49 Division would create a diversion by discharging smoke and gas to support an attack by 11 Division on the 'Wonderwork', but make no assault. $^{1148}$ 

A discrepancy is evident between the Canadians' objectives (white line) and the Fourth Army's objectives (dotted line).<sup>1149</sup> Prior to the assault, the area would be prepared by a heavy artillery barrage, little of which relates to any trench system.<sup>1150</sup>

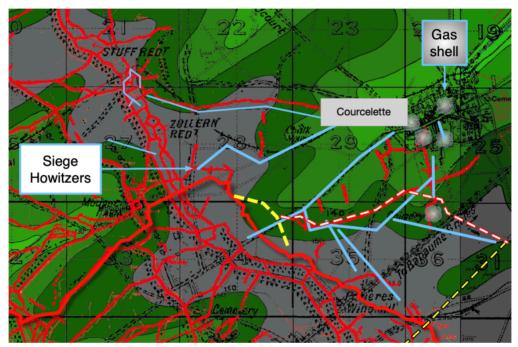


Figure 311 - Reserve Army | II Corps Heavy artillery preparation of the 2 and 3 Canadian and 15 Divisions' objectives

The brunt of the assault towards Courcelette and Martinpuich would fall to the 2 Canadian Division. When the main objective had been gained, posts would be established beyond it to cover the consolidation. Reserve troops would halt at the support line. A separate plan for MG support would be issued.

\_

<sup>&</sup>lt;sup>1148</sup> Hendry, 00 70 of 19160814 in WO 95/2766/2.

 $<sup>^{1149}</sup>$  Coleridge, J. D., 11 Division 00 22 of 14 Sept 1916 in W0 95/1787/1.

<sup>&</sup>lt;sup>1150</sup> Robinson, G, Artillery order 23 of 13 Sept 1916 in WO 95/651/3.

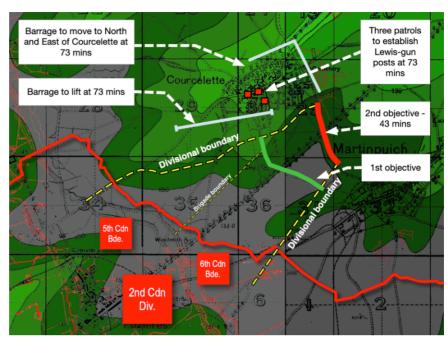


Figure 312 - Reserve Army | Canadian Corps | 2 Canadian Division assaults

Assaulting troops would be covered by an 'intense shrapnel barrage' 50 yards in front of the German line which would

'gradually creep back ... as shown in the attached barrage map'. at a speed of 100 yards every three minutes, with a further three minutes per trench crossing. See below for the earliest example found of a creeping barrage plan which was shared between the artillery and infantry and began a major improvement in infantry-artillery cooperation. 1151

Barrage.' Proceedings of the Royal Artillery Institution, 58:1 (1931): 19-42.

1151

Becke attempts to identify the first use of a 'creeping barrage' by making several references to orders citing them and claims the XV Corps was the first to use them during First Albert. Barrages may creep, but their use by infantry is best established by a map and without one, troops would be leery of following too closely behind it. There are no such maps in either the XV Corps infantry or artillery files for First Albert in WO 95/922/2, WO 95/926/1, WO 95/925/1) and the earliest map showing a creeping barrage of the BEF is on page 56. (Becke, Major (ret.) A.F. 'The Coming of the Creeping

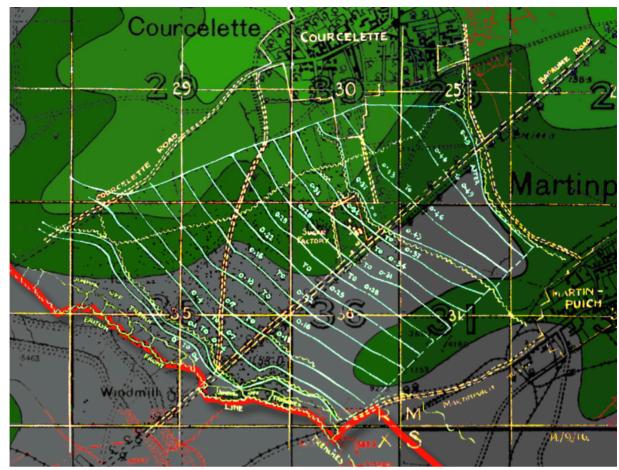


Figure 313 - Reserve Army | Canadian Corps | 2 Canadian Division artillery plan  $^{1152}$ 

The attack would be supported by four tanks for which 100 yard-wide gaps in the barrage would be kept (though none can be seen on the map). The left-most would neutralise any MG fire from Martinpuich and the rightmost would attack the Sugar Factory. Should the infantry outpace them, five men would precede each tank to retrieve any wounded from their paths. On reaching the final objective they would return to their assembly point south of Pozières.

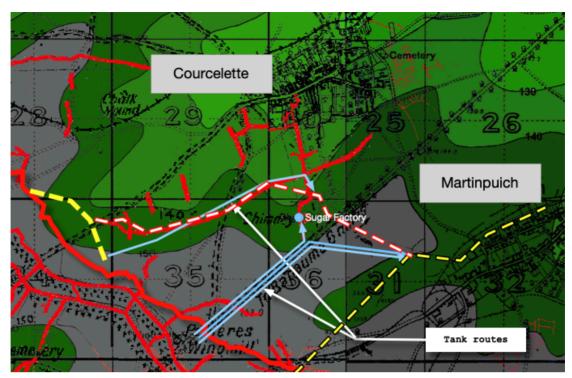


Figure 314 - Reserve Army | Canadian Corps | Tank support

RE and Pioneers were detailed to construct strong points and connect to the well in the Sugar Factory. To identify troop positions, the RFC would send an aircraft which would sound a Klaxon when ready to observe. Leading troops would then ignite flares. $^{1153}$ 

Notably Webber was also concerned for the processes of assembly and bringing up reserve troops in readiness, but his plan said nothing about first aid, casualty evacuation, or ammunition supply.  $^{1154}$ 

-

A horn of American origin. (Mechanically-actuated Acoustic Apparatus and Method. US Patent 923,048. Applied March 14, 1908, granted May 25, 1909).

<sup>&</sup>lt;sup>1154</sup> Webber, Norman W., 2nd Canadian Division 00 21 of 14 Sept 1916 in W0 95/3785.

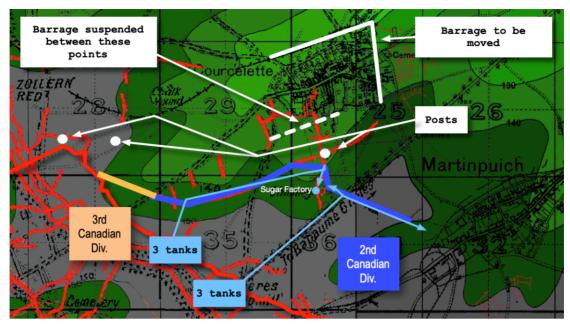


Figure 315 - Brigadier-General P. de B. Radcliffe's operation order 46 of 13 September in WO 95/1047/8

The tank starting point would be chosen for maximum concealment and when the operation concluded, the tanks would return to their base to replenish.

Canadian Corps engineering instructions were confined to a two-page document identifying dumps, routes and new trenches. 1155

### 8.3.3 III Corps

III Corps was the eastmost corps of the Fourth Army and had three divisions..

Peter Farrell-Vinay

Dill, J. G., Engineering instructions of 14 September 1916 in WO 95/1063/1.

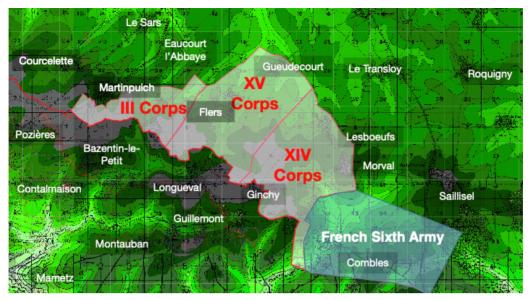


Figure 316 - Fourth Army's corps' disposition

... distributed thus.

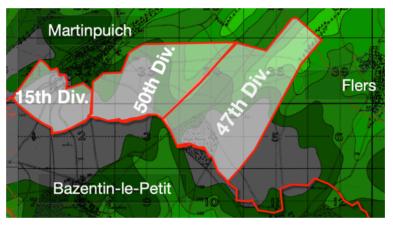


Figure 317 - Fourth Army | III Corps divisions and area

No Appreciation of their proposed attack can be found, but an outline plan and proposal was made around 9 September. 1156

Anon., 'Plan of attack and Proposals for the use of tanks' in WO 95/674/3.1.

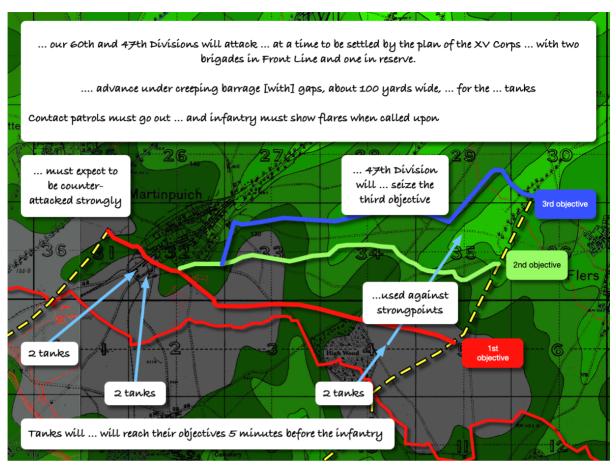


Figure 318 - Fourth Army | III Corps | Anon., Scheme of attack c. 9 September - Infantry and tanks

The proposal sketched in artillery support, targeted trenches and strongpoints.

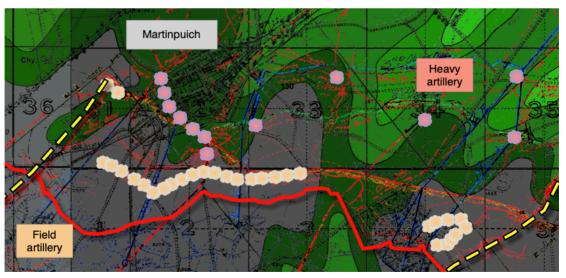


Figure 319 - Fourth Army | III Corps | Anon., Scheme of attack c. 9 September - Artillery

Tanks would be assembled at night in positions a mile from the start, with their noise being covered by aircraft. They would reach their objectives some five minutes before the infantry.

Their speed was calculated to be 15 yards per minute up to the first objective, but they would somehow accelerate to 33 yards per minute thereafter. They would wait at each objective for between one and two hours, but the infantry would not wait for them. To navigate, each would have a map and Intelligence officers were encouraged to share aerial photos and information with them.

To communicate, they would carry flags and pigeons.

'Are signals from infantry to tanks necessary?' asked the proposal. It is safe to assume that no tank officer was consulted before its release.<sup>1157</sup>

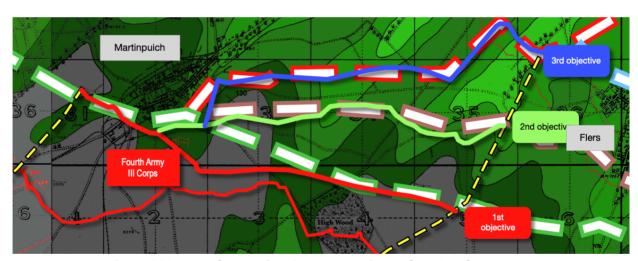


Figure 320 - Fourth Army  $\mid$  III Corps operation order 126 of 12 September

Major B. C. Battye, published the III Corps operation order 126 on 12

September. It largely adhered to the outline published by Montgomery. 1158

See page 393 for more on this.

<sup>&</sup>lt;sup>1158</sup> Battye, B. C, 00 126 of 12 September 1916 in WO 95/674/3.1. See also page 399.

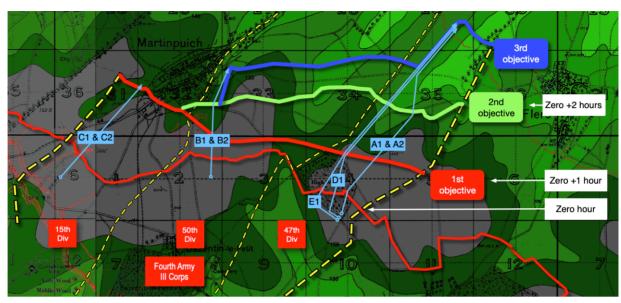


Figure 321 - Fourth Army  $\mid$  Battye, III Corps operation order 126 of 12 September showing tank routes and timing

#### 8.3.3.1 III Corps Artillery Planning

In his 'Artillery Instructions' issued a day after Batty issued the operation order, Major L. W. Lewen (a staff officer of Tancred, the III Corps BGRA) adhered to A. A. Montgomery's order to attack billeting areas, villages and woods near Martinpuich, Eaucourt l'Abbaye and Le Sars, but ignored Le Barque, Ligny Thilloy, Thilloy, Péronne, Grévillers and Bapaume.

No mention of SOS functions can be found in the instructions and counterbattery functions are only mentioned occasionally:

Further Instructions as to Counter Battery work and targets for 6-inch Mark VII guns would be issued later.

Only a page of an addendum in the artillery instructions is devoted to Counter-Battery work, with no reference to any doctrine, process or Counter-Battery Commander's name other than a mention of the..

same system as detailed in previous operations. 1159

\_

Lewen, L., Artillery instructions No. 71 of 14 September 1916 in WO 95/690/3.

Targets were allotted to field and heavy artillery. Some fire was to spill over into the right-hand corps area and the first objective was left to field artillery (see Figure 356 below).

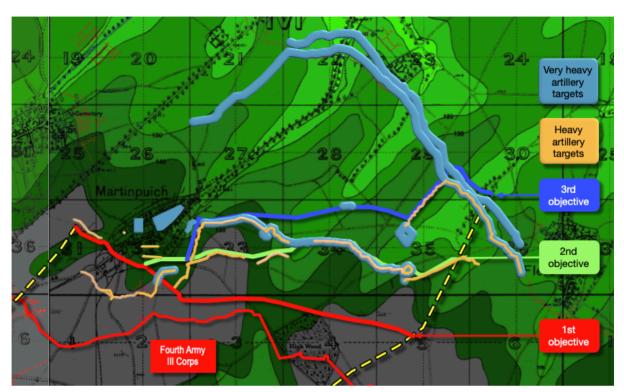


Figure 322 - Fourth Army | III Corps divisional Artillery targets

The following illustrations show the III Corps artillery targets of its heavy and very-heavy artillery over six time periods. Their use dropped from 06.30 to 09.00, possibly because some were allocated to counter-battery firing.

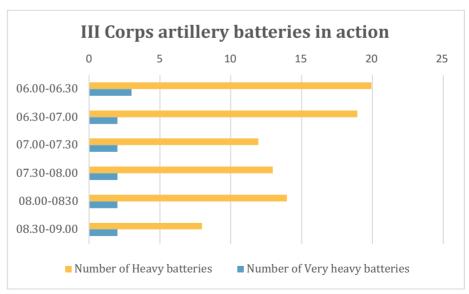
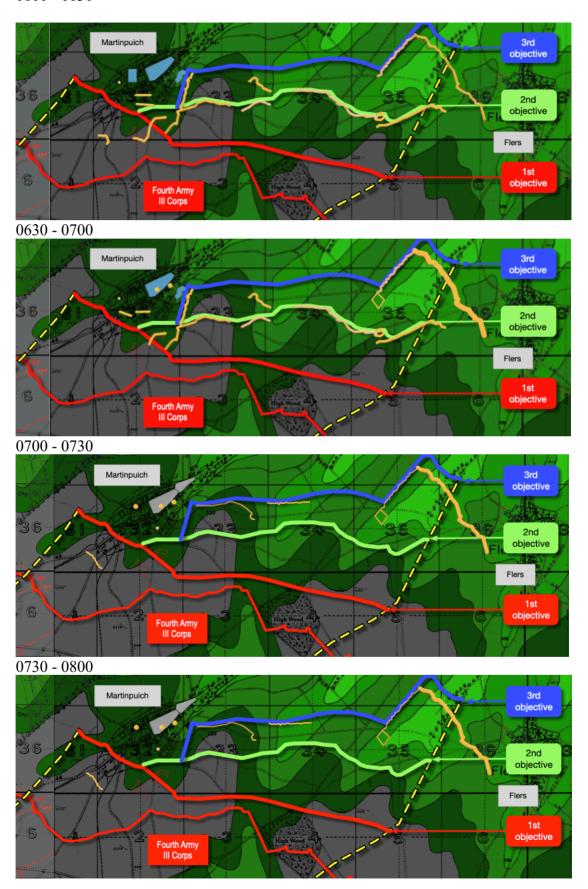


Table 4 - Fourth Army | III Corps artillery batteries in action

| The following illustrations show the proposed progress of the barrage. |
|--|
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

#### 0600 - 0630



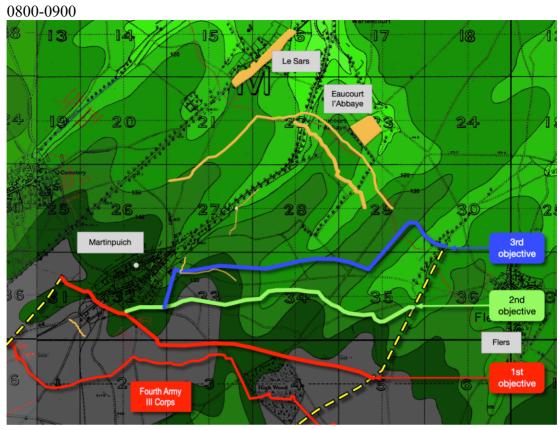


Figure 323 - Fourth Army | III Corps Artillery barrage from 0600 - 0900

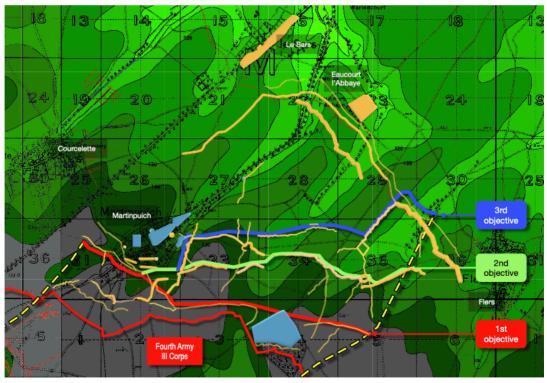


Figure 324 - Fourth Army  $\mid$  III Corps Artillery barrages mapped onto the infantry advances

Figure 324 shows that the III Corps field artillery barrages mapped well to the infantry timetable.

#### 8.3.3.2 15 Division Planning

Lieutenant-Colonel H. H. S. Knox, the GSO1, published 15 Division's operation order 90 on 12 September. It was accompanied by a map showing boundaries and timing. $^{1160}$ 

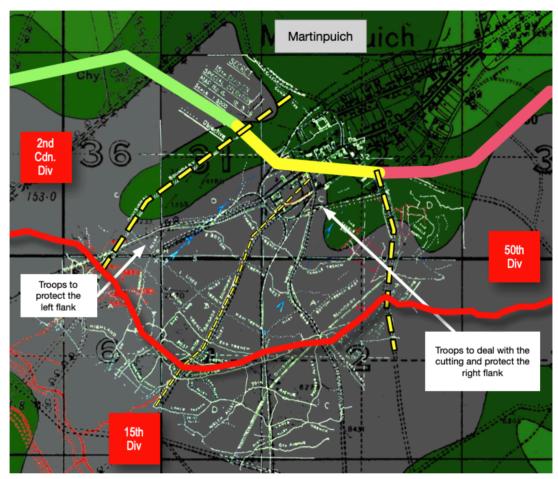


Figure 325 - Fourth Army  $\mid$  III Corps  $\mid$  15 Division objective and boundaries

The leading wave would head directly for the final objective leaving (the unspecified) intermediate objectives to later waves, thus there was to be none of the 'leapfrogging' which Haig found so objectionable at First Albert. The possibility that the leading wave might be so diminished (by having to undertake all the major assaults) that it would never reach the final objective, was ignored.

<sup>&</sup>lt;sup>1160</sup> Knox, H.H.S., 00 90 of 13 September 1916 in W0 95/1913/2..

Each wave would be given a 'definite objective' (but none was). Posts would be established at unspecified points. Troops would carry rations, hand grenades, empty sandbags and an entrenching tool. They would be accompanied by an unspecified proportion of the available Stokes mortars and machine guns.

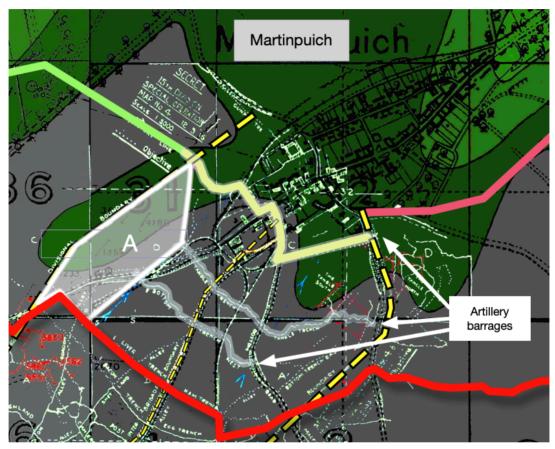


Figure 326 - Fourth Army | III Corps | 15 Division Artillery Barrages

The artillery barrages would hit the two principal trench systems and the final objective. They would lift 'as the infantry approach'. The artillery would presumably know when to lift because leading troops would illuminate flares or display screens when a circling RFC aircraft sounded a klaxon.

What cover the artillery would provide for the unbombarded area 'A' is undefined, but a creeping barrage would open 150 yards from the assaulting trench and lift at 50 yards per minute until it reached a point 150 yards beyond the final trench. The unbombarded area might have been left for the tanks (see Figure 326).

'A detailed artillery programme' would be issued later, but none can be found.  $^{1161}$ 

The lack of initiative at corps level can be detected from Knox's memo to his Brigade Commanders:

The ... divisional commander has received no orders to push further forward. [but any] success must be exploited ... The first necessity is early intimation from troops ... of the movements or absence of enemy ... Should we advance, our first objective would be to clear Martinpuich. $^{1162}$ 

By 2300 hours a memo from III Corps asked Knox to take Martinpuich. 1163

The four tanks allocated to 15 Division were expected to head north-east in line astern. A 100-yard gap would be left in the barrage to accommodate them: their whereabouts were somehow to be closely monitored.  $^{1164}$ 

-

 $<sup>^{1161}</sup>$  WO 95/1919/2 contains only the diary referring to the firing involved, not the issue of plans. The RFA Brigade diaries are missing.

<sup>&</sup>lt;sup>1162</sup> Knox, H., No.100(2)/10 G. a. of 1600 hours 14 Sept 1916 in WO 95/1913/2.

<sup>&</sup>lt;sup>1163</sup> Battye, B., Addendum 5 to III Corps 00 126 of 23.30, 14 Sept in WO 95/674/3.

 $<sup>^{1164}</sup>$   $\,$  Knox, H., Addendum 2a to 15 Division 00 90 13 Sept 1916 in W0 95/1913/2.

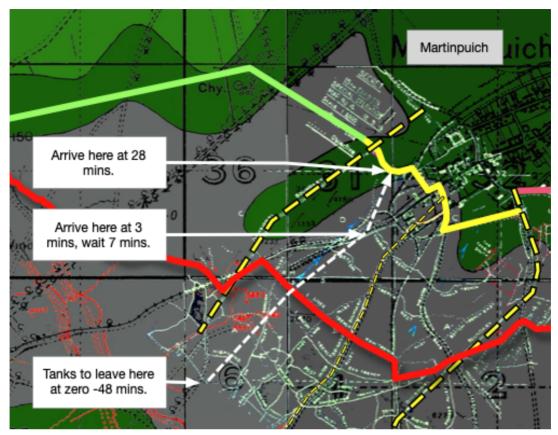


Figure 327 - Fourth Army | III Corps | 15 Division use of tanks

The example of the 15 Division illustrates a series of problems common to the Fourth Army at the time: there was a minimum of accepted doctrine to be followed to capture trenches and none to plan or cope with tanks. Having established that Knox would be responsible for planning, more-senior officers felt free to add to his burden without regard to timing, consistency or consequences.

## 8.3.3.3 50 Division Planning

Lieutenant-Colonel H. Karslake, the GSO1, published a preliminary order on 12 September. It proposed a three-bound attack and covered munitions dumps, field engineering, prisoners, wounded and stragglers, but not water, supplies or food. Artillery would be the subject of a later memo, but...

-

SS 119 devotes 45 out of 3039 words to the assault. SS 257, Fourth Army Tactical Notes says little of use about the assault process itself. 'There can be no definite rules as regards the best formation for attack'. See page 108 of 'SS 143 Instructions for the training of platoons for offensive action', Feb. 1917 to see how fast the assault process doctrine evolved.

preparations would be made for at least three batteries to move forward ... and ... for FOOs to move ... [to] the high ground to ... view the second and third objectives.  $^{1166}$ 

The plan made no mention of tanks until he issued an amendment the next day, despite the division being allocated two in A. A. Montgomery's memo of the  $11 {\rm th}.^{1167}$ 

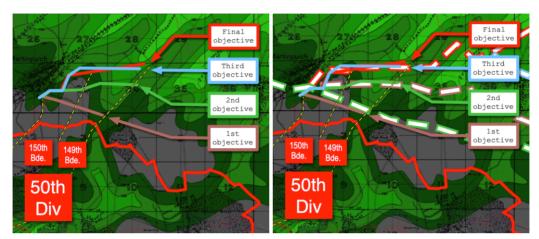


Figure 328 - Fourth Army  $\mid$  III Corps  $\mid$  50 Division objectives and boundaries and those of the Fourth Army

The third and the final objectives are incongruent, but overall they approximate to those of the Fourth Army. They were: to seize the high ground; establish OPs and establish a defensive flank to the north-west.

Karslake's Amendment and Instructions required that each objective be taken in a 'bound' executed every 60 minutes, under the cover of a barrage. 1168

The planning of the barrage illustrates how little infantry-artillery cooperation had evolved in 50 Division.

\_

<sup>1166</sup> Karslake, 50 Division 00 54 of 12 Sept 1916 in W0 95/2809/2.

Montgomery, A. A., "Instructions for the employment of 'tanks'", (299/17 (G)) of 11 Sept 1916 in WO 95/2809/2.

<sup>1168</sup> Karslake, 'Orders for tanks attached [to] 50 Division', of 13 Sept 1916 and 'Instructions' WO 95/2809/2.

The artillery barrage will commence at zero at canco of 150 yards in front of our front trench. 2 minutes the barrage will commence to rate of 50 yards per minute till 150 yards beyond the first objectforward it reaches a fire will now be reduced until when the barrage will increase again and continuo at the same pace until it reaches a 150 yards beyond the second objective. A similar reduction in the rate of fire will now take place until thore will be no creep. barrage but an intenso barrage will be put on the 3rd objective.

Figure 329 - Fourth Army | III Corps | 50 Division | Extract from Karslake, Instructions with reference to 00 54 of 13 September in WO 95/2809/2

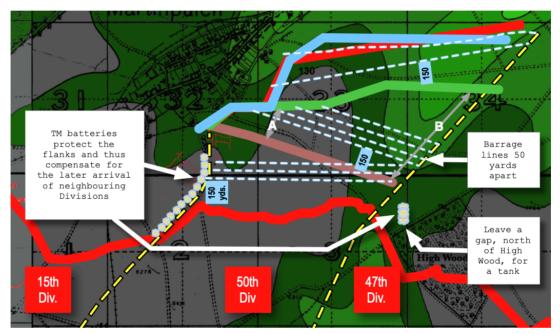


Figure 330 - Fourth Army  $\mid$  III Corps  $\mid$  50 Division - Translation of the extract from Karslake onto the map

His plan lacked any reference to SOS calls, or a barrage map and implied that the barrage lines would be parallel to the start line, as shown in Figure 60, yet, as with so many other plans for the battle, the objectives were not parallel; skewing the second set of barrage lines to render the first 150 yards to the north of the first (brown) objective left the barrage approaching the green line at an angle rather than parallel to it. The distance between the green and brown lines is four times greater to its eastern end than to its western end (compare the grey, arrowed, lines 'A' and 'B'). Without knowing where the barrages would strike, troops would tend to follow them at a distance. While the planning of the barrage indicated some relationship between infantry and

artillery actions, the planning for the use of tanks appeared to be a completely-separate operation. Karslake had already received Montgomery's memo of the 11th, $^{1169}$ , but the strictures and constraints it embodied were not reflected in Karslake's memo of the 13th. $^{1170}$ 

#### 8.3.3.4 Battalion-Level Planning

The next day the plan reached battalion level and several changes had been made.

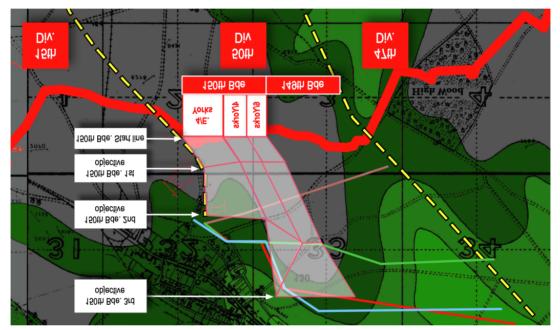


Figure 331 - Fourth Army | III Corps | 50 Division - Translation of Karslake's plan to Brigade and battalion level

The start line was farther north and the objectives had changed to trenches: Starfish line (4/East Yorkshires) Martin Alley (facing west, 4/Yorkshires) and Tangle North (5/Yorkshires). There was still no barrage map, but the artillery programme would 'be issued later'.'1171 No such programme can be found, but Lieutenant-Colonel W. J. Wilkinson, CO of the 4/East Yorkshires, issued a hand-written timetable.

Montgomery, A. A., 'Instructions' in WO 95/2809/2.

Karslake, 'Orders for tanks attached 50 Division' of 13 September 1916 in WO 95/2809/2.

<sup>&</sup>lt;sup>1171</sup> Boys, E. J. de C., 150th Brigade (Preliminary) 00 42 of 14 September 1916 in WO 95/2834/4.

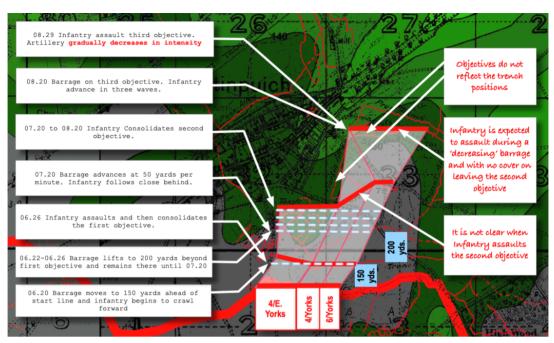


Figure 332 - Fourth Army | III Corps | 50 Division - Wilkinson's timetable (W0 95/2834/4)

Wilkinson's three-page note illustrates the gross difficulty of planning a combined assault to a fixed timetable without a barrage map. He had not specified when the second objective is to be assaulted, had not related the objectives to the trenches to be taken and expected his troops to move over the last 600 yards to the third objective with no artillery cover except on the objective itself. His timetable mentioned tanks beginning their assault from Swansea trench at zero -33, but not where they would go nor how his unit should cooperate with them. The BEF's lack of doctrinal support for planning had left a battalion Commander without the means either to plan an assault or incorporate a major new weapon.

## 8.3.3.5 47 Division Planning

Unlike the other divisions involved in the battle, 47 Division's preparation began with a doctrine document explaining some of the issues to be addressed. Lieutenant-Colonel J. T. Weatherby, the CoS, noted the German adoption of outpost zones, which were best dealt with by troops in small groups following close on a barrage rather than conducting large-scale attacks; the value of MGs in consolidating a position; the need for attacks to be

continuous; for communicating positions to contact aircraft; and the transmission of messages to artillery and flanking units.  $^{1172}$ 

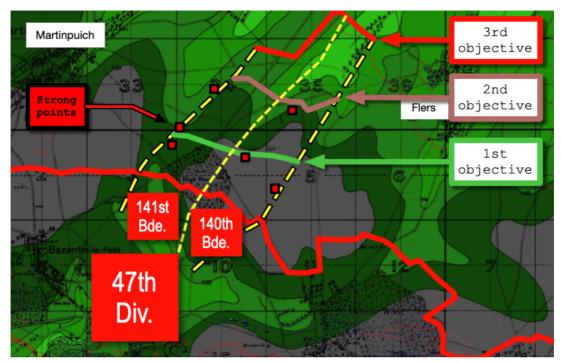


Figure 333 - Fourth Army | III Corps | 47 Division - The outline map of the assault

The plan's objectives largely corresponded to those of the Fourth Army..

<sup>1172</sup> Weatherby, Notes on the forthcoming battle, of 9 September 1916 in WO 95/2701/3.

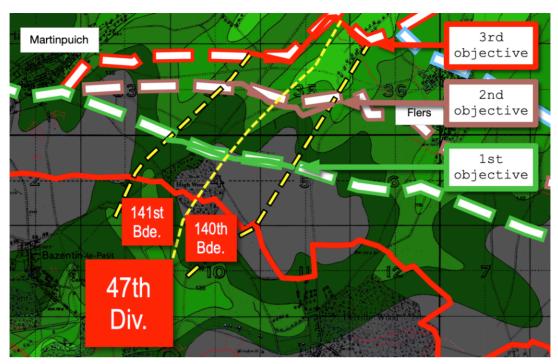


Figure 334 - Fourth Army | III Corps | 47 Division - Objectives

... and the division was allocated six tanks, whose routes it planned.

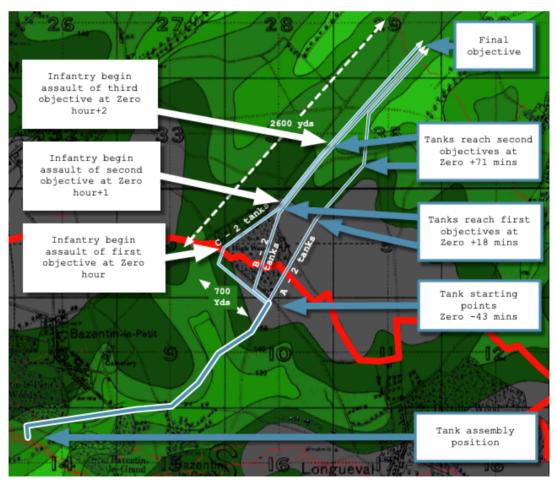


Figure 335 - Fourth Army  $\mid$  III Corps  $\mid$  47 Division tank routes and assault times

Weatherby issued a four-page operation order on the 13th. 1173 High Wood would be bombarded on the 13th and 14th. 1174 A barrage would also be laid down 150 yards 'ahead' of the front line which would move at 50 yards a minute until it reached a line 150 yards beyond the first objective where it would remain until zero +1 hour when it would continue at the same speed until it reached a point 150 yards behind the second objective. The third objective would be bombarded at zero +2 hours. Gaps of 100 yards would be left for the tanks. 1175 Liaison officers would be attached to the NZ and 50 Divisions, POWs, stragglers and trench traffic would be managed: up and down trenches established and paper trails laid in High Wood. Medical facilities and their locations, were specified. No artillery maps can be found, no terrain assessment was made and that tank columns B and C were (improbably) to traverse a bombarded High Wood was accepted.

The little intellectual space for thinking about the battle problem in the form of the doctrinal note (doing duty for an Appreciation), allowed Weatherby to identify solutions which contributed to a process, and a step forward in battle planning, impaired only by the reality of High Wood.

-

<sup>&</sup>lt;sup>1173</sup> 47th (London) Division OO 99 of 13 Sept 1916 in WO 95/2701/3.

High Wood was to be bombarded from 10 am to 2 pm on the 13th and 14th. The order was issued only at 2 pm. on the 13th, but the attack was successful.

See also page 422 for a discussion of tank planning.

#### 8.3.4 XV Corps Planning

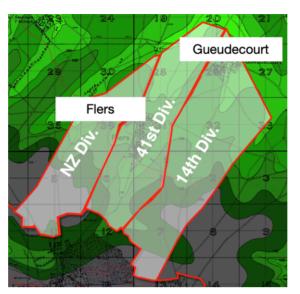


Figure 336 - Fourth Army | XV Corps - divisions and area

The infantry and artillery plans of the XV Corps can only be found in the Official History. Operation Order 50 was issued on 12 September. It was a three-division attack with four objectives, troops would follow a creeping barrage advancing at 50 yards a minute, with the 21 Division in reserve. The barrage would lift from the objectives at the set times, but halt 300 yards beyond the green line, whereafter it would advance at 100 yards every three minutes.

<sup>1176</sup> XV Corps operation order 51 of 12 September 1916 in Edmonds, J. E., Vol. II Appendices, p.75.

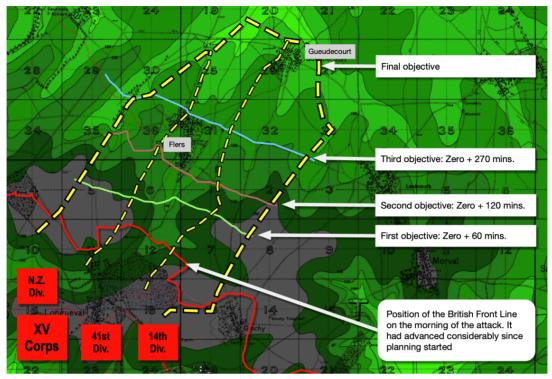


Figure 337 - Fourth Army | XV Corps attack objectives and boundaries

The attack would be supported by seven tanks..

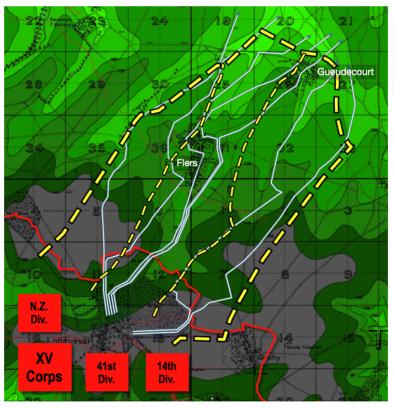
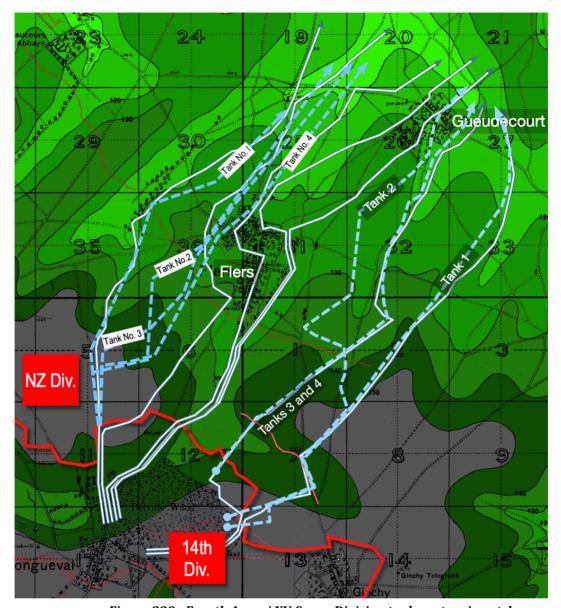


Figure 338 - Fourth Army | XV Corps tank support

... of which two would support assaults directly and then ...

rejoin the group on the green line..

... which implies that whoever wrote the order had not looked at the tank use plans (which were under divisional control).



**Figure 339 - Fourth Army | XV Corps-Division tank route mismatches**The artillery would leave each tank a 100-yard gap in the barrage. The tanks would advance ahead of the infantry and arrive at the objective some five minutes earlier. The positions of leading troops would be signalled with red

flares which No. 3 Squadron R.F.C. would observe and report.



Figure 340 - Fourth Army | XV Corps tank actions

The entire attack would follow a timetable. This plan like all the others would have benefitted from a rigorous review: even the few concerns Rawlinson expressed went unreflected. 1177

# 8.3.4.1 XV Corps Artillery Planning

The XV Corps artillery plan was to be followed by all divisions, who would each employ three batteries to attack communication trenches, roads and HQs, nine to put down a stationary barrage, but only three to create a series of creeping barrages. <sup>1178</sup> These would begin parallel to and 200 yards beyond

<sup>1177</sup> See page 405.

<sup>1178</sup> XV Corps artillery operation order 47 of 13 September 1916 in Edmonds, J. E., ... 1916 Vol. II Appendices, p.79.

the Front Line. When this was complete, the guns of 14 Division would be available for other use.

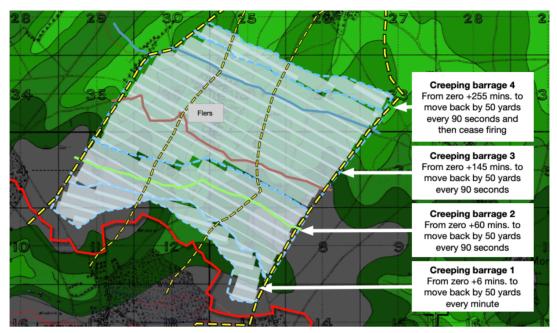


Figure 341 - Fourth Army | XV Corps creeping barrage

Gaps for tanks were specified in both the creeping and the stationary barrages, but with insufficient attention to detail. In the event the barrages remained well in advance of the very slow tanks. 1179

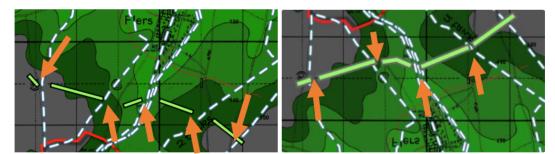


Figure 342 - Fourth Army | XV Corps creeping and stationary barrage 'gaps'

Three stationary barrages were planned, often coinciding with the objectives.

Anon., Diary, 07.20 on 15 September in WO 95/922/2.



Figure 343 - Fourth Army | XV Corps stationary barrages

The stationary barrage map references have either been mis-transcribed for the Official History, or they exhibit several problems. It is unclear from Figure 344 why there should have been a gap between 'D' and 'C' barrages, or why 'D' barrage should have run so close to a proposta tank route.

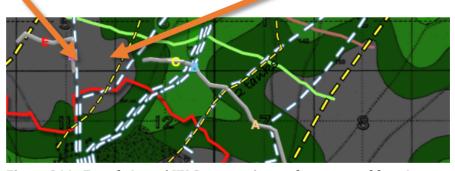


Figure 344 - Fourth Army | XV Corps stationary barrage problem 1  $\,$ 

Other gaps ('C' to 'D') are presumably map-reading errors.



Figure 345 - Fourth Army | XV Corps stationary barrage problem 2

The siting of the 'B' barrage, below, is also, presumably, a map-reading error in that it would have losed a major threat to troops on the green line.



Figure 346 - Fourth Army | XV Corps stationary barrage problem 3

Prior to the attack the Heavy Artillery would pound positions and lines as shown below.

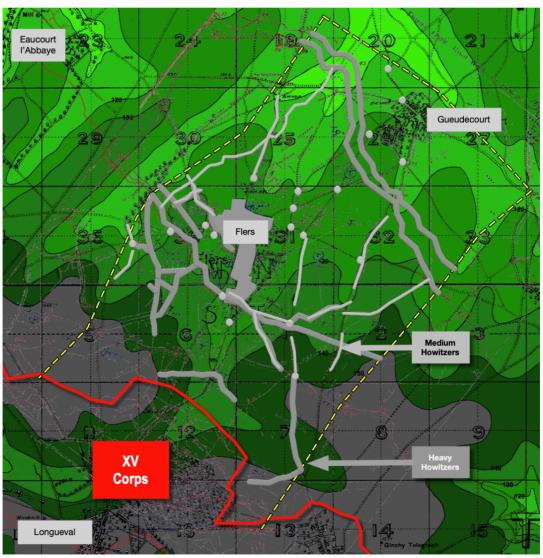


Figure 347 - Fourth Army | XV Corps Heavy Artillery Plan

The plan states that

'Strong points and trench junctions will receive extra attention' but no positions are shown nor was a list given. Counter-battery and wirecutting actions were also left vague:

'As many Siege Batteries as can be usefully employed are to be told off for counter-battery work. ... 60 Pounder Batteries when not being used for counter-battery work will endeavour to cut gaps in the wire ... not ... in too many places, but ... make sure of a few good gaps.'1180

The vagueness persisted:

the Heavy Artillery will search the more distant approaches, Villages and billets.

How far distant was not mentioned, but Le Transloy, the nearest village beyond Flers, was 3,800 yards from the front line, within the range of an eight-inch howitzer, but was excluded. $^{1181}$ 

as far south as a line running from [Morval to Ginchy]. 1182
The failings of the XV Corps artillery plans derive from several problems
common to all the corps: the absence of a defined artillery planning process
and supporting doctrine; no common map referencing notation, grosslyinadequate staff, an inability to relate artillery to infantry plans and a general
inability to manage the planning process.

### 8.3.4.2 New Zealand Division Planning

Lieutenant-Colonel R. O'H Livesey (the CoS) issued a warning order on 12

September and followed it with operation orders on the 13th and 14th. These covered the units involved, positions of assembly, boundaries, objectives, neighbouring units, a timetable and artillery support.

No mention was made of any attack doctrine, the supply of ammunition, rations, water, medical services, battlefield policing or prisoner

\_

<sup>1180</sup> XV Corps artillery operation order 47 of 13 September 1916 in Edmonds, J. E., ... 1916 Vol. II Appendices, p.79.

Dale Clarke, British Artillery 1914-1919, Osprey Publishing, Oxford, 2005 ISBN 1-84176-788-3.

Montgomery, A. A., Artillery instructions (In continuation of Fourth Army No. 299/14(G) dated 6/9/16.) of 7 September 1916 in IWM 4.

management. $^{1183}$  The construction of strongpoints and new communication trenches were only mentioned in an RE plan. $^{1184}$ 

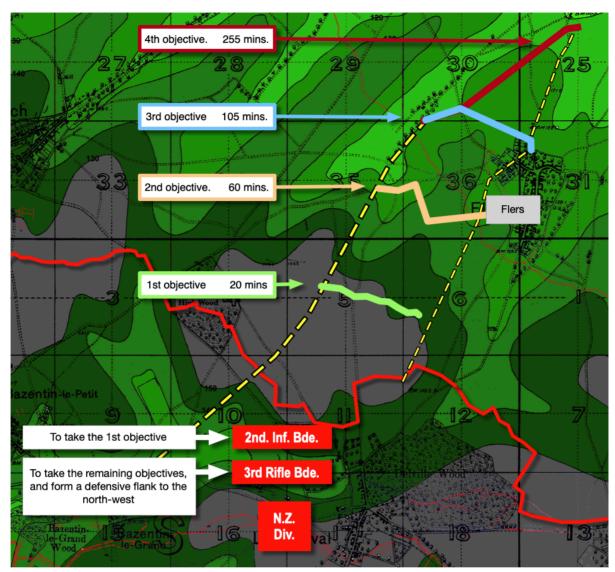


Figure 348 - Fourth Army  $\mid$  XV Corps  $\mid$  NZ Division's objectives and dispositions

## 8.3.4.3 New Zealand Division Artillery Planning

Artillery management was varied: while the corps artillery covered the trenches well, the divisional artillery plan suffered from a mistrust of officers' map-reading ability and was partly specified using alphabetic characters.

Livesey, R. O'H., New Zealand warning order No. 1 of 12 Sept 1916 and New Zealand Division order No 42 of 13 Sept 1916, in WO 95/3658.

<sup>&</sup>lt;sup>1184</sup> Pridham, G. R., RE operation order No. 1 of 13 Sept 1916 in WO 95/3658.

This limited the number of locations to be specified to 26 and led to bizarre combinations of specifications..

```
Lift from line W - X by lifts of 100 yards every minute to lino Y - Z. within zones allotted.

Lift direct to line K - L - N. within zones allotted.

Search GOOSE ALLEY in M.30.a. and M.24.c. with mixed H.E. and T.S. Search Road from M.30.c.9.7 to M.24.c.5.0 with mixed H.E. and T.S.
```

... and relied on specially-marked-up maps which were thus at such a premium that none was left on file.

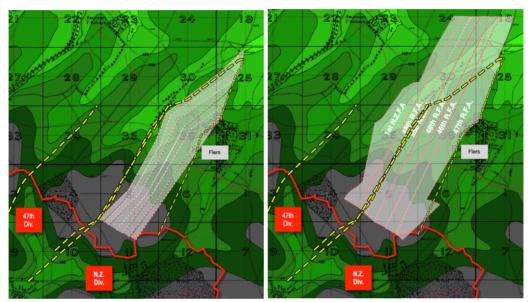


Figure 349 - Fourth Army | XV Corps | NZ Division's wire-cutting and SOS zones (W0 95/1881)

Wire-cutting zones were defined, with incomplete coverage of the New Zealand Division's area. The SOS call zones partially covered 47 Division's area as well, but could have been allocated more accurately.

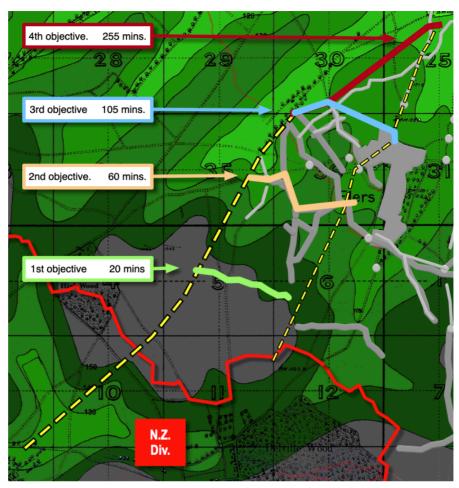


Figure 350 - Fourth Army | XV Corps | NZ Division 's Heavy artillery support

Heavy artillery from the XV Division prepared the way, as is also shown in Figure 347. Four tanks were allocated to the division and their use specified in an Appendix. Unfortunately map references proved a problem again:

Their final positions as specified would have left them 3000 yds to the west of their intended position.

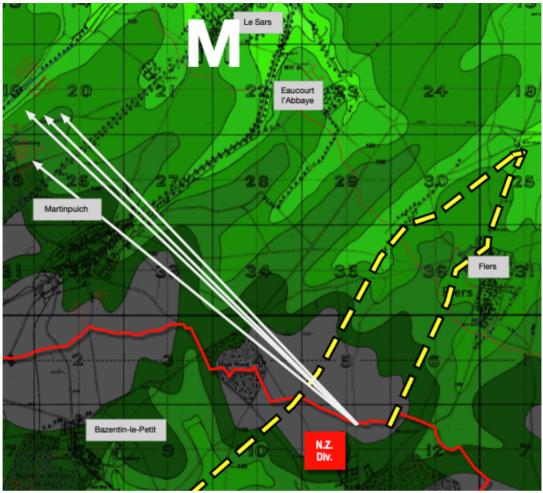


Figure 351 - Fourth Army | XV Corps | NZ Division - Tank routeing errors in OO 49, Appendix D in WO 95/3658

By substituting 'N' for 'M', in the map references, the (presumably-) correct routes are shown below together with the timetable.

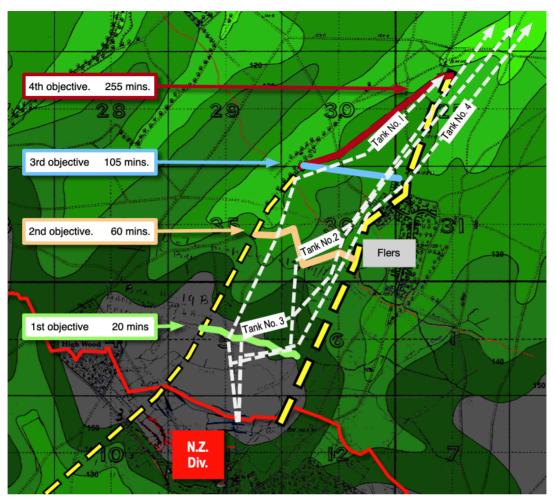


Figure 352 - Fourth Army | XV Corps | NZ Division - Tank routes in OO 49, Appendix D in WO 95/3658

Tanks could signal to nearby troops with flags and a lamp and would carry pigeons for long-distance messaging. On leaving the NZ area the tanks would report to the GoC 41 Division.

All other divisions suffered comparable delays in issuing orders and many exhibited comparable problems with map references.

# Final objective First objective First objective Longueval Longueval Final objective First objective

### 8.3.4.4 41 Division Planning

Figure 353 - Fourth Army | XV Corps | 41 Division's objectives

References to an operation order 42 and amendment were made in the war diary. 1185 OO 42 has been reproduced in the OH with additions elaborating on the expected action of tanks and a reference to a Major H. M. Wilson. 1186 41 Division and 122 Brigade's Operational Orders 42 and 40 were both issued on 13 September, (the first at 1400 hours). Those of 18/King's Royal Rifle Regiment were issued on 14 September. 1187 123 Brigade's Operational Order 31 was issued on 14 September at 21.45. It was in divisional Reserve. Some Brigade orders concerning reliefs used coded names for units, thus 123

<sup>&</sup>lt;sup>1185</sup> WO 95/2617/1.

Edmonds, J. E., ... 1916 Vol. 2 Appendices, p. 95. contains the lines: '12. Every endeavour must be made by Tanks to crush down any unbroken wire encountered, so as to leave a passage for the Infantry. 13. In attacking a trench line a proportion of each group of Tanks should cross to the far (enemy's) side, while the remainder stay on the near side of the objective. H. M. WILSON, Major, G.S 12-9-16.' None of this text is in the original.

 $<sup>^{1187}</sup>$  Walton, F. 00 24 of 14 September 1916 in WO 95/2635/3.

Brigade became 'Quail' and issued orders to 'Quill', 'Quince', 'Quiet' and  $\label{eq:Quad'.1188}$ 

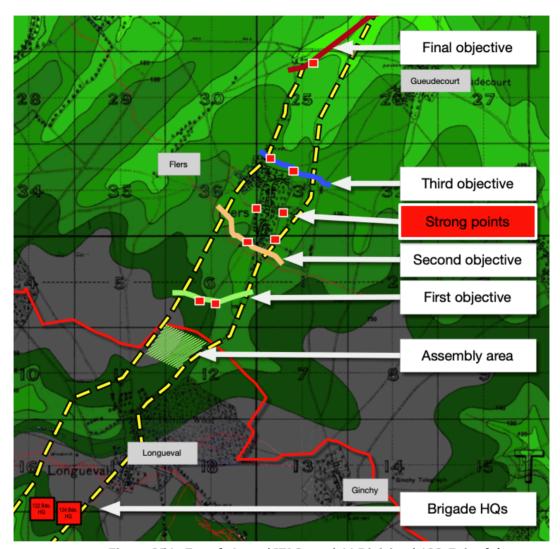


Figure 354 - Fourth Army | XV Corps | 41 Division | 122 Brigade's objectives

The orders so impressed Edmonds that he included both in the Official History. He was less concerned for their use: the last battalion to assemble, 12/East Surrey, had only left its position at Fricourt at 17.15 on 13 September and the Brigade was only assembled by 02.15 - four hours before the attack. Edmonds ignored the implications of issuing a brigade-level order so late. The Brigadier did not:

... orders must reach battalions ... before they are in the trenches, otherwise

\_

<sup>1188</sup> H.C.B Kirkpatrick, Quail order No 29 of 12 Sept 1916 in WO 95/2636/1.

it is impossible to explain them. In this case, the orders were received too late and officers and men went into action with a very confused idea of the long and complicated orders. I had only been able to impress on them the general instruction, keep close to the barrage and take FLERS and when all the officers were down it is probable that the men thought that once in FLERS they had gained their objective. The timetable must be simple or it is not possible to follow it in the stress of action. <sup>1189</sup>

Flers was captured, but the Brigade lost almost all its officers, failed to establish its strongpoints and then retreated in the face of a heavy German barrage. The lack of a timely order was at least a contributory factor to the failure to hold it.

### 8.3.4.5 14 Division Planning

Lieutenant-Colonel G. D. Bruce issued a 3-page order on 13 September. Its objectives were in an Appendix A. Appendix B by Captain R. Barrington-Ward explained how the tanks would be managed, but the timing of the attack and barrages was in a (now missing) Appendix C. Troops would follow a barrage that would advance 50 yards every minute, but no barrage map was referred to, or found. 1191

<sup>&</sup>lt;sup>1189</sup> Towsey, F. W., 'General' of 19 Sept 1916 in WO 95/2632/2.

<sup>&</sup>lt;sup>1190</sup> Edmonds, J. E., ... *1916, Vol II* p. 323.

<sup>&</sup>lt;sup>1191</sup> W0 95/1867/2.

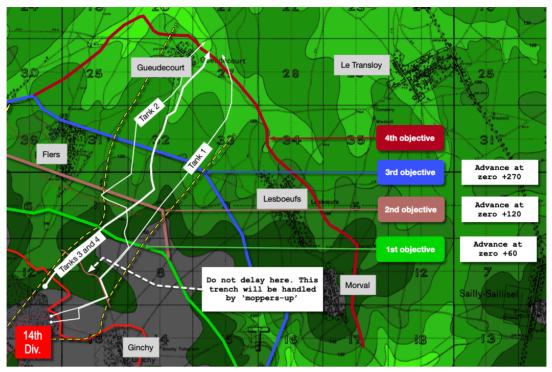


Figure 355 - Fourth Army | XV Corps | 14 Division - The plan for the 'capture' of Gueudecourt

This was probably the most trivial plan of any division engaged in the battle.

The assault would be conducted by 41 and 42 Brigades. 1192

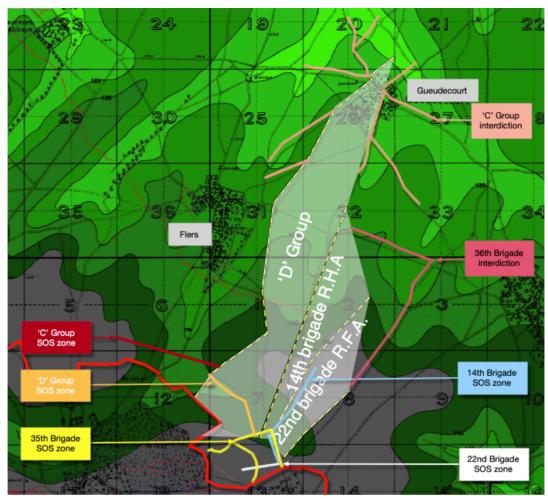


Figure 356 - Fourth Army | XV Corps | 7 Division - Re-adjustment of artillery zones of 11 September 1915 in WO 95/1639/3

# 8.3.4.6 14 Division Artillery Planning

From 12 September, day and night firing ...

