

British Military Ballooning History

(From The British Balloon Museum and Library)

Military Balloons

The first military use of observation balloons was during the French Revolutionary Wars. They were also used by both sides during the American Civil War (1861-65) and continued in use during the Franco-Prussian War.

Balloons were first deployed by the British Army's Royal Engineers during the expeditions to Bechuanaland and Suakin in 1885.

They were also deployed during the Second Boer War (1899-1902), where they were used in artillery observation with the Kimberley column and during the siege of Ladysmith, KwaZulu-Natal.

Positioning artillery observers at altitude on balloons allowed them to see targets at greater range than they could on the ground. This allowed the artillery to take advantage of its increased range. The idiom "The balloon's going up!" as an expression for impending battle is derived from the very fact that an observation balloon's ascent likely signaled a preparatory bombardment for an offensive.

The First British Military Balloon

In Great Britain, two officers, Captain F. Beaumont, who had served with Thaddeus Lowe's Balloon Corps in the American Civil War, and Captain G.E. Grover tried unsuccessfully to persuade the British military to recognize the military value of balloons.

But the first British military balloon was not used until Captain J.L.B. Templer, an amateur aeronaut, brought his own balloon, the Crusader, to Woolwich Arsenal, and then built Pioneer which was made of specially treated and varnished cambric, and cost £71. It was the first balloon built by the RE at Woolwich. Therefore it was the first British Built Military Aircraft.

First flight: 23 August 1878.

The British began military balloon training in 1880.

Members of the balloon corps were trained in free flight as well as in observations from a tethered balloon in case the tethered balloon broke away from its cables.

During this time, Templer and his associates realized that a new way of storing the hydrogen gas that filled the balloons was needed because generating the gas near the battlefield was too cumbersome and slow.

Compressed cylinders for the gas were suggested. The cylinders came into use both in Britain and in other countries. Storage pressures increased rapidly and, by 1890, the French claimed they could inflate a small balloon in 15 minutes.

Goldbeater Skins were used to make the balloons

Templer also recognized the need for a lighter and more impervious balloon fabric. He found an Alsatian family in London, the Weinlings, who had been using goldbeaters' skins, (the outer layer of the lower intestines of an ox used to make gold leaf) for toy balloons and he hired them to provide fabric to the British government and moved them to The School of Ballooning in Chatham, Kent.

By the end of 1883, they had produced their first balloon that could lift one observer to a useful height.

The balloon, the 10,000-cubic-foot (283-cubic-metre) Heron, served in South Africa.

The advances in balloon technology impressed the British military, which moved the Balloon Section to larger quarters in Aldershot and included it in British Army establishments.

They increased the number of balloon sections, and four balloon sections participated in the South African War at the end of the nineteenth century.

The Second Boer War

The Boer War began in 1899 and 4balloon sections were sent to South Africa support the army. The first unit in action was the 2nd Balloon Section under the command of Major GM Heath, which arrived at Ladysmith on 27th October only to remain within the besieged town for the next four months. At first they continued to observe the enemy's movements until the supply of gas ran out.



A small contingent of the 2nd Section which had remained outside of the town and with reserve equipment and gas, saw action at Potgieters Drift and Spion Kop.

The 1st Balloon Section joined Lord Methuen's advance on the Modder River and at the battle of Magersfontein, observing the enemy and directing the artillery with great effect.

In 1900 the balloonists provided vital information on the Boer's positions at Paardeborg, even though the 12,000 cub foot Duchess of Connaught was holed and leaking badly.

The gas was transferred to the Bristol which flew at the Battle of Poplar Grove, and in the advance from Blomfontein, it was kept inflated for twenty two days on the 165 mile march.

It then took part in the engagements at Vet River and Zand River.

Balloon Transport

In June, a balloon located in Pretoria assisted in the capture of the Boer forces, and although damaged by enemy fire in several places, it was repaired with patches of gold-beaters' skin in the field. The 3rd balloon Section arrived at Cape Town in March of 1900, and was sent to Warrenton on the left flank of Lord Robert's advance on Pretoria.

The observers were able to provide information on the position of the enemy guns and aided in directing fire from the British 5-inch and 6-inch Howitzers.



Transporting the balloon equipment was no easy task as Templar's traction engines had been lost on the way to Cape Town when HMS Commonwealth was wrecked. Instead the balloons were moved, often fully inflated, on wagons drawn by teams of oxen and mules.

These balloons were quite small, up to only 13,000 cubic foot in volume, and their tiny baskets allowed just about room for one person sitting down which is why the habit of observers riding in the rigging became so commonplace.

Boer Soldiers

The Boers had no balloons of their own, and the effect on their morale was considerable as they relied on their knowledge of the terrain to carry on a war of attrition.

Boer Soldier John Lane, in the Laager at Paardeberg wrote:

I have not been able to have a wash since last night, I ventured down to the river. I had just pulled my shirt over my head, happening to look up, my eye caught sight of a big black thing, at first glance it seemed to be right on the top of me, I said, Oh my God, and fell flat on my stomach, thinking it would explode.

I then got my senses about me and looked up, and Lo and behold, it was the balloon, appears for the first time since lying around Magersfontien. Some fellows shouted to me to hide away, "Poets kernel" they shouted, it does not much matter now, it is all up, they will now be able to find out every hole and position we are in and will pour in a hell of shells. The balloon kept up for about three hours, it looks very close, but is far out of range. Lots of our men kept firing at it. It is amusing to hear the talk of some of our Burghers such as "do you call this fair play" that damnable big round thing, spying our positions, we would not be so mean to do a thing like this'.

Text taken from:

'Balloons at War' by John Christopher. Tempus Publishing

'The Boer War 1899-1902: David Smurthwaite, Hamlyn History: London: 1999:

'History of Early British Military Aeronautics' by P.W.L. Broke-Smith