



## A Brief History of the Royal Engineers

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The Corps has no battle honours, its motto 'ubique', awarded by King William IV in 1832, signifying that it has taken part in every battle fought by the British Army in all parts of the world. As well as gallantry in war, their skills are in even greater demand in peace, where Sappers have built the infrastructure of civilization, wherever British interest has led.

Gundulph built a great edifice to overawe the Saxon citizens of London. It still stands today as the White Tower within the Tower of London. He also strengthened the castle at Rochester, the best preserved Norman Keep in the country.

Appointed Bishop of Rochester, he developed the Saxon church there into a cathedral, the second oldest in England. Gundulph's Tower still stands against the South Transept. Today the Cathedral is the Church of the Corps and houses many memorials. Each year a service is held there as part of the Veterans' Memorial weekend. Gundulph is held in such high esteem by the Corps that he is regarded as the Founding Father rather than his predecessor who took French leave!

### **The Board of Ordnance**

With the development of the cannon an Office of Ordnance - later, the Board of Ordnance - was set up in Gundulph's Tower in London to control the King's cannon, arsenals and fortifications. The first Master of Ordnance was Nicholas Merbury who had been Chief Engineer to Henry V at Agincourt. Until its abolition in 1855, the Board held all Gunners and Engineers on its permanent establishment, in effect a private army.

Young Engineer Officers were sent to the Continent to study fortifications and siege warfare since there was no facility in England until the establishment of the Royal Military Academy at Woolwich in 1741. It was the construction of saps or trenches to

enable the enemy fortifications to be assaulted which gave the Corps its nickname of 'Sappers'.

On 26 May 1716 a Royal Warrant of George I authorized the Royal Regiment of Artillery and the Corps of Engineers as separate entities. In 1787 they were granted the title Royal and Engineer officers were styled Royal Engineer. Commissions were awarded on merit, unlike the cavalry or infantry, where they were purchased. Engineer and Gunner officers received rigorous professional training at the Royal Military Academy, at Woolwich.

The Engineer workforce was recruited from civilian tradesman as required for particular campaigns but this system faltered in Gibraltar. After several sieges the Chief Engineer, William Green, persuaded the Ordnance Board in 1772 to allow him to recruit some soldier artificers, skilled tradesman who would wear uniform and be subject to military discipline. The Soldier Artificer Company was so successful during the Great Siege of 1779-1783 that in 1787 a similar unit, the Royal Military Artificers, was formed in England for service worldwide.

The Peninsular Wars against France showed the need for a trained body of field or combat engineers. In 1812, on the authority of the Duke of Wellington, Major Charles Pasley RE set up a school for this purpose at Chatham. It continues today as the Royal School of Military Engineering (RSME). The first trainees were in action in Spain in 1813 and in 1814. The Engineer soldiers were retitled as the Royal Sappers and Miners.

After the Napoleonic Wars, the Royal Engineers and Royal Sappers and Miners were employed around the world both on active service and in the peaceful development of the Empire. Tasks were many and varied. Campaigns in North and South America, Africa, China, Australia and New Zealand all had Engineer support.

The Ordnance Survey of Great Britain and Ireland was staffed by these men who also carried out the Great Trigonometrical Survey of India and set out the international boundary between Canada and the United States of America. Throughout the Empire, towns were set out and public buildings, roads, canals, railways and water supply systems designed and built.

In 1856 after the Crimean War the Board of Ordnance was abolished, control of the Royal Artillery and Royal Engineers being vested in the Commander-in-Chief of the Army. In the same year the Royal Sappers and Miners were incorporated into the Royal Engineers and the officers and soldiers served under the same cap badge.

## **TECHNOLOGY**

The Royal Engineers were responsible for the introduction of much new technology to the Army - telegraphy during the Crimean War of 1854 - 1856, photography in the Abyssinian Campaign of 1867 and steam road traction in the Ashanti Campaign of 1873.

With their expertise of firing explosive charges underwater the Royal Engineers became responsible for harbour defences, using submarine mines in conjunction with searchlights. Indeed, the Submarine Mining Service grew into a major specialization and was not handed over to the Royal Navy until 1905.

The ultimate development in this field was the Brennan Torpedo, which was launched from a base on shore and could be steered to its target up to 11/2 miles away. In service from 1890 until 1905 it was regularly demonstrated although never once fired in anger.

Operational diving was introduced in 1839 and Royal Engineers became involved in flying at the time of the American Civil War. This speciality led from balloons, airships and man-lifting kites to powered flight and the formation of the Air Battalion Royal Engineers which became the Royal Flying Corps, precursor of the Royal Air Force in 1912.

Royal Engineers were also trained in architecture and building construction for fortifications and public works. They introduced the use of cast and wrought iron, used in the huge covered slipways of the Royal Naval dockyards. Sappers designed the Royal Albert Hall and Pentonville Prison and were closely involved with the buildings for the Great exhibition of 1851 and the museums in South Kensington, London.

## **THE FIRST WORLD WAR**

With huge armies in the field, the Royal Engineers expanded and raised many specialist units to undertake work normally done by civilians. Engineer units built and maintained camps, stores and depots, provided water and sanitation, supplied timber and stone, built and operated docks and railways and manufactured many items required by the Army.

Responsibilities included gas and chemical warfare, air defence searchlights, tunnelling, mining, meteorology, postal services and wireless communications. This last became so large that in 1920 a new Corps was raised for the purpose - the Royal Corps of Signals. Sappers also contributed significantly to the tank.

## **THE SECOND WORLD WAR**

Once again there was an enormous expansion of the Corps. Responsibilities, too, changed. Air defence searchlights were handed over to the Royal Artillery. Mines and booby traps were extensively used. Whilst every soldier needed to know something about them, Sappers led the way in breaching enemy minefields.

The Luftwaffe blitz early in the war brought a new responsibility - bomb disposal, a field in which 55 officers and 339 soldiers were killed and 13 George Crosses were won.

Royal Engineers were closely involved in the development of airborne forces and played an important part in many of their operations. In the planning of the Invasion of Normandy Royal Engineers took part in the hazardous business of conducting reconnaissance of the enemy-held beaches and produced the essential maps. During the invasion, specialized engineer tasks led the assault, breaching the sea wall and opening routes inland. After the assault, one of the greatest military engineering feats ever was the construction and operation of the Mulberry Harbour. Prefabricated in Britain in a matter of months, its components were towed across 100 miles of open sea and installed on the Normandy coast, an artificial port to resupply the armies ashore, bring in reinforcements and evacuate the wounded. A particular challenge during the advance into Germany was the number of major rivers and waterways that had to be crossed. Fortunately the need for a simple and versatile bridging system had been foreseen by a brilliant civilian engineer, Mr (later Sir) Donald Bailey. He sketched out the basic details on the back of an envelope during a train journey and the Bailey bridge came into service in 1942. Its versatility is legendary. Multiple span dry bridges, even suspension bridges were possible. Its success is exemplified by the enormous bridges built over the Rivers Rhine, Maas and Elbe and the longest floating bridge of the war, 1000ft, over the River Chindwin in Burma.

## **THE PRESENT DAY**

Since the Second World War the Corps has played its full part in three main areas of activity. The first was the Cold War with its threat of global nuclear conflict, successfully prevented by the NATO alliance. The second was the dismantling of the Empire which involved withdrawal from many former colonies. The unexpected is often just around the corner and the Falklands War of 1982 is a classic example.

The third area is operations under the auspices of the United Nations. The Korean War of 1951 was the first such operation. Today these are becoming more common as peace- keeping and humanitarian operations. British forces in general and the Royal Engineers in particular are in great demand for these operations