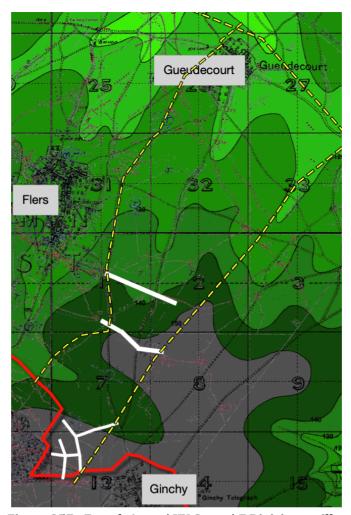


Figure 357 - Fourth Army | XV Corps | 7 Division artillery day-and-night firing

... would be followed by stationary barrages

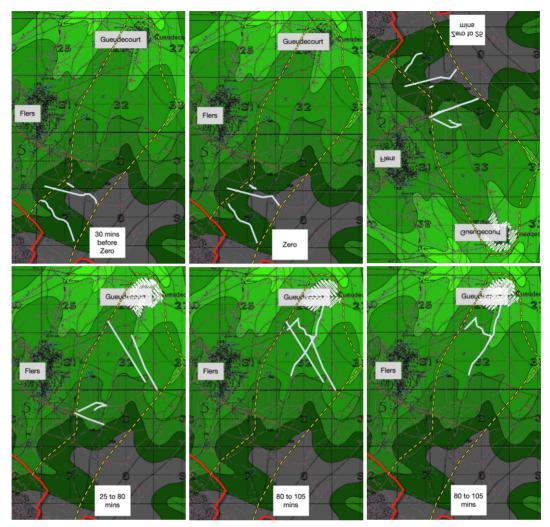


Figure 358 - Fourth Army | XV Corps | 7 Division stationary barrages

... until the morning of the 15th when it would be replaced by a creeping barrage. As before, the imprecision of the creeping barrage can be estimated from the difference between the lengths of the sides.

The barrage was to advance 50 yards at an unspecified time 'to the next [unspecified] line'.1193

Boddam-Wetham S.G., 7 Division artillery operation order No. 31 of 14 September 1916 in WO 95/1631/2.

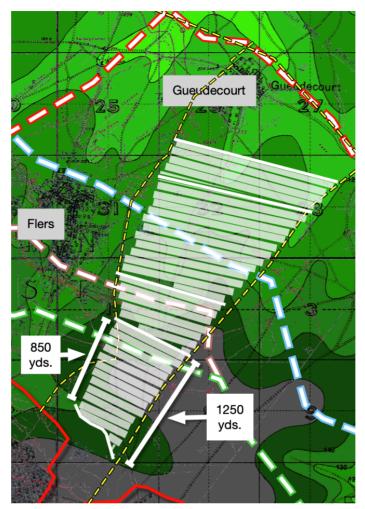


Figure 359 - Fourth Army | XV Corps | 7 Division creeping barrages

Formalism in the form of a 'plan', again outweighed functionality in the form of a plan that worked. Whatever lessons could have been learned from the battle of First Albert were missed. The battle process was being articulated, explored and evaluated at great cost in lives. 1194

### 8.3.5 XIV Corps Planning

No operation orders for XIV Corps infantry can be found. The files contain narratives. The Corps CRA issued two operation orders, the Corps CHA issued none.  $^{1195}$ 

<sup>1194 14</sup> Division was relieved by 21 Division at 10.00 on 17 September 1916 having lost 176 officers and 4,028 ORs. in WO 95/1867/2), the second-highest casualties of any BEF Division of the battle. Prior and Wilson, *Somme.* p. 243.

 $<sup>^{1195}</sup>$  WO 95/911/1 of September 1916 and Bartholomew, A. W., Artillery OOs 18 and 19 in WO 95/915/2 of September December 1916 and WO 95/916.

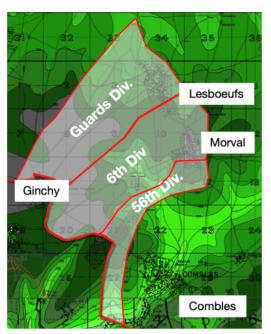
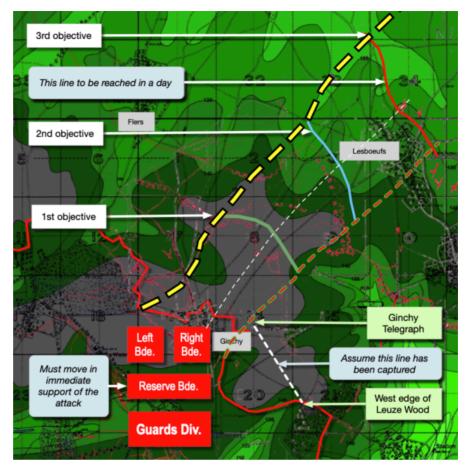


Figure 360 - Fourth Army | XIV Corps area and divisions

# 8.3.5.1 Guards' Division Planning

The Guards were the only division to hold a conference to discuss the assault process of the battle. The battle problem they faced was a forthcoming, but undated assault dependent on the capture of Ginchy Telegraph and the west edge of Leuze Wood.



 $\label{eq:corps} \textbf{Figure 361-Fourth Army} \ | \ \textbf{XIV Corps} \ | \ \textbf{Guards' Division's definition of the battle problem}$ 

Capturing this line was outwith their control, but were it to remain in enemy hands they could suffer enfilade fire from a high point as they moved towards

Les Boeufs. 6 Division captured the area on 13 September. 1196

Major-General G. P. T. Feilding, the divisional commander, was concerned for the need to keep the assaulting troops close to the barrage and to escape the effects of the enemy's inevitable barrage on the front trenches. He proposed to do this by having the first waves of attackers bunched as closely as possible together, but still sought a solution to minimise loss in the second waves. He proposed either a fixed timetable or allowing the second waves to choose their moment. He was also concerned that waves keep their direction and the formation they should adopt - which need not be a wave formation, but no

<sup>&</sup>lt;sup>1196</sup> Renny, L. F., 6 Division 00 83 of 12 September 1916 in WO 95/1582/2. Also see page 480.

decision on the formation to be used can be found.<sup>1197</sup> He reinforced his preparations by a having sample platoons, selected for the objectives they were to assault, parade to assess the suitability of their kit.<sup>1198</sup> Whether the Guards were privileged with early information or not, they were the first to have made early and prescient preparations.

The Guards plan was less impressive. It was issued as operation order 76 on 12 September, with a memo giving the day of the attack, followed the next day by: instructions for tanks; an amendment; a supplementary operation order (77) and the Actions of the Divisional Reserve. The plan added an extra objective to accommodate Montgomery's outline, we mentioned the neighbouring divisions, the disposition of the attacking Brigades, the forming-up areas, the preliminary bombardment and wire cutting to be undertaken: 50% of the artillery was to be devoted to counter-battery work and the rest on stationary and creeping barrages of which details would be issued later.

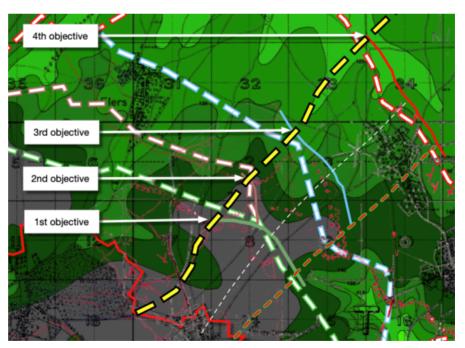


Figure 362 - Fourth Army | XIV Corps | Guards' Division - Objectives and

...

<sup>&</sup>lt;sup>1197</sup> Heywood, C. P., G.D. No. 2136 of 4 September 1916 in WO 95/1192/4.

<sup>&</sup>lt;sup>1198</sup> Heywood, C. P., G.D. No. 2167 of 3 September 1916 in WO 95/1192/4.

<sup>&</sup>lt;sup>1199</sup> In WO 95/1192/4.

<sup>1200</sup> See page 8.

### **boundaries**

The timing was awkward since the second objective was the responsibility of the 1 Brigade while the third objective was the responsibility of both.

No artillery plans can be discovered in the diaries of either the Guards' CRA or CHA. What follows has been reconstructed from the Guards divisional OO No 76. There would be three barrages: preliminary, starting on 12 September, stationary and creeping.

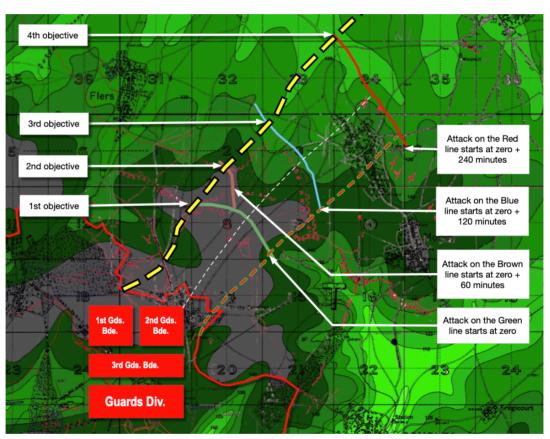


Figure 363 - Fourth Army | XIV Corps | Guards' Division - Timing

The stationary barrage would last until the creeping barrage reached it, when it would move directly to the next target. The specification of the creeping barrage revealed some internal confusion: whereas the Guards HQ plan claimed it would stop 200 yards beyond the Green line, the 1 Brigade plan showed it stopping at 20 yards. 1201

Smith, B., 1st Guards Brigade operational order 77 of 12 September 1916 in WO 95/1213/1.

1

2

The barrage specification shows the limitations of the language used and makes a good case for the use of a barrage map.

(c) At ZERO the creeping barrage will open 100 yards in front of our front trenches, and will advance at rate of 50 yards per minute until it is 200 yards beyond the first objective when it will become stationary.

At Zam0 + 35 the creeping barrage will become intense on a line 200 yards in front of first objective and will creep forward at rate of 50 yards per minute in front of that portion of the let squards Brigade which is to advance to the second objective.

This implies that the stationary barrage will begin to creep forwards. The limits of 'that portion of the 1 Guards Brigade which is to advance' remained undefined.

(d) at Zano+1 the creeping barrage will become intense on a line 200 yards in front of the first objective as far north as f.s.b.4.6., thence on a line 200 yards in front of 2nd objective and will advance at rate of 30 yards per minute until it has passed 200 yards beyond the third objective - when it will become stationary.

These three steps are illustrated (as far as is possible) below. Had the line been defined as a series of points it would have been clearer.

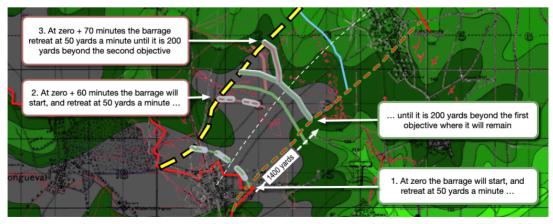


Figure 364 - Fourth Army  $\mid$  XIV Corps  $\mid$  Guards' Division - Steps 1-3 of the barrage

their advance to third objective which commences at 2 (e) At Zako + 3 hours to minutes the creeping barrage will become intense on a line 200 yards in front of the third objective - and will advance at rate of 30 yards per minute until it has passed 200 yards beyond fourth objective when it will become stationary. This barrage is to cover the advance of the tanks.



Figure 365 - Fourth Army  $\mid$  XIV Corps  $\mid$  Guards' Division - Step 4 of the barrage

Curiously the plan then contradicted itself by claiming there would be no creeping barrage supporting the attack on the fourth objective.

there will be no creeping barrage in front of the infantry

fourth

during the advance from the desire objective which commences at

Only troops from the Third Brigade would consolidate captured trenches, those of the First and Second Brigades would advance as fast as possible. The possibility that they might be delayed was not mentioned, but they would not start until zero + 60 minutes.

The management and routeing of tanks was evidently a problem for the Guards. Whereas in OO 76 there is a reference to a forthcoming 'Instructions for tanks', these 'Instructions' refer to 'routes laid down in Guards Division Order No. 76' which in turn refer to a missing map. What can be reconstructed from the order is shown below. The tanks were generally

expected to support the infantry attack by driving parallel to the trenches.

They were used not as cavalry, to punch holes, but rather as dispersed landships, aggressively cruising the neighbourhood, or in the case of 'L' tank, returning to base rather than augmenting the support of the infantry. Gaps in the barrage would allegedly be accorded to them, but no maps can be found to illustrate this.

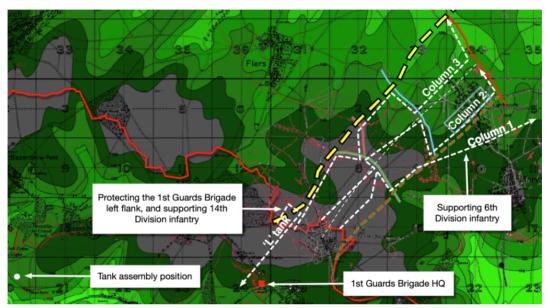


Figure 366 - Fourth Army | XIV Corps | Guards' Division - Tanks supporting the Guards (original version)

A. A. Montgomery had ordered that the tanks be assembled 'not more than a mile from the point of departure', $^{1202}$  but the distance from the tank assembly position to the start line was close to 3 miles, allowing for the roads. As reconstructed from the Tank Corps War diaries, the proposed routes were less detailed and two appeared to run straight through the HQ. $^{1203}$  Column 1 was expected to attack Morval from the north-west.

Montgomery A. A., 'Employment of tanks' of 12 September in WO 95/1582/2.

<sup>&</sup>lt;sup>1203</sup> See page 393.

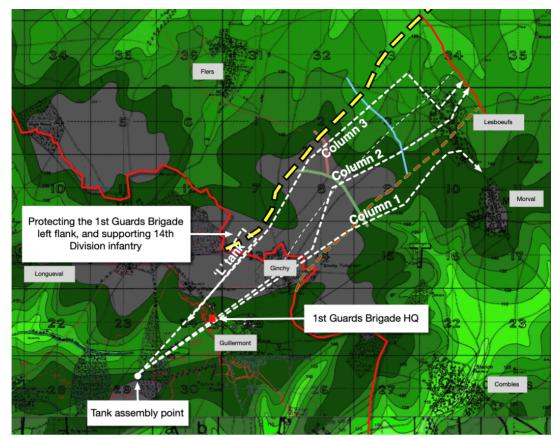


Figure 367 - Fourth Army | XIV Corps | Guards' Division - Tanks supporting the Guards (Tank Corps version)

No orders were issued by the Guards Division on 14 September, in contrast to every other division in the battle, and written orders appear not to have reached any battalion on this occasion, though orders for other actions both before and since can be traced. 1/Coldstreams were paraded at 21.30 on the 14th and then marched from Carnoy to Montauban to be in position at 02.45 for the assault at  $06.20.^{1204}$  All the battalions assembled during darkness and consequently, as the diary of 2/Grenadier Guards states the ...

men had not seen the ground in front of them by daylight. 1205 The plan made no mention of location of the HQs, observation posts, rations, water, ammunition, transport, communications other than an RFC contact aircraft, camouflage, medical, ambulance, coordination, strongpoints, or

1205

WO 95/1219/1, WO 95/1223/4 and WO 95/1223/1.

<sup>1204</sup> WO 95/1219/2.

deception. Even Feilding's concern for forming-up places extended no farther than exhortation and there was no preparation to resist a counter-attack. The Guards Division planning and plan management was as weak as that of the majority of the Fourth Army.

### 8.3.5.2 6 Division Planning

The 6 Division's plan was issued on 13 September. With the Guards Division to the north, its primary objective was to capture Morval and Lesboeufs.

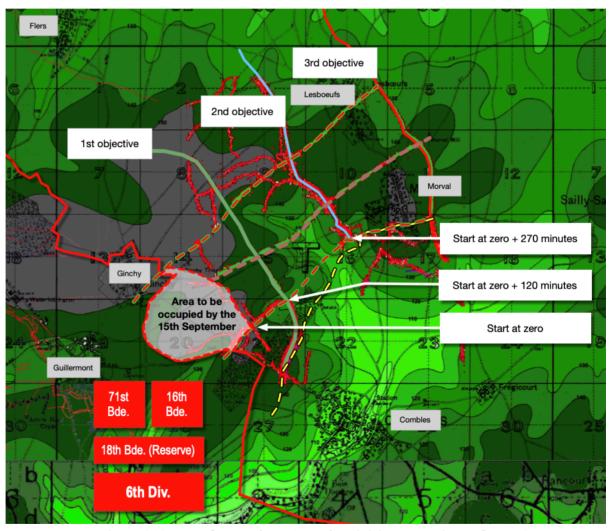


Figure 368 - Fourth Army  $\mid$  XIV Corps  $\mid$  6 Division operation order No 84 - disposition, borders and objectives

It specified the assembly areas..

<sup>&</sup>lt;sup>1206</sup> Feilding, Memo 2244 of 13 September 1916 in WO 95/1192/4.

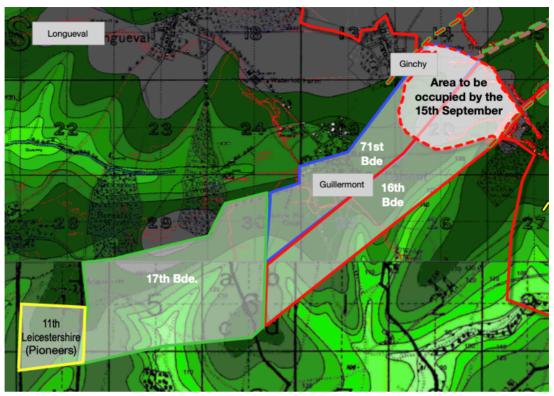


Figure 369 - Fourth Army  $\mid$  XIV Corps  $\mid$  6 Division operation order No 84 - Assembly areas

... and the barrages. It was the only division in the battle to acknowledge that barrage lines would conform to the line of departure of the troops and not that of the next objective: a tiny improvement in planning.

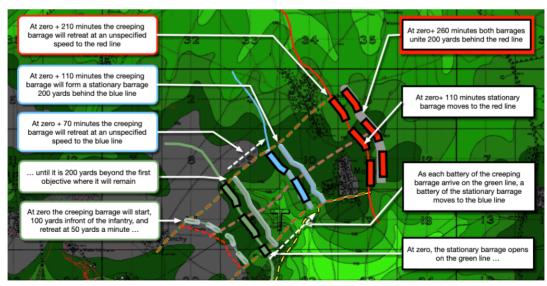


Figure 370 - Fourth Army | XIV Corps | 6 Division - Centre divisional artillery operation order No 3 - Barrages

The attack was timed for 06.20, sunrise was at 06.26 yet the plan declared that:

Every gun must be in action and registered to-night, or first thing to-morrow morning. 1207

Since registration involved the FOO or an aerial observer, who needed to observe the fall of shot, such a registration was to be completed in the dark or early dawn. It would thus have been impossible to calculate the 'error of the day'. The implication was that 6 Division plan was late and Major L. M. Saville (the author) knew it.

### 8.3.5.3 Battalion-Level Planning

However convincing were the barrage orders at divisional level, the general failure to ensure that orders reached battalions in time eliminated much of their value. For example, 8/Bedfordshires' war diary contained no orders for the attack and..

'C, D and A, Coys ... were ordered to attack the Quadrilateral which was on our left ... artillery barrage ... unluckily was short where our three companies were drawn up for the attack in shell holes. This mistake caused many casualties ... The position [to be taken] was not heavily shelled previous to the attack. $^{1208}$ 

None of the other battalion's files contained any orders for the attack. 1209
2/Sherwood Foresters were in divisional reserve and..

The CO saw Company Commanders and gave verbal orders to them. <sup>1210</sup> 2/York and Lancaster referred to orders received at 1400 hours

for a general attack by the 16th I[nfantry] B[rigade] ... on 15th. 1211
The effect of a missing map can be judged from Figure 371. The objectives and boundaries taken from Map 'A' are shown in coloured lines. The white lines are taken from the artillery operational order, the yellow lines from the infantry operational order: the disparity is evident.

<sup>1209</sup> W0 95/1617/2, W0 95/1618/2.

\_

Saville, Centre divisional artilleries, XIV Corps, Operation order No. 3 in WO 95/1582/2.

<sup>&</sup>lt;sup>1208</sup> W0 95/1611/1.

<sup>&</sup>lt;sup>1210</sup> Anon., War Diary, 2100 hours on 14 September 1916 in WO 95/1624/2.

<sup>&</sup>lt;sup>1211</sup> Anon., War Diary, 1400 hours of 14 September 1916 in WO 95/1610/5.

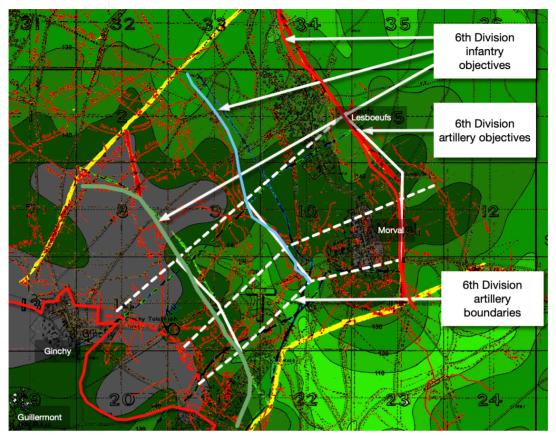


Figure 371 - Fourth Army | XIV Corps | 6 Division's artillery and the white lines corresponding to the map references

The lack of any relationship between objectives and trenches implied that any battery attempting to shoot solely from the orders would have failed to cut wire and could have hit the troops they were trying to support, such as 8/Bedfordshire's q.v.

### 8.3.6 6 Division Tank Planning

No trace of any tank orders can be found in 6 Division's war diary. Even the help lent by column '1' goes unmentioned. As discussed on page 418, an order of sorts was made and is shown below.

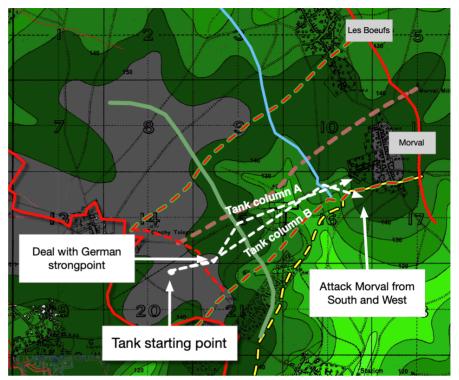


Figure 372 - Fourth Army | XIV Corps | 6 Division - Tank columns 'A' and 'B'  $\,$ 

Gaps in the barrages would be left for the tanks, but where these were to be, remained unspecified. Why both columns of tanks, should be confined to 16 Brigade's area is not explained. Possibly this was due to the dominance of the need to take Morval. A fragment of the original plan shows tanks operating outside the divisional boundaries.

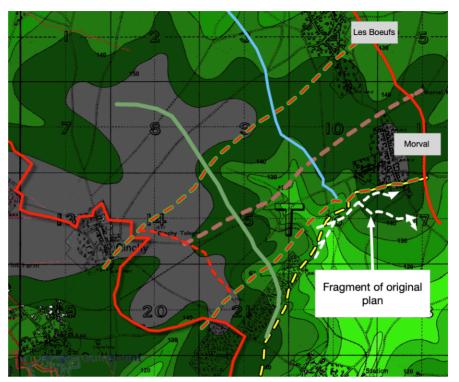


Figure 373 - Fourth Army | XIV Corps | 6 Division - Original tank plan fragment

The 6 Division's plans failed to cover many of the issues they faced and the lack of attention to map reference detail and consequent inconsistencies added to the friction and may have hampered the attack.

## 8.3.6.1 56 Division Planning

The 56 Division only joined the XIV Corps from the VII Corps on 4 September following training at St. Riquier. It was the southernmost division of the BEF and adjoined the French Sixth Army. Despite this proximity, no copies of or references to any French documents can be found on file.

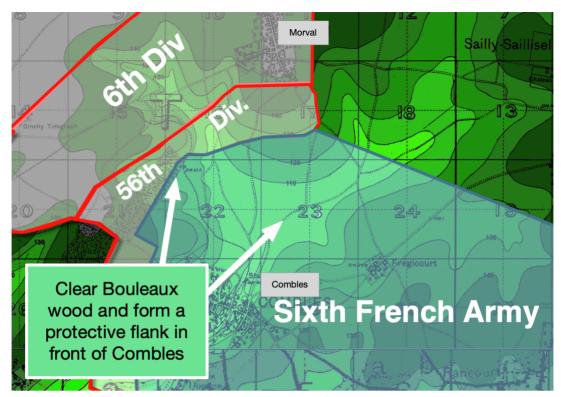
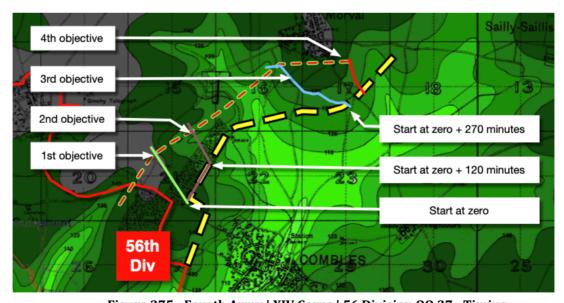


Figure 374 - Fourth Army | XIV Corps | 56 Division position and French Sixth Army tasks

Lieutenant-Colonel J. E. S. Brind, the CoS, issued OO 37 on 12 September. It mentioned the adjoining French Division ( $53^{me}$ ) and its tasks (but not its liaison officer).



**Figure 375 - Fourth Army | XIV Corps | 56 Division OO 37 - Timing**While the timing was clear, the order of events shown in Figure 375 was not.
The bulk of the fighting was down to 167 Brigade. The responsibility of the

French  $53^{\text{me.}}$  Division is not evident, the OC 169 Brigade was however expected to..

... ensure that the liaison with the French on his right is securely established with an adequate number of riflemen in addition to machine gunners. 1213

Thus, rather than coordinate with the French, Brind distracts his officer with what must have been a very low risk of a German counter-attack between the French and British armies. Implicitly the security of 56 Division precluded telling the French, since at 0710 on the morning of the attack...

The Liaison Officer with the 2nd French Division on our right telephoned asking if we required any assistance from the French Artillery. 1214

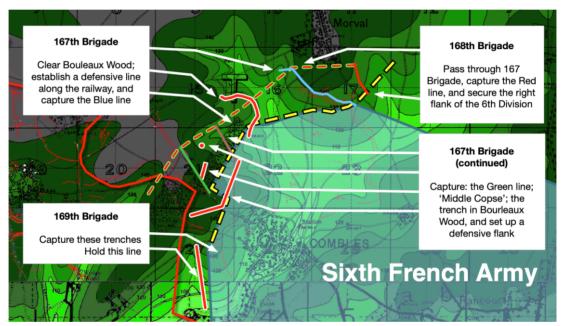


Figure 376 - Fourth Army | XIV Corps | 56 Division's objectives

The plan referred to plans and maps describing the use of tanks, artillery and dispositions for assembly.

-

<sup>&</sup>lt;sup>1213</sup> Brind, J., 56 Division 00 38 of 13 September 1916 in W0 95/2932/1.

<sup>&</sup>lt;sup>1214</sup> War Diary, 15 September 1916 in WO 95/2932/1.

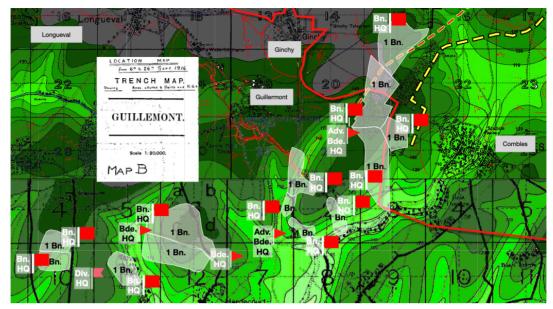


Figure 377 - Fourth Army | XIV Corps | 56 Division's dispositions

The map of dispositions of assembly failed to identify the units involved. The locations of the two most northerly units presumably refers to their position on 26 September. As discussed on page 418, a tank planning order of sorts was made and is shown below.

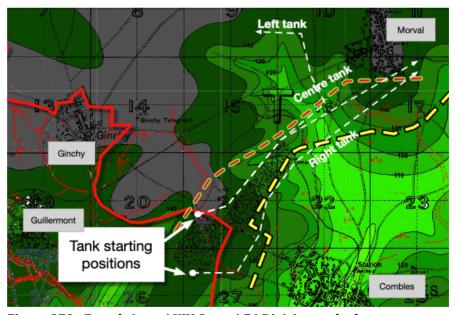


Figure 378 - Fourth Army | XIV Corps | 56 Division tank plan

The purpose of the 'left tank', being sent on a reverse journey was not explained.

### 8.3.7 56 Division Artillery Planning

Much of the artillery plan was a shambles: no allowance was made for the tanks

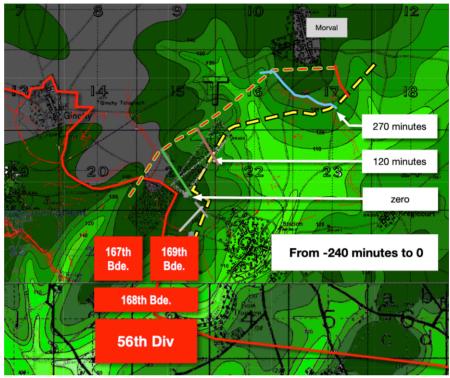


Figure 379 - Fourth Army | XIV Corps | 56 Division artillery plan (from - 240 minutes to zero)

... a creeping barrage was to lift, yet form a stationary barrage at an unspecified time, for an unspecified period, thereby blocking troops from advancing; unspecified points in the western half of Combles and 'Favourable localities', were to be bombarded. An enfilade barrage was introduced which may have become a flank barrage, but this was not clear. The flank barrage would however be extended, to where was not specified.

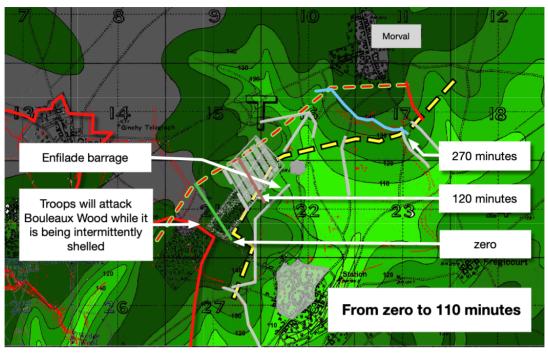


Figure 380 - Fourth Army | XIV Corps | 56 Division artillery plan (from zero to 110 minutes)

Batteries were to lay down a creeping barrage from one unspecified point to one specified as

... That part of the Red objective..

... which was in fact part of the blue line.

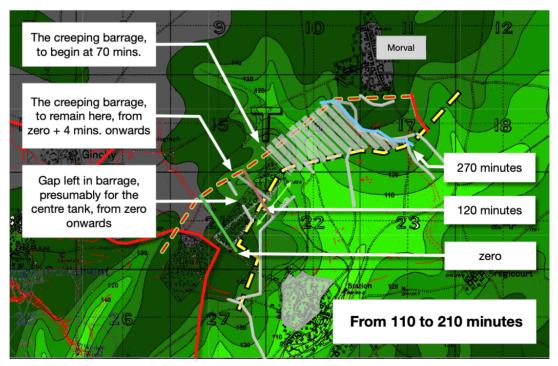


Figure 381 - Fourth Army  $\mid$  XIV Corps  $\mid$  56 Division artillery plan (from 110 to 210 minutes)

Although troops would advance north, some localities were not to be bombarded north of some point after 270 minutes, implying that any area **south** of that point was still to be targeted as the support troops moved through it.

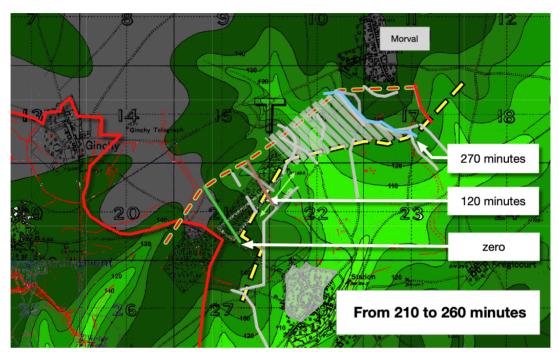


Figure 382 - Fourth Army  $\mid$  XIV Corps  $\mid$  56 Division artillery plan (from 210 to 260 minutes)

A stationary barrage would remain on the Red line for an unspecified period; at some unspecified time it would move off the Red line and form a defensive barrage somewhere for some period.

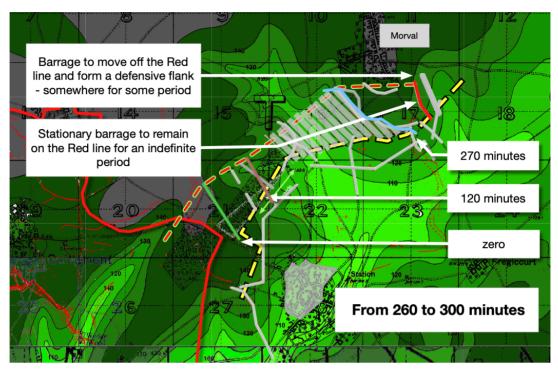


Figure 383 - Fourth Army | XIV Corps | 56 Division artillery plan (from 260 to 300 minutes)

There is no evidence that the plan was withdrawn, but 56 Division was greatly delayed in its attack.1215

### 8.4 **Fourth Army Planning Timetable**

The purpose of this section is to illustrate the tempi of plan preparation and the lack of orders for the battalions taking part on the first day of the battle.

<sup>1215</sup> Elkington, R.J.G., Artillery 00 24 of 17 September 1916 in WO 95/2937/1.

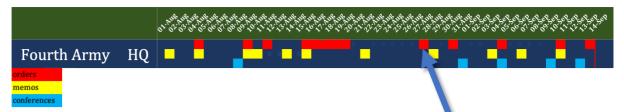


Figure 384 - Fourth Army | Incidence of Army-level orde's, memos and conferences

Figure 384 illustrates an apparently prolific planning process, but the documents are those described in pages 414 to 432 and are most v by A. A. Montgomery. Rawlinson did not issue his plan's first draft until 28 August and the second draft four days later. Only then did he hold conferences to consider its feasibility. 1216

There was then a delay until 8 September when the Canadians and then III Corps (page 518) issued their first attempts.<sup>123</sup>

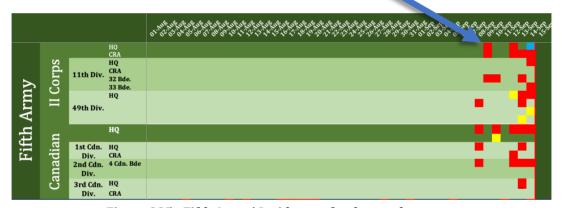


Figure 385 - Fifth Army | Incidence of orders and memos

For the Canadians it was an 'outline of a proposed scheme', not an operational order, but by the next day it had become OO 43. Two days before the attack it became OO 46.1218 As Gough made clear, the Reserve Army would follow the Fourth Army, which partly explains his delay in issuing his plans, 1219 but

\_

See page 402 for a discussion of these conferences.

<sup>&#</sup>x27;Anon., Outline of proposed scheme' of 9 Sept 1916, in WO 95/1047.8 and 'Anon., Use of tanks by III Corps' of 9 September 1916 in WO 95/674/3.1.

Radcliffe, OO 26, Pozières attack' in WO 95/1047.8 Op. Cit.

Gough, Notes for conference of 14 September 1916 in WO 95/518/2.2.

Gough's conference of 14 September was intended solely to establish a narrative, not to take decisions.

The process of dissemination of plans and orders can be traced through the War Diaries.

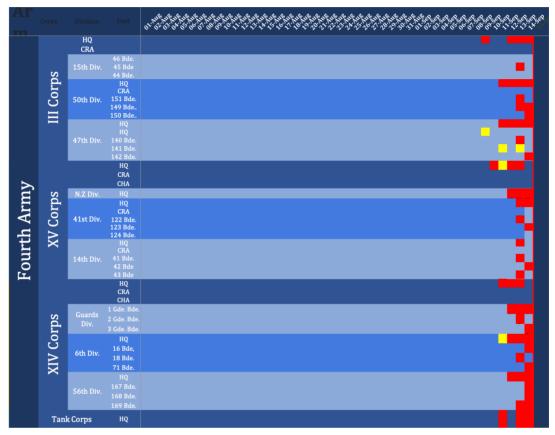


Figure 386 - Fourth Army | Incidence of orders and memos

Most corps plans were published on the 12th, division and Brigade plans each followed a day or two thereafter. Consequently, there was rarely time for battalion plans to be written and these delays are discussed below.

The cumulative effect of delays in planning is shown in Figure 387.

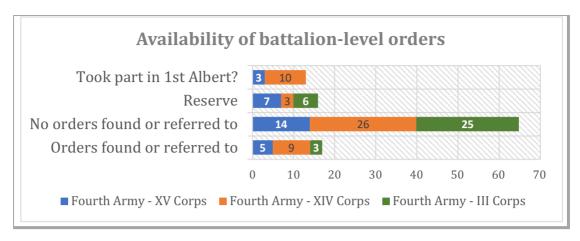


Figure 387 - Availability of battalion-level orders 1220

While keeping orders in or attached to war diaries was a requirement of the Staff Manual, only 17 battalions had orders or references to them on their files and 65 did not. The Brigade commanders of the 16 battalions in Reserve could not know when or where they would be called on and therefore would not have issued any operational orders.

Notwithstanding the claim discussed on page 412, there is evidence that 24 hours was needed for a plan to move from one HQ to another and be read, processed and transformed into another plan. At least half of this time would be taken up by the plan's physical movement. On being received at battalion HQ, some 12 hours would then be required for the details to be disseminated to the troops. Ergo, no plan leaving corps HQ less than 4 days before an attack could be expected to be understood by the people who had to execute it. A few Commanders had the courage to point this out in writing:

It takes many hours for orders to reach Company Commanders, each Commander has to digest orders and then issue his own.  $^{1223}$ 

... from various causes I was unable to get out preliminary instructions.

Owing to various reasons I was unable to issue preliminary instructions as I

<sup>1220</sup> The data for Figure 113 is in Appendix B, Data.

<sup>&</sup>lt;sup>1221</sup> Anon., 40-W0-1674, Staff Manual, 1916, p. 24, section 7.

See pages 346 and 349 of Chapter 6, in particular footnotes 1269 and 1321.

Anon. Brigade conference held at Brigade HQ, 27th August 1916 in WO 95/1213/1, Fourth Army, XIV Corps, Guards Div., 1 Gds. Bde.

had intended so the O. O. had to go out.<sup>1224</sup>
See also page 489 for the effect of such delays on the capture of Flers and page
506 for the losses of 8/Bedfordshires. Cases of planning delays can be
discovered from the diaries.

... the tendency amongst higher commanders is to allow too short a time between the issue of their orders for an operation and the tine at which that operation is to take place. This has resulted more than once in futile loss of life ... It is very disastrous when the infantry find themselves unable and unready to start forward when the artillery fire lifts. 1225

Some officers had a sense of urgency: Webber of 2 Canadian Division issued what was effectively a warning order on 8 September, but the only other division to do so were the New Zealanders. <sup>1226</sup> The Fourth Army order 299/16 (G) for the battle of Flers was received by XV Corps on 9 September at 21.00. <sup>1227</sup> XIV Corps had issued XIV OO 51 on 11 September, <sup>1228</sup> XV Corps issued OO 51 and III Corps issued OO 126 on 12 September. <sup>1229</sup> The confusion also meant that for example 103 Brigade, like many others, was only sent its orders on 14 September. <sup>1230</sup> The planning 'slide to the right', so evident at First Albert, continued 45 days later. Wilkinson of 4/East Yorkshires managed to write a Timetable and Notes on 14 September against Captain Boys' 150 Brigade Operation Order also of 14 September, <sup>1231</sup>, but the other battalions of 150 Brigade, while retaining other orders in their war diaries, had none for the 15th. <sup>1232</sup>

'Orders for attack on 15th issued to Coys at 5 pm.' on 14th. 1233

<sup>1224</sup> Knox, H. to BGC, 46th Brigade in WO 95/1913.

W.S. Furse to A. A. Montgomery on 26 July 1916 in KCLMA, Montgomery-Massingberd papers 7/3-4.

<sup>&</sup>lt;sup>1226</sup> See pages 426 and 458.

<sup>1227</sup> XV Corps war diary for September 1916 in WO 95/922/2.

<sup>&</sup>lt;sup>1228</sup> W0 95/911/2.

<sup>&</sup>lt;sup>1229</sup> WO 95/922/2 and WO 95/674/2.

Henderson to 103rd Brigade enclosing. 15 Division 00 90 with related papers in WO 95/1913\_2, Fourth Army, III Corps, 15 Division, (and 13/ Royal Scots).

<sup>&</sup>lt;sup>1231</sup> 4/East Yorks in WO 95/2834/4

<sup>&</sup>lt;sup>1232</sup> 4/Yorks in WO 95/2836/3, 5/Yorks in WO 95/2836/4, 5/DLI in WO 95/2837/2, TM Bty. in WO 95/2837/4.

<sup>1233 10/</sup>Queen's (Royal West Surrey Regiment) in WO 95/2643/1.

Brigade orders required all battalions to vacate their billets by midnight on the 14th, so Wilkinson had no time to issue a proper order. There were consequences for 4/Yorkshires:

Movement to the assembly trench was impeded by the neighbouring battalions blocking the communications trenches, requiring the Battalion to move to the assault trenches over the top.

Result: an enemy barrage and 40 casualties. 1234

Some officers did what they could with what they had: the war diary of 1/19 London Regiment (St. Pancras) battalion contains a well-structured set of battalion orders issued on 13 September, but lacking the objectives, timing, boundaries and artillery. No other orders for the battle can be found. If it be unreasonable to assume that the author had deliberately excluded such essentials, it must be concluded that they never arrived. Of the 98 Fourth Army battalions which took part in the attack only 17 retained or referred to orders in their War diaries.

### 8.5 Conclusions

Many of the Fourth Army's planning problems, so evident at First Albert, remerged even more evidently at Flers Courcelette. No justification for the choice of Flers can be found, any more than there was a justification for the choice of the Somme in general. It had come up in conversation. 1237 It was a suitable stage on which to deploy a new weapon. In the absence of the drive to Bapaume its only justifications lay in taking territory and attritting the enemy. No battle-wide Schwerpunkt can be detected and the various plans have only a local focus as a result.

<sup>&</sup>lt;sup>1234</sup> 4/Yorks in WO 95/2836.

Trim, Capt. E. J., 'Battalion orders by Lieut-Col A. P. Hamilton' of 13 September 1916 of 1/19/London Regiment (St. Pancras) in WO 95/2738/1

<sup>1236</sup> That orders are missing may be due to post-war filleting.

<sup>&</sup>lt;sup>1237</sup> See page 390.

While plans for First Albert were sometimes missing from Army files, they can often be reconstructed from copies lodged in corps files. At Flers-Courcelette however no operation orders for the XIV Corps can be found and the files contain narratives. 1238 This is comparable to the tampering by Wilson and A. A. Montgomery with the GHQ and Fourth Army files described by French, a clear acknowledgement of failure and an indication of the decline in planning competence since First Albert. 1239 Planning was no longer a novelty: while only 13% of the battalions had fought in the First Albert Battle, III Corps and XV Corps, had fought in it too, XIV Corps - raised in January - had already experienced four battles and II Corps had been fighting since 1914, so there was ample experience to draw on. As a corps, the Canadians had only the experience of the Battle of Mount Sorrell to guide them, 1240 yet their plans were a little better than the others. 1241 Other improvements were 47 Division identifying and resolving problems, 1242 the Guards Division's conference to discuss the assault process and the warning orders issued by two divisions. 1243 As at First Albert, coherence of objectives was afforded by A. A. Montgomery's outline. 1244 Other isolated instances were the few artillery plans which mapped well to infantry advances, 1245 and 6 Division's acknowledgement that the time of arrival of a creeping barrage would conform to the line of departure of the troops and not that of the next objective.1246

-

<sup>&</sup>lt;sup>1238</sup> See page 466.

French, David, 'Sir James Edwards and the Official History', in Bond, Brian, *The First World War and British Military History*, Clarendon, Oxford, 1991, pp. 78-9.

<sup>1240</sup> Edmonds, J. E., ... 1916, Vol I, p. 247.

<sup>&</sup>lt;sup>1241</sup> See page 431.

<sup>&</sup>lt;sup>1242</sup> See page 446.

<sup>1243</sup> See pages 471, 426 and 458.

<sup>&</sup>lt;sup>1244</sup> See page 399.

<sup>&</sup>lt;sup>1245</sup> See page 438.

<sup>1246</sup> See page 481.

While artillery had hitherto dominated the battlefield, the arrival of the tank marked the beginning of a change: it exposed more starkly the difficulty Generals had in adapting to reality: in their failure to accept the speed limitations of the tanks; their reliance on verbal instructions to define safe lanes for them through the barrage; 1247 their unrealistic expectations of the tanks' abilities, 1248 despite the limitations already clear in A. A. Montgomery's memo; 1249 and by XV Corps failure to coordinate their use when the tanks were under divisional control.

Even without the complication of tanks, the management of artillery was generally poor. The Fourth Army failed: to exploit existing intelligence such as the locations of MGs (s);  $^{1250}$  to plan barrages adequately;  $^{1251}$  to relate them to trenches;  $^{1252}$  to consider counter-battery firing,  $^{1253}$  or to ensure artillery-infantry cooperation.  $^{1254}$ 

A persistent problem lay in the map-reading failures.<sup>1255</sup> The map-reading ability required would not have taxed a fourteen-year-old Boy Scout, which may be why so little attention was paid to training in it.<sup>1256</sup> These failures led to attempts to specify the targets alphabetically with specially marked-up maps.<sup>1257</sup> These failures augmented a tendency to vagueness and imprecision: intermediate objectives were sometimes left unspecified,<sup>1258</sup> but later added

```
1247 See page 420.
```

<sup>&</sup>lt;sup>1248</sup> See page 433.

<sup>&</sup>lt;sup>1249</sup> See page 444.

<sup>&</sup>lt;sup>1250</sup> See page 418.

<sup>&</sup>lt;sup>1251</sup> See pages 444-446, 454, 455, 468, 476, 490, and 491.

<sup>1252</sup> See page 427.

<sup>&</sup>lt;sup>1253</sup> See page 434.

<sup>&</sup>lt;sup>1254</sup> See pages 420, 426 and 444.

<sup>1255</sup> See pages 414, 455, 462, 483, 525 and 527.

Baden-Powell, R. S. S. in his *Aids to scouting for NCOs and men* (Gale and Polden, 1915), devotes several pages to map reading, but his book was not addressed to officers.

<sup>&</sup>lt;sup>1257</sup> See page 459.

<sup>&</sup>lt;sup>1258</sup> See pages 439 and 441.

to without regard for consistency or timeliness,<sup>1259</sup> a promised artillery programme was missing,<sup>1260</sup> the 'extra attention' to be afforded by XV Corps heavy artillery to strong points and trench junctions went unspecified; batteries would ...

'cut gaps in gaps in the wire [though] ... not ... in too many places [and] will search the more distant approaches  $^{,1261}$ 

'favourable localities', would be bombarded, $^{1262}$  'definite' objectives remained undefined and a detailed artillery programme' would be issued later, though none can be found. $^{1263}$ 

There is little evidence of any reviews occurring and the mass of errors discussed here would have quickly been found by an experienced officer. As it was, only when the contents of one unit's plan contradicted those of another's, were changes made, 1264 and this was invariably too late with the result that plans were late and followed by many corrections:

| Date             | Unit         | Change  | Reference   |
|------------------|--------------|---|-------------|
| 12 -14 September | III Corps    | 4 addenda and 7 corrections to two Operations Orders              | WO 95/674/2 |
| 14 September     | III Corps    | Artillery instructions No. 7                                      | WO 05/690/3 |
| 13 September     | XIV<br>Corps | Amendments to XIV Corps Artillery Operation Orders Nos. 13 and 14 | WO 95/915/2 |
| 13 September     | XIV<br>Corps | Amendments to XIV Corps Artillery Operation Orders No. 19         | WO 95/915/2 |
| 14 September     | XIV<br>Corps | XIV Corps operation order No. 51 - Amendments 1 & 2               | WO 95/911/2 |
| 13 September     | XV Corps     | Amendments to OO 47 issued (15 CA 10/261)                         | WO 95/925/1 |

Table 5 - Amendments to orders

As at First Albert, Fourth Army grappled with the problem of complexity induced by an over-large span of control, the lack of a planning process and

```
1259 See page 441.

1260 See page 440.

1261 See page 457.

1262 See pages 490 and 439.

1263 See page 440.

1264 See page 99 for an example.
```

# **Lethal Dialectic**

the need to plan the coordination with artillery. It had failed to solve these problems before the arrival of the tank added a further dimension.

# 9. How the BEF Planned in 1916

This chapter attempts to give an overview of the BEF's planning process for 1916 and its problems. No such comparison is made for 1915 given the gross disparity between the two battles analysed and the lack of GHQ sources (see below).

#### 9.1 Sources

Much of chapters five to eight have been based on sources listed in the Bibliography, but there are some notable lacunae. The First Army General Staff war diary of 1915 only extends as far as 11 June 1915. 1265 All the GHQ files from 12 June to 31 December 1915 are missing. 1266 The Fourth Army General Staff war diary lacks May and June 1916, the first two days of July, November and December. 1267 Thus the entire period of the Fourth Army planning of the Battle of the Somme is missing. 1268

While plans for First Albert and Flers-Courcelette can be found for all corps and divisions, they are missing from the files of seven brigades out of 36 of First Albert. Of the 144 battalions which participated in First Albert, only 60 had operation orders, five of which were written on 30 June. All told, 246 units were involved in the Battle of First Albert, but the war diaries of 46% of them contained no plans or orders. 157 battalions took part in the Battle of Flers-Courcelette of which only 25 had plans.

# 9.2 The Planning Process and Documents

When, therefore, the situation demands ... the rapid issue of orders, a note should be made of the time taken from the moment the superior commander

<sup>&</sup>lt;sup>1265</sup> WO 95/2/11.

<sup>&</sup>lt;sup>1266</sup> WO 95/3.

<sup>&</sup>lt;sup>1267</sup> W0 95/431/2.

<sup>&</sup>lt;sup>1268</sup> W0 95/431.

 <sup>92</sup>nd Brigade in WO 95/2356), 10th Brigade in WO 95/1478), 107th Brigade in WO 95/2502/1), 21st Brigade in WO 95/2327/1), 26th Brigade (Reserve) in WO 95/1762/1, 27th Brigade (Reserve) in WO 95/1769/4), S. African Brigade (Reserve) in WO 95/1777/1, 63rd Brigade in WO 95/2158.

is given the problem until the moment at which units receive the order that would put them in movement.

War Office, Training, and Manoeuvre Regulations, HMSO, (London: ) (London, 1912)

The BEF's planning knowledge derived entirely from its officers, the doctrines it inherited and the plans it had already written. 1270 Its planning process consisted of writing memoranda, notes, orders and the plans themselves, 'socialising' them by means of conferences and then passing some documents on to subordinates for them to rewrite for their units. Few reviews occurred at GHQ or Army level other than, for example, those by Haig of Rawlinson's plans. At corps level there was a few internal reviews of plans, 1271 and occasional notes. The distribution of plans itself induced great delay, 1272 and no attempts were made to manage the process of planning other than by exhortations.

By 1916 plans were being expressed in four document types:

**Operation Orders**, which corresponded most closely to what we understand today as plans. Their details were often extended into appendices. They were sometimes referred to as 'Instructions'.

**Instructions**, which sometimes formed appendices to orders, which might be proto-doctrine documents or chapters of a plan. These can be distinguished from orders in that while they were part of a plan, they were also useable beyond the context for which they were originally written.

**Messages**, which were sometimes used to render context-specific the details of a plan, as well as simply to pass on information.

<sup>1270</sup> See page 63.

<sup>1271</sup> IWM 6.

<sup>1272</sup> See page 504.

**Notes,** which explained what soldiers should do in the absence of suitable doctrines.

Two other document types were important inputs to, or support for plans: **Doctrines** could save planners from the need to write notes such as the

'Fourth Army Tactical Notes' and could be used as the basis of training

curriculae. 1273 **Reports** of events such as conferences could identify the major

topics to be planned for, or of such issues as the status of wire, enemy artillery

or the water supply.

These document types influenced the approaches taken to planning: the 'Order' approach was to see the contents and structure of a plan as being a rather large order, obeying the principles of FSR I. This had the advantage that all the issues could be considered together and a consistent approach taken, but the disadvantage was that publication would be delayed until the entire document was complete.

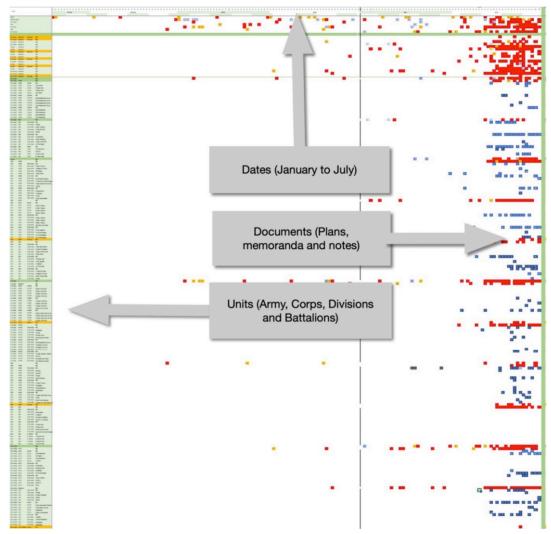
The 'Instruction' approach echoed the structure of the only large document that senior officers were familiar with, the FSR itself. By being structured in chapters, the FSR lent an approach in which issues arising at conferences could be expressed as they arose. Thus rather than waiting for a 'complete' plan, the parts could be published as soon as each was believed to be ready and a table of contents later issued as a covering document. The disadvantage of this approach lay in the incoherence of the parts and the difficulty senior officers had in distinguishing trivia from essentials. The 'layering' of issues, whereby those with the greatest importance would dominate and lend coherence to the narrative, was thus rendered impossible.

773 4--

No records can be found of any Fourth Army plan being approved: all Third Army plans examined had an explicit approval letter. 1274

#### 9.3 The Plans Were Late

The timing of plans was critical to success: a late plan might as well never have been written.



 $\label{lem:figure 388 - Third and Fourth Armies | Planning documentation overview$ 

Figure 398 illustrates the failure of Rawlinson and Haig to manage the planning of the Battle of 1st Albert in a timely manner. The mass of documents hugging the right-hand side of the chart is an illustration of the

 $<sup>^{1274}</sup>$  See for example Lyon, G.C.R.  $^{237/47}$  of 11 June 1916 in WO 95/2931/2.

common phenomenon of a 'slide to the right' in which early management failures are shown up when meeting an unmoveable date. The reasons for these delays and their inter-relations and effects are examined below.

Any attempt to portray Haig as a competent manager is subverted by his failure to support or monitor the state of planning. For Haig to have done so would have transgressed the principle of 'Umpiring' or non-interference in a subordinate's work, which was proscribed but to which he (mostly) adhered. Haig had already contravened this rule when he admonished Rawlinson for his failures before Neuve Chapelle and there is no evidence that Rawlinson made any attempt to monitor the status of the plans for which he was responsible. These failures directly transgress FSR I (1909):

'Superior orders must be issued in sufficient time to enable subordinate commanders in turn to frame and distribute their own orders.'

## 9.4 Causes of delay

Several causes of the delays can be detected: the lack of a planning doctrine and process and the lack of management of the planning process by senior officers; the inexperience of the staff and their lack of training. This was possibly reinforced by the failure to ask about plan transmission delays in after-action reports and the death of many of the officers who might otherwise have voiced their concerns. The following sections examine these failures in detail.

# 9.4.1 Appreciations

A few Appreciations of the battle were made. Edmonds observed

Bailey, George, Modern project management and the lessons from the study of the transformation of the British Expeditionary Force in the Great War, *Management Decision*, Vol. 43 Issue 1 pp. 56-71 and Vines, Anthony John, *The heroic manager*, KCL eThesis, (London, 2015) are examples of assessments written by those ignorant of planning or management.

<sup>1276</sup> Samuels, p. 52.

<sup>&</sup>lt;sup>1277</sup> FSR I (1909) Chapter II, Part 13.

<sup>1278</sup> See for example the discussion on page 89 of Winter, J. M., The Great War and the British People, Macmillan, London, 1985.

The decision [by Joffre] to make the main offensive astride the Somme seems to have been arrived at solely because the British would be bound to take part in it. 1279

Whatever appreciations were written were provoked by events rather than principles,: thus Rawlinson speculatively reconnoitred an area near Boesinghe on 12 February and it was thereafter dropped as a possible location. Haig ordered a reconnaissance of suitable territory to the north of the Somme on 14 February, in case the offensive be delayed to the summer, 1281 and the possibility of territory being transferred to British responsibility because of Verdun provoked another reconnaissance on 26 February. 1282

There were exceptions below Army level: the position of the XIII Corps was assessed by Congreve on 26 February. 1283 The 21 Division moved into the line on 1 April, 1284 and the next day a Captain G. T. Tait wrote a 5-page Appreciation of the front and the current situation. This covered the terrain, approaches to the front line, the enemy forces, recent operations, intelligence and miscellaneous issues such as new German flares, periscopes and flash reducers. 1285

\_

<sup>&</sup>lt;sup>1279</sup> Edmonds, J. E., ... 1916 Vol I, p. 30.

<sup>&</sup>lt;sup>1280</sup> Haig, Diary, 10 February 1916, WO 256/8.

<sup>&</sup>lt;sup>1281</sup> Haig, Diary, 12 February 1916, WO 256/8.

<sup>1282</sup> GHQ France to Haig on 26 February 1916, WO 256/8.

<sup>1283</sup> Congreve, Notes on XIII Corps Scheme of 26 March 1916 in IWM 6.

<sup>&</sup>lt;sup>1284</sup> Paley, 21 Division Operation Order No.43 of 1 April 1916 in WO 95/2129/44.

<sup>[53]</sup> Tait, G. T., 'Special intelligence summary re the new front to be taken over by the 21st Division', of 2 April 1916 in WO 95/2129/4.

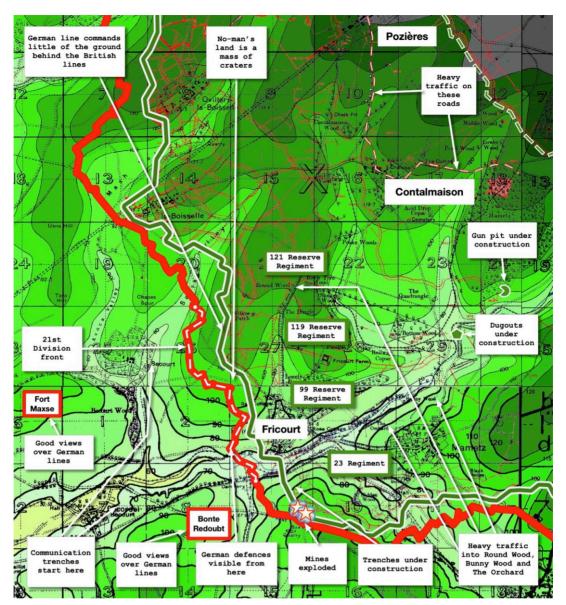


Figure 389 - XV Corps | 21 Division | Tait's Appreciation

Curiously he ignored both barbed wire, dugouts and machine-gun nests. In any case his appreciation was ignored.

