

New Zealand Military Long Arms of the 19th Century

An overview compiled by Phil Cregeen (Part 1 Muzzle Loaders)

Firearms were first used in anger in New Zealand by Abel Tasman's crew on 18 December 1642, and again by James Cook's crew on 8 & 9 October 1769. Following Cook's visits to these shores, whalers and sealers became frequent visitors and soon found that muskets were a much sort after trading item by the Maori population. This activity leading to the Maori musket wars between tribes. Early settlers also brought their own firearms for personal protection and hunting, however all of these are outside the scope of this work. Here is a chronicle of the **long arms** (carbines not included) issued to "official" government forces and purchased in significant quantity by Imperial, Provincial, Dominion and National Governments during the period 1834 to 1900.



Indian Pattern Lock with ring neck cock.



Indian Pattern flintlock musket of the type carried by British troops in New Zealand 1834 to mid 1840s

Indian Pattern flintlock musket-Brown Bess has an overall length of 55 in., a barrel length of 39 in. with smooth bore and calibre of 0.75 in. with brass furniture, three ramrod pipes, barrel retained by 3 pins and upper sling swivel and stocked to within 4.5 in. of the muzzle. It was the main arm of British troops serving in the colonies until replaced by percussion arms in the late 1840s

The first British troops to see active service in New Zealand were armed with this musket. This was a contingent of the 50th Regiment sent from Australia and landed in Taranaki in September 1834, to rescue Betty Guard and her children who had been taken hostage by Maori. Betty Guard was the wife of the captain of the *Harriet*, which had been wrecked on the Taranaki coast in April and many of the crew killed by local Maori. They were issued with percussion arms from store on arrival in India in 1841.

In late July 1844 a detachment of 172 officers and men of the 99th Regiment arrived in the Bay of Islands from Sydney armed with flintlock muskets.

Pattern 1838 Percussion Musket, has an overall length of 54.75 in., a barrel length of 39 in., smooth bore and calibre of 0.75 in., back action lock. Fixed sights, Hanoverian bayonet catch. Approved in 1838 and put into production in 1839 to 1845. A small lock version was made from 1841.

Pattern 1839 Musket, has an overall length of 55 in., a barrel of 39 in, smooth bore and calibre 0.76 in., Side lock, no back sight, Hanoverian catch until 1844 then Lovell's catch.. Set up using flint lock parts held in store until 1851, after which locks were new made.

Pattern 1839 Sea Service Musket, has an overall length of 46 in., barrel of 30.28 in. smooth bore and calibre 0.76 in. side lock fixed sights, Lovell's catch. Set up at least until 1846.

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Top & Left: Pattern 1839 Sea Service Musket, Bottom & Right: Pattern 1842 Sea Service Rifled Musket
Both have Lovell's bayonet catch



Pattern 1842 Musket

Pattern 1842 Musket, has an overall length of 55 in. and barrel of 39.25 in., smooth bore and calibre 0.75 in, side action lock, fixed sights, Hanovarian catch until 1844 then Lovell's catch. Used a new made lock with Lovells's side nail cups. Set up until 1853.

Pattern 1842 Rifled Musket has an overall length of 55 in. barrel 39 in, calibre 0.758 rifled with 4 or later 3 grooves 1 in 78 in twist. Side lock and ladder back sight as P 51. Conversion of Pat 42 musket, set up between 1852 and 1855, total production 26,400.

Pattern 1842 Sea Service Rifled Musket has an overall length of 46.25 in. barrel of 30.25 in, calibre 0.758 rifled with 4 or later 3 grooves 1 in 78 in. twist. Side lock and ladder sight to 1,000 yds. Set up 1852 to 1857, total production approx 25,000, early examples are conversions while later were new made.

The arrival date of percussion arms in New Zealand is vague since contemporary documents do not differentiate between types of musket (flint or percussion), however allowing for the fact that it would take many months for stocks of a new patterns to be built up in order to equip a regiment and those at home would be equipped first, it is likely that they did not arrive until at least the mid to late 1840s. The 58th Regiments landed here in 1845 coming via Sydney having departed England in 1843, so it is possible but by no means certain that they were armed with Pattern 1838 or 39 muskets.

