

**BCMh BATTLEFIELD TOUR**  
**12-15 April 2007**  
**ARRAS**

**By Andy Grainger**

It is said that on 1<sup>st</sup> July 1916 the COs of the right-hand British battalion and the left-hand French battalion crossed the Start Line arm-in-arm. Col Orr and Bataillon-chef Philpott did not choose to re-enact this symbol of the entente (at least in public) but read on...



*“18<sup>th</sup> Division benefited from the presence of a certain Major Alan Brooke as GSO1 Artillery...”*

Michael Orr is standing just north of Carnoy. The road runs north to Montauban, just visible in the distance about 2 kms away. The stand is in the centre of the 18 Div sector roughly in No Man's Land, the German front line being roughly where the tree is.

The attack was successful, the Div taking all its objectives during the day, including Montauban. But in this area there were difficulties from MGs sited in old mine craters that had escaped the preliminary bombardment and insufficient numbers of “moppers-up” had been allocated. Nevertheless Maxse's emphasis on training was vindicated. This included NCO's being trained to take over from officers.



*“The French didn't need stormtroops; they already had Chasseurs à Pied.”*

Bill Philpott is standing on the eastern edge of Maricourt near the Command Post of the French 21<sup>st</sup> Brigade. The road runs eastwards towards Péronne. *Bois Y* is about 1000 metres away and is actually in a dip on a reverse slope inside a re-entrant. It has a frontage of about 300 metres. It was attacked by three battalions, two companies up, two back with similar formations on each flank and captured in 40 minutes on 1 July.

Units were well-trained and equipped although one eye-witness reported seeing a collection of Chauchat MGs dumped in a field because the men had not had time to train on them.

For this year's tour our Organiser, Isobel Swan, took us back to the Cockpit of Europe. Many of us had, of course, visited the area before but one of the strengths of the BCMH is the varied perspectives that it can offer to seemingly the most hackneyed tour itinerary. On this occasion we were particularly fortunate to be able to listen to Bill Philpott's emerging researches on the French participation in the Battle of the Somme whilst others used the ground to discuss tanks, women, the Royal Flying Corps, raiding and tunnelling in the Great War. The Secretary General demonstrated his ubiquity once more by his revelations at battlefields from 1214, 1871, 1915 and 1918 as well as on the more familiar territory of 1 July 1916.

<b>Stand</b>	<b>Presenter</b>
Bouvines, 27 July 1214	Michael Orr
Bapaume 3 January 1871	Michael Orr
The French action near Moislains, 28 August 1914	Bill Philpott
Stands in the Somme area: French XX Corps, 1 July French Colonial Corps Breakthrough, 1 July	Bill Philpott Bill Philpott
British 18 <sup>th</sup> Division, 1 July 1916	Michael Orr
23 <sup>rd</sup> Division at Contalmaison, 10 July 1916	Charles Fair
Attack on High Wood, September 1916	Stuart Sampson
French attacks at Vimy Autumn 1915	Michael Orr
Vimy Ridge - April 1917 and the work of the Duran Group	Mike Hibbert
34 <sup>th</sup> Division 9 April 1917 (Arras Offensive)	Tony Cowan
Gavrelle 28 March 1918 (Operation MARS)	Michael Orr
The RFC and "Bloody April"	Bridget Pollard
The Arras Memorial and the Mur des Fusillés	Michael Orr
Rommel and the Ghost Division, Arras 1940	Jack Livesey
Trench raid by 1/19 <sup>th</sup> London Regiment 28 June 1916 near Angres	Charles Fair
Notre Dame de Lorette; Louise de Bettignies and French Resistance in the Great War	Joy Thomas

The first stand of the tour was that rarity – a medieval battlefield. Our speakers at the Spring Conference in Oxford explained why there were relatively few battles in medieval times – battle was an extremely high risk affair particularly as armies appeared to be little more than crowds of individuals rather than formations in any modern (or classical) sense. Michael explained that the impact of Bouvines was very significant in that King Philip Augustus of France saw off a significant threat to his nascent kingdom, namely an alliance of England and the Empire. Some later historians suggested that it was even more significant in that French success led to Absolutism whilst English failure produced the Mother of Parliaments. Discuss that as you will, Bouvines is much more familiar to French schoolchildren than English ones, a fact confirmed by a passing reporter of 'La Voix du Nord' who explained to me that, despite the significance of the battle in European history, ours was the only tour group he had seen at the battlefield!

The battlefield is untouched by modern development and one can certainly follow the action from the modern memorial. It was an encounter battle with the French forces trying to deploy from a defile across extensive water meadows (now much less of an obstacle) and the emerging allied forces trying to defeat them before they could. One sensed that the various bodies of knights fought as individuals or in small groups for an hour or two before they were

reinforced or had to break off, an impression borne out by the speakers at the Royal Armouries whom we reported in the last issue. Both commanders were personally involved in the fighting and both were unhorsed but whilst Philip was covered by his bodyguard and remounted Emperor Otto IV left the field together with his forces.

Our discussion of the battle did not end at the field, however, since Michael took us to the nearby church at Bouvines village. Here we saw the set of 21 magnificent windows which tell the story of the battle. Constructed in Bar-le-Duc between 1889 and 1906, their makers clearly conducted thorough research into the details of the armour and equipment. And, as might be expected, there is more than a nod towards the contemporary threat from the east. Today the windows are looked after by 'Les Amis de Bouvines'<sup>1</sup>.

In many ways I thought that Bouvines set the tone for the rest of the Tour since we spent a lot of time dealing with the actions of the continental armies and so were more aware of the context of the operations of British forces. Bapaume was a minor victory won in January 1871 by one of the improvised French armies formed after the catastrophic defeats at Sedan and Metz in 1870. It was commanded by General Faidherbe (and we were able to put a face, or rather statue to the man who has given his name to so many addresses across France) who had been recalled from the colonies. A man of energy and initiative used to having to improvise, he was highly conscious of the brittle nature of his command and sought to fight only under the most favourable conditions. Encouraged by successful actions near Amiens in December he now decided to launch his four divisions against a single German one covering Bapaume. It was a scrambling sort of affair since neither side have very much cavalry to provide intelligence and although the ground was (and still is) very open, visibility was much restricted by winter fog. Something of these climatic conditions obtained at the stand and one could sympathise with the reluctant National Guardsmen trudging across the vast, frozen fields. Nevertheless they drove the Germans back although Faidherbe deemed it prudent to withdraw from the field during the evening as German reinforcements appeared.