No artillery appreciation was written, but Budworth, who had been the X Corps CRA until he replaced Headlam in May, issued a memorandum in the form of an *ex post factum* appreciation describing the part played by the X Corps artillery staff from March to June 1916.

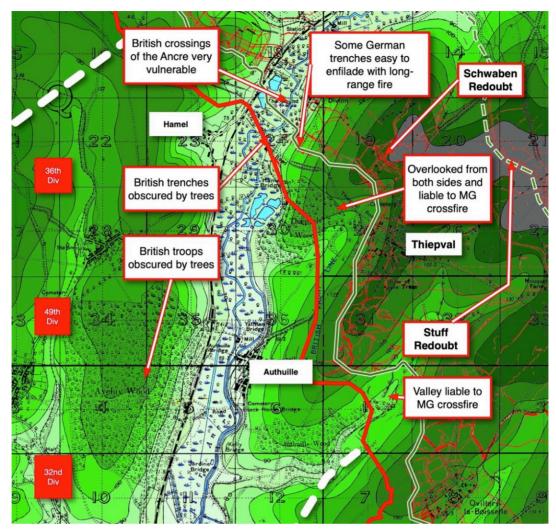


Figure 390 - X Corps | Budworth's appreciation

Budworth saw the problem of winning an offensive as being one in which the attacker brought an overwhelming force to bear on the inferior defending force, by surprise. The defender relied on the large number of lines of defence to delay the attacker long enough to bring up reserves before the attacker could 'roll up the whole line of the defence'. He believed that the strength of the lines allowed the defenders to minimise the number of troops used but also rendered them less likely to launch an attack elsewhere as a 'riposte'. The dominance of artillery required an early calculation of the guns and ammunition needed to pierce a length of front, or if such provision were fixed, what length of front could be pierced. Thus X Corps was given a front of 4,700

yards with a heavy gun every 100 yards.<sup>1286</sup> The Appreciation of the X Corps commander Cameron, is discussed on page 327. His concerns were not reflected in any plan.

Rawlinson's first plan for the Somme of 4 April has 11 points which constitute an Appreciation. 1287 He calculated that he would need 8-9 men per yard of front to succeed. By assigning part of the attack in the north to the Third Army, Rawlinson believed he had reduced the front to 20,000 yards but he miscalculated the width of the front, which was actually 27,000 yards. 1288 This was possibly one of those white lies with which senior officers justified their decisions, as they had at Loos. The 8-9 men per yard thus became 5-6 men per yard, yet he also miscalculated the number of yards per gun which dropped from one per 32 yards in January to one per 18 yards in July: since the 266 heavy guns available for use in January 1916 had increased to 545 in June. 1289 He acknowledged that the inexperience of most of the New Army infantry and officers in an attack of longer than 3000 yards would lead to disorganisation, loss of direction and unpreparedness for counter-attack and for this reason expected a halt after the first day's advance, for reorganisation. Similarly the inexperience of most of the New Army artillery would limit their ability to put down a barrage accurately, inhibit indirect firing, delay their advance during a battle and thus enable only limited support of distant troops. 1290 Rawlinson proposed no solutions to these problems. He would cover the advance across No-Man's Land with smoke, expecting that this would be copied along the

<sup>&</sup>lt;sup>1286</sup> W0 95/863/13.

<sup>1287</sup> Rawlinson, (To Haig) GX 3/1 Plan for offensive by the Fourth Army of 4 April 1916, in WO 158/321. See also page 194.

<sup>&</sup>lt;sup>1288</sup> See page 181.

The figure of 200 heavy howitzers quoted by Prior and Wilson on page 143 of *Command on the Western Front* needs to be read in conjunction with the discussion in Appendix B, Data. See also page 530.

See page 526 for a 1918 solution.

whole of the front, for deception purposes. Rawlinson consequently opted for a two-stage assault.

He was aware of the three major German defensive systems identified in Map A together with the many fortified villages and the deep shelters along the front line which could resist all but the heaviest shelling.<sup>1291</sup> He referred to the existence of numerous dug-outs and cellars in the enemy's lines and his solution was a long bombardment, though ...

'with many new gun detachments, we cannot expect very accurate shooting.'  $^{1292}$ 

This mistrust of the accuracy of the artillery was matched by a failure to exploit the many references made in intelligence reports to the locations of the deep shelters. None of the artillery plans mentions them. He also ignored other factors: the need for counter-battery firing and to move the artillery fast across a torn-up battle-field.

However, Rawlinson's Appreciation missed the importance of Montauban which Haig, in his letter to Joffre of 14 April, had identified as being of such tactical importance that all attacks on it should be under a single command. This was due to topography: the spur from the Briqueterie to Maricourt, the Knoll, Hardecourt and the valley between them needed a view by a single commander.

<sup>&</sup>lt;sup>1291</sup> See page 518.

MacCormick refers to Haig's proposal to use lethal gas to flush defenders out of 'numerous deep dug-outs and cellars' in the German front line and claims the memo is in WO 95/3: it is in WO 158/321, Rawlinson's memo of 19 April 1916 includes the reference to the deep dug-outs and cellars, but there is no comment by Haig. MacCormick, Bill, 'Lessons unlearned: the Somme preparatory bombardment', in Jones, Spencer, *At all costs*, Helion, (Wolverhampton, 2018), p. 159.

<sup>&#</sup>x27;Trench mortars fired on enemy's shelters at F.3.a.4.9' and during a raid 'three deep dug-outs full of enemy bombed and blown in', 1 January 1916 in WO 95/3/2.

<sup>&#</sup>x27;four deep dug-outs were bombed.' Fourth Army report of 3 June 1916 in WO 95/4/1.

<sup>&#</sup>x27;Large chalk heaps noticeable at K.38,b72.95 are possibly dug-outs and several heaps of brown earth seen between this point and K.18.b.75.70 either shelters or very deep trench.' VIII Corps daily summary No 48 of 19 May 1916 in WO 95/1457/5.2.

<sup>&#</sup>x27;a mound appears in the trench only slightly higher than the level of the parapet is probably the commencement of a bomb-proof shelter', Canadian Corps summary of intelligence of 6 January 1916 in WO 95/1046/1.

<sup>&#</sup>x27;The redoubt at 0 32.c.5½.1½ has [been] carefully registered and appears to be shell-proof as 18 pdrs. have no appreciable effect.' Canadian Corps summary of intelligence of 6 January 1916 in WO 95/1046/1.

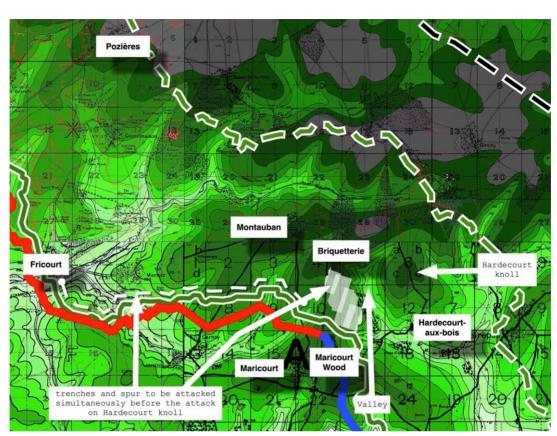


Figure 391 - GHQ | Haig's concern for Montauban

This was the first mention of the Montauban problem: it did not occur in Haig's diary entry of 5 April and had Haig undertaken an appreciation of the area he might not have agreed to allowing the boundaries between the French and British Armies to run through it. Single command was to be discussed between Rawlinson and Foch. 1294 Belatedly Haig made a plea five days before the attack:

'To Second, Third and Fourth Armies, II Corps. Staffs of 3rd, 23rd and 38 Divisions to study ground on Fourth Army front.'

Not only was this too late, but the capture of any of the staff would have been a security risk. $^{1295}$ 

'The choice of localities on the British Front for the delivery of the preparatory and decisive attacks depends on circumstances and dates.'

-

Haig to Joffre 14 April 1916, Haig, Diary, WO 256/9.

<sup>&</sup>lt;sup>1295</sup> WO 95/4/3.2.

Topography, meteorology and enemy defences were implicitly ignored.  $^{1296}$  Rawlinson also asked, as late as 12 June, that the ground beyond the Green line be studied in preparation for moving the artillery forward.  $^{1297}$ 

Haig and Rawlinson's failure to have a sufficient Appreciation written meant planning confusion at Army level and below and an inability to focus on critical points. They had no planning process to follow and made no attempt to invent one. 1298

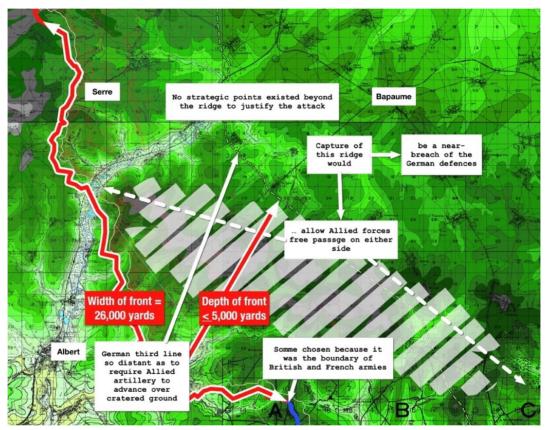


Figure 392 - Farrar-Hockley's battle problem definition

In 1964 Farrar-Hockley wrote an appreciation of the Somme battle problem which, while irrelevant to the planning which occurred, indicates what GHQ and the Fourth Army could have observed. 1299 For him, the origin of the

Farrar-Hockley, A. H. The Somme, Pan, 1964, p. 63 et seq.

Robertson, 'Plans for future operations' in WO 158/19s

<sup>&</sup>lt;sup>1297</sup> Montgomery, A. A., 12 June 1916 in IWM5.

<sup>&</sup>lt;sup>1298</sup> See page 202.

problem lay in the lack of any objective other than to conduct an offensive. Given the choice of the Somme, the existence of a dominant ridge allowed the problem to coagulate to a front and a depth. At 26,000 yards it was too wide for the available forces and since the German third line was up to 5000 yards away, it was too far. No strategic points beyond the ridge were identified until Bapaume emerged as an objective in June. 1300 Farrar-Hockley (and Foch) thought strategically: Haig and Rawlinson did not. The lack of a sufficient Appreciation meant planning confusion at Army level and below and an inability to focus on critical issues such as objectives. 1301

### 9.4.2 Inconsistent objectives

The worst of the plans exhibited some common characteristics. The language used was sometimes exhortative, 1302 and ambiguous. 1303 The structure often contained several disparate instructions, which were difficult to distinguish in the confused narrative. 1304 For all the concern for consistency with FSR I, objectives were sometimes identified only towards the middle of the document, were missing or obscure. 1305 Some were inconsistent with the means identified to achieve them, 1306 or were simply unrealistic. 1307 Some plans contained internal contradictions or contradicted superior plans, 1308 or doctrines without explanation. 1309 Some were dependent on an associated

<sup>&</sup>lt;sup>1300</sup> See page 218.

<sup>&</sup>lt;sup>1301</sup> See page 202.

<sup>&</sup>lt;sup>1302</sup> See page 60.

<sup>1303</sup> See pages 57 and 72.

<sup>1304</sup> Example: Neame, memorandum of 11 June 1916 in WO 95/2931/2.

<sup>&</sup>lt;sup>1305</sup> See pages 51, 180, 185, 193 and 157.

Page See page 63.

<sup>&</sup>lt;sup>1307</sup> See page 161.

<sup>&</sup>lt;sup>1308</sup> See page 13.

<sup>&</sup>lt;sup>1309</sup> See page 16.

map which could be lost, 1310 and only one had a time-table. 1311 Neighbouring units were sometimes mis-identified or ignored.  $^{1312}$  Another possible cause of delays was the difficulty in maintaining consistency between the objectives of neighbouring divisions This could also be due to the prolific and imprecise use of wax crayon. Thus the NZ and 41 divisions had very different views of the their second objective

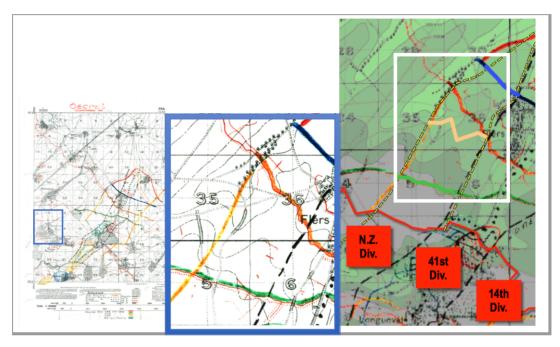


Figure 393 - Two maps, one error - 41 and NZ divisions' views of the second objective's position (WO 95/2619 and WO 95/3658)

To limit confusion, some divisions copied over data from adjoining divisions:

See pages 155 and 156.

<sup>1311</sup> See page 132.

<sup>1312</sup> See pages 92 and 185.

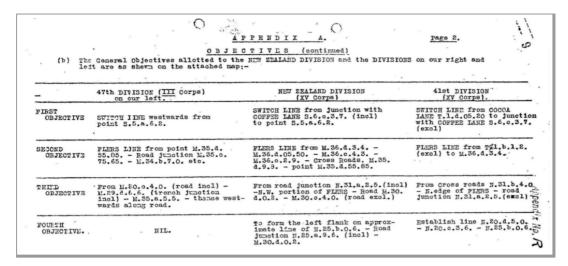


Figure 394 - NZ Division's Appendix A (WO 95/3658)

Adjustments ensued..

## 47th (LONDON) DIVISION OPERATION ORDER No. 100.

Reference Man ALBERT Combined 1/40,000

13th September 1916.

The dividing line between 47th (Lendon) Division and the New Zealand Division is changed to : WOOD LAME S.4.d 8.0 - FRASER TRENCH inclusive to 47th Division -- S.9.d 5.0 and thence along present boundary.

Figure 395 - Part of 47 Division's 00 100 (WO 95/2701/3)

There was a perhaps inevitable divergence from the A. A. Montgomery's original intention.

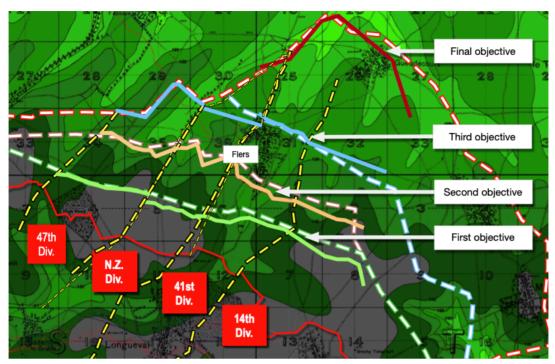


Figure 396 - divisional planning divergences

Even at Corps level and two years into the war, artillery plans were being published with errors which would not be permitted on a Staff Course in peace time. By May 1915 only 5.6% of surviving officers had attended Staff College.<sup>1313</sup>

# 9.4.3 Missing attack approaches

The approach to be taken to the attack was sometimes missing,<sup>1314</sup> few considered deception,<sup>1315</sup> and none the possible enemy reactions or how the outcomes should be monitored.<sup>1316</sup> Foreseeable and related events such as the blowing of a mine were sometimes ignored.<sup>1317</sup> Artillery and infantry were often uncoordinated,<sup>1318</sup> barrage lines might be mis-identified,<sup>1319</sup>

Beckett, Ian and Bowman, Timothy, Connolly, Mark, 'The British Army and the First World War', CUP, 2017, p. 210.

<sup>&</sup>lt;sup>1314</sup> See pages 166 and 190.

<sup>&</sup>lt;sup>1315</sup> Haig, Diary, 27 May, WO 256/10 and page 186.

<sup>&</sup>lt;sup>1316</sup> See pages 76, 77 and 82.

<sup>&</sup>lt;sup>1317</sup> See page 15.

<sup>&</sup>lt;sup>1318</sup> See pages 93, 165, 188 and 192.

<sup>&</sup>lt;sup>1319</sup> See page 161.

barrage maps were sometimes unrevised,  $^{1320}$  and the criteria for deciding when the artillery would advance were usually missing.  $^{1321}$ 

#### 9.4.4 Size

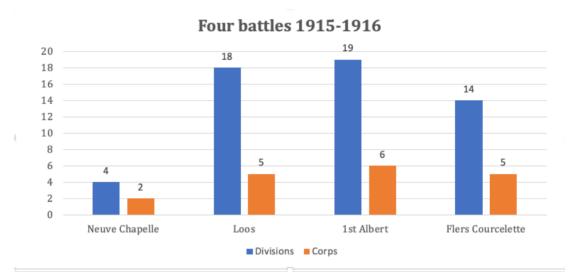


Figure 397 - Four battles 1915-1916

The battle of First Albert was planned for 25 divisions with 6 in reserve. In particular Rawlinson commanded six corps: at Loos Haig had commanded only four. The extra interfaces this imposed meant a big increase in friction and thus delay. Rawlinson's span-of-control increased by 75%. A normal span-of control is 1:4: he faced 1:7.

<sup>&</sup>lt;sup>1320</sup> See page 19.

<sup>&</sup>lt;sup>1321</sup> See page 154.

Rawlinson commanded five but had the use of the VII Corps of Third Army for the purpose of taking Gommecourt.

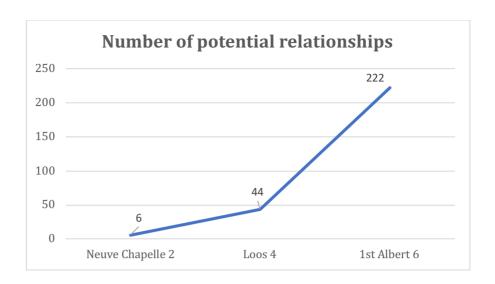


Figure 398 - Increase in the size of command relationships with the increase in the number of Corps  $\,$ 

But while the numbers of corps increased linearly, the number of interfaces between senior officers increased geometrically to 222.<sup>1323</sup> The second was inexperience: no British commander had ever experienced a battle of this size.<sup>1324</sup> Few of the staff officers were sufficiently educated to cope with the consequent errors (staff officer schools were quickly opened as this became evident).<sup>1325</sup> The third has already been mentioned: no planner had a process to follow because Haig had ensured there were no 'stereotypes' to be used and had sent the only evidently-competent planner, Davies, to London on 27 July 1915.<sup>1326</sup> The fourth was Haig's inability to manage Rawlinson. This was exposed at Neuve Chapelle but obscured at Loos since Haig planned the battle himself down to divisional level. Haig was happy and wise to leave things with

\_\_\_

For the equation underlying the graph, see Graicunas, V. A., Relationship in organisation, in Urwick, L. 'Organization as a technical problem' in Gulick, Luther Halsey, Urwick, Lyndall Fownes (Eds.), 'Papers on the science of administration, Institute of Public Administration' (Rumford Press, (Concord, 1937), p. 183. Graicunas quotes Sir Ian Hamilton, 'The Soul and Body of an Army'. Arnold, London, 1921, p.229. Hamilton recommended that top commanders manage a maximum of three people.

Prior and Wilson observe that the Corps Commanders had before 1914 only commanded Divisions and divisional commander, Battalions. Only Haig, Rawlinson and Gough had exercised authority in a previous battle, Loos. Prior and Wilson p. 138.

Whigham, Robert Dundas, (24 November 1916) and Hudson (27 November 191) in WO 95/895/1 and WO 95/3/7 and an entry of 1 February 1916, War Diary GHQ General Staff. See also Robbins, Simon Nicholas, British generalship on the Western Front in the First World War, 1914-1918, eThesis, KCL, (London, 2015), p. 111.

<sup>1326</sup> Boraston, J. H. and Bax, C. E. O. The Eighth Division in war 1914-1918, Medici, (London, 1926), p.44.

A. A. Montgomery while Rawlinson recovered from an illness throughout March 1916. The fifth was the delay in publishing the Fourth Army operational order No 2 until 14 June. This effectively delayed many of the other corps from planning since they lacked the initiative of Hore-Ruthven or Cameron. Thus Horne's publication of a 'Scheme of operations - Part I' was insufficiently-supported by his BGGS Vaughan, who published operational order No 20 - which completed the plan - only on the 29 June. 1328

#### 9.4.5 Map Problems

The quality of maps was a persistent problem as Chasseaud has noted:

the Neuve Chapelle and Loos maps were some 300 feet out as a consequence of the difference between the early use of French and Belgian maps and the more-accurate survey system used by the Field Survey Companies of the RE and  $\rm RA.^{1329}$ 

The 4 and 29 Divisions persisted in using the 'points' approach pioneered by 8 Division at Neuve Chapelle. To confuse matters further they combined it with the map referencing system already established by the Ordnance Survey. The consequence was a mélange of inconsistent information. Thus Operation Order 38 of 4 Division of 18 June t referred to a position allegedly on the German third line which did not correspond to the line shown in the OH and was actually on the German second line; The comment

'The orange and blue line on Map A would be amended to correspond with the objectives ...'

betrays no commitment to circulating the revised map and only the original version of the map can be found in the file. Confusion was added by a reference to 'German third line' which actually refers to the German second

<sup>1327</sup> See pages 229 and 278,

<sup>1328 [190]</sup> Vaughan, Operation order No. 11 in WO 95/921/2.

<sup>1329</sup> Chasseaud, Op. Cit., p. 11.

line.  $^{1330}$  The Operation order was amended on the  $19^{\rm th}$  with changes to several map references but not the references to the German lines.

Central to Fourth Army planning was a 'Map A' issued by Rawlinson's MGGS A. A. A. Montgomery on 4 March as a basis on which all corps should plan. No copy of this Map A can be found in the Fourth Army files but two partial copies remain.  $^{1331}$  A copy of most of 'Map A' can be found in the X Corps' CRA files of 8 March and this was presumably the map issued by Rawlinson both as part of the plan of 4 March but also the basis of the plan of 3 April issued with G X  $^{3}$ 1.  $^{1332}$ 

Bartholomew, W. H., '4 Division objectives' in 4 Division Operation Order No 38 of 18 June 1916 in WO 95/1444/4.

<sup>&</sup>lt;sup>1331</sup> WO 95/673/1.2, III Corps maps, 191607 and WO 95/863/11, X Corps CRA, Artillery programme March 1916

<sup>&</sup>lt;sup>1332</sup> W0 95/863/11.

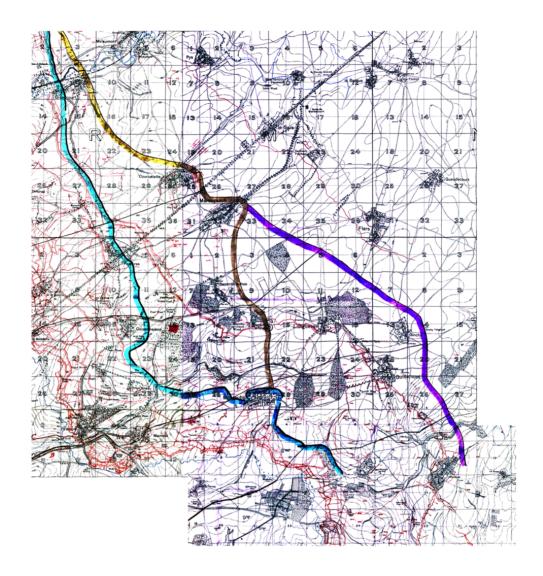


Figure 399 - Fourth Army | Map 57D SE issued with GX 3/1 P on 28 April in WO 95/673/1

At least three other 'Map A's existed. They vary markedly from the one shown in the Official History.

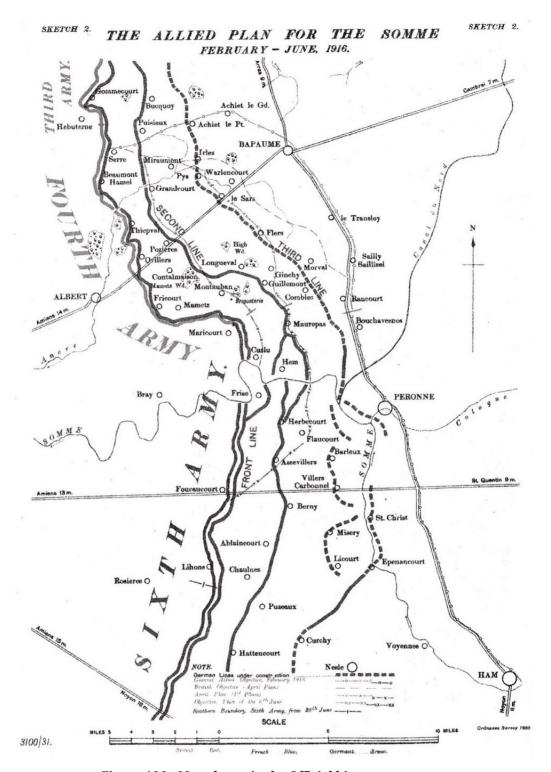


Figure 400 - Map shown in the Official history

Additionally the IWM holds a tracing of 'the copy of Map A in Lord Rawlinson's papers at the Staff College' which corresponds to the version shown in. $^{1333}$ 

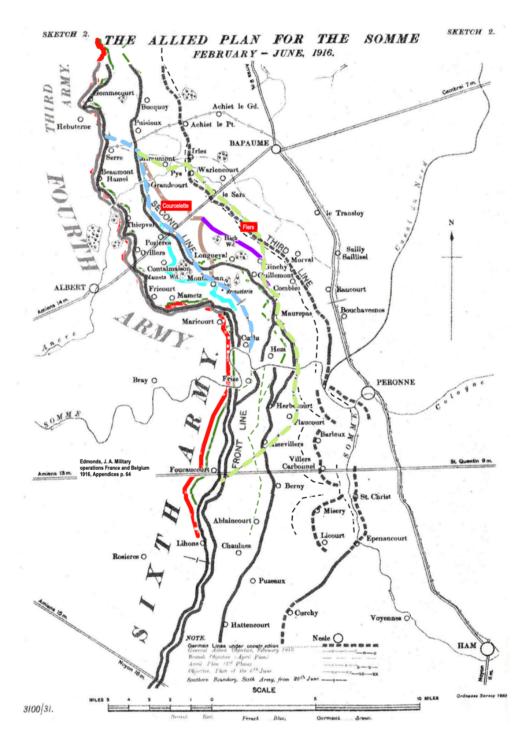


Figure 401 - Fourth Army | The Edmonds map with the GX 3/1 P plan

#### overlaid on it

The Map A shown in the OH was far more ambitious and implies Flers was an objective as well as much of the line later occupied by the French. No plan corresponding precisely to the one in the OH can be found in the files. 1334

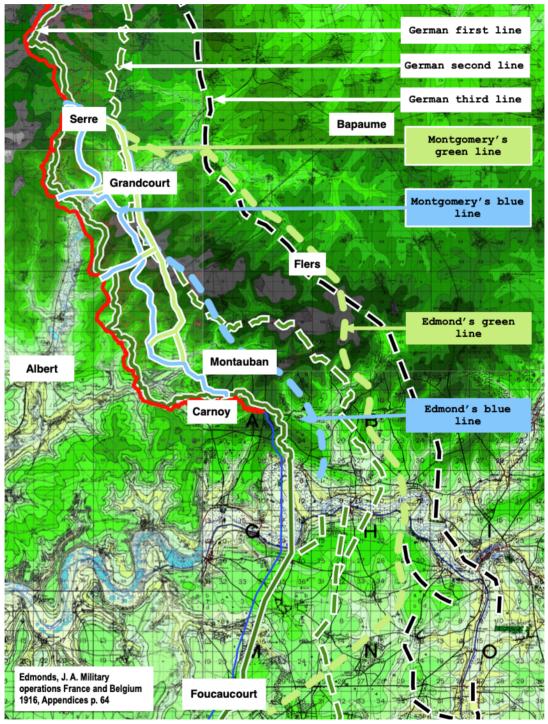


Figure 402 - Fourth Army | Objectives - Rawlinson's and Edmonds'

<sup>1334</sup> Edmonds, J. E., ... 1916 Vol I, facing page 33 and Appendix 8, p. 64.

#### overviews

The map shows three coloured lines denoting the positions to be reached: the green line showing the position at the end of the first phase; the brown line corresponding to the second phase and the purple line corresponding to the third phase. The corps boundaries were shown. Rawlinson estimated that three days would elapse between the first and second phases owing to the time needed to advance the artillery to reach the second phase targets and to plan an infantry attack. Much, Rawlinson declared, would:

'depend on the care with which the preparations for the second phase have been thought out beforehand ...'..

Rawlinson's plan showed that the greatest effort would be made in the south next to the French:

"... the second phase would pivot on Montauban ...".

Bapaume had not been mentioned by March 1916.

These versions can be compared to Edmonds' map in Figure 400. The dotted lines emphasise those shown on the Edmonds' map as corresponding to Map A. Whereas Rawlinson's map showed a limit running from Serre to near Carnoy, Edmonds showed it running farther east and as far south as Foucaucourt. This may be because the French presence was not acknowledged in Map A (at that point Rawlinson would presumably have been unaware of it) and Edmonds relied on Rawlinson. The dotted blue line was expected to take the German second line as far east as Pozières, which was mostly visible from the British Front line and Montauban which was not. The northern part of the dotted blue line covers the critical targets shown on page 216. One possible reason for Edmond's apparent invention could have been to show the Flers battle as being part of the overall plan from the start since the green line is labelled as 'Plan of the 6 June'. 1336

<sup>1335</sup> See page 241.

 $<sup>^{1336}</sup>$  Sketch 2, The Allied plan for the Somme in Edmonds, J. E., ... 1916, Vol 1. facing p. 33

# 9.4.6 Inconsistent Map References

Map references were frequently inconsistent, 1337 and the maps themselves were problematic. for example the II Corps artillery plan was variously ambiguous and sometimes wrong:

| UNIT.              | TIME. |               | OBJECTIVE.       |                           |  |
|--------------------|-------|---------------|------------------|---------------------------|--|
| 11th D.A. 18-pdrs. |       | 0.0 - 0.8.    | R 32 c 1.5 - 16  | - 27.                     |  |
|                    | F 3.  | 0.15 - 0.30.  | <b>-</b> do-     |                           |  |
|                    | F 4.  | 0.30 Onwards. | -do-             |                           |  |
|                    | G 1.  | 0.0 - 0.8.    | R 32 c 3 - 56.   | . (within safety limits). |  |
|                    | G 2.  | 0.8 - 0.15.   | -do-             | -do-                      |  |
|                    | G 3.  | 0.15 - 0.30.  | -do-             | -do-                      |  |
|                    | G 4.  | 0.30 Onwards. | -do-             | -do-                      |  |
|                    | н 1.  | 0.0 - 0.8.    | R 32 c 2.7 - 38  | - 39.                     |  |
|                    | н 2.  | 0.3 - 0.15.   | -do-             |                           |  |
|                    | н з.  | 0.15 - 0.30.  | -do-             |                           |  |
|                    | H 4.  | 0.30 Onwards. | -do-             |                           |  |
|                    | ı 1.  | 0.0 - 0.8.    | R 32 c 5.3 (with | nin safety l mits) - 6.6. |  |
|                    | I 2.  | 0.9 - 0.15.   | -do-             | <b>-</b> do-              |  |
|                    | I 3.  | 0.15 - 0.30.  | -do-             | -do-                      |  |
|                    | I 4.  | 0 30 Onwards. | 30-              | -do-                      |  |
|                    |       | /             |                  |                           |  |

Should this be 5.6? Should this be 66?

Should this be 7.8?

```
Points R 26 c 9.3, 24, 03.

R 25 d 9.3; 74; 62; 53; 55; 26; 04; 14.

R 25 c 8.1.

R 32 b 1.6.

R 32 a 7.7; 28; 08; 26; 34; 30.

R 31 b 78; 88; 59; 29; 19.
```

Assuming this to be a reference to R.32.c.6.8 - 6.6 - 6.6 - 5.8 - 3.3 the target would be:

1337 See pages 18, 94, 142, 145 and 162.

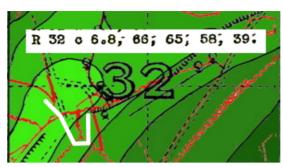


Figure 403 - Target corresponding to R.32.c.6.8 - 6.6 - 6.6 - 5.8 - 3.9

However, were the references to be read literally, the target would look like this:

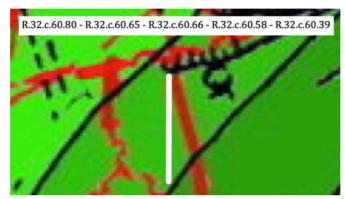


Figure 404 - Target corresponding to R.32.c.60.80 - R.32.c.60.65 - R.32.c.60.66 - R.32.c.60.58 - R.32.c.60.39

While the 11 Division Artillery plan could refer to a target as..

200 yards in front of Joseph trench 59th Bde RFA

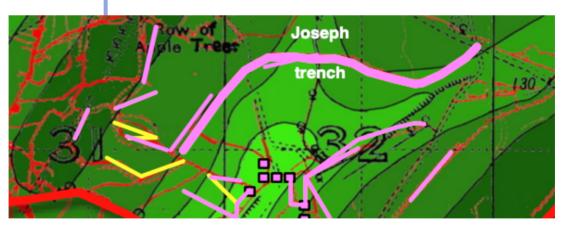


Figure 405 - 11 Division CRS definition of a target  $^{1338}$ 

... no such definition was attempted by II Corps.

Shaw Stewart, B. H., 11 Division Artillery Operation Order 10 of 13 September 1916 in WO 95/1796/1.

The XV Corps boundaries were variously and inconsistently defined: in Horne's XV Corps plan they were shown thus:

```
Boundary between 7th Division and XIII Corps -

X.12 c.39 F.6.a.7515 - track at F.6.a.

89 - thence along the track running N.N.E.

towards S.25 b.85.
```

In the XV Corps Heavy Artillery plan they are shown thus:1339

```
The boundary between the XVth & XIIIth Corps is as follows:-
F 12 c 39 - F 6 a 62.11 - track at F 6 a 89 - along the track
to junction at S 25 b 45.00 - S 25 b 37.91.
```

Figure 406 - Boundary map mis-references

# 9.4.7 Boundary specifications wrong

XV Corps plans exhibit boundary and objective configuration mis-matches common to all corps in this period.

\_

Horne, 'Scheme of operations' of 31 May 1916 in WO 95/921/1.2 and Napier, XV Corps Heavy Artillery Operation Order 7 of 18 June 1916 in WO 95/1987/2.

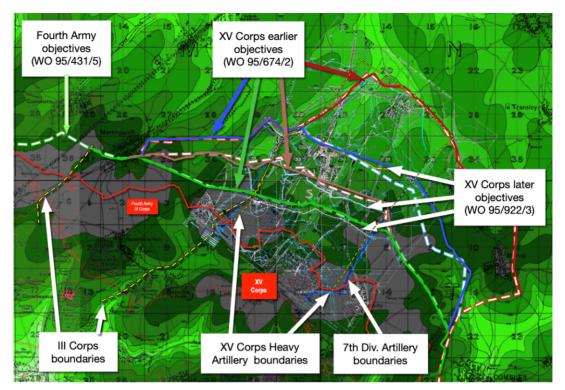


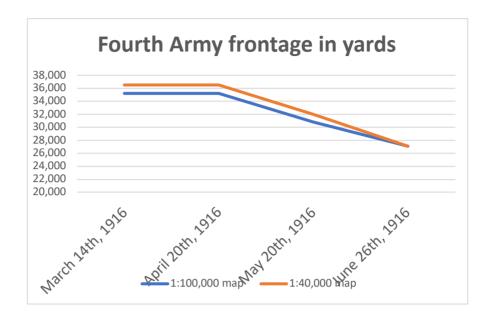
Figure 407 - Variation of boundaries and objectives

The failure to specify positions by map references and to rely on hand-drawn maps was compounded by a failure to update earlier versions of maps to ensure consistency and the extremely short timescales involved.

#### 9.4.8 Inconsistent metrics

Some of the fundamental planning elements were mishandled: inconsistent metrics and definitions such as frontage lengths, artillery types and dispositions, limited plan coherence. That artillery dominated battle planning was evident by the time of Neuve Chapelle and was expressed in the plans by the ratio of yards per gun. This in turn depended on a stable length of front, numbers and types of gun. All varied. The frontage varied as can be seen from documents of 14 March to 26 June showing the frontages of the British Armies then extant, measured from three maps: 1:40,000. 1:100,000 and 1:250,000. The total British front as measured from the 1:40,000 and

1:250,000 maps varied from 110.8 to 99.6 km. The distance from the sea to the Somme also varied from 177km to  $183 km.^{1341}$ 



**Figure 408 - Fourth Army | Frontage variations by map and date**(The data for this figure and details of its sources in shown in Appendix B - Data.)

The source of the inconsistencies was the need to accommodate the Belgian and French maps (being the only ones available at the start of the war) with the British Ordnance Survey, which began mapping from Calais at a 1:10,000 scale and which had covered the entire Western Front only by 1918. Both Belgian and French maps were found to be of variable accuracy and lacked the precision needed for artillery work. With such maps it is unsurprising that variations in the estimates of the length of the Front held by the Fourth Army occurred.

<sup>&</sup>lt;sup>1341</sup> Anon., Frontages, 8 January 1916 in WO 95/3/2

Winterbotham, Survey ... p. 3.



Figure 409 - Fourth Army | Frontage definitions

Such confusion was reinforced by the commanders themselves: Davidson declared that the Fourth Army inherited a '20-mile front from the Somme to the Gommecourt Salient'. 1343 Rawlinson declared that the Fourth Army's front ran from 'the River Somme to Fonquevillers', 1344 and described Map A as 'showing roughly the fronts which would be allotted to the four corps'. 1345 Haig ordered the Third and Fourth Armies to attack on a front extending from Maricourt to Gommecourt. 1346

Davidson, Redistribution of formations on relief of X French Army, 27 February 1916 in WO 95/3/7.

Rawlinson, Operation order No. 1 in IWM 7.

Rawlinson, Corps commanders' conference (G.X.3) of 6 March 1916 in WO 158/321 and see page 518.

Montgomery, A. A., Fourth Army operation order No. 2 of 14 June 1916 in WO 158/234.

Front length was critical in that Artillery density was accepted as a major factor in artillery planning. Heavy guns were essential for destroying trenches and wire at long range. Field guns were primarily used to destroy the wire and trenches of those parts of the German lines that were in range and were mostly 18-pounders under divisional control (until just before First Albert some French 75s were used). The number of guns varied. The differences in the figures is shown below.

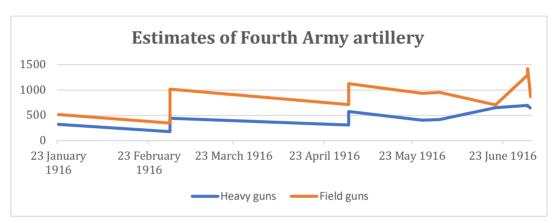


Figure 410 - Fourth Army | Estimates of artillery

(The data for this figure and details of its sources are shown in Appendix B - Data.)

The differences are due variously to: the failure of GHQ to determine a consistent set of data for reporting and analysis purposes; the differences between the inherited French and new British maps; the uncertainty surrounding the delivery of new guns and the need to maintain the existing stock. Even the definition of 'heavy' guns varied: they were sometimes those which were not 'field' guns, or simply any piece under corps control. Some estimates list each kind of artillery piece, some merely refer to 'heavy' artillery and Haig referred to a trench mortar as a '240 mm gun'. The 21 Division for example, like many others was equipped with howitzers.

<sup>1347</sup> Haig, Diary 20 June 1916 in WO 256/10.

<sup>1348</sup> Becke, Order ... Part 3a, p. 107

artillery'<sup>1349</sup> yet in March 1916 Haig claimed the Fourth Army possessed 310 pieces divided into 12 heavy artillery types.<sup>1350</sup> He had hoped for an artillery density of one heavy gun per 100 yards of front.<sup>1351</sup> This was later explained by Rawlinson as referring to 6in., 8in. and 9.2in. howitzers.<sup>1352</sup> By the end of June he estimated that he had 629 heavy guns, one for every 64 yards.<sup>1353</sup> The state of the guns was never openly discussed. No reference to barrel wear or the state of the spring recuperators of the 18 pdrs, or the howitzers, can be found in the files, nor was there any mention of the minimum number of guns needed to achieve a breakthrough.<sup>1354</sup> Fourth Army made do with what it had. Had a rational calculation been attempted, it could have required calling-off the offensive with dire political consequences for Haig.

The front was however over 27,100 yards long which gave an average of one heavy gun every 42 yards.<sup>1355</sup> Yet as Prior and Wilson observed, any estimate had to account for the need to hit three lines of trench simultaneously (to satisfy Haig's insistence on a breakthrough) which effectively tripled the length of front to 81,300 yards and gave a ratio of one gun to 129 yards.<sup>1356</sup> They also observe that Haig had doubled the length of trench to be attacked by heavy howitzers.<sup>1357</sup>

<sup>&</sup>lt;sup>1349</sup> 'British and German strengths analysed' of 1 March 1916, Haig, Diary, WO 256/9.

Haig, (to Rawlinson) OAD 644 'Resources available for Fourth Army' of 28 March 1916 in WO 158/321.

A.A. Montgomery, Fourth Army Conference Report (G.X.3) of 7 March in IWM 5 5 February, 22 June 1916.

Rawlinson, Corps commanders' conference (G.X.3) of 6 March 1916 in WO 158/321.

Battle of the Somme, Summary of operations, Part I, Prisoner numbers, aircraft activity, ammunition expended and remaining in WO 158/327.

Hughes, Jackson, 'The Monstrous Anger of the Guns', eThesis, (UAdelaide, 1992) p. 94.

See page 197 and the estimate of 26 June above.

Prior and Wilson, 'Command', p. 168.

Prior and Wilson, 'The Somme', Yale, (London, 2005), p.44.

#### 9.4.9 **Faulty disposition monitoring**

The near-debâcle of Haig's management of the 1 Division at Loos, 1358 presumably prompted Haig to insist that each corps report their positions daily, since all the War Diaries immediately after the battle contained minutely-detailed Disposition Reports. With time, these reports were reduced to such phrases as 'Same as yesterday'. 1359 However when Haig called for estimates of the dispositions to be available on 1 July a number of conflicting responses was produced. Six conflicting responses were made: on  $25\,\mathrm{May}$ , 1, 4, 16, 25 and 26 June.

See page 137.

1359 WO 95/910/1 and WO 95/820/1.

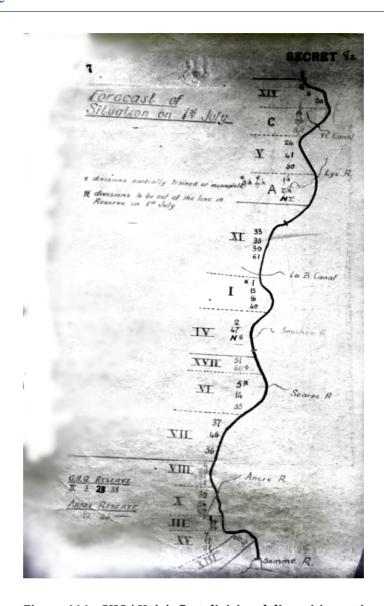


Figure 411 - GHQ | Haig's first divisional disposition estimate of 25 May

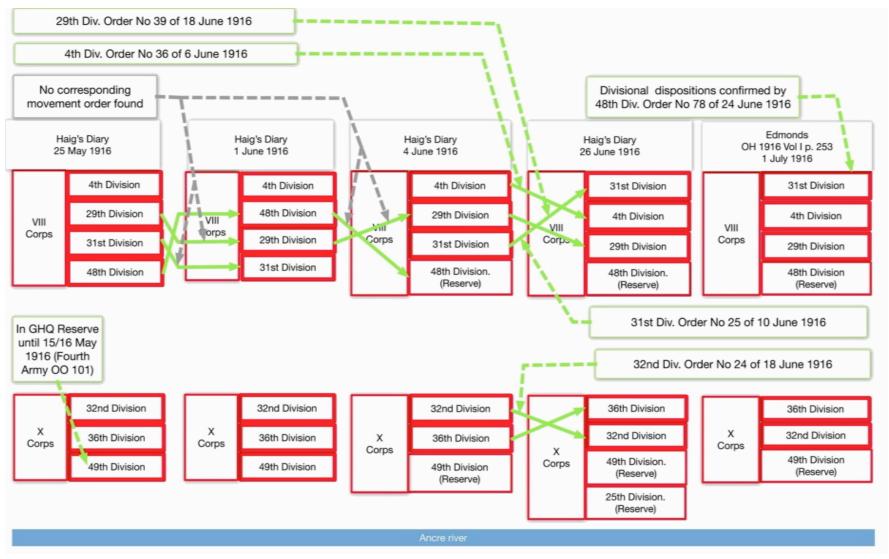


Figure 412 - GHQ | VIII Corps | and X Corps divisional dispositions

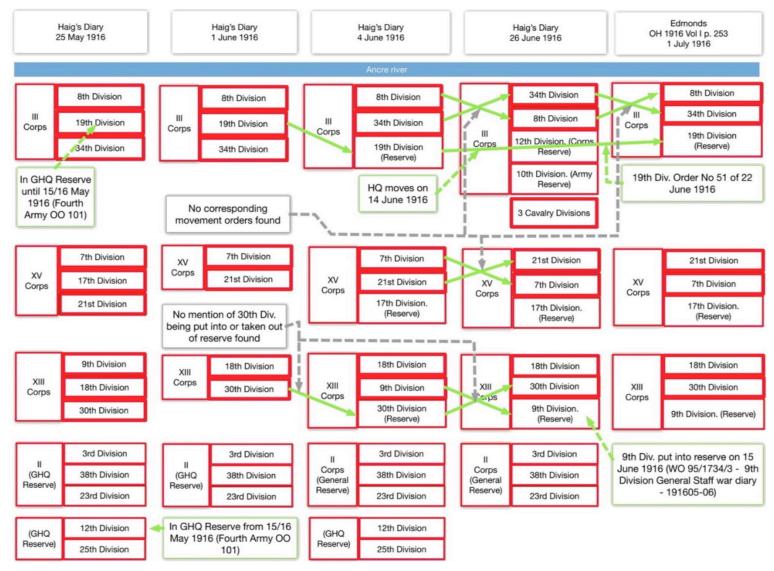


Figure 413 - GHQ | III, XV, XIII Corps | and reserve divisional disposition

The movements of troops were ordered by a 'Movement order' and the war diaries contain many examples. However, while five movements of VIII Corps and X Corps' divisions were reflected in these orders, four were not. In III Corps, 19 Division had somehow vanished by 26 June, replaced by the 10, 12 and three cavalry divisions, only to reappear in time for the battle. Several exchanges of positions by divisions were not supported by any order. The 'presence' of the 10 Division on 26 June was in any case a delusion: it was in Salonica throughout 1916.

If Haig were perturbed by these inconsistencies, he makes no mention of it in his diary. He presumably still did not have control of his dispositions, nor was he aware of this and continued to take decisions based on faulty information. Consequently there were movements of divisions within the VIII and X Corps within 12 days of the start of the offensive whose disruptions to the planning process were masked by its general tardiness. That Haig was sensitive to the risks of poor disposition management is evidenced by his reaction to Sir Henry Wilson's mishandling of IV Corps (Brigadier R. O. Kellett was unaware that two battalions with contiguous positions, were not in touch)

There is no doubt that [Wilson, Kellett's commander] has failed as a commander in the field.

To clarify this, Haig was prepared to ignore the 'Umpiring' principle again. 1361

Yet despite his sensitivity he was not prepared for a serious audit of his artillery to be made.

## 9.4.10 Problems ignored

The many conferences and associated reports written during the planning period identified many problems which were not addressed by the plans. 1362

<sup>&</sup>lt;sup>1360</sup> See page 516.

<sup>&</sup>lt;sup>1361</sup> Haig, Diary, 27 May 1916 in WO 256/10.

<sup>1362</sup> See pages 36, 40, 41 and 162.

Even when they were, the solutions were sometimes ignored in lower-level plans.  $^{1363}$ 

## 9.5 Effects of Plan Delays

The effects of the delays to planning is evident from the status of lower-level plans in the files. $^{1364}$ 

The war diary of 1/Lancashire Fusiliers begins in January 1916 and contains nine items. The war diaries for January to May are missing and the operation order for the battle, signed by the Adjutant, Captain Pottle, was undated and unnumbered. Since the Adjutant would have had access to the battalion order book it can be assumed that the battalion operation order was written after the attack. 1365

The files of 13/Northumberland Fusiliers held no trace of any orders from 62 Brigade, but the 'Information and intention' referred to in their operational order 69 was taken from the 00 71 from 62 Brigade. The battalion undertook limited training on the 4 June and the last two weeks were spent in working parties. The last orders were issued on the eve of the attack. 1366

The 4/Middlesex file held an undated 'certified true copy' of the battalion 00 5 claiming that

'63 Brigade OO56 and 21 Division OO 56 and the Appendices attached have been explained to all'.

No other operation orders were on file from November 1915 to June 1916. A reference in the War diary put the OO 5 date at 21 June. $^{1367}$ 

<sup>1364</sup> See pages 31, 98, 121, 133 and 147

<sup>&</sup>lt;sup>1363</sup> See page 143.

<sup>&</sup>lt;sup>1365</sup> Part of 86 Bde., 29 Division, VIII Corps in WO 95/2300.01.

<sup>13</sup> Northumberland Fusiliers in WO 95/2155/2.

<sup>4</sup> Middlesex Regiment in WO 95/2158/2.

The war diary of the 26 Brigade (9 Division) contains OO 20 of 25th May concerning the movement of machine guns.<sup>1368</sup> The next operation order on file, OO 48, was issued on 12 October.<sup>1369</sup> Operation orders 21 to 47 cannot be found and it can be assumed they have been filleted. Furze of 9 Division and Ritchie of 26 Brigade returned to UK on 5 December 1916.<sup>1370</sup>

The South African Brigade issued several OOs for movements before 1 July such as No. 17 of the 13 June, but the first attack OO, on Delville Wood, was from the 14 July. The diaries for April to June 1916 of 2/South African regiment are missing. 1372

Captain Horatio Berney-Ficklin, the adjutant of 8/Norfolks lamented on 17

June, that he was unable to complete the 'administrative arrangements' for the attack in detail

'as I cannot get final detail through from the Brigade.'

The operational order he had prepared remained incomplete. 1373

The delays prompted a note: SS 119 issued in early July 1916 stated that:

'Sufficient time must be given by the higher staffs for lower formations to prepare for an attack. ... Six hours is a rough estimate of the minimum time for orders to pass from the Corps to company commanders ...' 1374

There were consequences: in the 2 Division Walker and Deedes later observed:

- '... this time is considerably underestimated. ... subordinate commanders cannot be expected to issue ... orders until they have received ... orders from their higher commander.'  $^{1375}$
- "... final arrangements cannot be made until final orders are received from higher commanders. S.S.119, para.15 ... says that six hours is the minimum that is ... necessary for orders to pass from Corps to Company H.Q. [this] is greatly underestimated. ... even when [the message] was received,

```
<sup>1368</sup> W0 95/1762/1.
```

<sup>&</sup>lt;sup>1369</sup> W0 95/1762/2.

<sup>&</sup>lt;sup>1370</sup> W0 95/1765/1.

<sup>&</sup>lt;sup>1371</sup> W0 95/1777/1.

<sup>&</sup>lt;sup>1372</sup> W0 95/1781/1

<sup>1373 8</sup> Norfolk, WO 95/2040/1

<sup>1374</sup> SS 119 'Preliminary Notes on the Tactical Lessons of the Recent Operations'.

Walker, William Gordon, Memo referring to a missing paper, undated in KCLMA, Montgomery-Massingberd papers, 7/3-4

arrangements had to be made under conditions which demanded a considerably longer time. '1376

Furse of 9 (Scottish) Division complained of:

'... the tendency amongst higher commanders ... to allow too short a time between the issue of their orders ..., ... and the time at which that operation is to take place. This has resulted ... in ... loss of life ... It is very disastrous when the infantry find themselves unable and unready to start forward when the artillery fire lifts.' <sup>1377</sup>

In 30 Division, Shea warned that:

"A commander ... [must] 'liaise' with the divisional commanders on either flank ... the Heavy Artillery and the divisional CRA ... [only then] can he issue orders to his sub-commanders. [A] barrage map must be got out as early as possible .... 1378 Better commanders 'allowed time ... to brief the battalions involved.' 1379

... and Weber recalled that:

[a] plan was changed or postponed no less than ten times which involved one wild rush of visiting Corps & divisions while a request for a Barrage Map invariably accompanied each fresh change of plan. [Keeping] touch between Div. HQ and the front line troops would take a staff officer some 8 or 9 hours'. 1380

In 19 Division Johnson and Bridges noted:

'On more than one occasion operation orders did not reach a battalion commander in time for him to warn all ranks of their duties in the attack.' 1381

'... when ample time was not given, attacks failed.'1382

... and this was supported by Haskard who clarified a communications

#### bottleneck:

'.... operations orders should be issued 12 hours previously ... [which] would rarely be possible ... during active operations [since] operation orders ... reach divisional Headquarters 2 hours or less before they have to be acted upon. ... all that can be done is to send out a preliminary order ... the details following later [yet] operation orders are not to be communicated on the telephone within two miles of the front line'. '1583

Deedes, Notes on experience gained during the recent operations on 10 August 1916 in KCLMA, Montgomery-Massingberd papers, 7/3-4

<sup>1377</sup> Furse, Lessons of the recent fighting of 26 July 1916 in KCLMA, Montgomery-Massingberd papers, 7/3-4

Shea to Montgomery-Massingberd on 10 August 1916 in KCLMA, Montgomery-Massingberd papers, 7/3-4

Shea to A.A. Montgomery, 30 Division, 2 August 1916, Montgomery-Massmgberd Papers 47, LHCMA. Cited in Robbins.

<sup>1380</sup> Weber, W.H. Frank to Edmonds, J. E., 19 October 1933, Extracts from Diary, CAB.45 138, PRO, Cited in Robbins.

<sup>1381</sup> Johnson, R. M. To Montgomery-Massingberd on 1 September 1916 in in KCLMA, Montgomery-Massingberd papers, 7/3-4

<sup>1382</sup> Bridges to Montgomery-Massingberd on 9 September 1916 in in KCLMA, Montgomery-Massingberd papers, 7/3-4

Haskard, 'Notes on the recent operations, Appendix A' undated in KCLMA, Montgomery-Massingberd papers, 7/3-4

#### Cameron of X Corps asked:

'How long elapses between the issue of orders from divisional Headquarters and the receipt by the platoon commander of his orders? One Division says two hours in very favourable circumstances ... Others say from four to ... eight hours, the former time only if circumstances are favourable.' 1384

In the XIII Corps someone observed that:

'more attacks have failed from being carried out with insufficient warning and hence insufficient preparation, than from any other cause.' [and] 'it takes on an average a period of ... at least 24 hours from the time divisional Operation Orders are issued before the Platoon Commander in the front line is in a position[can] to carry out his part in the attack.' 1385

Burnett-Stuart showed that GHQ was taking its time understanding the problem:

The [delays are] partly the result of Trench warfare I think. For the past year and a half staffs have become accustomed to rapid and certain communications and commanders to acting in accordance to plans already worked out. As soon as we partially break loose, these conditions are reversed. The fault lies chiefly with the staff of course and all we can do is to put it right by training. '1586

A problem was observed, a doctrine was issued. The process remained grossly unmanaged.

<sup>1384</sup> Cameron to Montgomery-Massingberd on 16 August 1916 in in KCLMA, Montgomery-Massingberd papers, 7/3-4

<sup>1385</sup> Anon., 'XIII Corps notes, Appendix B, Lessons deduced' undated in KCLMA, Montgomery-Massingberd papers, 7/3-4

Burnett-Stuart to Montgomery-Massingberd on 8 August 1916 in KCLMA, Montgomery-Massingberd papers, 7/3-4

## 10. Support planning

The only supporting unit to plan for any battle was the Medical Corps: all the rest provided a general service for which no plans can be found.

## 10.1 Medical planning

On its establishment the Fourth Army inherited through its constituent units such medical facilities as Casualty Clearing Stations, Medical Stores, two mobile bacteriological laboratories, two Motor Ambulance Convoys and an Ambulance Flotilla. While each battalion at the front would establish and manage its own Regimental Aid Post (RAP), the planning and management of Casualty Clearing Stations (CCS), hospitals and other units were corps- and army-level responsibilities.

The first instructions for evacuating the sick and wounded were issued on 3 March by Lieutenant-Colonel H. B. Fawcus, the Deputy Assistant Director Medical Services (DADMS) of the Fourth Army. <sup>1388</sup> This was supported by a map.

<sup>1387</sup> Fawcus to Fourth Army, D.M.S. 4th Army No. 19/1 in WO 95/447/1.

<sup>&</sup>lt;sup>1388</sup> Fawcus to Fourth Army, M.S. 2 in WO 95/447/1.

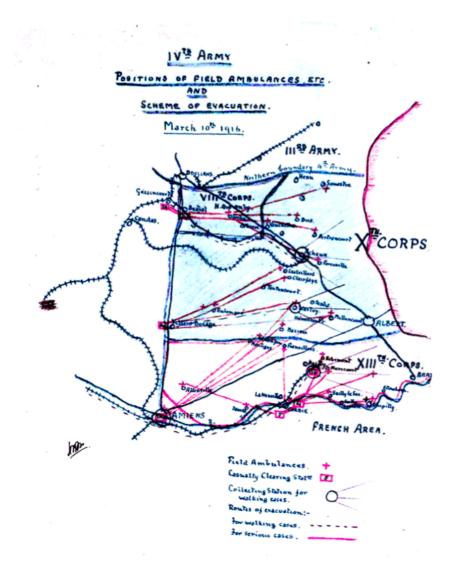


Figure 414 - Fourth Army | Medical evacuation diagram 1389 By April 1916 this had expanded.

WO 95/447/1.

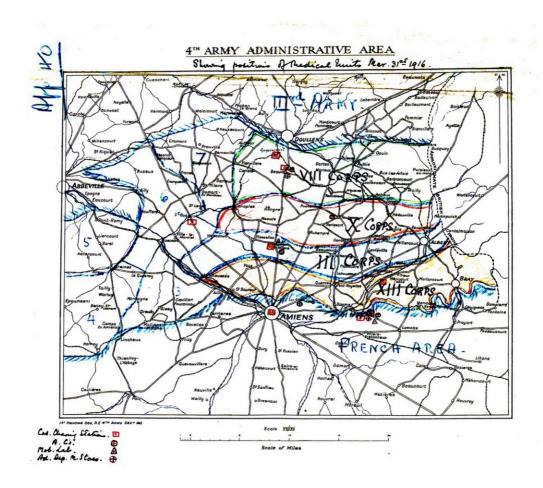


Figure 415 - Fourth Army | Medical units disposition 31 March 1390

The expansion of the number of units depended on the availability of buildings, tents, staff, roads, railways and canals. The need for roadstone for roads and paths was not yet mentioned. That the Surgeon-General M. O'Keefe should have to make *ad hoc* requests for CCS (Casualty Clearing Stations), ambulance trains and hospitals shows the failure to plan. but his optimism prevailed:

'If these two sites are approved, the difficulties which at present exist in evacuating large numbers of wounded from the front would disappear.' 1393

-

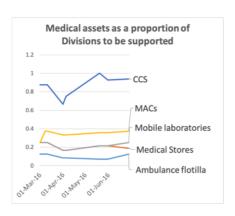
<sup>&</sup>lt;sup>1390</sup> WO 95/447/1.

