Zealand has committed military forces of various sizes and components to Japan, Korea, Malaya, Thailand and Vietnam. The Pacific has not been entirely ignored with New Zealand Army officers, or the Royal New Zealand Engineers, assisting in the administration and training of the Royal Fiji Military Force and the Tongan Defence Force since the late 1940's.

It was not until 1973 that New Zealand formalised its defence links with the Pacific. Defence cooperation between the military forces of Fiji, Tonga and Papua New Guinea was given new direction with the introduction of the Mutual Aid Programme (MAP). The programme is an expansion

of New Zealand's foreign aid policy and is aimed at assisting MAP nations to develop a self-reliant defence force.[1]

Emphasis has been placed on training the Pacific armies in military activities which could be of benefit both in national defence and development. A large technical trade training programme is being undertaken to provide Rural Development Units and trained engineers within the Pacific armies. The responsibility for this technical training falls upon the School of Military Engineering at Linton.[2] In return for this assistance by New Zealand, the New Zealand defence forces are allowed to exercise in the Pacific area. Such training broadens the experience and quality of the New Zealand soldiers.

The Mutual Aid Programme, however, is only part of New Zealand's defence force involvement in the Pacific. A Bilateral Aid Programme, funded by the New Zealand Ministry of Foreign Affairs has used the skills of various Army Corps. The programme design at providing practical and functional aid has used the Royal New Zealand Engineers in various construction projects in Tonga, Tuvalu and the Solomon Islands. This practical assistance has been further used by other Government departments. The Ministry of Maori and Island Affairs* used the Army engineers to build a harbour on Atiu in the Cook Islands.

For a long period the New Zealand Army has been available for disaster relief operations in the Pacific. The involvement of the RNZE has proved

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1. Sinclair, P., "Defence and Cooperation", New Zealand International Review, Vol. VI, No.3, May-June, 1981, p.12
2. ibid, p.13

* In 1975, the Department of Maori and Island Affairs closed to be replaced by the Department of Maori Affairs.

of great assistance to the Fijian and Gilbert and Ellice Island Governments.

Overall, the Royal New Zealand Engineers post-war association has proved of benefit to the Pacific nations and the Corps. However, its post-war links were slow to develop. In 1954, Lieutenant R.McL. Dickie RNZE, was appointed Works Officer for the Fiji Military Force while in 1957, Lieutenant-Colonel G.P. Sanders RNZE, was appointed Commander of the Fiji Force. It was not until 1963 that the first Royal New Zealand Engineer detachment was sent to aid a Pacific nation. Between 1963 and 1965, sapper personnel were doing reef gapping work in the Tokelau Islands. The first detachment of five men led by Lieutenant D.W.S. Moloney RNZE, arrived in May 1963. The two month stay did not complete the task so another team was deployed in May 1964. The completed task allowed easier access through the coral reef for trading boats.[3]

On a recommendation from the British Army, the next Royal New Zealand Engineer's aid team was deployed to Tarawa Island in the Gilbert and Ellice Islands. Tarawa Island suffered from an acute water shortage so as part of a British sponsored development programme a water supply scheme was instigated.

Due to a shortage of suitable project staff on Tarawa Island, British Army assistance was sought for the project. On their recommendation a three man Royal New Zealand Engineer Team, led by Captain D. Sampson RNZE, was sent to start the project.[4]

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3. Moloney, D.W.S., Tokelau Islands Reef Gapping Report, 1964, Chief Engineer's Office, Ministry of Defence

4. Reveille, May 1972

The sappers role was to supervise and instruct the laying of a water pipe and the building of a reservoir. The 5.6 kilometre PVC pipeline was built in two parts. The first 3.2 kilometres were buried in a tidal passage between the villages of Bairiki and Betio. A further 2.4 kilometre pipeline joined the water reservoir to Betio. The reservoir project itself involved the mixing and laying of 1250 square metres of concrete to form the walls, roof and floor of the reservoir. Concrete slabs were used to line the 2640 cubic metre reservoir.[5]

Construction on such a large scale required considerable effort in assembling equipment, establishing the site, and training local labour, so the Army Engineer component was retained until the project's completion. Stringent tests to ensure the required strength of concrete were carried out by the New Zealand Ministry of Works team in Fiji. The project was finally completed in March 1973, when the project was handed over to the local administration.

Just prior to completion, Hurricane Bebe swept through the Gilbert and Ellice Islands doing extensive damage in Funafuti. Again, at the request of the British Government, an Army Engineer team was employed from January - March 1973 assisting in the reconstruction of damaged seawalls, houses and roading.[6]

Hurricane Bebe also left a trail of destruction through the Fiji Islands. At the time the hurricane hit, the New Zealand Army were preparing for a jungle exercise in Fiji. The exercise was modified

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5. New Zealand Army Public Relations Office, Press Release, The Engineers in Tarawa, 1973, Ministry of Defence

6. New Zealand Army Liaison Letter, No.98, 1973

to assist in disaster relief and an eleven man engineer detachment from One Construction Squadron RNZE was included. The team led by Major W.E.M. Stewart, worked in the Lautoka region for the two week exercise, repairing damaged buildings.[7]

The small RNZE team made such an impact that the Fiji Government asked for Army Engineer assistance in their school rebuilding programme. In response to this request the New Zealand Government sent a twenty-five man Royal New Zealand Engineer team led again by Major Stewart. The team arrived in November of 1972, and worked in Lautoka's Western Division rebuilding the damaged uninsured schools. The Western Division extended from Nandi in the southwest to RakiRaki in the north, an area which included some of the more isolated mainland villages in Fiji. The sappers were deployed individually to villages where the local school committee was responsible for feeding and housing their guest. The village would also supply the necessary labour to transport the materials and assist in the rebuilding.[8]

The degree of reconstruction varied between villages and wherever possible the sappers taught building skills to the local villagers. The sappers soon earned the respect of their hosts who on occasions made their engineer a honorary high ranking member of the village hierarchy. The first team, complete with souvenirs and gifts from their villages returned to New Zealand on December 22, having rebuilt forty-four schools.

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7. Stewart, W.E.M., Report on RNZE Hurricane Relief Operations, October 1972-March 1973, Chief Engineer's Office, Ministry of Defence, p.1

8. ibid, p.2

In early January 1973, a nineteen man engineer team returned to Fiji to begin the Yasawa Islands schools. Nineteen schools were repaired in time for the new school year.[9]

The work of the Royal New Zealand Engineers did not finish, as at the request of the Fiji Government, an Army Engineer team was sent to hurricane damaged Rotuma Island to rebuild 302 damaged houses. The rebuilding programme involved the sappers supervising and teaching the Rotumans to assemble prefabricated housing. The programme was so successful that the sapper trained Rotumans completed the building programme.

> The houses were built in two stages; Stage One being the columns and roof; Stage Two being the concrete block walls. Plans were drawn up in New Zealand and templates were made to enable the maximum amount of prefabrication to be undertaken before onsite assembly. Three Royal New Zealand Engineer non-commissioned officers were employed in the prefabrication area assisted by up to eighty Rotumans. A further eight non-commissioned officers controlled the preparation and assembly by the Rotumans at each site. An important aspect of the operation was the training of Rotumans in house building skills. By the time the team returned to New Zealand sufficient [Rotumans] had been trained to complete the task, 113 houses having been completed and a further 87 almost completed to Stage One. (10)

In 1973, with the withdrawal of New Zealand from the conflict of South East Asia, military policy turned towards the Pacific.

> Defence activities were regarded by the Government as an integral part of New Zealand's approach to the

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9. ibid, p.5

> Asian and Pacific Region. Like the Asian countries themselves, New Zealand now places primary emphasis on achieving security through the development of regional confidence, stability and cooperation. (11)

The need for defence cooperation arose from the encroachment into the Indian and Pacific Ocean of the communist states of Russia and China.

> The situation in the South Pacific has changed considerably during the 1970's. Most of the island groups have achieved independence and are actively pursuing their own policies both within and outside the region. A number of outside powers, including the Soviet Union and China, have responded by establishing diplomatic contacts with the island governments, though none has yet attempted to assert a military presence. The South Pacific is no longer insulated against outside pressures. The tranquility of the South Pacific is of great importance to New Zealand. Considerable efforts are being made to strengthen our relations with the island states, through political consultation and economical cooperation, both on a bilateral and on a regional basis. These efforts are the more effective because the island states know that New Zealand has the means of helping them in time of need. (12)

To fulfil New Zealand's defence role in the Pacific a Mutual Aid Programme (MAP) for Defence was introduced. The programme consolidated and expanded New Zealand's defence links with Asia and the Pacific. The aims of the programme are:

(a) Support New Zealand's foreign policy by maintaining and strengthening bilateral relations in the defence field with countries whom New Zealand has a common interest.

(b) To contribute to the effectiveness and self reliance of the forces of cooperating countries without entering into operational commitments.

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11. A.J.H.R., A.1, 1974, p.14

12. Defence Review, 1978, p.13

(c) To facilitate opportunities for New Zealand forces to gain experience in training and operating in tropical environments.

(d) To facilitate visits to New Zealand by elements of the defence forces of MAP countries for the purpose of exercising and training with New Zealand forces. (13)

Under the auspices of the Mutual Aid Programme, the Royal New Zealand Engineers have expanded their role in the Pacific. To aid the development and training of Pacific military forces, and to assist their economic development, a technical training programme was begun. Fiji quickly adopted the programme.

> Greater emphasis was given to on the job specialist training and attendance at formal courses in order to meet the specific requirements of the Royal Fiji Military Forces. This training was by no means confined to military skills. Trade training was of particular benefit to the wider Fijian community. In 1974 a New Zealand Army engineer was seconded to Fiji to establish a trade training scheme in the Royal Fiji Military Force and the following year a second engineer helped establish a Rural Development Unit. The aim of both organisations was to give unemployed young men trade training to enable them to be used on development work in rural areas. (14)

The Rural Development Unit, since its inception has grown to play an important role in Fiji's national development. The Unit is used in the remote islands and highland areas upgrading tracks, connecting village water supplies and assisting in local farming schemes. The training of personnel for the unit is now undertaken by military engineers of the Fijian military force, who have been trained at the Royal New Zealand

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13. DM 67, Paragraph 102, Army General Staff, Ministry of Defence
14. New Zealand Army Liaison Letter, No.102, 1975

Engineers School of Military Engineering at Linton. The training of Fijian soldiers at the school began in 1974 and since then a steady stream of Fijian soldiers have received their military engineering education.

Tonga, the only other Pacific Island to have a defence force, has sent 144 soldiers to train in New Zealand in the last eight years. The School of Military Engineering's intake has steadily increased as the Tongan Government realised the benefits of the programme for their nation.[15]

As the Mutual Aid Programme title suggests New Zealand also derives some benefits from assisting the Pacific nations. Training exercises under different climatic and operational conditions not only broadens the experience of the Army but tests its flexibility and adaptability in these diverse conditions. In keeping with the New Zealand Foreign Policy the Army engineers fulfil a practical aid function when taking part in Pacific exercises.

In 1975, a small engineer team was deployed during 'TROPIC DAY 19' exercise in Fiji to assist in tunnel clearance tasks in Nandi. The tunnels were constructed in World War II as ammunition storage depots, and after clearance by the sappers, were used in the Nandi Agricultural Scheme.[16]

'TROPIC RATA', the Pacific exercise in 1977, saw 2 Field Squadron RNZE,

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15. Sinclair, P., Defence and Cooperation, New Zealand International Review, vol.VI, No.3, May/June 1981, p.13

16. New Zealand Army Liaison Letter, No.102, 1975

commanded by Major A. Anderson, deployed in the Nambukavesi area (Viti Levu) constructing a ten metre dam, laying 3 kilometres of pipe and constructing footbridges between villages on the tidal flats.[17]

The Mutual Aid Programme points military assistance towards the Pacific. However, for the Royal New Zealand Engineers, their involvement has gone a step further as the sappers directly participate in bilateral aid programmes funded by the Ministry of Foreign Affairs and the Department of Maori and Island Affairs.

The first of these aid projects began in 1973 with a request from the Cook Islands Government for assistance in building a new harbour for Atiu Island. Although a self-governing nation, the Cook Islands is assured of New Zealand financial assistance for development projects, through the island's close links with New Zealand.

The lack of a harbour and wharf facilities at Atiu Island made the exporting of crops impossible except in the calmest weather when lighter boats could be loaded. The project was funded by the Department of Maori and Island Affairs and designed by the New Zealand Ministry of Works:

> The task was to drill, blow and excavate to a depth of 3 metres (10ft) a marina, at right angles to the existing cut, covering an area of 45 metres by 15 metres. To further prevent wave action in this protective marina a 2 metre high mass concrete wall is to be constructed around the excavation perimeter. On the shore side of the marina, a coral cliff is to be benched back, until a loading quay 2 metres above water level and 6 metres wide and 45 metres long will

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17. Ibid,

be constructed. To connect this quay with the existing island roads approximately 230 metres of access roading is to be incorporated at one end of the quay. (18)

Three teams of Engineers were sent to Atiu between June 1974 and July 1975. The first team led by Captain G.S. Woods RNZE, arrived in June 1974 and established a base camp at the school in the small village of Mapumai. The team's primary task was to establish the base camp and begin harbour development by blasting the coral reef around the new harbour so work on the outer sea walls could begin. The team, with the aid of village people, also established and operated a crushing plant to produce aggregates for the concrete.[19]

Throughout the Atiu project supplies, equipment, heavy machinery and personnel were brought to and from the island by coastal trading boats. Originally, it was hoped the RNZAF could provide an air service onto the island but the Atiu 'runway' proved too short.

An Engineer non-commissioned officer stationed in Rarotonga organised shipments to Atiu Island. Shipping delays caused by poor weather and unpredictable shipping timetables made a regular supply schedule impossible and hindered the projects. Often essential parts and equipment took weeks to arrive. On extreme occasions the RNZAF would parachute equipment and parts in for the team.

In September 1974, the second team led by Lieutenant J.S. Hollander, arrived to replace Captain Woods and his men. After a formal welcome by

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18. Hollander, J., Report on Atiu Harbour Project Second Detachment, September 1974-January 1975, Annex B, p.1, Chief Engineer's Office, Ministry of Defence

19. Woods, K.J., Report on Atiu Harbour Project, First Detachment, June-September 1974, p.1, Chief Engineer's Office, Ministry of Defence

the Cook Islands Government, an honour extended to all teams, the sappers left for Atiu.

The second team's work built upon the first team's work. It involved completing the new sea wall and the rebuilding of the old sea wall. Once completed, the harbour entrance was sealed and the area pumped dry for excavation. Problems followed as explosive charges laid to loosen the coral in the harbour area and sea wall area, extensively fractured the coral mass allowing water seepage and destabilising the sea wall. Sea wall stabilisation was achieved by placing reinforcement rods into the fragmented reef. Seepage, however, was never completely controlled and in combination with a high tide would flood the enclosed harbour area. The poor weather conditions also played a major role in slowing the project's second phase progress as one third of team two's task time was lost. When dry conditions prevailed, the sappers worked around the clock in eight hour shifts, excavating the harbour.[20]

In late November, after a visit by the Chief Engineer Lieutenant-Colonel Rutherford and Ministry of Works official Mr B.G. Smith, design changes were made to improve access to the quay. These changes in the project prompted the sending of a third team to Atiu. Led by Captain Jasonsmith, the thirty-one strong team arrived in Atiu in January 1975. The excavation tasks were rapidly completed after the RNZAF airdropped an hydraulic excavator on to Atiu Island. Having completed the excavation a slipway, ring road and quay wall were built. By July the project was complete and after official Government and Atiu Island farewells the

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20. Hollander, J., Report on Atiu Harbour Project Second Detachment, September 1974-January 1975, Part V, p.1, Chief Engineer's Office, Ministry of Defence

third team returned to New Zealand.[21]

All detachments proved popular with the Atiuan population. The sappers were considered 'Sons of the Islands' and as such were invited to all village festivities (umukais). The visit of Lieutenant-Colonel Rutherford and Mr B.G. Smith provided an opportunity for the Atiuans to show their appreciation of the work done by the Royal New Zealand Engineers.[22]

Sunday was the rest day for the sappers who joined in the village activities. Attendance by the sappers at the island's church service and parade further earned the respect and friendship of the Atiuans. Other activities promulgated included caving, scuba diving and fishing. The Corps of the Royal New Zealand Engineers provided a small library for project personnel who donated it to the island's people at the project's completion.