Although the French conceded the war to Prussia shortly afterwards, Bapaume and actions like it had a significant impact on German behaviour in the future. Always looking for a decisive battle in a short war, Moltke felt that the War of 1870 with its *francs-tireurs* and new governments who fought on with the resources of overseas empires represented the end of *Kabinettskrieg* and heralded the nation-in-arms. This suggested that future wars could last much longer. A policy of reprisals and hostage-taking was devised with results that we had seen in 2006 when visiting the Belgian battlefields of 1914. We also heard that when instructing at the Staff College the future Field Marshal 'Wullie' Robertson had taken students on battlefield tours to Bapaume to introduce them to the problems of commanding armies of raw recruits "as we might have to do" in a future European war.<sup>2</sup>

War returned to the area in August 1914 and Bill Philpott explained that on the 27<sup>th</sup> the successors of Faidherbe's National Guardsmen in the form of two Reserve Divisions retraced his steps from Arras to Péronne. They were encouraged by the sight of the memorial on the

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<sup>1</sup> <http://lesamisdebouvines.free.fr/>. See also [http://en.wikipedia.org/wiki/Battle\\_of\\_Bouvines](http://en.wikipedia.org/wiki/Battle_of_Bouvines) which cites Jim Bradbury, *Philip Augustus, King of France 1180-1223* (Longman, London, 1998) and Georges Duby *Le dimanche de Bouvines* (Gallimard, Paris, 1973) as translated into English by Catherine Tihanyi as *The Legend of Bouvines, War, Religion and Culture in the Middle Ages* (University of California Press, Berkeley, 1990).

<sup>2</sup> A graphic account of Bapaume and life in Faidherbe's army by a company commander is to be found in *The Reality of War* by Léonce Patrie, trans Douglas Fermer, Cassell 2001 ISBN 0-304-35913-0

Bapaume road and engaged in a brief skirmish with Uhlans nearby. We might have hoped that forty three years of training might have improved standards in the reserve formations of the French Army but such did not seem to be the case. Lacking any intelligence of the Germans and, in August as in January, their vision obscured by mist, the two reserve divisions found themselves on the open slopes north of Moislains a few kilometres north of Péronne at dawn on 28 August. The mist then lifted and revealed them, entirely unprepared for action, to the German II Corps deployed in the area. In line with their doctrine the French attacked but without artillery support. They suffered 1500 casualties or prisoners and their colleagues ran in panic back to Arras. A nearby cemetery contained the graves of many of the fallen including several senior officers.

Two years later matters were very different. By 1 July 1916, it was the British Armies who were ill-equipped and inexperienced. The French Army was, in Bill Philpott's view, perhaps at the top of its form. Later in the tour Michael Orr discussed the French offensives at Vimy Ridge in 1915. Employing masses of artillery the French actually took Vimy Ridge in May 1915 but were unable to hold it. But they had developed the firepower and tactical techniques to break through the German front albeit at high cost. Pétain, commanding 33 Corps, distinguished himself in these operations by his emphasis on careful planning and maximum firepower. By 1916 both the British and the French armies had developed sophisticated artillery techniques in conjunction with their aircraft but the much larger French Army was better able to make use of the new guns and equipment that Joffre had ordered in 1913 and were coming on stream two years later.

We therefore compared three Corps level attacks on 1 July 1916, those of the French XX and I Colonial Corps and that of the British XIII Corps which shared a boundary with the French 6<sup>th</sup> Army / XX Corps. In all cases the attackers possessed good artillery observation but the ground is very open. One of the French objectives, *Bois Y*, was located on a reverse slope and was very heavily fortified. But the French broke through all the German defences in a few hours. Their front line objectives, including *Bois Y*, were taken in only 40 minutes, so thoroughly had the French artillery done its work. This was due to careful planning by highly experienced officers, both Fayolle at 6<sup>th</sup> Army and Balfourier at XX Corps having worked together as instructors at the *École supérieure de Guerre* before the war. The French used small group tactics spearheaded by their élite Chasseur battalions in contrast to the more rigid formations in which the British New Armies had trained. Their infantry platoons had been equipped with a range of new weapons such as the new Chauchat LMG, hand and rifle-grenades and light mortars or trench guns although at this stage Bill was not sure that the training programmes had always caught up with the flow of equipment. And the firepower available to them from their trench mortars, howitzers and heavier guns firing HE shells with more reliable fuses gave them much greater capability than the Royal Artillery could deliver at this time.

But if the weapons of the Royal Artillery still had significant deficiencies, no HE, a high proportion of duds, too few heavy guns, they were strong on technique. The identity of the inventor of the creeping barrage has not been recorded – both British and French officers unusually crediting their allies – but 18<sup>th</sup> Division certainly benefited from the presence of Major Alan Brooke as their GSO I Artillery even if the CRA constantly complained that he was never told what was going on!

1 July 1916 is infamously a disaster for the BEF and inevitably there was discussion about the reasons for this, notwithstanding that XIII Corps in the Montauban sector next to the French

nearly pulled off a breakthrough. Bill Philpott was at pains to show that the French pursued very much a “bite and hold” policy at the operational level. They were very quick to close down attacks which lost momentum and then regrouped to try again. Haig’s strategy of breakthrough was not actually very different to that of Foch commanding the French Army Group but his operational method was, particularly as he was carrying out very ambitious operations with untried troops – no General Faidherbe he! Further, the Royal Artillery was dramatically undergunned and undermanned compared to the French. Even though it developed new techniques with the RFC very rapidly the equipment gap took many months to close. Later in the tour we observed how the French were launching large and successful, albeit costly, assaults in 1915. The size of their continental army offered them a vastly greater training and knowledge base compared to that available to the BEF.