Sea Service muskets were carried by Royal Navy ships and were brought ashore in New Zealand by sailors engaged in such battles as at Ruapekapeka in 1846, though whether these were flint or percussion is un-confirmed.

Pattern 1851 Rifle Musket (Minie Rifle) has an overall length of 55 in., barrel of 39 in, Calibre 0.702 rifled with 4 grooves 1 in 78 in. twist, side lock the same as Pat 42, ladder back sight to 900 yds. Set up 1852 to 55, total production 35,000.

Rifled muskets (Pat 51 and rifled Pat 42) did not arrive in New Zealand until 1856 when the 65th Regiment received a 1000 “Minie Rifles” from the ship “Joseph Fletcher”. Although reportedly used by British troops in the Kafir war in the Cape Colony in 1852, they were soon in greater demand for the Crimea War of October 1853 – February 1856 and even in the Crimea many Regiments were still armed with smooth bore muskets. In 1856 Horse Guards issued orders that all troops were to be trained in the use of the rifled musket, but stocks of old ammunition were to be retained for regiments not yet equipped with the new arm. In 1859 the Admiralty issued orders for seamen of the Mediterranean Fleet to be trained in the use of the “Minie Rifle”.

In August 1860 the Colonial Government was reported to have issued “percussion muskets” to Wanganui and Wellington, and had received 400 “rifles” from Sydney, having ordered a further 3,000 rifles from home.

The numbers of Imperial troops varied as hostilities with local Maori dictated and reached a peak of 10,000 men in the early 1860s. However the burden of paying for the Imperial troops almost bankrupted the Colonial Government and from 1865 a self reliant policy was adopted, where colonial forces took over the fighting role and Imperial forces were gradually withdrawn. The last Imperial regiment to leave being the 18th Regiment in February 1870.

In 1865 the New Zealand Colonial Government placed an order for 5000 Enfield Long Rifles and Bayonets with its London agent. Unfortunately there were no surplus arms available in England and the agent recommended that the order be placed for the superior 25 bore Hay Pattern En-



Pattern 1853 Enfield Long Rifle

Pattern 1853 Rifle Musket a new rifle created at Enfield in 1853 incorporating ideas and improvements from the various rifles submitted by gun makers for trials. It had a bore of 0.577 in. and a barrel length of 39.0 in. with 3 groove uniform rifling with 1 in 78 in. twist firing a hollow based cylindro-conoidal bullet. The barrel was secured in the stock by 3 barrel bands which also held the ram rod and the lock was greatly improved on previous designs incorporating a swivel to reduce friction. It included a ladder sight graduated to 900 yds.

There are four main variants all were termed Pattern 1853 Enfield Rifle, (frequently referred to as the “Enfield Rifle” or by collectors as “3 band Enfield” to distinguish it from the 2 band Short Rifle) although changes did not all occur at the same time and implementation varied between manufacturers.

The Pattern 1853 rifle first saw service in New Zealand with British troops stationed here. One example is the 65th regiment who served in New Zealand from 1846 to 1865 and received their Pattern 53 Enfield in 1858, the regiment being headquartered in Wellington with detachments stationed at Wanganui, Taranaki and Auckland. The Enfield rifles seeing action in the 1860 campaigns in Taranaki and the Waikato. On 10 June 1858 over 600 flint lock and percussion smooth 11 bore muskets were given to the Auckland Provincial Police by the British 58th Regiment when they were re-equipped with Enfield Rifles and Short Rifles.

field Rifle. The New Zealand Government continued to buy more Enfield Rifles and Carbines as available including Long & Short rifles, Artillery and Cavalry carbines.

In August 1869 a comprehensive return of arms and ammunition (no Snider Enfield’s listed) was prepared for the Select Committee. The return showed the arms and ammunition on issue and in store in the Colony of New Zealand to the Armed Constabulary, Militia, Volunteers and Native Auxiliaries. These included over 20,000 serviceable 25 bore Enfield rifles and carbines (including Hay



Pattern 53 lock

pattern medium rifles, the principal arm, Long, Short (sword) rifles, Artillery and Cavalry Carbines). There were over 3 million rounds of Enfield Rifle ammunition. By 1882 only 914 Enfield Rifles (type not specified) were on issue with a further 10,553 held in stores. This had reduced to 256 Enfield Rifles held in stores by 1884 and none held in 1885.