 $<sup>^{1391}</sup>$  O'Keefe to GHQ on 11 April 1916 (D.M.S.19/34) in WO 95/447/2.

 $<sup>^{1392}</sup>$  O'Keefe to AHQ Fourth Army concerning the Officers' hospital at Gezaincourt on 15 April 1916 in WO 95/447/2.

 $<sup>\,</sup>$  0'Keefe to AHQ Fourth Army concerning accommodation of hospital trains at Puchevillers on 21 April 1916 in WO 95/447/2.

By 8 April O'Keefe had an outline plan of evacuation. He envisaged 10 CCS allocated to the four corps and two kinds of evacuee: serious (lying) and light (sitting) to be moved by MACs (Motor Ambulance Convoy), Ambulance Flotillas, chars-a-banc and empty supply or ammunition trains. On reflection he added two CCS, a MAC and more personnel. 1395



|                     | 01.10 | 131.16<br>131.16 | 71.N | 1ar.16 | .xpr.16 | 20. | May 16 | 18 28 Jun 1 |
|---------------------|-------|------------------|------|--------|---------|-----|--------|-------------|
| CCS                 | 7     | 7                | 7    | 8      | 9       | 14  | 13     | 15          |
| Medical Stores      | 2     | 2                | 2    | 2      | 2       | 3   | 3      | 3           |
| Mobile laboratories | 2     | 2                | 2    | 2      | 2       | 3   | 3      | 4           |
| MACs                | 2     | 3                | 3    | 4      | 4       | 5   | 5      | 6           |
| Ambulance flotilla  | 1     | 1                | 1    | 1      | 1       | 1   | 1      | 2           |
| Divisions           | 8     | 8                | 8    | 12     | 12      | 14  | 14     | 16          |

Figure 416 - Fourth Army | Medical assets as a proportion of the divisions to be supported

As Figure 133 shows, the medical assets employed mostly matched the number of divisions which doubled between February and June 1916. The probability of the assets being sufficient to support the number of divisions can be estimated from the expected versus actual numbers of wounded at Neuve Chapelle and Loos. 1396

|                | Expected casualties per diem | Actual casualties per diem |  |  |  |
|----------------|------------------------------|----------------------------|--|--|--|
| Neuve Chapelle | 3000                         | 1974.6                     |  |  |  |

 $<sup>^{1394}</sup>$  Surgeon-General and Director of Medical Services, Fourth Army to AHQ Fourth Army in WO 95/447/2.

-

O'Keefe to AHQ Fourth Army in WO 95/447/2.

MacPherson, W. G., *History of the Great War, Medical Services General History, Vol II.* pp. 391, 479. MacPherson was also the DDGMS at GHQ.

Loos 3000 2863.7

# Table 6 - Estimated and actual casualties per diem of Neuve Chapelle and Loos

By 22 April O'Keefe had a twelve-page evacuation scheme covering four of the five eventual corps of the Fourth Army and extending this with outlines of evacuation routes and locations and an overview of the process. It made many assumptions explicit, acknowledged the many uncertainties of throughput, resource and location but forecast an ability to evacuate 8,286 casualties a day. Rawlinson had estimated only 10,000 on 14 June.<sup>1397</sup> By comparison, the reference-free Medical OH claims he expected to deal with a daily throughput of 24,000,<sup>1398</sup> which was conveniently higher than the casualties on 1 July. Medical estimates varied as much as the others and were based on the throughput the system could sustain rather than any forecast.

Rawlinson to QMG Fourth Army on 14 June 1916 in WO 95/447/3.

<sup>1398</sup> MacPherson, p. 43.

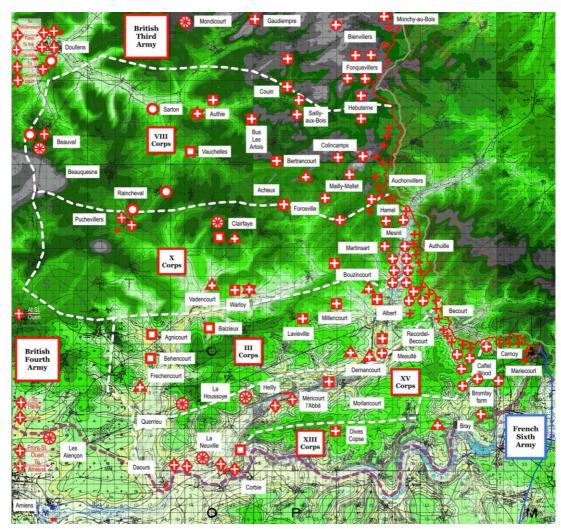


Figure 417 - Fourth Army | Medical units on the Western Front - Dispositions  $^{1399}$ 

No 'scheme' subsequent to that of 22 April can be found. None is mentioned in the Official History, none can be found in the files of the Wellcome Institute: the positions of some Advanced Dressing stations, for example, were decided *ad hoc* and *in situ* by a chauffeured DDMS. <sup>1400</sup> In Albert, six roads and the Place Faidherbe were requisitioned for supply columns and the 'Civil Hospital, Albert' was allotted for army use only on 25 June. It was 'suitable for two F.A.s' (Field Ambulances) and could accommodate 300 in existing buildings plus a further 300 in huts. <sup>1401</sup>

Map assembled from 'Medical units on the Somme' (Wellcome) and '1916, Somme, First Albert, maps' in WO 153/205.

<sup>&</sup>lt;sup>1400</sup> Meek, War Diary of 4 April 1916 WO 95/695/3, DDMS III Corps.

 $<sup>^{1401}</sup>$  Kanth to Reserve Army, 12 Division and the Town Major, Albert. 25 June 1916 in WO 95/684.

Such a practice was unsurprising: medical units had to take whatever they could find and to have a DDMS tour the country by motor car requisitioning buildings and locations was probably the most efficient approach then possible. 1402 but only when these choices were marked on a map were the shortcomings clarified and by 30 June Colonel Bruce Skinner, the DDMS of III Corps had requested a special ward for abdominal cases at Albert since the distance to Warloy was too great. 1403

|          |  | XIII<br>Corps | XV<br>Corps | III<br>Corps | X<br>Corps | VIII<br>Corps |
|----------|--|---------------|-------------|--------------|------------|---------------|
| +        | Regimental Aid Post                          | 5             | 7           | 7            | 5          | 8             |
| •        | Advanced Dressing Station or Collecting Post | 4             | 4           | 8            | 8          | 8             |
| A        | Walking Wounded Collecting Station           | 1             | 0           | 4            | 2          | 1             |
| +        | Main Dressing Station                        | 1             | 0           | 3            | 2          | 4             |
| **       | Advanced Operative Centre                    | 0             | 0           | 0            | 1          | 1             |
| <b></b>  | Casualty Clearing Station                    | 4             | 6           | 3            | 2          | 1             |
| <b>�</b> | Stationary Hospital                          | 0             | 0           | 0            | 0          | 1             |
|          | Divisional Rest Station                      | 1             | 0           | 3            | 1          | 1             |
| 0        | Advanced Depôt Medical Stores                | 0             | 0           | 0            | 1          | 3             |
| ₩        | Motor Ambulance Convoy                       | 0             | 2           | 1            | 1          | 1             |
| •        | Loading Station for Wounded                  | 0             | 1           | 0            | 1          | 0             |

Figure 418 - Fourth Army | Medical units on the Western Front - Analysis

Several disparities appear: XIII Corps had no motor ambulance convoy while

XV had two: one was presumably located 'out of area'. More seriously only VIII

Corps had a Stationary hospital and XV Corps had no Main Dressing Station.

Curiously, III Corps was shown to have a 'Walking Wounded Collecting Station'

at Frechencourt, 23 km from the Front line which exploited a new railway to

Vecquemont. These disparities can only partly be explained by the

difference in the lengths of their fronts and the definitions of the corps' rear

limits and point to the effects of the failure to estimate and plan.

Hambro to Town Major, Albert on 27 June 1916 in WO 95/684.

<sup>&</sup>lt;sup>1403</sup> WO 95/684..

<sup>1404</sup> MacPherson, p. 21.

## 10.2 Engineering Planning

The war extended and stressed the work of the Royal Engineers to include field works, hutments, store dumps, roads, tunnelling, water supply and transport, railways, fire engines, saw mills, bridge building, dock maintenance, lock maintenance (on the canals used by the BEF) and a laundry. Plans were rarely battle-specific, with the exception of the Battle of Amiens. 1405

Orders would be transmitted as shown below:

-

Bucklands, R. M. Fourth Army Engineer-in-Chief, report of 24 February 1919 in WO 95/451/4.

OHIEF ENGINEER II CORPS. As a consequence of the special orders which have been issued to you for advance work in the forward zone, the following are thearrangements for work in your Company area 1.e. West of WAREOY-MAILLET ROAD :-VARETHES-LEALVILLERS Pipe line to be completed. Charge of all Pumping Stations in your area to be made over to Lt, Thomas R.E. of the 12th Ponteon Park. Forward Water Supply Scheme at THEIP!AE WOOD to be made over to 0.0. 148th Ary Troops Company. Lt, Borns, should be directed to remain at Varennes and carry on all duties in connection with works and timber yard there for you during your absence. With the exceptions noted above Lt, Harris will Absume responsibility for other works in your are Copy to :-O, C. 146th A, T. Co. R.E. Lt, Thomas. R.E. War Diary. File.

Figure 419 - Fifth Army | II Corps | 125th Army Troops Brigade in WO 95/661/2

... and reports would be made:

appendix ho 5-

C.E. II Corps.

#### AVELUY Siding.

### Progress report for week ending 26-8-16.

No. 1 Cour 55feet wide. 12" Soling completed and rolled. Let train of road metal is being delivered tonight.

No. 2 Cour 40 feet wide. Formation completed ready for rolling.

NORTH APPROACH ROAD. Formation completed and rolled. 12" Chalk Soling 3 completed.

SOUTH APPROACH ROAD. Formation completed and rolled ready for Chalk Soling.

<u>UNIT employed.</u> A & B Coys. 34th Labour Bn. Ryl. Fusiliers. Average number per day - 375.

26-8-16. (Signed) J.G.Ambrose. Lt. R.E.

# Figure 420 - Fifth Army | II Corps | 125th Army Troops Brigade in WO 95/661/2

The war diaries mentioned forthcoming operations *en passant,* thus the CE of II Corps:

19-5-16 Conference with CREs of 7th and 21st divisions regarding arrangements to be made in case of an offensive. 1406

... and two weeks before the battle of the Somme, the CE of XV Corps

Discussed various points in connection with possible operations with CE 4th

\_

<sup>&</sup>lt;sup>1406</sup> WO 95/661/2.

Army, 1407

A CRE's day was denominated in reconnaissance reports, work orders and progress reports. Battle plans were outwith their purview.

## 10.3 Logistics planning

Logistics until 1916 was the concern of, primarily, the Inspector-General of Communications (IGC) and secondarily the Adjutant-General and Quarter-Master General. The IGC controlled all traffic up to and including the rendezvous points with the fighting formations. The process was *ad hoc* at least until 1917 with Units requesting supplies through their QMGs and the IGC supplying what he believed was needed. Unsurprisingly the results were mixed. <sup>1408</sup> No logistics planning relative to any of the four battles mentioned in this thesis can be found in the war diaries of the Inspector of Communications, <sup>1409</sup> nor are any battles mentioned in Brown: Maginniss mentions seven, but never analyses a single plan. <sup>1410</sup>

## 10.4 Intelligence gathering

Intelligence doctrines are marked by great prolixity in the description of the organisation and control of intelligence and outstanding brevity about its collection and processing. In 1902 it was held that

Ample intelligence is so important that methodical and complete arrangements should be made to obtain it. 1411

By 1904 with the creating of an Intelligence Corps by Edmonds some principles were established:

4. The intelligence duties of the General Staff include ... Information regarding the enemy; frustration of the enemy's efforts to gain information; the conduct of reconnaissances ... information regarding the country and its resources ... provision, ... of maps; ... care of captured documents; ... intelligence diaries ... maps will be [distributed] ... by the War Office

<sup>&</sup>lt;sup>1407</sup> W0 95/929/1.

Brown, Ian Malcolm, 'British Logistics on the Western Front', Praeger, (London, 1998), p 47.

<sup>&</sup>lt;sup>1409</sup> W0 95/3960/1, W0 95/3975/5, W0 95/3954/1, W0 95/3970/2.

<sup>1410</sup> Maginniss, Clem, An unappreciated field of endeavour, Helion, (Warwick, 2018).

Anon., Combined Training (provisional) 1902.

... Captured documents should first be examined by staff officers ... They should be classified ...  $^{\rm 1412}$ 

At battalion level this translated to:

9. Staff diaries and intelligence reports should be kept. 1413 and ...

7. The general staff officers ... will ... organize such intelligence personnel as may be required ...  $^{\rm 1414}$ 

By 1912 the General Staff had a manual covering intelligence

and with the outbreak of war the value of intelligence was recognised:

*Very* interesting information relating to lines of march, order of battle, &c., may be found in the pocket books and personal diaries of German prisoners, or even on the bodies of their dead. 1416

and

Individuals in possession of any maps or papers ... of ... value to the enemy, will at once destroy them if in danger of being captured ... Prisoners will be searched immediately ... and will be interrogated ... Information obtained will be reported ... to divisional head-quarters. Wounded prisoners will be searched by a medical officer ...

If an officer or man of the Division is captured, he will give no information except his name and rank. 1417

Notwithstanding the encouragement, units ignored it

Prisoners will be sent to road junction R.29.Z.1.8. near present 14th BATTALION HQ handed over to 16th BATTALION escort and receipt obtained 1418

Prisoners will be brought back by escorts found by the assaulting Battalions to Brigade H.Q. where they will be taken over. 1419

Anon., Intelligence duties in the field, WO 7606-1334 of 3 September 1904.

Anon., Field Service Regulations I Combined Training, W0-40-30 of 1 January 1905.

<sup>&</sup>lt;sup>1414</sup> Field Service Regulations Part II WO-79-1913 of 1 April 1909.

<sup>&</sup>lt;sup>1415</sup> Staff Manual 40-W0-1674, of 1 January 1912.

Notes from the front (CDS 2) of 1 December 1914.

<sup>1417</sup> CDS 4, Notes from the front Part III of 1 February 1915.

<sup>&</sup>lt;sup>1418</sup> 14 Cdn. Battn 00 68 in W0 95/3778

<sup>&</sup>lt;sup>1419</sup> Boys, E.J. de. C., Preliminary order 42 of 14 Sept 1916 in WO 95/2832/1

Some units were more conscientious: 1420

7. Prisoners must be searched for ... documents ... All documents taken ... should be handed over to the General Staff. 1421

No papers or orders of any kind ... will be carried on either Officers or men.. All ranks are ... warned that if taken prisoner they are only bound to give their name and rank ... ... Maps showing our trenches are not to be carried. ... the escort will ... ensure that prisoners do not destroy any papers ... prisoners will be rapidly examined by the German-speaking officer or NCO. 1422

But these were rarities: most orders which mention prisoners were solely concerned with their capture and disposal. $^{1423}$  If it wasn't in FSR it didn't happen.

## 10.5 Training planning

The training of armies requires a curriculum, a plan, instructors, schools and training grounds. The British Army preferred doctrines and orders to curricula and plans. The only unit leaving a training plan in the files was 47 Division.

This referred to August 1915, a period when the Division was in reserve. It was intended to improve tactical knowledge, discipline and the administration and interior economy. Barter, the GoC, accorded it great importance, subordinated all other activity to it and wished all officers to lose the 'mild urbanity of civilian life' and acquire the 'real habit of command'. The plan's contents were more formal than functional and hewed closely to FSR I and II. And other training plan can be found. Curiously, the attack rehearsal using a full-scale mock-up of the ground, though referred to elsewhere, is not mentioned in the war diary at divisional or Brigade level or any plan. However it was

-

<sup>&</sup>lt;sup>1420</sup> WO 95/2399/, WO 95/2130/3.1, WO 95/2051/1 and WO 95/804/4

<sup>19</sup> June 1916, Sillem A. F. (DA&QMG) in WO 95/2946/1

<sup>1422</sup> Drake, J. P. 00 1 of 23 June in WO 95/2504/1

<sup>&</sup>lt;sup>1423</sup> W0 95/2183, W0 95/2151/3, W0 95/1716/1.2, W0 95/1708/5, W0 95/1665/1, W0 95/1631/2.2, W0 95/1444/4, W0 95/1231/4, W0 95/921/1 and W0 95/590/4

Webber, Forwards Training scheme sketch, 1 August 1915, 47 Division CRA War diary, WO 95/2708/5.

Farndale, *History ...* p. 123. *Maude, Alan H., The history of the 47th (London) Division,* Amalgamated Press, (London, 1922), p. 27. Mildren was a major contributor to the book as Maude acknowledges. August 4-10 1915, 47 Division 21st London Regiment war diary, WO 95/2732/5.1.

mentioned extensively in the war diaries of battalions of the London Regiment. The ground was based between Hallicourt and Houchin and they rehearsed taking the German first and second lines. The rehearsals of the 1/6 London Regiment was described by its new commander Lieut.-Col. Mildren in the war diary and were witnessed by Brigadier-General G. J. Cuthbert, GoC 140 Brigade, Barter and Rawlinson who criticised the first attempt but eventually pronounced himself satisfied.

#### Maude wrote:

'Ground in rear resembling the objective ... was marked out ... so that every trench and noticeable feature was shown ... The units detailed for the assault were trained ... so that every officer and ... man knew exactly what his duty in the assault was to be. These rehearsals were complete in every detail; assembly for assault through the complicated trench system, advance of waves, reinforcements of bombs and ammunition and evacuation of casualties were all practised. A thorough reconnaissance of the enemy's trenches was carried out by all leaders down to platoon-sergeants. Each was provided with a panorama sketch of his own front. \*\*1427\*

#### Lieutenant A. Waterlow wrote:

' ... After the [gas] lecture we all had to pass through the gas. They had a cylinder of gas ... hissing it out in our faces as we passed ... ... I got held up with the cylinder blew the stuff right into my face! but I wasn't chancing a second breath of it, so my lungs were nearly bursting and eventually I got clear'.  $^{1428}$ 

Troops out of the line were marched to a scale model of the battlefield ... It covered almost the whole field ... Small amounts of earth were heaped up to represent hills, Chalk was sprinkled ... To show the trench lines, ... ... The slag heaps were represented by small piles of coal and buildings by half bricks. It was ... better than the few yards of ground glimpsed in the mirror of a trench periscope or seen through binoculars from a long way off. 1429

The 2/Bedfords held a practice attack on 15 February 1915 against a plan and diagram of the practice ground and wrote an after-practice report. 1430

 $<sup>\</sup>frac{1426}{95/2737/1.1} \frac{1}{6} \text{th London Regiment WO } 95/2729/1, \frac{1}{7} \text{ London Regiment war diary, WO } 95/2730/1.2, \frac{1}{17} \text{th London Regiment, WO } 95/2737/1.1.$ 

<sup>&</sup>lt;sup>1427</sup> Maude, Alan H., *The history of the 47th (London) Division*, Amalgamated Press, (London, 1922) p. 27.

MacDonald, Lyn, 1915 the death of innocence, Headline (London, 1993), p. 486.

<sup>1429</sup> MacDonald, Lyn, p. 487.

<sup>&</sup>lt;sup>1430</sup> 2/Bedfords in WO 95/1658/2.

Haig discussed the training of divisions for breaking through defences, holding onto them and exploiting a position, 1431 but it would be 1918 before he would install someone as senior as Maxse to run a dedicated training organisation. 1432 Until then the principle of division-dominated training held fast and doctrine issuing was the only socially-permitted initiative. 1433 Kiggell issued SS 109 'Training of divisions for offensive action' on 8 May. This was also an attack doctrine, using a four-stage model of attack: organisation of trenches; bombardment; crossing no-man's-land; capture, consolidation and the 'exploitation of success'. He envisaged the use of a specially-prepared simulation ground marked out with trenches and strongpoints up to the second trenchline to accommodate an entire division.

Officers and troops should be exposed to scenarios involving unexpected events such that a new plan needed to be formed or leadership devolved immediately. Attacks should be planned with one or more objectives in a continuous advance, each unit attacking in columns of successive waves or lines (thus leaving the assault formation to be decided). Flank protection, 'cleaning-up', consolidation and reserves were the responsibility of later units. Troops would move to the front line above ground or along trenches, but when the front line was captured would only move above ground.

Training camps were set up in the UK and France as described by Griffiths.<sup>1434</sup> GHQ planned staff officer courses, directed by the CGS and graduates were expected to fulfil the duties of Staff Officer second grade. The curriculum included lectures, exercises in the writing of orders, and administration.<sup>1435</sup> No

<sup>&</sup>lt;sup>1431</sup> Entry of 6 May 1916: Haig, Diary, WO 256/10.

Beach, Jim, "Issued by the General Staff, Doctrine Writing at British GHQ, 1917–1918" War in History. 19(4) 464–491. Sage, (London, 2012), p 475.

<sup>&</sup>lt;sup>1433</sup> Beach., Op Cit., p. 270.

Griffith, Paddy, Battle tactics on the Western Front, YUP, (Yale, 2000), p. 188.

<sup>&</sup>lt;sup>1435</sup> Operation order No. 1 of 28 January 1916 in WO 95/895/1.

training plan was issued by Fourth Army other than a schedule of training ground occupancy.  $^{1436}$ 

In May 1916, 29 Division furnished a training report to VIII Corps, outlining the curricula employed. This included: training of company commanders, young officers and NCOs; the writing of small offensive schemes; raids; consolidation and rapid wiring; exercises on scaled-down trench layouts; scouting, bayonet fighting and musketry; the use of MGs, mortars and grenades. Specialist schools were established for officer training; signalling and gas.<sup>1437</sup>

18 Division had a syllabus to train the attached 32 Division officers in trench life, attaching platoons to companies, assigning companies to trench sectors and replacing Brigades. Half the MG detachments would similarly exchange roles in a sector with their equivalents. Tours of instruction would cover trench construction and maintenance, MG positions, enemy habits, communication, monitoring of the enemy, hygiene, munitions, rations and defence plans. Out-of-trench instruction for all ranks would include observation, sniping, entrenching and bombing. Additionally, officers would visit gun positions. 1438 92 Brigade of 31 Division submitted a training programme on 15 March to include PT, bayonet fighting, saluting, squad drill, platoon and Company drill, musketry, wood fighting, grenade throwing, MG firing and lectures. 1439

On 3 June the 1 Dublin Fusiliers conducted an exercise on simulated ground according to a training plan remarkably similar to the plan eventually used.  $^{1440}$  But the training plans of most units were aspirations which collapsed on

\_

<sup>1436</sup> WO 158/236 Fourth Army Operations.

Ovey, D, '29 Division training programme' of 9 May 1916 in WO 95/2280/2.

<sup>1438</sup> Shoubridge, H., 'Attachment of units of 32nd Division to 18th Division for training of 24 October 1915 in WO 95/2015/1.

Anon., 10/East Yorkshire war diary in WO 95/2357/1.

<sup>1440 1</sup> Royal Dublin Fusiliers in WO 95/2301/1.1.

meeting the need to dig trenches and carry materiél. Several units elided both in their reports as

'training and working parties'. 1441

The War diaries of the battalions taking part in the first day of the Battle of Albert were analysed and the days reported to have been spent training in the preceding month were recorded and assigned to battalions, divisions, corps and army types.



Figure 421 - Training of Battalions in the Fourth Army in June 1916, shown by division

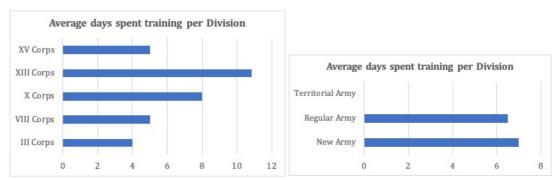


Figure 422 - Training of Battalions in the Fourth Army in June 1916,

<sup>&</sup>lt;sup>1441</sup> Anon., 6th Royal Scots Fusiliers of 8 June 1916 in WO 95/1772/4.

#### shown by Corps | and Army

The results show that none of the battalions of any reserve division recorded any time spent training; there were major differences between divisions, with 34 Division (a New Army division of III Corps) spending the longest time and 8 Division (a Regular division, also of III Corps) the least. On average New Army divisions spent slightly more time training than Regular Army divisions and Territorial Army divisions spent no time at all.

No days were spent training by 46th and 56 Divisions of VII Corps in preparation for the Third Army attack on Gommecourt. A training ground was laid out but a German aircraft flew over it when the Gommecourt defences were visible. Most troops were employed on fatigues up to the eve of the attack.<sup>1442</sup>

1442

## 11. Conclusions

Attractive ideas are hard to extirpate, but the seductive myth of a BEF 'learning curve' has persisted only by frequency of assertion. The evidence of this thesis is rather of a BEF racked by conflicts and frictions, persisting in failure, suffering from the consequences and only intermittently showing evidence of any evolution. The dominant and underlying friction lay in the general inability of officers to identify battle problems before planning the solutions. Few distinguished between a reconnaissance report and an Appreciation because only those few who were p.s.c. were trained to write Appreciations and Haig had excised what little doctrinal support the rest might have followed. This impediment was compounded by the lack of even a simple table of contents for battle plans, with the consequence that officers were expected to reinvent them for every battle. Underlying these doctrinal shortcomings was an ideological conflict between the proponents of mounted infantry and a 'stereotyped' approach to planning, and the arme blanche recidivists led by Haig who found that the new battlefield rendered cavalry charges suicidal, but who persisted in attempting to engineer breakthroughs by fiat, rather than by detailed preparation, and ensured that no planning doctrine emerged throughout the war.

Additionally the BEF suffered the friction of attempting to manage an enormous increase in the size of armies and the consequent inability to identify priorities and attend to them. Planning processes remained unmonitored, command became confused, plans (and thus the decisions they represented) were contradictory and uncoordinated, and the quality of the planning process was limited by the inability of many officers to read maps, 1443

If in addition to distributing Map 'A' Montgomery had also taken responsibility for managing every set of boundaries between Divisions, much of the replanning and thus delays, which occurred at First Albert and Flers-Courcelette could possibly have been avoided, but this would assume an even greater perceptiveness on his part than he displayed by issuing Map 'A'.

the prevalence of unfeasible approaches and an inability to adjust to new weapons such as the tank.

Despite the planning chaos, occasional evolutions occurred: some appreciations were attempted, many tables of contents were written, shared and revised, a few plans were reviewed and errors caught, the Canadians generated the first creeping barrage map, while some plans ignored regulations and included timetables and conditional orders. Scenarios were imagined, documented and reviewed and the direction and timing of a counterattack was occasionally considered. Tactics including 'bite-and-hold' and new assault doctrines emerged. The value of counter-battery groups was acknowledged if not universally accepted.

The lack of leadership from the top was echoed by some corps, but many divisions began to show the leadership that Generals extolled, but privately resented if they became the commanded.

This thesis intended exploring whether the speed with which plans were written contributed to victory, based on data from Andrew Simpson. 1444 For reasons of space and time, the period of study has ended in October 1916 and the data cannot be said to exhibit any improvement in the speed of writing or quality of the BEF's plans up to that date. This can be laid directly at the door of Haig with his excision of the little doctrinal planning support provided after the Second Boer War and it is a measure of his baleful influence that until well beyond 1919 no doctrine document covering planning was ever issued. It is also a measure of his political control of the BEF that no rebellion by senior officers was ever mounted to rectify this anomaly. It is a measure of his and Rawlinson's general failure to review plans, that corps commanders could plan as they thought best, managing their relationships with Rawlinson by ignoring

-

Simpson, Andrew. 'The Operational Role of British Corps Command on the Western Front, 1914-18', Doctoral Thesis, UCL (London, 2001), p. 222.

Rawlinson's requests, much as Rawlinson ignored Haig's. Only rarely, such as over the decision to assault Montauban, was Haig called on to decide, which he did so late as to cause further delays. Rawlinson's failure to give a lead by planning at corps, and on promotion at army level, left the key planning decisions in the hands of Montgomery and the corps commanders. The collective failure of these commanders is most evident in the absence of many battalion-level plans. That planning leadership for First Albert devolved primarily on divisional staff is evident from the dates of issue of corps and divisional plans: of the six corps, only XIII released its plans before any of its constituent divisions.

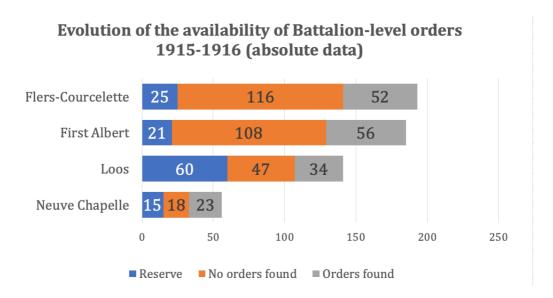
The choice of battles has inevitably caused the focus of the thesis to rest on Haig, Rawlinson, the First and Fourth Armies, but by 1917 three other armies were established and an extension of this thesis would examine the planning approaches of Plumer at Messines, Horne at Vimy, Byng at Cambrai and their respective chiefs of staff. In particular the extension would examine the degree to which planning leadership devolved on corps and divisions between 1917 and 1918, and the influence on the BEF as a whole of the circulation of Monash's plan for Amiens as a 'stereotype' to be exploited as Terraine claims. 1445

The following charts have been derived from an analysis of every battalion-level plan for every corps involved in four battles. The choice of battalions was made by reading the order of battle from the various volumes of the Official History and Order of Battle of divisions. 1446 The three types of data show battalions in reserve (for which it was rare to provide orders since it could not be known when they would be called into action), battalions which were in

Terraine, John, 'The Battle Of Amiens', August 8, *History Today*, 1958, p. 523.

Edmonds, J. E., ... 1915, Vol. I, p. 366 (Neuve Chapelle), *Vol II*, p. 420, 1916, Miles, W. ... 1916, *Vol I*, p. 498 (First Albert). No comparable order of battle for Flers-Courcelette can be found and the data has been extracted from Becke A. F, *Order ...* parts 1-4 and confirmed or not by the war diaries concerned. These are listed in Appendix B, Data.

action at the start of the battle, but for which no plans, orders or references could be found and battalions in whose war diaries, plans, orders, or references to them, could be found.



Evolution of the availability of Battalion-level orders 1915-1916 (% data)

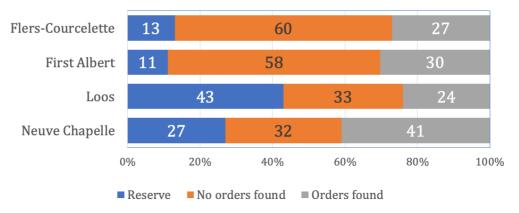


Figure 423 - Availability of battalion-level orders over four battles

These charts show a deteriorating ability to provide orders as far as battalionlevel, 60% of battalions at Flers-Courcelette went into action without orders. The battle-planning processes of 1915-16 exhibited decreasing maturity.<sup>1447</sup> The lack of a planning doctrine was balanced by an equal unconcern for battle-

as-a-process. Although Rawlinson had called for a timetable 1448 and timetables

1448 See page 235.

See page 20.

were much used by the artillery, and occasionally referred to in movement orders, very few plans included them. 1449. A timetable however, implied a process, but entrainments and barrages were the province of Railway Transport Officers and Gunners: they were peripheral to the concerns of infantry for whom the matter was doctrinally subsumed in 'battle phases', the vagueness of whose definitions precluded further analysis. 1450 After-Action Reports were the nearest attempts made to analyse battle processes, and these were principally narratives: it was not until Lieutenant-General John Monash, an Australian civil engineer with extensive experience in large-scale constructions, took charge of a division, that battle processes received the attention they deserved, 1451 culminating in the Battle of Amiens. Rawlinson proposed this battle only on 17 July 1918,1452 and it was planned and organised in a mere 22 days. On the 31st, Monash outlined a nine-step programme of the attack with a timetable in a nine-page set of notes. Some of his planning conclusions showed how he was able to identify rules from the processes he studied:

It may be estimated, on the principle that the tail of a column always loses ground, that they [assaulting troops] would lose half an hour before reaching the first objective.  $^{1453}$ 

(compare this passage with Rawlinson's claim on page 169 and Haig's lament on page 111: Monash refined his experience, they didn't). Monash's background showed: assaults needed support in the form of barrages, barrages needed guns to be moved to follow the advance, the guns needed roads, and the roads needed roadstone. Monash the Civil Engineer ensured that the whereabouts of quarries were marked on specially overprinted maps.

<sup>&</sup>lt;sup>1449</sup> See pages 68, 136, 163, 175, 232, 235, 240, 279, 299, 307, and 320.

<sup>1450</sup> See page 68

<sup>&</sup>lt;sup>1451</sup> See page 555.

Fourth Army No. 220 (g) cited in Monash, John, Personal File RCDIG0000634 held by AWM. See also Figure 1 - Planning time.

 $<sup>^{1453}</sup>$  Monash, John, 'Allotment of infantry to objectives' in Personal File RCDIG0000635 held by AWM.

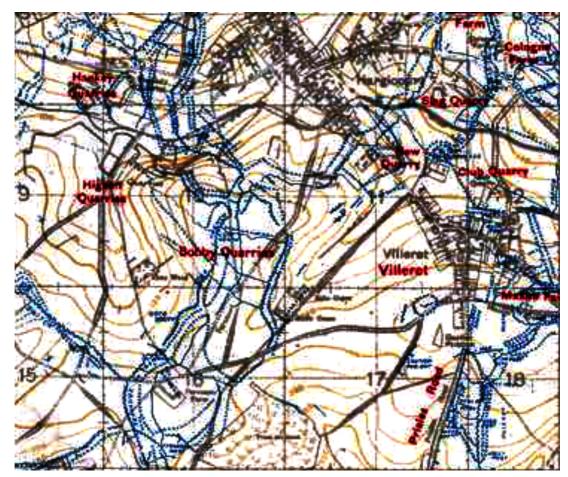


Figure 424 - Excerpt from a map of Wiancourt of the 2nd Australian Division in RCDIG1009877

In this way he demonstrated an attention to detail which planners in 1916 lacked. He was also implicitly aware of the planning delays induced by corpsdivision interactions:

Necessity for careful inter-divisional co-ordination and mutual conciliation. Divisions to work in pairs - II and V; III and IV. Commanders and Staffs to confer - Corps can give little help.

 $\dots$  and the ease with which road blocks developed: separate roads for infantry, artillery, and casualty evacuation were planned.  $^{1454}$ 

In its planning of the battles of 1916, the BEF reached a nadir from which it was rescued by Monash in August 1918, much as it had been rescued by Davies in 1915.

# **Appendix A - Glossary**

Abbreviations are here shown with full stops and those without full stops are those of a file system prefix. Elsewhere, for brevity they are shown without full stops.

|               | Explanation                                     |  |  |
|---------------|---|--|--|
| A.A.          | Anti-Aircraft                                   |  |  |
| A.A.          | Army Act  |  |  |
| A.A. & Q.M.G. | Assistant Adjutant and Quartermaster General    |  |  |
| A.AG.         | Assistant Adjutant-General                      |  |  |
| A.A.R.        | After-Action Report                             |  |  |
| A.A.S.C.      | Anti-Aircraft Searchlight Company               |  |  |
| A.A.S.S.      | Anti-Aircraft Searchlight Section               |  |  |
| A.B.          | Army Book                                       |  |  |
| A.B.P.O.      | Advanced Base Post Office                       |  |  |
| A.C.C.        | Army Cyclist Corps                              |  |  |
| A.C.G.        | Assistant Chaplain General                      |  |  |
| A.C.I.        | Army Council Instruction                        |  |  |
| A.C.W.        | American Civil War                              |  |  |
| A.D.          | (or Art. Dpt.) Artillery Depot                  |  |  |
| A.D.A.P.S.    | Assistant Director Army Postal Services         |  |  |
| A.D.A.Q.M.G.  | Acting Deputy Assistant Quarter-Master-General. |  |  |
| A.D.C.        | Aide de Camp                                    |  |  |
| A.d.C.        | Aide de Camp                                    |  |  |
| A.D.G.T.      | Assistant Director-General of Transportation    |  |  |
| A.D.L.        | Assistant Director of Labour                    |  |  |
| A.D.L.R.      | Assistant Director of Light Railways            |  |  |
| A.D.M.S.      | Assistant Director Medical Services             |  |  |
| A.D.O.S.      | Assistant Director Ordnance Services            |  |  |
| A.D.R.T.      | Assistant Director Railway Traffic              |  |  |
| A.D.S.        | Advanced Dressing Station                       |  |  |
| A.D.T.N.      | Assistant Director Transportation               |  |  |
| A.D.V.S.      | Assistant Director Veterinary Services          |  |  |
| A.E.C.        | (or A. Emp. Coy.) Area Employment Company       |  |  |

| Name       | Explanation  |
|------------|--|
| A.F.       | Army Form  |
| A.F.A.     | Army Field Artillery; Australian Field Artillery   |
| A.G.       | Adjutant-General   |
| A.G.S.     | Army Gymnastic Staff   |
| A.H.Q.     | Army Headquarters (usually India)  |
| A.I.F.     | Australian Imperial Force.   |
| A.I.S.     | Assistant Inspector of Searchlights  |
| A.M.F.O    | Assistant Military Forwarding Officer  |
| A.M.L.O    | Assistant Military Landing Officer   |
| A.M.O.     | Administrative Medical Officer   |
| A.M.S.     | Assistant Military Secretary   |
| A.N.Z.A.C. | Australia and New Zealand Army Corps.  |
| A.O.       | Army Order   |
| A.O.C.     | Army Ordnance Corps  |
| A.O.D.     | Army Ordnance Department   |
| A.O.O.     | Artillery Observation Officer. An officer who observed the fall of shells and telephoned the information to the battery firing them. See also F.O.O. |
| A.P.       | Armour Piercing (ammunition)   |
| A.P.C.     | Army Pay Corps or Assistant Principal Chaplair   |
| A.P.M.     | Assistant Provost Marshal  |
| A.P.O.     | Army Post Office   |
| A.Q.M.G.   | Assistant Quarter-Master-General   |
| A.R.D.     | Alberta Reinforcement Depot  |
| A.R.M.W.   | Army Reserve Munition Worker   |
| A.R.P.     | Ammunition Refilling Point   |
| A.R.S.     | Advanced Regulating Station  |
| A.S.C      | Army Service Corps.  |
| A.S.D.     | Army Schools Department  |
| A.S.O.     | Area Searchlight Officer   |
| A.S.P.     | (or Amm. Sub. Pk) Ammunition Sub-Park  |
| A.T.       | Army Troops  |
| A.V.C.     | Army Veterinary Corps  |

| Name                | Explanation  |  |  |
|---------------------|--|--|--|
| A.W.M.              | Australian War Memorial  |  |  |
| AAA                 | The equivalent of a full stop (UK) or period (US), inserted as a text string into messages to distinguish them from commas.  |  |  |
| abstraction         | The process of reclassifying a set of concrete elements by some collective, and more-abstract name. Thus 'cannon', 'howitzer' and 'mortar' can be abstracted to 'artillery'. Compare to 'reification'.   |  |  |
| action              | (in this context) Any military engagement.   |  |  |
| administrivia       | Routine paperwork and other administrative tasks that are regarded as trivial, uninteresting, and time-consuming.  |  |  |
| After-Action Report | An analysis of events such that performance can be assessed and decisions reviewed. May contain details of lessons learned as a result of the Action. Aka <i>Combat assessment</i> .   |  |  |
| air control         | The control of land from the air.  |  |  |
| air defence         | All measures designed to nullify or reduce the effectiveness of hostile air action   |  |  |
| air force           | That part of a nation's force which embodies 'air power'.  |  |  |
| air power           | The ability to project military force in the air by or from a platform operating above the surface of the earth  |  |  |
| air superiority     | The degree of dominance in the air battle of one force over another which permits the conduct of operations by the former and its related land, sea and air forces at a given time and place without prohibitive interference by the opposing force. |  |  |
| air support         | All forms of support given by air forces on land or sea  |  |  |
| alignment           | Any straight line on which the front of a body of troops is formed or is to form. (De Gruyther, 1904)  |  |  |
| appraisal           | A summary of the military situation  |  |  |
| appreciation        | An assessment of the all the circumstances affecting the military situation by which a commander arrives at a decision as to the course of action to be taken to accomplish a mission. Aka Situation assessment. <sup>1455</sup>                     |  |  |

<sup>1455</sup> 

| Name                                   | Explanation  |
|--|--|
| army                                   | Body of troops composed of 4 arms: infantry, artillery, cavalry, air force plus support arms: signals, engineers, supplies, medical etc. and formed of at least two corps.   |
| army corps                             | Body of troops composed of three infantry divisions. (De Gruyther, 1904).  |
| artillery battery                      | Collection of guns composed of three sections each of two guns, under a subaltern of which each section is divided into sub-divisions of one gun. (De Gruyther, 1904).   |
| artillery battery (4.7-in. guns)       | As artillery battery but composed of 4 guns manned by a company of R.G.A. (De Gruyther, 1904).   |
| artillery battery (field)              | As artillery battery but composed of six 15-pr. breech-loading guns and nine wagons. (De Gruyther, 1904).  |
| artillery battery (horse)              | As artillery battery but composed of six 12-pr. breech-loading guns and nine wagons. (De Gruyther, 1904).  |
| artillery battery (mountain)           | As artillery battery but composed six 2.5 inch screw guns carried on mules. (De Gruyther, 1904).   |
| artillery brigade-division             | As artillery battery but composed of two batteries R. H. A., or three field batteries and an ammunition column. (De Gruyther, 1904).   |
| artillery brigade-division (howitzers) | As artillery battery but composed of three batteries and an ammunition column. (De Gruyther, 1904).  |
| artillery registration                 | The practice of attempting to identify the position of enemy artillery pieces by observing the fall of friendly artillery fire near to the position (usually from an aircraft) and advising the friendly gunners by radio. |
| attrition                              | An approach to warfare dominated by artillery in which an enemy is perceived as a series of targets and victory depends on the ability to acquire targets, move and resupply. Compare with Manoeuvre.                      |
| B.A.C.                                 | Brigade Ammunition Column  |
| B.A.P.O.                               | Base Army Post Office  |
| B.C.                                   | Battery Commander or Base Commandant   |
| B.C.A.                                 | Battery Commander's Assistant  |

<sup>1456</sup> 

| Name           | Explanation  |
|----------------|--|
| B.E.F.         | British Expeditionary Force.   |
| B.G.           | Broad Gauge (railway)  |
| B.G.G.S.       | Brigadier-General, General Staff   |
| B.G.R.A.       | Brigadier-General Royal Artillery  |
| B.L.           | Breech Loading   |
| B.L.           | British Library.   |
| B.L.C.         | Breech Loading Converted   |
| B.M.           | Brigade Major  |
| B.O.R.         | British Other Rank   |
| B.R.C.S.       | British Red Cross Society  |
| B.S.M.         | Battery Sergeant-Major   |
| B.W.I.         | British West Indies Regiment   |
| B.W.M.         | British War Medal  |
| barrage        | The use of several artillery pieces to fire simultaneously at points along a line for the purpose of containing enemy troops, usually using indirect fire. See also box barrage, standing barrage, creeping barrage and lifting barrage. Compare with concentrated fire.   |
| barrage line   | The target line of a barrage. These were usually 100m apart.   |
| base ports     | Sea ports which act as the base of a line of communications during expeditionary warfare   |
| Bat.           | Battery (of artillery).  |
| battle context | All those political, geographic and military factors which affect the outcome of a battle. Compare with battle problem.  |
| battle goal    | Some objective which when achieved will defeat the enemy. Usually involves dominating some schwerpunkt. Expressed as a commander's intention.  |
| battle plan    | A plan to fight a battle, also: a solution to a <i>battle problem</i> . Sometimes referred to as a "scheme". Aka <i>operation plan</i> . This may exist in the form of several documents published by a unit, on successive days. The document types involved are: plans, operation orders, instructions, notes and any maps referred to or included with the documents concerned. |

| Name                 | Explanation   |
|----------------------|---|
| battle plan coverage | The number of headings in a battle plan which match some definition of a 'complete' battle plan. 1457   |
| battle plan quality  | The degree to which the contents of each heading of a battle plan can be rewritten in the form of a subsidiary plan or order such that a commander can determine if it has been executed or not.  |
| battle problem       | A definition of a set of battle goals in some battle context, sometimes expressed as an <i>Appreciation</i> .   |
| battlefield tour     | A tour of a battlefield with the aim of learning tactical lessons through an examination of the course of events in relation to the ground on which the battle was fought   |
| Bdmr                 | Bandmaster  |
| best practice        | The most effective and efficient method of achieving an objective or task.  |
| blocking party       | A number of troops tasked with defending trench flanks by erecting two trench barriers in a recently-captured and temporarily-unoccupied German trench such that grenades thrown from the Britishor German-occupied parts of trench would explode harmlessly in the unoccupied portion between the barriers.                                  |
| bite-and-hold        | A strategy whereby one army assaults another to seize a limited area (bite) and then prepares it for defence against an expected counter-attack (hold).   |
| Bn.                  | Battalion.  |
| Boer War I           | Also known as the First Anglo-Boer War, the Transvaal War or the Transvaal Rebellion, was a war fought from 16 December 1880 until 23 March 1881 between the United Kingdom and Boers of the Transvaal (as the South African Republic was known).   |
| Boer War II          | Also known as the Second Boer war, was fought between the British Empire and two Boer states, the South African Republic (Republic of Transvaal) and the Orange Free State, over the Empire's influence in South Africa from 11 October 1899 – 31 May 1902. It is also known variously as the Boer War, Anglo-Boer War, or South African War. |

<sup>1457</sup> 

The 'complete' set of contents of a battle plan will be defined when all battle plans down to Division level have been examined up to November 1918.

| Name         | Explanation   |
|--------------|---|
| bomb         | As the modern "hand grenade".   |
| box barrage  | A barrage consisting of three, sometimes four sides which isolated a position from attack or reinforcement  |
| Boyd loop    | A process whereby any participant in combat performs four 'loops': observing the current situation; analysing the data to understand the situation; deciding on a course of action and executing it. 1458 |
| Brig.        | Brigadier.  |
| Cin-C.       | Commander-in-Chief  |
| C.A.C.       | Churchill Archives Centre, Cambridge.   |
| C.B.         | Companion of the Bath   |
| C.B.         | Confinement to Barracks (punishment) and Counter-Battery  |
| C.B.         | counter battery   |
| C.B.S.O.     | Counter-Battery Staff Office  |
| C.C.         | Confined to Camp (punishment)   |
| C.C.C.C.     | Cape Colony Cyclist Corps   |
| C.C.D.       | Commander of Coast Defences   |
| C.C.R.A.     | Corps Commander Royal Artillery   |
| C.C.S.       | Casualty Clearing Station   |
| C.D.S.       | Corps Dressing Station  |
| C.D.S.       | Central Distribution Section.   |
| C.E.         | Chief Engineer  |
| C.E.F        | Canadian Expeditionary Force  |
| C.E.P.C.     | Chief Engineer Port Construction  |
| C.F.         | Chaplain to the Forces  |
| C.F.C        | Canadian Forestry Commission  |
| C.G.S.       | Chief of the General Staff  |
| C.G.S.I.     | Chief of the General Staff in India   |
| C.H.A.       | Commander Heavy Artillery   |
| C.H.D.A.V.C. | Convalescent Horse Depot Army Veterinary Corps  |

Samuels, Martin, 'Command or control?', Cass, (London, 1995), p. 13.

| Name             | Explanation  |
|------------------|--|
| C.I.D.           | Committee of Imperial Defence  |
| C.I.G.S.         | Chief of the Imperial General Staff  |
| C.L.C.           | Chinese Labour Corps   |
| C.L.L.E.         | Charger-Loading Lee-Enfield rifle  |
| C.L.L.M.         | Charger-Loading Lee-Metford rifle  |
| C.L.R.O.         | Corps Light Railway Officer  |
| C.M.E.           | Chief Mechanical Engineer  |
| C.M.O.           | Court-Martial Officer  |
| C.M.P.           | Corps of Military Police   |
| C.O.             | Colonial Office, Commanding Officer, or<br>Conscientious Objector  |
| C.O.O.           | Chief Ordnance Officer   |
| C.o.S.           | Chief of Staff.  |
| C.P.             | Censorship & Publicity   |
| C.Q.M.S.         | Company Quartermaster Master Sergeant  |
| C.R.A.           | Commander Royal Artillery  |
| C.R.C.E.         | Chief Railway Construction Engineer  |
| C.R.E.           | Commander Royal Engineers  |
| C.R.O.           | Corps Roads Officer  |
| C.S.I.C.         | Cadet School Infantry Company  |
| C.S.M.           | Company Sergeant Major   |
| C.T.             | Communication Trench   |
| C.T. 1902        | Combined Training (Provisional) manual of 1902   |
| C.V.B.C.         | Cape Volunteer Bearer Corps  |
| CAB              | T.N.A files relating to Cabinet.   |
| Canton           | A town in China. (vb.) To put troops into a canton (noun) A sheltered location for troops in houses.                             |
| cascade (a plan) | (vb.) The practice of rewriting or extending a plan to make it suitable for a lower-level unit.                                  |
| castrametation   | The art of making camps.   |
| cavalry          | Army unit which rides on horses, based on squadrons of 6 officers and 120 non-commissioned officers and men. (De Gruyther, 1904) |

| Name                          | Explanation   |
|-------------------------------|---|
| cavalry brigade               | Composed of three cavalry regiments, a battery R. H. A. and an ammunition column. (De Gruyther, 1904).  |
| cavalry division              | Composed of two cavalry brigades of three cavalry regiments, two batteries of horse artillery and an ammunition column. (De Gruyther, 1904).                                |
| cavalry regiment              | Composed of three cavalry squadrons (De Gruyther, 1904).  |
| cavalry squadron              | Composed of four troops, each under a subaltern; each troop being further sub-divided into four sections. (De Gruyther, 1904).  |
| Central Distribution Section, | A part of the Royal Engineers' 1st Printing Company responsible for the printing and distribution of doctrine documents. In 1916 it was renamed as the Stationery Services. |
| centre of gravity             | The source of power that provides moral or physical strength, freedom of action, or will to act. (JP 5-0)   |
| chevaux de frise              | Plural of a 'cheval de frise' (literally 'frisian horse') is an obstruction with many spikes originally designed to halt cavalry.   |
| clearing up                   | See 'mopping up'.   |
| column                        | Bodies of troops formed on parallel and successive alignments, e.g., companies of a battalion formed in rear of one another. (De Gruyther, 1904)                            |
| combat assessment             | See After-action report.  |
| combined arms                 | Operations in which all arms of the Army, Infantry, Artillery, Cavalry, etc., are employed in conjunction   |
| command immaturity            | When a commander should know what to do but doesn't do it.  |
| command subversion            | When the discipline of command is subverted by a commander's actions or failures  |
| commander's intention         | The expression of some action whose completion implies the achievement of a battle goal.  |
| concentrated fire             | The use of one or more artillery pieces to fire on a single point. Compare with <i>barrage</i> .  |
| contact aircraft              | Aircraft loitering above the battlefield to observe signals and report them to HQ.  |
| contact patrol                | A number of contact aircraft.   |
| continental war               | War of two or more nation-state armies. Compare with "savage" war.  |

| Name                   | Explanation   |
|------------------------|---|
| CoS                    | Chief of Staff.   |
| counter battery firing | Fire delivered for the purpose of destroying or neutralizing the enemy artillery.   |
| Cpl.                   | Corporal (rank)   |
| crassier               | Spoil heap of a mine. (Fr.)   |
| creeping barrage       | A barrage which provides a moving curtain of fire in front of advancing infantry. A development of the 'lifting' barrage.                         |
| curtain fire           | a wall of fire, a barrage of artillery falling vertically<br>in massed concentration, intended to cut off the<br>enemy's escape or reinforcement. |
| D. of A.               | Director of Artillery   |
| D. Rlys                | Director of Railways  |
| D.A.                   | Divisional Artillery  |
| D.A. & Q.M.G.          | Deputy Adjutant and Quartermaster General   |
| D.A.A,                 | Director of Army Accounts   |
| D.A.AG.                | Divisional Assistant Adjutant General.  |
| D.A.C,                 | Divisional Ammunition Column  |
| D.A.C.G,               | Deputy Assistant Chaplain General   |
| D.A.D. Roads           | Deputy Assistant Director of Roads  |
| D.A.D. Sigs            | Deputy Assistant Director of Signals  |
| D.A.D.A.P.S            | Deputy Assistant Director Army Postal Services  |
| D.A.D.G.R. & E.        | Deputy Assistant Director of Graves Registration and Enquiries  |
| D.A.D.G.T.             | Deputy Assistant Director-General of<br>Transportation  |
| D.A.D.L.               | Deputy Assistant Director of Labour   |
| D.A.D.M.S.             | Deputy Assistant Director Medical Services  |
| D.A.D.O.S.             | Deputy Assistant Director Ordnance Services   |
| D.A.D.P.S.             | Deputy Assistant Director Postal Services   |
| D.A.D.R.T.             | Deputy Assistant Director Railway Traffic   |
| D.A.D.S.               | Deputy Assistant Director Supplies  |
| D.A.D.T.               | Deputy Assistant Director Transport   |
| D.A.D.W.               | Deputy Assistant Director of Works  |
| D.A.G,                 | Deputy Adjutant General   |

| Name          | Explanation  |
|---------------|--|
| D.A.H         | Disorderly Action of the Heart (seen in medical records)               |
| D.A.M.S       | Deputy Assistant Military Secretary                                    |
| D.A.P.        | Divisional Ammunition Park   |
| D.A.P.C       | Deputy Assistant Principal Chaplain                                    |
| D.A.P.S       | Director of Army Postal Services                                       |
| D.A.Q.M.G.    | Divisional Assistant Quartermaster-General                             |
| D.A.U.K.      | Defence Academy of the United Kingdom                                  |
| D.B.C.        | Director of Barrack Construction                                       |
| D.B.F.P.      | Documents on British Foreign Policy.                                   |
| D.C.I.G.S.    | Deputy Chief of the Imperial General Staff                             |
| D.C.M.        | Distinguished Conduct Medal or District Court-<br>Martial              |
| D.D.S. and T. | Deputy Director Supplies and Transport                                 |
| D.D. Sigs     | Deputy Director of Signals   |
| D.D.A.P.S.    | Deputy Director of Army Postal Services                                |
| D.D.G.M.R.    | Deputy Director-General Military Railways or<br>Movements and Railways |
| D.D.G.T.      | Deputy Director-General of Transportation                              |
| D.D.I.W.T.    | Deputy Director Inland Waterway Transport                              |
| D.D.M.S.      | Deputy Director Medical Services                                       |
| D.D.O.S.      | Deputy Director Ordnance Services                                      |
| D.D.R.T.      | Deputy Director Railway Traffic  |
| D.D.S.D.      | Deputy Director of Staff Duties.                                       |
| D.D.T.N.      | Deputy Director of Transportation                                      |
| D.D.V.S.      | Deputy Director Veterinary Services                                    |
| D.D.W.        | Deputy Director of Works   |
| D.E.O.S.      | Director of Equipment and Ordnance Stores                              |
| D.F.C.        | Distinguished Flying Cross   |
| D.F.S.        | Director of Financial Services   |
| D.F.W.        | Director of Fortifications and Works                                   |
| D.G.A.M.S.    | Director-General, Army Medical Services                                |
| D.G.AV.S.     | Director-General, Army Veterinary Services                             |
| D.G.N.S.      | Director-General National Service                                      |

| Name        | Explanation   |
|-------------|---|
| D.G.O.      | Divisional Gas Officer  |
| D.G.M.W     | Director-General of Military Works                            |
| D.G.T.F.    | Director-General of the Territorial Force                     |
| D.H.D.      | Director of Home Defence                                      |
| D.I.L.      | Dangerously Ill List  |
| D.I.W.D.    | Director Inland Waterways and Docks                           |
| D.I.Y.      | Derbyshire Imperial Yeomanry                                  |
| D.L.R       | Director of Light Railways                                    |
| D.M.        | Director of Mobilisation                                      |
| D.M.I.      | Director of Military Intelligence.                            |
| D.M.O.      | Director of Military Operations                               |
| D.M.O.&I.   | Director of Military Operations and Intelligence.             |
| D.M.S.      | Director of Medical Services, or Deputy Military<br>Secretary |
| D.M.T.      | Director of Military Training                                 |
| D.N.T.O.    | Divisional Naval Transport Officer                            |
| D.O.R.A.    | Defence of the Realm Act                                      |
| D.O.R.E.    | District Office Royal Engineers                               |
| D.O.S.      | Director of Ordnance Services                                 |
| D.P.        | Drill Purpose   |
| D.P.R.      | Defence Policy and Requirements Sub-Committee.                |
| D.P.S.      | Director of Personal Services                                 |
| D.P.W       | Director of Prisoners of War                                  |
| D.Q.M.G.    | Deputy Quartermaster-General                                  |
| D.R.        | Despatch Rider  |
| D.R.C.      | Defence Requirements Committee                                |
| D.R.F       | Depression Range-Finder                                       |
| D.R.G. & E. | Director of Graves Registration and Enquires                  |
| D.R.L.S.    | Despatch Rider Letter Service                                 |
| D.R.O.      | Director of Recruiting and Organisation                       |
| D.R.S.      | Director of Requisitions                                      |
| D.R.T.      | Director Railway Traffic                                      |

| Name            | Explanation   |
|-----------------|---|
| D.S.            | Directing Staff (or instructors) at the Staff College,<br>Camberley.  |
| D.S.C.          | Distinguished Service Cross (a naval decoration)  |
| D.S.D.          | Director of Staff Duties. Responsible for the study of the war organisation of the British empire   |
| D.S.M.          | Distinguished Service Medal (a naval decoration)  |
| D.S.O.          | Distinguished Service Order   |
| D.S.Q.          | Director of Supplies and Quartering   |
| D.T.M.          | Director of Transport and Movements   |
| D.T.M.O.        | Divisional Trench Mortar Officer  |
| D.T.N.          | Director of Transportation  |
| D.W.            | Director of Works   |
| deception       | Measures taken to mislead the enemy to induce him to take action in a manner prejudicial to his interests.  |
| decision        | A commitment of some resource to action. <sup>1459</sup> It consists of 6 elements: the premisses (or givens or the context), the logic or relation between the premisses, the actors of that decision, |
|                 | the expected results of that decision, the actual results of that decision (which determine its quality), the record in which the first 3 elements of the decision is embodied.                         |
| decisive battle | A battle in which victory for one side means the inevitable defeat of the other.  |
| decisive moment | (in a battle) The moment in which the majority of one side run away.  |
| decomposition   | The process of using a plan, process or idea as the basis for a more-detailled, lower-level one.  |
| defeat          | A state in which one side accepts that it cannot win.   |
| deontic logic   | A logic of permission, and obligation whereby 'can' 'cannot', 'must', or 'must not' relations are defined. It is a subset of propositional logic and well-suited to expressing legal terms.             |

-

Raisinghani, D. and Théoret, A, "The Structure of 'Unstructured' Decision Processes", *Administrative Science Quarterly*, Vol. 21, No. 2 (1976), pp. 246-275.

| Name  | Explanation  |
|---|--|
| deploying interval                                  | The interval between contiguous columns necessary to enable them to form line to the front correctly. (De Gruyther, 1904)  |
| deployment  | The movement of a body of troops from a deep into a shallow formation, i.e., from column into line. (De Gruyther, 1904)  |
| depth   | The space occupied by troops from front to rear. (De Gruyther, 1904)   |
| despatch  | An official report on the state of the military situation  |
| Directing Staff                                     | The title given to permanent military instructional Staff at a Staff College   |
| Directing Staff notes                               | Notes issued to Directing Staff during the course of<br>an exercise to which students are not privy, the<br>contents of which may affect the development of an<br>exercise   |
| directive command                                   | A German command philosophy ('führung nach direktive') whereby in which an officer would be guided by their superiors' intentions rather than be explicitly ordered. This maximised both the effective control by the superior officer and the freedom of action of the subordinate. Differs from 'umpiring' in that should a subordinate's incompetence become evident to the commander, the subordinate would be replaced. See also 'restrictive control' and 'umpiring' <sup>1460</sup> |
| Director of Military<br>Intelligence                | In charge of the collection, collation and dissemination of information concerning foreign countries, Defence Security Intelligence, and Press, Postal, and Cable Censorship. 1461   |
| Director of Military<br>Operations                  | Responsible for strategical considerations in connection with the military operations records of armed strength and fighting efficiency of British and Allied Land Forces; liaison with Allied Armies; home defence policy; collection, collation and dissemination of information regarding India and British Overseas Dominions and Colonies.  |
| Director of Military<br>Operations and Intelligence | Abolished in December 1915, its roles divided between the D.M.I and the D.M.O.   |

<sup>1460</sup> 

Samuels, Martin, 'Command or control?', Cass, (London, 1995), p. 12.