Apart from these stands we also heard Bill again on developing French operations whilst Charles Fair offered both a very graphic and comprehensive stand about the capture of Contalmaison on 10 July by 23<sup>rd</sup> and parts of 17<sup>th</sup> Divisions. He explained the problems of ground and firepower co-ordination faced by the assaulting battalions and how they successfully overcame them in a step-by-step approach. Contalmaison was defended by a reinforced German battalion and eventually taken by just one Brigade supported by three Divisional artilleries and supporting weapons from several other units and formations. Such a level of fire support would soon become commonplace but Charles pointed out that, at this stage, the success of this type of operation depended heavily on the character and capabilities of individual officers. To modern eyes it is, of course, remarkable that one can stand at the corner of a field and clearly see the entire frontage covered by a Brigade attack – rather less than 2 kms.

Having moved down the scale from Corps to Division both Stuart Sampson and Tony Cowan took us down to brigade and battalion level with actions they had studied due to the presence of relatives who survived them. Stuart’s grandfather had served in D Battalion of the Tank Corps and so it was perhaps inevitable that his tank was called Delilah. As I write this in June torrential rain is falling but I can see Stuart now, on a beautiful April day in front of the cemetery dramatically situated across the valley from High Wood, as he explained the role of the tanks in its capture. Their impact, in fact, was very limited due to the Corps Commander’s insistence that they drive through the wood rather than around it but, as ever in large corporate institutions, he managed to shift the blame elsewhere.

The following day Tony Cowan took us through the 34<sup>th</sup> Division’s attack on the opening day of the Arras offensive on 9<sup>th</sup> April 1917. He explained the Divisional assault by reference not only to the ground and official sources but only the letters of his grandfather which he wove into his discussion. Thus at one level we saw not only how the Army’s capability had moved on since the Somme but also the perspective of a battalion officer who participated in the attack, was wounded on his final objective, captured and then recaptured. Unsurprisingly his letter home announcing his Blighty wound (only one leg remaining) demonstrated the sort of stiff upper lip we associate with his grandson and perhaps too the relief at getting away from these murderous battles.

On the final day of the tour Charles Fair presented another stand in manner both comprehensive and comprehensible. This was a trench raid on 28 June 1916 conducted at Angres, north of Vimy Ridge, intended partly as a deception operation in advance of the forthcoming Somme offensive. The raid itself was carried out by only about 100 men of 1/19<sup>th</sup> London Regt and was one of three similar operations carried out by 47<sup>th</sup> (London) Division,

one by each Brigade. The GOC saw these raids as an opportunity to test his Divisional and Brigade staffs in planning an operation that would require all their assets (and indeed incorporate those of Division and some from Corps) but the war diaries seemed to indicate that this type of operation was relatively new. There were three objectives – to take prisoners, to damage the trenches and to kill Germans. The 100 infantrymen were probably too many for the first objective and too few for the other two. Nevertheless we were able, once again, to see the ground (an open field sloping slightly to the north) and Charles had plotted the trenches onto a modern map with GPS. We were therefore able to hazard a good guess from the ground as to why those planning the operation adopted the courses that they did. The stand enabled us to see a segment of the Western Front in our mind's eye – that of a battalion of the 31<sup>st</sup> Reserve Infantry Regiment which occupied a 500 metre sector of three trench lines and with about 9 MG positions identified.

Apart from looking at these battles above ground, we were also privileged to be taken behind – or rather under - the scenes at Vimy ridge by Mike Hibberd who explained the work of the Duran Group. Originally commissioned to remove unexploded munitions from the Canadian battlefield parks, the Group now investigates the many tunnels under Vimy Ridge and elsewhere. We saw the remains of some of the specially broad approach tunnels dug to bring troops and equipment up to the front under cover from view. Much of the park is now wooded but was entirely open at the time – ironically, therefore, for all its spectacular view and recently restored memorial, the Vimy Ridge battle was actually the one that was the most difficult to follow on the ground. Mike explained some of the battles that had been fought around the huge minecraters now buried deep in the forest where the front lines were only a few yards apart.

From underground at Vimy Ridge we then heard from Bridget Pollard about 'Bloody April' – the largely successful attempt by the RFC to maintain the initiative in the air against an air force equipped, for a few months, with much more capable aircraft. Bridget has kindly submitted a separate paper which appears elsewhere in this issue so I will merely say that the RFC had expanded so quickly that at least one squadron was commanded by a spotty 19 year-old major wearing the ribbon of the MC.

To round off our look at operations in the Great War Michael Orr took us a few miles east of Vimy Ridge and the site of Operation Mars on 28<sup>th</sup> March 1918. One of six German offensives undertaken in 1918 Mars is unusual on two counts in that a) it was particularly unsuccessful and b) that it receives little or no coverage in histories of the Kaiserschlacht. Ludendorff had wanted to break through the British lines between St Quentin and Arras but chose to emphasise the St Quentin thrust as this was more weakly held. He realised that Arras was much more important strategically and decided to attack there a week later having moved the heavy artillery. His losses at St Quentin were higher than expected, however, and he was unable to move as many infantry as he would have liked. This was unfortunate since, from our stands, we could see that the British held very good positions on Vimy Ridge thus completely overlooking the Germans. We found a number of German concrete artillery emplacements on the Ridge and Michael explained that the British, knowing the Germans were going to attack, moved their guns from their own protected emplacements into alternative positions. They therefore survived the German bombardment and, controlled by OPs on the ridge played a major role in driving Mars off. This was an interesting stand as it showed that Haig's confidence in his defences was not entirely misplaced. His problem was that the Germans had identified some particularly weak sectors in which to make their breakthrough. On the other hand, they failed to achieve decisive strategic results.

On the final day of the tour Jack Livesey talked about the famous counterattack at Arras in May 1940 and he has kindly supplied a separate article.

We rounded off the tour with a visit to Notre Dame de Lorette. This is a chapel and cemetery located on a ridgetop position fully as significant as Vimy Ridge nearby. The French launched many attacks along its length until they finally succeeded in taking it in October 1915. There are now 44,000 graves and a memorial to 20,000 missing. The site is watched over by individuals from nearby villages on a rota basis. There is also a 'proper' museum containing several reconstructed dugouts of an HQ, dressing station and so on. A lot of attention has clearly been paid to the details of clothing, equipment and weapons and there is a shop selling a good range of books and other publications.

