COMMUNICATION AND AIRCRAFT: THE BRITISH MILITARY EXPERIENCE

Pre-First World War Experiments and Practice

by Mike Meech

The introduction of aircraft onto the British military establishment led to the possibility of changing the nature of warfare, however, problems also arose around the ability to communicate information from the ground to the aeroplane or airship and also from the air to the ground. Without an effective method of 'communication' these aircraft could not be used most effectively. Spherical tethered balloons, used for observation purposes, had been operated by the Royal Engineers since the late 19th Century. Of interest for this article is their use during the 2nd Boer War, 1899-1902, where one of its uses was for artillery spotting, the observer communicating with the battery by telephone, flags, semaphore or even just shouting. The Reuter's correspondent, Arthur Hutton, reporting on the siege of Ladysmith, on 15 November 1899 (NAM.1982-02-6, *'ashes and blood'*, p.157), stated that:

Our field guns now opened fire with shrapnel, but for some time the shells burst very short, the range, apparently, being too great for our smaller guns. In the meantime a war balloon had ascended, being attached to an armoured train, and seeing our fire was all short, sent down a message to that effect, which was at once transmitted to the general by a field telephone. The effect was soon evident, for our shells now burst beautifully over the heads of the enemy

The message from the balloon may have also been by telephone as another quote from the same publication mentions that:

The enemy dislike the balloon very much as it is most difficult for them to move any large body of men without being seen by us – the balloon is of course a captive one & is fastened by a length of 1500 ft thin steel rope attached to a windlass by which it can be pulled down when necessary – inside the rope is a telephone wire by which the aeronaut sends his messages to the ground where gallopers are in readiness to take the message to head quarters.

Although Malcolm Hall (p.54) comments that the:

Balloon cable was designed to incorporate a telephone cable in its core, but at that stage of technological progress, this mode of communication had too often suffered from breakdowns.

Due to this problem he further relates that:

In South Africa, more old-fashioned methods were used, such as semaphore, … … while at Warrenton we find the observer disdaining anything suggestive of modern technology by leaning out of his basket and shouting. At Paardeberg, where Grubb was too far from the guns for such sociability, signal flags were used.

The problem with the spherical balloons was that in any wind the observer in his basket would be bounced around, causing air sickness, and this made both observation and signalling difficult and also appears to have made the use of the
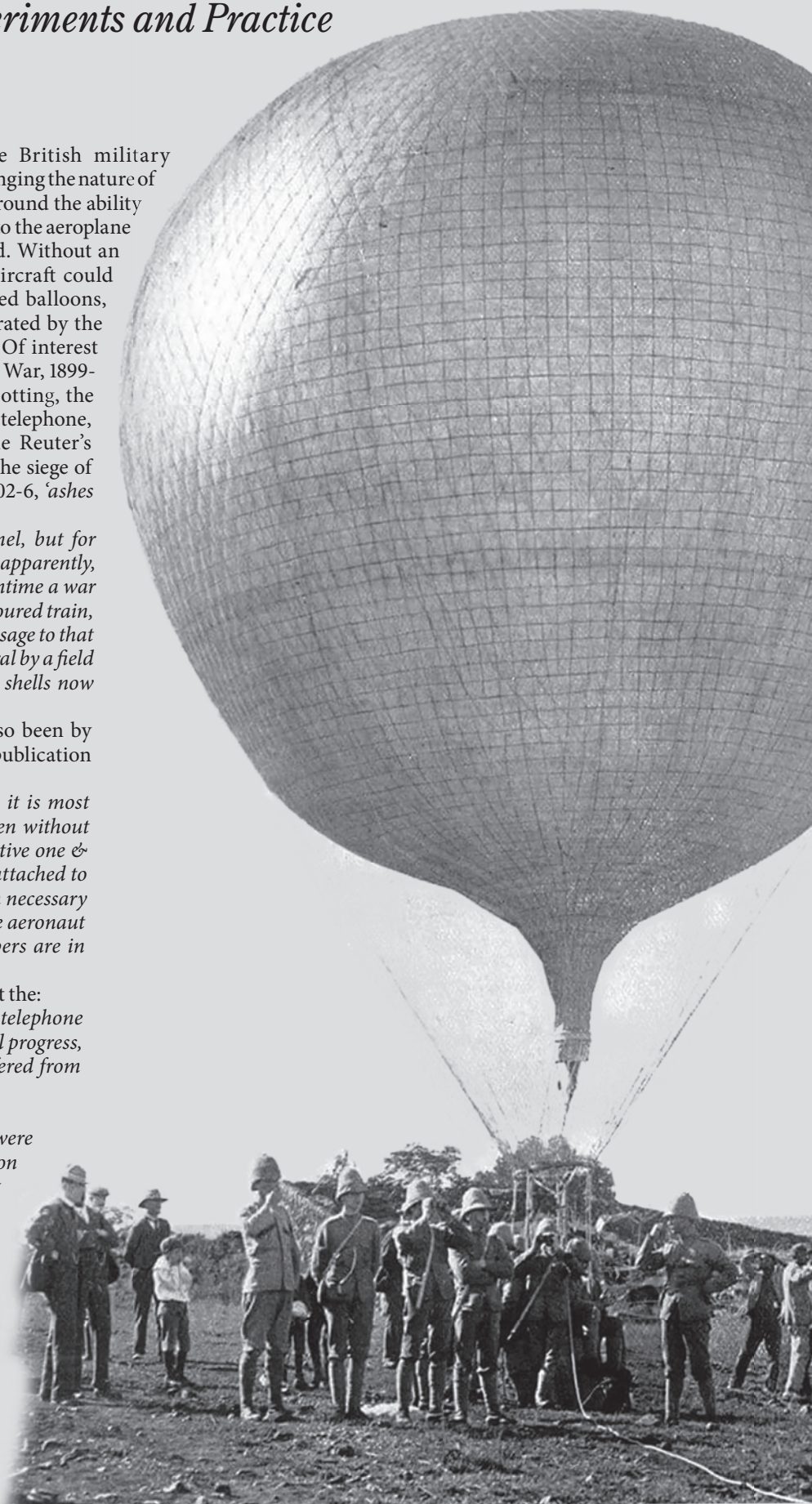
Right: A Royal Engineers' balloon in use during the Boer War.