<sup>1461</sup> Derived from The War Office List" (London, HM.S.O, 1932).

| Name                            | Explanation  |
|---------------------------------|--|
| Director of Staff Duties.       | Responsible for the study of the war organisation of the British empire  |
| disposition (of military units) | The location of military units.  |
| disposition management          | The process of knowing where all the units of an organisation are and moving them as required.  Analogous to configuration management in software development.   |
| distance                        | The space between men or bodies of troops, from front to rear. (De Gruyther, 1904)   |
| distraction                     | (in the context of Span-of-control) the need to attend to other matters than one's immediate staff such as liaison, committees, or other projects.   |
| doctrine                        | A rule-based narrative formally expressing the knowledge and thought of an organisation. See also Military doctrine.   |
| doctrine subversion             | When doctrine is ignored unreasonably  |
| dogma                           | An expression of a belief system.  |
| E. in C.                        | Engineer in Chief  |
| E. & M.                         | Electrical and Mechanical  |
| E.B.S.V.R.                      | East Bengal State Volunteer Rifles   |
| E.E.F.                          | Egyptian Expeditionary Force   |
| E.F.C.                          | Expeditionary Force Canteen  |
| E.L.C.                          | Egyptian Labour Corps  |
| E.M.O.                          | Embarkation Medical Officer  |
| echelon                         | A step-like order of bodies of troops, each on a fland<br>and to the rear of the body in its front. (De<br>Gruyther, 1904)   |
| encounter battle                | A battle caused by the inadvertent collision of two, large, opposed, armed forces. Compare with planned battle.  |
| enfilade                        | To fire down a trench or at a row of men lengthways, rather than crosswise (from their front). A particularly lethal way of firing, as it is more probable that shots will hit their target. Additionally, the target is denser in that a row of 50 men is equivalent to a column of 50 when enfiladed end-on. |
| entanglement                    | The use of barbed wire to inhibit access.  |
| épaulment                       | A earthwork created to protect a position.   |

| Name                  | Explanation   |
|-----------------------|---|
| error of the day      | An estimate of the density of the air, which was dependent on the air temperature, humidity and other factors and which affected the fall of artillery shot.                                  |
| establishment         | <ol> <li>The table setting out the authorized numbers of personnel and major equipment in a unit or formation;</li> <li>An installation together with its personnel and equipment.</li> </ol> |
| expeditionary warfare | The projection of military power over extended lines of communication into a distant operational area   |
| explicit knowledge    | Information that exists in written or otherwise documented formats. <sup>1462</sup>   |
| exterior lines        | Lines on which a force operates when its operations converge on the enemy. Compare with <i>interior lines</i> .   |
| F.A.N.Y.              | First Aid Nursing Yeomanry  |
| F.A.O.                | Forward Area Officer (Light Railways)   |
| F.A.U.                | Friends Ambulance Unit  |
| F.B.I.                | Federation of British Industries  |
| F.G.C.M.              | Field General Court-Martial   |
| F.L.C.                | Fijian Labour Contingent (later Corps)  |
| F.O.                  | Foreign Office (papers in the T.N.A)  |
| F.O.O.                | Forward Observation Officer or Forward Observing Officer. See also A.O.O.   |
| F.P.                  | Field Punishment  |
| F.P.O.                | Field Post Office   |
| F.S.                  | Foreign Service (most often seen in service records of men of the Territorial Force)  |
| F.S.C.                | Field Survey Company  |
| F.S.L.                | Field Searchlight   |
| F.S.M.                | Field Service Manual  |
| F.S.R.                | Field Service Regulations   |
| F.S.R. I 1905         | Field Service Regulations, part I (Combined Training) manual of 1905.   |

| Name               | Explanation   |
|--------------------|---|
| F.S.R. I 1912      | Field Service Regulations, part I (Operations) manual of 1909 as amended in 1912.   |
| F.S.R. II 1909     | Field Service Regulations, part II (Organisation and administration) manual of 1909.  |
| F.S.Z.             | fire-swept zone   |
| F.W.D.             | Four Wheel Drive  |
| field company R.E. | Composed of a major, a captain, four subalterns, eight sergeants and the rank and file, exclusive of batmen, drivers, etc. (De Gruyther, 1904).   |
| field gun          | In the context of Allied artillery on the Western Front, either a British 13- or 18-pounder, or a French 75mm. The terms may refer to a gun which can be moved with an army as opposed to fixed artillery piece. In WW-I all guns were moveable, if only by rail. Compare with <i>heavy</i> gun and <i>Howitzer</i> . |
| fighting troops    | Infantry, cavalry or artillery. Compare with 'support troops'.  |
| file               | Two men: a front rank man and his rear rank man. (De Gruyther, 1904)  |
| fire and movement  | A tactic whereby a force divides into two groups, one of which fires on the enemy from a covered position while the other advances to some covered position nearer the enemy, halts and fires on the enemy sufficiently to dissuade the enemy from firing back.   |
| fire discipline    | Not wasting ammunition by ill-considered firing.  |
| fire fight         | The contest between two forces, each firing on the other in an effort to pin the other down and thus prevent the other from firing back.  |
| fire plan          | A tactical plan for co-ordinating the fire of weapons of a unit or command  |
| firepower          | The amount of fire which may be delivered by a position, unit, or weapon system   |
| flank              | Either lateral extremity of a rank, line, or column; also the direction to either hand of a body, at right angles to its front. Flanks are distinguished as "right" or "left," according as they are on the right or left of the men who compose the body, when facing to the front. (De Gruyther, 1904)              |
| flanking attack    | A flanking attack is one which fires at the side of a body of troops as opposed to their front. This fire is called "enfilade fire".  |

| Name                      | Explanation   |
|---------------------------|---|
| force protection          | Permanent instructions that apply to all members of a command.                                    |
| formation                 | The symmetrical placing of all the fractions of a body of troops in any order (De Gruyther, 1904) |
| fosse                     | Pithead (Fr.)   |
| front                     | The direction of the enemy. (De Gruyther, 1904)   |
| frontage                  | The extent of ground covered laterally by troops. (De Gruyther, 1904)                             |
| G.C.M.                    | General Court-Martial   |
| G.H.Q.                    | General Head Quarters (of the BEF on the Western Front)   |
| G.M.P.                    | Garrison Military Police  |
| G.O.C.                    | General Officer Commanding  |
| G.O.Cin-C.                | General Officer Commanding-in-Chief   |
| G.O.s C.                  | General Officers Commanding   |
| G.R.C.                    | Graves Registration Commission  |
| G.R.O.                    | General Routine Order   |
| G.R.U.                    | Graves Registration Unit  |
| G.S.                      | General Service or General Staff  |
| G.S.C.                    | General Staff Conference  |
| G.S.O.                    | General Staff Officer   |
| G.S.O. (I)                | General Staff Officer (Intelligence)  |
| G.S.O. 1                  | General Staff Officer grade 1   |
| G.S.O. 2                  | General Staff Officer grade 2   |
| G.S.O. 3                  | General Staff Officer grade 3   |
| G.S.O1 or G.S.O. I        | See 'staff officer ranks'   |
| G.S.O2 or G.S.O. II       | See 'staff officer ranks'   |
| G.S.O3 or G.S.O. III      | See 'staff officer ranks'   |
| G.S.W.                    | Gunshot Wound   |
| Gen.                      | General   |
| general order             | An order usually concerned with matters of policy or administration                               |
| General Staff             | Officers, possibly psc, who report directly to Generals but who have no executive responsibility. |
| general staff (army H.Q.) | Those general staff officers attached to an army's H.Q.   |

| Name                                   | Explanation  |
|--|--|
| general staff (commands and districts) | Those general staff officers attached to a Brigade's or Division's H.Q.  |
| General Staff Conference               | Annual conference held at Camberley of all senior officers in the British Army   |
| general war                            | A conflict between major powers in which their vital interests, even survival, are at stake  |
| grand strategy                         | A state's overall "theory of how it can best 'cause' security for itself." 1463  |
| grand tactics                          | A means of manoeuvring detached corps to bring about the decisive battle and win it. <sup>1464</sup>   |
| gun                                    | An artillery piece of long barrel length whose charge, while powerful, has a low trajectory and longer range than a howitzer.  |
| H.A.                                   | Heavy Artillery  |
| H.A.R.                                 | Heavy Artillery Reserve  |
| H.B.M.G.C.                             | Heavy Branch Machine Gun Corps (later Tank<br>Corps)   |
| H.E.                                   | High Explosive   |
| H.M.S.O.                               | His Majesty's Stationery Office.   |
| H.P.D.                                 | Home Postal Depot  |
| H.S.                                   | Home Service   |
| H.S.C.                                 | Hospital Ship Case (medical)   |
| Н.Т.                                   | Horse Transport  |
| H.V.                                   | High Velocity  |
| heavy gun                              | An artillery piece that is not a field gun.  |
| high explosive                         | Explosive material that contains a great amount of potential energy that can produce an explosion if detonated (released suddenly), usually accompanied by the production of light, heat, sound, and pressure. Low explosive merely burns. |
| howitzer                               | An artillery piece of short barrel length whose charge, while powerful, has a high trajectory but shorter range than a gun.  |
| H.S.C.                                 | Hospital Ship Case (medical)   |

<sup>1463</sup>  $Barry\ R.\ Posen, The\ Sources\ of\ Military\ Doctrine:\ France,\ Britain\ and\ Germany\ Between\ the\ World\ Wars\ (Ithaca:\ Cornell$ University Press, 1984), p. 13.

<sup>1464</sup> Anon., Getting Strategy Right (Enough), R.C.D.S., (Shrivenham, 2017)

| Name               | Explanation  |
|--------------------|--|
| I.A.               | Indian Army  |
| I.A.F.             | Independent Air Force  |
| I.C.T.             | Inflammation of the Connective Tissue (seen in medical records)  |
| I.E.               | Illegal enlistment   |
| I.G.C.             | Inspector-General of Communications  |
| I.G.S.             | Imperial General Staff   |
| I.G.T.             | Inspector-General of Transportation  |
| I.H.L.             | Imprisonment with Hard Labour  |
| I.O.               | Intelligence Officer   |
| I.O.M.             | Inspector of Ordnance Machinery  |
| I.O.R.             | Indian Other Rank  |
| I.S.               | Inspector of Searchlights  |
| I.W. & D.          | Inland Waterways and Docks   |
| I.W.G.C.           | Imperial War Graves Commission   |
| I.W.M.             | Imperial War Museum  |
| I.W.T.             | Inland Water Transport   |
| I.F.O.             | Instruction for Forthcoming Operations   |
| I-beam             | Rolled steel beam of "I" section, which, when placed in pairs on their sides, makes a simple bridge across a trench over which an 18 pdr. gun may pass.  |
| in.                | inch.  |
| indirect fire      | Firing at a targets out of sight of the gun position. Indirect fire provides the advantage of protection from observed fire and allows flexibility in siting, but it is inherently more difficult to apply accurately and requires a more complex fire control system. The normal approach for Artillery since 1916. |
| infantry           | Soldiers who fight on foot with a rifle and bayonet.   |
| infantry battalion | Body of troops composed of eight companies and one machine gun and is commanded by a lieutenant-colonel. (De Gruyther, 1904).  |
| infantry brigade   | Body of troops composed of four battalions, a supply column (about an Army Service Corps company), a bearer company, a field hospital and is commanded by a major-general. (De Gruyther, 1904).  |

| Name                                   | Explanation   |
|--|---|
| infantry company                       | Body of troops composed of three officers, five sergeants and 100 rank and file for tactical purposes and commanded by a major or a captain. It is divided Into two half-companies, each under a subaltern and the half companies are further subdivided Into sections and squads. (De Gruyther, 1904). |
| infantry division                      | Body of troops composed of two infantry brigades, a squadron of cavalry, two brigade-divisions of field artillery, one field company Royal Engineers, a supply column and a field hospital. It is commanded by a lieutenant-general (De Gruyther, 1904).  |
| Instruction for Forthcoming Operations | Operation-specific, temporary doctrine, formalised by the 7 <sup>th</sup> Division. <sup>1465</sup>   |
| inter-knowledge transfer               | The sharing of knowledge between different units. 1466  |
| interior lines                         | Lines of communication within an area controlled<br>by a force whose operations diverge from a central<br>point.  |
| interval                               | The lateral space between men or bodies of troops. (De Gruyther, 1904)  |
| intra-knowledge transfer               | The sharing of knowledge from one individual or group to another individual or group within the same unit. <sup>1467</sup>  |
| J.A.G.                                 | Judge Advocate General  |
| J.A.W.M.                               | Journal of the Australian War Memorial  |
| J.S.C.S.C.                             | Joint Services Command and Staff College  |
| J.S.S.C.                               | Joint Staff Support Center  |
| joint operations                       | Operations conducted jointly between the land, maritime and ai components of a military force   |
| Joint Staff Support Center             | United States agency supporting staff officers.   |
| Junior Division                        | The body of students undertaking the first of two years of study at Staff College, Camberley  |
| K.C.B.                                 | Knight Commander of the Bath  |
| K.R.                                   | King's Regulations  |

Bonham-Carter, memo 13 Jun 1916 in WO 95/1630/4 - 7th Division General staff war diary

From Haltiwanger, G. S. (2012). Establishing relationships between risk management and knowledge transfer. (Order No. 3529760, Old Dominion University). ProQuest Dissertations and Theses, 266. Retrieved from http://search.proquest.eom/docview/l 13 8897447?accountid= 12967. (1138897447), 2012

<sup>1467</sup> From Haltiwanger, op cit.

| Name                 | Explanation  |
|----------------------|--|
| knowledge            | (In a military context) Information that has been analysed to provide meaning or value or evaluated for its implications for an operation. 1468  |
| knowledge management | The process of enabling knowledge flow to enhance shared understanding, learning, and decision-making. <sup>1469</sup>   |
| knowledge transfer   | The transfer of knowledge from one person to another. $^{1470}$  |
| L.E.E.               | London Electrical Engineers  |
| L.H.C.M.A.           | Liddell Hart Centre for Military Archives, King's<br>College, London   |
| L.O.                 | Liaison Officer  |
| L.R.                 | Local Reserve  |
| L/C                  | Lance Corporal   |
| L/Cpl                | Lance Corporal   |
| layering             | A characteristic of plans whose details are relevant<br>to a single readership level, and can be decomposed<br>to a lower level.   |
| lessons learned      | Knowledge and experience derived from observations and the historical study of military training, exercises, and combat operations. 1471   |
| Lieut.               | Lieutenant.  |
| lift                 | (of artillery fire) The change of target during an artillery barrage.  |
| lifting              | (Artillery) The movement of a barrage line.  |
| lifting barrage      | A barrage whose barrage line moves. Often intended to have shells hit an enemy trench until just before the attacking troops arrived at that trench when it would 'lift' or move to the next barrage line. Superseded by the 'creeping' barrage. |
| line                 | Bodies of troops placed on the same alignment. (De Gruyther, 1904)   |

1468

From FM 6-01.1, 2012, p. Glossary-2

<sup>1469</sup> From FM 6-01.1, 2012, p. 1-1

<sup>1470</sup> From FM 6-01.1, 2012, p. Glossary-2

<sup>1471</sup> From FM 6-01.1, 2012, p. 3-14

| Name                   | Explanation  |
|------------------------|--|
| lines of communication | All land, water, and air routes that connect an operating military force with its bases of operation, and along which supplies and reinforcements move |
| LoC                    | Lines of Communication   |
| LofC                   | Lines of Communication   |
| losing a lift          | The state of a body of infantry when they are so far behind a friendly barrage that they are no longer protected by it.                                |
| M.A.C.                 | Motor Ambulance Convoy   |
| M.B.                   | Medical Board  |
| M.C.                   | Military Cross   |
| M.D.S.                 | Main Dressing Station  |
| M.E.F.                 | Mediterranean Expeditionary Force  |
| Mes.E.F.               | Mesopotamian Expeditionary Force   |
| M.F.D.                 | Military Forwarding Department   |
| M.F.O.                 | Military Forwarding Officer  |
| M.F.P.                 | Military Foot Police   |
| M.G.                   | Machine Gun.   |
| M.G.C.                 | Machine Gun Corps  |
| M.G.G.S.               | Major-General General Staff  |
| M.G.O.                 | Master-General of the Ordnance   |
| M.G.R.A.               | Major General Royal Artillery  |
| M.G.S.                 | Machine Gun School   |
| M.i.A.                 | Missing in Action  |
| M.i.D.                 | Mentioned in Dispatches  |
| M.L.O.                 | Military Landing Officer   |
| M.L.S.                 | Mitchell Library, Sydney   |
| M.M.                   | Military Medal   |
| M.M.G.C                | Motor Machine Gun Corps  |
| M.M.L.                 | Manual of Military Law   |
| M.M.P.                 | Military Mounted Police  |
| M.P.I.                 | Mean Point of Impact   |
| M.P.S.C.               | Military Police Staff Corps  |
| M.S.                   | Military Secretary   |
| M.S.M.                 | Meritorious Service Medal  |

| Name                   | Explanation  |
|------------------------|--|
| M.T.                   | Mechanical Transport   |
| M.V.C.                 | Motor Volunteer Corps  |
| M.V.S.                 | Mobile Veterinary Section  |
| machine gun section    | Body of troops composed of two machine guns, one subaltern, one sergeant and 15 rank and file (including drivers). (De Gruyther, 1904).  |
| maintenance            | All supply and repair action taken to keep a force in condition to carry out its mission   |
| Maj.                   | Major  |
| manoeuvre warfare      | An approach to warfare dominated by the disruption of the enemy's defence either by breakthrough and breakout, or deception which avoids the enemy's strengths and exploits weaknesses with an advantage disproportionate to the means employed. <sup>1472</sup> Compare with <i>Attrition</i> . |
| march table            | Means of calculating the time it will take for a column of troops to arrive.   |
| Maxim                  | A belt-fed M.G. designed by Sir Hiram Maxim and licenced both to Britain and Germany. 1473   |
| Medical Support Troops | Medical units, second line transport, transport and supply columns, divisional ammunition columns, transport and supply park. Compare with "Fighting troops".  |
| mekometer              | a device that accurately measures distance by<br>measuring the polarization of a reflected beam of<br>light  |
| methodology            | The study of methods.  |
| military doctrine      | Fundamental principles by which the military forces guide their actions in support of objectives. 1474   |
| military unit          | Any military body such as an army, corps, brigade, division, battalion, company, platoon or section.   |
| mining                 | Refers both to tunnelling under some position in order to lay a charge or simply burying a charge in a position such as a sap-head for detonation in the event of it being captured by the enemy. The term can only be disambiguated by context.   |

Luttwak, 'Strategy,' p. 92.

<sup>1473</sup> Maxim, Hiram Stevens, *My Life*. Methuen & Co., Ltd., (London, 1915).

<sup>1474 &#</sup>x27;The Oxford English Dictionary' (Oxford, 2001), p. 916;

| Name                       | Explanation   |
|----------------------------|---|
| minor tactics              | The art of fighting individuals or small units. 1475  |
| mobility                   | The power of moving rapidly without loss of efficiency. (De Gruyther, 1904)   |
| mopping-up                 | The practice of killing or taking prisoner any enemy troops overrun in an advance.  |
| mounted infantry battalion | Body of troops composed of four companies with a machine gun section under the command of a lieut. colonel. (De Gruyther, 1904).  |
| mounted infantry company   | Body of troops composed of a major or captain, four subalterns, five sergeants and 125 rank and file subdivided into four sections, each under a subaltern. (De Gruyther, 1904).  |
| movement (operational)     | The logistical movement of personnel and material, e.g. during mobilization or advancing to the area of concentration prior to the commencement of field operations   |
| movement (tactical)        | The movement of troops in the field for tactical effect   |
| myth                       | Account of an event, created to persuade an audience.   |
| N.A.                       | (British) National Archives   |
| N.A.C.B.                   | National Army Catering Board  |
| N.A.M.                     | National Army Museum.   |
| N.C.C.                     | Non-Combatant Corps   |
| N.C.O.                     | Non-Commissioned Officer  |
| N.L.S.                     | National Library of Scotland  |
| N.T.O.                     | Naval Transport Officer   |
| N.Y.D.                     | Not Yet Diagnosed (medical term)  |
| N.Y.D.N.                   | Not Yet Diagnosed Nervous (medical term for suspected shell shock)  |
| night line                 | A precursor of the SOS system whereby a set of guns was aimed at an enemy sector such that were the corresponding British sector attacked, it could arrange for a speedy provision of artillery support merely by sending up a flare. <sup>1476</sup> |

<sup>1475</sup> Martin van Creveld in Encyclopaedia Britannica

Marble, Sanders, "The Infantry cannot do with a gun less", The Place of the Artillery in the British Expeditionary Force, 1914-1918, p. 44.

| Name                     | Explanation   |
|--------------------------|---|
| note                     | (In the context of an order) A description of how some action is to be performed. May be part of a battle plan and eventually form the basis of a doctrine.                           |
| O.C.                     | Officer Commanding, Officer Cadet   |
| О.Н.                     | (British) Official History  |
| O.R.                     | Other Rank  |
| O.R.S.                   | Orderly Room Sergeant   |
| O.T.C.                   | Officers Training Corps   |
| objective                | The goal towards which an operation is directed.  |
| obstacle                 | Some feature which impedes the advance of an attacking force and helps a defending force.   |
| operation order          | A directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation  |
| operations               | (in the context of Military history) The actions described in military histories.   |
| operational adaptability | The ability to respond effectively to changing threats and situations with appropriate, flexible, and timely actions. 1477  |
| operational art          | See operational level of war.   |
| operational knowledge    | A set of claims, definitions and rules resulting from<br>the practice of applying military force, usually<br>expressed in doctrines. Distinct from <i>operational</i><br><i>art</i> . |
| operational level of war | Those actions to bring large units such as corps and armies, advantageously to battle in pursuit of tactical goals that serve strategic aims.   |
| operation order          | An order issued by a commander to subordinates to execute an operation.   |
| operation plan           | A plan describing a concept of operations, a time-<br>phased force and deployment list, and annexes. Aka<br>battle plan.  |
| Order of Battle          | The identification, strength, command structure, and disposition of the personnel, units, and equipment of any military force   |
| P. & B.T.                | Physical and Bayonet Training   |

<sup>1477</sup> 

| Name             | Explanation   |
|------------------|---|
| P.B.             | Permanent Base (medical)  |
| P.B.I.           | Poor Bloody Infantry (colloquial)   |
| P.C.             | Principal Chaplain (non Church of England)  |
| P.M.             | Provost Marshal   |
| P.N.T.O.         | Principal Naval Transport Officer   |
| P.O.W.           | Prisoner of War   |
| P.P.             | Parliamentary Papers  |
| P.P.C.L.I.       | Princess Patricia's Canadian Light Infantry   |
| p.s.c.           | passed (the) staff college (course). The post-<br>nominal awarded to graduates of the Staff College,<br>Camberley.  |
| P.U.             | Permanently Unfit (medical)   |
| P.U.O.           | Pyrexia of Unknown Origin (medical term usually applied to Trench Fever)  |
| pdr.             | (In the context of artillery size) "pounder". Refers to the weight of the shell.  |
| picquet / piquet | A soldier on outpost sentry duty; a stake or other support of barbed wire.  |
| plan             | The record of several decisions. These may be consistent with a policy or a strategy and may refer to one or more doctrines. See also Battle plan.  |
| planning process | The activity of identifying a goal, the ways and means of achieving that goal, and writing this up.   |
| plan quality     | A characteristic of a plan which expresses the degree to which it is externally consistent with the problem it is intended to solve, internally consistent in that it does not contradict itself, and satisfies the needs of all the people using it. |
| planned battle   | A battle between wo, large, opposed, armed forces at least one of which is attempting to follow a plan. Compare with <i>encounter battle</i> .  |
| point d'appui    | Fortified strongpoint.  |
| policy           | 'a course or principle of action adopted or proposed<br>by an organization or individual. 1478 policy<br>dominates strategy by its articulation of the end-<br>state and its guidance regarding resources,  |

 $<sup>^{1478}</sup>$  Oxford Dictionary of English, Second Edition, OUP, (Oxford, 2003), p. 1362.

| Name                 | Explanation   |
|----------------------|---|
|                      | limitations on actions, or similar considerations <sup>1479</sup>   |
| position of assembly | A position in which the troops are assembled prior to moving to the attack, or to taking up a defensive position. It should, if possible, be under cover. (De Gruyther, 1904) |
| process model        | A representation of the steps, and any logical relations they may have of some process. Such a model may be in textual and/or graphic form. 1480                              |
| process immaturity   | Failing to adopt a process that will yield the required results when they are needed.   |
| process maturity     | When what needs to be done, is done, on time.   |
| process sclerosis    | Inability to adapt in a timely manner   |
| process subversion   | Inhibition or corruption of a process to achieve different ends   |
| protocol             | (in communications) The order in which information is exchanged and its meaning, for example the use of flares to communicate with aircraft.                                  |
| psc                  | Passed Staff College  |
| Pte.                 | Private (rank)  |
| puit                 | Auxiliary pithead (Fr.)   |
| Q.F.                 | Quick Firing  |
| Q.M.A.A.C.           | Queen Mary's Army Auxiliary Corps   |
| Q.M.G.               | Quartermaster General   |
| Q.M.S.               | Quartermaster Sergeant  |
| Qs                   | Qualified for Staff   |
| R.G.A.               | Royal Garrison Artillery  |
| R.H.A.               | Royal Horse Artillery   |
| R.A.                 | Royal Archives or Royal Artillery   |
| R.A.F.               | Royal Air Force   |
| R.A.F.A.             | Royal Australian Field Artillery  |
| R.A.G.A.             | Royal Australian Garrison Artillery   |

<sup>1479</sup>  $Harry\ R\ Yarger, Strategy\ Theory\ for\ the\ 21st\ Century:\ The\ Little\ Book\ on\ Big\ Strategy,\ US\ Government,\ (Washington,\ 2006),$ 

<sup>1480</sup> See the examples in Farrell-Vinay, Peter, 'Overview of a decision-oriented software process model' in Ross et al., Software quality management, Elsevier and Computational Mechanics publications, (London, 1993), p. 403.

| Name     | Explanation   |
|----------|---|
| R.A.M.   | Royal Artillery Museum  |
| R.A.M.C. | Royal Army Medical Corps  |
| R.A.P.   | Regimental Aid Post   |
| R.A.S.C. | Royal Army Service Corps Successor to the A.S.C.<br>Now referred to as the <i>Royal Logistics Corps</i> |
| R.C.E.   | Railway Construction Engineer   |
| R.C.O.   | Railway Control Officer   |
| R.D.C.   | Royal Defence Corps   |
| R.E.     | Royal Engineers.  |
| R.E.P.S  | Royal Engineers Postal Section  |
| R.F.A.   | Royal Field Artillery   |
| R.F.C.   | Royal Flying Corps  |
| R.G.A.   | Royal Garrison Artillery  |
| R.H.     | Railhead  |
| R.H.A.   | Royal Horse Artillery, and Reserve Heavy Artillery  |
| R.M.     | Riding Master or Royal Marines  |
| R.M.A.   | Royal Marine Artillery or Royal Military Academy  |
| R.M.C.   | Royal Military College  |
| R.M.L.C. | Royal Marine Labour Corps   |
| R.M.L.I. | Royal Marine Light Infantry   |
| R.N.A.S. | Royal Naval Air Service   |
| R.N.D.   | Royal Naval Division (63 Div.)  |
| R.O.     | Recruiting Officer  |
| R.O.D.   | Railway Operating Division  |
| R.O.O.   | Railway Ordnance Officer  |
| R.P.     | Rules of Procedure, Regimental Police, Refilling<br>Point   |
| R.S.M.   | Regimental Sergeant Major   |
| R.S.O.   | Railhead Supply Officer   |
| R.T.C.   | Reserve Training Centre   |
| R.T.C.   | Royal Tank Corps  |
| R.T.E.   | Railway Transport Establishment   |
| R.T.O.   | Railway Transport Officer (later Railway Traffic Officer)   |

| Name                | Explanation   |
|---------------------|---|
| R.T.U.              | Returned to Unit  |
| R.U.S.I.            | Royal United Services Institution.  |
| rank                | Two or more men in line side by side. (De Gruyther, 1904)   |
| registration        | The practice of firing at some position and having the fall of shot observed, such that a gun's elevation and bearing could be noted and a position hit thereafter at any time with minimum preparation.  |
| repair and recovery | Technical operations to restore operational functions to equipment or repairable damaged parts to render it battleworthy, and the recovery from the field of damaged equipment  |
| reporting point     | A moment of importance to be reported on such as 'assembly complete' or 'Blue line taken'.  |
| reification         | The instantiation in concrete terms of an abstract idea, thus 'artillery' can be reified as '18 pounder battery', 'howitzer battery', and 'mortar battery'. Compare with abstraction.   |
| restrictive control | A command philosophy employed by the British Army whereby subordinates are given explicit orders which must be obeyed despite any change in the circumstances. Should the commander become aware of a subordinate's deviation from the orders, the commander would intervene. See also 'umpiring'. 1481 |
| ride                | A road through a wood.  |
| road spaces         | The space occupied by various units on the move   |
| S.                  | Service (as in Service Battalion)   |
| S.A.A.              | Small Arms Ammunition.  |
| S.A.N.L.C.          | South African Native Labour Corps   |
| S.B.                | Siege Battery   |
| S.C.                | Staff Captain   |
| S.C.F.              | Senior Chaplain to the Forces   |
| S.D.                | Staff Duties  |
| S.G.S.              | Surveyor-General of Supply  |
| S.I.W.              | Self-Inflicted Wound  |
| S.L.R.              | Superintendent of Light Railways  |

<sup>1481</sup> 

Samuels, Martin, 'Command or control?', Cass, (London, 1995), p. 49.

| Name           | Explanation  |
|----------------|--|
| S.M.H.         | Society for Military History   |
| S.M.L.E.       | Short Magazine Lee-Enfield   |
| S.O.S.         | Struck Off Strength <i>or</i> Send Out Succour or a signal to call down an artillery strike in the event of an enemy attack.   |
| S.P.           | Strongpoint.   |
| S.P.T.         | (preceding a man's number) Sportsmen's Battalion<br>Royal Fusiliers.   |
| S.R.           | Special Reserve  |
| S.R.S.         | Sound Ranging Section  |
| S.S.           | Stationery Service   |
| S.S.M.         | Squadron Sergeant Major (cavalry)  |
| S.T.K.         | (preceding a man's number) Stockbroker's<br>Battalion Royal Fusiliers  |
| S.W.C.         | Supreme War Council  |
| sap and tunnel | (In trench warfare) The excavating of trenches forwards from the main front line until they were very close to the German line and then either tunnelling straight into the German trenches or simply leaping out and running the remaining distance |
| savage war     | War involving at least one local group using primitive weapons. Compare with "continental war".  |
| scheme         | Synonymous with <i>plan</i> . The term derives from its use in the Staff College when it would identify the activities of a body of troops (real or otherwise) in an exercise or staff ride. <sup>1482</sup> Can refer to a plan for an exercise.    |
| Schwerpunkt    | The point upon which the most effort is concentrated with a view to neutralising it, in the belief that this may defeat the enemy. This point may be one or more places, persons or processes.   |
| searching      | (in the context of artillery plans) The movement of artillery fire along some target area. 1483  |

<sup>1482</sup> Marindin, Staff Rides, Rees, London, 1908, p 20.

<sup>1483</sup> The term is used but not defined in `Anon., 19150201 BEF-CDS~4-Notes from the front Part III (National Archives of the term is used but not defined in `Anon., 19150201 BEF-CDS~4-Notes from the front Part III (National Archives of the term is used but not defined in `Anon., 19150201 BEF-CDS~4-Notes from the front Part III (National Archives of the term is used but not defined in `Anon., 19150201 BEF-CDS~4-Notes from the front Part III (National Archives of the term is used but not defined in `Anon., 19150201 BEF-CDS~4-Notes from the front Part III (National Archives of the term is used but not defined in `Anon., 19150201 BEF-CDS~4-Notes from the front Part III (National Archives of the term is used but not defined in `Anon., 19150201 BEF-CDS~4-Notes from the front Part III (National Archives of the term is used but not defined in `Anon., 19150201 BEF-CDS~4-Notes from the term is used but not defined in `Anon., 19150201 BEF-CDS~4-Notes from the term is used by the term isAustralia (NAA)/ NAA A5954 191/26)'

| Name                      | Explanation   |
|---------------------------|---|
| Senior Division           | The body of students undertaking the second and final year of studies at the Staff College, Camberley   |
| Sgt.                      | Sergeant (rank)   |
| S.H.A.T.                  | Service Historique de l'Armée de Terre  |
| shrapnel                  | The contents of a shrapnel shell consisting of small metal balls which, propelled by explosive, can cause immense harm to infantry.   |
| Siege Battery             | A unit of the RGA, usually firing 6 in, 8 in, or 9.2 in. Howitzers. They were often used to destroy or neutralise enemy artillery, as well as destroying strongpoints, dumps, store, roads and railways behind enemy lines. They were originally organised into 'Heavy Artillery Brigades' but on 2 April 1916 were reformed as 'Heavy Artillery Groups', only to be referred to as 'Heavy Artillery Brigades' on 17th December 1917.   |
| signals                   | Means of transmitting information.  |
| situation assessment      | See Appreciation.   |
| situational understanding | See Appreciation.   |
| Sjt.                      | Serjeant (rank, sometimes spelled Sergeant)   |
| skirmisher                | Light infantry or light cavalry soldiers deployed to screen a tactical position or a larger body of friendly troops from enemy advances. They are usually deployed in a skirmish line – an irregular open formation much more spread out in depth and breadth than a traditional line formation. Their purpose is to harass the enemy – engaging them in only light or sporadic combat in order to delay their movement, disrupt their attack, or weaken their morale; these tactics are collectively called 'skirmishing'. |
| slide to the right        | A modern planning colloquialism referring to the tendency of activities, drawn and redrawn on a project chart, to show a rightwards movement reflecting delays.   |
| socialising               | A modern term referring to a process whereby an idea be distributed among a group of people by being presented, discussed, debated, or reviewed such that it become socially-acceptable.  |

| Name                      | Explanation  |
|---------------------------|--|
| soling                    | Stone ballast used as a foundation for roads and railway tracks. 1484  |
| solutioneer               | One who solutioneers   |
| solutioneering            | Attempting to define a solution to a problem which itself is yet to be defined. Occurs in an organisation when appearance supersedes function, or when no solution is yet known. See also 'suck-it-and-see'  |
| S.O.S.                    | 'Save Our Souls', a phrase denoting an extreme call for help. It is also easily transmissable in Morse code: '"  |
| SOS call                  | The act of a unit firing a flare to call down SOS fire on an enemy position. Aka 'night line'.   |
| SOS fire                  | An artillery strike on an enemy position, usually to impede an enemy counter-attack, called informally by a unit without direct authorisation from any HQ.   |
| SOS zone                  | An area allocated to an artillery group whose responsibility it is to answer 'SOS calls'.  |
| span of control           | The area of activity and number of functions, people, or things for which an individual or organization is responsible, or which are subject to a plan or order. This is often expressed as a ratio of superior to subordinate. An optimal span of control is often held to be 1:4. This may be decreased for the following reasons: geographical dispersion; higher need for supervision; limited competence of the superior; task dissimilarity; high distraction levels, or high administrative load. |
| staff officer (post-1906) | An officer of a central military organ assisting the supreme military authority of the state in the same manner, and particularly in determining and implementing intellectually the higher directives which are to govern military activity.  |
| staff officer (pre-1906)  | An officer belonging to special auxiliary corps and administrative departments rather than to a traditional combatant branch of the military service.  |
| staff officer ranks       | Staff officers had three ranks:<br>G.S.O1, General Staff Officer (grade 1). The chief of<br>staff, ranked a lieutenant-colonel or colonel. He was<br>in charge of the general staff branch, responsible for<br>training, intelligence, planning operations and   |

<sup>1484</sup> 

https://ecr.indianrailways.gov.in/uploads/files/1371895817876-Roads\_And\_Platforms, retrieved on 25 Dec 2023

| Name                   | Explanation   |
|------------------------|---|
|                        | directing the battle as it progressed. Most orders from the GOC were actually written up and signed by the G.S.O1. G.S.O2, General Staff Officer (grade 2). Ranked a major. G.S.O3, General Staff Officer (Grade 3). Ranked a captain.                                |
| staff ride             | A visit or tour of a battlefield in which the primary<br>aim is to identify enduring lessons in command,<br>planning and execution  |
| staff tour             | An exercise in command and Staff duties based on a hypothetical scenario conducted on the ground in real time without troops  |
| standing barrage       | A barrage directed for a long period at a single line, usually to defend troops to one side of it from forces on the other.   |
| standing order         | (in a military context) General orders issued by a commander to enforce a local policy or procedure that is not covered by Service Regulations, military, or public law. They are of indefinite duration until either superseded by new Standing Orders or withdrawn. |
| Stationery Services.   | Successor to the Central Distribution Section,  |
| stereotype             | A proforma document whose use was much disparaged by senior officers before 1914.1485   |
| strategic decision     | A decision which changes a strategy.  |
| strategic level of war | The level of activities bounded by the political decisions of the state(s) and the operational level of the Commanders. It is dominated by politicians. Compare with the operational level of war.  |
| strategic plan         | A plan which embodies a strategy. It may be offensive or defensive. 1486  |
| strategy               | A set of decisions which accounts for their probable effect(s) to achieve an object consistent with a policy. 1487 See also Strategic decision and Strategic  |

War Office 'Memorandum on Army Training during the Collective Training Period, 1913' cited by Murray in WO - General Staff Conferences GSC 1914 12th to 15th January, p. 74.

Shimshoni, Jonathan, Military Advantage, and World War I - A Case for Military Entrepreneurship, *International Security*, Vol. 15, No. 3, MIT Press, (Winter, 1990-1991), pp. 191.

Note that many authors including Mintzberger confuse this with policy. (Mintzberg, Henry, "Patterns in Strategy Formation", Management Science, Vol. 24, No. 9, Informs, (May, 1978), pp. 934-948). See his statement on page 935 "The

| Name                  | Explanation   |
|-----------------------|---|
|                       | plan. The science of moving troops in the theatre of war. (De Gruyther, 1904)   |
| subordinate commander | Any commander other than the commander-inchief, e.g., the commander of a division, of a cavalry brigade, of an infantry brigade, of divisional artillery, of divisional engineers, etc. |
| suck-it-and-see       | An approach to problem-solving often encountered when no commonly-accepted approach exists where success is measured by the outcome. May be the best approach. Aka "experimentation".   |
| supplies              | The materiel required for the support and subsistence of personnel, including rations, clothing, bedding  |
| switching             | (In the context of artillery) The changing of a gun or battery's targets  |
| T.&M.R. 1913          | Training And Manoeuvre Regulations 1913   |
| T.&M.R. 1909          | Training And Manoeuvre Regulations 1909   |
| T.A.T.                | Temporary Ambulance Train   |
| T.B.                  | Temporary Base (medical)  |
| T.C.                  | Tank Corps  |
| T.C.O.                | Train Conducting Officer  |
| T.D.O.                | Telephone Dug-out   |
| T.E.E.                | Tyne Electrical Engineers   |
| T.E.S.                | Tactical Examination Scheme   |
| T.E.W.T.              | Tactical Exercise Without Troops  |
| T.F.                  | Territorial Force   |
| T.M.                  | Trench Mortar   |
| T.M.B.                | Trench Mortar Battery   |
| T.N.A.                | The (British) National Archives.  |
| T.O.                  | Transport Officer   |

term strategy has been defined .... (as) ... a ... set of guidelines that determines decisions into the future". He uses this definition as a justification for eliding a number of possibly conflicting decisions. Liddell Hart defined strategy as, "the art of distributing and applying military means to fulfil the ends of policy." (B. H. Liddell Hart, Strategy, 2nd edition, New York: Praeger, 1967, p. 335.), which is no more than planning. J. C. Wylie, defined it as a "plan of action designed in order to achieve some end..." (J. C Wylie, Military Strategy: A General Theory of Power Control, John B. Hattendorf, ed., Annapolis, MD, 1989, p. 14) Colin Gray defined it as "the use that is made of force and the threat of force for the ends of policy." (Colin Gray, Modern Strategy, Oxford, OUP 1999, p. 17).

See Luttwak, Edward N., Strategy, Bellknap (Cambridge: 1987), p. 239 for a better and more-consistent definition.

| Name                                | Explanation   |
|-------------------------------------|---|
| T.O.S.                              | Taken on strength   |
| T.R.                                | Training Reserve  |
| T.R.B.                              | Training Reserve Brigade  |
| T.S.M.                              | Troop Sergeant Major (cavalry)  |
| tacit knowledge                     | The knowledge that exists in an individual's mind. 1488   |
| Tactical Examination Scheme         | An examination scheme conducted on the ground and in real time to test the command ability of officers prior to promotion   |
| Tactical Exercise Without<br>Troops | A hypothetical exercise in tactical command conducted on the ground without troops  |
| tactical level of war               | The level of war at which the battles occur and is bounded by the operational level of war and the battles themselves. It is dominated by unit commanders.  |
| tactics                             | The disposal of force(s) to achieve an end. See also Minor tactics and Grand tactics.  The art of using troops on the field of battle. (De Gruyther, 1904)  |
| target of opportunity               | A target "visible to an observer, which is within range of available weapons and against which fire has been neither scheduled nor requested.   |
| trench strutting                    | A means of reinforcing the walls of a trench.   |
| umpire principle                    | See 'umpiring'  |
| umpiring                            | A command philosophy employed by the British Army whereby subordinates are given a general intention which they are expected to fulfil by whatever approach they choose. The only intervention by a commander would be to arbitrate between subordinates. The subordinate might thus act contrary to a commander's overall plan without admonition. See also 'restrictive control' and 'directive command'.1489 |
| Unit (infantry)                     | One of: an Army commanded by a Field-Marshal consisted of two or more Corps, commanded by a General or Lieutenant-General. Each Corps was composed of at least two Divisions each commanded by a Major-General. Each Division would be composed of at least two and usually three Brigades, each  |

<sup>1488</sup> 

From FM 6 01.1, 2012

Samuels, Martin, 'Command or control?', Cass, (London, 1995), p. 49.

| Name          | Explanation   |
|---------------|---|
|               | commanded by a Brigadier-General. Each Brigade would consist of at least four battalions, each commanded by a Lieutenant-Colonel each of which would consist of four companies usually commanded by a Major or a Captain. There were four platoons to a company each commanded by a 2 <sup>nd</sup> Lieutenant or Lieutenant. The platoons consisted of four sections plus an officer, sergeant, runner and batman, each section containing 14 men commanded by a corporal. |
| V.A.D.        | Voluntary Aid Detachment  |
| V.A.D.G.S.    | Voluntary Aid Detachment General Service  |
| V.C.          | Victoria Cross  |
| V.O.          | Veterinary Officer  |
| V.T.C.        | Volunteer Training Corps  |
| victory       | Whatever situation an opposing side has defined as defeat.  |
| W.A.A.C.      | Women's Army Auxiliary Corps (later Q.M.AAC)  |
| W.D.          | War Department  |
| W.E.          | War Establishment   |
| W.I.R.        | West India Regiment   |
| W.O.          | War Office.   |
| W.W.C.S.      | Walking Wounded Collecting Station  |
| warning order | Advice of a forthcoming Operation order   |
| war diary     | An official record of events written by an officer during operations in the field   |
| Y.O.C.        | Young Officers Company  |
| Y.S.          | Young Soldier   |
| Z-hour        | The moment when an attack starts  |

## Appendix B - Data

## **B.1 Document references in Chapters 5-7**

- [1] Anon. Outline plan of campaign (WO 158/19)
- [2] CDS 98/2 'Artillery Notes No. 2, Field Artillery Ammunition'
- [3] CDS 98/5 'Artillery Notes No. 5 BEF Wire Cutting by Artillery'.
- [4] Anon. Plans for future operations (WO 158/19)
- [5] Fourth Army established
   CDS 98/6 'Artillery Notes No. 6, trenches Mortars'
   SS 106 Notes on the Tactical employment of machine guns and Lewis guns
- [6] Davidson Outline of offensive operations (WO 158/19)
- [7] Davidson Memo re. offensive operation (WO 158/321) (WO 158/19)
- [8] CDS 98/4 'Artillery Notes No. 4, Artillery in Offensive Operations'.
- [9] Haig (To Rawlinson) Extracts from secret letter (WO 158/321)
- [10] Haig Advice (OAD 710) (WO 158/321)
- [11] Anon. Comparison with Loos (with note from Haig) (WO 158/19)
- [12] Anon. Ammunition requirements (WO 95/804/2)
- [13] Brind Training policy (WO 95/2931/1)
- [14] Bayley 56th Division School (WO 95/2931/1)
- [15] Bayley Sniper classes (WO 95/2931/1)
- [16] Brind Gas classes Godwin – Cavalry training (WO 95/2931/1)
- [17] Hull Training suggestions (WO 95/2931/1)
- [18] AAMontgomery AW2 (IWM 7) AAMontgomery - Operational order No. 1 (WO 95/431/1)
- [19] Fourth Army takes over front ((WO 95/431/1))
- [19] Fourth Army takes over front (WO 95/431/1)
- [19] Fourth Army takes over front ((WO 95/431/1))
- [20] Pitt-Taylor Fourth Army conference call and agendae (IWM 5)
- [21] AAMontgomery Fourth Army conference notes (IWM 5)
- [22] Fourth Army Corps Commanders conference preliminary notes (IWM 5)
  AAMontgomery Conference report Announcing the battle (WO 95/850/5)
  Anon. Corps commanders' conference (WO 158/321)
- [23] AAMontgomery Fourth Army conference report (IWM 5)
- [24] Rawlinson (To Haig) GX 3/1 Plan for offensive by the Fourth Army (WO 158/321)
   Rawlinson forwards first plan to GHQ (WO 256/9)
   Rawlinson sends plans (Montgomery in G.X.3/1 referred to in WO 95/672/4 III Corps war diaries 191605
   AAMontgomery Heavy Artillery tasks, tables (IWM 7))
- [25] AAMontgomery Fourth Army conference notes (IWM 5)
  AAMontgomery allotment and tasks of heavy Artillery (WO 95/863/11)

- [26] Pitt-Taylor Fourth Army conference notes (IWM 5) Montgomery - Notes from A conference (WO 158/321)
- [27] Rawlinson replies with requested changes
- [28] Rawlinson forwards second plan to GHQ (Edmonds, Appendices, p. 76 and WO 158/321)
- [29] AAMontgomery Fourth Army conference notes (IWM 5 and WO 158/321)
- [30] AAMontgomery GX3, Somme battle warning (WO 95/672/2)
- [31] AAMontgomery Heavy Artillery tasks 1 (IWM 7)
- [32] Birch Heavy Artillery tasks 2 (WO 05/690/1 and IWM 7)
- [33] Birch Note on VIII Corps artillery scheme
- [34] Hunter Weston Outline of XIII Corps scheme (IWM 6)
- [35] Hore-Ruthven VIII Corps attack plan (WO 95/820/1
- [35] Hore-Ruthven VIII Corps attack plan (WO 95/820/1)
- [36] Hunter-Weston Notes on VIII Corps Scheme (IWM 6)
- [37] Cameron X Corps operation order No. 19 Rearrangement of units, table (WO 95/850/5)
- [37] Cameron Encloses map of future offensive, map (WO 95/863/11)
- [37] Cameron X Corps operation order No. 19 Rearrangement of units, table (WO 95/850/5)
- [38] Cameron Discussion paper of the proposed attack (part, possibly a draft) (WO 95/850/5)
- [38] Cameron Discussion paper of the proposed attack (part, possibly a draft)
- [38] Cameron Discussion paper of the proposed attack (part, possibly a draft) (WO 95/850/5)
- [39] Cameron Encloses map of future offensive, map (WO 95/863/11)Cameron Discussion paper of the proposed attack (WO 95/863/11) (WO 95/850/5) Morland Notes on X Corps Scheme (IWM 6)
- [39] Cameron Discussion paper of the proposed attack (WO 95/863/11)Morland Notes on X Corps Scheme (IWM 6)
- [39] Cameron Encloses map of future offensive, map (WO 95/863/11)Cameron Discussion paper of the proposed attack (WO 95/863/11) (WO 95/850/5) Morland Notes on X Corps Scheme (IWM 6)
- [40] AAMontgomery Notes on X Corps Scheme (IWM 6)
- [41] Cameron X Corps conference notes on future operations
  Anon. (probably Cameron) ms. discussion of probable enemy reactions to an attack
  - Cameron Outline discussion of probable enemy reactions to an attack with ms. notes
  - Cameron Future operations
  - Rycroft Reconnaissance (WO 95/863/11)
- [42] AAMontgomery allotment and tasks of heavy artillery (WO 95/863/11)
- [43] Anon. Conference report (WO 95/863/11)
- [44] Cameron Requests battle plans (WO 95/863/11)
- [45] X Corps plans, tables, map (WO 95/850/5)
- [46] Congreve Notes on XIII Corps Scheme (IWM 6)

- [47] Congreve, AAMontgomery and Rawlinson Notes on XIII Corps (IWM 6)
- [48] Congreve Notes on XIII Corps (IWM 6)
- [49] O'Connor assault doctrine fragment, maps of Loos (WO 95/2432/2)
- [50] Discussed ways of taking Beaumont Hamel (WO 95/2280/2.1)
- [51] Cumming 48 Division OO 58, Plan of attack on Gommecourt (WO 95/2745/3)
- [52] Wace Plan of attack No. 1 (WO 95/2491/2.1)
- [53] Tait appreciation (WO 95/2129/4)
- [54] Paley Outline plan (WO 95/2129/4)
- [55] Watts Scheme for proposed operations (WO 95/1630/3)
- [56] Cameron Encloses map of future offensive, map (WO 95/863/11)
- [57] Cameron Future operations (WO 95/863/11) Rycroft - Reconnaissance (WO 95/863/11)
- [58] AAMontgomery allotment and tasks of heavy artillery (WO 95/863/11)
- [59] Anon. Conference report (WO 95/863/11)
- [60] Cameron Requests battle plans (WO 95/863/11)
- [61] SS 109 Training of Divisions for Offensive action'
- [62] Haig requests further changes (OAD 876, Edmonds, Appendices, p. 83 and WO 158/321)
- [63] SS 257 Fourth Army Tactical Notes
- [64] CDS 98/5 'Artillery Notes No. 5 BEF Wire Cutting by Artillery' SS 113 Notes on the attack
- [65] Allenby Proposes attack on Gommecourt salient (IWM 6)
- [66] Birch Army Artillery Operation Order No. 1 (Farndale, 'The Royal Artillery 1914-18', The Royal Artillery Institution, Woolwich 1986, p. 142)
- [67] LCK Minutes of GHQ meeting, outline of future operations and measures to deceive (WO 158/19)
- [67] LCK? Minutes of GHQ meeting, outline of future operations and measures to deceive (WO 158/19)
- [68] Kiggell Provisional timetable set by GHQ in OAD 9 (WO 158/321)
- [69] Kiggell Objectives of Third and Fourth armies (WO 158/234)
- [70] Haig sends OAD 12 to Rawlinson outlining the operation's objectives (Edmonds, appendices, p. 86 and WO 158/321)
- [71] OAD 15 Haig wants an artillery plan asap. (Edmonds, appendices p. 88 and WO 158/321)
- [71] OAD 15 Haig wants an artillery plan asap. (Edmonds, appendices p. 88 and WO 158/321)
   OAD 17 Haig wants to take Bapaume and head for Morval (Edmonds, appendices p. 89)
- [72] Kiggell Haig's instructions to Allenby and Third army at Beauquesne (WO 158/19) (WO 158/321)
- [73] Haig To Joffre (OAD 28) (WO 158/321)
- [74] Lyon Request for plans of attack (WO 95/804/2)
- [75] Snow Gas and smoke (WO 95/804/2)

- [76] Lyon Request for plans of attack (WO 95/804/2)
- [77] Lyon Request for plans of attackLyon Please come and explain your plans tomorrow (WO 95/804/2)
- [78] Snow Outline plans Hull– Outline plans of 56th Division (WO 95/804/2)
- [80] Montague-Stuart-Wortley- Outline plans of 46th Division (WO 95/804/2)
- [81] Snow attack premisses (WO 95/804/3)
- [82] Hull Considerations on capturing Gommecourt (WO 95/804/3)
- [83] Livesay Deception preparations (WO 95/804/3)
- [84] Snow Use of gas only opposite Monchy Snow – Conference conclusions EV274 (WO 95/804/3)
- [85] Lyon Plan approved, table Snow – Deception operations EV274 (WO 95/804/3)
- [86] Sherlock RFC arrangements
   Anon. Wireless tests
   Snow ms. Gas amendments
   Lyon Against advancing the line (WO 95/804/3)
- [87] Anon.. Conference points
  Sherlock Conference decisions
  Lyon Plan outline for artillery (WO 95/804/3)
- [88] Snow Plans approvedVincent Revised gas planPollitt Smoke barrages (WO 95/804/3)
- [89] Sherlock Gas cylinder installation timetable constraints Indecipherable – Gas discharge (WO 95/804/3)
- [90] Lyon 37th Division 00 16, attack on Gommecourt (WO 95/804/3)
- [91] Snow Gas discharges Lyon – Artillery notes (WO 95/804/4)
- [92] Stevens CB/barrage conflicts Lyon – Prisoner management (WO 95/804/4)
- [93] Lyon amendments to 00 16 (W0 95/804/4)
- [94] Bols Third army 00 11, assault (W0 95/804/4)
- [95] Lyon Plan approved Lyon – Artillery plan amendments Lyon – OO 16 amendments Gleichen – Gas plan (WO 95/804/4)
- [96] Lyon Gas discharge
   Lyon Gas discharge code
   Anon. Gas discharge code
   Lyon amendments to OO 16 (WO 95/804/4)
- [97] Bayley Revised Artillery timetable 'D'Lyon amendments to 0016, Artillery timetable (WO 95/804/4)
- [98] Bowles Bombardment table (WO 95/804/4)
- [99] Hollond PostponementThorpe Fortress as a super-heavy artillery target (WO 95/804/4)
- [100] Lyon New date and time (WO 95/804/4)
- [101] Spiers Fourth and Sixth Army boundaries (IWM 6)

- [102] AAMontgomery Fourth Army conference notes (IWM 5)
- [103] Anon. Conference notes (IWM 5/WO 158/321)
- [104] AAMontgomery Fourth Army conference notes (IWM 5)
- [105] AAMontgomery Write your own plans (IWM 7) AAMontgomery - Artillery table (IWM 7) Montgomery - Programme of preliminary bombardment' (IWM 7)
- [106] Kiggell Provisional timetable Fourth Army Conference notes (IWM 7) AAMontgomery - Fourth Army conference notes (IWM 5) Anon. - Conference notes (WO 158/321) AAMontgomery - Changes to programme of preliminary bombardment (IWM 7)
- [107] AAMontgomery Fourth Army operation order No. 2 (Somme) (IWM 7) (WO 158/321) AAMontgomery - objective, if successful (IWM 7)

AAMontgomery - Cavalry to raid Bapaume (WO 158/234)

AAMontgomery - Changes to programme of preliminary bombardment (IWM 7) AAMontgomery - Timing changes to programme of preliminary bombardment

- [108] AAMontgomery Fourth Army conference notes (IWM 5) AAMontgomery - Blow all mines on Z-day (IWM 7)
- [109] Rawlinson Date change (WO 158/321) AAMontgomery - Changes to programme of preliminary bombardment (IWM 7)
- [110] Davidson attack date postponed at the request of the French (WO 158/234)
- [111] AAMontgomery Changes to programme of preliminary bombardment (IWM 7) (WO 95/431/1) Rawlinson - artillery programme details (WO 158/321)
- [112] AAMontgomery Cavalry orders (IWM 7) AAMontgomery Orders conditional on a breakthrough (IWM 7) AAMontgomery - Continuation of operation order No. 2 (WO 158/321) AAMontgomery -- To XV Corps Conditional advance warning ref 00 No. 3 (G) 1 & 2 (WO 95/431) AAMontgomery - Fourth army conference notes (IWM 5)
- [113] AAMontgomery artillery programme amendments (WO 158/234) (IWM 7)
- [114] AAMontgomery Fourth army conference notes (IWM 5) Anon. - Continuation of Operation Order No. 2 (IWM 5) AAMontgomery - Places of assembly for cavalry, map (IWM 7) aa Montgomery - Report of the army Commander's remarks at the secret meeting held at Fourth army Headquarters (GX 3/1) (WO 158/321)
- [115] Anon. Précis of tasks allotted to Fourth army (WO 158/19)
- [116] Anon. Précis of Fourth army approaches (WO 158/19)
- [117] AAMontgomery Orders conditional on a breakthrough (IWM 7) (IWM 2) AAMontgomery - attack postponed by 48 hours (IWM 7) AAMontgomery - Draft Conditional advance warning (WO 95/431/1)
- [118] Pitt-Taylor amendment to Orders conditional on a breakthrough of 19160628 (IWM 7)
- [119] AAMontgomery Conference notes outlining Somme plan (WO 95/672/4)
- [120] AAMontgomery III Corps partial battle plans including A timetabled map (missing) (WO 95/672/5) Anon. - Programme of preliminary bombardment (WO 158/321)
- [121] AAMontgomery Divisional orders Addressed to III Corps (Somme) (32/3 (G)) (WO 95/672/5)