Whilst we were waiting for the Secretary-General to complete the administrative arrangements for our visit and lunch we heard from Joy Thomas about the French Resistance in the Great War. At the Bapaume 1871 stand we had heard how German policy towards the civilian population in an occupied country had been formulated and Joy further explained that the civilian economy was simply regarded as plunder by the German authorities. Given the straits to which the German population was reduced by the blockade it was not surprising that conditions in those areas they occupied were very hard. She also discussed the role of those very brave individuals who served as spies, collecting information about German activity in their area and then sending or smuggling it into neutral Holland. One Resistance heroine, Louise de Bettignies<sup>3</sup>, is particularly commemorated at Notre Dame de Lorette. She had crossed the Dutch border many times as a spy until she was arrested in October 1915. Even in prison in Germany she incited others to stop working for the Germans until she died of pneumonia in September 1918. Whilst stressing the losses and privations suffered by the population and the huge benefits reaped by the Germans, Joy also touched on the breeding habits of rabbits, the optimism of Artois pigeon fanciers and the communication capabilities offered by whalebone corsets. Occupation and Resistance in this period are little discussed and worthy of further research.

On a final historical note we observed that the French were celebrating the tercentenary of Marshal Vauban's death in 1707. His hugely impressive ramparts still stand at the citadel in Arras where plaques commemorate those shot for resistance in the Second World War.

I apologise for the length of this report but I wanted to try and capture something of the value of looking at the battlefields on the ground (unless they happen to lie in a memorial park). I also wanted to illustrate and acknowledge the enormous trouble taken by our guides not only in terms of their verbal expertise but also the maps and other material that they issued. If you are still with me you will have seen that, apart from one of the most significant battles in Middle Ages we obtained a particularly comprehensive view of the operations of the British and French armies at all levels from Battalion to Army. I would like to take this opportunity of thanking all our speakers on behalf of the other tour members.

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<sup>3</sup> [http://www.webmatters.net/france/ww1\\_lorette.htm](http://www.webmatters.net/france/ww1_lorette.htm), a good website about Notre Dame de Lorette, the Battles in Artois and Louise de Bettignies.

## **Predictable, yet unavoidable: some thoughts on RFC losses in ‘Bloody April’, Arras, 1917**

**By Bridget Pollard, IWM**

Whole books and lengthy articles have been written on the substantial Royal Flying Corps losses during April 1917, so any discussion of the subject within the limited confines of a newsletter will be necessarily sketchy. Nevertheless, I will look at some of the reasons behind this, working on the basis of my stand on this topic on the recent BCMH battlefield tour.

So what were these losses? Numbers differ depending on the source, but give an approximate RFC loss in the region of 275 aircraft and 319 aircrew in April 1917, more than double any previous official monthly aircraft loss. Yet even this was an underestimate by an undefined amount, perhaps 200 aircraft, as it does not include crashes not directly caused by enemy action<sup>4</sup>.

Predictable? Yes. There is no doubt that the inadequacy of the RFC to face the challenge of an offensive in April 1917 was known as early as January, when Haig had written to the War Cabinet: ‘Our fighting machines will almost certainly be inferior in number and quite certainly in performance to those of the enemy ... It appears that we cannot expect to gain supremacy in the air in April, and it is even possible it may pass to the enemy.’

Unavoidable? Also yes, but not for exactly the reasons Haig feared. His analysis of the problems was only partially correct. The RFC had numerical supremacy over the German air force, as it usually had on the Western Front, but numbers alone are not necessarily enough.

The RFC was to a large extent the victim of its own success. The four squadrons which had gone to France in August 1914 to provide reconnaissance for the BEF had grown to 27 by 1<sup>st</sup> July 1916 and 35 by 17<sup>th</sup> November 1916. In April 1917, there were 44 RFC squadrons listed on the order of battle for the Western Front (and four Royal Naval Air Service scout squadrons on detachment). These were divided into Brigades, one for each of the five British armies, each with two Wings, a Corps wing and an Army wing, each composed of between three to five squadrons of about 18 aircraft by the beginning of the battle of Arras.

Reconnaissance now was but one part of their remit. An RFC Memorandum of April 1917<sup>5</sup> lays down the three duties of aircraft during artillery bombardment and infantry attack as observation of fire for batteries engaged on counter-battery work, observation of fire for batteries bombarding the trenches and cutting wire, and trench reconnaissance and contact patrols. The first two required ranging, which was now done via wireless link-ups, while all three demanded photography. The main duty of the Corps wings, typically flying the BE2c and its later variants, was spotting for the artillery of their corps. This was now so fundamental to the land operations that when bad weather conditions inhibited flying on 17<sup>th</sup> to 20<sup>th</sup> April, the resumption of the offensive planned for 21<sup>st</sup> April at Arras was suspended for two days. Indeed, aerial photography was becoming indispensable to the British army on the Western Front when planning or checking on the progress of any offensive. There was an insatiable demand for photographic maps of the trenches giving the most up-to-date

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<sup>4</sup> I have generally followed statistics given in the official history ‘The War in the Air’, by W Raleigh and H A Jones, and ‘The Sky their Battlefield’, by Trevor Henshaw, Grub Street, 1995.

<sup>5</sup> H A Jones, *op. cit.*, vol III, p 389

information on the situation. While it was the purpose of the Army wing squadrons, in scouts and two-seaters, to fly offensive patrols and bombing missions and to defend the Corps machines, even the single-seater scouts were called upon at times of crisis to photograph the lines and German defences. The duties of the two wings could overlap when the need arose.

