New Zealand foresters at war

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During World War 2, forestry companies of the New Zealand Corps of Engineers made a significant contribution to the allied war effort, mainly in the European theatre. Fortunately a good and detailed record of their activities exists, largely due to the unit histories written by Captain (ret.) J.D. Coogan of Whakatane, who had access to military records and the diaries of Major K.O. Tunnicliffe. Both of these officers served in the forestry group of companies.

Wood had been an important strategic material in World War 1. Securing the most convenient supplies and getting them rapidly to where they were wanted was all-important. The same situation developed immediately at the outbreak of World War 2 and the British Government sought forestry companies, especially from Canada because of proximity, and New Zealand and Australia.

The New Zealand Government received their request towards the close of 1939. The response was a promise to send one company immediately and on 8 January 1940 advertisements were placed in newspapers calling for men with logging and sawmilling experience. More than 600 replied, four times the number immediately required. The New Zealand Forest Service was given the task of selecting those to form the first company. Within the Service the job of picking out the most suitable personnel was delegated to forester A.P. Thomson. Criteria were laid down. The British War Office had provided detailed requirements for the forestry group of companies. The men were over 35 years of age. There were still many suitable men left after the occupational and other requirements had been met. The standard to make up the numbers of the first company from these was simple: over six feet in height. No wonder there was a very high average height among the 165 men who went into camp at Papakura on 13 February, 1940 as the 11th Forestry Company. After 3 months' basic military training they embarked on 1 May with the Second Echelon. They took only 20 rifles. Unofficially they took as well crates containing Prices timber jacks, and a set of racing saws and axes, the latter a gift from the Dominion Sawmillers' Federation.

Eventually a total of 645 men left New Zealand to constitute three companies and the required reinforcements. The companies were the 11th, 14th and 15th. Later a Headquarters Group was formed. The 11th arrived in the UK in June 1940, a week after the surrender of France and the evacuation from Dunkirk. The other two followed some five months later in November. In fact it was originally planned for the 11th Company, with New Zealand Railway and Construction companies, to go to France. English forestry companies were installed in the forest of Remes near Bordeaux, awaiting the New Zealanders. Unfortunately the 11th Company's sawmilling equipment had been sent to there in advance and so was lost to the Germans.

The 11th Company was commanded by Captain J.G. Elliott. Company personnel who later served in the New Zealand Forest Service included Lieutenant A.P. Thomson (a future Director-General of Forests), Sappers J.P. Bonisch (a future Conservator of Forests Hokitika), W. Inder, J.A. Field, J.T. Holloway (who became a prominent forest ecologist), R.V. McKane, C.S. Panting, V.J. Pawson, P.W. Wastney, J.A. Cavanagh, A.J. Collett, W. Mason and P.S. Whitehead. Both Thomson and Holloway undertook a major part of the British Census of Woodlands, a national inventory of the British timber resource, which was invaluable experience as both were engaged after the War in the New Zealand National Forest Survey. In particular, Holloway was involved with the appraisal of the Chiltern beech resource, which may have spurred his later interest in the management of New Zealand beech. It is worth noting that in 1939 Bonisch, McKane and Holloway were all members of a beech thinning gang at Reefton, indicative of the New Zealand Forest Service's early interest in the sustained management of those species. Also in the Company were Lieutenant H.E. Otley who was associated with a well-known Christchurch timber firm, and Sapper K.M. Manson who later became prominent in the Selwyn Plantation Board. Some of the Company had served in World War 1.

The chief concern in the UK at this time for was for a German invasion. How could the 11th Forestry Company be used in the defence of Britain? One visiting colonel suggested the men should cut long softwood poles and when the German tanks came stalk them, 10 men to a pole, and rip the tracks off. This proposal was not well received. In fact the first job for the 11th Company was to clear fields of fire from pill-boxes strung along the anti-tank ditch that extended almost across the south of England. Where it reached woodland, trees were felled across each other and leaving high stumps to form tank traps. In addition trees were felled near approaches to airfields, presumably to thwart the landing of larger aircraft. The men were disappointed to lose their 20 rifles which were transferred to troops waiting for the Germans on the coast.