Whenever possible, the detachments hosted functions, films, hangis and dances for the Mapumai villagers. The biggest occasion, however, was the arrival of a shipment of icecream for the sappers. For many Atiuan children this was their first taste of icecream and the event is held for posterity in an Atiuan children's song.[23]

The completion of the project was not the end of the Army Engineers involvement in Atiu as a small team returned in 1977 to repair the

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21. Jasonsmith, G.R., Operation Atiu Harbour, Third Detachment Project Report, 7 January - July 1975, Chief Engineer's Office, Ministry of Defence

22. Hollander, J., Report on Atiu Harbour Project Second Detachment, September 1974 - January 1975, Part IX, p.4, Chief Engineer's Office, Ministry of Defence

23. Gladstone, A., Interview with Atiu Liaison Officer, 14 December 1982

scour damaged slipway, construct wave baffles and improve access into the harbour.[24] For the 100 soldiers who worked on the Atiu project it was an unforgettable and rewarding experience. For the Atiuans, it opened up new export potential which is helping to develop the island's economy.

Aid tasks varied in size between 1973 and 1978 with a number of small tasks being undertaken. Work in Tonga by a small team of Engineers provided the Tonga-tapi villages of Hassini, Fuamotu and Nakoto with running water. At the same time a number of aid tasks were reconnoitred as possible projects for the Ministry of Foreign Affairs Aid Programme The Soviet Union and China were offering aid, economic and diplomatic links with Tonga. New Zealand viewed this as a threat to New Zealand security and the security of the whole Pacific area, so increased its aid to Tonga and other Pacific nations to prevent communist intrusion.

One of the Tongan projects reconnoitred was the building of a causeway between Lifuka and Foa Islands in the Ha'apai Group. The task recommended by the Ministry of Foreign Affairs, was accepted by the Royal New Zealand Engineers as it was small enough not to overburden the Royal New Zealand Engineers manpower resources already deployed in tasks in Moscow, Antarctica and New Zealand. The new causeway when built would enable better communications between Lifuka and Foa Islands.[25]

> The Island of Lifuka is the main island in the Ha'apai group. The main administrative centres are located in Pangai which is situated about the middle of the island.

24. New Zealand Army Liaison Letter, No.107, May-October 1977.

25. 1 Field Squadron RNZE, Report of the 1 Reconnaisance Team, of the Causeway Task between Lifuka and Foa, 1978, Chief Engineer's Office, Ministry of Defence

> Whilst the majority of the Ha'apai population live on Lifuka the soil is not fertile and a large proportion of the agricultural produce for the markets is brought over (by boat) from the more fertile and potentially productive Island of Foa. (26)

The causeway project was undertaken by 1 Field Squadron RNZE, as a training exercise for territorial and regular force soldiers. The estimated completion time of three months was altered as it became obvious that the original reconnaissance work had been inadequate. The first reconnaissance report estimated the total length of the causeway at 400 metres. In the reassessment by the Chief Engineer, Lieutenant-Colonel H.E. Wedde, the gap was measured at 600 metres, and to keep the causeway clear from normal wave action a further 100 metres of access road was required on each side. The causeway project lasted nine months with completion costs escalating from $45,000 to $225,000. Having made the early commitment to complete the project, the Royal New Zealand Engineer resources were expanded to cope with the new tasks.[27] The territorial and regular force contingent who began the project were sent to the Ha'apai group in January 1979. At the originally estimated completion date, Major N.A. Bradley's territorial force team had completed 100 metres of the causeway.

The reassessment of the project by the Chief Engineer in March 1979, required the re-equipping and re-supplying of the project. Personnel and equipment from 5 Support Squadron RNZE were sent to Lifuka and Major Beaver RNZE assumed command of the project.

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26. ibid,

27. Wedde, H.E., Report on Tonga Causeway Project, 6 March 1979, Army File CE 5.34, Ministry of Defence

As with the Atiu project, supplies, equipment and materials were either airlifted to the island or landed by coastal trader. Delays in shipment caused the late arrival of parts and equipment though the project was not seriously delayed.[28]

Causeway materials, with the exception of New Zealand cement, were all excavated from the coral quarries established near the causeway site. Local labour was employed at the quarry site as well as working in the camp preparing food and providing a laundry service for the Engineers. Dump trucks, though small for some of the weight carried, were usefully employed bringing the various sizes of fill to the causeway area.

The causeway construction involved the placing of large boulders (major armour) and smaller gap filling (secondary armour) rock to protect the core material of the causeway. The top of the causeway was then cemented to provide a road surface capable of taking heavy loads. The construction was not without problems as strong tidal conditions and stormy seas caused erosion and undermining of parts of the causeway. Mechanical failures and salt water damage to machinery also slowed progress.

By July, the major armour which formed the causeway sides, had been placed the full length and the infilling process begun. New quarries were located as the infill quota now exceeded the original 19,000 cubic metres. No major problems were experienced during the infilling process

28. Minute to Air Staff from Chief of General Staff, 9 February 1978, Army File CE 5.34, Ministry of Defence

and the project completion date was set at early September. By August only the concreting of the road remained.

The task was completed by September and most of the team returned to New Zealand. A small party of Engineers remained behind to complete the work on the causeway access roads, landscape the quarry areas and supervise the shipment of equipment back to New Zealand. At the official opening on 11 September, the remaining members of the team were introduced to the King of Tonga, then attended a feast at the town of Pangai to celebrate the project's opening.

The military commitments for the Tongan, Moscow, Chatham Islands projects and the ANZUS exercise 'KANGAROO III' in 1979 delayed the next deployment of the Royal New Zealand Engineers into the Pacific. The project was a fifteen week Solomon Islands Bilateral Aid Project funded by the New Zealand and Solomon Islands Governments and finally carried out in 1980. The projects were selected by the Solomon Islands Government and were reconnoitred in December 1978 by a fourteen man team from 2 Field Squadron RNZE, led by Major A. Anderson RNZE.

The reconnaissance team split into five smaller teams, one of which remained at Honiara to act as a liaison office with the Solomon Islands Government. The remaining teams were dispatched to look at village projects on the islands of Gizo, Makira, Malaita and Guadalcanal. The reception of the reconnaissance parties varied. Villagers at Malaita, fearing a repeat of the World War II invasion of their lands, hurled stones at the reconnaissance team.

After a twelve months delay, the preparations for the Solomon Islands work began again with the sending of another reconnaissance party in August 1979. With the projects reassessed, the organisation of the Engineers for the Solomon Islands projects was decided. The various island projects were undertaken by four deployments of Engineers to the Solomon Islands. The sappers were a mixture of territorial and regular force soldiers. The projects provided most squadrons with an opportunity to allow territorial Engineers to undertake some form of tropical training.

The first detachment of sixty men from the 2nd, 3rd Field Squadrons and 6 independent Field Squadron, arrived at Guadalcanal on 28 April 1980. The detachment undertook bridge building tasks on the Marau-Avuavu road and constructed water supply and reticulation facilities at Kopui School, Kuma and Malasia.

The sappers of 5 Support Squadron RNZE, made up the second detachment to the Solomon Islands. Their work on the Island of Makira (San Cristobel) was constructing water supply facilities for the villages of Waimasi, Nukuaesi, Geta, Panisi, Napu School and Naruku.

With the departure of each team back to New Zealand, a new team was deployed in the islands. Atori Wharf on the island of Makaita was the major piece of project reconstruction and was undertaken by the third detachment. The problems in its construction highlighted many of the problems faced by previous detachments.

> The major headache for the Engineers at Atori was the transportation by barge of construction materials, landrovers, trailers, a front end loader, a pile driver and small bulldozer, to the site. As is the way of the island, careful arrangements were sometimes not met. Consequently cargo jostling and back tracking was necessary. (29)

The final Solomon Islands detachment, selected from 2 Field Squadron RNZE, were sent to New Georgia and Santa Isabel. Among this deployment were ten members of the Royal Australian Engineers on a training exercise, and two obwervers from the United States Army examining Pacific Aid Projects.

The tasks of the fourth detachments again centred around water supply work. Two types of water systems were employed as they suited the Solomon Islands climate.

> The first was to dam a stream and pipe water to taps placed at 50 metre intervals through the length of the village. Storage tanks have also been positioned so that in the event of the stream flooding a water supply is available. (30)

Where stream water was unavailable, the annual 8000 millimetre rainfall was exploited to provide village water.

> A second type of system is the installation of roof tanks. A lean-to with a corrugated iron roof is erected and the water drained off. (31)

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29. The Manawatu Evening Standard, 5 August 1980, p.16
30. ibid, p.16
31. ibid, p.16

Initial suspicion of the sappers by the local villagers, a suspicion fermented by the Second World War, soon disappeared and local labour attended to the construction tasks under sapper supervision. The village provided the needs of the sappers, sometimes at the villagers expense.

> A whole family was sometimes moved out of a hut so that we could use it. I suspect that they were going without to ensure we had plenty. (32)

A visit by the Chief Engineer, Lieutenant-Colonel D.J. O'Brien, Lieutenant-Colonel G. Hardie, Major C. Powley and Major S. Dickson to the village projects of the fourth detachment provided an opportunity for villagers to formally thank the sappers.

The villagers were enthusiastic with their assistance but lacked the technical skill to maintain a completed water system so at each village, two or three members of the village hierarchy were taught basic maintenance skills by the Engineers.

Projects in tropical conditions pose health, as well as work problems. Skin infections and stomach disorders are commonplace in most Pacific detachments as adaption to climatic and dietary changes takes time. Wherever possible a programme of preventative medicine was instigated. In areas where the sappers worked, malaria was a constant problem. Despite a programme of preventative medicine ten sappers of the first detachment working in the southern part of Guadalcanal became victims of the malaria mosquito.

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32. ibid, p.16

The tasks of the fourth detachment were completed by 12 August with their arrival back at Honiara, the Solomon Islands capital. The whole project was summed up by Major S. Dickson, the project's Commanding Officer:

> All the frustrations, personal hardships and problems are forgotten when you turn the tap on. The look on the villagers faces when the water comes spilling out is amazing. You know then that it is all worthwhile. 33

The final few days of the project however, were shrouded in tragedy with the accidental death of Sergeant Wally Morgan. The Training NCO from 2 Field Squadron, Sergeant Morgan had contributed much to the success of the Solomon's project.

Since the Solomon Islands project, the sappers have continued working in the Pacific. The 1980 Fiji Hurricane Relief Team from 1 Field Squadron rebuilt houses on Viti Levu thus maintaining the Engineers role as an emergency relief agency for the Pacific area.

From its tenuous beginnings the Corps of the Royal New Zealand Engineers have come to play an important role in the Pacific. The Army, and particularly the Engineers are a recognised part of New Zealand's aid to the Pacific. The practical nature of their aid and the assistance given to the Pacific nations armies through the Mutual Aid Programme have not only enhanced the Corps reputation throughout the Pacific but also that of the New Zealand Government and people. The Corps is continuing to play an important part in New Zealand's Foreign Policy.

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33. ibid, p.16

CHAPTER NINE

POLES APART

THE ROYAL NEW ZEALAND ENGINEERS IN RUSSIA AND THE ANTARCTIC

With the shift of New Zealand's defence and aid policies toward the development of Pacific nations, the Royal New Zealand Engineers have undertaken an increasing amount of overseas work for New Zealand Government departments. Apart from providing a cheap and useful form of aid the work gives the Corps an opportunity to work under various social, climatic, political and operational conditions.

Two of the more unusual work programmes undertaken by the Royal New Zealand Engineers were the Ministry of Foreign Affairs Moscow Embassy Project and the Antarctic Division, Department of Scientific and Industrial Research (DSIR) building programme.

The Mowcow project lasted twenty months and required the complete renovation of the New Zealand Embassy. Since it is not diplomatic practice for foreign military teams, except diplomatic guards, to be appointed to legations the New Zealand Engineer team was not present as a military unit. They were in Moscow as a civilian construction team.

The teams, drawn from the various Royal New Zealand Engineer squadrons, relied upon foreign assistance, equipment and advice, a problem in itself given the language barriers and the Russian burcaucracy.

The Royal New Zealand Engineer involvement in the Antarctic began in 1957 with the building of Scott Base. The Corps work has continued

intermittently since then. Currently, a renovation and rebuilding programme lasting until 1986 is being undertaken by the Corps.

MOSCOW

In Early 1977, the Ministry of Foreign Affairs approached the New Zealand Government over the renovating of New Zealand's Embassy in Moscow. The Embassy, built in the early 1900's by a Russian merchant, apart from being in a state of disrepair, also required a security room for the reading and storage of confidential documents sent from New Zealand. Such security rooms are essential to all overseas legations.[1]

In October 1977, the Chief Engineer, Lieutenant-Colonel K.H. Mitchell, having been advised of these requirements, appointed Warrant Officer (Second Class) E. Bruce to organise and select a detachment of ten sappers to work in Russia. The detachment was the first of three sent to Russia over the duration of the project.[2]

The team's selection was based upon the need to provide a cadre of expertise to cope with any unexpected problems. At the same time concern to balance general trade training and expert ability was paramount in the team's selection.

A Finnish engineering consultant hired by the Ministry of Foreign Affairs was to provide plans, equipment and tradesmen to assist in the renovations.

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1. Moscow Embassy, Stage 1 Report, July 1978-January 1979, New Zealand Embassy Moscow File, April 1980, p.4, Chief Engineer's Office, Wellington
2. ibid, pp.4-5

In July 1978, Warrant Officer E. Bruce and Staff Sergeant G. Findon left on a reconnaissance trip to Russia. Upon their arrival on 8 August, the sappers were informed that the Russians, upset at local tradesmen being excluded from the Embassy project, had withdrawn access to the Finnish manpower component. Finnish equipment and supplies would still be provided but the New Zealanders would have to install all equipment.[3] To counterbalance the loss of the Finnish tradesmen, the New Zealand construction team was increased by two tradesmen.

Further problems emerged with the Russian Directorate of Services to the Diplomatic Corps (UPDK) with the sudden retirement of the Russian building inspector who was policing the Embassy work. The replacement official denied any knowledge of the project and insisted upon working drawings being resubmitted. Until then no approval would be granted.

In New Zealand, the Ministry of Foreign Affairs, despite the lack of UPDK approval, insisted upon the project starting as soon as possible as a new heating system was required for winter.

On 8 September 1978, the first team, numbering twelve, arrived in Moscow. The team's tasks were to install a security room, a new heating system, renovate and redecorate the Chancery area of the Embassy. The Chancery included the foyer area and offices of the Embassy.