In addition to the constant demands on the air service, the RFC's overall philosophy was one of unremitting offensive; to carry the war to the enemy at all costs, with constant incursions over the German lines and an all-out effort to ensure that as few hostile aircraft as possible ever appeared over the British trenches. Not only would it impede enemy aircraft attempting to carry out the same aerial activities to assist their army as the RFC undertook, but the effect on the morale of the ground forces of both sides would be immense. As an RFC report on *Fighting in the Air* (March 1917)<sup>6</sup> puts it: 'The moral effect produced by an aeroplane is ...out of all proportion to the material damage it can inflict ... and the mere presence of a hostile machine above them inspires those on the ground with exaggerated forebodings of what it is capable of doing. On the other hand, the moral effect on our own troops of aerial ascendancy is most marked, and the sight of numbers of our machines continually at work over the enemy has as good an effect as the presence of hostile machines above us has bad.'

The consequence of this policy is seen in the vast proportion of British losses which occurred 'East of the Line', which, like Luftwaffe losses in the Battle of Britain, tended to be total losses of the aircrew whether they were killed or not. The RFC flew whenever the weather permitted and the sheer exhaustion of multiple flights in a day must have been responsible for the loss of many a pilot, whether in combat or in an accident. In an attempt to boost morale, losses were made good as quickly as possible by drafting in pilots fresh from training, so that in Haig's words they would 'keep the breakfast table full'.

There was, of course, a steady flow of replacements and numbers were even growing. There was a rise of over 50% in RFC manpower between the beginning of the Battle of the Somme and January 1917. In spite of the attrition rate of that battle, in which the RFC lost 576 pilots killed, wounded or missing or 'struck off strength for all causes other than battle casualties' - the split was 308/268 - the number of pilots rose from 426 available on 1<sup>st</sup> July to 585 available on 17<sup>th</sup> November. Unfortunately, the attempt to rapidly expand the RFC meant that new pilots were drafted in and became fully operational without sufficient training. Some could not even be trusted to find the aerodrome again after taking off on a local familiarisation flight, quite apart from the problems posed by their military duties and their aircraft.

The RFC's additional manpower was, of course, across the board, not just in pilots. There can be no doubt that it is impossible to increase numbers this way and over this period of time in a technological service like the air force without compromising on training, both of pilots and ground crew. Pilots have been mentioned, but the problem of repairing and maintaining aircraft to a suitable standard when the mechanics tasked to do it were of necessity half-trained is frequently overlooked. There was no cadre of mechanical engineers or of aircraft fitters and riggers to draw on in the general population, and even the best and most up-to-date aircraft needs a suitably trained ground crew if it is to perform at its best. And the RFC aircraft were not in that category.

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<sup>6</sup>H A Jones, *op. cit.*, vol III, p 399

Haig had correctly identified perhaps the key British aerial weakness: the aircraft they flew. Twenty-five squadrons were assigned to the Arras campaign, totalling 365 serviceable aircraft at the outset of which one-third were 'fighting types', yet many were obsolete. The war in the air was very much a technological war. Supremacy switched sides with improvements in aircraft. The introduction of the Fokker Eindecker in the summer of 1915 led to a period of German ascendancy, the 'Fokker Scourge', ended in the early part of 1916 by the introduction of the DH2 and the FE2b. But technology was not standing still, and the German Albatros DIII single-seater scout, which came into service at the end of 1916, was in a different league to most British aircraft by the time the battle of Arras started. About half the German air force were modern fighters. Only the Sopwith Pup, originally a RNAS aircraft, and the French-designed Nieuport 17s and 23s could compete on anything like equal terms. These were few and far between in the RFC order of battle and on the brink of obsolescence. The truth was that the vast majority of RFC machines, the BE types which predominated in the Corps squadrons and the FE2s which were the backbone of the Army wings, were too slow and inadequately armed for the conflict. New types were coming in or would arrive in the summer of 1917, but the battle was now, and the odd squadron of Bristol Fighters, SE5s or DH4s here or there was not going to turn the tide on its own.

One only has to compare the specifications for the various types flown by the opposing air services in April 1917 to see what an uphill task the British pilots had.

The importance of a superior aeroplane in the hands of experienced pilots cannot be overestimated. There are many examples when a squadron or flight of good aircraft on either side performed well: an outstanding one at this time is a combat between two RNAS Sopwith Triplanes of No 1 (Naval) Squadron, attached to 14<sup>th</sup> Army Wing, IV Brigade RFC, and 14 two-seater and single-seater enemy aircraft<sup>7</sup> lasting 45 minutes, in which the naval pilots shot down three German aircraft and forced the remainder to retreat to the safety of their own lines. However, the RFC had far too many inferior aircraft with too many inexperienced crew flying too many hours being sent on operations unsuitable to them often behind enemy lines.

The German air force was smaller than the RFC (about half its front-line strength in April 1917) and had also reformed itself in 1916. Around September 1916, the first of thirty-five Jastas – specialist fighting single seater scout squadrons - was set up, in addition to the old system of general purpose squadrons. Composed of around 12-15 machines, the Jastas would move along the line to areas of high activity and concentrate as the military situation dictated. Unlike the RFC fighter squadrons, these pilots had previous combat experience in two-seater line squadrons and after volunteering for Jasta duty, underwent a period of specific training. The results were stunning. Boelke's Jasta 2 brought down 76 British aircraft for a loss of 7 of its own between its formation on 21st September and 31<sup>st</sup> October 1916. While they were stationed at Roucourt near Douai between 13<sup>th</sup> April and 9<sup>th</sup> June 1917, von Richthofen's Jasta 11 claimed about 80 Allied machines for a similarly small loss. Not surprisingly, morale was high.

Overall these fighter units caused a substantial increase in British aerial casualties in the last few months of 1916. Staying largely over their own lines, they did not generally patrol the front, relying instead on forward observers to tell them where RFC incursions were taking place in force then using the speed and climb of their aircraft to put them into a suitable position for ambush, particularly as the British pilots were usually facing a head wind and were low on fuel on the way home. As they tended to attack formations, when they struck

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<sup>7</sup> H A Jones, op. cit., vol III, p 358

they often took a heavy toll, an example being the loss of a formation of six of the new Bristol Fighters to Jasta 11 on 5<sup>th</sup> April<sup>8</sup>. If the odds did not favour them, their aircrafts' performance allowed them to break off the combat, unlike the RFC whose machines and philosophy forced them to slug it out to the bitter end.