- [121] AAMontgomery Divisional??? orders Addressed to III Corps (Somme) (32/3 (G)) (WO 95/672/5)
- [122] AAMontgomery. Fourth Army Conference report including Notes (WO 95/672/5)
- [123] AAMontgomery Updates to programme of preliminary bombardment plan (WO 95/672/5)
- [124] Pitt-Taylor Date of 'U' day
- [125] Anon. III Corps artillery plan change (WO 95/690/1) Romer - III Corps operation order No. 70. - 1st Albert (WO 95/672/5)
- [126] AAMontgomery Movements, table plan (WO 95/672/5)
   AAMontgomery Updates to programme of preliminary bombardment plan (WO 95/672/5)
   Budworth Changes to artillery tasks and new Corps boundaries for counterbatteries work 1 (WO 95/690/1)
- [127] Budworth Changes to artillery tasks and new Corps boundaries for counterbatteries work 2
- [128] AAMontgomery Shelling of communications (WO 95/690/2) Pitt-Taylor - Communications management (WO 95/672/5)
- [129] Budworth Artillery-RFC cooperation in balloon destruction (WO 95/672/5)
- [130] Anon. Telephone network map (WO 95/672/5) Romer - 48-hour delay (WO 95/690/1)
- [131] AAMontgomery Infantry-Cavalry movement in the event of a breakthrough (WO 95/672/5) Luckham - Infantry-RFC communications, red flare preferred, messages (WO 95/672/5) AAMontgomery - Pigeons (WO 95/672/5)
- [132] Pitt-Taylor Code calling conventions (WO 95/672/5) Sutton - Ammunition constraints (WO 95/690/1)
- [133] Hore-Ruthven VIII Corps Conference call (WO 95/820/2)
- [134] Hore-Ruthven VIII Corps Conference minutes (WO 95/820/2.1 VIII Corps war diaries 191605)
- [135] Hore-Ruthven VIII Corps operations order No. 3 attack Grandcourt-Serre ridge and form a defensive flank WO 95/820/2.2)
- [136] McDiarmid VIII Corps Heavy artillery 00 1 (W0 95/825/1) Anon. - Scheme for offensive (plan for The Somme) (W0 95/820/2)
- [136] 0
- [137] Anon. Correction for tables W-Y2 (WO 95/825/1)
- [138] Tancred Artillery programme (plan) (WO 95/820/2) Hore-Ruthven - VIII Corps Conference minutes (WO 95/820/2)
- [139] Anon. Conference notes (WO 95/820/2.2)

  Tancred Artillery programme (plan) (WO 95/820/2)

  Haining. Artillery programme for X-Y night (plan) (WO 95/820/2)
- [140] Tancred Artillery programme (plan) (WO 95/820/2.2)
- [141] Haining Artillery programme for X-day (plan) (WO 95/820/2.2)
- [142] Haining Artillery programme for X-Y night (plan) (WO 95/820/2) Tancred - Artillery programme for Y-day (plan) (WO 95/820/2)

- [143] McDiarmid Z+2 day zero hour (WO 95/825/1)
  Haining Artillery programme for Y/1 day (plan) (WO 95/820/2)
  Haining Artillery programme for Y/1-Y/2 night (plan) (WO 95/820/2)
  Hore-Ruthven VIII Corps operation order No. 4 Delay to Zero hour (WO 95/820/2)
- [144] Tancred Artillery programme for 19160701 (plan) (WO 95/820/2)
  Tancred Artillery programme for Y 2 day (plan) (WO 95/820/2)
  Tancred Artillery programme for Y 2/Z night (plan) (WO 95/820/2))
- [145] Cameron Proposed plan changes (WO 95/850/5) Anon. - Proposed plan changes (fragment) (WO 95/850/5)
- [146] Cameron Conference notes plan extensions and details (WO 95/850/5)
- [147] Conference notes (WO 95/850/5)

  Morland ms. notes discussing plan, chart of expected strengths (WO 95/850/5)
- [148] Cameron artillery tasks (WO 95/863/12)
- [149] Skipwith artillery tasks (WO 95/863/12)
- [150] Jebb administrative instructions (plan) (WO 95/850/6)
- [151] Cameron X Corps operation order No. 27 (plan), appendices 'E', 'F', 'H'. (WO 95/850/6)Rycroft Strongpoints, Wace Strongpoints (WO 95/863/10)
- [152] Cameron X Corps operational order No. 27, amendment No. 1 Extra attack by the 36th Division (plan), Cameron - X Corps operational order No. 27, amendment No. 2 - additions to signals (WO 95/850/6)
- [153] Scobell -X Corps operational order No. 27, amendment No. 3 amended time of bombardment due to the daylight saving scheme (WO 95/850/6) AAMontgomery - Conference notes (WO 95/850/6) Gibbs - artillery instructions (WO 95/863/12
- [154] Cameron X Corps operational order No. 27, amendment No. 4 Re-bombardment process (plan) (WO 95/850/6)

  Tyler ms and ts Infantry artillery signals (WO 95/863/12)
- [155] Cameron X Corps operational order No. 27, amendment No. 4 Re-bombardment process (plan) (WO 95/850/6)
  Cameron Use of Stokes mortars for smoke production (plan)
  Cameron X Corps operational order No. 27, amendment No. 7 Movement of HQ and changes to signals
  Cameron X Corps operational order No. 27, amendment No. 6 Bombardment changes
  Cameron Smoke barrage (plan)
- [156] Gibbs artillery instructions 1
- [157] Cameron X Corps operational order No. 27, addendum: list of batteries
- [158] Cameron X Corps operational order No. 27, amendment No. 9 Changes to batteries WHRobertson - attaches map, map of gun positions (WO 95/850/6)
- [159] Brooker Wire gaps
  Rycroft attaches map showing wire gaps (WO 95/863/10)
  Scobell X Corps OO 27 amendment 5
  Cameron Proposed gas changes (WO 95/850/6)
- [160] Cameron Proposal gas/smoke change (WO 95/863/10) AAMontgomery - Artillery plan changes (WO 95/850/6) AAMontgomery - Gas orders (WO 95/850/6)

- [161] Cameron X Corps operational order No. 29, continuation of OO27 (WO 95/863/12)
- [162] Cameron Communications requirements (doctrine) (WO 95/850/6) Whynter X Corps bombardment instructions No. 1, message, table (WO 95/863/12)
- [163] Whynter X Corps bombardment instructions No. 2, modifications Whynter X Corps bombardment instructions No. 3 You can fire more providing you continue wire cutting Whynter X Corps bombardment instructions No. 4, table, messages Cameron Bombardment continues, table of artillery programme for X-day, table, message (WO 95/863/12)
- [164] Cameron X Corps operational order No. 29, continuation of OO27 (WO 95/850/6)
   Anon. Schedule of attack (WO 95/850/6),
   Tyler Conditional proposals for artillery advance, tables
   Cameron Proposed incendiary shell targets
   AAMontgomery We need to coordinate artillery and infantry (He thinks of this 72 hours before the start) (WO 95/863/12)
- [165] AAMontgomery If the enemy collapses (plan) (WO 95/850/6) Skipwith - Bombardment continues, table of artillery programme for Y1-day (WO 95/863/12)
- [166] Whynter X Corps bombardment instructions No. 4, (actually No. 5) message Tyler - Bombardment timetable Scobell - Bombardment timetable, table Cameron - Bombardment continues, Bombardment programme for Y2 day (WO 95/863/12)
- [167] Cameron X Corps Bombardment instructions No. 7 (WO 95/863/12)
- [168] Jacobs Ground and list of problems, and emphasising the capture of Contalmaison and Bois de Mametz (IWM 6)
- [169] Greenly Corps operation order 14 (Battle of the Somme) Greenly Plan of operations, parts I & II (WO 95/895/2)
- [170] Greenly Corps operation order 14 (Battle of the Somme) Greenly - Plan of operations, part I Greenly - Plan of operations, part II (WO 95/672/4)
- [171] Greenly Plan of operations, parts II-5 (WO 95/895/2)
- [172] Vaughan Notes of conference (WO 95/921/1.2)
- [173] Horne Infantry-aircraft communications (WO 95/921/1.2) Vaughan - Doctrine for infantry-artillery cooperation (WO 95/921/1.2)
- [174] Vaughan Proposed alterations to plan of attack (Note that No. plan had been found before this date and none is referenced) (WO 95/921/1.2)
- [175] Horne Scheme of operations Part I (WO 95/921/1.2)
- [176] Wethered artillery additions to battle plan of 19160631 (WO 95/921/2)
- [177] Vaughan XV Corps operation order No. 2 (WO 95/921/2)
- [178] Alexander Instructions for a preliminary bombardment by the XV Corps Alexander artillery Instructions as additions to the battle plan of 19160631 (WO 95/921/2)
- [179] AAMontgomery Fourth army operational order No. 2 (IWM 7)

  AAMontgomery artillery plan extensions

  Alexander Instructions for a concentrated bombardment and further special operation by the XV Corps

- AAMontgomery Extended attack objectives Alexander artillery plan instructions, with appendices showing barrage lines (WO 95/921/2)
- [180] Vaughan XV Corps Operation order No. 3 Vaughan - XV Corps battle plan (scheme of operation) amendments (WO 95/921/2)
- [181] Vaughan Doctrine for infantry-artillery cooperation (WO 95/921/2)
- [182] AAMontgomery Artillery plan amendments Harrison - Artillery plan amendments and table
- [183] Vaughan XV Corps operation order No. 3 1st Albert (WO 95/921/2) Vaughan - XV Corps operation order No. 4 - programme of operations
- [184] Anon. Changes to map, map Vaughan - XV Corps operation order No. 5 - programme of operations Alexander - Barrage lines, message (WO 95/921/2)
- [185] Vaughan Operation order No. 6 (WO 95/921/2) Vaughan - Doctrine of extending objectives
- [186] Vaughan Operation order No. 7 (WO 95/921/2) Alexander - Barrage orders
- [187] Vaughan Operation order No. 8 (WO 95/921/2) Vaughan. - Should the enemy collapse
- [188] Vaughan Operation order No. 9 (WO 95/921/2)
- [189] Vaughan Operation order No. 10 (WO 95/921/2)
- [190] Vaughan Operation order No. 11 (WO 95/921/2)
- [191] Buckle Plan of attack of VIII Corps heavy artillery (WO 95/811/2)
- [192] Bowles Artillery orders for bombardment No. 1 (WO 95/811/2)
- [193] Cleaver Co-operation of VII Corps Balloons with Artillery and Intelligence
   Lyon VII Corps 00 16
   Bowles Bombardment table
   Lyon VII Corps 00 16, amendment (WO 95/811/2)
- [194] Lyon VII Corps 00 16, amendment, CB work (WO 95/811/2)
- [195] Jones Postponement (WO 95/811/2)
- [196] Anon. Divisional instructions (WO 95/2663/2)
- [197] Home attaches appendices D, E, and F Home – attaches appendices G Home – attaches appendices H, and K (WO 95/2663/2)
- [198] Lyon Instructions re. POWs
   Lewis Instructions re. Signalling, diagram
   Anon. Enemy observing posts reported (WO 95/2663/2)
- [199] Thorpe 46th Divisional 00 65, attack, artillery lifts Thorpe – 46th Divisional artillery 00 58, attack Thorpe – Additional Divisional instructions (WO 95/2663/2)
- [200] Thorpe 46th Divisional artillery 00 66, taking over additional parts of the line Thorpe – 46th Division 00 67, taking over additional parts of the line
  - Thorpe Opening of communications trenches and saps (WO 95/2663/2)
- [201] Thorpe 46th Division 00 69, renaming of days (WO 95/2663/2)
- [202] Thorpe 46th Division 00 70, raids (W0 95/2663/2)
- [203] Shipley Operation Order X (WO 95/2692/4)

```
[204] Shipley - Amendment to Operation Order X (WO 95/2692/4)
[205] Shipley - Operation Order 65, assembly instructions (WO 95/2692/4)
[206] Neilson - Renaming of days (WO 95/2692/4)
[207] Williams - Operation Order 63
      Brigade instructions 21, bombardment
      137th Brigade Instructions, assault (WO 95/2683/2)
[208] Abadie - 137th Brigade Instructions, assault (WO 95/2683/2)
[209] Williams - Saps and wire-cutting (WO 95/2683/2)
[210] Williams - Operation orders 66, assembly (WO 95/2683/2)
[211] Kemp - Orders for attack (WO 95/26883)
[212] Kemp- Orders for attack (WO 95/26883)
[213] Kemp - Operation Order 40, assembly (WO 95/26883)
[214] Hull – Munitions estimate for forthcoming operations (WO 95/2931/1)
[215] Hull - Appreciation (WO 95/2931/1)
[216] Loch – Training instructions for exercise (WO 95/2931/1)
[217] Nugent - Trench extension report
      Nugent - 167 Brigade Line advance sitrep
      Neame - 168 Brigade Practice attack instructions (WO 95/2931/1)
[218] Hull - Capture of the quadrilateral (WO 95/2931/2)
[219] Lyon – Plan approval
      Anon. - Preliminary bombardment table
      Neame – assorted instructions, map (WO 95/2931/2)
[220] Neame - Stores (WO 95/2931/2)
[221] Unsigned – Preliminary instructions for the 56th Division (WO 95/2931/2)
[222] Lyon - VII Corps 00 16
      Neame – Other preliminary instructions (WO 95/2931/2)
[223] Neame - Instructions to Cheshire Pioneers, map
      Neame - More Instructions, maps (tWO copies)
      Grubb - Administration instructions, table
      Leach – attaches copies of instructions (missing) (WO 95/2931/2)
[224] Neame - Disposition instructions (WO 95/2931/2)
[225] Lyons - amendments (WO 95/2931/2)
[226] Brind - Instructions for preliminary period, table
      Brind - RE arrangements, MG programme
      Brind - Bombardment Corps Heavy Artillery (WO 95/2931/2))
[227] Grubb - Preliminary administrative instructions for 56th Division
      Grubb - Orders for officer in charge of 56th Divisional reserve dump
      Grubb - Orders for officer commanding Divisional reinforcement camp
      Brind - Signal communications
      Lyon - amendments
      Lyon - Further amendments (WO 95/2931/2)
[228] Brind – Trench mortar arrangements
      Brind - Instructions for practice attack
      Lyon - Smoke attack
      Hull - Reassignment of 'U' day
      Brind - Reassignment of 'U' day (WO 95/2931/2)
```

```
[229] Bayley - 00 15, attack, map
      Bayley - 00 15, amendment
      Bayley - 00 15, amendment
      Anon. - Hand smoke
      Bayley - ms. hand smoke (WO 95/2931/2)
[230] Lyon - 00 15, amendment
      Brind - MG programme amendment (WO 95/2931/2)
[231] Grubb - Battlefield clearance (WO 95/2931/2)
[232] Unknown – Instructions regarding Prisoners of War (page missing)
      Brind - Signal communications
      Bayley - Timetable D2, map
      Brind – Smoke attack Special 56th Division order, thanks (WO 95/2931/2)
[233] Sherlock – renaming of days (WO 95/2931/2)
[234] McLay – Hostile battery locations and allocated guns (WO 95/2937/1)
[235] McDowell - CB preparations, confirmation
      McDowell - CB preparations, confirmation (WO 95/2937/1)
[236] McLay - 00 4, artillery operations (WO 95/2937/1)
[237] McLay - 00 4, artillery operations amendment (WO 95/2937/1)
[238] Don - 00 6, renaming of days (WO 95/2937/1)
[239] Sillem - Prisoners of War (WO 95/2946/1)
[240] Nugent - Preliminary instructions for the 56th Division (WO 95/2946/1)
[241] Blewitt – 167th Brigade instructions for the preliminary period (WO 95/2946/1)
[242] Neame - 168th Brigade Instructions and Operation Orders for the operations of
      Neame – Instructions for the practice attack on trenches (WO 95/2951/1
[243] Neame – 168th Brigade Instructions for attack practice under cover of smoke (WO
      95/2951/1)
[244] Neame – 168th Brigade Instructions for blocking trenches (WO 95/2951/1)
[245] Neame – 168th Brigade Instructions for signal communications (WO 95/2951/1)
[246] Neame – 168th Brigade Further preliminary instructions (WO 95/2951/1
[247] Neame – Task of machine guns in preliminary operations
      Neame – Machine gun programme
      Neame - Task of Trench Mortar batteries (WO 95/2951/1
[248] Neame - Orders for Brigade battle police
      Neame – Preliminary administrative instructions for the 168th Bde.
      Neame - Signal communications
      Neame – Information re. 56th Division operations (WO 95/2951/1
[249] Neame - Flares and POWs (WO 95/2951/1)
[250] Broadbent - Preliminary instructions for forthcoming operations (WO 95/2957/1
[251] Broadbent - Administrative instructions for forthcoming operations (WO
      95/2957/1
[252] Newnham - 169 Brigade 00 18, attack (WO 95/2957/1
[253] Newnham - Communications (WO 95/2957/1)
[254] Johnson - Provisional plan of operations (WO 95/2053/3)
[255] Johnson - 19th Division order 51 (WO 95/2053/3)
```

```
[256] Bridges - alternative plans of action (WO 95/2053/3)
```

- [257] Grant New dates Grant - 0079, assault Grant - 0079 amendment (WO 95/1823/2.2)
- [258] Mangles 34th Division Operation order 16 (assault) Mangles - 34th Division OO 16 (assault) corrections and appendix (WO 95/2432/3.1)
- [259] Mangles 34th Division operation order No. 17 Movement and retaliatory instructions (WO 95/2432/3.1)
- [260] Anon. appendix a to 00 16 (artillery) (W0 95/2432/3.1) Mangles Instructions
- [261] Blore Instructions on gas (WO 95/2432/3.2)
- [262] Mangles Amendments to appendix C Mangles - 00 16 amendments
- [263] Mangles Amendments and additions to 34th Division Operation order 16 (WO 95/2432/3.2)
- [264] Mangles Stokes Mortars Trobridge - Signal doctrine Trobridge - 00 16, additions (WO 95/2432/3.2)
- [265] Mangles Change to 00 16 (W0 95/2432/3.3) Mangles - Changes to 00 16, deleted pages (W0 95/2432/3.3)
- [266] Hill Divisional Conference report (WO 95/1674/4.1)
- [267] Hill Divisional Conference report, message (WO 95/1674/4.1)
- [268] Hill 00 107 assault (WO 95/1674/4.3)
- [269] Hill 8th Division preliminary operation order No. 107 (WO 95/1674/4.3)
- [270] Hill Notes at conference on offensive operations (WO 95/1674/4.3)
- [271] Freeland Corrections to 8th Division preliminary operation order No. 107 (WO 95/1674/4.3)
- [272] Freeland 8th Division operation order 110 Movement (WO 95/1674/4.3)
- [273] Indecipherable 00 107 amendments Freeland - Revised appendices (WO 95/1674/4.)
- [274] Hill Corrections to 8th Division preliminary operation order No. 107
   Freeland Changes to Appendices 8th Division preliminary operation order No. 107
   Freeland Revised appendices (WO 95/1674/4.3)
- [275] Hore-Ruthven Smoke barrage 1 & 2 (WO 95/2280/3.1)
- [276] Fuller 29th Division operational order No. 36. (WO 95/2280/3.1) Anon. - Heavy artillery targets, maps (WO 95/2287/1) Haining - artillery targets, supplementary details (WO 95/2287/1)
- [277] Hore-Ruthven VIII Corps operations order No. 3 attack Grandcourt-Serre ridge and form a defensive flank WO 95/820/2.2) VIII Corps operational order No. 3. (WO 95/2280/3.1) Hore-Ruthven - Gas cylinders' use Hore-Ruthven - Gas before smoke
- [277] Hore-Ruthven VIII Corps operations order No. 3 attack Grandcourt-Serre ridge and form a defensive flank WO 95/820/2.2).

  VIII Corps operational order No. 3.(WO 95/2280/3.1).

```
Hore-Ruthven - Gas cylinders' use
      Hore-Ruthven - Gas before smoke
[278] Anon. - Communications doctrine (WO 95/2280/3.1)
[279] Clarke - artillery instructions (WO 95/2280/3.1)
      Clarke - Instructions for 29th Division artillery (WO 95/2287/1)
[280] Fuller - 29 Division 00 38, forming up (WO 95/2280/3.1)
      Fuller - 29 Division 00 39, assault details
[281] Clarke - Instructions for 29th Divisional artillery (WO 95/2280/3.1)
[282] Clarke - 29th Division artillery supplementary instructions 1 & 2 (WO
      95/2280/3.1)
      Anon. - Conference notes
      Anon. - Dumps
      Anon. - Divisional signals
      Anon. - artillery communications
      Clark - Further instructions for 29th Division artillery (WO 95/2287/1)
[283] Clarke - Amendments to (Artillery) Operational order No. 1 (WO 95/2287/1)
      Armstrong - Revised appendix C, Artillery lifts and smoke discharge
      Hunter-Weston - Review of proposed exercise
      Indecipherable - Proposed exercise 0040, timetable, maps of target and exercise
      trenches (WO 95/2280/3.2)
[284] Indecipherable - Appendix changes, message
      Indecipherable - Changed Appendices OPs and Artillery (WO 95/2280/3.2)
[285] Clark - Artillery plan changes (WO 95/2280/3.2)
[286] Fuller - 29th Divisional Northern and Southern 0.Ps.
[287] Peake - 29th Division artillery 00 1 (W0 95/2287/1)
[288] Fuller - 00 41, Zero hour
      Clark - 00 41, Artillery timetable (WO 95/2280/3.2)
[289] Clark - 'X' batteries changes (WO 95/2280/3.2)
[290] Armstrong - Enemy order of battle
      Indecipherable - 00 41 postponement
[291] Clarke - Amendments to (Artillery) Operational order No. 1 (WO 95/2287/1)
[292] Fuller - OP post changes
      McDiarmid - Heavy artillery targets
[293] Baumgartener. - 31st Division battle instructions 1-17 (7:7)
[294] Baumgartener. - 31st Division battle instructions 18-31 (WO 95/2341/1)
[294] Baumgartener. - 31st Division battle instructions 18-31 (WO 95/2341/1)
[294] Baumgartener. - 31st Division battle instructions 18-31 (WO 95/2341/1)
[295] Stenhouse 31st Division 00 16, boundaries (W0 95/2341/1)
[296] Hore-Ruthven - Instructions (1-17) (WO 95/2341/2.1)
[297] Baumgartener. - 31st Division battle instructions 32-58 (WO 95/2341/2.1)
[298] Baumgartener - 31st Division Instructions (59-60), appendices D-F (WO
      95/2341/2.1)
      Baumgartner - 31st Division Instructions (61-72), appendices G, J
```

[299] Baumgartener - 31st Division instructions 83-97, appendices H and I

- [300] Anon. additions and amendments to 31st Division artillery instructions (WO 95/2345/1)
  - Anon. Table of corrections
- [301] Stenhouse 31st Division OO 28, assembly (WO 95/2341/2.2) Stenhouse - 31st Division OO 30, assembly Baumgartener - 31st Division instructions 99-104 Hutchison - Consequences of boundary changes (WO 95/2345/1)
- [302] Annesley 31st Divisional instructions 83-90 (W0 95/2341/2.2) Baumgartener - 31st Division instructions 106-115
- [303] Baumgartener 31st Division instructions 117-122 (WO 95/2341/2.2)
- [304] Baumgartener 31st Division instructions, appendices S-U (WO 95/2341/2.2)
- [305] Anon. assault (WO 95/2345/1)
- [306] Baumgartener 31st Division instruction bomb squad flags (WO 95/2341/2.2) Baumgartener - 31st Division instructions 123-126 Clark - Artillery plan changes (WO 95/2280/3.2)
- [307] Baumgartener 31st Division instructions 127-130 (WO 95/2341/2.2) Anon. - Lifts of heavy artillery (WO 95/2345/1) Fuller - Hawthorne mine detonation (WO 95/2280/3.2)
- [308] Anon. Amendments to Divisional artillery instructions (WO 95/2345/1)
  Dobbie Gas
  Peake Artillery OO 1, assault (WO 95/2280/3.2)
- [309] Anon. Appendix A, assault (artillery rôle) (WO 95/2341/2.1)
- [310] Baumgartener 31st Division OO 32, 92nd Brigade MG Coy (WO 95/2341/2.2)
- [311] Baumgartener Bangalore torpedoes (WO 95/2341/2.2) Talbot - 31st Division OO 32, amendment Talbot - 31st Division OO 32, amendment (zero hour)
- [312] Cumming 48th Division order 78. (WO 95/2745/4.1)
- [313] Cumming 48th Division 00 79 amendments (WO 95/2745/4.1)
- [314] Anon. 48th Division 00 80 delay (WO 95/2745/4.1)
- [315] Cumming 48th Division 00 81, rebombardment (WO 95/2745/4.1)
- [316] Hore-Ruthven VIII Corps operations order No. 3 attack Grandcourt-Serre ridge and form a defensive flank WO 95/820/2.2)

  Martin Infantry-RFC communications (WO 95/1444/)
- [317] Bartholomew 4th Division Operation Order No. 38 (WO 95/1444/4)
- [318] McGrath 4th Division artillery Orders action prior to the assault, tables (WO 95/1444/4)
- [319] McGrath Discharge of gas (WO 95/1444) McGrath - 4th Division Artillery Orders - action prior to the assault amendments, tables (WO 95/1444/4)
- [320] McGrath Artillery targets (WO 95/1444/4)
- [321] McGrath Divisional artillery programme Anon. - attack formations (WO 95/1444/4)
- [322] Nugent Justification for the attack plan (WO 95/2491/2.1)
- [323] Nugent Include Beaucourt station in the attack? (WO 95/2491/2)
- [324] Place 36th Division order No. 30.
- [325] Place 36th Division order No. 34 (WO 95/2491/2)

- [326] Wace assembly route map, map (WO 95/2491/2)
- [327] Stewart Preliminary instructions Nos. 1-2 regarding the forthcoming operations, map (WO 95/1734/3)
- [328] Anon. Intensive bombardment and table of lifts (Thiepval, Hamel) (WO 95/2491/2)
  Stewart Preliminary instructions No. 3 regarding the forthcoming operations (WO 95/1734/3) Stewart Changes to instructions (WO 95/1734/3)
  Wace OO 34, amendments (WO 95/2491/2)
- [329] Spender 36th Division order No. 34 Amendments 3 & 4 Spender - Port fires, appendix D Wace - Gas attack (WO 95/2491/2)
- [330] Place Smoke and Gas discharge
  Wace 00 34 amendment (W0 95/2491/2)
  McHardy movements, table (W0 95/1734/3)
  Stewart Conference notes (W0 95/1734/3)
  Stewart Changes to Preliminary Instructions No. 2 (W0 95/1734/3)
- [331] Wace 36th Division order No. 36 movements Wace - 00 34 amendment (WO 95/2491/2)
- [332] Stewart attack arrangements, appendix (WO 95/1734/3)
- [333] McNamara Postponement (WO 95/1734/3)
- [334] Hewlett Warning order for movements (WO 95/2765/4.2)
- [335] AAMontgomery Continues Fourth Army operation order No. 2, proposes conditional orders which Cameron annotates (WO 95/2765/4.2)
- [336] Allen 49 Division CRA, extracts from X Corps artillery operation order No. 1 (WO 95/2765/4.2)

  Anon. (Henley?) comments on conference outlining the attack.
- [337] Henley -29th Division operations order No. 45 (WO 95/2765/4.2)
- [338] Wace Proposed programme of troop concentration in the event of offensive operations (WO 95/2367/4/1)
  Anon. Map showing Brigade and Divisional boundaries.
- [339] Indecipherable 32nd Division 00 23 ((W0 95/2367/4/1)
- [340] Indecipherable Message, boundaries (WO 95/2367/4/1)
- [341] Wace Please don't fire from those positions when troops advance (WO 95/2367/4/1)
- [342] Wace 32nd Division 00 24, assault, maps (W0 95/2367/4/1)
- [343] Pigott 32nd Division 00 24 additions (WO 95/2367/4/1) Wace amendments 1 & 2 Indecipherable administrative orders ((WO 95/2367/4/1)
- [344] Wace 32nd Division operational order No. 24. (WO 95/2367/4/2) Anon. - administrative orders Anon. additions
- [345] Wace Amendments to 00 24 (W0 95/2367/4/2) Wace - Routes, Yes (W0 95/2367/4/2)
- [346] Wace Amendments to OO 24 (WO 95/2367/4/2)
  Wace Amendments to lift table, message (WO 95/2367/4/2)
  Hawes Addenda to 32nd Divisions artillery operation order No. 2 (WO 95/863/12)
- [347] Wace Amendments to lift table, message (WO 95/2367/4/2)

- [348] Gibbs 32nd Divisions Artillery operation order No. 2, change to "Support of Gas attack" (partly cancelled) (WO 95/863/12)
- [349] Wace SOS Signals (WO 95/2367/4/2)
  - Wace Instructions to patrols (WO 95/2367/4/2)
  - Wace Amendment of programme of concentration (WO 95/2367/4/2)
  - Wood -Concentration movement amendment (WO 95/2367/4/2))
  - Anon. 00 27 addition, dumps and locations (WO 95/2367/4/2)
  - Anon. Causeways and routes (WO 95/2367/4/2)
  - Anon. 00 27 amendment of dumps and locations (WO 95/2367/4/2)
  - Whynter X Corps bombardment instructions No. 1, message, table (WO 95/863/12)
- [350] Evans Programme of concentration, message (WO 95/2367/4/3)
  - Anon. Bivouacs (WO 95/2367/4/3)
  - Wace 00 28. appendix B2, Artillery changes (WO 95/2367/4/3)
- [351] Wace 00 25, delay to zero hour (WO 95/2367/4/3)
- [352] Wace action in the event of a breakthrough (WO 95/2367/4/3)
- [353] Wace Pioneers concentration, table (WO 95/2367/4/3)
- [354] Bryant Instructions for attack No. 2, programme for preliminary bombardment (WO 95/2015/1.2)
- [355] Bryant 18th Division order No. 20. (WO 95/2015/1.2)
- [356] Montgomery Report of the Army Commander's remarks at the conference held at Fourth Army HQ on 22 June 1916 (WO 95/2015/1.2)
- [357] Harvey Instructions for attack No. 3 (WO 95/2015/1.2)
- [358] Bryant Instructions for attack No. 4 (WO 95/2015/1.2)
- [359] Weber 30th Division operation order No. 18 Preliminary stages of the Somme battle (WO 95/2310/4)
- [360] Holland amendments to Division operation order No. 18 (WO 95/2310/4)
- [361] Weber 30th Division operation order No. 19 Somme battle plan, maps, appendices (WO 95/2310/4)

  Anon. aircraft-infantry communication
- [362] Weber Instructions to O.C Detachment No. 5 Special Brigade (WO 95/2310/4) Weber Extension to OO 19 (a)
  - Weber Extension to 00 19 (b)
- [363] Weber Modification of 00 19 (b) (W0 95/2310/4)
- [364] Playle Pauses in the bombardment Playle - Wire-cutting (plan) (WO 95/1734/3)
- [365] Anon. Smoke and gas barrage (plan) (WO 95/1734/3)
- [366] Wellesley Battery commander's terms of reference (part) (WO 95/1734/3)
- [367] Stewart Preliminary instructions Nos. 1 & 2 regarding the forthcoming operations (WO 95/1734/3) Playle - artillery OO 22 (assault) (WO 95/1734/3
- [368] Stewart Preliminary instructions No. 3 regarding the forthcoming operations (WO 95/1734/3)
  - Stewart Changes to instructions (WO 95/1734/3)
  - Stewart Changes to instructions (WO 95/1734/3)
  - Indecipherable artillery supply (WO 95/1734/3)

- [369] Playle Amendment of table L (attack on Fricourt) (WO 95/1734/3) Playle Amendment of section on smoke (WO 95/1734/3) Playle Amendment of section on searching fire (WO 95/1734/3)
- [370] Playle Instructions for offence No. 5 (WO 95/1734/3)
  Playle Change of 21 Division objectives to accommodate a new trenches (WO 95/1734/3)
- [370] Playle Instructions for offence No. 5 (WO 95/1734/3)
  Playle Change of 21st Division objectives to accommodate new trenches (WO 95/1734/3)
- [370] Playle Instructions for offence No. 5 (WO 95/1734/3)
  Playle Change of 21 Division objectives to accommodate a new trenches (WO 95/1734/3)
- [371] Stewart Conference notes (WO 95/1734/3) Stewart - Changes to Preliminary Instructions No. 2 (WO 95/1734/3)
- [372] Playle Amendment of smoke and gas barrage (plan) (WO 95/1734/3) Playle Lines of barrage to avoid quadrangle trenches (WO 95/1734/3)
- [373] Stewart Conference notes (WO 95/1734/3) (WO 95/1734/3) Playle - Gas discharge programme (WO 95/1734/3)
- [374] Wellesley Instructions for offence No. 7 (WO 95/1734/3) Wellesley Instructions for offence No. 8 (WO 95/1734/3)
- [375] McNamara Postponement (WO 95/1734/3) Playle - Bombardments (WO 95/1734/3) Playle - 48 hour delay (WO 95/1734/3
- [376] Playle intense bombardment (WO 95/1734/3) Playle - Zero hour (WO 95/1734/3)
- [377] Forster 00 n, assault Profeit - Medical arrangements (WO 05/2130/1.1)
- [378] Bosanquet Provisional OO 1, assault Bosanquet - 63rd Bde. OO 47, assault Bosanquet - 64th Bde. OO X, assault (WO 95/2130/1.1)
- [379] Indecipherable 13th Northumberland Fusiliers OO 1, assault
  Fitzgerald 15th DLI OO 1, assault
  Saunders 1st East York Rifles OO 8, assault
  Stephenson 9th KOYLI Provisional OO, assault
  King 10th KOYLI Provisional OO, assault
  Scott 8th Somerset LI OO 1, assault
  Boden 4th Middlesex OO 1, assault
  Johnston 8th Lincolnshire OO ?, assault
  Taylor 10th York and Lancaster OO ?, assault, barrage map overlays
  Wellesley 21 Division artillery OO 22, assault (WO 95/2130/1.1))
- [380] Paley Changes to the XV Corps attack plan (WO 05/2130/1.1)
- [381] Paley TM battery doctrine (WO 05/2130/1.1)
- [382] Wellesley 21 Division artillery 00 22, assault (WO 95/2130/2.1)
- [383] Paley 00 55, assault
  - Paley 00 55, assault (communications) appendix N
  - Paley 00 55, assault (Discipline)
  - Paley 00 55, assault (amendment)
  - Paley 00 55, assault (new version)
  - Paley artillery tracings (WO 95/2130/2.1)

```
[384] Paley - 21 Division operation order No. 55 (WO 05/2130/2)
      Indecipherable - 00 55
[384] Paley - 21 Division operation order No. 55 (WO 05/2130/2)
      Indecipherable - 00 55 appendix 0 (WO 95/2130/2.1)
[385] Paley - appendix M, signalling (WO 95/2130/2.1)
[386] Hamblyn - Revised appendices
      Paley - trenches ladders (appendix F) (WO 95/2130/2.2)
[387] Paley - 00 55 amendments
      Anon. - 17th Division instructions for Stokes mortars (Appendix D) (WO
      95/2130/2.2)
[388] Franklyn - Machine guns (Appendix R)
      Franklyn - Badges (Appendix S)
      Paley - Working parties (Appendix E iii)
      Paley - 00 55 amendments (Appendix M)
      Anon. - Gas attack (instructions) (Appendix F/2) (WO 95/2130/2.2)
[389] Franklyn - Patrols (Appendix Q/2)
      Hollingsworth - Gas attack preparation (Appendices F/3, G)
      Anon. - Other appendices (H and K), map
      Paley - New German trenches
      Paley - Other appendices (D (ii), D (iii) and E.1)
      Anon. - Smoke attack (Appendix F/2)?
      Anon. - Signalling instructions (Appendix M)
      Anon. - Duties of 178 Tunnelling Co. RE (Appendix J) (WO 95/2130/2.2)
[390] Anon. - strongpoints (Appendix E 1)
      Hamblyn - Smoke attacks (revised appendix F/2)
      Hamblyn - Contact aircraft (Appendix N)
      Paley - Points which will receive special attention by artillery (Appendices C/3,
      appendix D) (WO 95/2130/2.2)
[391] Hamblyn - Revised appendix A, assembly orders. appendix B
      Paley - Appendix S2, Badges
      Paley - Extracts from XV Corps 00 3
      Paley - Appendix K, additions 1
      Paley - Appendix K, additions 2, appendix M
      Paley - Appendix E/E
      Paley - Appendix S/E. badges
      Paley - Appendix M change, appendix D (WO 95/2130/3.1)
[392] Paley - Artillery targets referring to 21 Division operation order No. 55
      Franklyn - Date changes 1
      Franklyn - Date changes 2 (WO 95/2130/3.1)
[393] Franklin - Paley - Change of appendix A (assembly orders) and Stokes Mortars of
      21 Division operation order No. 55
      Franklyn - Movements, Appendices B, C, C2,
      Franklyn - Smoke attack cancelled
      Franklyn - Artillery constraints (WO 95/2130/3.1))
[394] Watts - Draft plan of attack (WO 95/1630/3)
[395] Anon. (CRA) - Scheme for preliminary bombardment
      Bonham-Carter - Plan structure as "Instructions", Instruction 1 (WO 95/1630/3)
[396] Bonham-Carter - Memo ref. Instructions. (WO 95/1630/4)
      Bonham-Carter - Instruction No. 1
      Anon. (CRA) - Instructions for a preliminary bombardment
[397] Bonham-Carter - Instruction No. 2 and amendment (WO 95/1630/4)
      Bonham-Carter - Instruction No. 3 (WO 95/1630/4)
```

Anon. (CRA) - Further instructions Anon. (CRA) - Details, training

[398] Anon. (CRA) - Location of hostile batteries

[399] Bonham-Carter - Instruction Nos. 4 and 5 (WO 95/1630/4) Vaughan - XV Corps Operation Order No. 3 Anon. (CRA) - Bombardment details

[400] Vaughan - XV Corps OO 3, assault tasks Bonham-Carter - Instruction 6 Vaughan - V-Day postponed (WO 95/1630/4)

[401] Bonham-Carter - Memo Divisional OO 73 cancelled excepting para 1 (a) (WO 95/1630/4) Bonham-Carter - Instruction No.7 Napier - XV Corps HA operation order No. 7 - plan outline Wellesley - Instructions for offence No. 4 Anon. - Patrols

Anon. - Summary of the information regarding preliminary operations

[401] Bonham-Carter - Memo Divisional OO 73 cancelled excepting para 1 (a) (WO 95/1630/4)

Bonham-Carter - Instruction No.7

Napier - XV Corps HA operation order No. 7 - plan outline

Wellesley - Instructions for offence No. 4

Anon. - Patrols

Anon. - Summary of the information regarding preliminary operations

[401] Bonham-Carter - Memo Divisional OO 73 cancelled excepting para 1 (a) (WO 95/1630/4) Bonham-Carter - Instruction No.7 Napier - XV Corps HA operation order No. 7 - plan outline Wellesley - Instructions for offence No. 4 Anon. - Patrols Anon. - Summary of the information regarding preliminary operations

[402] Bonham-Carter - Instruction No. 8 (WO 95/1630/4)

[403] Bonham-Carter - Instruction No. 9 (WO 95/1630/4)

[404] Bonham-Carter - Amendments to Instructions (WO 95/1630/4) Bonham-Carter - More amendments to Instructions Bonham-Carter - 7th Division operation order No. 77. Alexander - ensure the last shell explodes before zero.

[405] Vaughan. - Operation order No. 5 (WO 95/1630/4) Napier - schedule changes

[406] Vaughan. - Operation order No. 6 (WO 95/1630/4)
Bonham-Carter - Procedure for dealing with messages at battle HQ

[407] Vaughan - XV Corps operation order No. 7 (WO 95/1630/4) Anon. - use tear gas.

[408] Vaughan - XV Corps OO 8, timetable, message (WO 95/1630/4) Bonham-Carter - Further operations (WO 95/1630/4) Morrison - Hold fire

[409] Vaughan. - Operation order No. 9 (WO 95/1630/4)

[410] Vaughan - XV Corps OO 10, timetable Vaughan - Howitzers and ammunition Vaughan - Postponement Bonham-Carter - Postponement (WO 95/1630/4) Morrison - OO2 Zero hour

[411] Vaughan. - Operation order No. 11 (WO 95/1630/4) Anon. - Map of opposing forces

[412] Indecipherable - Zero-hour (WO 95/1630/4)

```
[413] Collins - Preliminary instructions (WO 95/1980/4.2)
[414] Osborne - 101 Bde. 00 32 Movement to forward area (WO 95/2455/2)
[415] Osborne - 101 Bde. 00 34 assault plan, map (WO 95/2455/2)
[416] Osborne - 101 Bde. 00 34 amendments and further instructions (WO 95/2455/2)
[417] Osborne - 101 Bde. 00 34 amendment due to mine, map (WO 95/2455/2)
[418] Tuck - 11th Suffolk 00 26, assault, map
[419] Soutry - 00 32, assault,
      Soutry - 00 32, amendments 1,
      Soutry - 00 32, amendments 2 (WO 95/2459/1)
[420] Soutry - 00 32, amendment, appendices,
      Soutry - 00 32, amendment
[421] Soutry - Route marking,
      Soutry - Battalion HQ locations (WO 95/2459/1)
[422] Elphinstone - 00 36, assault (WO 95/2463/1)
[423] Anderson. - Operation order, assault
[424] Parr - 103rd Bde. 00 24, assault orders
      Parr - 103rd Bde. 00 24, assault orders amendment
      Parr - 103rd Bde. 00 25, movement
      Parr - 103rd Bde. 00 25, movement amendment
[425] Parr - 103rd Bde. 00 27, movement control
      Parr - Movement
[426] Parr - Movement
[427] Gover - 8th Division Artillery instructions 1, registration, wire cutting
      Gover - V-X tasks (WO 95/1684/3)
[428] Gover - Instructions for forthcoming operations, appendix A, Special barrage for
      the left flank, table of lifts, amendments, map
[429] Gover - Amendments, appendix B, gas, smoke
      Gover - Timetable for Z day
      Gover - Ammunition allowance
      Gover - Instructions No. 3, for artillery during advance, note
      Gover - 00 11, assault
      Gover - Instructions for forthcoming operations, amendments (WO 95/1684/3)
[430] Gover - Ammunition
[431] Chichester Constable - 23rd. Brigade preliminary 00 35, assault
      Chichester Constable - 23rd. Brigade 00 36, movements and command changes
[432] Chichester Constable - 23rd. Brigade miscellaneous instructions
[433] Chichester Constable - 23rd. Brigade OO 37, continuing OO 35 assault
[434] Chichester Constable - 23rd. Brigade 00 39, postponements
      Chichester Constable - New timetable, messages
      Rayner - New U-day
      Chichester Constable - Corrections 1
      Chichester Constable - Corrections 2
[435] Chichester Constable - Corrections
[436] Chichester Constable - 23rd. Brigade 00 40, movements
      Chichester Constable - Gas and smoke
[437] Chichester Constable - Artillery timetable
```

- [438] Lloyd Preliminary 00 101 assault[439] Lloyd Preliminary 00 101 amendments[440] Lloyd Preliminary 00 101 postponement
- [441] Lewis Carrying parties Lloyd - Preliminary 00 103, movements, message
- [442] Anon. Protect tunnels from gas Lewis - Carrying parties
- [443] Anon. Emergency routes, map

Lewis - Water

Lewis - Dumps

Lewis - Carrying parties

Appendices C (Artillery) & D (Gas)

Gas amendments

- [444] Anon. Artillery plan 1 Anon. - Artillery plan 2
- [445] Anon. Message: troops in Long Valley to dig shelters, messages, map

Anon. - Artillery plan amendment 1

Anon. - Artillery plan amendment 2

Anon. - Artillery plan amendment 3

Lloyd - Revised appendices C (Artillery) & D (Gas)

Lloyd - 00 100 Revisions

Freeland - Programme for 'U' day

- [446] Freeland Programme for 'V' day
  - Lloyd Programme for 'V' day

Anon. - attaches copy of RE OO 8 (missing title page), messages

[447] Freeland - General programme for 'W' day

Anon. - Artillery programme for 'W' day

Anon. - 9th Division RE 00 9, stores management

Anon. - 9th Division RE 00 10, communications and reports

[448] Lloyd - 00 105, movement, message

Hill - Smoke barrage, conditional orders

Anon. - RE Stores

AAMontgomery - Communications on capturing the Green line

[449] Freeland - 48-hour postponement

Hill - Renaming of days

Hill - Zero hour

Lloyd - 00 106

- [450] Anon. Bridge carriers
  - Battye Zero hour

Freeland - Revised Y1 and Y2 programmes

Hill - Revised Y1 and Y2 programmes

Hampson - Observation and signal stations

Lloyd - Zero hour

Anon. - Wire-cutting report

- [451] Lloyd 00 107, zero hour, reports, distinguishing marks, and watches, messages Hill Additional bombardment
- [452] Indecipherable. Instructions
- [453] Brands Preliminary Operation Orders
- [454] Anon. Responsibilities for dumps, Map B

Torr - Please send masks

[455] Anon.- Casualty reporting doctrine Anon.- Flags Wilson - 70 Brigade 00 63, assault, and appendices Wilson - 70 Brigade 00 63, alterations, map a Wilson - 70 Brigade 00 64, sector Divisions [456] Madison-Flags [457] Anon. - Stay in communication trenches Hill - Study the map [458] Wilson - 00 63, amendments 1 & 2 [459] Wilson - 00 65, movements Wilson - 00 66, reliefs, message Hudson - 8th and 32nd Divisions [460] Wilson - Cannot mark up the map (evidence of information sclerosis) Wilson - Movements, routes and constraints [461] Anon. - Gas masks Anon. - Weekly dispositions report Anon. - Revised appendices "C" and "D" (see 8) [462] Anon. - Appendix "E" revisions [463] Anon. - Gas discharge 1 & 2 Wilson - Weekly dispositions report Wilson - strongpoints [464] Wilson - (ref appendix "J") smoke Anon. - messages [465] Wilson - 00 67 cancelled Freeland - SOS signal rockets and flares (no explanation of what they meant) Hill - Wire status Hill - trenches blowing Anon. - Appendix "F" timing change, map B Anon. - War diary [466] Anon. - 00 69, cancelling 00 68, march table (W0 95/2185) [467] Anon. - 00 6, assault [468] Anon. - appendix a Anon. - Stores and transport [469] Anon. - Artillery plan Anon. - Administrative notes [470] Dawson - Further notes re operations Dawson - Preliminary 00 33 Anon. - Correction to Preliminary operation order 471 [472] Dawson - Lewis guns Dawson - Extracts from Brigade scheme appendices Various - Appendices [473] Anon. - Heavy artillery targets, maps Haining - artillery targets, supplementary details [475] Clark - Instructions for 29th Division artillery [476] Clark - Further instructions for 29th Division artillery [477] Clark - Amendments to instructions for 29th Division artillery [478] Peake - 29th Division artillery 00 1 [479] Clark - Amendments to 29th Division artillery 00 1

[480] Grant. - 00 55, assault 2 Grant. - 00 56, assault timetable [481] Grant. - 00 56, assault timetable [482] Grant. - Corrigenda [483] Anon. - Brigade strength [484] Pottle - Unnumbered Operation Order [485] Anon. - 001, assault [486] Anon. - Preliminary order, assault (Training) [487] Wilson - 006, assault [488] Wilson - 005, assault [489] Brands - Preliminary Instructions No. 28, maps [490] Brands - Preliminary Instructions No. 29, maps and modification [491] Brands - 00 30, details, and appendices [492] Brands - 00 30, cancelled and substituted Brands - Appendix A modifications [494] Brands - 00 28 and 00 30 modifications [495] Sancille - Orders for the attack [496] Wilson - 00 8, assault Wilson - 00 8, amendment [497] Cayley - 00 8, Attack [498] Wilson - 00 9, Battlefield admin [499] Clark - Artillery timetable [500] Fuller - Contact patrol aircraft and flares [501] Tooze - Breakfast [502] Middleton, operation order No. 1 (WO 95/2308/3) [503] Anon. - additions and amendments to 31st Division artillery instructions Anon. - Table of corrections [504] Hutchison - Consequences of boundary changes [505] Anon. - assault [506] Howard - 93rd Brigade preliminary instructions 93rd Brigade preliminary instructions (continued) [507] Howard - 93rd Brigade preliminary instructions (continued) Howard - 93rd Brigade preliminary instructions (continued) Howard - 93rd Brigade preliminary instructions (continued) [508] Howard - 93rd Brigade preliminary instructions, amendment [509] Kennard - Bombing party [510] Stenhouse - Identifications 1 Stenhouse - Identifications 2 **Stenhouse - Communications** [511] Anon. - Communications instructions 1 [512] Howard - Bombing party command [513] Howard - 93rd Brigade preliminary instructions 73-81

Howard - Heavy artillery instructions

- [514] Howard Communications instructions 2 Pioneers' instructions 2
- [515] Howard Communications instructions 3
- [516] Anon. Instructions to Commanding Officers in relation to the forthcoming advance (undated, unsigned but presumably the first draft)
- [517] Anon. Instructions to Commanding Officers in relation to the forthcoming advance
- [518] Anon. Map of Serre
- [519] Anon. Table of dumps, appendix Z 19160621 - Anon. - Table of dumps, appendix Z
- [520] Anon. Map of approach routes to Serre
- [521] McStott Preliminary 00 45, assault
  - Anon. Preliminary 00 45, assault
  - Anon. Preliminary 00 45, assault, supplement
  - Anon. Preliminary 00 45, assault, supplement corrected copy 1  $\,$
  - Anon. Preliminary 00 45, assault, supplement corrected copy 2
- [522] McStott 00 46, artillery wire-cutting and supplement to 0045, communications McStott 00 46, artillery wire-cutting and supplement to 0045, communications, annotated
- [523] McStott 00 45, corrigenda McStott - 00 47, movements to assembly, march table McStott - Preliminary 00 45, assault, supplement - corrected copy 2
- [524] McStott Preliminary 00 45, march table corrections McStott - Preliminary 00 45, addenda to section V
- [525] McStott Preliminary 00 45, amendment
- [526] McStott Preliminary 00 45, corrigenda to amendment
- [527] Tunbridge 2nd Preliminary operation order No. 14 assault
- [528] Hulke Preliminary operation order No. 2 assault (WO 95/2365/3)
- [529] Hulke Supplementary operation order No. 2 assault
- [530] Hulke Operation order No. 3 assault (WO 95/2365)
- [531] Hulke Operation order amendments (WO 95/2365)
- [532] McGrath 4th Division artillery orders (draft) (1812/147) 1 McGrath - 4th Division artillery orders (draft) (1812/147) Henderson - VIII Corps daily summary 78, lists of locations of enemy dugouts, supply dumps and Regiments
- [533] McGrath 4th amendments to (1812/147)
- [534] McGrath 4th Division Artillery orders (1812/179)
- [535] McGrath Excerpt of pp. 7-18 of an artillery plan
- [536] McGrath Gas discharge Unsigned - excerpt from VIII Corps attack orders
- [537] 4th Divisional Artillery orders (possibly a continuation of 51)
- [538] McGrath Zero hour postponed
- [539] Anon. War diary (note the references to orders on the last page)
- [540] Somerville 11 Brigade 00 12, movement
- [541] Prideaux 11 Brigade 00 14, movement

- [543] Prideaux 11 Brigade Preliminary 00 13, assault
- [544] Somerville Movement
- [545] Somerville 11 Brigade OO 14a, movement
- [546] Somerville 11 Brigade 00 16, assault
- [547] Cartland 11 Brigade 00 16, assault
- [548] Somerville 11 Brigade 00 13, amendments
- [549] Anon. 1 East Lancashire. 00 14, assault
- [550] Anon. Officer allocations
- [551] Hartland 00 1, assault
- [552] Anon. Mortars and MGs
- [553] Hartland. MG instructions Hartland. - Breakfast on Z-day Hartland - Stores
- [554] Hartland re Breakfast on Z-day Hartland - Reliefs
- [555] Hartland Wire Hartland - Communications Hartland - 00 2, assembly
- [556] Turk Contact aircraft
- [557] Anon. Officer allocations revised Anon. - 00 16 amendments Hartland - Reliefs Anon. - 00 13 amendments
- [558] Anon. 12th Brigade 00 18, assault, map
- [559] Anon. 12th Brigade 00 18, amendment 1
- [560] Anon. 12th Brigade 00 18, amendment 2 12th Brigade 00 19, movement
- [561] Anon. 12th Brigade 00 18, amendment 3
- [562] Anon. 12th Brigade 00 18, amendment 5
- [563] Anon. 12th Brigade 00 18, amendment 6
- [564] Martin 001, assault
- [565] Martin. Movement order
- [566] Cadic 001, assault
- [567] Cameron artillery tasks (WO 95/863/12)
- [568] Skipwith artillery tasks (WO 95/863/12)
- [569] Rycroft Strongpoints (WO 95/863/10) Wace - Strongpoints (WO 95/863/10)
- [570] Gibbs artillery instructions (WO 95/863/12)
- [571] Tyler ms and ts Infantry artillery signals (WO 95/863/12)
- [572] Gibbs artillery instructions 1 (WO 95/863/12)
- [573] Brooker Wire gaps (WO 95/863/10) Rycroft - attaches map showing wire gaps (WO 95/863/10)

- [574] Hawes Addenda to 32nd Divisions artillery operation order No. 2 (WO 95/863/12)
- [575] Anon. Schedule of attack (WO 95/863/10) Cameron - Operation order No. 29, movements (WO 95/863/10) Gibbs - 32nd Divisions Artillery operation order No. 2, change to "Support of Gas attack" (partly cancelled) (WO 95/863/12)
- [576] Whynter X Corps bombardment instructions No. 1, message, table (WO 95/863/12)
- [577] Cameron Bombardment continues, table of artillery programme for X-day, table, message (WO 95/863/12)
   Whynter X Corps bombardment instructions No. 2, modifications (WO 95/863/12)
   Whynter X Corps bombardment instructions No. 3 You can fire more providing you continue wire cutting (WO 95/863/12)
   Whynter X Corps bombardment instructions No. 4, table, messages (WO 95/863/12)
- [578] AAMontgomery We need to coordinate artillery and infantry (He thinks of this 72 hours before the start) (WO 95/863/12)
   Cameron Proposed incendiary shell targets (WO 95/863/12)
   Tyler Conditional proposals for artillery advance, tables (WO 95/863/12)
- [579] Skipwith Bombardment continues, table of artillery programme for Y1-day (WO 95/863/12)
- [580] Cameron Bombardment continues, Bombardment programme for Y2 day (WO 95/863/12)
   Scobell Bombardment timetable, table (WO 95/863/12)
   Tyler Bombardment timetable (WO 95/863/12)
   Whynter X Corps bombardment instructions No. 4, (actually No. 5) message (WO 95/863/12)
- [581] Cameron X Corps Bombardment instructions No. 7 (WO 95/863/12)
- [582] Stannard 36th Div, artillery Order No. 1 (WO 95/2749/1)
- [583] Stannard Intensive bombardment and table of lifts, traces (WO 95/2749/1)
- [584] Stannard Instructions for artillery during gas discharge and raid, table 2, map Stannard Amendment to appendix II (WO 95/2749/1)
- [585] Griffith Operation Order No. 1, assault, appendices A-H (WO 95/2504/1)
- [586] Pakenham Operation Order No. 1, assault (WO 95/2506/1)
- [587] Bull Operation Order No. 1, assault (WO 95/2506/2)
- [588] Savage Operation Order No. 1, assault (WO 95/2506/3)
- [589] Richardson 00 43, Training plan Richardson - Training ground (WO 95/2507/2)
- [590] Richardson 00 50, assault, appendices, map (WO 95/2507/2)
- [591] Richardson 00 51, allotment of troops Richardson - 00 50, amendment (WO 95/2507/2)
- [593] Richardson 00 50, amendment (W0 95/2507/2)
- [594] Richardson 00 50, amendments and additions Richardson - 00 50, amendments and instructions Richardson - 00 52, Movements Richardson - Zero time (WO 95/2507/2)
- [595] Gibbs Instructions for 2" TM batteries (WO 95/2375/2

- [596] Gibbs Instructions with reference to the bombardment scheme (WO 95/2375/2)
- [597] Gibbs 32 Divisional artillery 00 2 Gibbs - Addenda to 32 Divisional artillery 00 2, appendix II - Traces (WO 95/2375/2)
- [598] Kentish 00 37, assault (a & b) (W0 95/2390/)
- [599] Kentish 00 37, amendment (WO 95/2390/1)
- [600] Parish 00 37 amendment, straggler posts (WO 95/2390/1)
- [601] Paulley Operation Order, assault)WO 95/2392/2)
- [602] Shute Operation Order, assault, map (WO 95/2392/1)
- [603] Hunter 00 30, assembly (W0 95/2393/2)
- [604] Hunter 00 31, assault, map
- [605] Popham 00 37, assault, maps, appendices (WO 95/2395/2)
- [606] Indecipherable 19th Lancashire Fusiliers OO 37, assault, appendices, map (ms) (WO 95/2394/1)
- [607] Horwood 97th Brigade 00 45, assault, appendices (WO 95/2399/2)
- [608] Horwood 97th Brigade 00 45, amendment (WO 95/2399/2)
- [609] Horwood 97th Brigade 00 49, postponement (WO 95/2399/2)
- [610] Lecky Instructions
- [611] Lecky Plan for XIII Corps artillery I
- [612] Reid Captured guns
- [613] Lecky XIII Corps artillery order No. 1.
- [614] Lecky Plan for XIII Corps artillery II
- [615] Markes Practice attack orders (WO 95/2034/1)
- [615] Markes 00 38, assault, appendices, maps (draught, incomplete)) (W0 95/2034/1)
- [616] Markes Preliminary OO a, assault, appendix (outline) (WO 95/2034/1)
- [616] Markes Instructions regarding attack) (W0 95/2034/1) Ramsbotham - Officers' dress) (W0 95/2034/1)
- [617] Thorp artillery support, barrage fronts) (WO 95/2034/1)
- [617] Markes 00 38, additions (amendments) (W0 95/2034/1) Markes - Arrangements for ammunition supply) (W0 95/2034/1)
- [618] Markes Communications trenches policing) (WO 95/2034/1)
- [619] Markes Conference agenda) (WO 95/2034/1) Markes - Patrols and reports 1) (WO 95/2034/1)
- [620] Markes Movement) (WO 95/2034/1)
- [621] Markes Movement, maps, timetable of advance, undated note on strongpoints, message) (WO 95/2034/1)
- [622] Markes Instructions for the attack) (WO 95/2034/1)
  Markes Instructions concerning Russian saps, flammenwerferen) (WO 95/2034/1)
- [623] Bernsey-Faiklin 00 1, assault (W0 95/2040/1)
- [624] Morley Instructions regarding attack, map, diagrams (WO 95/2037/1)

- [625] Anon. Table of advance from the Pommiers trenches Anon. How to disable a gun (WO 95/2037/1)
- [626] Rochfort 00 1, assault (ts) (WO 95/2037/1)
- [627] Clay 00 2, assault (ms), map, appendices (WO 95/2037/1)
- [628] Miles 00 16, assault (WO 95/2040/1)
- [629] Evans 00 10, assault maps, notes (W0 95/2044/2)
- [630] Price 00 20, assault (WO 95/2043/2)
- [631] Flemming 00 27, map, diagram (WO 95/2046/2)
- [632] Flemming Continuation of OO 27 (WO 95/2046/2)
- [633] Flemming Additional order No. 2 Flemming - Carrying party Flemming - strongpoint (WO 95/2046/2)
- [634] Flemming Flammenwerferen (WO 95/2046/2)
- [635] Travers Operation Order No. 33, assault, appendix programme of lists (sic) for right group RA, sketch 'A' (WO 95/2051/1)
- [636] Phillips attack instructions (WO 95/2049/2) Phillips - Continuation of OO 18 (WO 95/2049)
- [637] Phillips 00 18 (WO 95/20492)
- [638] Clare Operation order(WO 95/2050/1)
- [639] Fiennes Operation orders, assault)WO 95/2049/2)
- [640] White Artillery scheme (WO 95/2316/2)
- [641] Indecipherable Draft artillery scheme amendment 1 (missing)
- [642] Indecipherable Draft artillery scheme amendment 2
- [643] Indecipherable Draft artillery scheme amendment 3
- [644] Weber Bombardment objectives
- [645] Greenly Amendments, messages, map
- [646] Holland Barrage calling signal
- [647] Seymour 00 30, assault
- [648] Seymour 00 30, addendum
- [649] Seymour 00 31, forming-up
- [650] Indecipherable 0040, assault, map
- [651] Indecipherable 0043, assault
- [652] Indecipherable 0044, forming up Indecipherable 0044, addendum
- [653] Hurrell 0076, assault
- [654] Steavenson 00 24, assault
- [655] Rampton 00 23, assaulting instructions
- [656] Steavenson (90th Bde.) 00 23, assault
- [657] Steavenson Supplement to (90th Bde.) 00 23, assault
- [658] Indecipherable Adjust clocks
- [659] Brunton re 90 Brigade 00 order G198, attack formation

- [660] Smith 0015, assault (2 copies with amendments)
- [661] AAMontgomery Instructions regarding liaison between infantry and aircraft
- [662] Anon.- 21 Brigade orders, maps Holland - Communications
- [663] Weber Reporting process
- [664] Hobson Identification system
- [665] Hobson Supply
- [666] Crossman -21 Brigade 00 136, map
- [667] Crossman -21 Brigade 00 136 amendment 1 (undated but presumably of this date) Hill Operation orders (possibly deprecated)
- [668] Crossman -21 Brigade 00 136 amendment 2, timing
- [670] Wellesley 21st Division artillery instructions for offence
- [671] Wellesley 21st Division artillery instructions for offence addendum 1, pauses Wellesley - 21st Division artillery instructions for offence addendum 2 - Gas Wellesley - 21st Division artillery instructions for offence 3 - Summary of preparations
- [672] Wellesley 21st Division artillery instructions for offence addendum 4 Barrage
- [673] Playle Patrols
  - Playle Communication with contact aeroplanes
  - Playle Smoke and Gas
  - Playle 21 Division 00 22
- [674] Playle Ammunition supply
- [675] Playle Amendment to table L
  - Playle Amendment to table H
  - Playle Amendment to smoke and gas
  - Playle Balloons
- [676] Playle Instructions for offence No. 5, amendments
- [677] Playle Lines of barrage, table G
  - Playle New trenches
- [678] Playle Instructions for offence No. 7, change of objectives
- [679] Playle Instructions for offence No. 8, barrages
  - Playle Bombardments
  - Playle Z day postponed, tables
- [680] Playle Bombardments
- [681] Gallatly 00 71, assault, appendices
- [682] Gallatly 00 72, movements
- [683] Gallatly Postponement
- [684] Palmer 00 64, assault, appendix A Palmer - 00 64, assault, appendix B
- [685] Palmer 00 64, assault
- [686] Palmer 00 64, appendix C
- [687] Palmer 00 64, appendix D
- [688] Palmer 00 67
- [689] Bicknell OO 5 Relies on 63rd Bde OO 58 and 21 Division OO 55 plus Appendices.