The organisational structure of the project reflected the desire for cohesion between the sappers, the Ministry of Foreign Affairs, the

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3. ibid, p.5

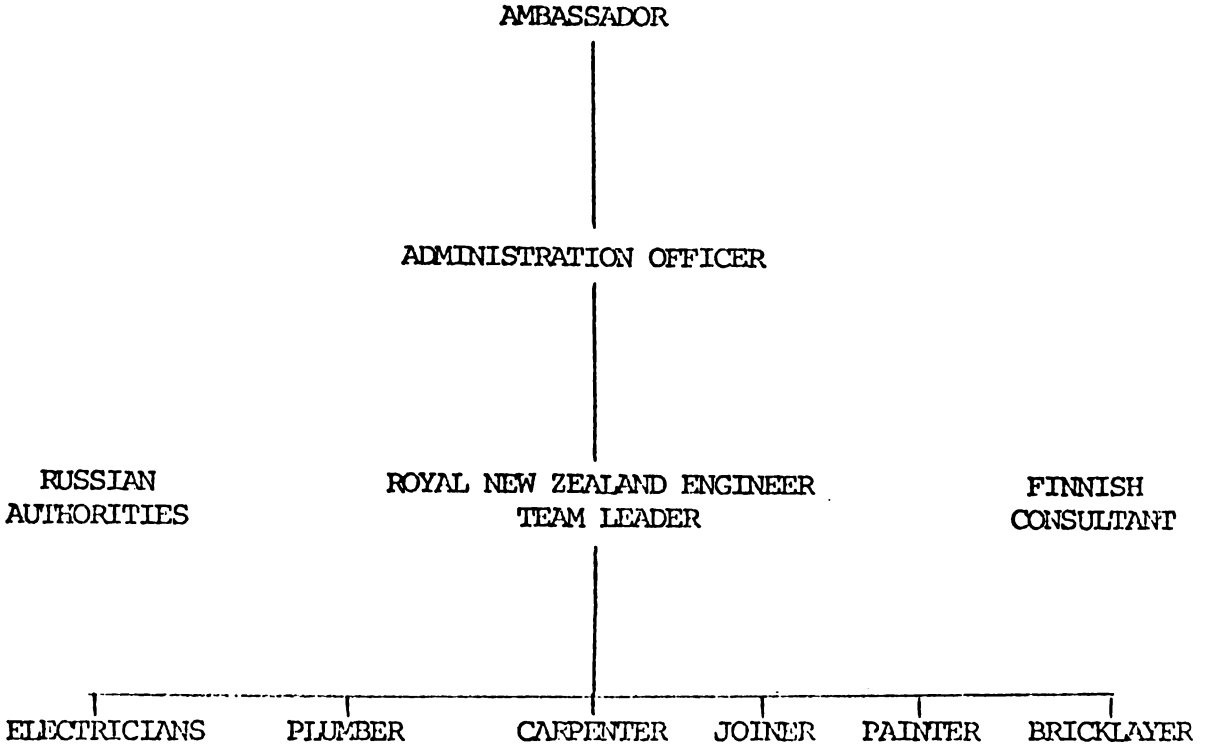
Embassy staff, Russian authorities and the Finnish Engineering Consultants. (Figure 9.1). The overall command of the project rested with the New Zealand Ambassador in Russia, Mr J.H. Weir, who appointed Mr D.R. McKeon, Administration Officer, to ensure the Embassy received regular work reports from the Engineer team.

The bulk of the administration was undertaken by team leaders. With the assistance of Embassy staff, the team leaders were to liaise with the UPDK engineers, the Finnish architects, consultants and the supply personnel, as well as supervise the various work components that comprised the Royal New Zealand Engineer teams.

This structure, established for Team One, remained in use for the full twenty months of the project. The system did have its shortcomings. An eighteen hundred mile gap between the Helsinki engineering consultants and the Team leader in Moscow, meant the Team leader did on the spot plan changes where necessary. Changes not sanctioned by the consultants on later visits resulted in some work being redone.

A promise from Embassy officials that the external shell of the historic Embassy would not be altered allayed the fears of UPDK officials and tacit and belated approval was allowed for the project.

The delay in starting the project meant an eighty to one hundred hour working week for the sappers. The Chancery, the administrative centre of the Embassy remained open while the work was carried out. Dust and noise proved to be major problems for Embassy staff trying to work and



(ROYAL NEW ZEALAND ENGINEER CONSTRUCTION TEAM)

FIGURE 9.1

ORGANISATIONAL STRUCTURE OF NEW ZEALAND'S MOSCOW EMBASSY PROJECT

on occasions relations were strained between the sappers and Embassy staff. The end however justified the means, as the refurbished Chancery provided better working conditions for staff.

None of the materials used by the Royal New Zealand Engineer detachments were Russian. All materials were sent from Finland. Material requirements were forwarded by the tradesmen to the Team Leader.

> This involved ordering every last detail that could possibly be required at least six weeks in advance. These materials which had to come from Helsinki by truck had to be selected using a screed of Finnish catalogues and identifying the item you required by trying to find a picture of it and noting its description down in Finnish. This then had to be translated into Russian, as the Russian Customs could identify it, and then you had to get an English copy so you could check off the various items when they arrived. (4)

Every opportunity was used to get additional materials as shipments often arrived broken, or contained incorrect material. Since health services were unavailable in Russia, those sappers requiring specialist medical treatment were sent to Helsinki. The experiences of one ailing sapper on such a trip revealed how hazardous such journeys sometimes were:

> I had to go to Helsinki to get a tooth repaired after a filling had come loose. This took two days and I had with me a list of items to purchase for the job while I was there.
>
> After filling an extra suitcase with insulation tape, various blades, scrapes etc. and a large 2" capacity cast iron pipe cutter for the plumber I made my way through Customs at Helsinki Airport only to be flung

4. Shephard, N.C., Letter from Team Two Electrician, May 1982

> against the nearest wall, after my baggage had gone through an X-ray machine. They thought I was some sort of terrorist, and the pipe cutter was some sort of bomb. It took quite a bit of convincing to get them to believe what it was, and involved setting the pipe cutter up in the airport and showing them what it did. (5)

When ordering the basic building materials it was assumed that Finnish materials were similar to those available in New Zealand. Unfortunately this proved untrue.

> Finnish gibraltar board stopping compound in appearance and texture was identical to that manufactured in New Zealand but when applied 'kiwi' fashion did not set. After a great deal of experimenting without much success the mixing instructions were taken to the Finnish Embassy in Moscow for translation. The important part of the mixing procedure had been ignored, i.e. once mixed the material had to be left for 30 minutes before use. (6)

The Finnish Embassy assisted in translation of instructions for the two other teams.

The Royal New Zealand Engineer detachments arrived in Russia with little equipment. The American and British Embassies provided some heavy machinery, but removal of demolished material was a constant problem. The Moscow refuse tips were located in areas prohibited to foreigners. On occasions, the sappers had the use of a tip truck but no Russian driver. In these situations, with a little diplomacy and a few bottles of vodka, a Russian driver could soon be found.[7]

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5. ibid,

6. Moscow Embassy, Stage 1 Report, July 1978-January 1979, New Zealand Embassy Moscow File, April 1980, pp.24-25, Chief Engineer's Office, Wellington

7. ibid, p.27

Team One lived in the Embassy basement in cramped living quarters with only a small dining room and kitchen. With the arrival of Team Two in May 1979, to renovate the basement, the sappers moved up to the attic area. In September, with the arrival of Team Three members, Embassy facilities could barely cope.

Despite such trying conditions the Teams chefs, Corporal W. Paul and Lance Corporal A. Adolph, provided an excellent range of cuisine. The chefs also provided food for Embassy entertainment of Russian civil staff. Provisions for the teams were either imported from New Zealand, via New Zealand's London Embassy, or provided locally through the special foreign diplomatic store.

Prior to the complete team going to Russia, the Leader of Team Two, Warrant-Officer (Class Two) Sinclair, Warrant-Officer E. Bruce and team experts Lance Corporal N. Shepherd (Electrician), Lance Corporal Hounsell (Plumber) and Mr Heke, a Ministry of Works representative, arrived in Russia to reconnoitre the reconstruction of the basement, the remodelling of the second floor residences and apartment, and to begin preliminary work on the attic and minor works in the Embassy garage.[8] The Chancery was complete except for a few finishing jobs. The renovation of the basement was expected to take three months, the residence two months, the attic two months, the Embassy garage one month, and the apartment two weeks. These estimated times were subject to the arrival of supplies and UPDK staff cooperation and alas were proved wrong. To alleviate the work problem, seven members of Team Three arrived in August 1979.[9] To speed

8. Moscow Embassy, Stage 2 Report, January 1979-November 1979, New Zealand Embassy Moscow File, April 1980, pp.24-25, Chief Engineer's Office, Wellington

9. ibid, p.19

completion meetings with the Finnish architect were held on a more regular basis and a good rapport between the sappers and the consultants developed.

The Russians, however, were dubious about accepting another team. A cocktail party, the presence of Warrant-Officer Bruce, and complete access of the Russians inspector to the works of the second detachment soon appeased the Russian officials.

Many of the problems encountered by Team One persisted throughout the entire Embassy operation. The basement, which was completely gutted except for the structural walls, provided a mountain of rubble that could only be removed by the Russians whose visits were inconsistent and highly priced. Dust, incorrect ordering, and broken materials continued to be supplied to the later teams.

Throughout the critical first and second stages many materials that were imported were unfamiliar and therefore suspicious to the Russian building inspectors.

> In many cases the materials which were being used on the Embassy had never been seen before by Soviet experts, and in their cautious manner, were often reluctant to accept on face value that they were adequate substitutes, e.g. cast iron sewerage and drainage pipes were the only method known to them for the conveyance of sewerage and wastes from the bathroom, toilet and washing area, and were unsightly, surface mounted black cast iron pipes. It therefore took some time to get the Russian authorities to accept PVC pipe in lieu. (10)

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10. Moscow Embassy, Stage 1 Report, July 1978-January 1979, New Zealand Embassy Moscow File, April 1980, p.11, Chief Engineer's Office, Wellington.

All electrical equipment had to be embedded in plaster or protected in a conduit casing or pipe. Finnish electrical cable, like that manufactured in New Zealand, is of high quality and provided ample protection. The Russians however, rejected it so all electrical cable was stripped and replaced, embedded often along walls already redecorated by Team One.

The Finnish equipment also posed problems for the tradesmen sappers. All Finnish electrical equipment was built to their wiring regulations. It was not compatable with those used in New Zealand or Russia.

> Finnish accessories, i.e. sockets, switches, motor controls, are all designed to comply with the Finnish wiring practises and regulations. I only got over this problem by getting the Finnish Electrical consultant to explain his methods to me in very basic terms. Having got used to that, it was a simple task of making sure everything was tested for safety and using vast amounts of ingenuity and common sense. (11)

Unfamiliar materials and equipment did create safety problems, but common sense and closely followed safety procedures caused scares rather than serious injuries.[12]

The deployment of seven members of Team Three in October 1979, improved work output. When the remainder of the t eam arrived in November 1979, twenty-three tradesmen and two chefs formed the largest party of Royal New Zealand Engineer staff to work on the project. Those members of Team

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11. Shepherd, N.C., Letter from Team Two Electrician, June 1982

12. Moscow Embassy, Stage 2 Report, January 1979-November 1979, New Zealand Embassy Moscow File, May 1980, pp.20-21, Chief Engineer's Office, Wellington

Two not required for the work's completion returned to New Zealand as their replacements became familiar with their tasks.

Team Two concentrated on the closing-in of the building before the onset of the Russian winter. After demolishing internal areas the team would then insulate and line the exterior walls. This enabled Team Three to do the internal renovation work in warmer conditions.[13]

As a consequence of Team Two's demolition work, Team Three did the majority of rebuilding and finishing work for those stages undertaken by earlier teams. Its primary tasks were to construct the spiral staircase between floors two and three, and refurbish the attic/third floor into accommodation for the Ambassador's residence.

Throughout the second stage the administrative structure began to break down and cooperation between sappers and Embassy officials became difficult. Team Three restored the communication links, as it was imperative that the Ambassador be involved in planning the final colour and outlay of Embassy areas.

Stage Three Team remained in Russia until February 1980. The finish of some areas proved difficult as some of the walls were ornately plastered, and a promise had been given to preserve where possible the original style of this historic building.

Conditions for Team Three were a great improvement upon those experienced by the earlier teams. Throughout the Embassy project the sappers

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13. Moscow Embassy, Stage 3 Report, June 1979-April 1980, New Zealand Embassy Moscow File, May 1980, p.3, Chief Engineer's Office, Wellington

were able to sample something of Russian life and culture. Tickets were made available for the Bolshoi Theatre, the Russian circuses, ice hockey and ice ballet. In addition, there were visits to the Red Army Museum, the Park of Economic Achievements, Boridino Museum and the Changing of the Guard at Lenin's Tomb.[14] Russian restaurants provided a fair selection of food and entertainment. Often a large group of sappers went out to dinner. Russian beer, however, inevitably drew them back to the Engineer's 'Kumara Pit' bar stocked with New Zealand beer, and located beneath the Embassy garage.

The 'Kumara Pit', built by Team Three became the focal point of Embassy entertainment, with numerous foreign Embassy staff visiting the bar. Three hangis, organised by the sappers, provided another source of entertainment though climatic conditions of -15° Celsius were hardly comparable to the New Zealand environment.[15]

The sappers also enjoyed the opportunity to do some public relations work for the Embassy. They constructed an ice hockey rink at the Anglo-American School. A task that normally took two or three days to complete was finished in five hours by the sappers.[16]

Before going to Russia, each team was briefed upon security in Russia. With the invasion of Afghanistan, security became even stricter. Consequently, throughout the project the sappers were aware of traditional Russian Police surveillance, so closely followed the Embassy's security

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14. ibid, p.3
15. ibid, p.7
16. ibid, p.8

regulations. A constant and obvious guard by Russian Police often made them the butt of the sappers' humour.

> One occasion we received on a truck an expansion tank for use in the hot water system. It was a metal sphere about one metre in diameter and painted a rusty red colour. In fact it looked just like a floating mine common in the Second World War. It was set up and uncoated in the yard purposely in view of the Russian Police guard at the Embassy gate. We kept calling it a sputnik and miming that it had flown in and landed in the yard of the Embassy. After an hour or so we had quite an audience of Russian Police gathered at the gate. (17)

The 'on site' involvement of the Royal New Zealand Engineers lasted from 8 August 1978 until 18 April 1980. During their stay in Russia the sappers came to an effective working relationship with the Russian authorities, the Finnish architects and the members of the Ministry of Foreign Affairs.

The overall task was difficult. Supply, language, organisational and bureaucratic problems recurred throughout the twenty months. The adaptability and flexibility of the sappers came to the fore, solving most of the problems.

For the sappers, it was a unique opportunity to work in Russia and their hard work earned much prestige for New Zealand.

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17. Shepherd, N.C., Letter from Team Two Electrician, May 1982

ANTARCTICA

Unlike the Moscow Embassy Project, the Royal New Zealand Engineers commitment to Antarctic research programme is a well established ongoing programme. From the research's inception in 1956, the Royal New Zealand Engineers have been involved in Antarctic construction work. During the summer of 1957, the Army Engineers assisted in building Scott Base. Through the 1960's and 1970's the Royal New Zealand Engineers expanded the facilities available at Scott Base. Now, in the 1980's, the Corps has undertaken, together with the Ministry of Works and Development, a programme to rebuild, expand, and modernise Scott Base. to enable scientific research in Antarctica to continue.

The work of the Corps has greatly assisted the expansion of scientific research in Antarctica but the implications of its work are far more important. 'Sovereignty' of Antarctic possession has been frozen since the ratification of the Antarctic Treaty in 1961. The treaty expires in 1991 and various nations will lay claim to portions of Antarctica.

> Many of these original claims are challengeable through their weak basis in discovery and exploration, unsupported by settlement or the establishment of government posts. The original claims may have been weakened further by the involvement of national scientific teams in Antarctica research activities from 1946, activities that may have been accompanied by the establishment of permanent bases. (18)

As a result of work by the Army Engineers and New Zealand scientists, a New Zealand 'Post' has been established which could ensure New Zealand's

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18. Barber, L.H., "Keeping New Zealand's Back Door Closed", New Zealand International Review, vol.VII, No.3, May/June 1982, p.14

continued guardianship of the Ross Dependancy.