It was a time of innovation in aerial warfare and, consequently, increased losses. Ground strafing of enemy trenches had been a matter of individual initiative before, in conjunction with the duty of contact patrols (developed during the battle of the Somme), but now it was requested formally as part of normal duties, along with the strafing of some enemy advances. Consequently there was a rise in losses to ground fire. For the first time on the Western front a specialised night bomber squadron, 100 Squadron with FE2bs, was sent out and was used, inter alia, to bomb enemy airfields such as the Jasta 11 base at Roucourt. On the German side, the Jastas began to join together to combat British raids, a practice to become known to the Allies as 'Flying Circuses'. It was around April 1917 that the classic WWI 'dogfight' developed, with large numbers of machines from various squadrons and of various types. The GAF had abandoned the suicidal practice of descending on British reconnaissance and photographic aircraft from a great height through a crowd of defending fighters in favour of taking advantage of low cloud at around five to seven thousand feet to hide their attacks and departures, leaving the British fighters at 10,000 ft or more with no enemies in sight while their recce or photo aircraft burned merrily on the ground below them. The RFC countered this with some low-level fighters of their own and, as all aircraft in the area tended to join in once a rumble was started, the stage was set for some large encounters.

Predictable yet inevitable: larger numbers of casualties than before came from larger numbers of combatants, inadequate equipment and training, and larger demands on the British air services during a major offensive. Their sheer determination and unrelenting effort carried them through, inspired or impelled by RFC doctrine that 'the aeroplane is essentially a weapon of attack and not of defence.'<sup>9</sup>

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<sup>8</sup> Jasta 11 took another three of 48 Squadron's Bristol Fighters on 11<sup>th</sup> April

<sup>9</sup>H A Jones, op. cit., vol III, p 400



### RFC Losses of aircraft and aircrew: Western Front

Date	Aircraft losses	Highest month and number	Monthly average	KIA	POW	Lost 'East of Line'	Total aircrew lost	Monthly average aircrew losses
1914 (Aug-Dec)	22	Nov: 9	4.4	6	11	11	17	3.4
1915	127	Dec: 19	10.6	53	81	108	134	11.2
1916 (Jan-June)	110	June: 26	18.3	53	53	82	106	17.7
1916 (July-Dec)	400	Sept: 103	66.7	240	138	270	378	63.0
1917 (Jan)	35		35	24	6	19	30	30
(Feb)	65		65	52	10	39	62	62
(March)	132		132	92	32	78	124	124
(April)	275 <sup>10</sup>		275	207	112	252	319	319
(May)	201		201	98	64	124	162	162
(June)	161		161	91	42	104	133	133
(July)	187		187	124	41	130	165	165
(August)	215		215	146	49	166	195	195
(Sept)	215		215	140	71	163	211	211
(Oct)	187		187	103	89	157	192	192
(Nov)	148		148	75	44	97	119	119
(Dec)	61		61	43	22	52	65	65
1917 (Jan-June)	869	Apr: 275	144.8	564	226	616	830	138.3
1917 (July-Dec)	1013	Aug & Sept: 215	168.8	631	316	765	947	157.8

<sup>10</sup> April 1917 total of aircraft losses not exceeded until March 1918 (308). Highest monthly RFC/RAF losses for WWI is August 1918 (432)



### Causes of casualties to RFC Aircraft, Western Front (not just Arras)

Date	Ground fire	AA	Combat <sup>11</sup>	Engine, etc	u/k
1914	9	4	2	2	3
1915	13	36	[none Jan - May] 42	11	31
1916 (Jan-May)	2	26	51	3	3
1916 (June-Dec)	28	126	243	17	14
1917 (Jan)	1	3	29	1	1
(Feb)	2	9	54		
(Mar)	4	11	115		2
(Apr)	8	26	235	3	4
(May)	10	33	153	1	4
(June)	11	29	114	5	2

<sup>11</sup> From the introduction of the Fokker Eindekker in Sept 1915 until the end of the war, losses through air combat stay stable at around 69% of all causes.



**Sample specifications of British aircraft used at the Battle of Arras, April 1917, with number of squadrons flying that type**

<sup>12</sup> <u>Aircraft</u>	<u>Type</u>	<u>Into service</u>	<u>Speed (at 10,000 ft)</u>	<u>Climb (to 10,000 ft)</u>	<u>Endurance</u>	<u>Ceiling</u>	<u>Engine</u>	<u>Armament</u>
FE2b (5 squadrons)	2 seat fighter reconnaissance	1915	72mph	45.5 mins	3½ hours	9,000 ft	120hp Beardmore	Obs: Lewis gun
BE2c (7 squadrons)	2 seat Corps reconnaissance	1915	69mph	45 mins	3¼ hours	10,000 ft	90hp RAF 1a	Obs: Lewis gun
Nieuport 17 & 23 (4 squadrons)	Single seat scout	1916	96mph	11 mins	2 hours	17,400 ft	110hp Le Rhone	1 Lewis gun overwing mount
Sopwith Pup (1 squadron)	Single seat scout	1916	102mph	12 mins	3 hours	17,500 ft	80hp Le Rhone	1 Vickers
Bristol Fighter [F2a] (1 squadron)	2 seat fighter reconnaissance	1917	113mph	11.25 mins	3 hours	20,000 ft	250hp Rolls Royce Falcon	Pilot: fixed Vickers Obs: Lewis gun(s)
RE8 (1 squadron)	2 seat Corps reconnaissance	1917	96mph	29 mins	4¼ hours	13,000 ft	150hp RAF 4a	Pilot: Vickers Obs: 1 Lewis
SE5 (1 squadron)	Single seat scout	1917	114mph	14.2 mins	2½ hours	17,000 ft	150hp Hispano Suiza	1 fixed Vickers, 1 Lewis over wing mount
DH4 (1 squadron)	2 seat bomber & fighter/recce	1917	113mph	16.5mins	3½ hours	16,000 ft	250 hp Rolls Royce	1 Vickers 1 Lewis

<sup>12</sup> Thirteen different types were used, of which 9 were only flown by one squadron.