[690] Ridgeway - Operation orders, amendment 1, appendix 1 [691] Broadbent - Appendix 2 Broadbent - Appendix 3 Broadbent - Amendment 3 [692] Broadbent - Amendment 4 Broadbent - 00 2, movement [693] Broadbent - Amendment 5 Broadbent - Amendment [694] Broadbent - Amendment 6 [695] Broadbent - Addition 1 [696] Broadbent - Movement [697] Bosanquet - 64 Brigade 00 52, assault [698] Bosanquet - Postponement (WO 95/2159/2.2) [699] Bosanquet - Movement [700] Rotton - 00 11, assault [701] Boddam-Wetham - 00 12 [702] Fols - Conference report (WO 95/1653/2) [703] Fols - Planning process Fols - Instructions (WO 95/1653/2) [704] Fols - Document security (WO 95/1653/2) [705] Fols - Instructions 3 (and 2?) Fols - Instructions 4 Fols - Amendment to instructions 2) [706] Dobson - Instructions for performing RE operations Fols - Instructions 5 (WO 95/1653/2) [707] Fols - Instructions 6 Fols - Instructions, amendments Fols - Instructions 7t (WO 95/1653/2) [708] Fols - 00 71, movements Fols - Patrol work to warn if enemy have retreated during the bombardment Fols - Instructions 8, maps Fols - Instructions 9 [709] Fols - Instructions 10 [710] Thorpe - Operation order, assault (WO 95/1655/1) [711] James - Instructions for forthcoming operations (undated and therefore assumed to be written on 30th June if not later) Anon. - 20th Brigade provisional order(undated and therefore assumed to be written on 30th June if not later) Foss - 20th Brigade operational order(undated and therefore assumed to be written on 30th June if not later) (WO 95/1655/2) [712] Storke - Provisional operation orders (WO 95/1656/1) [713] Chads - Memo, operation order process and structure (WO 95/1660/5) [714] Chads - 00 76. assault (WO 95/1660/5) [715] Parker - Instructions 2 (WO 95/1660/5) [716] Parker - Instructions 3 (WO 95/1660/5)

```
[717] Chads - Instructions 5 (WO 95/1660/5)
[718] Chads - Instructions 6
      Chads - Amendment of Instruction 5
      Chads - Instructions 7
      Chads - Amendments (WO 95/1660/5)
[719] Chads - Amendment 1
      Chads - Amendment 2
      Parker - Transport (WO 95/1660/5)
[720] Chads - Instructions 8. stores (WO 95/1660/5)
[721] Chads - 0080 HQ positions, table (WO 95/1660/5)
[722] Chads - Concentration (WO 95/1660/5)
[723] Reeves - 00 34, assault
      Reeves - 00 35, assault (WO 95/1665/1)
[724] Reeves - 00 36, bombardments (WO 95/1665/1)
[725] Anon. - Scheme outline, assault (actual attack at 1430) (WO 95/1663/1)
[726] Indecipherable - assault narrative (WO 95/1662/2.1)
[727] 00 31, Divisional reserve
      Dugan - Battalion orders (re. 00 31) part 1 (W0 95/1662/2.1)
[728] Grant - Operation Order restructuring into instructions, Instruction 1 (WO
      95/1666/1)
[729] Grant - Instruction 2 (WO 95/1666/1)
[730] Grant - Instruction 3 (WO 95/1666/1)
[731] Grant - Instruction 4 (WO 95/1666/1)
[732] Grant - Instruction 5 (WO 95/1666/1)
[733] Grant - List of instructions (WO 95/1666/1)
[734] Grant - 00 16, revised plan, map, tables (WO 95/1666/1)
[735] Rotton - Instructions for a preliminary bombardment by the XV Corps, assorted
      tracings
[736] Alexander - Instructions for a preliminary bombardment by the XV Corps,
      assorted tracings
[737] King - Further instructions
[738] Anon. - Hostile battery locations
[739] Playle - Patrols
      Playle -Smoke and gas attack
[740] Napier - XV Corps HA, 00 7, instructions for offence, transparencies
      Wellesley - XV Corps HA, 00 4, instructions for offence - barrages, tables
      Playle - Patrols
      Ouseley - Summary of information regarding preliminary operations
[741] Alexander - Don't fire after Zero
[742] Napier - 00 updates
      Byrne - OK to use tear gas
[743] Anon - Appendix II table of programme
[744] Harrison - Patrols
[745] Collins - Papers
```

[746] Harrison - Zero hour Anon. - Map of enemy OOB

[747] Harrison - 00 3, Zero hour

#### **B.2** Estimates of Fourth Army artillery

The figures shown below have been derived from the tables held in TNA documents listed under 'Reference'. Where data is missing or inconsistent it has been normalised.

| Reference  | Date            | Heavy guns | Field guns |  |
|------------|-----------------|------------|------------|--|
| WO 158/19  | 29 January 1916 | 266        | 520        |  |
| WO 256/9   | 01 March 1916   | 179        | 350        |  |
| WO 256/10  | 01 March 1916   | 440        | 1017       |  |
| WO 158/321 | 01 May 1916     | 310        | 716        |  |
| WO 256/10  | 01 May 1916     | 572        | 1123       |  |
| WO 256/10  | 26 May 1916     | 405        | 936        |  |
| WO 158/321 | 01 June 1916    | 414        | 956        |  |
| WO 256/10  | 20 June 1916    | 649        | 708        |  |
| WO 256/10  | 01 July 1916    | 696        | 1296       |  |
| WO 256/10  | 01 July 1916    | 683        | 1421       |  |
| WO 158/327 | 02 July 1916    | 645        | 868        |  |

Table 7 - Estimates of Fourth Army artillery

Figures in *Italics* are estimates based on half the available artillery being retained for defence. The justification for this is in the texts from which the data has been copied.

Figures in **bold** are estimates of field guns (18-pounders or French 75s) as a proportion of the declared number of heavy guns to field guns based on data recent to the figure shown.

# **B.3** Estimates of Fourth Army frontage in yards

| Reference  | Date             | 1:100,000 map | 1:40,000 map |
|------------|------------------|---------------|--------------|
| WO 95/3/10 | March 14th, 1916 | 35,200        | 36,500       |
| WO 95/3/14 | April 20th, 1916 | 35,200        | 36,500       |
| WO 95/4/2  | May 20th, 1916   | 30,800        | 32,000       |
| WO 95/4/5  | June 26th, 1916  | 27,100        | 27,100       |

Table 8 - Estimates of Fourth Army frontage in yards

# **B.4** Availability of Battalion-level orders

# **B.4.1** Neuve Chapelle

#### B.4.1.1 IV Corps

| Reference    | Battalion name                         | Plan status                             |
|--------------|--|---|
| WO 95/1657/2 | 1/Grenadier Gds.                       | No plans or orders found or referred to |
| WO 95/1657/3 | 2/Scots Gds.                           | No plans or orders found or referred to |
| WO 95/1655/1 | 2/Border Regt.                         | No plans or orders found or referred to |
| WO 95/1656/2 | 2/Gordon Highlanders                   |   |
| WO 95/1657/1 | 6/Gordon Highlanders                   | No plans or orders found or referred to |
| WO 95/1658/2 | 2/Bedfords                             | No plans or orders found or referred to |
| WO 95/1659/4 | 2/Yorkshire (Green Howards)            |   |
| WO 95/1659/2 | 2/Royal Scots Fusiliers                |   |
| WO 95/1659/3 | 2/Wiltshires                           | No plans or orders found or referred to |
| WO 95/1664/1 | 2/Royal West Surrey (The Queens)       | No plans or orders found or referred to |
| WO 95/1664/3 | 2/Royal Warwickshire                   | No plans or orders found or referred to |
| WO 95/1665/1 | 1/Royal Welch Fusiliers                |   |
| WO 95/1664/2 | 1/South Staffordshire                  | No plans or orders found or referred to |
| WO 95/1663/3 | 8/The Royal Scots (Lothian Regiment)   | No plans or orders found or referred to |
| WO 95/1712/1 | 2/Devons                               |   |
| WO 95/1713/1 | 2/Middlesex                            | No plans or orders found or referred to |
| WO 95/1714/1 | 2/West Yorkshires                      |   |
| WO 95/1715/1 | 2/Cameronians                          |   |
| WO 95/1659/1 | 4/Cameron Highlanders                  | No plans or orders found or referred to |
| WO 95/1719/1 | 5/Black Watch (Royal Highlanders)      | No plans or orders found or referred to |
| WO 95/1719/2 | 2/East Lancashires                     |   |
| WO 95/1721/1 | 1/Notts and Derby (Sherwood Foresters) | No plans or orders found or referred to |
| WO 95/1722/1 | 2/Northamptons                         | No plans or orders found or referred to |
| WO 95/1723/1 | 1/Worcestershire                       |   |
| WO 95/1729/1 | 2/Royal Berkshires                     | No plans or orders found or referred to |
| WO 95/1730/1 | 2/Lincolns                             | No plans or orders found or referred to |
| WO 95/1730/3 | 13/London                              |   |
| WO 95/1730/4 | 1/Royal Irish Rifles                   |   |
| WO 95/1731/1 | 2/Rifle Brigade                        |   |

#### **B.4.1.2** Indian Corps

| Reference    | Battalion name         | Plan status                             |
|--------------|------------------------|---|
| WO 95/3941/1 | 1/Seaforth Highlanders |   |
| WO 95/3941/2 | 4/Seaforth Highlanders | No plans or orders found or referred to |
| WO 95/3941/3 | 1/9th Gurkhas          |   |

| Reference    | Battalion name            | Plan status                             |
|--------------|---------------------------|---|
| WO 95/3942/1 | 2/2th Gurkhas             |   |
| Missing      | 2/39th Garhwal Rifles     | No plans or orders found or referred to |
| WO 95/3945/1 | 3/London                  | No plans or orders found or referred to |
| WO 95/3945/2 | 2/Leicesters              |   |
| WO 95/3945/3 | 1/39th Garhwal Rifles     | No plans or orders found or referred to |
| WO 95/3946/1 | 2/3 Gurkhas               |   |
| Missing      | 6/Jats                    | No plans or orders found or referred to |
| WO 95/3948/1 | 2/The Black Watch         |   |
| WO 95/3948/2 | 4/The Black Watch         | No plans or orders found or referred to |
| WO 95/3948/3 | 41/Dogras                 | No plans or orders found or referred to |
| WO 95/3948/4 | 58/Vaughan's Rifles       | No plans or orders found or referred to |
| WO 95/3923/1 | 1/Connaught Rangers       | No plans or orders found or referred to |
| WO 95/3923/3 | 4/London                  | No plans or orders found or referred to |
| WO 95/3923/4 | 9/Bhopal Infantry         |   |
| WO 95/3923/5 | 57/Wilde's Rifles         |   |
| WO 95/3924/3 | 129/Baluchis              | No plans or orders found or referred to |
| WO 95/3927/2 | 4/Suffolk                 |   |
| WO 95/3927/4 | 47 Sikhs                  | No plans or orders found or referred to |
| WO 95/3927/5 | 59/Scinde Rifles          |   |
| WO 95/3929/1 | 1/Highland Light Infantry | No plans or orders found or referred to |
| WO 95/3929/2 | 4/Liverpool               | No plans or orders found or referred to |
| WO 95/3929/3 | 1/1/Gurkhas               | No plans or orders found or referred to |
| WO 95/3929/4 | 1/4/Gurkhas               | No plans or orders found or referred to |
| WO 95/3929/5 | 15/Sikhs                  | No plans or orders found or referred to |

#### B.4.2 Loos

## **B.4.2.1** First Army - I Corps

| Reference    | Battalion name                                 | Plan status                            |
|--------------|--|--|
| WO 95/1366/2 | 1/5 Scottish Rifles                            | No plan or orders found or referred to |
| WO 95/1365/2 | 1/Middlesex                                    | No plan or orders found or referred to |
| WO 95/1366/1 | 1/Scottish Rifles                              | No plan or orders found or referred to |
| WO 95/1365/1 | 2/Argyle and Sutherland<br>Highlanders         | No plan or orders found or referred to |
| WO 95/1365/3 | 2/Royal Welch Fusiliers                        | No plan or orders found or referred to |
| WO 95/1347/3 | 1/9/HLI  | No plan or orders found or referred to |
| WO 95/1350/3 | 1/Queen's                                      | No plan or orders found or referred to |
| WO 95/1347/2 | 2/HLI  | No plan or orders found or referred to |
| WO 95/1348/2 | 2/Oxfordshire & Buckinghamshire Light Infantry | No plan or orders found or referred to |
| WO 95/1351/1 | 2/Worcester                                    | No plan or orders found or referred to |
| WO 95/1358/2 | 1/1/Hertfordshire                              | No plan or orders found or referred to |

| Reference                    | Battalion name                          | Plan status                            |
|------------------------------|---|--|
| WO 95/1360/2                 | 1/King's                                | No plan or orders found or referred to |
| WO 95/1358/3                 | 1/KRRC                                  | No plan or orders found or referred to |
| WO 95/1361/1                 | 1/Royal Berkshire                       | No plan or orders found or referred to |
| WO 95/1362/1                 | 2/South Staffordshire                   | No plan or orders found or referred to |
| WO 95/1360/3                 | 5/King's                                | No plan or orders found or referred to |
| WO 95/2274/3                 | 1/5/King's Own                          |  |
| WO 95/2274/1                 | 1/KOYLI                                 |  |
| WO 95/2275/2                 | 1/York and Lancaster                    |  |
| WO 95/2274/2                 | 2 /King's Own                           |  |
| WO 95/2275/1                 | 2/East Yorkshire                        |  |
| WO 95/2277/5                 | 1/6/Welch                               |  |
| WO 95/2277/3                 | 1/Suffolk                               |  |
| WO 95/2277/4                 | 1/Welch                                 |  |
| WO 95/2276/2                 | 2/Cheshire                              |  |
| WO 95/2277/2                 | 2/Northumberland Fusiliers              |  |
| WO 95/2279/2                 | 2/Buffs                                 |  |
| WO 95/2279/1                 | 2/East Surrey                           |  |
| WO 95/2279/4                 | 3/Middlesex                             | No plan or orders found or referred to |
| WO 95/2279/3                 | 3/Royal Fusiliers                       |  |
| WO 95/1657/1                 | 1/6/Gordon Highlanders                  | No plan or orders found or referred to |
| WO 95/1655/1                 | 2/Borderers                             |  |
| WO 95/1656/2                 | 2/Gordon Highlanders                    | No plan or orders found or referred to |
| WO 95/1655/2                 | 8/Devonshire                            | No plan or orders found or referred to |
| WO 95/1656/1                 | 9/Devonshire                            | No plan or orders found or referred to |
| WO 95/1659/1                 | 1/4/Cameron Highlanders                 | No plan or orders found or referred to |
| WO 95/1658/2                 | 2/Bedfordshire                          |  |
| WO 95/1659/4                 | 2/Green Howards                         | No plan or orders found or referred to |
| WO 95/1659/2                 | 2/Royal Scots Fusiliers                 | No plan or orders found or referred to |
| WO 95/1659/3                 | 2/Wiltshire                             | No plan or orders found or referred to |
| WO 95/1665/1                 | 1/Royal Welsh Fusiliers                 | No plan or orders found or referred to |
| WO 95/1664/2                 | 1/South Staffordshire                   |  |
| WO 95/1664/1                 | 2/Queen's                               | No plan or orders found or referred to |
| WO 95/1664/3                 | 2/Royal Warwickshire                    |  |
| WO 95/1767/1                 | 5/Cameron Highlander                    | No plan or orders found or referred to |
| WO 95/1765/1                 | 7/Seaforth Highlander                   | No plan or orders found or referred to |
| WO 95/1766/1                 | 8/Black Watch                           | No plan or orders found or referred to |
| WO 95/1767/2                 | 8/Gordon Highlander                     |  |
| WO 95/1768/1<br>WO 95/1772/1 | 10/Argyll and Sutherland<br>Highlanders |  |
| WO 95/1773/1                 | 11/Royal Scots                          | No plan or orders found or referred to |

| Reference                    | Battalion name          | Plan status                            |
|------------------------------|-------------------------|--|
| WO 95/1773/2                 | 12/Royal Scots          | No plan or orders found or referred to |
| WO 95/1772/3                 | 6/Royal Scots Fusiliers | No plan or orders found or referred to |
| WO 95/1775/1                 | 10/HLI                  |  |
| WO 95/1775/2                 | 11/HLI                  | No plan or orders found or referred to |
| WO 95/1775/3                 | 6/KOSB                  | No plan or orders found or referred to |
| WO 95/1772/4<br>WO 95/1775/4 | 9/Scottish Rifles       | No plan or orders found or referred to |
| WO 95/1775/4                 | 9/Scottish Rifles       | No plan or orders found or referred to |

## **B.4.2.2** First Army - III Corps

| Battalion name          | Plan status   |
|-------------------------|---|
| 10/KRRC                 | No plan or orders found or referred to  |
| 10/Rifle Brigade        | No plan or orders found or referred to  |
| 11/Rifle Brigade        | No plan or orders found or referred to  |
| 12/KRRC                 | No plan or orders found or referred to  |
| 12/Rifle Brigade        |   |
| 6/Ox & Bucks LI         |   |
| 7/Duke of Cornwall's LI | No plan or orders found or referred to  |
| 10/Duke of Wellington's |   |
| 1/5 Black Watch         |   |
| 1/Sherwood Foresters    |   |
| 1/Worcestershire        |   |
| 2/East Lancashire       |   |
| 2/Northamptonshire      |   |
| 1/1 London              |   |
| 1/8 Middlesex           |   |
| 1/Royal Irish Rifles    |   |
| 2/Lincolnshire          |   |
| 2/Rifle Brigade         |   |
| 2/Royal Berkshires      |   |
|                         | 10/KRRC  10/Rifle Brigade  11/Rifle Brigade  12/KRRC  12/Rifle Brigade  6/Ox & Bucks LI  7/Duke of Cornwall's LI  10/Duke of Wellington's  1/5 Black Watch  1/Sherwood Foresters  1/Worcestershire  2/East Lancashire  2/Northamptonshire  1/1 London  1/8 Middlesex  1/Royal Irish Rifles  2/Rifle Brigade |

#### **B.4.2.3** First Army - Indian Corps

| Reference    | Battalion name               | Plan status                            |
|--------------|------------------------------|--|
| WO 95/2079/2 | 7/East Lancashire            |  |
| WO 95/2078/1 | 7/King's Own Royal Lancaster | No plan or orders found or referred to |
| WO 95/2080/1 | 7/Loyal North Lancashire     |  |
| WO 95/2081/1 | 7/South Lancashire           |  |
| WO 95/2085/1 | 8/Gloucester                 |  |
| WO 95/2085/2 | 8/North Staffordshire        |  |

| Reference    | Battalion name          | Plan status                            |
|--------------|-------------------------|--|
| WO 95/2093/2 | 6/Wiltshire             | No plan or orders found or referred to |
| WO 95/2090/1 | 9/Cheshire              |  |
| WO 95/2092/1 | 9/Royal Welsh Fusiliers | No plan or orders found or referred to |
| WO 95/2092/2 | 9/Welsh                 | No plan or orders found or referred to |
| WO 95/3923/1 | 1/Connaught Rangers     |  |
| WO 95/3924/1 | 89/Punjabis             |  |
| WO 95/3927/3 | 40/Pathans              |  |
| WO 95/3948/1 | 1/The Black Watch       | No plan or orders found or referred to |
| WO 95/3948/2 | 4/The Black Watch       | No plan or orders found or referred to |
| WO 95/3948/4 | 58/Vaughan's Rifles     |  |
| Missing      | 6/Jats                  |  |
| WO 95/3948/6 | 69/Punjabis             | No plan or orders found or referred to |
| WO 95/3941/3 | 1/9th Gurkhas           | No plan or orders found or referred to |
| WO 95/3942/1 | 2/2 Gurkhas             |  |
| WO 95/3941/2 | 4/Seaforth Highlanders  |  |
| WO 95/3945/3 | 1/39th Garhwal Rifles   |  |
| WO 95/3946/1 | 2/3 Gurkhas             |  |
| WO 95/3945/2 | 2/Leicesters            |  |
| WO 95/3945/1 | 3/London                |  |

## **B.4.2.4** First Army - IV Corps

| Reference    | Battalion name                | Plan status                            |
|--------------|-------------------------------|--|
| WO 95/1266/2 | 1/14 London (London Scottish) |  |
| WO 95/1263/3 | 1/Black Watch                 | No plan or orders found or referred to |
| WO 95/1264/2 | 1/Cameron Highlanders         | No plan or orders found or referred to |
| WO 95/1265/2 | 10/Gloucestershire            | No plan or orders found or referred to |
| WO 95/1265/1 | 8/Royal Berkshire             | No plan or orders found or referred to |
| WO 95/1269/3 | 1/9/King's                    | No plan or orders found or referred to |
| WO 95/1272/3 | 1/KRRC                        | No plan or orders found or referred to |
| WO 95/1271/1 | 1/Northamptonshire            | No plan or orders found or referred to |
| WO 95/1270/2 | 2/Loyal North Lancashire      | No plan or orders found or referred to |
| WO 95/1269/1 | 2/Royal Sussex                | No plan or orders found or referred to |
| WO 95/1278/2 | 1/Gloucester                  |  |
| WO 95/1280/3 | 1/South Wales Borderers       | No plan or orders found or referred to |
| WO 95/1279/1 | 2/Royal Munster Fusiliers     | No plan or orders found or referred to |
| WO 95/1281/2 | 2/Welsh                       | No plan or orders found or referred to |
| WO 95/1938/2 | 10/Gordon Highlander          |  |
| WO 95/1941/1 | 7/Cameron Highlanders         | No plan or orders found or referred to |
| WO 95/1939/1 | 8/Seaforth Highlanders        |  |
| WO 95/1937/2 | 9/Black Watch                 | No plan or orders found or referred to |

| Reference    | Battalion name                           | Plan status                            |
|--------------|--|--|
| WO 95/1944/2 | 11/Argyll & Sutherland Highlander        |  |
| WO 95/1946/1 | 13/Royal Scots                           |  |
| WO 95/1945/1 | 6/Cameron Highlanders                    |  |
| WO 95/1947/1 | 7/Royal Scottish Fusiliers               | No plan or orders found or referred to |
| WO 95/1954/2 | 10/Scottish Rifles                       | No plan or orders found or referred to |
| WO 95/1952/2 | 12/HLI                                   | No plan or orders found or referred to |
| WO 95/1953/1 | 7/King's Own Scottish Borderers          | No plan or orders found or referred to |
| WO 95/1953/2 | 8/King's Own Scottish Borderers          |  |
| WO 95/2732/1 | 1/15/London (Civil Service Rifles)       |  |
| WO 95/2729/1 | 1/6/London (City of London)              |  |
| WO 95/2730/1 | 1/7/London (City of London)              | No plan or orders found or referred to |
| WO 95/2731/1 | 1/8/London (Post Office Rifle)           | No plan or orders found or referred to |
| WO 95/2737/1 | 1/17/London (Poplar & Stepney<br>Rifles) |  |
| WO 95/2737/2 | 1/18/London (London Irish Rifles)        | No plan or orders found or referred to |
| WO 95/2738/1 | 1/19/London (St. Pancras)                |  |
| WO 95/2738/2 | 1/20/London (Blackheath & Woolwich)      |  |
| WO 95/2732/5 | 1/21/London (1 Surrey Rifles)            | No plan or orders found or referred to |
| WO 95/2743/1 | 1/22/London (Queen's)                    | No plan or orders found or referred to |
| WO 95/2744/1 | 1/23/London                              | No plan or orders found or referred to |
| WO 95/2744/2 | 1/24/London (Queen's)                    | No plan or orders found or referred to |

# **B.4.2.5** First Army - XI Corps

| Reference    | Battalion name                | Plan status                            |
|--------------|-------------------------------|--|
| WO 95/1856/2 | 11/Middlesex                  |  |
| WO 95/1857/1 | 8/Royal Fusilier              | No plan or orders found or referred to |
| WO 95/1863/1 | 6/Queen's Own Royal West Kent |  |
| WO 95/1862/1 | 7/East Surrey                 |  |
| WO 95/2156/2 | 10/Green Howards              | No plan or orders found or referred to |
| WO 95/2155/1 | 12/Northumberland Fusiliers   | No plan or orders found or referred to |
| WO 95/1424/2 | 8/East Yorkshire              | No plan or orders found or referred to |
| WO 95/1432/2 | 12/West Yorkshire             | No plan or orders found or referred to |
| WO 95/2158/1 | 8/Lincolnshire                | No plan or orders found or referred to |
| WO 95/2158/3 | 8/Somerset Light Infantry     | No plan or orders found or referred to |
| WO 95/1616/1 | 11/Essex                      |  |
| WO 95/1611/1 | 8/Bedfordshire                | No plan or orders found or referred to |
| WO 95/1623/1 | 9/Norfolk                     | No plan or orders found or referred to |
| WO 95/1625/1 | 9/Suffolk                     | No plan or orders found or referred to |
| WO 95/2207/1 | 8/Buffs                       | No plan or orders found or referred to |
|              |                               |  |

| Reference    | Battalion name         | Plan status                            |
|--------------|------------------------|--|
| WO 95/2213/2 | 8/Royal West Kent      | No plan or orders found or referred to |
| WO 95/2208/1 | 12/Royal Fusiliers     |  |
| WO 95/2686/1 | 1/5 South Staffs.      |  |
| WO 95/2694/2 | 1/7 Sherwood Foresters |  |
| WO 95/2695/2 | 1/8 Sherwood Foresters |  |
| WO 95/1216/1 | 1/Irish Guards         | No plan or orders found or referred to |
| WO 95/1215/2 | 2/Coldstream Guards    | No plan or orders found or referred to |
| WO 95/1215/1 | 2/Grenadier Guards     | No plan or orders found or referred to |
| WO 95/1215/3 | 3/Coldstream Guards    | No plan or orders found or referred to |
| WO 95/1219/2 | 1/Coldstream Guards    | No plan or orders found or referred to |
| WO 95/1219/4 | 1/Scots Guards         | No plan or orders found or referred to |
| WO 95/1220/1 | 2/Irish Guards         | No plan or orders found or referred to |
| WO 95/1219/1 | 3/Grenadier Guards     | No plan or orders found or referred to |

#### B.4.3 1st Albert

## **B.4.3.1** Third Army - VII Corps

| Reference    | Battalion name                                | Plan status                    |
|--------------|---|--------------------------------|
| WO 95/2694/1 | 1/6 Sherwood Foresters                        |                                |
| WO 95/2694/2 | 7 Notts. and Derby                            | No orders found or referred to |
| WO 95/2695/1 | 1/5 Sherwood Foresters                        | No orders found or referred to |
| WO 95/2695/2 | 1/8 Sherwood Foresters                        | No orders found or referred to |
| WO 95/2694/2 | 1/7 Sherwood Foresters                        |                                |
| WO 95/2950/2 | 1/8 Battalion Middlesex Regiment              | No orders found or referred to |
| WO 95/2950/1 | 1/7 Battalion Middlesex Regiment              | No orders found or referred to |
| WO 95/2949/2 | 1/3 London                                    | No orders found or referred to |
| WO 95/2949/1 | 1/1 London                                    | No orders found or referred to |
| WO 95/2956   | 1/14 London (London Scottish)                 | No orders found or referred to |
| WO 95/2955/2 | 1/13 London Regiment (Kensington)             | No orders found or referred to |
| WO 95/2954/2 | 1/12/London Regiment (Rangers)                | No orders found or referred to |
| WO 95/2954/1 | 1/4 London Regiment (City of London)          |                                |
| WO 95/2963/2 | 1/16/London Regiment (Queen's Westminsters)   | No orders found or referred to |
| WO 95/2963/1 | 1/9/London Regiment (Queen Victoria's Rifles) | No orders found or referred to |
| WO 95/2961/1 | 1/5/London Regiment (London Rifle Brigade)    |                                |
| WO 95/2960   | 1/2/London Regiment (City of London)          | No orders found or referred to |

# **B.4.3.2** Fourth Army - III Corps

| Reference  | Battalion name | Plan status                             |
|------------|----------------|---|
| WO 95/2458 | 11th Suffolks  |   |
| WO 95/2458 | 15 Royal Scots | No plans or orders found or referred to |

| Reference    | Battalion name              | Plan status                             |
|--------------|-----------------------------|---|
| WO 95/2457   | 16 Royal Scots              | No plans or orders found or referred to |
| WO 95/2457   | 10th Lincolns               | No plans or orders found or referred to |
| WO 95/2462/4 | 20 Northumberland Fusiliers | No plans or orders found or referred to |
| WO 95/2462/5 | 21 Northumberland Fusiliers | No plans or orders found or referred to |
| WO 95/2463/1 | 22 Northumberland Fusiliers |   |
| WO 95/2463/2 | 23 Northumberland Fusiliers |   |
| WO 95/2466   | 24 Northumberland Fusiliers | No plans or orders found or referred to |
| WO 95/2467/1 | 25 Northumberland Fusiliers | No plans or orders found or referred to |
| WO 95/2467/2 | 26 Northumberland Fusiliers | No plans or orders found or referred to |
| WO 95/2467/3 | 27 Northumberland Fusiliers | No plans or orders found or referred to |
| WO 95/1712   | 2 Devons                    | No plans or orders found or referred to |
| WO 95/1714   | 2 West Yorkshires           | No plans or orders found or referred to |
| WO 95/1715   | 2 Scottish Rifles           | No plans or orders found or referred to |
| WO 95/1713   | 2 Middlesex                 | No plans or orders found or referred to |
| WO 95/1730   | 2 Lincolnshires             | No plans or orders found or referred to |
| WO 95/1729   | 2 Royal Berkshires          | No plans or orders found or referred to |
| WO 95/1730   | 1 Royal Irish Rifles        |   |
| WO 95/1731   | 2 Rifle Brigade             |   |
| WO 95/2187   | 11 Sherwood Foresters       |   |
| WO 95/2187   | 8 KOYLI                     | No plans or orders found or referred to |
| WO 95/2188   | 8 Yorks & Lancs             |   |
| WO 95/2188   | 9 Yorks & Lancs             | No plans or orders found or referred to |

# **B.4.3.3** Fourth Army - VIII Corps

| Reference    | Battalion name                  | Plan status                             |
|--------------|---------------------------------|---|
| WO 95/2301   | 2 Royal Fusiliers               | No plans or orders found or referred to |
| WO 95/2300   | 1 Lancashire Fusiliers          |   |
| WO 95/2302   | 16 Middlesex                    |   |
| WO 95/2301   | 1 Royal Dublin Fusiliers        |   |
| WO 95/2304   | 2 South Wales Borderers         |   |
| WO 95/2304   | 1 King's Own Scottish Borderers | No plans or orders found or referred to |
| WO 95/2305   | 1 Royal Inniskilling Fusiliers  | No plans or orders found or referred to |
| WO 95/2305   | 1 Border                        | No plans or orders found or referred to |
| WO 95/2309   | 4 Worcestershire                | No plans or orders found or referred to |
| WO 95/2308/3 | 2 Hampshire                     |   |
| WO 95/2309   | 1 Essex                         | No plans or orders found or referred to |
| WO 95/2308/1 | 1 Royal Newfoundland            | No plans or orders found or referred to |
| WO 95/2357/1 | 10 East Yorkshire               | No plans or orders found or referred to |
| WO 95/2357/2 | 11 East Yorkshire               | No plans or orders found or referred to |
| WO 95/2357/3 | 12 East Yorkshire               | No plans or orders found or referred to |

| Reference    | Battalion name               | Plan status                             |
|--------------|------------------------------|---|
| WO 95/2357/4 | 13 East Yorkshire            | No plans or orders found or referred to |
| WO 95/2361/3 | 15 West Yorkshire            | No plans or orders found or referred to |
| WO 95/2362/1 | 16 West Yorkshire            | No plans or orders found or referred to |
| WO 95/2361/1 | 18 West Yorkshire            | No plans or orders found or referred to |
| WO 95/2362/2 | 18 Durham Light Infantry     | No plans or orders found or referred to |
| WO 95/2366/1 | 11 East Lancashire           | No plans or orders found or referred to |
| WO 95/2365/1 | 12 York and Lancaster        |   |
| WO 95/2365/2 | 13 York and Lancaster        | No plans or orders found or referred to |
| WO 95/2365/3 | 14 York and Lancaster        |   |
| WO 95/1484   | 1 Royal Warwickshire         | No plans or orders found or referred to |
| WO 95/1483   | 2 Seaforth Highlanders       | No plans or orders found or referred to |
| WO 95/1482   | 1 Royal Irish Fusiliers      | No plans or orders found or referred to |
| WO 95/1481   | 2 Royal Dublin Fusiliers     | No plans or orders found or referred to |
| WO 95/1499   | 1 Somerset Light Infantry    | No plans or orders found or referred to |
| WO 95/1498   | 1 East Lancashire            |   |
| WO 95/1495   | 1 Hampshire                  | No plans or orders found or referred to |
| WO 95/1496   | 1 Rifle Brigade              |   |
| WO 95/1506   | 1 King's Own Royal Lancaster | No plans or orders found or referred to |
| WO 95/1507   | 2 Lancashire Fusiliers       |   |
| WO 95/1508   | 2 West Riding (Duke's)       | No plans or orders found or referred to |
| WO 95/1505   | 2 Essex                      |   |

## **B.4.3.4** Fourth Army - X Corps

| Reference    | Battalion name                  | Plan status                             |
|--------------|---------------------------------|---|
| WO 95/2503/1 | 8 Royal Irish Rifles            | No plans or orders found or referred to |
| WO 95/2503/2 | 9 Royal Irish Rifles            | No plans or orders found or referred to |
| WO 95/2503/4 | 10 Royal Irish Rifles           | No plans or orders found or referred to |
| WO 95/2503/5 | 15 Royal Irish Rifles           | No plans or orders found or referred to |
| WO 95/2506/1 | 11 Royal Irish Rifles           |   |
| WO 95/2506/2 | 12 Royal Irish Rifles           |   |
| WO 95/2506/3 | 13 Royal Irish Rifles           |   |
| WO 95/2505/2 | 9 Royal Irish Fusiliers         | No plans or orders found or referred to |
| WO 95/2510/3 | 9 Royal Inniskilling Fusiliers  | No plans or orders found or referred to |
| WO 95/2510/4 | 10 Royal Inniskilling Fusiliers | No plans or orders found or referred to |
| WO 95/2510/5 | 11 Royal Inniskilling Fusiliers | No plans or orders found or referred to |
| WO 95/2511/1 | 14 Royal Irish Rifles           | No plans or orders found or referred to |
| WO 95/2392/2 | 2 Manchester                    |   |
| WO 95/2392/1 | 1 Dorset                        |   |
| WO 95/2392/3 | 5/6 Royal Scots                 | No plans or orders found or referred to |
| WO 95/2393/2 | 15 Highland Light Infantry      |   |

| Reference    | Battalion name              | Plan status                             |
|--------------|-----------------------------|---|
| WO 95/2397   | 16 Northumberland Fusiliers | No plans or orders found or referred to |
| WO 95/2397/3 | 15 Lancashire Fusiliers     | No plans or orders found or referred to |
| WO 95/2398/1 | 16 Lancashire Fusiliers     | No plans or orders found or referred to |
| WO 95/2394/1 | 19 Lancashire Fusiliers     |   |
| WO 95/2403/1 | 11 Border Regiment          | No plans or orders found or referred to |
| WO 95/2127/2 | 2 KOYLI                     | No plans or orders found or referred to |
| WO 95/2403/3 | 16 Highland Light Infantry  | No plans or orders found or referred to |
| WO 95/2403/3 | 17 Highland Light Infantry  | No plans or orders found or referred to |

## **B.4.3.5** Fourth Army - XIII Corps

| Reference    | Battalion name                     | Plan status                             |
|--------------|------------------------------------|---|
| WO 95/2040/1 | 8 Norfolk                          |   |
| WO 95/2039/1 | 8 Suffolk                          | No plans or orders found or referred to |
| WO 95/2038/2 | 10 Essex                           | No plans or orders found or referred to |
| WO 95/2037/1 | 6 Royal Berkshire                  |   |
| WO 95/2045/1 | 11 Royal Fusiliers                 | No plans or orders found or referred to |
| WO 95/2044/1 | 12 Middlesex                       | No plans or orders found or referred to |
| WO 95/2044/2 | 6 Northamptonshire                 |   |
| WO 95/2043/2 | 7 Bedfordshire                     |   |
| WO 95/2049/2 | 7 Queen's (Royal West Surrey)      |   |
| WO 95/2049/1 | 7 Buffs                            |   |
| WO 95/2050/1 | 8 East Surrey Regiment             |   |
| WO 95/2051/1 | 7 Queen's Own (Royal West Kent)    |   |
| WO 95/2334/1 | 17 King's Regiment (Liverpool)     | No plans or orders found or referred to |
| WO 95/2335   | 20 King's Regiment (Liverpool)     |   |
| WO 95/2334/2 | 19 King's Regiment (Liverpool)     | No plans or orders found or referred to |
| WO 95/2333/1 | 2 Bedfordshire                     |   |
| WO 95/2339/1 | 16 Manchester                      | No plans or orders found or referred to |
| WO 95/2334/2 | 17 Manchester                      |   |
| WO 95/2339/3 | 18 Manchester                      |   |
| WO 95/2340/1 | 2 Royal Scots Fusiliers            | No plans or orders found or referred to |
| WO 95/2329/2 | 2 (Prince of Wales' Own) Yorkshire | No plans or orders found or referred to |
| WO 95/2329/4 | 19 Manchester                      |   |
| WO 95/2329/1 | 2 Wiltshire                        |   |
| WO 95/2330/1 | 18 King's Regiment (Liverpool)     | No plans or orders found or referred to |
| WO 95/1766/4 | 8 Black Watch                      | No plans or orders found or referred to |
| WO 95/1765/1 | 7 Seaforth                         | No plans or orders found or referred to |
| WO 95/1767/1 | 5 Cameron Highlanders              | No plans or orders found or referred to |
| WO 95/1768/1 | 10 Argyll & Sutherland             | No plans or orders found or referred to |
| WO 95/1773/1 | 11 Royal Scots                     | No plans or orders found or referred to |

| Reference    | Battalion name                  | Plan status                             |
|--------------|---------------------------------|---|
| WO 95/1773/2 | 12 Royal Scots                  | No plans or orders found or referred to |
| WO 95/1772/3 | 6 Royal Scots Fusiliers         | No plans or orders found or referred to |
| WO 95/1768/1 | 6 King's Own Scottish Borderers | No plans or orders found or referred to |
| WO 95/1780   | 1 South African                 | No plans or orders found or referred to |
| WO 95/1781   | 2 South African                 | No plans or orders found or referred to |
| WO 95/1782   | 3 South African                 | No plans or orders found or referred to |
| WO 95/1785/1 | 4 South African                 | No plans or orders found or referred to |

## **B.4.3.6** Fourth Army - XV Corps

| Reference                     | Battalion name                | Plan status                             |
|-------------------------------|-------------------------------|---|
| WO 95/2155/2                  | 13 Northumberland Fusiliers   |   |
| WO 95/2156                    | 10 Yorkshire                  | No plans or orders found or referred to |
| WO 95/2155/1.                 | 12 Northumberland Fusiliers   | No plans or orders found or referred to |
| WO 95 2154/1                  | 1 Lincolns                    | No plans or orders found or referred to |
| WO 95/2158/1                  | 8 Lincolnshire.               | No plans or orders found or referred to |
| WO 95/2158/3                  | 8 Somerset Light Infantry.    | No plans or orders found or referred to |
| WO 95/2158/2                  | 4 Middlesex                   |   |
| WO 95/2158/4                  | 10 York and Lancaster         |   |
| WO 95/2161/2                  | 1 East Yorkshire              | No plans or orders found or referred to |
| WO 95/2162.1                  | 9 KOYLI                       | No plans or orders found or referred to |
| WO 95/2162.2                  | 10 KOYLI                      | No plans or orders found or referred to |
| WO 95/2161/1                  | 15 DLI                        | No plans or orders found or referred to |
| WO 95/1655/1                  | 2 Border                      |   |
| WO 95/1656/2                  | 2 Gordon Highlanders          | No plans or orders found or referred to |
| WO 95/1655/2                  | 8 Devon                       |   |
| WO 95/1656/1                  | 9 Devon                       |   |
| WO 95/1664/3                  | 2 Royal Warwickshire Regiment |   |
| WO 95/1665/1                  | 1 Royal Welsh Fusiliers       |   |
| WO 95/1663/1                  | 20 Manchester                 |   |
| WO 95/1497/2,<br>WO 95/1662/2 | 2 Royal Irish Regiment        |   |
| WO 95/1670/1                  | 2 Queens                      | No plans or orders found or referred to |
| WO 95/1670/2                  | 1 South Staffordshire         | No plans or orders found or referred to |
| WO 95/1668                    | 21 Manchester                 | No plans or orders found or referred to |
| WO 95/1669/1                  | 22 Manchester                 | No plans or orders found or referred to |

#### **B.4.4** Flers-Courcelette

## **B.4.4.1** Fifth Army - II Corps

| Reference    | Battalion name   | Plan status                             |
|--------------|--|---|
| WO 95/1809/1 | 8 Battalion Duke of Wellington's (West Riding Regiment)                        | No plans or orders found or referred to |
| WO 95/1809/2 | 9 Battalion West Yorkshire Regiment  | No plans or orders found or referred to |
| WO 95/1809/4 | 6 Battalion Yorkshire Regiment   |   |
| WO 95/1809/5 | 6 Battalion York and Lancaster<br>Regiment                                     | No plans or orders found or referred to |
| WO 95/1813/1 | 9 Battalion Sherwood Foresters<br>(Nottinghamshire and Derbyshire<br>Regiment) |   |
| WO 95/1816/1 | 7 Battalion South Staffordshire Regiment.                                      | No plans or orders found or referred to |
| WO 95/1817/1 | 6 Battalion Border Regiment  |   |
| WO 95/1817/2 | 6 Battalion Lincolnshire Regiment  | No plans or orders found or referred to |
| WO 95/1820/1 | 5 Battalion Dorsetshire Regiment   | No plans or orders found or referred to |
| WO 95/1820/2 | 9 Battalion Lancashire Fusiliers   | No plans or orders found or referred to |
| WO 95/1821/1 | 11 Battalion Manchester Regiment   | No plans or orders found or referred to |
| WO 95/1821/2 | 8 Battalion Northumberland Fusiliers   | No plans or orders found or referred to |
| WO 95/2794/1 | 1/5 Battalion West Yorkshire Regiment  | No plans or orders found or referred to |
| WO 95/2794/1 | 1/5 Battalion West Yorkshire Regiment  | No plans or orders found or referred to |
| WO 95/2794/2 | 1/6 Battalion West Yorkshire Regiment  | No plans or orders found or referred to |
| WO 95/2795/1 | 1/7 Battalion West Yorkshire Regiment  | No plans or orders found or referred to |
| WO 95/2795/2 | 1/8 Battalion West Yorkshire Regiment  | No plans or orders found or referred to |
| WO 95/2799/2 | 1/4 Battalion Duke of Wellington's (West Riding Regiment)                      | No plans or orders found or referred to |
| WO 95/2800/2 | 1/5 Battalion Duke of Wellington's (West Riding Regiment).                     | No plans or orders found or referred to |
| WO 95/2801/2 | 1/6 Battalion Duke of Wellington's (West Riding Regiment)                      | No plans or orders found or referred to |
| WO 95/2802/1 | 1/7 Battalion Duke of Wellington's (West Riding Regiment)                      | No plans or orders found or referred to |
| WO 95/2805/1 | 1/4 Battalion York and Lancaster<br>Regiment                                   | No plans or orders found or referred to |
| WO 95/2805/2 | 1/5 Battalion York and Lancaster<br>Regiment                                   | No plans or orders found or referred to |
| WO 95/2806/1 | 1/4 Battalion King's Own Yorkshire<br>Light Infantry                           | No plans or orders found or referred to |
| WO 95/2806/2 | 1/5 Battalion King's Own Yorkshire<br>Light Infantry                           | No plans or orders found or referred to |

## **B.4.4.2** Fifth Army - Canadian Corps

| Reference  | Battalion name       | Plan status                             |
|------------|----------------------|---|
| WO 95/3760 | 1 Canadian Battalion | No plans or orders found or referred to |
| WO 95/3761 | 2 Canadian Battalion | No plans or orders found or referred to |

| Reference  | Battalion name   | Plan status                             |
|------------|--|---|
| WO 95/3762 | 3 Canadian Battalion                                     | No plans or orders found or referred to |
| WO 95/3763 | 4 Canadian Battalion                                     | No plans or orders found or referred to |
| WO 95/3767 | 5 Canadian Battalion                                     | No plans or orders found or referred to |
| WO 95/3768 | 7 Canadian Battalion                                     | No plans or orders found or referred to |
| WO 95/3769 | 8 Canadian Battalion                                     | No plans or orders found or referred to |
| WO 95/3770 | 10 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3776 | 13 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3778 | 14 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3779 | 15 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3781 | 16 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3814 | 18 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3816 | 19 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3817 | 20 Canadian Battalion -                                  | No plans or orders found or referred to |
| WO 95/3818 | 21 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3822 | 22 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3823 | 24 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3824 | 25 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3825 | 26 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3831 | 27 Canadian Battalion                                    |   |
| WO 95/3832 | 28 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3833 | 29 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3834 | 31 Canadian Battalion                                    |   |
| WO 95/3865 | Royal Canadian Regiment                                  | No plans or orders found or referred to |
| WO 95/3866 | 42 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3866 | Princess Patricia's Canadian Light<br>Infantry Battalion | No plans or orders found or referred to |
| WO 95/3867 | 49 Canadian Battn  | No plans or orders found or referred to |
| WO 95/3870 | 1 Canadian Mounted Rifle Battalion                       | No plans or orders found or referred to |
| WO 95/3871 | 2 Canadian Mounted Rifle Battalion                       | No plans or orders found or referred to |
| WO 95/3872 | 4 Canadian Mounted Rifle Battalion                       |   |
| WO 95/3873 | 5 Canadian Mounted Rifle Battalion                       |   |
| WO 95/3877 | 52 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3878 | 43 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3878 | 58 Canadian Battalion                                    | No plans or orders found or referred to |
| WO 95/3879 | 60 Canadian Battalion                                    | No plans or orders found or referred to |

# **B.4.4.3** Fourth Army - XV Corps

| Reference    | Battalion name             | Plan status                             |
|--------------|----------------------------|---|
| WO 95/1895/1 | 8/Rifle Brigade            | No plans or orders found or referred to |
| WO 95/1895/2 | 8/King's Royal Rifle Corps | No plans or orders found or referred to |
| WO 95/1896/1 | 7/Rifle Brigade            | No plans or orders found or referred to |

| Reference    | Battalion name   | Plan status                             |
|--------------|--|---|
| WO 95/1896/3 | 7/King's Royal Rifle Corps.                            | No plans or orders found or referred to |
| WO 95/1900/2 | 9/King's Royal Rifle Corps                             |   |
| WO 95/1900/4 | 5/Oxfordshire and<br>Buckinghamshire Light<br>Infantry | No plans or orders found or referred to |
| WO 95/1901/3 | 9/Rifle Brigade  | No plans or orders found or referred to |
| WO 95/1902/1 | 5/King's Shropshire Light<br>Infantry                  | No plans or orders found or referred to |
| WO 95/2155/1 | 12/Northumberland Fusiliers                            | No plans or orders found or referred to |
| WO 95/2155/2 | 13/Northumberland Fusiliers                            |   |
| WO 95/2635   | 18/K.R.R.C.  |   |
| WO 95/2634/2 | 12/East Surrey Regiment                                |   |
| WO 95/2634/4 | 11/Queen's Own (Royal West<br>Kent Regiment            | No plans or orders found or referred to |
| WO 95/2643/1 | 10/Queen's (Royal West<br>Surrey Regiment)             |   |
| WO 95/2643/4 | 21/King's Royal Rifle Corps.                           | No plans or orders found or referred to |
| WO 95/2638/1 | 10/Queen's Own (Royal West<br>Kent Regiment)           |   |
| WO 95/2644/3 | 32/Royal Fusiliers                                     |   |
| WO 95/2643/1 | 10/Queen's (Royal West<br>Surrey Regiment)             | No plans or orders found or referred to |
| WO 95/2643/4 | 21/King's Royal Rifle Corps.                           | No plans or orders found or referred to |
| WO 95/2644/1 | 26/Royal Fusiliers                                     | No plans or orders found or referred to |

# **B.4.4.4** Fourth Army - XIV Corps

| Reference     | Battalion name | Plan status                             |
|---------------|----------------|---|
| WO 95/1215/   | 1/Coldstreams  |   |
| WO 95/1215/1  | 2/Grenadiers   |   |
| WO 95/1215/2  | 2/Coldstreams  |   |
| WO 95/1216    | 1/Irish        |   |
| WO 95/1219/   | 1/Scots Guards | No plans or orders found or referred to |
| WO 95/1219/1  | 3/Grenadiers   | No plans or orders found or referred to |
| WO 95/1219/2  | 1/Coldstreams  | No plans or orders found or referred to |
| WO 95/122/1   | 1/Grenadiers   | No plans or orders found or referred to |
| WO 95/122/2   | 4/Grenadiers   | No plans or orders found or referred to |
| WO 95/122/4   | 2/Scots        | No plans or orders found or referred to |
| WO 95/1220/1  | 2/Irish Guards | No plans or orders found or referred to |
| WO 95/1224/1  | 1/Welsh        | No plans or orders found or referred to |
| W0 95/1608/2  | 1/Buffs        |   |
| W0 95/1609/2. | 1 KSL          |   |
| WO 95/1610/5. | 2/Y & L        | _                                       |
| WO 95/1611/1. | 8/Bedfordshire | No plans or orders found or referred to |

| Reference    | Battalion name                                   | Plan status                             |
|--------------|--|---|
| W0 95/1616/1 | 11/Essex   | No plans or orders found or referred to |
| W0 95/1617/1 | 2/DLI  |   |
| W0 95/1617/2 | 14/DLI   | No plans or orders found or referred to |
| W0 95/1618/2 | 1/West Yorkshire                                 | No plans or orders found or referred to |
| WO 95/162    | 9/Norfolk  | No plans or orders found or referred to |
| WO 95/1621   | 1/Leicestershire                                 |   |
| WO 95/1624   | 2/Sherwood Foresters                             |   |
| WO 95/1625/1 | 9/Suffolk Regiment                               | No plans or orders found or referred to |
| WO 95/2949/1 | 1/1 London                                       | No plans or orders found or referred to |
| WO 95/2949/2 | 1/3 London                                       | No plans or orders found or referred to |
| WO 95/2950/1 | 1/7/Middlesex Regiment                           |   |
| WO 95/2950/2 | 1/8/Middlesex Regiment                           | No plans or orders found or referred to |
| WO 95/2954/1 | 1/4/London Regiment (City of London)             |   |
| WO 95/2954/2 | 1/12/London Regiment (Rangers)                   | No plans or orders found or referred to |
| WO 95/2955/2 | 1/1/London Regiment<br>(Kensington)              |   |
| WO 95/2956   | 1/14/London (London<br>Scottish)                 | No plans or orders found or referred to |
| WO 95/296/1- | 1/9/London Regiment<br>(Queen Victoria's Rifles) |   |
| WO 95/296/2  | 1/16/London Regiment<br>(Queen's Westminsters)   | No plans or orders found or referred to |
| WO 95/2960   | 1/2/London Regiment (City of London)             | No plans or orders found or referred to |
| WO 95/2961/1 | 1/5/London Regiment<br>(London Rifle Brigade)    |   |

## **B.4.4.5** Fourth Army - III Corps

| Reference    | Battalion name                          | Plan status                             |
|--------------|---|---|
| W0 95/1937/2 | 9/Black Watch (Royal<br>Highlanders)    | No plans or orders found or referred to |
| W0 95/1938/2 | 10/Gordon Highlanders                   | No plans or orders found or referred to |
| W0 95/1938/3 | 8/10/Gordon Highlanders                 | No plans or orders found or referred to |
| WO 95/1941/1 | 7/Cameron Highlanders                   | No plans or orders found or referred to |
| W0 95/1944/2 | 11/Argyll and Sutherland<br>Highlanders | No plans or orders found or referred to |
| WO 95/1945/1 | 6/Cameron Highlanders                   |   |
| WO 95/1946/2 | 13/The Royal Scots                      | No plans or orders found or referred to |
| WO 95/1947/2 | 6/7/Royal Scots Fusiliers               | No plans or orders found or referred to |
| W0 95/1952/1 | 10/11/Highland Light<br>Infantry        | No plans or orders found or referred to |
| W0 95/1952/2 | 12/Highland Light Infantry              | No plans or orders found or referred to |

# **Lethal Dialectic**

| Reference    | Battalion name                                    | Plan status                             |
|--------------|---|---|
| W0 95/1953/3 | 7/8/King's Own Scottish<br>Borderers              | No plans or orders found or referred to |
| WO 95/1954/2 | 10/Cameronians (Scottish<br>Rifles)               | No plans or orders found or referred to |
| WO 95/2737/1 | 1/17th London Regiment                            |   |
| WO 95/2737/2 | 1/18/London Regiment<br>(London Irish Rifles)     | No plans or orders found or referred to |
| W0 95/2738/1 | 1/19/London Regiment (St.<br>Pancras)             |   |
| WO 95/2738/2 | 1/20/London Regiment<br>(Blackheath and Woolwich) |   |
| W0 95/2743/2 | 1/22/London Regiment<br>(The Queens)              | No plans or orders found or referred to |
| WO 95/2744/1 | 1/23/London Regiment<br>(County of London)        | No plans or orders found or referred to |
| WO 95/2744/2 | 1/24/London Regiment<br>(The Queens)              | No plans or orders found or referred to |
| WO 95/2828/1 | 4/Northumberland Fusiliers                        | No plans or orders found or referred to |
| WO 95/2828/2 | 5/Northumberland Fusiliers                        | No plans or orders found or referred to |
| WO 95/2834   | 4/East Yorks.                                     | No plans or orders found or referred to |
| WO 95/2836   | 4/Yorks   | No plans or orders found or referred to |
| WO 95/2836/4 | 5/Yorks   | No plans or orders found or referred to |
| WO 95/2837   | 5/DLI   | No plans or orders found or referred to |
| WO 95/2840/2 | 6/DLI   | No plans or orders found or referred to |
| WO 95/2840/4 | 9/DLI   | No plans or orders found or referred to |
| WO 95/2841/3 | 8/DLI   | No plans or orders found or referred to |
| W0 95/2843/4 | 5/Border Regiment                                 | No plans or orders found or referred to |

# Appendix C - Bibliography

#### C.1 Published works

- Amison, D. P., 'Warfare on the Western Front 1914-1918, Revolution in Military Affairs?', Joint Staff Support Center, Defense Information Systems Agency, United States Government, 2001.
- Anderson, J. H., Campaign of Jena 1806, Hugh Rees, (London, 1913).
- Anon., AEF, Artillery in Offensive Operations, US Army, Fort Leavenworth, 1 August 1917.
- Anon., Combined Training, HMSO (London, 1905).
- Anon., Combined Training, WO-CT 61030-3008, HMSO (London, 1902).
- Anon., Commands for the Exercise of Foot, Arm'd with Firelock-Muskets and Pikes; with the Evolutions, etc. MS. Additions, (London, 1690).
- Anon., Field and Brigade Movements and Infantry in Attack. Instructions and Remarks for use in the Camps of Instruction, Government Printer, (Ottawa, 1899).
- Anon., Field Artillery Training, WO-40-2016, HMSO, (London, 1914).
- Anon., Field Exercise and Evolutions of Infantry as revised by Her Majesty's Command, HMSO, (London, 1861, 1877 and 1884).
- Anon., Field Service Regulations 1905 Part I Combined Training, WO-40-30, HMSO, (London, 1905).
- Anon., Field Service Regulations 1909 Part I Operations, Reprinted, WO-40-1665, HMSO, (London, 1912).
- Anon., Field Service Regulations Part I WO-40-1665 HMSO, (London, 1912).
- Anon., Field Service Regulations Part II WO-79-1913 HMSO, (London, 1909).
- Anon., General Report on the Japanese System of Military Education and Training, WO 33/407 HMSO, (London, 1906).
- Anon., General Staff Conference 15th January, HMSO, (London, 1914).
- Anon., General Staff Conferences 17th to 20th January, HMSO, (London, 1910).
- Anon., Getting Strategy Right (Enough), The Royal College of Defence Studies, (Shrivenham, 2017).
- Anon., Infantry Drill (provisional), HMSO, (London, 1892 and 1896).
- Anon., Infantry Drill, HMSO, (London, 1889, 1890, 1893 and 1896).
- Anon., Infantry Training, WO 61030-3066, HMSO, (London, 1902, 1905, 1911, and 1914).
- Anon., Intelligence Duties in the Field, WO 7606-1334, HMSO, (London, 1904).
- Anon., Journal of the Society for Army Historical Research, Vol. 21. (Aldershot, 1921).
- Anon., Memorandum on Army Training during the Collective Training Period, War Office, HMSO, (London, 1913).
- Anon., *Notes from the Front Part III* 1 February 1915 BEF, CDS 4, (National Archives of Australia (NAA)/ NAA A5954 191/26).
- Anon., Official History of the Russo-Japanese war. Vol. I-II, HMSO, (London, 1904-8).
- Anon., Regulations respecting The Staff College, War Office, HMSO, (London, 1894).
- Anon., Report [and Minutes of Evidence and Appendices] of His Majesty's Commissioners appointed to inquire into the Military Preparations and other Matters connected with the

- war in South Africa, Cd. 1789–90–91–92, HMSO, (London, 1903–8) [hereafter Elgin Commission Report].
- Anon., Report of a conference of General Staff officers at the Staff College, 17-20 January 1910, War Office, (London, 1910).
- Anon., Report of a Conference of General Staff officers at the Staff College 1914 12th to 15th January, War Office, (London, 1914).
- Anon., Report of a Conference of General Staff officers at the Staff College, 12-15 January, War Office, (London, 1914).
- Anon., Report of a Conference of General Staff officers at the Staff College, 18-21 January, War Office, (London, 1909).
- Anon., Report of the Committee Appointed to Consider the Education and Training of Officers of the Army and Appendix, HMSO, (London, 1902) (Akers-Douglas).
- Anon., Report on Manoeuvres, War Office, (London, 1910).
- Anon., SS 106 Notes on the Tactical Employment of Machine Guns and Lewis Guns, BEF, 1 March 1916.
- Anon., SS 119 'Preliminary Notes on the Tactical Lessons of the Recent Operations', July 1916, BEF.
- Anon., Staff Manual, 40-WO-1674, HMSO, (London, 1912).
- Anon., Standards of Efficiency Lecture I, 13 November 1907, Imperial War Museum.
- Anon., Standards of Efficiency Lecture II, 25 November 1907, Imperial War Museum.
- Anon., The Attack Drill. (Sixteenth edition.), HMSO, (London, 1893).
- Anon., *The Manual and Platoon Exercises*, &c. &c. Great Britain. Adjutant-General's Office. Printed for T. Egerton at the Military Library, (London, 1804).
- Anon., *The Official history of the Russo-Japanese War*, prepared by the Historical Section of the Committee of Imperial Defence, Part IV, HMSO, (London,1920), Appendix D.
- Anon., The Russo-Japanese war, Reports from British Officers attached to the Japanese and Russian Forces in the Field, Vols I-III. HMSO (London, 1908).
- Anon., The War Cabinet, Report for the Year 1917, Cd. 9005, HMSO, (London, 1918).
- Anon., Training and Manoeuvre regulations, 40 WO 1821, HMSO, (London, 1912).
- Baden-Powell, R. S. S. Aids to Scouting for NCOs and Men, Gale and Polden, (London, 1915).
- Badsey, Stephen, *Doctrine and Reform in the British Cavalry 1880-1918*, Ashgate, (Aldershot, 2008).
- Bailey, Jonathan, Field Artillery and Firepower, Routledge, (London, 1989).
- Barry R. Posen, *The Sources of Military Doctrine, France, Britain and Germany Between the World Wars*, Cornell UP, (Ithaca, 1984).
- Becke, A. F., *Order of Battle of Divisions, Parts I-IV*, Naval and Military Press, (Uckfield, 2007).
- Beckett, Ian and Bowman, Timothy, Connolly, Mark, The British Army and the First World War, CUP, (Cambridge, 2017).
- Beckett, Ian F. W. and Corvi, Steven J., Haig's Generals, Kindle edition.
- BEF, SS 257, Fourth Army Tactical Notes, in Edmonds, J. E., ... 1916, Vol 1.
- Bird, W. D., Lectures on the Strategy of the Russo-Japanese War, Hugh Rees, (London, 1909).