In July 1953, the International Council of Scientific Unions (ICSU), appointed a special committee to investigate the establishment of an International Geophysical Year (IGY) during the predicted sunspot activities in 1957 and 1958.

The Royal Society of New Zealand, an affiliate of ICSU, suggested that New Zealand's contribution to IGY be the construction of a scientific station on the Ross Sea to help develop a chain of circumpolar scientific stations.

The ICSU, through a sub-committee, the Comite Special de l'Anee Geographique International, formally approached the New Zealand Government. In August 1955, the Government approved the project and an expedition was planned for the summer of 1956-57, during which a scientific base would be established. The base, it was agreed, would also be used to assist Trans-Atlantic Expedition of Sir Vivian Fuch. The development and planning of the New Zealand base was to be carried out by the Department of Scientific and Industrial Research (DSIR), the Ministry of Works, and assisted by the Ministry of Defence and Meteorological Services.[19]

The designing of the base was entrusted to the Ministry of Works who appointed Mr F. Ponder as the project's chief architect. The base design was an adaption of building techniques developed by the Australian

19. Hatherton, T., New Zealand IGY Antarctic Expeditions, Scott Base and Hallett Station, New Zealand Department of Scientific and Industrial Research, Bulletin No.140, 1961, pp.11-12

National Antarctica Research Expedition. The buildings planned needed to be adaptable to any terrain, while strong enough to stand the extremes of weather, yet stable enough to house delicate and sophisticated scientific equipment.[20]

The design adopted was the building of a group of huts connected by galvanised iron covered walkways to allow unrestricted access between huts in all weather conditions. This design of huts was decided on because

(a) Several small huts posed much less of a foundation problem than one large hut, to an expedition not equipped with earthmoving machinery.

(b) The shell of small huts could be erected in a day.

(c) Functions could be well separated reducing irritation to winter personnel.

(d) Multi-unit housing would lessen the possibility of total loss by fire. (21)

In later years this pattern would be modified as the Antarctic construction expertise of the Army Engineers and Ministry of Works and Development increased.

The original Scott Base was an eight hut 'village' which would provide accommodation and research facilities. Four of the huts were provided by the Australian Antarctica Research Unit while four huts were prefabricated in New Zealand. An alternative construction scheme was formulated in case the weather hampered construction. The mess hut, generator, ablutions and workshop huts were high priority followed by the scientific accommodation and magnetic huts.[22]

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20. ibid, p.10
21. ibid, pp.27-30
22. ibid, p.30

The base construction was to be carried out by an eight man team made up of five Ministry of Works staff and three members of the Royal New Zealand Engineers. The involvement of the defence services was aimed at reducing the construction costs and providing training for specialist units of the Armed Services.

Prior to packing the prefabricated buildings, a trial assembly was made at Rongotai Airport, Wellington, by the Royal New Zealand Engineers of the Central District Construction Squadron. The trial erection, apart from providing construction training for project staff, revealed a number of defects in design which were eliminated before the buildings were repacked for shipment to Antarctica.[23]

By mid-December 1956, the packing was complete and the crated material was loaded aboard the HMNZS Endeavour and U.S.S. Private John R. Towle.

Construction of the base in the Antarctic began on 10 January 1957, and was completed by 27 February of that year. The site selection was undertaken by the team leader Mr Miller and the Ministry of Works site party officials, Mr Heke and Mr Mitchell.

The buildings foundations were railway sleepers which left a large gap between the ground and the hut floor. This was intended to prevent the build-up of wind drift snow along the sides of the structures. Once building had begun, it continued until the shell and partitions were erected and the whole frame secured by guy wires. If left uncompleted

23. New Zealand Army Liaison Letter, No.31, July-September 1956, p.17

the structure ran the risk of being damaged by strong winds and extremes of temperatures.[24]

The fine weather during the summer of 1956-57 enabled Scott Base to be constructed quickly and the scientific equipment to be installed. The construction party left Scott Base before winter set in. A three man Army team returned the following summer to do maintenance work on the buildings and machinery. The two carpenters from the Royal New Zealand Engineers had to repair numerous roof panels that bowed under the strain of Antarctic storms.[25]

Up until 1959, the contribution of the Royal New Zealand Engineers had been small. However, after that, the involvement of the Engineers in Antarctic development began to expand. In the summer of 1959-60, a seven-man tradesman team from the Army Engineers left for Scott Base. The unique scientific research being done was continually being expanded as each year different New Zealand organisations such as universities, became involved in Antarctic research. One member of the 1959-60 team remained at Scott Base over the winter as the base's carpenter. The Ministry of Works remained the overall construction supervisors for Scott Base development, the Army providing tradesmen only on construction tasks.

In the summer months of 1962-63, a three-man team led by Staff-Sergeant R. Russ, was sent to construct a garage for the base's machinery

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24. New Zealand Ross Sea Committee, New Zealand Antarctic Manual 1956-58, Scott Base, Ross Dependancy, Wellington, pp.9-14

25. A.J.H.R., H.19, 1958, p.16

and perform routine maintenance. As procedure dictated, the prefabricated garage was assembled in New Zealand then dismantled to be dispatched to Antarctica aboard the United States icebreaker U.S.S. Arnem.

The Arnem carried all the summer supplies for the base, so there was only limited space for construction equipment. The American base at McMurdo Sound provided the New Zealand sappers with equipment from 'Rotten Row'. Rotten Row was a conglomeration of machinery that the American's had used during their base construction, then left outside. It is American practice to 'write off' all equipment used outside the United States. The low humidity and freezing temperatures meant the machinery did not rust. After a little work by the sappers, machinery was ready for use.[26]

The construction of the garage required the excavation of shallow foundations from the permafrost ground. Explosives were used to excavate a pad which was then backfilled with water which froze to provide a flat, hard platform on which the sleeper foundations were laid. Construction followed the procedures developed during the earlier construction schemes, with the shell being constructed and secured by guywires within a day.[27]

Once completed, the small team with the assistance of Scott Base staff, undertook the building of laboratory extensions and a seismic hut. The hut had to be built on a concrete pad, the material for which was transported to the polar region in drums. A quick-set cement was used and an

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26. Watson, E., (Interview with Team member 1962-63), 20 December 1982
27. ibid, 1982

efficient mixing system was devised to ensure there was enough water available for mixing the concrete.

The team, which completed its tasks in March 1963, was accommodated in the old garage for the duration of their work. The use of the garage typified an accommodation problem that was to emerge during future summer expeditions. Research teams from various Government Departments and New Zealand universities showed increasing interest in Antarctica research during the Antarctic summer. As the members' researching teams increased the amount of accommodation did not.[28]

In July 1973, as a result of the lack of accommodation and the need to upgrade the ageing facilities at Scott Base, the DSIR asked the Minister of Science, the Honourable C.J. Moyle, to approve possible plans for the extension and reconstruction of Scott Base. No such approval can be traced and since that date the new buildings have been approved individually by the Minister.

The first stage of the Scott Base redevelopment was set down for the summer of 1976-77. On 24 May 1976, the Secretary of Defence acceded to a request from the Department of Scientific and Industrial Research for the Army engineers to aid in the construction of Scott Base. The availability of the Royal New Zealand Engineers was dependent upon their military commitments.[29]

The total building programme was to be undertaken between 1976 and 1986, and construction was to be done in six stages. The programme

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28. ibid, 1982

originally outlined required two years for stage one. However, the task was completed in 1976-77.

Year	Stage	Areas (m^2) Building	
76-77	1	871	Summer Lab. shell
			Summer Lab. interior
78-79	2	109	Power House
79-80			(No building construction)
80-81	3A	399	Sleeping/Ablution shell
81-82	3A		Sleeping/Ablution interior
	3B	224	Mess/kitchen shell
82-83	3B		Mess/kitchen interior
83-84	4	218	Command Centre shell
84-85	4		Command Centre interior
85-86	5	169	Geophysics Laboratory
	6	581	Garage/Workshop

The total area of the new base being 2571 square metres of building and 154 square metres of passage.[30]

Soon after approval had been given for the Royal New Zealand Engineers to assist in the Scott Base construction, Lieutenant R. Heaton and Sergeant Oliver were appointed Project Officer and Construction NCO respectively. A team of nine sappers was selected from 3 Field Squadron RNZE, based at Burnham Camp outside Christchurch.[31]

With the transfer of the Antarctic Division of the Department of Scientific and Industrial Research to Christchurch, 3 Field Squadron were to become the 'Antarctica Squadron', providing most of the manpower for the Scott Base construction programme.

During the construction, the Ministry of Works and the DSIR would

30. ibid

31. Final Report, Operation Box Office, April 1977, Antarctic File, Chief Engineer's Office, Ministry of Defence

provide the necessary equipment, clothing and advisors. Prior to the Army engineer team departing for Antarctica, they were attached to the Scott Base team's training course at Tekapo Military Camp.

A preliminary reconnaissance of the building site was undertaken by Lieutenant Heaton RNZE, Mr V. Evridge (Ministry of Works) overseer, and Mr L. Oliver, drill rigger, in December 1976.[32]

Building techniques had been greatly modified since the first Scott Base was constructed. Foundations were drilled into the permafrost and the buildings were secured by a system of rods and pads.

The building itself was the first multi-storied building to be constructed at Scott Base; the summer laboratory including a mezzanine floor. The prefabricated building was eighteen and a half metres long and six metres high, the basic frame being steel as opposed to wood as previously used.

The advance party of four sappers arrived on 14 January 1977, and began excavation of the building site. The following day the remaining seven team members arrived but construction did not begin until 22 January. Scott Base had hoped to use equipment from McMurdo Sound but a lack of liaison between the DSIR and the Americans meant that heavy plant machinery was only available when the Americans were not using it for their own construction project. Consequently, the sappers received machinery at odd hours when the staff at McMurdo slept. Fortunately,

32. ibid, 1977

during the summer months the sun never sets.[33]

The arrival of heavy equipment saw construction begin in earnest and continue through the 'night' of 22 January. However, problems continued as it was discovered some of the pieces of equipment packed in Christchurch had been damaged or lost en route to the Antarctic. A search of the hold of the American supply ship The Bland, revealed some of the missing equipment.[34] The delays meant the sappers worked long hours, often without the help of mechanical equipment and in low temperatures.

The construction, however, was completed on schedule. Despite the construction of the building in New Zealand, one major problem did emerge; none of the doors would fit. With a little sapper ingenuity temporary doors were made and fitted. The completed science laboratory accommodated twenty scientists on the ground floor and a work area on the mezzanine floor.

The early completion of Stage One of the redevelopment meant no team was sent in the 1977-78 season. The Engineers were fully committed to work in the Pacific and New Zealand so the redevelopment programme was left until the next official Army Engineer commitment in the summer of 1978-79.

The construction project for 1978-79 was the building of a new powerhouse for the base. A team of eight sappers, led by Lieutenant S.G. Ransley, undertook the work. An advance party was deployed in October

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33. ibid, 1977

34. ibid, 1977

1978 to do minor site preparation, the main team arriving in November.[35]

Unlike previous Antarctica construction work all the equipment, supplies and men were airlifted down by the Royal New Zealand Airforce. The airlifting of material meant loss or damage was minimal.

The powerhouse site needed only minor modification before construction began. The prefabricated powerhouse, designed by the New Zealand Ministry of Works, required only minimal use of heavy lifting equipment for construction. Close liaison between the American Base at McMurdo Sound and the Scott Base ensured the ready availability of the machinery.[36]

This Army Engineer team, along with all others sent since 1966, was expected to assist in the daily duties undertaken by the base staff. The most time honoured and time consuming task for the base staff was the 'house mouse' duty. The position entailed ensuring the water making icebox was full at all times, doing housekeeping within the basic buildings, cleaning and washing dishes, and assisting the cook where necessary. The involvement of the sappers in this duty helped develop good relations between the Army team and the permanent residents.[37]

When the team departed Scott Base on 19 February 1979, the powerhouse was fully operational and servicing the base with power and heating. A DSIR 'winter over' carpenter was to complete construction of the building and the erection of a tank stand.

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35. Report on 3 Field Squadron Construction of Powerhouse at Scott Base, Antarctica, March 1979, Antarctic File, Chief Engineer's Office, Ministry of Defence

36. ibid

37. ibid

During the following two summers the Army Engineers did not undertake construction for the Antarctic Division of the DSIR. An osmosis desalination plant, capable of producing 6500 litres of fresh water per day, was installed in the powerhouse in the summer of 1979-80 by Ministry of Works and Development staff.[38]

Due to commitments to overseas training programmes, 'TRIAD' and 'SOUTHERN SAFARI', the Corps of the Royal New Zealand Engineers were unable to provide staff for the Antarctic programme until the summer of 1981-82.[39] This involvement necessitated a civilian team being employed to build the shell of the new accommodation and ablution block. The employment of a civilian team had a number of drawbacks for the cost of employing a team in this remote location was high. To try and instigate a formal commitment to the Antarctic development project and prevent a cost escalation, the DSIR sought the establishment of a policy of continuing Army participation in the redevelopment programme.[40] The Army agreed to provide assistance, dependent upon its military commitment for that year.

Army Engineer assistance to the project resumed in the summer of 1981-82, when a team was sent to complete the sleeping and ablution block, begun by the civilian construction team. The task was completed in early January 1982, and the complex was officially opened by the New Zealand

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38. Antarctica Division DSIR, New Zealand Antarctic Research Programme 1982-1983 and Report of 1981-1982 Programme, DSIR, August 1981, pp.2-3

39. Antarctica File, undated, Chief Engineer's Office, Ministry of Defence

40. Department of Scientific and Industrial Research to Secretary of Defence, May 1981, Antarctica File, Chief Engineer's Office, Ministry of Defence

Prime Minister, Right Honourable R.D. Muldoon, who flew to the Antarctic base for a special ceremony to mark a quarter century of Scott Base and New Zealand scientific research in Antarctica.

The New Zealand Army is committed until 1986 to provide Army Engineers to assist in the construction programme. After 1986, the future of the base is unknown as claims for the Antarctic are re-opened for negotiation.

The Royal New Zealand Engineers commitment to a building programme shows New Zealand's desire to retain sovereignty of the Ross Dependancy. Since some Antarctic claims are precarious, the strong New Zealand influence and presence in the Dependency may enhance her chances of retaining the area. The establishment of Scott Base and New Zealand judicial control in the Ross Dependency may provide a lever for the development of permanent sovereignty.

The association between the Corps of the Royal New Zealand Engineers and Scott Base extend over twenty-five years. The original and subsequent construction of Scott Base has mainly been undertaken by the Army Engineers. The work of the sappers had enabled the expansion of scientific research in Antarctica to the broad, unique programme that operates today.

The Royal New Zealand Engineers stands unique in the New Zealand Army through its association with Scott Base. Few corps have experienced working in the frozen temperatures of the Antarctic, training which could prove of value if there is ever the need to deploy troops to the region. The early association of Scott Base was with the Central District

Construction Squadrons, but with the Antarctic Research Division of the DSIR moving to Christchurch, and the reorganisation of the New Zealand Army, 3 Field Squadron has come to play a more important role.

The physical presence of the base and New Zealand's continued commitment to the Antarctic Region may provide the basis for negotiation of New Zealand sovereignty of the Ross Dependency. The work of the Royal New Zealand Engineers can therefore not be dismissed lightly as New Zealand's continued presence in the region may depend on the past works of the Army Engineers.