By 15 August the invasion crisis had lessened somewhat and the New Zealanders set out to help the wood supply situation. There was an urgent need for enhanced production of timber, including pit-props, to compensate for the reduction of these imports from overseas due to German submarines. Another consideration was the importance of saving shipping space for the import of food and other war materials. A specially created Timber Supply Department was formed in the British Forestry Commission which became a branch of the Ministry of Supply. Its function was to acquire standing timber, supply logging and sawmilling equipment, erect sawmills, and to direct the operations. So the dominion
forestry companies became army troops lent to the Timber Supply Department as skilled workers.

The 11th Company moved first to Cirencester in Gloucestershire where they worked in stands of what had originally been Royal Forests. Some of the Company felled excellent larch over 100 years old and took over a local sawmill at Hailey Wood. Another sawmill was taken over at Overley Wood. These mills were primitive, unimpressive performers but they were all that were then available at these places. The remainder of the Company moved to Bowood Forest in Wiltshire where they commenced building a New Zealand type mill. There they worked in large beech forests which were of high quality and were being selectively logged. As the demand for beech increased the diameter limit had to be lowered. Beech from here was used in the manufacture of plywood to be used in the construction of the famous Mosquito aircraft.

Queen Mary, the Queen Mother, paid a couple of visits to the 11th Company. She was most impressed by the bushmen marking on the ground where they would fall a large larch, and then dropping the tree exactly on the mark. She was interested too in the names of the men, asking them how they were spelt and then telling them their ancestral locations; e.g. “Thomson” without a “p” was of lowland Scottish origin.

The 14th Company was commanded initially by Captain O. Jones, and later by Major D.V. Thomas after Captain Jones left to join the RAF where he took up aerial photograph interpretation work. (After the War he acted as a consultant for NZ Forest Products Ltd.) Sergeant R.H. Whitaker came from the timber firm of McCallum & Co. Oamaru, and later became a senior executive in the Fletcher timber group. Other ranks who worked as staff of the New Zealand Forest Service after the war included F.R.E. Craig, J.B. Grubb and G.C. Mountain.

The 14th Company went to Grittleton in Wiltshire, built a New Zealand type mill which cut a log first on 31 January 1941. In April 1941 a detachment moved to Burbage to start cutting in Savernake Forest and to finish the construction of a sawmill there. Savernake Forest was park-like and comprised mainly poor form oak and beech. Not surprisingly the small resident herd of deer suffered some antipodean poaching. In May yet another detachment moved to Calne to take over logging and sawmilling operations at Bowood Forest from the 11th Company. New mills were built by the Company near Hungerford and at Wickwar. Also they secured a light English type mill and converted it into a portable model to cut up large top logs for pit props. All these operations were interspersed with periods of military training.

The 14th Company received two prominent visitors in 1941. One was Peter Fraser, the New Zealand Prime Minister who received many requests from men who wanted to transfer to the New Zealand Division in the Middle East, none of which were ever granted. The other was again Queen Mary who came to take tea with the officers and some of the other ranks. Later she returned to order a copy of Forestry Rights in New Zealand with a new section on forestry rights as loan security send this slip to Lewis' Solicitors Box 529 Cambridge

To order a copy of Forestry Rights in New Zealand with a new section on forestry rights as loan security send this slip to Lewis' Solicitors Box 529 Cambridge

My name: ____________________________
My address: __________________________

Cheque to Lewis' for $20.00 attached.
Tax invoice required  O yes  O no
the compliment and invited the New Zealanders to take tea with her when she suggested that the men may like to take their tunics off. Only some took advantage of this favour and the Queen was amused to learn afterwards that the others couldn’t because they would have been down to the buff.