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### Sample specifications of German aircraft used at the Battle of Arras, April 1917

Aircraft	Type	Into service	Speed (max)	Climb (1,000m)	Endurance/ceiling	Engine	Armament
Albatros DI	Single seat scout	Sept 1916	109mph	6 mins	1½ hours/17,000ft	DI: 150/160hp	2 fixed Spandaus
Albatros DIII	Single seat scout	Late 1916	108mph	4 mins	18,000ft	170/175hp	2 fixed Spandaus
Rumpler CIV	2 seater reconce & photographic	1917	106mph (at 10,000ft)	3¾ mins	3½-4 hours/ 21,000ft	260hp	1 fixed Spandau forwards, 1 Parabellum rear cockpit



## **The Battle of Arras, 21<sup>st</sup> May 1940**

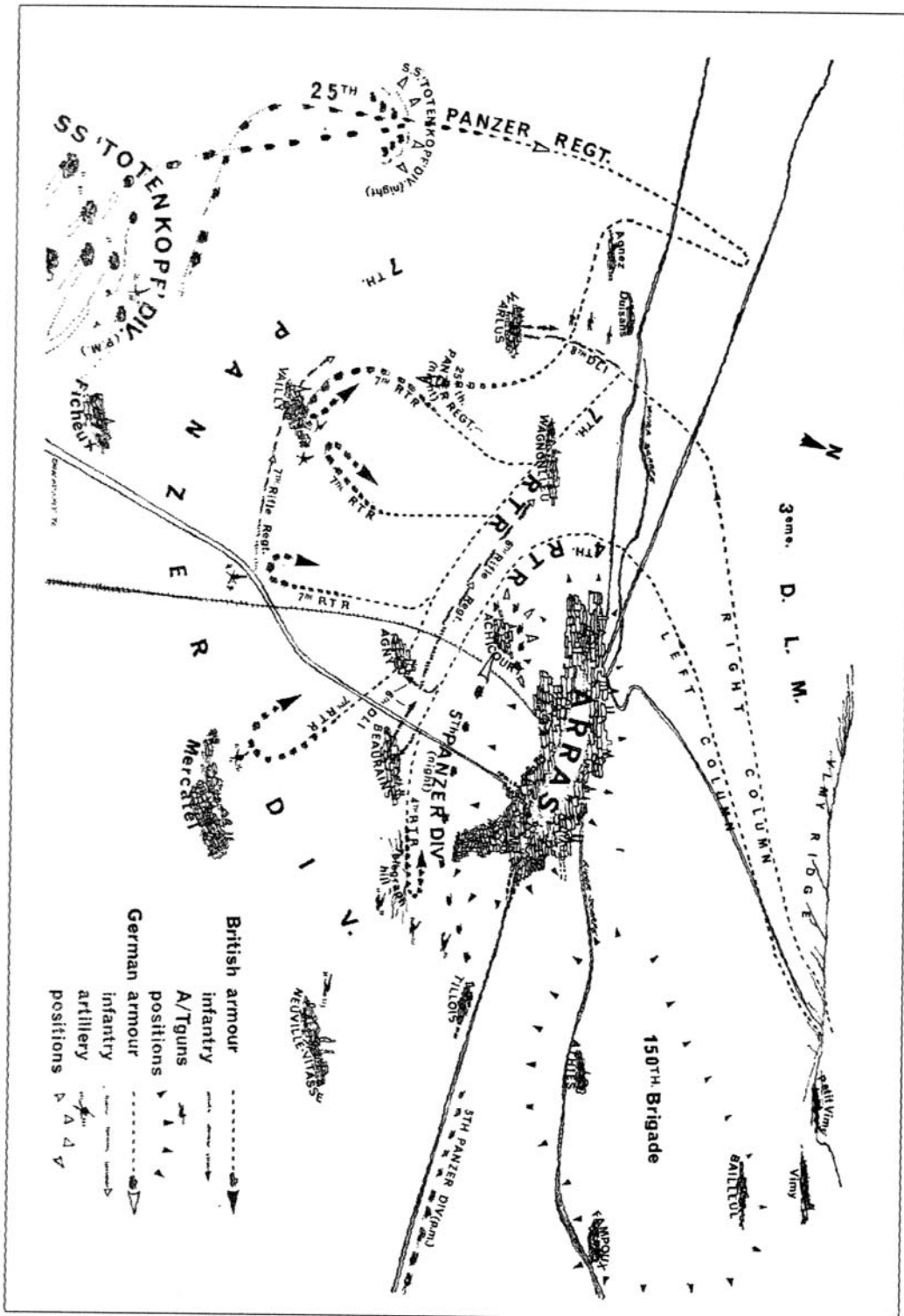
**By Jack Livesey**

The 20<sup>th</sup> of May 1940 was a crucial day for both the British and the German forces in northern France. Three German panzer divisions were charging towards the French coast and one had in fact reached Abbeville, thus cutting the BEF off from the bulk of the French army. Lord Gort received orders from London that the BEF should move southwards from Amiens and attack any German units it encountered. He was only too aware that Arras had to be held, otherwise his forces could be completely cut off from the coast, so ordered General Franklyn, commander of the British forces in Arras, to push out and set up road blocks south of the city and cut the German supply communications routes. General Franklyn had two weak infantry divisions and the 1<sup>st</sup> Army Tank Brigade. The fighting around Arras would be the only significant British tank action of the campaign.

Major General Erwin Rommel, who was commanding the 7<sup>th</sup> Panzer Division, launched his attack towards Arras at 0140hrs. The armoured spearhead reached Beaurains, some 2.5 miles south of Arras, but they had no infantry support as the armour had outrun the motorised infantry. Rommel went back to find them and hurry them forward, only to find that French forces had infiltrated his lines. For several hours the situation was very fluid until the arrival of an infantry regiment with supporting artillery helped stop the French and push them backwards.

The German plan for 21<sup>st</sup> May was that the 7<sup>th</sup> Panzer Division would advance around the western side of Arras heading north-west, with the 3<sup>rd</sup> SS Totenkopf Division protecting the left flank and the 5<sup>th</sup> Panzer Division to the east of Arras protecting the right flank. Rommel reorganised his division by putting his reconnaissance battalion behind the armour so that they could hold the roads open for the following motorised infantry.