CHAPTER TEN

THE HOME FRONT
THE ROYAL NEW ZEALAND ENGINEERS IN NEW ZEALAND 1945-1981

With the return of the New Zealand forces in 1945 demobilisation began and sappers speedily, and in many cases eagerly, resumed civilian life. Having gathered a wealth of engineering experience members of the New Zealand Engineers easily found work in either Government or private sector engineering businesses.

However, not all of the divisional units were disbanded on arrival in New Zealand, some were maintained to form the basis of the post-war territorial force and New Zealand Army.

The New Zealand based One, Two and Three Field Companies were retained, and activated onto the territorial force list. Many of the officers of the force were drawn from the demobilised soldiers from the two New Zealand divisions that served overseas.

Three non divisional, New Zealand based Army Troop Companies, were retained for service immediately after the war. These engineer companies assisted in the dismantling of fortifications in New Zealand. However, demobilisation of the bulk of the companies soldiers greatly diminished their role. A further engineer works section was deployed into the Pacific to dismantle fortifications in New Caledonia.

> Army Troop Salvage Companies have been employed in New Zealand cooperating with the War Assets Realisation Board in stripping camps, removal of buildings and preparing for the sale and disposal of equipment, but with heavy reductions in their strength the amount of this work performed by the Army will be considerably reduced. An Army Works Company has been employed in New Caledonia dismantling warehouses, barrack rooms and a general hospital... (1)

The successful service of the New Zealand Division overseas had done much to engender in New Zealand military and government, the need for a large, well trained military force. The regular force quota was therefore set at a higher level than the pre-war staff. A total of 3747 soldiers were retained on the regular force listing, and were encompassed within the New Zealand Staff Corps, the New Zealand Permanent Staff and the New Zealand Permanent Army Service Corps.[2] Within this organisation was a small engineering force, the Directorate of Fortifications and Works, led by Lieutenant A.R. Currie NZE. The Public Works Department had increasingly taken over the support construction role vacated by the demobilised engineer companies. The small directorate acted as advisors to the Public Works Department who were demolishing the now redundant defence positions around New Zealand.[3]

The post-war Army organisation was cumbersome and as the pre-war organisation had caused mobilisation problems a reorganisation of the New Zealand forces was necessary. Also, there was a need to make the New Zealand forces formation more compatable with that of our traditional ally Britain. Consequently, in 1948, the Army was reorganised and

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1. A.J.H.R., H.19, 1946, p.8
2. Wickstead, M. (Compiler), The New Zealand Army, A History from the 1840's to the 1980's, 1982, p.59
3. Directorate of Fortifications and Works, 6 February 1947, Army File 209/1/25, Ministry of Defence

activated to form seventeen functional Army Corps, among them being the Engineers. On 12 July 1947, the Corps of the New Zealand Engineers had the title 'Royal' bestowed upon them by King George VI.[4] So, after a forty year departure from their official title, the 'Royal New Zealand Engineers' once again existed.

The establishment of the Royal New Zealand Engineers was initially small, with only a 'handful' of engineers included within the regular force. Knowing full well that the Royal New Zealand Engineers required well trained staff for the expansion of its regular force numbers, the Engineers sought, and gained, permission to send officers to study at The Royal Engineer College at Chatham in England, the Military Colleges of Australia and those universities in New Zealand that offered engineering degrees. To provide the fledgling Royal New Zealand Engineers with a labour force the three Army Troop Salvage Companies were redesignated regular force units and located at the Army bases in the three military districts that existed in New Zealand.

> 34 Army Troop Salvage Company became the Northern Military District Construction Company
> 35 Army Troop Salvage Company became the Central Military District Construction Company
> 36 Army Troop Salvage Company became the Southern Military District Construction Company. (5)

The role of the construction companies was, as the title suggests, and they began a construction support programme for the New Zealand Army. Military housing, barrack facilities and camp reconstruction were undertaken within each military district to meet the requirements of the Army.

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4. Chamberlain, H.E., A Brief Chronology of the History of the Corps of the RNZ Engineers, 1974, p.19 (Unpublished)

5. New Zealand Gazette, No.55, 21 October 1948

To ensure a continual supply of tradesmen to these companies, the New Zealand Government approved the enlistment and training of apprentices in the Army.[6]

Coupled with the reorganisation of the Regular Force, was the need to form a large reserve territorial force, which would make up the bulk of a possible New Zealand Division. Post-war troubles in the Middle East had a profound effect upon New Zealand's defence policy which now called for the raising of a New Zealand Division force for service in the Suez Canal region should Britain require our assistance.[7]

With military thinking attuned to the idea of a New Zealand Division, the Royal New Zealand Engineers reorganised their territorial forces as they, in time of war, would form the bulk of the Divisional Engineers. The requirements of Divisional Engineers were for the formation of a Field Engineer Regiment system. In 1948, preparations began for the formation of a Field Regiment, with the raising of Headquarters 1 Field Regiment, 4 Field Park Squadron and 5 Assault Squadron, while 1, 2 and 3 Field Companies were redesignated Field Squadrons.[8]

By 1949, 1 Field Engineer Regiment was operational and located at various centres around New Zealand.

Headquarters 1 Field Regiment	-	Wellington
1 Field Squadron	-	Auckland
2 Field Squadron	-	Wellington
3 Field Squadron	-	Dunedin
4 Field Park Squadron	-	Auckland
5 Assault Squadron	-	Christchurch[9]

6. A.J.H.R., H.19, 1948, p.9
7. Wickstead, M. (Compiler), The New Zealand Army, A History from the 1840's to the 1980's, 1982, p.59
8. New Zealand Gazette, No.55, 21 October 1948
9. Chamberlain, H.E., A Brief Chronology of the History of the Corps of the NZ Engineers, 1974, p.20 (Unpublished)

The construction companies also received new titles being redesignated construction squadron in keeping with the Regimental formation.

With the formation of the 1 Field Regiment, Royal New Zealand Engineers, the position of Colonel Commandant of the sappers was created. Lieutenant-Colonel R.T. Smith, who had served with the Royal Engineers and New Zealand Engineers in the Middle East and Asia, was appointed to the position on 1 January 1949. He served as Colonel Commandant until May 1957, when Lieutenant-Colonel A. Murray was appointed Commandant of the Corps. Since then many other distinguished members of the Corps of the Royal New Zealand Engineers have served as Colonel Commandant's of the Corps. (See Appendix 9).[10]

The reorganisation of the New Zealand force on a divisional basis, could only be maintained if sufficient men were available to fulfil the divisional establishments. In August 1949, a national referendum was held on the issue of conscription for territorial force soldiers. The final vote resulted in an overwhelming 'yes' for conscription, with half a million New Zealanders voting in favour of conscription and only 152,000 against.[11]

As a result of the victory, the 1950 Army Act was introduced, an Act which superseded the Defence Act of 1909. The resulting 'New Zealand Army' was the unification of the regular force and territorial force elements to form the orbit of a New Zealand Division.

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10. Appointment of Colonel Commandant, 1 January 1949, Army File 209/1/25, Ministry of Defence

11. Wicksteed, M. (Compiler), The New Zealand Army, a History from the 1840's to the 1980's, 1982, p.59

The New Zealand Army now comprised an infantry division, armoured brigade, artillery units and support units. The majority of the force was territorial force soldiers who, under compulsory military training, would undertake fourteen weeks of full time training followed by three years of service in the territorial force.[12]

As a result of the formation of compulsory military training, the Engineers began a programme of updating and expanding military facilities to cope with the influx of compulsory military trainees. The Central District Construction Squadron worked at upgrading facilities at Linton Camp and provided assistance to the Public Works Department who were constructing a new military base at Waiouru.[13]

The first intake of territorial force soldiers was in May 1950. The trainee engineers undertook their education at the engineer training wings located in the large camps or were sent to the newly redesignated School of Military Engineering at Trentham. At the School all aspects of field engineering were taught, and courses programmed for both regular and territorial force recruits.

The expansion in the size of the New Zealand Army due to the instigation of compulsory military training, meant the Royal New Zealand Engineers could expand their forces to form a Second Field Regiment, which would fulfil a New Zealand Division's engineering needs. To ensure the second regiment's efficiency, the New Zealand Army invited senior officers from World War Two to enlist into the territorial forces.

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12. ibid, p.62
13. A.J.H.R., H.19, 1950, p.7

In September 1951, after nearly six months of negotiations, the suggested order of battle and location of engineer units was decided. The First Field Engineer Regiment would be based in the North Island, the Second Field Engineer Regiment in the South Island.

Headquarters Royal New Zealand Engineer Division - Wellington

1 Field Regiment

Regimental Headquarters	-	Wellington
1 Field Squadron	-	Auckland
2 Field Squadron	-	Lower Hutt
6 Field Squadron	-	Hamilton
4 Field Park Squadron	-	Auckland

2 Field Regiment

Regimental Headquarters	-	Christchurch
3 Field Squadron	-	Dunedin
5 Field Squadron	-	Christchurch
7 Field Squadron	-	Nelson, Westport, Greymouth.[14]

The first Command Royal Engineers (CRE) for the divisional engineers was Lieutenant-Colonel W. Gordon Morrison, who was appointed to the position on the formation of the two Regiments on 1 September 1951. The position of Chief Engineer was also created and Lieutenant-Colonel A.R. Currie was appointed.[15]

The number of soldiers willing to support the two field engineer Regiments fluctuated, and it soon became obvious that this divisional formation was too cumbersome and difficult to administer. So, in July 1952, the Engineer Divisional commitment was reassessed.

> For some months I have been concerned about the Divisional Engineer organisation which was brought into existence last year. The additional Fd Engineer Regt which caused 6 and 7

14. Organisation of Engineer Units, 12 September 1951, Army File 209/1/25, Ministry of Defence

15. ibid

> Field Squadrons to be brought into existence did not appear to me to be an economical addition to a Division which is already very much larger than any other Division that I know of and which is becoming unwieldy.
>
> I therefore had discussions in New Zealand with the C.E., the C.R.E. and the military members of the Army Board, and as a result took the opportunity of talking over the problem with the Chief Engineer's Deputy at the War Office during my recent visit to the United Kingdom. This afternoon, I have again assembled the top level Committee at Army HQ, and after hearing all points of view have come to the decision that we should revert to our previous organisation. This will mean the disbandment of the HQ 2 Fd Engr Regt and the 6th and 7th Field Squadrons which are in the process of formation.
>
> I came to this decision with great reluctance from the point of view of disbanding the units into which you and your officers have already put so much work. From the larger aspect of the problem, I am sure that we have come to the right decision. (16)

So, even before the Second Field Engineer Regiment was activated, it was made redundant. At the Army Board Meeting on 12 August 1952, the 2nd Field Engineer Regiment Headquarters, and 6 and 7 Field Companies were disbanded. At the same meeting the new orbit of 1 Field Engineer Regiment was decided; 1 Field Engineer Regiment Headquarters; 1, 2 and 3 Field Squadrons, 4 Field Park Squadron and the newly redesignated 5 Independent Field Squadron.[17]

By April 1953, the 1st Field Regiment establishment strength was sixty-five officers and 650 other ranks. The bulk of the senior engineering officers were involved in private or government engineering businesses, so were able to provide a valuable and up-to-date input into the annual

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16. Memo from Major-General W.G. Gentry to Major G.K. Armstrong CO, 2 Field Engineer Regiment, Major D.E. Trevarthen OC, 6 Field Squadron and Major D.F. Brown OC, 7 Field Squadron, 29 July 1952, Army File 209/1/25, Ministry of Defence

17. Chamberlain, H.E., A Brief Chronology of the History of the Corps of the RNZ Engineers, 1974, p.22 (Unpublished)

camps. The list of commanding officers for territorial force Engineer units in 1953, illustrates the strong bond that existed between the private sector engineers and the military engineers. The newly appointed Commander Royal Engineers, Lieutenant-Colonel G.A. Lindell, was a design engineer for the Wellington Harbour Board; 1 Field Squadron Commander, Major R.C. Pemberton, was an engineer for the Auckland Harbour Board; 2 Field Squadron Commander, Major M.A. Craven, was an engineer contractor from Dunedin; 5 Independent Field Squadron Commander, Major R.W. Morris, was an engineer for the firm of Wilkins and Davies; 4 Field Park Squadron Commander, Major R. Gilmour, was District Engineer for the Auckland Metropolitan Drainage Board.[18]

To test the skills and training ability of the territorial force Royal New Zealand Engineers, the first Regimental Annual Camp was held at Tihoi near Taupo for North Island Units and Godley Heads near Christchurch for the South Island Squadrons. Training was thorough and rigorous for the territorial force sappers and a range of skills were covered by all field squadrons. Excerpts from the report on the Annual Camp reveals the field engineering tasks undertaken:

> The Squadron's tasks were the rebuilding of "Apple Tree Bridge", construction of a suspension bridge from the camp to the air-strip, road drainage, the erection of a tubular scaffolding water tower, watermanship in assault boats, demolition training, the preparation of a Squadron defensive position, night patrolling through scrub and anti-personnel minefields, and the gapping (by Troops) of booby trapped mine-fields carefully laid by other Troops the previous day. In addition, the more humdrum rifle shoot, training of doivers and wireless operators, vehicle maintenance, and the usual details of camp life went on simultaneously - unspectacular, but none the less part of the training of a soldier...

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18. The First Field Engineer Regiment - Its Serving Officers - 1952/53, 18 March 1983, Army File 209/1/25, Ministry of Defence

> All the sappers made up and fired several explosive charges, and working in groups larger charges were prepared and fired by various methods. Blasting was carried out on an outcrop of rhyolite on the approaches to "Matai Bridge" and it is understood that a method of vapourizing 6 foot diameter rimu logs has been evolved! One of the most valuable forms of training was the maintenance of continuous radio contact between Squadron HQ and all the field exercises. Rifle shooting and watermanship exercises on Lake Taupo were a welcome change from the more arduous activity described. The Squadron is now commanded by Major M.A. Craven of Wellington. (19)

Assisting at the territorial force camps were members of the District Construction Squadrons. The Squadrons had continued their support role for the army, building over 183 houses and flats for the Army as well as providing other facilities.[20]

The support of the Army is the primary role of the Royal New Zealand Engineers, but where necessary, the sappers provided relief and assistance during emergencies in New Zealand. One of the more controversial relief tasks of the sappers was during the 1951 Waterfront Strike where the Army provided machinery operators and labourers to load export cargo aboard ships. In cases of civil emergency the Engineers also assisted. During 1953, severe flooding in the Manawatu saw the deployment of Engineers from Linton to assist in the evacuation of families and property from low lying areas. The sappers also assisted at the stopbanks providing 'sandbaggers' and constructing emergency bridging. In 1954, the bridging skills of the sappers came to the fore as it was vital to keep communications open at Tangiwai, the site of New Zealand's worst rail disaster.[21]

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19. Territorial Engineers at Work, Annual Exercises of 1st Field Engineer Regiment RNZE, 3 March 1953, Army File 209/1/25, Ministry of Defence

20. A.J.H.R., H.19, 1953, p.7

21. A.J.H.R., H.19, 1954, p.12

The Tangiwai disaster shrouded the visit of Queen Elizabeth II to New Zealand. The visit of the Queen was of special significance for the Royal New Zealand Engineers as Her Majesty had recently accepted the appointment of Colonel in Chief of the Royal New Zealand Engineers. The Queen had also returned the correct and full title to the sappers. The correct title had been 'lost' since 1947 and its return was due to the persistent efforts of Lieutenant-Colonel A.R. Currie. On 22 October 1953, a letter of confirmation regarding the title was received from the Governor General

> I have just been informed by the Assistant Private Secretary to the Queen that Her Majesty is pleased to give her approval to the change in the title of the 'Royal New Zealand Engineers' to the 'Corps of the Royal New Zealand Engineers'.
>
> W. Norrie
> Governor General[22]

An important unit of the newly created 'Corps of the Royal New Zealand Engineers' was the School of Military Engineering (SME). On 1 September 1950, the School had been instituted as a unit of the New Zealand Army. Originally based at Trentham, the School was left almost alone with the transfer of the Army training schools to the new Army base at Waiouru. Since a large Engineer Training Wing existed at Linton the School of Military Engineering transferred there, absorbing the training wing into its ranks. Consequently, the School became a unit of the Central Military District. As a new unit it was responsible for the provision of its own facilities, the construction of which was not completed until the mid-1970's.[23]

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22. Letter 22 October 1953, Colonel in Chief RNZE 1941-1964, Army File 253/4/13, Ministry of Defence

23. Currie, A.R., The School of Military Engineering, Defence Library, (Unpublished manuscript)

For training purposes the School was organised into six training groups which covered the major fields of military engineering. The six groups were; a training squadron, a mines and demolition section, a field section, a dry bridging section, floating bridge section and plant section. The School also offered courses on assault pioneering and watermanship, and both necessitated the construction of a large artificial lake at the School. The School in the 1950's also undertook courses for Government Departments who were using Bailey bridging.[24]

For practical training of both the engineering trainees and the territorial force soldiers, the Royal New Zealand Engineers have undertaken various tasks for local governments. Such work provides valuable training without incurring added expenses to the defence budget, as the local community pays for the necessary equipment and materials. In 1955, the sappers built a water supply system for Marton Borough.