Most of the 15th Company too commenced work with extensive military training although a group under (then) Lieutenant Tunnicliffe began immediately to build a New Zealand type mill at Basing Park Forest on the estate of Lord Ponsonby. Another was built at Langrish near Petersfield, Hampshire where beech, urgently needed for rifle butts was logged and cut. Here on the chalk downs the stands of beech were traditionally called “hangers”. Some trees approximately 150 years of age had good boles up to 22 metres long with dbhs up to 76cm. Chestnut, oak and ash on valley soils at the feet of the chalk downs also were cut and sawn. Yet another mill was built at Woolmer Forest in Hampshire where Scots pine had been established on shifting sand since the eighteenth century. The stands had been logged during World War I using a strip clearfelling pattern to regenerate the pine naturally.

Others in the Company took over two sawmills on the estate of the Duke of Norfolk where oak and chestnut, reported to have been planted after the Battle of Trafalgar, were being milled. They were typical of the English mills all the Companies had encountered: breakdown benches requiring logs to be wound through by hand; no power on the feed or return rollers of the breast benches; no pin fences to size boards sawn; no trolleys to carry flitches from the breast benches or sawn timber to the skids; no water to cool the saws; and sawdust had to be shovelled away from the saws by hand. In contrast the New Zealand type mills built had power feeds for the breaking down benches with water-cooled saws, powered return-feed breast benches, pin fences to size the boards, powered goose saws and sawdust conveyors.

The British Forestry Commission found it hard to understand the New Zealanders’ insistence on access to water. One exasperated New Zealand officer was reported as having to convince a sceptical Commission principal by saying, “Now look here mate, if you turn 48 inch diameter circular saws at a thousand r.p.m. spindle speed and feed them at two and a half to three inches per revolution and butt one flitch after another so that you are cutting timber all day instead of cutting wind, you are going to have bloody hot saws which will fly to bits unless you run a film of water on the surfaces all the cutting day.”

The 15th Company was commanded by Captain C. Biggs, later Forest Service Conservator of Forests Nelson. Other officers included Lieutenant A.L. Poole, later a Director-General of Forests, and Lieutenant K.O. Tunnicliffe (mentioned above), a sawmiller from the Bay of Plenty. The Quarter-Master Sergeant was B.P.(Paddy) Mansfield who had been curator of the Christchurch Botanic Gardens. Within six months Lieutenant Poole was transferred to the New Zealand Scientific Liaison Office, mainly to assist in laying out grassland trials of New Zealand bred species throughout England and Scotland as there was a shortage of grass and clover seeds now not available from the Continent. Immediately after the European fighting ended he transferred to the Forestry and Timber Section of the British Military Government in Germany.

One feature which first puzzled and even upset the New Zealanders was the large stocks of sawn timber which were allowed to accumulate at the mills. The natural inference made by the men, who were working hard in difficult conditions, was that nobody seemed to want the timber. However there was a strategic explanation which was accepted once it was offered. Stocks of timber had to be stored in case of national emergencies at home or overseas where the forces were engaged. Hitherto these reserves, most of which had been imported, had been stored at docks around the country. But these had become vulnerable to air raids and it had become necessary to shift or steadily use them. Now the reserve timber was being built up at the mills which produced them.

The New Zealanders had to make major adjustments to fit into the British forestry scene. First they had to realise that wood was much more valuable in the UK than back home. This meant the closest utilisation in the forest with felling at ground level and low deep scars.
It meant too the conservation of all tops and larger branches for pitprops, stakes and cellotex (particle board) wood. Frequently local labour had to be used, each group under a New Zealander, to salvage minor forest produce from the logged areas and then to pile up the brush that was left and burn it. Spanish pioneer troops were attached to the 11th Company for such work. The logged areas had to be kept productive, requiring care in felling and hauling. And the men had to be taught the English system of log measurement and the specifications for the various classes of roundwood.