Pattern 1856 Short Rifle

Pattern 1856 Short Rifle Introduced in 1856 as a shorter handier rifle with 33' barrel for the use of sergeants of line regiments and rifle corps, it was essentially very similar to the Pattern 53 Rifle, but having only two bands to secure the shorter barrel. Other differences were a bayonet bar on the barrel to secure the Pat 56 yataghan sword bayonet and the lower sling swivel positioned on the butt and iron as opposed to brass furniture. It also saw the introduction of the improved double freed tumbler for the lock assembly which was then applied to the later Pat 53 rifles. Over the production life of the Short Rifle it saw a number of improvements resulting in Pattern 58, 60, and 61 and many were later converted to Snider Breech Loader. It was also copied by private gun makers for the Volunteer movement.

The Short Enfield Rifles most probably first saw service with the various British regiments that came to New Zealand in the late 1850s. The Enfield rifles seeing action in the 1860s campaigns in Taranaki and the Waikato. However New Zealand Volunteers were also soon armed with the Short Enfield as reported in the Otago Witness of 29 January 1859 (4) A Volunteer Rifle Corps formed in Taranaki armed with a rifle "*shorter and lighter than the Enfield rifle.....its range being 1100 yds.*" the later is believed to refer to the sight graduations. On 13 Feb 1861 the Nelson Examiner reported (4) a new company of Volunteers being "armed with the short Enfield rifle"

Contemporary photographs put this rifle in the hands of Wanganui Militiaman, Maori Native Auxiliary, Soldiers of the British 68th (Durham) Light Infantry ('The Faithful Durhams') at Fort Britomart, Auckland c1865, Sergeants armed with P1856 Enfield Short Rifles & Yataghan sword bayonets, Privates with 2nd Pattern 1853 Enfield long rifles. Like the Pat 53 the short rifles had been removed from service by 1885.



Hay Pattern 1858 Medium Rifle

Hay Pattern 1858 Medium Rifle developed by Major General Charles Crawford Hay the first Inspector General of Musketry and Commandant of the Hythe School of Musketry from 1854 to 1867. Hay carried out extensive experimental shooting even up to a mile and found that the 25 bore Pattern 1853 39" barrel three band Enfield

Long Rifle shot reasonably well in all conditions with its three groove, progressive depth 1 turn in 78" twist rifling. However, the accuracy obtained from the 1 in 78" twist 33" barrel short "two band" rifle was only fair and the accuracy from the 24" barrel Artillery Carbine and 20" Cavalry Carbine also with 1 in 78" twist was poor.

Hay proved in 1857 that a barrel length of 36" gave the same muzzle velocity as the 39" barrel using the standard British Military issue cartridge. After extensive trials Hay determined that a rifling twist of 1 turn in 48" in the 25 bore gave good accuracy from all barrel lengths with their varying muzzle velocities (the longer the barrel up to 36" the higher the muzzle velocity), even the lowest velocity from the 20" barrel cavalry carbine with 1 in 48" twist rifling was still able to rotate the projectile fast enough at the lower muzzle velocity to stabilize it and achieve relatively good short range accuracy.

As mentioned previously in 1865 the New Zealand Colonial Government placed an order for 5000 Enfield Long Rifles and Bayonets with its London agent who recommended the superior 25 bore Hay Pattern Enfield Rifle.. The NZ Colonial Government agreed and the order was placed with the Birmingham Gun makers Hollis & Sheath. A second order for another 5000 Hay patterns followed but Hollis & Sheath could not supply, so the order was given to Calisher & Terry who subcontracted out to other gun making firms, many of these rifles were assembled at the Tower.

The Hay Pattern Medium Rifle was the most accurate of all muzzle loading Enfield Rifles. They were used by all Australasian Colonies competitors at the first (and last using muzzle-loaders) Australasian shooting championships held in Victoria in 1872. New Zealand was placed 3rd.

Most of the New Zealand Hay Pattern Medium Rifles were traded as part exchange for replacement Snider Short rifles (often referred to in New Zealand as Sword Rifles) and many of the 500 New Zealand Hay Patterns converted to Snider were later altered into carbines for use by the school cadets.