



A trench system

A trench system in the Arras sector shown here in an aerial photograph. Built to protect the road, the firing line has been dug in a zig-zag form while the communication trenches leading to the rear have been constructed in a more angular fashion. The chalk content of the ground is evident by the white outline around the trenches where the spoil has been thrown out. This high visibility became a drawback when German ground attack aircraft became active in the latter years of the war. NAC, PA-002205

trench mortar bombardment just to let the opposing team know they were in good fettle. This was normally followed by a tacit truce while the opponents cooked their breakfast and then daily chores commenced (unless there was

a loss of efficiency. Between 25 September 1915 and 31 March 1916, the 31st Battalion served thirteen tours in the trenches, totalling 75 days in the frontline and support trenches. They spent 65 days in brigade reserve, and 41 days in the divisional or corps reserve rest camps which were generally, but not always, located outside German artillery range.

A typical day in the trenches began at dawn with a "stand to" for between 30 minutes and an hour when a battalion fully manned its lines, weapons ready, as this was often the time chosen by the opposing side to attack. The "stand down", or signal to relax, was often followed by the "morning hate" or "frightfulness" during which both sides engaged in rapid rifle and automatic weapons fire, sometimes accompanied by light artillery or

heavy shelling which made everyone quite literally go to ground) such as digging, repairing and reinforcing trenches with wooden props or sandbags and replacing the wooden duckboards laid along their bottoms. A very necessary task was the spreading of chloride of lime or creosote on refuse, latrines or corpses as a sanitary measure. While this was going on, assigned sentries kept watch on the enemy's line by periscopes while those men not detailed for fatigues generally tried to get some sleep – in dug-outs if they were lucky, "funk holes" if they were not. Everyone kept their head down as the Germans had perfected the art of sniping to a very high degree and German snipers were assigned to a specific sector for long periods so that they were very familiar with every foot of the Allied trenches opposite.

After the dusk "stand to" and the arrival of darkness, the trenches came to life. The cover of night provided opportunity to carry out major repairs on the parapet facing the enemy or repair the barbed wire belt in "No Man's Land" that protected it. Night was when rations and bulky stores were brought up as the infantryman on the Western Front was also a beast of burden, particularly in the early years of the war, and it was also when major movement, such as the relief of units, was made. While this was going on, listening posts forward of the firing trench were manned and sentries, almost always in pairs, kept watch on the enemy line. Both sides were very alert and it was not unusual for rifle and machinegun fire to be periodically let off and for

artillery (and also machineguns) to fire on the known or suspected location of communication trenches or road junctions in the rear areas. The firing of Very lights or flares, was common and what with the flares, smallarms and artillery fire, no one got much sleep during a night on the Western Front.

Danger was ever present. Even on a quiet day there would be some shelling, either by artillery or trench mortars, and there were frequent exchanges of rifle and machinegun fire. By the time the 31st arrived on the Western Front, all armies on the Western Front were plentifully supplied with automatic weapons. The British army had commenced the war with two machineguns per battalion – by the autumn of 1915 there were 16, and by 1918 there would be 32 such weapons with each battalion. The most feared weapon, however, was HE (High Explosive) and shrapnel shells fired by either conventional artillery or the recently-introduced trench mortars. As it was a matter of survival, soldiers learned quickly to judge where a shell might fall from the noise it made. "A noise like a train overhead," one recalled, "meant a destination miles to the rear; a sharp shriek or a deep growl meant imminent danger; and between the two there lay a wide variety of pitches, which one soon learned to interpret properly" or one died – but then sometimes one died anyway.⁷ In the front line the most detested enemy weapon was the trench mortar as the Germans, a technically ingenious people, had developed an impressive variety of these deadly contrivances, ranging from the small *Granatenwerfer* or grenade launcher to the dreaded 250 mm *Minenwerfer*, capable of throwing a 200 lb. projectile with an explosive charge of 100 lbs. a distance of 500 yards that, when it struck, created a room-sized crater. The British answer was the 3-inch Stokes mortar, not as large nor as lethal as the German weapons but lighter and easier to move. When it came to audibility, German mortar bombs were in a category of their own – a "dull pop" from the enemy lines signalled that one was on the way, either large or small, and it was soon visible, resembling a large and deadly sausage wobbling high through the air over "No Man's Land" making its peculiar "swish, swish" and "wa-wa" sounds.⁸ All eyes followed its course but mortar bombs were very tricky as it was difficult to judge from their trajectory just where they were going to land – miscalculations were frequent, and often final. Even an average day on the Western Front was a continual test of a man's psychological stamina and, as Private Donald Fraser of the 31st Battalion commented, his

Shrapnel shell bursts

Artillery was always the most feared weapon and men on the Western Front often had to endure days of heavy bombardment. Here, sappers working near Vimy Ridge duck as two bursts come close. NAC, PA-001131

comrades were fighting "a war in which blood counts, not bone; nerve is the test and not strength."⁹

Curiously enough, poison gas was not as feared as artillery or mortar shelling. The casualty statistics for the British Empire forces during the war would seem to confirm this belief – only 9% of all Imperial casualties from 1915 to 1918 were caused by gas and, of these, only 3.18% died. Since the prevailing winds in northwest Europe were from the west, the Germans may have had cause to regret introducing this weapon. The difficulties of controlling the direction of gas clouds released from cylinders led to increasing use of gas shells fired by conventional artillery. These were usually fired in conjunction with conventional artillery rounds to mask their deployment, but the introduction of improved gas masks and strict anti-gas discipline largely countered their effect despite the introduction of the more deadly phosgene, which could immobilize and kill a man in 41 seconds, in place of chlorine gas which took, on average, 4 minutes to achieve the same effect. Later came mustard gas which did not have to be inhaled to take effect but caused painful irritation to the exposed skin of a victim, who was often unaware that he had been afflicted. As one Canadian veteran of the Western Front noted, however, gas was quickly dispersed by sun and wind and was only truly effective on still nights. He greatly preferred hearing the soft "plop" of a gas shell to the detonation of conventional artillery rounds and his conclusion was that gas was only "a new way to do rather poorly a work that was already accomplished most effectively by high explosives."¹⁰ During the winter of 1915-1916 the 31st Battalion suffered at least two gas attacks but their War Diary does not record any significant effects that resulted. Very generally speaking, gas was most effective if the weather conditions were right – no wind and humid – and if the target was in low-lying ground. The evidence is inconclusive but the most effective use of gas may not have been on the infantry in the frontline trenches but against the rear areas, since it was devastating against horse transport and effective against artillery positions because it was extremely difficult for gunners



Typical Firing Line and Communication Trench Layout