Group Headquarters had been set up about mid-October 1940 at Castle Coombe in Gloucestershire, with personnel drawn solely from the 11th Company, the only company then in the UK. Major Elliott became Lieutenant/Colonel and officer in charge. In July 1953 he was replaced by Lieutenant/Colonel H.M. Reid, an engineer who had served in North Africa. Sergeant A.T.H. Jewell, who was in the Headquarters Group, became prominent after the War in the Fletcher timber group.

Early in 1943 the British War Office asked the New Zealand Forestry Companies to produce plans for a portable sawmill which could be used as an Army support unit. This was planned by Major Thomas and (now) Captain Tunnicliffe in consultation with Lieutenant King, who produced the working drawings and supervised the construction at Langrish, Hampshire. However the operations of the New Zealand companies in the UK were soon to come to an end. In July 1943 all were reorganised. Single men graded physically in class 1 went into a new 14th Company destined to be sent first to Algeria and then Italy. Married men and all graded in classes 2 or 3 returned to New Zealand, disembarking at Auckland in October 1943.

Despite having to use so many inefficient mills the three Companies produced in the little over three years during which they were in the UK, a total of 92,180 cubic metres of sawn timber plus many pit props. The output of the New Zealanders was claimed to be consistently higher than that of forestry groups from Canada, Australia, and the UK, all of which apparently had three companies. The New Zealand Companies operated in the south of England, the Australian and British further north and the Canadian in Scotland. Comparative figures for the 13 weeks for July to September 1942 showed that the average weekly output of the New Zealanders was 951 cubic metres versus 899 for the Australians, 783 for the Royal Engineers and 661 for the Canadians. The norms for each New Zealand mill from an 8 hour shift was 35 cubic metres. One New Zealand mill at Overley Wood produced 46 cubic metres in 7 hours 20 minutes cutting time with a crew of six men.

The New Zealanders got on well with the British people and, on the whole, were magnificent ambassadors for their country. They even responded to the interests of the locals by putting on chopping and sawing sports. However there were a few who got into scrapes, leading to court martials. A.P. Thomson recalled that from time to time in such cases he found himself acting for the defence. He found that he was quite successful in this role because he had taken the trouble to study the "Manual of Military Law". (On other occasions he found himself on the side of the prosecution where he was less successful.)

Into North Africa

The reorganised 14th Company arrived at Algiers on 24 August 1943, accompanied by two portable sawmills in crates. It was commanded by Major D.V. Thomas and Captain K.O. Tunnicliffe. Other officers included Lieutenants A.P. Thomson and A.N. Sexton, the latter a future Forest Service Conservator of Forests, Auckland. Other ranks included Lance Corporal A.J. Collett and Sappers J.P. Bonisch, G.B. Rawlings who would become a well-known Forest Service pathologist, and P.V. Wastney. Arab dockworkers were on strike but the New Zealanders saw to it that all their equipment came off the ship within the day. The strike persisted and 100 New Zealanders helped at the docks for a couple of weeks. Then the Company travelled by train to Bone, and on to Bugeaud Forest some 1066 metres above sea level by road, arriving there on the evening of 9 September.

Bugeaud Forest comprised stands of cork oak (Quercus suber) and Quercus mirbeckii, the latter being the principal species cut. There was also some maritime pine. Felling began immediately. A third portable mill arrived from England early in December and from then three mills operated until the end of January 1944. The production from the two small portable mills for about four months and the third for about six weeks totalled some 1800 cubic metres of sawn timber.
Advance to Italy

An advance party of 25 men from the 14th Company under Lieutenant Sexton left North Africa on 28 December 1943 and landed first at Syracuse in Sicily and then reached Taranto on the Italian mainland.

When the main Company joined them it was split into mobile groups which operated in many forested parts of the country. The roles of the New Zealanders in Italy varied a great deal. In addition to logging and milling themselves, they frequently assumed an administrative function, arranging for supplies of timber to be transported to the military fronts where they were most urgently needed. On occasions they stepped in to see fair play for the Italian forest and mill workers in terms of pay and conditions. On other occasions they supervised logging operations.