The local government aid work of the territorial sappers is normally undertaken during annual camps, and in 1956, the sappers were assisting the Ministry of Works to build Bailey Bridges near Featherston and Waikanae.[25] The role of the Army Engineers in assisting local governments is, however, tempered by restrictions.

> Every effort will be made to assist public bodies in engineering tasks which also have training value and where such assistance does not compete with private enterprise. (26)

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24. ibid
25. A.J.H.R., H.19, 1956, p.13
26. A.J.H.R., H.19, 1957, p.14

With the establishment of the School of Military Engineering at Linton, the Royal New Zealand Engineers have formed a unique bond with the towns and cities of the Manawatu region, undertaking a variety of tasks for local governments and charities. One town to benefit from its association with the sappers was Levin. In recognition of the links between the town and the Corps of the Royal New Zealand Engineers, the sappers were granted Freedom of the Borough of Levin, at a ceremonial parade on 7 February 1959.[27] The honour conferred by the Mayor of Levin Mr E.W. Wise, allows for the Corps to march through Levin, with drums playing, flags flying,and bayonets and swords drawn.

Another link was forged the previous year, 1958, when the Corps of the Royal New Zealand Engineers were allied to the Royal Australian Engineers. Since the First World War, the New Zealand sappers had worked with the Australian Forces. At Gallipoli, in the Pacific, and through the recent military involvements in Japan and Korea, the 'ANZAC' engineers had served together. The link between the two engineering forces was further strengthened in 1959 with the visit of the New Zealand Army Chief Engineer to Australia.[28]

A change in Government in 1958, resulted in the abolition of the Compulsory Military Training system. As a result, territorial force unit numbers decreased as military service was now voluntary. Despite falling rolls the regular force numbers were maintained at a high level and two new Royal New Zealand Engineer Units were created, 1 Independent Field Squadron and 1 Brigade Postal Unit.

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27. Chamberlain, H.E., A Brief Chronology of the History of the Corps of the NZ Engineers, 1974, p.23 (Unpublished) also Manawatu Evening Standard, 12 February 1959

28. A.J.H.R., H.19, 1960, p.9

Since World War Two Postal Units had been an integrated part of the Royal New Zealand Engineers, and remained so until 1971 when the Postal Units were handed over to the Royal New Zealand Army Service Corps. Throughout the 1950's and 1960's, the Postal Units were to play a vital role in boosting the morale of soldiers serving overseas, as they provided a necessary link with families and friends in New Zealand.[29]

By the beginning of the 1960's, the construction squadrons were effectively meeting the requirements for Army construction support and there was very little expansion in the regular force units. The territorial force engineers continued to have regular annual camps, often undertaking roading tasks around Waiouru. One problem did emerge however, as the Army Board could not firmly decide on the organisation of the Royal New Zealand Engineers 1 Field Regiment. In what one soldier described as a "greatcoats on, greatcoats off" period of muddled thinking, the New Zealand Army Board showed the existence of 5, 6 and 7 Field Squadron, even though they had been disbanded in 1952, at the disbanding of the 2nd Field Engineer Regiment.[30]

The situation was resolved in July 1961, when an Army Board decision approved the 'formation', by ministerial direction, of 1 Field Regiment, Regimental Headquarters and 1, 2 and 3 Field Squadrons. A subsequent fall in the number of volunteer territorial soldiers since the disbanding of 4 Field Park Squadron and the eventual disbandment of 5 Field Squadron in August and November 1961.[31]

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29. Chamberlain, H.E., A Brief Chronology of the History of the Corps of the RNZ Engineers, 1974, p.26 (Unpublished)

30. ibid, p.23

31. ibid, pp.23-24

The newly elected National Government reintroduced the compulsory military training after its election in 1962. Entitled the National Service Training Scheme, it entailed the selection of 3000 recruits a year therefore maintaining the territorial strength of the New Zealand Army. The selection system operated through the Department of Labour.

> All young men were required to register with the Department of Labour on their 20th birthdays. Those selected by birthday ballot were required to undertake three months full time training at Waiouru or Burnham, followed by three years of part-time service of not less than 60 days. (32)

Despite the influx of recruits into the territorial system, the Field Engineer Regiment structure was found to be inadequate. In 1955, New Zealand's major defence concern moved from the Middle East to the Far East. Conflict in the Far East had been of a limited warfare nature so the Regimental structure and Divisional organisation of the New Zealand Army needed modification. The Defence Review of 1958 pointed out the changing needs of the New Zealand Army.

> While retaining the ability to produce additional forces to meet a global war requirement, the government has decided to give greater emphasis to the provision of a substantial operational Regular Force...capable of meeting the requirements of a limited war. (33)

The future formation of the Royal New Zealand Engineers would be as Logistic Support Group units, all specialised in a different aspect of military engineering. In 1962, the Field Engineer Regiment was disbanded and the logistic groups were formed from the reorganisation.

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32. Wickstead, M. (Compiler), The New Zealand Army, A History from the 1840's to the 1980's, 1982, p.73

33. Defence Review, 1958, paragraph 27

The first units were not approved until August 1963, just prior to the reorganisation of the whole New Zealand Army. The new Royal New Zealand Engineer units were

1 Construction Squadron
2 Construction Squadron
3 Field Squadron
2 Works Section
1 Commander Royal Engineer (CRE) Works
6 Independent Field Squadron. (34)

The original Army Board Decision of 24 August 1963 makes no mention of 6 Independent Field Squadron; however, it was in existence as the unit constructed an airstrip at Rangitaiki to be used in the Army Exercise 'Reflex' in October 1963.[35]

The reorganisation of the Army resulted in the formation of a Combat Brigade Group, a Combat Reserve Group, a Logistic Support Group, and a Static Support Group. The reorganisation also resulted in the merging of the Territorial and Regular Force. As a result, most Royal New Zealand Engineer units were a combination of territorial and regular force soldiers.

After 1964, the regular force Engineers were deployed in units overseas, and increasingly the Ministry of Works began assuming the construction role for the Army.

> Work undertaken by the Army construction squadrons is limited by the size of units and available finance and any work done as part of a realistic training programme can only be regarded as a bonus

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34. Chamberlain, H.E., A Brief Chronology of the History of the Corps of the NZ Engineers, 1974, p.24 (Unpublished)

35. Manawatu Evening Standard, 2 February 1963

> to supplement the State works programme. During the years the squadrons have been employed in alterations and renovations to accommodation at various camps, the construction of tank hangars and wet weather shelters at Waiouru and a new workshop at Linton. Working in close harmony with the Ministry of Works, engineer services and camp development have also been undertaken.[36]

The Royal New Zealand Engineers could meet the specialist needs of the Army, however, the general construction requirement could be undertaken by the Ministry of Works.

One specialist project undertaken was the building of the Waiouru Airfield. Experience gained in Thailand with the construction of the airfield near Mukdahan proved invaluable. During 1966, the sappers developed the airfield and constructed the foundations for the airfield, the sealing of the runway being done by the Ministry of Works in 1967.[37]

In an effort to maximise the use of the construction squadrons, as many military construction projects as possible were undertaken by squadron personnel. During 1968 and 1969, the squadron built barrack, mess and storage facilities at Waiouru, Linton, Papakura and Burnham. The construction squadron also undertook a variety of construction tasks for the Royal New Zealand Airforce and Royal New Zealand Navy.

By April 1969, the organisational structure of the Royal New Zealand Engineers was proving unsuitable as the role of the sappers began to change. The regular force and territorial force trade structures were outdated because

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36. A.J.H.R., H.19, 1966, pp.28-29

37. A.J.H.R., H.19, 1967, p.29

1. ...the character of work is evolving to construction of a more permanent nature (in building, roading etc.). The existing trade structure does not provide the proper balance of skills needed in the new tasks.

2. Experience since the introduction of new equipment indicates that a more suitable range of trade skills is required for its operation and maintenance. Some specialist skills are entirely omitted at present. (38)

The existing organisation also lacked the necessary structure for undertaking specialist tasks or deploying specialist units; tasks that were presented more frequently as the Royal New Zealand Engineers became more involved with the New Zealand Government's overseas commitments. Administrative problems had also emerged as the present diffuse pattern of organisation and command made coordination of the Corps difficult. The construction role of the squadrons was also debated for the Corps Commanders believed the peace time and war time roles of the squadrons were in conflict.[39]

Reorganisation was finally approved in November 1973, and the direction of the Royal New Zealand Engineers changed to meet the provision of combat needs, with less emphasis on a construction support role. That reorganisation resulted in the redesignation of most Engineer units and the creation of 5 Support Squadron. The new units were:

Headquarters Force Engineer	(ex CRE Works and 2 Works Section)
1 Field Squadron	(ex 1 Construction Squadron)
2 Field Squadron	(ex 2 Construction Squadron)
3 Field Squadron	
5 Support Squadron	
6 Field Squadron	(ex 6 Independent Field Squadron)

38. RNZE Reorg., 8 April 1969, Army File 209/1/125, Ministry of Defence

39. ibid

1 Works Team	(ex Northern Engineer Troop)
2 Works Team	(ex Central Engineer Troop)
3 Works Team	(ex Southern Engineer Troop)40

This new organisation remained largely intact through the 1970's although the works teams were gradually absorbed into the field squadrons.

A sense of history also emerged in these years. As early as the 1960's, there was a strong desire among some members of the Corps of the Royal New Zealand Engineers to establish a Corps Memorial Centre. Such a Centre would, it was claimed, provide facilities for the display and storage of Corps archival and historical information. In 1962, encouraged by Lieutenant-Colonel A. Murray, the Royal New Zealand Engineer Corps Memorial Association was established. Lieutenant-Colonel Murray proposed the establishment of a Corps church, a museum, and a library centre for the Corps.

It was not until 1973 that the construction of the first phase of the Centre began. The previous eleven years had been spent raising the necessary finance and this finance was used to purchase a disused church. The small town of Makotuku, northeast of Dannevirke, possessed a small wooden church no longer used by the community. After negotiations, the sappers purchased the church, dismantled it, and transported it to Linton Camp. At Linton Camp, the church was sited on a small piece of land near the School of Military Engineering. The church was then reassembled and renovated by voluntary labour from the Engineer units

40. Chamberlain, H.E., A Brief Chronology of the History of the Corps of the RNZ Engineers, 1974, p.26 (Unpublished)

at Linton and Wellington. On 20 July 1974, this first phase of the Memorial Centre was opened, with the dedication ceremony of St Martin's, the Royal New Zealand Engineers chapel. This was a unique event in the New Zealand Army. The sappers were the first Corps to have their own chapel.[41]

Almost immediately, plans were laid for the construction of the second stage of the Memorial Centre, a combined Museum and Library complex. However, before the Army Engineers completed their museum, they were ordered to construct a museum for the New Zealand Army.

Over its long history, the New Zealand Army had acquired various items of historical note. Until the early 1970's these items had been housed in a mess hall at Waiouru Camp. Under the impetus of the Chief of General Staff in the early 1970's, Major-General R.D.P. Hassett, the concept of a large army museum developed. Fund raising for the purchase of materials began and by 1977 totalled $750,000.[42]

Waiouru was chosen as the site of the new museum, and in October 1977, site preparation began. On 18 January 1978, sappers from 2 Field Squadron under the command of Major A. Anderson RNZE, began the construction of the castle-like museum.

The construction of the museum took nine months, and the sappers, assisted by volunteers from throughout the Army worked on site for up

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41. ibid, p.27

42. Wicksteed, M.(Compiler), The New Zealand Army, A History from the 1840's to the 1930's, 1982, p.87

to twenty hours per day, seven days per week, under the construction oversight of Warrant Officer R. Wills RNZE. Even the extremes of Waiouru's winter climate did not stop construction. The work of the sappers was expanded to include the building of carparks, roading and a beautification programme for the museum complex, these tasks being carried out by 5 Support Squadron, Royal New Zealand Engineers.[43]

The museum was completed in early October 1978. On 15 October, befittingly 'Sappers Day', the Governor General, Sir Keith Holyoake officially opened the Queen Elizabeth II Army Memorial Museum.

The construction of the Army Museum continues, with extensions to the building being planned for 1983. Once again, the Royal New Zealand Engineers will be required to undertake the construction of the Museum's extensions.

Through the 1970's, the role of the New Zealand Army in Asia has been greatly reduced and the attention of the military has turned to the Pacific region. A major part of New Zealand's assistance to the Pacific islands has included work by the Royal New Zealand Engineers. In 1978, at the request of the New Zealand Government, 3 Field Squadron Royal New Zealand Engineers was sent to the New Zealand 'Pacific Islands', the Chatham Islands.

The sappers were required to upgrade the roading and bridging on the island. A force of 140 men, commanded by Major J. Bell RNZE, were sent to the island, the whole project being used as the Annual Camp for 3 Field Squadron.

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43. Evening Standard, 18 August 1978

The sappers repaired and realigned a number of bridges around the island, put in culverts, built roads, constructed a wharf loading ramp at Owenga, and repaired the damaged Waitangi Wharf, all within a four week period.[44]

The construction works of the sappers however did not end on the Chatham Islands until 1979, when 6 Field Squadron completed their four week annual camp.

In 1980, the second stage of the Royal New Zealand Engineer Corps Memorial Centre was finally approved and preparation of the site and construction began. Using volunteer labour from the Engineer squadrons the project was completed in 1981, and officially opened in January 1982 by the Colonel Commandant, Colonel K. Christie and Mrs A. Murray, wife of Colonel A. Murray who first proposed the idea of a Corps Memorial Centre.

The opening of the complex also coincided with the re-formation of the 1 Field Engineer Regiment Royal New Zealand Engineers. The reorganisation of the New Zealand Army in 1979 had resulted in the formation of the New Zealand Land Force comprising three Task Force Regions and the Army Training Group at Waiouru. The task force region headquarters were based in the main military camps; 1 Task Force Region, which comprised the northern half of the North Island, was based at Papakura Camp; 2 Task Force Region which comprised the southern half of the North Island was based at Palmerston North; the South Island made up 3 Task Force Region,

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44. The Christchurch Press, 13 February 1978

the base being in Christchurch. In an effort to improve and centralise organisation and rationalise communication and manpower requirements of the engineers, the squadrons were reorganised into a Field Regiment formation.