Major General Martel, GOC of the 50<sup>th</sup> Division, was commanding the British counter attack. He divided his force into two columns, each led by a tank battalion followed by an infantry battalion of the Durham Light Infantry (DLI), a field battery, an anti-tank gun battery and a machine gun company. Part of the French 3<sup>rd</sup> Light Mechanised Division would support the British operation on its right flank. Due to the British tanks being up at Vimy Ridge, there was very little time for planning and orders to be issued before the 74 Matilda tanks of the 4<sup>th</sup> and 7<sup>th</sup> Royal Tank Regiment (RTR) had to leave. There was also a desperate shortage of maps of the Arras area and so only troop leaders had maps. The British tanks had the previous day moved from the area of the Waterloo battlefield in Belgium to Vimy Ridge, a distance of some 120 miles. When the tanks arrived they were desperate for some major maintenance, in particular the Matilda 1 tank tracks, but unfortunately there was not the time or the spares in place. This had the effect of reducing the top speed of the Matilda 1 tanks to between four and five mph. The early tank radios fitted to both the Matilda I and II easily drifted off station and required retuning after any long road movement. The main radio was in the bottom of the tank against the engine compartment wall and required the commander to lie on the floor of the vehicle while trying to retune the radio. This job was not made any easier as the units were under strict radio silence until the start of the battle.





The first contact was made at 1230hrs when the British tanks came across a German armoured reconnaissance force near Dainville. This was quickly pushed aside and by 1345hrs the British tanks reached the Doullens-Arras road where they found a convoy of lorried infantry which they proceeded to shoot up with their machine guns. They now crossed the Doullens-Arras road and railway line with no infantry support, as this had not turned up as the DLI were still marching to the battlefield on foot. The 4<sup>th</sup> RTR fanned out, heading to Beaurains, while the 7<sup>th</sup> RTR headed in the direction of Wailly. The British tanks came under attack from German anti-tank guns, but to the dismay of the Germans the 37mm shells bounced off the frontal armour of the Matilda tanks. German artillery now opened fire on them over open sights, and this knocked out several of the 7<sup>th</sup> RTR tanks. Some of the motorised German infantry were caught in the village of Wailly, but instead of engaging the British forces, they went to ground and their abandoned vehicles blocked the roads of the village. Several German tanks joined the action.

At this point Rommel was very concerned about the situation and so headed to some high ground 1,000 yards west of the village where he found a mixed flak battery with a screen of anti-tank guns on the lower slopes of the hill. The flak battery had several 4x20mm flakvierling and four 88mm flak 36 guns. The 88mm gun was a dual purpose weapon and each flak gun would have a small supply of Discarding Sabot High Explosive rounds which were used for the gun battery's own protection. Rommel moved from gun to gun giving each one a target to fire on, much to the concern of the battery officers as they felt the initial range was too great. The combined rapid fire from all these guns knocked out several tanks and halted the British advance. A second group of British tanks was spotted coming from Bac du Nord and Rommel directed the flak guns to fire on this new threat, which was forced to turn back. The fighting in and around Wailly had come to a halt by 1700hrs.

The 4<sup>th</sup> RTR headed in the direction of Beaurains and Tilloy, the unit very quickly breaking up into small pockets as it crossed the river Crinchon. As the British tanks passed Beaurains they came under attack from some German tanks and were subject to very heavy artillery and anti-tank gun fire. Some 20 Matilda I tanks were knocked out when they ran into a screen of 88mm guns, stopping the push towards Tilloy. What was left of the 4<sup>th</sup> RTR pulled back by 1700hrs towards Beaurains and Achicourt, which were now held by the 6<sup>th</sup> DLI.

The British tanks were forced to withdraw from the battlefield at about 1800hrs and reached their harbour area at Vimy at 2300hrs. The British had started the day with 74 tanks and finished with just 21 serviceable, but many of them had a lot of battle damage. One Matilda II had taken 34 hits from German guns: it was still in running order but none of its armament was working. The 4<sup>th</sup> and 7<sup>th</sup> RTR were so depleted by this action that they had to be amalgamated for the rest of the operations in France.

At about 1700hrs, Rommel ordered the 25<sup>th</sup> Panzer regiment, which had reached its objective of Aubigny to the north west of Arras, to turn around and attack the British forces in the rear. They ran into the withdrawing British tank forces, mainly made up of Matilda II tanks, and a fire fight broke out that pushed the British force back and into Arras. By the end of the day, the 7<sup>th</sup> Panzer Division had lost 35 tanks, most of them light tanks. However, several Panzer III and IV had also been knocked out by the Matilda II 2pdr gun and the Germans lost 89 killed, 116 wounded and 173 missing. As the 7<sup>th</sup> Panzer Division had only lost 103 men dead,



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wounded and missing from 10<sup>th</sup> to 19<sup>th</sup> May, the casualties of 21<sup>st</sup> May came as a real shock and the effect of this small-scale action on the German forces far outweighed its size. It caused the Germans to slow down the Panzers so the infantry could catch them up during the advance to the Channel.

The British 1<sup>st</sup> Army Tank Brigade was entirely unsuited to the type of action fought at Arras. It had trained as an infantry support unit and was intended to be used in set-piece attacks with full artillery and air support. By the time the Brigade had reached Vimy most of the tank radios did not work as they had moved over 120 miles and had no time for maintenance before going into action. The tanks could not communicate with the infantry or artillery as they were not on the same net, and a number of tanks, once separated from their troop leaders, became lost due to the shortage of maps. Brigadier Vyvyan Pope wrote after the battle: *“The whole show was appallingly handled by ‘the powers that be’, but we did learn that our tank armour is good at present, and that our 2 pounder is quite sufficient also for the present”*.

At 7pm on 23<sup>rd</sup> May 1940, the British forces started to pull out of Arras and move back to the Canal d’Aire, 15 miles to the north and all of the remaining tanks of the 1<sup>st</sup> Army Tank Brigade were subsequently abandoned at Dunkirk. However, some of the Matilda II tanks were recovered and repaired by the Germans and entered service as 5cm KwK auf Matilda (e), being converted into self-propelled anti-tank gun platforms.