A party from the Company spent almost two months at Madrione in the Gargano Peninsula, some 120 km north of Bari. 200-250 Italians were employed there in a State-owned sawmill working two shifts.

Some of the logs came from as far as 29 km away and up to 900 metres asl from the Bosca di Umbra Forest via a gravity narrow-gauge railway. The New Zealanders were bemused at the heated arguments which erupted on pay-day between the civilian clerks and the civilian forest and mill workers over short pay, a consequence of incorrect time sheets, incorrect deductions etc.

So a New Zealander was appointed to prevent any unjustified tinkering by the clerks. Better ration scales were obtained for the Italian workers which resulted in enhanced cooperation and production. Sergeant J.P. Burton and Corporal R.A. Erickson built a New Zealand type breast-bench which increased production significantly. Lance-Corporal L.H. Cann and Sapper A. Leith moved into the forest and for many months supervised the logging and extraction which included bullock teams as well as road and rail transport. They faced a range of problems there, including danger from Americans on leave shooting deer in the forest.

On 20 February 1944 the main Company arrived with the three portable mills nearby at San Menoach which was on the coast about 6 miles from Madrione mill. One portable mill was located at Madrione, plus a New Zealand type breast-bench, to reinforce production there while the other two were placed in the pine stands at San Menoach. Soon all the portable mills were working double shifts to supply the allied forces in the nearby River Sangro area, from where the gunfire could be clearly heard.

Late in April the main Company shifted south to Crotone on the Calabrian Peninsula. The New Zealanders found the Calabrian forests impressive. The most important stands occurred over 790 metres asl on steep mountainous terrain and were made up of Corsican pine, European beech, European silver fir, sweet chestnut and oaks. Corsican pine was of good form with trees over 100 cm dbh and total height up to 40 metres, and with log volumes of about 10 cubic metres common.

Here was situated one of the largest sawmills in Italy employing some 500 men. It had large supplies of logs and timber but had been closed in the hope of eventually higher black market prices. It was persuaded to open with the threat of requisition. Also higher wages and better rations for the workers were prescribed.

A few New Zealanders were left at the mill to ensure that conditions were met. There was a huge logging operation. 500 bullocks hauled logs to overhead cableways which carried logs to the mill at the rate of one every two minutes.

One of the accomplishments of the New Zealanders in Calabria, in which Lieutenant Sexton played a leading role, was to get many idle mills working and to see that the timber went to the Allied forces instead of the black market. Another, achieved by Lieutenant Thomson, was an increase in the rations of all 2500 workers in the Calabrian timber industry, presumably with resultant increase in production.

In addition to operating their portable sawmill at Lago Ampollina, about 40 km from Crotone and at 1220 metres asl, the New Zealanders were involved in a great deal of travelling and supervisory work. In effect they controlled the whole Calabrian industry of some 30 sawmills and their log supplies. They were involved in obtaining enough scarce railway wagons to get the timber to where it was needed.

Timber was exported from the port of Crotone too. Sappers A. McQuaker and W. Mitchell supervised Italian labour loading one 10 000 ton Liberty ship per week bound for Bari and Naples.

Small detachments of the Company made efforts to locate timber supplies further north and nearer the military operations. A suitable resource of oak was found at Pescolanciano some 30 miles north-east of Cassino and on 9 April Lieutenants Thomson and McKenzie and party established a portable sawmill there. When the oak was cut out the mill was moved a few miles further north into a stand of spruce. Later, as the military front retreated even further up the Italian mainland, a small stand of timber was found further north still at Perugia, near Lago Trasimeno and one of the portable mills established there. This stand was cut out by 20 July, 1944.