The current formation of the 1 Field Engineer Regiment includes:

Headquarters Force Engineer
1 Field Engineer Regiment Headquarters
1 Field Squadron
2 Field Squadron
3 Field Squadron
6 Field Squadron
5 Support Squadron
The School of Military Engineering
Works Services Unit (Singapore)
Fire Stations.

The Corps of the Royal New Zealand Engineers has a basic support role in the Army. This support role of the Corps has remained largely unchanged since 1945. The primary function of the Corps has been, and perhaps always will be, to provide the construction and field engineering support units for the New Zealand Army. When called upon to do so, the Corps has also provided national and local governments with a cheap and valuable source of expertise. In time of emergency, the Royal New Zealand Engineers have always been available, fulfilling the important role of keeping communications, roading and bridging open for use. Fortunately the records of most of this past work and the history of the future work of the sappers will be preserved for posterity in the Corps Memorial Centre at Linton. The sappers of the Corps of the Royal New Zealand Engineers are not immortal, but their Corps has secured its immortality.

CONCLUSION

Since history was recorded mankind has more often been at war than at peace. Military history, the narrative and assessment of humanity's activities in war, and preparation for war, is therefore an essential craft for those concerned to understand civilization's fortunes. Even in New Zealand, with less than two hundred years of recorded history, wars, skirmishes, scares and military expeditions loom large in the nation's history. Within these wars, from the 'Flagstaff' campaign against Hone Heke Pokai through to Vietnam, New Zealand's military engineers (from 1902 the Royal New Zealand Engineers) have played an effective, supportive role. Without the roads and bridges they built, Cameron's troops would have found their invasion of the Waikato and Taranaki hazardous and even impossible. Without the redoubts the sappers built the Pakeha might never have held the confiscated lands against Maori counter-attacks. Bereft of seconded British Royal Engineers the Royal New Zealand Engineers could not have been formed and no port fortresses, with giant guns, electric searchlights, minefields and torpedo boats would have been built to 'scare' away Russian warships. In more recent times, without the Royal New Zealand Engineers, the 'Feeder' highway of Thailand, military facilities in Korea, Vietnam and Singapore, and military camps in New Zealand would not have been constructed.

This thesis has assessed the Corps of the Royal New Zealand Engineers contribution to the New Zealand Army's impact overseas and at home. It has also identified key aspects of engineer capability that have in some

cases been consistent, in other cases late developing or fluctuating in appearance.

Officer training is one of these aspects. From the formation of the Royal New Zealand Engineers in 1902, officers of the Corps have been sent overseas for training in military colleges of Australia and England. Since 1947, the Corps has also provided facilities by which their officers can undertake engineering studies at New Zealand universities.

Proof of the value of this training has been revealed throughout the history of the Corps. In the Asian areas of conflict relatively junior officers of the Corps have shown themselves to be capable, adaptable and brave. Throughout the Pacific, the peacetime training of the Engineers officers has enabled a wide variety of tasks to be undertaken.

The same can be said for the Senior Non-Commissioned officers of the Corps many of whom received their training at Linton at the School of Military Engineering. Not only have graduates from the School contributed much to the local communities in New Zealand, but the School's success has also been revealed in the proficiently trained sappers who served on construction tasks through Asia, the Pacific and Antarctica and with the Assault Pioneer Platoons in Malysia and Vietnam. As well, the School has undertaken the training of soldiers from the Pacific Islands.

The School continues its work today ensuring a continual supply of well trained sappers capable of maintaining the Royal New Zealand Engineers roles in the New Zealand Army.

The Corps's history reveals that the Engineers have not always been well equipped with the necessary tools of military engineering, either in New Zealand or overseas. However, the training of the sappers has taught them to improvise where necessary, or when serving with overseas units to 'bludge' or barter for the necessary equipment. With the establishment of 5 Support Squadron in 1973, the Corps organised a cadre of essential engineering equipment, which is still available for use both in New Zealand and overseas.

Throughout the Corps history, there has been a close link with the government engineers, private business engineers and overseas military engineers and this, coupled with the overseas training and deployment of the Royal New Zealand Engineers, has enabled the Corps to have an up-to-date understanding of the changes in both military and civilian engineering.

Without public appreciation of the role of a Corps, and the military staff's acceptance of its importance, that Corps is doomed to relegation amongst the trivia of Army life. The value and importance of the Corps of the Royal New Zealand Engineers has been proved time and again to both the military staff and the New Zealand Government. The combat role of the sappers, and more recently their aid role through the Asian and Pacific regions, have done much to enhance the mana of the New Zealand Army and New Zealand Government. As well, the aid tasks have contributed much to improve the economic development and living conditions of people in these regions. If the Corps is to continue to fulfil these roles, then the sappers must be assured of continued support from both the New Zealand Government and the New Zealand Army.

The Corps of the Royal New Zealand Engineers has a long, eventful and continuing history. In the past and in the future the Corps will continue its work throughout New Zealand and overseas thereby living by its motto 'Ubique'.

APPENDIX ONE

REPORT ON THE PAHS OF NEW ZEALAND

The strength of the pahs of New Zealand consists principally in the choice of position.

They are generally situated on peninsular points, with three sides inaccessible being steeply scarped towards the sea, usually 50 to 60ft in height and palisaded at top : the depth of water round them being (generally) such as to prevent any vessel larger than six or eight tons approaching them within range of field-guns; I consider the attack of these sides, except by surprise, impracticable; the fourth side is always cut off by a deep ditch having steep scarps from 20 to 30 feet in height, and counterscarps from 6 to 16 feet; the nature of the soil being generally a stiff clay, or soft sandstone, retains the slope of 60°.

The terreplein, from 20 to 30 feet broad, has a strong palisade in front, or the palisade is placed above the scarp with a low parapet and banquette, and the whole of the interior of the pah is intersected in every direction by fences, each hut being fenced around. These interior defences, though low, if not destroyed before the entrance of the troops, must entangle and confuse them, and totally prevent the use of the bayonet. The ditches are also flanked by a strong palisade.

In addition to the principal pah, there is also frequently an outer work with a low ditch palisaded in front, and commanded by the main work; and should one part of the pah be considered weaker than another, it is strengthened by a double palisade, 3 feet apart, with embrasures left in the outer one at the level of the ground, and a trench cut inside to afford cover.

In short, the pahs assume every description of defence of this nature, of which they are capable, and are sometimes strengthened by even three successive rows of palisades.

The palisades themselves consist of large trees about 1 foot in diameter, roughly hewn, and placed 6 or 8 feet apart, and afford safe cover for a man; they are from 12 to 20 feet in height, rudely ornamented at top; between these posts long stakes, from 8 to 10 feet height and 1½ inch diameter, and nearly tangent to each other, are strongly bound together; or, if greater strength is required, rough three-sided stakes about 9 inches perimeter are used.

Should the pah not be situated on a peninsula, its front consists of one steep side towards the sea, with generally a deep and wide gully on each flank, and the gorge is protected by a deep ditch, as before described.

The section of the pah of Temutu exemplifies the usual defences, but the natives evince considerable military knowledge, and I observed that several of their pahs had their counterscarps excavated, having small openings like embrasures. These, I am told, are used for keeping potatoes, and I cannot learn that they have ever been used for defence.

In illustration of their military knowledge, I may say that when I was ordered to prepare a plan of attack of the Pah of Maketu, I consulted the chief Tupaia, of Otumaiti pah : he immediately sat down on the sand and erected a model of the pah and surrounding country, giving me the distances and command that each hill had over the pah and each other, and pointed out how it might be approached with safety. The plan I made from his model I was subsequently able to compare on the spot, and found his plan and ideas very correct.

The number of men the pahs would contain varies from 300 to 800, and they possess a large supply of potatoes and kumera (sweet potatoe) in holes excavated for the purpose. They have also an abundance of muskets and ammunition, the former very good, and nearly all double-barrelled : the latter made up into cartridges; and each man is supplied with a good cartouche-box.

They have also their tomahawks for close quarters; I may add that they are an exceedingly active and warlike race, and few of them without the experience of several fights.

I have been informed that the pahs in the interior of the country are constructed on the same system, detached hills, or hills on the extremity of a ridge, being the site usually chosen.

What I have said relative to the choice of position of their pahs relates only to that arm against which they have hitherto had to contend - the musket. But I have seen no pah which was not commanded at distances varying from 200 to 600 yards; consequently the method of attack is simple and certain.

A couple of 12-pounder 4.2/5 inch brass howitzers to break down the palisades, and with a few carcases to set fire to the huts and interior fencing already described, places the strongest pah at the mercy of a few men; but without these means, I conceive that the attack of a strong pah must always be attended with considerable loss to the assailants.

The howitzers must be light, as they will have to be landed generally on a beach with a surf, and will have to be got up a height of 50 or 60 feet to be placed in position. A few rounds of grape and shot for the same guns would also be necessary, and two or three Coehorn mortars and some hand grenades exceedingly useful.

From the want of knowledge and gunnery by the soldiers of the line, it will be necessary that a few artillery men (or sappers and miners well instructed in the use of howitzers, and method of making up carcases) should accompany them; the latter, I venture to suggest, would be the most useful in this colony, as their labour as mechanics would be very valuable in the erection of ordnance and barrack buildings in New

Zealand, where the price of such labour is high, and the mechanics of the detachment (of the line) so few and indifferent.

Should it eventually be found necessary to disarm any tribe on account of their continued wars and cannibalism, I conceive that the ordnance above specified, with three companies of the line, would be sufficient to surround the pahs and force the surrender of their arms.

I trust I shall be excused for making the above suggestions, as the insufficiency of our means, from want of ordnance and gunners when the attack of Maketu pah was contemplated, was severly felt, and was only overcome by accidental presence of H.M. Store-ship "Tortoise", and the assistance they afforded; without such assistance I do not consider that our means (sixty-five infantry) were such as to justify an attack, where a repulse must be attended with such serious consequences, in destroying the wholesome dread they at present have of British soldiers.

(Signed) GEORGE BENNETT

Lieut. Royal Engineers, commanding.

Feb 10, 1843

SOURCE: Professional Papers of the Corps of the Royal Engineers, 1853, pp.47-49

APPENDIX TWO

CONDITIONS FOR THE COMPETITION FOR THE NEW ZEALAND ENGINEER VOLUNTEERS' CHALLENGE SHIELD

The shield will be awarded to the company that obtains the highest number of marks for efficiency as laid down in these conditions, and is therefore by examination found to be the most efficient company of engineers in New Zealand.

Any infringement of these instructions will disqualify a company.

The Engineer staff officer will carry out, or depute officers to carry out, the examinations at the various stations, and he will decide the results and make his award, which will be final.

The award will be published in "General Orders", and the shield will be held by the winning company until the publication of the next year's award.

Discipline

A corps is to be under examination from the commencement of the termination of its annual training-camp.

Special attention is to be paid to the discipline of the corps, and marks will be deducted by the Engineer staff officer, or the officer deputed by him, for any slovenly work throughout the camp, such as:

(a) Late falling-in on parade.
(b) Bad discipline on parade, or lack of smartness.
(c) Bad discipline in camp, such as disturbance after "Lights out"; camp routine not properly carried out; tents and lines not clean, &c.

Penalties for bad discipline in accordance with above will be made by the deductions from the total number of marks awarded for efficiency and attendance, which deductions must not exceed 5 per cent - i.e., a maximum of 1 per cent under each of the above headings.

Attendance

One hundred marks will be allotted for attendance.

For every parade held during the annual training-camp, excluding Sundays, 1 point will be awarded for each attendance. The number of points gained multiplied by 100 and divided by the maximum number will be the marks allotted to the company.

Example - If the strength of the corps is 100 all ranks, and twenty-eight parades were held during the camp, the maximum would be 2,800; but if there were only 2,600 attendances, the marks allotted would be

$$\frac{2600 \times 100}{2800}$$

The attendance of all parades will be checked by an officer of the Permanent Forces, or the senior Permanent Force instructor present.

Half a mark may be deducted from the attendance marks of any man who is late for parade.

Marks will not be lost by the absence of men through sickness as a result of injury incurred on duty.

Officers, non-commissioned officers, and men absent from the district will not count as on the strength of the corps for this calculation.

Field Engineers
Field Engineering

Every non-commissioned officer and man in the field engineering section will be examined.

The maximum number of marks an individual may obtain will be 200. The total number of marks obtained by those examined will be divided by the number of men in the section.

Example - Of a field engineering section of forty, thirty are examined. The number of marks the thirty obtain is 4,824. The marks placed to the credit of the company will be

$$\frac{4,824}{40} = 120.6$$

Signalling and Field Telegraphy

A similar system will be pursued in these sections, save that the maximum marks for an individual will be 100.

Subjects of Examination

The particulars of the subjects of examination are shown in paragraph 416, General Regulations of the Defence Forces of New Zealand.

Submarine Mining Engineers
Submarine Mining

Every non-commissioned officer and man in the submarine-mining section will be examined.

The maximum number of marks an individual may obtain will be 200. The total number of marks obtained by those examined will be divided by the number of men in the section.

Example - Of a submarine-mining section of forty, thirty are examined. The number of marks the thirty obtain is 4,824. The marks placed to the credit of the company will be

$$\frac{4,824}{40} = 120.6$$

Testing and Electric Lighting

A similar system will be pursued in these sections, save that the maximum marks for an individual will be 100.

APPENDIX THREE

NEW ZEALAND ENGINEERS AWARDED THE VICTORIA CROSS

BASSETT, Cyril Royston Guyton

4/515, Corporal, New Zealand Divisional Signals, NZ Engineers, 1 NZEF

Citation:

"For most conspicuous bravery and devotion to duty, on the Chunuk Bair ridge on the Gallipoli Peninsula on 7 August 1915. After the New Zealand Infantry Brigade had attacked and established itself on the ridge, Corporal Bassett, in full daylight and under a continuous and heavy fire succeeded in laying a telephone line from the old position to the new one on Chunuk Bair. He has subsequently been brought to notice for further excellent and most gallant work connected with the repair of telephone lines both by day and by night under heavy fire."

"London Gazette" 15.10.1915

Cyril Bassett was born in Auckland on 3 January 1892 and enlisted in 1 NZEF August of 1914. As a Sapper, Divisional Signals, NZ Engineers he embarked for Egypt in October 1914 where he was sent to Gallipoli as a part of the initial assault force on 25 April 1915. He remained at Gallipoli until August of 1915 when due to illness he was sent to Britain for hospitalisation, rejoining his unit on the Western Front June 1916. He was commissioned in September 1917, wounded in action October 1917 and March 1918 and returned to New Zealand in December 1918.

Lieutenant Bassett's military career resumed with the outbreak of World War II and he was mobilised with the NZ Corps of Signals in January 1941, ending his service in December 1943 as Commander, Northern District Signals.

FORSYTH, Samuel

4/400, Sergeant, New Zealand Engineers (attached to 2nd Battalion, Auckland Infantry Regiment, 1 NZEF.

Citation:

"For very conspicuous gallantry and devotion to duty during an attack on 24th August, 1918.

On nearing the outskirts of a village his Company came under heavy machine gun fire. Through this N.C.O's dashing leadership and total disregard of danger three machine gun positions were rushed and the crews taken prisoner before they inflicted many casualties on our advancing troops. Proceeding forward again the Company came under heavy fire from several machine guns, one of which Sergt. Forsyth located by a daring reconnaissance. Seeing a tank on the outskirts of the village, he ran towards it with the object of guiding it to where it could best deal with the machine guns. At the same time the tank came under fire from an enemy anti-tank gun, and Sergt. Forsyth was wounded in the arm by a splinter. Getting it bandaged up he again rushed to the tank, and in the face of very heavy fire from machine guns and anti-tank guns, walked in front of the tank with magnificent coolness, directing it into a favourable position. Before reaching there the tank was put out of action by a direct hit. Immediately the Sergeant organised the tank crew and several of his men into a section and led them to a position where the machine guns could be outflanked. Always under heavy fire he directed them into positions which brought about a retirement of the enemy machine guns, and enabled the advance to continue.