The war in Italy wound down and the job there for the 14th Forestry Company was finished by early August 1944. The Company embarked at Taranto on 23 August, arriving home in Wellington on 30 October 1944. In Italy the New Zealand portable mills had cut a total of some 3620 cubic metres of sawn timber. Further, and clearly more significantly, the New Zealanders had assisted and supervised the production and dispatch to the front of about 98 850 cubic metres of sawn timber from Italian sawmills. Indeed the New Zealanders took over the control and administration of a significant part of the Italian timber industry which produced the equivalent of one third of the production in pre-war New Zealand.

In the Pacific Theatre

New Zealand forces were involved in logging and milling in the Pacific theatre of war too, although there were no dedicated forestry companies.
The New Zealand engineers in the Third Division were involved first in minor operations in Fiji and New Caledonia and probably their first larger scale project was on Norfolk Island where hundreds of tall Norfolk Island pines had to be felled for the construction of an airfield.

Two disused sawmills on the Island were made workable to provide timber for air force and army requirements. Later, as the Japanese forces were rolled back northwards the New Zealand engineers ran two sawmills.

One operated first at the Matanakau River on Guadalcanal in the Solomon Islands and was then shifted to Lombrum Point on Los Negros Island in the Admiralty Group (Bismarck Archipelago). This was apparently a US Navy sawmill operated by New Zealanders.

The other cut first on Arundel Island (also called Kohinga) in the New Georgia Group of the Solomon Islands and then at the Tenaru River on Guadalcanal before it was shipped to New Britain where it operated near Jacquinot Bay on the south-east coast of New Britain. It too was probably of American origin.

The mills operated by the New Zealanders in the Pacific were typical of some small bush mills seen in New Zealand before and immediately after the War. They had Pacific break down benches with single circular saws, breast benches with live rollers and a water race to carry the sawdust away.

In one mill the power was supplied by a Caterpillar D6 tractor with a rear power take-off, and in the other from a diesel marine motor with separate petrol motors for the breast bench and the slab conveyor system. Tractors were used in the bush for the haul to the mill or to a truck loading bank. The bush work was arduous and unpleasant on account of frequent rain, heat and high humidity, troublesome insects and often deep mud. Frequently buttressed trees required the use of jigger-boards, sometimes to a height of six metres.

In November 1943 on Guadalcanal a sawmill platoon was formed in the 37th Field Park Company which attracted specialists from the whole division and which reached a force of 63 men. This represented the formation of a dedicated forestry unit. There was also on Guadalcanal an old local sawmill worked by the RNZAF which had seen better days. For a period of four months the sappers helped there by taking shifts in the bush.

Eventually the sappers managed to get the use of a third American sawmill on Nissan Island (also called Green Island) north of Bougainville, sharing shifts in the mill with the Americans and providing logs from the bush. It was a nice cooperative arrangement with the American CBs which culminated on 2 April 1944 in an Allied Axemen's Carnival. The intention had been for the Third Division to receive a sawmill from New Zealand but it did not arrive. Indeed, when the Division started to return home it was still in crates in Wellington, awaiting shipment.

The New Zealand Contribution

Clearly the New Zealand forestry personnel made substantial and significant contributions to the war effort. There was another possible benefit which was suggested by the late John S. Holloway, son of J.T. Holloway of the 11th Company.

It was that the rapid expansion and development of New Zealand forestry, which was such a feature in the first few decades after the War, was in no small measure facilitated because many of the corporate and governmental staff involved had worked together in the Forestry Companies and knew each other well.

The bonus was significant cooperation between and within these two groups after the War. While this is difficult to verify some 20-30 years later it seems likely to have occurred.

Unfortunately the author knew of only a small proportion of the names on the company lists furnished by Captain Coogan, and most of these were in the New Zealand Forest Service after the War, a reflection of his own employment in that organisation.

Accordingly but unavoidably, comments in this paper on some personnel from the forestry companies did after the War are a little unbalanced. Finally, acknowledgement is made to A.P. Thomson, A.L. Poole and the staff of the Kippenberger Military Archive and Research Library, Army Museum Waiouru, for their information and help in the compilation of this paper.

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