Sergt. Forsyth was at that moment killed by a sniper. From the commencement of the attack until the time of his death Sergt. Forsyth's courage and coolness, combined with great power of initiative, proved an invaluable incentive to all who were with him, and he undoubtedly saved many casualties".

H.E. AVERY, Lt-Colonel
Assistant-Adjutant and Quartermaster-General

Special Divissional Routine Order by Major General Sir A.H. Russell KCB, KCMG, Commanding New Zealand Division, 9 October, 1918.

Samuel Forsyth, born 3 April 1891 in Wellington and enlisted in 1 NZEF August 1914. He trained in Egypt, served in Gallipoli May to July 1915 and August to November 1915 from where he was evacuated sick to the United Kingdom. He joined 3 NZ Field Company in the

Western Front in April 1916, from there he was attached to 2nd Battalion, Auckland Infantry Regiment prior to being recommended for a commission. He was killed in action on 24 August 1918 and is buried in the Adanac Military Cemetery, Miraumont, France.

APPENDIX FOUR

NEW ZEALAND ENGINEERS 1939-1945

1 New Zealand Division

HQ 1 Div. Eng
1 Field Coy
31 Field Coy
38 Field Coy

2 New Zealand Division

HQ 2 NZ Div Eng
6 Field Coy
7 Field Coy
8 Field Coy
5 Field Park Coy
27 Mech Equip Coy
28 Assault Squad

Works Engineers:

HQ NZ Railways Construction and Maintenance Group
9 NZ Survey Coy
10 Railway Const Coy
13 Railway Const Coy
18 Army Troop Coy
19 Army Troop Coy
21 Mech Equip Coy
1 Works Section (25 Field Coy)
2 Works Section
3 Works Section
5 Engineer Works Coy

Transport Engineers:

HQ NZ Railway Operating Group
16 NZ Railway Operating Group
17 NZ Railway Operating Group

Resource Engineers:

HQ NZ Forestry Group
11 NZ Forestry Group
14 NZ Forestry Group
15 NZ Forestry Group

Postal Services:

Base Post Office
Divisions Postal Unit

Training Units:

New Zealand Training and Reinforcement Unit
Advanced Engineer Training Depot

3 New Zealand Division and B- Force

HQ 3 NZ Division Engrs
HQ B- Force
20 Field Coy
23 Field Coy
26 Field Coy
37 Field Park Coy
18 Army Troop Coy
24 Army Troop Coy
N Force (Norfolk)
Wharf Operating Coy
HQ Works Services
Works Services Construction Coy

4 New Zealand Division

HQ 4 Division Engineers
2 Field Coy
22 Field Coy
39 Field Park Coy

5 New Zealand Division

HQ 5 Divisional Engineers
3 Field Coy
32 Field Coy
40 Field Park Coy

6 New Zealand Division

25 Field Coy

Non Divisional Engineers

Defence Engineers Services Corps
- Northern
- Southern
- Central

34 Army Troop Coy
35 Army Troop Coy
36 Army Troop Coy
Bomb Disposal Group
Engineer Wing, Army School of Instruction
12 New Zealand Railway Survey Coy
5 Works Coy
6 Works Coy
7 Works Coy

APPENDIX FIVE

BUTCHER, George William

207544 Royal New Zealand Engineers

Citation:

In August 1952, 2Lt Butcher worked with his Troop on TEAL bridge during the floods. Debris was piling up against the piers due to the collapse of the sheerwaters. The bridge was in imminent danger of collapsing and being swept away in the torrent. Nevertheless 2Lt Butcher with no concern for his personal safety climbed down the piers to place charges for blowing away the debris. He continued in this work until ordered off the bridge which eventually collapsed.

At a later date he was engaged in reconnoitering and repairing the boundary fences at minefields in front of 1 RF Sector. This area was close to the enemy's positions and had been dominated at night by very active patrolling by the Chinese. Moreover, the area had been rendered particularly hazardous by the destruction of many of the minefields fences by shell-fire. During this period 2Lt Butcher made over 70 patrols and reconnaissances to re-establish the boundaries of these minefields coming under enemy fire on many occasions. In addition he spent five nights continuously on an operation for gapping minefields in this area as a requirement for Op PIMLICO. In all this work he showed a complete indifference to danger and a cool detachment which has inspired great confidence in those working with him.

On the early morning of 13 November, 2Lt Butcher was called out to extricate an infantry patrol which had strayed into a minefield and suffered three casualties. He breached the minefield in broad daylight under enemy observation, brought out the wounded, and led the remainder of the patrol out of the minefield and back to safety, one by one. The enemy brought down mortar fire on the party while this was being done.

Throughout this incident, as indeed in all his work, 2Lt Butcher displayed courage and coolness of a very high order. His quiet confidence, leadership and devotion to duty were a continuous inspiration to all who worked with him.

(Gazetted 19 June, 1953)

APPENDIX SIX

HALL, Keith Grimston

203921 Royal New Zealand Engineers

Citation: (Unofficial)

Great courage and skill were shown by a New Zealand engineer, Second Lieutenant Keith Hall, of Auckland, in recovering a body from a minefield. What he did required "real guts", said Major J.D. Grice, officer commanding the British 12th Field Squadron, to which the New Zealand Engineers section is attached.

Major Grice said a British sergeant was killed during a minefield lifting operation in which the New Zealanders were involved. Because of the pattern in which the mines had been laid in the area it was known there were two other mines near the body.

After one was rendered harmless it was apparent that the other was under the body still unexploded. The engineers were then posed the problem of how to remove the body safely without a further explosion.

"Regardless of the danger to himself", said Major Grice, "Second Lieutenant Hall undertook to locate the mine, although it meant groping blindly under the body. While others watched tensely, his fingers explored under the body till he was successful, allowing the body to be recovered without further injury".

SOURCE: Huntly Press, 7/5/1953

(Gazetted 19 June 1953)

APPENDIX SEVEN

PITMAN, Edward Walter

204188 Royal New Zealand Engineers

Citation:

Sapper Pitman was responsible for the maintenance of the Hill 355 cableways in Korea from the time they were built. Previously he had maintained and operated the old laundry. He turned out willingly and cheerfully at all times of the day and night to repair the cableways whenever they were out of action by enemy fire or excessive wear. He often had to carry out this task under mortar fire, but never left a task until it was successfully completed.

In addition to the cableways maintenance he worked hard and cheerfully with the rest of his section on field defences on Hill 355. He was completely imperturbable under fire and his presence always made a notable contribution to the morale of those working with him.

His service over a long period was outstanding. In particular his genius with cables and wire ropes was invaluable. His work made a vital contribution to maintaining essential supplies without interruption to the companies defending Hill 355.

(Gazetted 10 November 1953)

APPENDIX EIGHT

VIETNAM DECORATIONS

527333 SAPPER WIKI KAHIKA, mid.

Sapper Wiki Kahika, mid, was a member of the Assault Pioneer Platoon. On the 22nd June 1968 Sapper Kahika was a member of a nine man patrol from One Platoon, Victor Company which was engaged by an enemy company of about 70 to 80 strong. The enemy opened fire on the patrol at about ten metres range, wounding five men. During the initial exchange of fire one of the riflemen was badly wounded and lay unconscious only five metres from the nearest entrenchments. While armed helicopters were engaging the enemy, the 2nd in command of the patrol told Spr Kahika to move forward and recover the wounded rifleman under covering fire. Spr Kahika unhesitatingly ran forward over ten metres of exposed ground, lifted the wounded man and carried him to cover. He then continued to participate in the action which lasted for one hour and forty minutes. Later, when a relief force arrived, he asked to be allowed to remain to help search the area. He took part in the search of the enemy company defensive positions and personally investigated tunnel systems. His competence, quickness and, above all bravery was an example and inspiration to the remainder of the patrol. In remaining after the action to give his specialised knowledge to the search he showed commendable endurance, toughness of character and devotion to duty.

Extracted from the Regimental Book of the 4th Royal Australian Regiment/New Zealand (ANZAC) Battalion, 1972

APPENDIX NINE

COLONEL COMMANDANTS R.N.Z.E.

1949 - 1982

1. Lieutenant-Colonel R.T. Smith OBE
   Appointment from January 1949 - May 1957

2. Lieutenant-Colonel A. Murray OBE
   Appointment from May 1957 - October 1964

2(a). Lieutenant-Colonel H.M. Reid MC and Bar
   Appointed May 1964 while Lieutenant-Colonel Murray was overseas. Lieutenant-Colonel Reid died in office July 1964.

3. Lieutenant-Colonel G.A. Lindell DSO, OBE, ED
   Appointment from October 1964 - March 1970

4. Colonel J. Brooke-White OBE, MSc, B.E.(Civil)
   Appointment from April 1970 - March 1975

5. Lieutenant-Colonel A.R. Currie DSO, OBE, B.E.(Civil)MNZIE
   Appointment from April 1975 - March 1978

6. Lieutenant-Colonel R.C. Pemberton MC and Bar
   Appointment from April 1978 - March 1981

7. Lieutenant-Colonel K. Christie MBE, ED, B.E.(Civil and Electrical)
   Appointment from April 1981

SELECTED BIBLIOGRAPHY

PRIMARY SOURCES:

Official Publications:

Appendices to the Journals of the House of Representatives 1866-1981

New Zealand Gazette 1850-1948

New Zealand Parliamentary Debates 1950-1964

Official Documents:

Army Files

209/1/25

212/11/556/GS

239/4/125

270/4/1/GS

DM 67

CE 5.34

Chief Engineers Office File

Antarctica File

The New Zealand Embassy, Moscow

Chief Engineers Office Reports

Hollander, J., A Report on Atiu Harbour Project, Second Detachment, 1975

Jasonsmith, G.R., Operation Atiu Harbour, Third Detachment Project Report 1975

Moloney, D.W.S., Tokelau Islands Reef Gapping Report, 1964

Woods, K.J., Report on Atiu Harbour Project, First Detachment, 1964

General Orders 1924-1926

Royal New Zealand Engineer Corps Memorial Centre Reports

Bennett, R.T., Operation Crown, Script of Audio Visual Display, undated

Bowman, R. (Captain) Army Hospital in Korea, undated

McDonald, J., Letter, 12 December 1970, Vietnam File

Parker, C.R., Kayforce, 1970

C.G.S. Exercise 1972

RNZE Detachment in Vietnam 1964-1965, Final Rehearsal Draft, 1972

C.G.S. Exercise 1972

RNZE Detachment in Vietnam 1964-1965

Radford, R.W. (Captain) RNZE Construction Party at Chi Lang, Audio Visual Display, undated

Alexander Turnbull Library (Photographic)

New Zealand Army Public Relations narratives for Korean War Photographs

National Archives

CO 209/4

DAK, Series 1 3/1/1

1A 2/2

1/68

48/1149

Wa-J Series Z002
Z004
Z023
Z024

Interviews

Barrett, R.A.

Bowman, R.

Bruce, E.W.

Bunce, G.K.

Butcher, G.

Chamberlain, H.E.

Chick, F.

Gladstone, A.

Grieve, G.

Hall, K.G.

Lamb, I.

Parker, C.R.

Roberts, D.

Watson, E.

McKernan, M.

Diary

Hall, K.G., 1951-1953

Army Newspapers (Unpublished)

New Zealand Army Liaison Letter 1956-1981

The Vietnameer 1964-1965

Newspapers (Published)

Auckland Star 1951

Christchurch Press 1947-1978

Evening Post 1967-1968

Japan News 1954

Manawatu Evening Standard 1963-1980

New Zealand Truth 1946

Otago Daily Times 1950

Reveille 1972

Southern Cross 1950

The New Zealand Herald 1950

Waikato Times 1875-1965

Contemporary Journal

Professional Papers of the Corps of the Royal Engineers 1853-1866

Correspondence

Bennett, J.T.

Bunce, G.K.

Shepherd, N.C.

SECONDARY SOURCES

Books

Annabell, N.(ed), A History of the New Zealand Engineers 1914-1919, Wellington, 1927

Antarctica Division D.S.I.R., New Zealand Antarctic Research Programme: 1982-1983 and Report of 1981-82 Programme, Wellington, 1981

Barber, N., The War of the Running Dogs, London, 1971

Barclay, N.C., The First Commonwealth Division, London, 1954

Boyd, D., The Royal Engineers, London, 1975

Cody, J.F., New Zealand Engineers: Middle East, Dunedin, 1961

Cowan, J., The New Zealand Wars, vols. 1 and 2, Wellington, 1922

Dalton, B.J., War and Politics in New Zealand 1855-1870, Sydney, 1967

Defence Review, Wellington, 1958

Defence Review, Wellington, 1978

Department of External Affairs, New Zealand and the Korean Crisis, Wellington, 1950

Featon, R., The Waikato Wars, Auckland, 1879

Fletcher, R.S., Single Track, Wellington, 1978

Gibson, T., The Maori Wars, London, 1974

Hatherton, T., New Zealand IGY Antarctica Expeditions, Scott Base and Hallett Station, Wellington, 1961

Kay, R.(ed), Documents on New Zealand's External Relations, vol.2, Wellington, 1982

Ministry of Defence, The New Zealand Army in Vietnam 1964-72. A Report on the Chief of General Staff Exercise, Wellington, 1972

Ministry of National Defence, A History of United Nations Forces in Korea, Korea, 1972

Nankivell, G.S.C., A Brief History of the New Zealand Military Forces 1840-1940, Wellington, 1945

Neil (ed), The New Zealand Tunnelling Company, Wellington, 1922

New Zealand Ross Sea Committee, New Zealand Antarctica Manual 1956-58, Wellington, 1956

Pacific Pioneers, Wellington, 1945

Programme for the Dedication Ceremony of the Borabu-Buriram Highway, 1971

Smith, S.J., The Samoan (NZ) Expeditionary Force 1914-1915, Auckland, 1924

Shadbolt, T., Bullshit and Jellybeans, Wellington, 1971

Taylor, N.M. (ed), Journal of Ensign Best 1837-1843, Wellington, 1966

Waite, F., The New Zealanders at Gallipoli, Dunedin, 1919

Wards, I., Shadow of the Land, Wellington, 1968

Wicksteed, M. (Compiler), The New Zealand Army. A History from the 1840's to the 1980's, Wellington, 1982

Wilson, R.A., A Two Years Interlude, Palmerston North, undated

SECONDARY SOURCES (Unpublished)

Chamberlain, H.E., "A Brief Chronology of the History of the RNZ Engineers", 1974

———————— "Vietnam Service. The Corps of the Royal New Zealand Engineers", School of Military Engineering, 1977

Currie, A.R., "The School of Military Engineering", undated

Diggle, I., "A History of the New Zealand Military Forces", 1950

MacGibbon, I., "New Zealand's Involvement in the Vietnam War 1960-1965", Ministry of Defence, 1974

New Zealand Army Public Relations

A Brief History of the New Zealand Army's Involvement in South Vietnam 1964-1972, undated

Press release, "The Engineers in Tarawa", 1973

Public Works, "Official War History of the Public Works Department", 1951

Journal Articles

Barber, L.H., "Keeping New Zealand's Back Door Closed", New Zealand International Review, vol.VII, 1982

Dickie, R.McL., "The Thai-New Zealand Road Project", New Zealand Engineering, vol.28, 1973

Doidge, F.W., External Affairs Review, vol.1, No.1, 1950

Fenton, K.C., "The Thai-New Zealand Feeder Road Project", The Royal Engineers Journal, vol.LXXX, 1966

Power, T., "New Zealand and the Korean War", Political Science, vol.16, 1964

Sinclair, P., "Defence and Co-operation", New Zealand International Review, vol.VI, 1981