- Bodt, Barry, et al., *An Experimental Testbed for Battle Planning*, Simulation Concepts Branch U. S. Army Research Laboratory, Aberdeen Proving Ground, (Aberdeen, 2008).
- Boff, Jonathan, *Haig's Enemy*, OUP, (Oxford, 2018).
- Boff, Jonathan, Winning and Losing on the Western Front, The British Third Army and the Defeat of Germany 1918, CUP, (Cambridge, 2012).
- Bonham-Carter, Victor, *The Strategy of Victory*, Holt Rinehart and Winston, (New York, 1962).
- Boraston, J. H. and Bax, C. E. O. *The Eighth Division in War 1914-1918*, Medici, (London, 1926).
- Bowman, Timothy and Connelly, Mark, *The Edwardian Army*, OUP (Oxford, 2015).
- Brackenbury, C. B., Field Works, Their Technical Construction and Tactical Application, Kegan Paul Trench, (London, 1888).
- Briggs, Milton and Jordan, Percy, Economic History of England, University Tutorial Press, (London, 1958).
- Brown, Ian Malcolm, British Logistics on the Western Front, Praeger, (London, 1998).
- Brunker, H. M. E., *Military History for examinations, questions on the Russo-Japanese War, from outbreak of hostilities to 24th August, with a diary of the war*, Forster Groom, (London, 1909).
- Callwell, C. E. *Field-Marshall Sir Henry Wilson, his life and diaries*, Vol I, Cassell, (London, 1927).
- Callwell, C. E., Small Wars, A Tactical Textbook for Imperial Soldiers, HMSO, (London, 1896).
- Camberley Reds Junior Division 1913, Camberley Reds Senior Division 1913, Library of the Defence Academy, Shrivenham, Oxfordshire UK.
- Carlson, Joel, From Spion Kop to the Somme, University of Ottawa, (Ottawa, 2008).
- Cassar, G. H., The Tragedy of Sir John French, University of Delaware Press, (London, 1985).
- Charteris, John, At GHO, London, (Cassell, 1931).
- Chasseaud, Peter, Rats Alley, Spellmount (Stroud, 2006).
- Chisholm, Hugh, ed., 'Hamley, Sir Edward Bruce'. *Encyclopædia Britannica*. *12* (11th ed.). Cambridge University Press. (Cambridge, 1911).
- Clarke, Francis Coningsby Hannam, Staff duties, HMSO, (London, 1884).
- Clausewitz, Carl von, On War, Book 1, Princeton UP, (Princeton, 1989).
- Cléry, Charles, *Minor Tactics*, King, (London, 1875).
- Connell, John, Wavell Scholar and soldier, Collins, (London, 1964).
- Cortazzi, Hugh (Ed.), Britain and Japan, Biographical Portraits, Vol. VII, The Japan Society and Global Oriental Publishing, (London, 2010).
- Creasy, Edward Shepherd, *Fifteen Decisive Battles of the World*, Bentley, (London, 25th edn., (London, 1874).
- Dale Clarke, British Artillery 1914–1919, Osprey Publishing, (Oxford, 2005 ISBN 1-84176-788-3).
- De Groot, Gerard, J., Douglas Haig 1961-1928, Unwin Hyman, (London, 1988).
- DeGruyther, *Tactics for beginners*, Gale and Polden, (London, 1904).
- Dräger, H. & B. 'Oxygen the life saver', Catalogue, Drägerwerke (Lübeck, 1909).

- Edmonds, J. E., and Wynne G. C., *Military Operations France and Belgium, 1915*, Volume I, Imperial War Museum, (London, 1927).
- Edmonds, J. E., Military Operations France and Belgium, 1916 Vol. 2, IWM, (London, 1995).
- Edmonds, J. E., *Military Operations France and Belgium, 1916 Vol. 2 Appendices,* IWM, (London, 1995).
- Edmonds, J. E., *Military Operations France and Belgium, 1916 Vol. I*, IWM, (London, 1995).
- Edmonds, J. E., *Military Operations France and Belgium, 1916, Vol I, Appendices* IWM, (London, 1995).
- Ellis, John, *The Social History of the Machine Gun*. New York, Arno Press, (New York, 1981).
- Ensor, Robert, England 1870-1914, Clarendon, (Oxford, 1986),.
- Farrell-Vinay, Peter, 'Overview of a Decision-Oriented Software Process Model' in Ross et al., *Software Quality Management*, Elsevier and Computational Mechanics publications, (London, 1993).
- Farndale, M., *History of the Royal Regiment of Artillery, Western Front 1914-18*, Royal Artillery Institution, (Woolwich 1986).
- Farrar-Hockley, A. H. *The Somme*, Pan, (London, 1964).
- Foch, F., 'De nos dernières attaques', in *Oeuvres Complètes*. Vol II, Ed. Economica, (Paris, 2008).
- Foley, Robert T., German Strategy and the Path to Verdun, CUP, (Cambridge, 2005).
- Foster, Hubert, How Armies are formed for war, Hugh Rees, (London, 1913).
- Foster, Hubert, Staff work, Hugh Rees, (London, 1912).
- Foster, Roy, Modern Ireland, Penguin, (London, 1988).
- Foulkes, C. H., Gas, Naval and Military Press, (Uckfield, 2003).
- Franklin, Henry Bowles, *The great Battles of 1870 and the Blockade of Metz*, Trübner, (London, 1887).
- French, D. and Reid, B. H. The British General Staff, Cass, (London, 2002).
- French, David, 'Sir James Edwards and the Official History', in Bond, Brian, *The First World War and British Military History*, Clarendon, (Oxford, 1991).
- Gooch, John, 'A particularly Anglo-Saxon Institution', The British General Staff in the era
  of two World Wars' in French, D. and Reid, B. H. *The British General Staff*, Cass,
  (London, 2002).
- Gooch, John, The Plans of War, Routledge, (London, 1974).
- Gough Hubert, Soldiering on, Arthur Barker Ltd, (London, 1954).
- Graham, Dominic, Sans Doctrine, British Army Tactics in the First World War in Travers, Tim and Archer, Christon, (Eds.), *Men at War*, Precedent, (Chicago, 1982).
- Graicunas, V. A., Relationship in Organisation, in Urwick, L. 'Organization as a Technical Problem' in Gulick, Luther Halsey, Urwick, Lyndall Fownes (Eds.), *Papers on the Science* of Administration, Institute of Public Administration, Rumford Press, (Concord, 1937).
- Grant, Maurice Harold, *History of the War in South Africa*, Vol IV, Hurst and Blackett, (London, 1910).
- Gray, Colin, Modern Strategy, Oxford, OUP (Oxford, 1999).
- Greenhalgh, Elizabeth, Foch in Command, CUP, (Cambridge, 2011).

- Greenhalgh, Elizabeth, *The French Army and the First World War*, CUP, (Cambridge, 2014).
- Griffith, Paddy, Battle Tactics on the Western Front, YUP, (Yale, 2000).
- Griffith, Paddy, British Fighting Methods During the Great War, Routledge, (London, 1996), Chapter 1.
- Gross, Gerhard P., *The Myth and Reality of German Warfare*, Kentucky U. P. (Kentucky, 2016).
- GSO (Frank Fox), GHQ, Montreuil-sur-Mer, Philip Alan & Co., (London, 1920).
- Haig, Douglas, Cavalry Studies, Hugh Rees, (London, 1907).
- Haig, Douglas, *Diaries*, Weidenfeld, (London, 2005).
- Hall, Brian N., Communications and British Operations on the Western Front, 1914–1918, CUP, (Cambridge, 2017).
- Haltiwanger, G. S., *Establishing Relationships between Risk Management and Knowledge Transfer*, Old Dominion University, (Norfolk, 2012).
- Hamilton-Williams, David, *Waterloo, New Perspectives, The Great Battle Reappraised*, Wiley, (New York,1994).
- Hamilton, Ian, A *Staff Officer's Scrap-Book during the Russo-Japanese war*, Vols. I & II, Edward Arnold, (London, 1907).
- Hamilton, Ian, Compulsory Service (London, 1910),.
- Hamilton, Ian, The Soul and Body of an Army, Arnold, (London, 1921).
- Hamilton, R. F. and Herwig, H. H., War Planning 1914, CUP, (Cambridge, 2010).
- Hamley, Edward Bruce (and in 1907, Kiggell, Lancelot Edward), Operations of War, Blackwood, (Edinburgh, 1866, 1886, 1907 and 1914).
- Hammerton, John, The Great War, I was there, Vol. I, Amalgamated Press, (London, 1937).
- Harris, J. P. with Barr, Niall, *Amiens to the Armistice. The BEF in the Hundred Days Campaign 8 August-11 November 1918*, Brassey's (UK) Ltd., (London, 1999).
- Harris, Paul, *The Men who Planned the War*, Farnham, Ashgate, (Farnham, 2016).
- Harry R Yarger, *Strategy Theory for the 21st Century, The Little Book on Big Strategy*, US Government, (Washington, 2006).
- Hart's Army list (London, 1910).
- Headlam, J., The History of the Royal Artillery, Vol II, 1899-1914, (Woolwich Woolwich, 1937).
- Henderson, G. F. R. and F. Maurice, *History of the War in South Africa, 1899-1902*, London, (Hurst and Blackett, (London, 1908).
- Henderson, G. F., *Science of War*, Longmans, (London, 1912).
- Henniker, A. M., Official History, Transportation on the Western Front, 1914-1918, (Institution of Royal Engineers, (London, 1937).
- Jones, Spencer, From Boer War to World War, Oklahoma UP, (Oklahoma, 2012).
- Kauffman, J.E.; Kauffman, H.W. *Verdun 1916, The Renaissance of the Fortress.*, Pen and Sword, (Barnsley, 2016).
- Kendall, Paul, *The Battle of Neuve Chapelle*, Frontline Books, (Barnsley, 2016).

- Kenyon, David, *No Man's Land,* The European Group for Great War Archaeology, August 2006, downloaded from
  - http://www.redtwo.plus.com/nml/docs/Hamel%20report%20final.pdf.
- Kultgen, John, *Ethics and Professionalism*, University of Pennsylvania Press, (Philadelphia, 1988).
- Lambert, Nicholas, A., *Planning Armageddon*, Harvard, (Cambridge, 2012).
- Leask, Anthony, *Putty*, Helion, (Solihull, 2015).
- Lee, Roger, British Battle Planning in 1916 and the Battle of Fromelles, Ashgate, (Farnham, 2015).
- Liddell Hart, Basil H., The Tanks, Vol I, Cassell, (London, 1959).
- Liddell Hart, Basil H., Strategy, 2nd edition, Praeger, (New York, 1967).
- Liddell Hart, Basil H. The British Way in Warfare, Penguin, (London, 1942).
- Lloyd, Nick, Loos 1915, Stroud, The History Press, (London, 2008).
- Luttwak, Edward N., Strategy, Bellknap, (Cambridge, 1987).
- Luvaaz, Jay, The Education of an Army, Cassell, (London, 1964).
- MacCormick, Bill, 'Lessons unlearned, the Somme Preparatory Bombardment', in Jones, Spencer, At all Costs, Helion, (Wolverhampton, 2018).
- MacDonald, Lyn, 1915 the Death of Innocence, Headline (London, 1993).
- MacPherson, W. G., *History of the Great War, Medical Services General History, Vols I-IV*, The Naval and Military Press, (Uckfield, 1923).
- Maginniss, Clem, An unappreciated Field of Endeavour, Helion, (Warwick, 2018).
- Marindin, A. H. Staff Rides with Hints on writing Appreciations and Reconnaissance Reports, Hugh Rees Ltd., (London, 1908),.
- Maude, Alan H., *The History of the 47th (London) Division*, Amalgamated Press, (London, 1922).
- Maurice, F., *History of the War in South Africa 1899-1902*, Vol II, Hurst and Blackett, (London, 1910).
- Maurice, John Frederick, *The System of Field Manoeuvres Best Adapted for Enabling Our Troops To Meet a Continental Army*, (Edinburgh, 1872).
- Maxim, Hiram Stevens, My Life. Methuen & Co., Ltd., (London, 1915).
- Mayne, C. B., *Infantry Fire Tactics*, Gale and Polden, (Chatham, 1888).
- Middlebrook, Martin, *The First Day on the Somme*, Penguin, (London, 1971).
- Miles, Wilfred, 'Military Operations France and Belgium', 1916, Volume 2 Appendices, IWM, (London, 1995).
- Neilson, Keith, 'Great Britain', in Hamilton, R. F. and Herwig, H. H., *War Planning 1914*, Cambridge, (CUP, 2010).
- Nicholson, W. N., Behind the Lines, Jonathan Cape Limited, (London, 1939), .
- Oxford Dictionary of English, Second Edition, OUP, (Oxford, 2003).
- Perkin, Harold, The Rise of Professional Society, England Since 1880, Routledge, (Abingdon, Routledge, 1989).
- Porter, Whitworth, *History of the Royal Engineers*. *Vols IV* and V, Longmans, (London, 1952).
- Prior, Robin and Wilson, Trevor, *Command and Control on the Western Front*, Blackwell, (Oxford, (Oxford, 1992).

- Rasler, Karen (1994)., *The Great Powers and Global Struggle, 1490–1990.* United States, Kentucky UP, (Kentucky, 1994).
- Reid, Brian Holden, *War Studies at the Staff College 1890-1930*, Strategic and Combat Studies Institute, (Aldershot, 1992).
- Robbins, Simon Nicholas, *British Generalship During The Great Wa*r, Ashgate, (Farnham, (Farnham, 2010).
- Robbins, Simon, 'Henry Horne as Corps Commander' in Jones, Spencer, At all costs, Helion, (Warwick, 2018).
- Robertson, Sir William, From Private to Field Marshal, (London, 1921).
- Robertson, W., Report, 1910, War Office.
- Samuels, Martin, Command or Control, Command, Training or Tactics in the British and German Armies 1888-1918, Frank Cass, (London, 1995).
- Samuels, Martin, *Doctrine and Dogma, German and British Infantry Tactics in the First World War*, Greenwood Press, (Oxford, 1992).
- Sanders, Marble, 'The Infantry cannot do with a Gun less', The Place of the Artillery in the British Expeditionary Force, 1914-1918, http,//www.gutenberge.org/mas01/frames/fmasarc02.html section 2.6.
- Schwartz, David, Encyclopedia of Knowledge Management, New York, (IGI Global, (New York, 2005).
- Sheffield, Gary, Forgotten Victory, Headline, (London, 2001).
- Sheffield, Gary, *The Chief*, Aurum, (Solihull, 2011).
- Sheldon, Jack, *The German Army on the Somme*, Pen and Sword, (Barnsley, 2007).
- Simpson, Andrew, 'British Corps Command on the Western Front' in Sheffield G. and Todman, D., *Command and Control on the Western Front*, Stroud, (Spellmount,,2004).
- Singleton, John, 'Baking a New Technology, Breathing Apparatus for Mine Rescue in Britain, 1890-1930', Economic History Society Conference, University of Keele, April 2018.
- Sixsmith, E. K. G, *British Generalship in the Twentieth Century*, Arms & Armour Press (London, 1970).
- Spears, E. L., Liaison 1914, Heineman, (London, 1930).
- Spiers, E. M., *The Late Victorian Army*, 1868-1902, (Manchester University Press, (Manchester, 1992),.
- Stevenson, David, 1914-1918, Penguin, (London, 2005).
- Strong, Paul and Marble, Sanders, *Artillery in the Great War*, Pen and Sword, (Barnsley 2011).
- Swinton, Ernest, 'Notes on the Employment of Tanks' in Miles, Wilfred, ... 1916, Volume 2 Appendices.
- Terraine, John, Douglas Haig, the Educated Soldier, Hutchinson (London, 1963).
- Terraine, John, General Jack's diary, Cassell, (London, 2000).
- The Oxford English Dictionary, (Oxford, 2001).
- Todman, D., 'The Grand Lamassery Revisited' in Sheffield, G. and Todman, D., Op. Cit.
- Toulmin., Steven, *The Uses of Argumentation*, CUP, (Cambridge, (Cambridge, 1958).
- Travers, T.H.E. *The Killing Ground*, Unwin Hyman, (London, 1990).

- Tucker, Spencer; Roberts, Priscilla Mary, *World War I Encyclopedia*. ABC-CLIO, (Santa Barbara, 2005).
- Vincent, Lieut-Col, Sir Howard, C.B. MP. Rules, Regulations Standing Orders and Instructions of the Queen's Westminster Volunteers (13th Middlesex), Private Circulation, (London, 1898).
- von Schellendorff, Bronsart, *The Duties of the General Staff*, HMSO, (London,1905).
- Watt, Patrick, 'Douglas Haig and the Planning of the Battle of Neuve Chapelle' in Jones, Spencer, *Courage Wwithout Glory*, Helion, (Solihull, 2015).
- Wawro, Geoffrey, The Franco-Prussian War, CUP, (Cambridge, 2003).
- Weigley, Russell F. 'American Strategy from its Beginnings Through the First World War,' in Peter Paret, Peter (ed.), Makers of Modern Strategy from Machiavelli to the Nuclear Age, Princeton University Press, (Princeton, 1986).
- Wilkinson, Spenser, *The Brain of an Army*, Constable (London, 1891).
- Williams-Ellis, C. The Tank Corps, Doran, (New York, 1920).
- Winter, J. M., The Great War and the British People, Macmillan, (London, 1985).
- Winterbotham, H. S. L., Survey on the Western Front, 1918. Royal Geographic Society, (London, 1918).
- Wylie, J. C., *Military Strategy, A General Theory of Power Control*, John B. Hattendorf, ed., Annapolis, MD, (Annapolis, 1989).
- Wynne, G. C., If Germany Attacks, Tom Donovan Editions, (Brighton, 2008).

#### **C.2 Journal articles**

- Alon, Dudi, 'Processes of Military Decision Making', Military and Strategic affairs, 15 (2) (Tel Aviv, 2013).
- Anon., 'The Other Side of the Hill, No. I, The German Defence During the Battle of the Somme, July 1916', *Army Quarterly* 7, No. 2 (London, 1924).
- Avant, Deborah D., 'The Institutional Sources of Military Doctrine', *International Studies Quarterly*, Vol. 37, No. 4 (Oxford, 1993).
- Badsey, Stephen, 'The Boer War (1899-1902) and British Cavalry Doctrine', *The Journal of Military History*, Project Muse, 71 (1), (London, 2007).
- Bailey, George, 'Modern project Management and the Lessons from the Study of the Transformation of the British Expeditionary Force in the Great War', *Management Decision*, Vol. 43, Issue 1, (Leeds, 2005).
- Bailey, Jonathan, 'The First World War and the Birth of the Modern Style of Warfare', *Strategic and Combat Studies Institute, Occasional paper no. 22*, (Camberley, 1996),.
- Beach, Jim, 'Issued by the General Staff, Doctrine Writing at British GHQ, 1917–1918'
   War In History. 19(4) 464–491. Sage, (London, 2012).
- Becke, A.F. 'The Coming of the Creeping Barrage.' *Proceedings of the Royal Artillery Institution*, 58,1 (Woolwich, 1931).
- Beckett, Ian F. W., 'Edward Stanhope at the War Office 1887–92', Journal of Strategic Studies, 5-2, (London, 1982), p 281.
- Bond, Brian, The Late-Victorian Army', *History Today*, XI, Issue 9, (London, 1961).
- Brown, Ian Malcolm, 'Not Glamorous, But Effective, The Canadian Corps and the Set-Piece Attack, 1917-1918', *The Journal of Military History*, Vol. 58, No. 3, July (Lexington, 1994).

- Caddick-Adams, Peter, II. 'Footprints in the Mud, The British Army's Approach to the Battlefield Tour Experience', *Defence Studies*, 5, 1, (2005).
- Cadell J F., 'On Writing an Appreciation of a Military Situation', *Proceedings of the Royal Artillery Institute*, XXXI, (Woolwich, 1904).
- Chesney, George, The Battle of Dorking, *Blackwood's Magazine*, May 1871. Blackwood, (Edinburgh, 1871).
- Chisholm, Hugh, ed., 'Hamley, Sir Edward Bruce'. *Encyclopædia Britannica*. *12* (11th ed.). Cambridge University Press. (Cambridge, 1911).
- De Groot, Gerard J. 'Educated Soldier or Cavalry Officer?', *War & Society*, 4 (2), (London, 1986).
- Dighton, Adam, 'Jomini versus Clausewitz, Hamley's Operations of War and Military Thought in the British Army, 1866–1933', *War in History*, I-23, Sage, (Abingdon, 2018).
- Echevarria, Antulio J, "Combining Firepower and Versatility, Remaking the 'Arm of Decision' before the Great War" *The Journal of the Royal United Services Institution*, 147 (3), (London, 2002).
- Fox, Aimée, 'Goats Mingling With Sheep, Professionalisation Personalities and Partnerships Between British Civil and Military Engineers 1837-1939', War and Society, I-18, (London, 2018).
- Holmes, T. M., 'Planning versus Chaos in Clausewitz's On War', *The Journal of Strategic Studies*, (Abingdon, 2007).
- Humphrey, W. S. 'Characterizing the Software Process, a Maturity Framework'. *IEEE Software*. 5 (2), (March 1988).
- Mallinson, Allan, 'Charging Ahead', *History Today*, 42, p. 29, (London, 1992).
- Matin, A. Michael, 'The creativity of War Planners, Armed Forces Professionals and the pre-1914 British Invasion-Scare Genre', *English Literary History*, Vol. 78, No. 4, The Johns Hopkins University Press, (Baltimore, 2011).
- McGrath, John J., 'Six Weeks in 1914 Campaign Execution and the Fog of War—Historical Lessons for the Military Professional', *Military Review*, November-December (Fort Leavenworth, 2015).
- Neilson, Keith,' That Dangerous and Difficult Enterprise-British Military Thinking and the Russo-Japanese War', *War and Society*, Vol. 9, No. 2, (Canberra, 1991).
- Palazzo, Albert, P., 'The British Army's Counter Battery Staff Office and Control of the Enemy in World War I,', *The Journal of Military History*, Vol. 63, No. 1 (Lexington, 1999).
- Raisinghani, D. and Théoret, A, "The Structure of 'Unstructured' Decision Processes", Administrative Science Quarterly, Vol. 21, No. 2 (Ithaca, 1976),.
- Shimshoni, Jonathan, 'Military Advantage and World War I, A Case for Military Entrepreneurship', *International Security*, Vol. 15, No. 3, MIT Press, (Cambridge, 1991).
- Tanegouchi, Captain F., 'The Tactical Employment of Machine Guns With Infantry in Attack and Defense', *Journal of the RUSI*, 51 part 1, January/June, (London, 1907).
- Terraine, John, 'The Battle Of Amiens, August 8 1918', Vol. 8, No. 8, History Today, 1958
- Thompson, Peter, The Chemical Subject, Phenomenology and German Ecounters with the Gas Mask in the World War I, *History and Technology*, Vol. 33 No. 3, 249-271, Routledge, (London, 2017).

- Travers, T.H.E. 'Technology, Tactics and Morale, Jean de Bloch, the Boer War and British Military Theory 1900-1914', *Journal of Modern History*, Vol. 51, No. 2 (Chicago, 1979).
- Wright, T. P. 'Factors affecting the Costs of Air Planes', *Journal of the Aeronautical Sciences*, 3, 122-128, (Reston, 1936).

#### C.3 Unpublished works and eTheses

- Anstey, Edgar Carnegie, 'The History of the Royal Artillery', Brigadier Edgar Carnegie Anstey Papers, RAM.
- Boycott-Brown, Martin, 'The Psychology of Generalship in World War One', Nottingham Trent University, Thesis (Nottingham, 2011).
- Brown, Ian Malcolm, 'The Evolution of the British Army's Logistical and Administrative Infrastructure. 1914-1918'. eThesis, KCL, (London, 1996).
- Bruno, Thomas A., 'Ignoring the obvious, Combined Arms and fire & Manoeuvre Tactics prior to world War I', eThesis, USMC, (Quantico, 2002).
- Cook, James, 'The Transformation of the British Expeditionary Force on the Western Front 1914-1918', 2021, KCL, eThesis.
- Cripps, Aaron, 'The Camberley 'Reds', Aberystwyth University (Aberystwyth, 2012).
- Davies, Huw, 'The Evolution of the British Army's Use of its History', eThesis, KCL (undated).
- Duncan, Andrew George, 'The Military Education of Junior Officers in the Edwardian Army', Birmingham eThesis, (Birmingham, 2016).
- Evans, Nick, 'From drill to doctrine forging the British Army's Tactics 1897-1909', eThesis, KCL, (London, undated).
- Farrell-Vinay, Peter, 'How were Attacks Planned?' Unpublished MA thesis, University of Birmingham, (Birmingham, 2016).
- Fox-Godden, Aimée, "'Putting Knowledge in Power'- Learning and Innovation in the British Army of the First World War", University of Birmingham eThesis, (Birmingham, 2015).
- Hughes, Jackson, 'The Monstrous Anger of the Guns', eThesis, (UAdelaide, 1992).
- Jones, Spencer, 'The influence of the Boer War (1899-1902) on the Tactical development of the Regular British Army 1902-1914', eThesis, Wolverhampton 2009.
- Leonard, Robert Glenn, 'No Lessons Required, The Balkan Wars and Organizational Learning in the British Army before the First World War', Thesis, The University of New Brunswick, (Frederickton, 2011).
- Marble, Sanders, 'The Infantry cannot do with a Gun less. The Place of the Artillery in the British Expeditionary Force', 1914-1918, downloaded from http,//www.gutenbergeorg/mas01/frames/fmasarc02.html on 1 November 2014.
- Peaple, Simon Patrick, 'The 46th (North Midland) Division (TF) on the Western Front 1915-18', eThesis, (Birmingham, 2003).
- Puncher, Sebastian, 'The Victorian Army and the Cadet Colleges Woolwich and Sandhurst c.1840-1902', Kent eThesis, (Canterbury, 2019).
- Risio, Andrew, J, 'Building the Old Contemptibles', eThesis, Fort Leavenworth, (Kansas, 2007).
- Robbins, Simon Nicholas, 'British Generalship on the Western Front in the First World War, 1914-1918', eThesis, KCL, (London, 2015).

#### **Lethal Dialectic**

- Simpson, Andrew. 'The Operational Role of British Corps Command on the Western Front, 1914-18', eThesis, UCL (London, 2001).
- Sisemore, James D., Russo-Japanese War, Lessons not learned, eThesis, (Fort Leavenworth, (Kansas, 2003).
- Vines, Anthony John, The Heroic Manager, KCL eThesis, (London, 2015).

# **Appendix D - Biographies**

- Allenby, Edmund Henry Hynman, first Viscount Allenby of Megiddo (1861–1936). Educated at Haileybury College, he decided in 1878 on a career in the Indian Civil Service, and attended several 'crammer' schools to prepare for the entrance exams which he twice failed. Thereafter he chose a career in the army, passed out of Sandhurst in 1881, and was gazetted to the 6th (Inniskilling) dragoons, in 1882 in South Africa. In 1884 he was on an expedition to eject Boer lodgements in Bechuanaland. In 1886 he returned for two years at the cavalry depot at Canterbury. He then returned to South Africa a captain, rejoined his regiment, in Zululand, and was promoted adjutant. In 1890 the 6th dragoons returned home and in 1896 he passed by competition into the Staff College. He was promoted major in 1897, and made adjutant to 3 Cavalry Brigade in 1898. In 1899 the Inniskillings saw service in South Africa where he was given temporary command of the Inniskillings in 1900 and a brevet lieutenant-colonelcy. In 1902 he was created CB in recognition of his service and became a full colonel. In 1905 was made brigadier-general and commanded 4 Cavalry Brigade. In 1909 he was promoted major-general and then inspector-general of cavalry. In 1914 he commanded the cavalry division but while questions were raised over his handling of the cavalry during the retreat from Mons, his defence of the Messines-Wytschaete ridge during the first battle of Ypres, with what had become the Cavalry Corps retrieved his reputation. In May 1915 he took over V Corps during the second battle of Ypres, and then commanded Third Army in October 1915 with the temporary rank of general. He was made a KCB in the same year (a GCMG in 1917, a GCB in 1918, and a GCVO in 1934). In April 1917 the Third Army attacked at Arras. In his original plan he reduced the preparatory bombardment to under 48 hours to give his assault troops the element of surprise. Haig vetoed this in favour of a five-day artillery barrage and, he acquiesced. After Arras he replaced Murray in the Middle East commanding the Britishled Egyptian Expeditionary Force (EEF). He set about rebuilding the EEF into a force capable of taking the offensive, moving his headquarters to Khan Yunis, just behind the front line at Gaza, and touring the EEF front-line troops. He organized these units into three Corps: the XX and XXI and the Desert Mounted Corps. His first action was in October 1917 with the Third Battle of Gaza for which he adopted a plan designed by Murray's staff before his arrival to shift the emphasis of attack away from Gaza, with two of his three mounted divisions, plus four of the infantry divisions available, attacking the weaker eastern Turkish lines at Beersheba, before rolling up the enemy defences from the east. The plan worked. The city was finally captured on 9 December 1917. His entry on foot through the Jaffa Gate was a carefully stage-managed show. From March to May 1918 he launched two multi-divisional attacks across the River Jordan towards Amman which were both defeated. But his final offensive against the Turkish armies in Palestine, in September 1918 ending with an armistice signed at Mudros on 30 October 1918. He was the military commander of territory from the Sudan to northern Syria before becoming special high commissioner for Egypt in 1919 when he returned to London to become first Viscount Allenby of Megiddo and Felixstowe, and promoted field marshal. He was an able colonial administrator but in 1919 Egypt rose in revolt and he deployed large numbers of troops to suppress the uprising. In June 1925 he left the official residency in Cairo and returned to Britain and retirement. He died at home on 14 May 1936.
- Alexander, Ernest Wright VC, CB, CMG (1870 1934) 1887, RMC Sandhurst, 27 July 1889 second lieutenant in RFA. Promoted to lieutenant on 27 July 1892, and on 26 December 1899 to captain. 24 August 1914 as a major in the 119th Battery RFA was awarded the Victoria Cross. 22 April 1916 BGRA, XV Corps. Brevet colonel 1 January 1917, disestablished on 31 May 1917, re-established on 26 May 1917. Attached to HQ units on 13 July 1917, and promoted to brigadier-general. 8 April 1918 appointed GOCRA in the First Army.

- Anderson, Warren, Hastings (1872–1930), Educated at Marlborough College, and Sandhurst. He was gazetted to the Cheshire Regiment in October 1890. He served with the 2nd battalion as adjutant throughout the South African War, except for a short period in 1900 when he was DAAG under the military governor of Johannesburg. He passed out of the Staff College in 1905 and worked on mobilisation at the War Office until 1909. He spent three years at southern command, and then joined the Staff College as a GSO1 instructor, with the temporary rank of lieutenant-colonel. In 1914 he was posted to France as GSO1 (colonel), with the 8th Division, and in 1915 was promoted BGGS in the XI Corps until September 1916, when he was transferred to XV Corps. in 1916 he was promoted MGGS First Army, completed the final preparations for the attack on Vimy Ridge in April 1917, and was awarded the CB in February 1918. In March 1919 he became commandant of the Staff College for three years. In 1922 he was created a KCB, and appointed chief general staff officer to general Sir Charles Harington, GOC-in-C the allied army of the Black Sea. In 1923 he was DQMG at army headquarters India next year he became commander of the Baluchistan military district., and in 1927 became QMG to the forces in UK, with the rank of lieutenant-general, and a seat on the army council.
- Anstey, Edgar Carnegie (1882-1958) attended Hazelwood School, Oxted until 1895, and then Wellington College until 1899, RMA Woolwich until 1900, and was commissioned as a 2nd lieutenant in the Royal Artillery. In 1903 promoted lieutenant, and in 1907 went to West Africa where he was an Intelligence Officer attached to the 1st Gold Coast Regiment, and AdC to the Governor of Accra. Attended the Staff College at Camberley 1912, and promoted captain on graduating in 1913. He was Brigade major 1st Div Artillery in 1914 in France, the Dardanelles and later in France as a GSO1. He was promoted to Major in 1915 and appointed GSO2. He was awarded the Legion of Honour (Croix De Chevalier) in 1916 and promoted to Brevet Lieutenant Colonel in 1917. He finished the war on the staff of 50th (Northumbrian) Division. He was awarded the DSO and the Croix De Guerre in 1919. He was chief staff officer to the armaments sub-commission of the Inter-Allied Control Commission in Germany in 1920-22, promoted temporary Colonel in 1921, and in 1925 became an instructor at the Senior Officers' School, Belgaum India. He was then on the general staff of Western Command, India, and he went on retired pay in 1935. Before the outbreak of war in 1939 he was appointed passive air defence officer for London district, and after special employment at Southern Command in 1940 he became a member of the historical section of the Cabinet Offices, He retired in 1942 and became military correspondent of the Sunday Times and the Daily Sketch, and after two years he transferred to the Daily Despatch and the Sunday Chronicle.
- Ashmore, Edward Bailey (1872-1953). Graduated from the RMA Woolwich, and was commissioned into the Royal Regiment of Artillery in 1891, and promoted lieutenant in 1894. He served during Boer War II in South Africa, and was promoted to captain in 1900. He served as adjutant for the Royal Horse Artillery, and attended Staff College, Camberley in January 1906 whereafter he joined the general Staff as GSO3, and later as GSO2. He was promoted to major in 1909, and was returned to the establishment of the Royal Artillery. In September 1913, He was appointed Assistant Military Secretary to the Inspector-general of Overseas Forces, and GOC-in-Chief Mediterranean Command. In January 1914, he transferred to the special reserve of the Royal Flying Corps (RFC), and trained as a pilot. By November 1914 he was commander of 1st Wing RFC with the rank of lieutenant-colonel. On 1 December he was appointed Officer Commanding Administration Wing RFC. Promoted to brigadier-general in January 1916, he took command of I Brigade RFC, and later IV Brigade. He remained attached to RFC Headquarters until August 1917 carrying various ranks including brevet colonel, acting major-general, colonel, and major-general. In August 1917 He was appointed Commander of the London Air Defence Area. When the Royal Flying Corps amalgamated with the

- Royal Naval Air Service to form the Royal Air Force (RAF) in April 1918, he was regraded to air vice marshal until he resigned his RAF commission on 1 December 1919.
- Barter, Major-General Charles St Leger KCB, KCMG, CVO. (1857-1931) He was educated abroad, and graduating from Sandhurst, he was commissioned in the 105th Foot in 1875. He also attended the Staff College in 1883 and served in the Fourth Ashanti War and the Tirah campaign. From 1899 to 1902 he commanded 2 KOYLI, serving in South Africa with General Bruce Hamilton in the Transvaal during the later stages of the war, and he was in command at Ermelo in March 1902. Therafter he resigned his command and was placed on half-pay with a brevet promotion to colonel in 1902, and was appointed CB and appointed AAG of the Thames District, based at Chatham with the substantive rank of colonel. In June 1909 he commanded the Poona Brigade. In 1914 he commanded the 47th Division in August 1914 and led it to France in 1915 and the Battle of Aubers Ridge and the Battle of the Somme in 1916. It was during action at the Somme that the 47th Division and Barter were involved in the battle for High Wood. Shortly after the capture of High Wood, he was relieved of his command. He was awarded the KCB (1916) and KCMG (1918) for his service and retired from the army in 1918.
- Battye, Basil Condon, D.S.O., A.M. colonel (1882-1937) was the youngest son of major Leigh Richmond Battye, 5th Gurkha Rifles, and Margaret Fanny Jane. He attended Clifton, preparatory school, and St. Lawrence School, Ramsgate, entered RMA Woolwich in 1899, and passed out head of his batch, obtaining his commission in August, I900. On completion of his combat engineering course, he remained at Chatham in various posts. From 1903-04 he served in British Somaliland, and was awarded the African G.S. medal, and clasp. He was then posted to Ferozepore, and was awarded the Albert medal. In 1907, he was sent to England for the Electrical, and Mechanical course, being the first officer to do it. Soon after his return to India, he was posted temporarily to the staff of the D.G.M.W. at Simla though he worked until 1914 for the Punjab Government. August, 1914, In November he took over command of the 21st Field Company, 3rd Sappers, and Miners, and invented the "Battye bomb". In April, 1915, he was wounded, and sent to England. Once fit, he lectured on trench warfare to new English, and Canadian Divisions, and wrote a pamphlet, "Minor tactics of trench warfare". In August, 1915 became Adjutant, and later GSO3 of the Lahore Division. In February 1916 he became Brigade-major of the 141st Inf. Brigade After the German attack on Vimy Ridge in May 1916, he was largely instrumental in readjusting the situation, and was awarded the D.S.O. Next month he became GSO2 of III Corps, with which he served until just after the battle of Cambrai, when he left to run a tramway system, under A.H.Q. In April, 1918, he was employed on the construction of the "Hindenburg line". He was by then GSOI, and took part in the advance to Mons. He was rewarded by six mentions, two successive brevets, the D.S.O., the Belgian War Cross, the Legion of Honour, 5th Class, and the three war medals.
- Birch, James Frederick Noël (1865-1939). "Curly". Educated Marlborough College, and RMA, Woolwich. Commissioned into the Royal Horse Artillery, 1885. Served during Boer War II with the Horse Artillery under Sir John French. Commanded the Riding Establishment at Woolwich, 1905-7. CO 7th Brigade RHA, 1912-1915. brigadier-general, CRA (Commander, Royal Artillery) 7th Division, later CRA I Corps under Haig, 1915-16. MGRA (major-general, Royal Artillery) GHQ under Haig, 1916-18.
- Bird, Major-General Sir Wilkinson Dent, KBE, CB, CMG, DSO, ADC (1869-1943). Educated at Wellington and RMC Sandhurst, he was commissioned as a second lieutenant in the Queen's Royal Regiment in 1888, promoted lieutenant in 1890, and captain in 1897. He served with the Niger Expedition, and received a brevet promotion to major in 1897. In the Second Boer War, he was present at the Relief of Mafeking but was severely wounded returned home in 1900 and was awarded a DSO). In 1902 he returned as a regular captain in his regiment and from 1903 to 1905 was chief instructor at the School of Musketry, and

- from 1905 to 1909 a lecturer at the Staff College, India. He was promoted to a brevet lieutenant-colonelcy in 1909, and appointed a GSO2, at the War Office in 1910. In 1913 he commanded 2/Royal Irish Rifles and was promoted to Colonel. The battalion was sent to France with 7 Brigade, 3 Division in 1914 and on 26 August, at Le Cateau, he assumed command of the 7 Brigade. He was severely wounded at the First Battle of the Aisne in September and his leg had to be amputated. On recovery he returned to the general staff and was made a GSO1 in 1915, and appointed Director of Staff Duties in 1916. In 1918, he took up the post of lieutenant-governor of the Royal Hospital, Chelsea, and retired in 1923, having received a promotion to major-general in 1921. He was appointed the Lees Knowles Lecturer at Trinity College, Cambridge for the year 1927. From 1929 to 1939, he served as the colonel of the Queen's Royal Regiment.
- Bonham-Carter, General Sir Charles, GCB, CMG, DSO (1876-1955) Educated at Clifton College, and RMC Sandhurst. Commissioned in the Queen's Own Royal West Kent Regiment on 29 February 1896, and promoted a lieutenant on 16 July 1898. In early 1900 was posted to South Africa, and returned in 1902, and was then posted to Ceylon. Attended Staff College in Camberley, and later held staff posts in France. In 1916 was GSO1 of the 7th Division under Watts. Between 1917, and 1918 he was brigadier-general Staff (Training) at the general Headquarters. Awarded the DSO, and the American DSM for his work, and was MiD five times. After the First World War he served in Turkey and India, and in 1927 became Director of Staff Duties. In 1931 he moved to become General Officer Commanding the 4th Division in Colchester. In 1933 he was promoted to Lieutenant-General and became Director-General of the Territorial Army until 1936 when he was appointed Governor and Commander in Chief of Malta. It was a time of political unrest on the island and a constitutional body was formed to find a more representative form of selfgovernment, the earlier constitution having been suspended. The subsequent changes overseen by Bonham-Carter was to create something more representative and acceptable to the population. Although a strong supporter of the need to defend the islands after war was declared in 1939, by October 1940 he had become ill and had to resign his post, effective 11 October 1940.
- Brackenbury, Sir Henry (1837–1914), army officer, was educated at Tonbridge, Eton, and RMA, Woolwich (1855–6). He was commissioned in the Royal Artillery on 7 April 1856. He was posted back to Woolwich from India, and became depot adjutant in 1860, and later a cadet company commander. He supported the Cardwell reforms, and advocated further reform. He was promoted captain in 1866, and succeeded Edward Hamley as professor of military history at RMA in 1868. He was promoted major in April 1874, and in 1875, and 1879 accompanied Wolseley, as assistant military secretary, to Natal. In 1883 he was posted to Gibraltar and joined the Gordon relief expedition as DAQMG in 1884. He was made chief of staff to Wolseley, and was promoted major-general in June 1885. He was appointed director of military intelligence in January 1886. Under his direction the intelligence branch achieved the status of a full (and virtually autonomous) directorate in 1887 with direct access to the C-in-C. In 1886 he also revised the army's mobilization scheme, and his work underpinned the acceptance of the two-corps standard implicit in the Stanhope memorandum of 1888. He was promoted lieutenant-general in April 1888 and in April 1891 was sent to India as a military member of the viceroy's council to introduce a degree of realism into Indian military planning. He was appointed KCB, in 1894, and the KCSI on leaving India in April 1896 when he became president of the ordnance committee in May with the temporary rank of general, and director-general of ordnance in February 1899. In 1900 he arranged the secret, unprecedented purchase from Germany of eighteen batteries of Ehrhardt 15-pounder quick-firing field guns. Also in 1900 he pressed the cabinet for artillery rearmament, and he secured the appointment of an equipment committee under Sir George Marshall. He retired in February 1904...

- Braithwaite, Sir Walter Pipon (1865–1945), Bedford School, and RMC Sandhurst. He was commissioned into the Somerset light infantry in 1886, and saw service in the Third Anglo-Burmese War. In 1898 he attended Staff College and in 1899 was posted to South Africa where he became Brigade major, and then deputy assistant adjutant-general: MID three times, and in 1900 he was breveted major. In 1902 he went to southern command, and in 1906 was appointed an instructor at the Staff College, promoted to lieutenantcolonel and in 1909 colonel, and transferred to the directorate of staff duties at the War Office, then under Haig. In 1911 he was appointed commandant of the Indian Army Staff College, Quetta. In 1914 he returned to the War Office as director of staff duties, and in 1915 became Sir Ian Hamilton's chief of staff for the Gallipoli campaign. He was promoted major-general in 1915, and in October 1915 became OC 62nd (2nd West Riding) Division, which he took to France in 1917 to the Fifth Army in which it fought Bullecourt in April, May, and in 1917, Cambrai. In 1918 they took part in the German spring offensive, and in August he was promoted to command the XXII corps, and later the IX corps in the Fourth Army, which he led in the advance to victory. After the war he served with the army of the Rhine, and then held in succession the western command in India, the Scottish command, and the eastern command. In 1920 he was promoted general, and in 1921 adjutant-general to the forces, and a member of the army council, acting at the same time as an aide-decamp general to the king. He opposed the mechanization of the British army. He was appointed CB in 1911, and promoted KCB in 1918, and GCB in 1929.
- Bridges, Major General Sir William Throsby, KCB, CMG. (1861-1915. Educated at Ryde on the Isle of Wight and the Royal Naval School at New Cross, London, in 1871, Trinity College School, Ontario. In 1877 he entered RMC Kingston, and thereafter moved to Australia and worked for the Department of Roads and Bridges and by 1884 he had become an inspector in the Narrabri district. In 1885 he was commissioned as a lieutenant into the New South Wales Artillery. In 1886 he took an artillery officers' course at the School of Gunnery, after which he was posted there as a staff officer. In 1889 he qualified as a gunnery instructor and in October 1890, having been promoted to captain, he was sent to RMA, Woolwich and to the Royal School of Gunnery at Shoeburyness for training. On returning to Australia in 1893 he became Chief Instructor at the Middle Head School of Gunnery, and was promoted to major in 1895. He held positions on several military committees and conferences. In late 1899 he served in South Africa and took part in actions around Kimberley, Paardeberg and Driefontein before contracting typhoid. After being evacuated to England, he returned to Australia in September 1900 where he took command of the Brigade Division of Field Artillery. In 1901 he had several appointments: AQMG of the Army HQ in Melbourne; Chief of Military Intelligence; Chief of the Australian General Staff, and was made lieutenant-colonel in 1902 and colonel in 1906. In 1909, he represented Australia on the Imperial General Staff. In 1910 he was promoted to brigadier-general and recalled to Australia to become the first commandant of the RMC Duntroon. En route to Australia, he inspected various military academies, including Sandhurst, Woolwich, and West Point. He largely modelled Duntroon on the United States Military Academy at West Point and remained commandant of the college until May 1914, when he was appointed Inspector General of the Army. In 1914, he was promoted to the rank of major-general, and was charged with creating the Australian Imperial Force (AIF) which sailed for England in late October for training. En route, the destination was changed from England to Egypt as the 1 Australian Division. On 25 April, as part of ANZAC, they were among the first ashore at Anzac Cove, at the start of the Gallipoli campaign. On 15 May 1915, he was shot through the femoral artery in his right leg by a Turkish sniper and died on board the hospital ship on 18 May.
- **Budworth**, Charles Edward Dutton (1869-1921), CB, CMG, MVO. "Buddy". Joined Royal Artillery 1889; Boer War II, 1899-1901. CRA, 1st Division, 1915. BGRA

- (brigadier- general, Royal Artillery) IV Corps, 1915-16. BGRA, X Corps, 1916. MGRA Fourth Army, May 1916 to the end of the war. The official history credits him with being the first to advise the use of the creeping barrage. He played a key role in the Allied Hundred Days Offensive at the Battles of Hamel, Amiens, and the final attack on the Hindenburg Line. He was ten times mentioned in despatches. In 1919 he commanded 59th (2nd North Midland) Division, which trained drafts for service in Egypt and the Black Sea until it was demobilised in 1920. Thereafter he became Inspector of Royal Artillery in India and was still serving in that role when he died in Simla in 1921.
- Burnett-Stuart, John Theodosius (1875-1958). Served in Boer War II. Directorate of Military Operations, War Office, 1904-1910. GSO2 (general Staff Officer, Second Grade), 6th Division, 1914-1915; GSO1, 15th Division, 1915; GSO1, GHQ, 1915-1916. BGGS (BGGS), GHQ, 1916-1917; BGGS, 19 Corps, 1917; BGGS, 7 Corps, 1917; temporary major general, 1917-1919; Deputy Adjutant general, GHQ, British Armies in France, 1917-1919.
- Burnett Hitchcock, Basil Ferguson (1877-1938). Educated at Harrow, Commissioned into Sherwood Foresters in 1897, promoted to lieutenant in 1898. 1900, served in South Africa, and was promoted captain in 1901. 1903-4 Staff College: p.s.c. 1913: Notts, and Derby, Staff captain, Eastern Command, 1905-9; GSO2, Bermuda, 1910-12, and DAA&QMG 4th Division, Eastern Command in 1912. 1915: Brevet major, Brevet lieutenant-colonel in 1916; and Brevet colonel, and later temporary brigadier-general, and DA&QMG in 1917. DSO, and became Director of Mobilization at the War Office (temporary major-general), and was MiD 8 times.1921: major-general, Administration at Aldershot Command, 1926: GOC 55th (West Lancashire) Division, 1928, GOC Deccan District. 1932: KCB. Retired in 1933.
- Butler, Richard Harte Keatinge (1870–1935). Educated at Harrow School and the Royal Military College, Sandhurst, he was commissioned second lieutenant in the Dorsetshire regiment in 1890, became lieutenant in 1892 and captain in 1897. In 1896 he became adjutant of the 2nd Dorsets until September 1900, taking part in the relief of Ladysmith. He distinguished himself, rescuing a wounded man from the Tugela River during the retreat from Spion Kop, and again when the battalion stormed Alleman's Nek in June 1900. After being transferred to a mounted infantry unit Butler was severely wounded at Fort Itala in September 1901. For his services he had received a brevet majority on 29 November 1900. After passing from the Staff College, Camberley, in 1906 he became brigade major at Aldershot from April 1906 to April 1910, when he was promoted major. He returned to Aldershot in 1911 as a GSO 2. He was promoted brevet lieutenant-colonel in 1913, and commanded the 2nd Lancashire Fusiliers in 1914. He distinguished himself during the first battle of Ypres, and commanded the 3rd brigade of the 1st division from November 1914, with the temporary rank of brigadier-general. In 1915, he was appointed BGGS as Haig's chief of staff in the First Army, and was promoted to temporary majorgeneral in June and deputy chief of staff at GHO in December. He was promoted full major-general in June 1916 and remained at GHQ until February 1918. He was ill-suited to staff work, being impatient and unhelpful and excessively rude towards subordinates. He had little understanding of the more technologically-advanced mode of warfare and he was lukewarm towards the development of tanks. He was given III Corps with the rank of temporary lieutenant-general only in February 1918. III Corps formed part of Hubert Gough's Fifth Army, which was targeted by the major German offensive in March 1918. Butler favoured holding the front line in strength rather than developing a defence in depth and III Corps was forced back towards Noyon. He commanded the Amiens sector when the offensive was finally checked in April and III Corps then took part in the Battle of Amiens on 8 August, but Butler suffered a nervous collapse and was removed at the request of Henry Rawlinson, who had superseded Gough. Butler returned to his command

- in time for the operations against the Hindenburg line in September but Rawlinson had little confidence in him and he was transferred to the Douai region that same month. Having been created CB in 1917, KCMG in 1918, and KCB in 1919, Butler commanded a division in the army of occupation from March to October 1919, then a division at Aldershot from November 1919 to February 1923. He was promoted lieutenant-general on 3 January 1923 and was GOC Western Command, from 1924 to 1928, before retiring
- Byng, Julian Hedworth George (1862-1935). "Bungo". Youngest son of the Earl of Strafford. Educated at Eton. Commissioned in the King's Royal Rifle Corps, 1879. Transferred to the 10th Hussars in 1883, and saw service in the Sudan. Entered Staff College, 1892, where he was a contemporary of Henry Rawlinson. Served as a squadron commander in the Hussars, then at Aldershot Command. Served during Boer War II as a commander of light horse. GOC 2nd Cavalry Brigade, 1905, then 1st Cavalry Brigade. Promoted major-general, 1909. At the outbreak of war, was commanding British troops in Egypt, but then returned to Europe to command the 3rd Cavalry Division. GOC IX Corps, Gallipoli, 1915. GOC XVII Corps, Western Front, 1916. GOC, Canadian Corps, 1916-17. GOC, Third Army, 1917-19. Later Governor-general of Canada, 1921-6.
- Cameron, Gen. Sir Archibald Rice Cameron, G.B.E. K.C.B., CMG. (1870-1944). Attended Haileybury before passing into Sandhurst, and commissioned in the Black Watch in 1890, and captain in 1899. Served in South Africa joining Lord Methuen for the advance on Kimberley. Wounded at Magersfontein but recovered in time for the advance on Bloemfontein, and the action of Vet River. Staff College 1902-4, and then military secretary to Sir W. F. Hely-Hutchinson, Governor, and C-in-C at the Cape. 1907 returned to the Black Watch, and in 1908 became a major. 1909 became an Instructor at Sandhurst, and in May1914 an Instructor at the Staff College. From August 1914 he was a GSO2 in the 5th Division, and went through Mons, and Le Cateau, the Marne, the Aisne, and La Bassée. In 1915 he was created CMG, promoted lieutenant-colonel, and became GSO1. In October he was appointed BGGS of X Corps, with at the Somme in 1916, and Messines, and Ypres in 1917 where he was awarded C.B.. He fell ill having previously been wounded in July 1918, and on recovery went to the headquarters of Rawlinson's Fourth Army as an additional BGGS. He was MiD seven times. He went to the IX Corps as BGGS in November 1918, and returned from the Rhine Army as a substantive colonel in 1919 to Eastern Command. In 1920 he was given a brigade in Ireland, and in 1921 was promoted major-general. He commanded a division in Ulster until the end of 1925, when he became Director of Staff Duties at the War Office until 1927, became GOC 4th Division. 1931 was promoted to lieutenant-general, and from 1933 to 1937 served as GOCin-Chief Scottish Command. He was created K.C.B. in 1933, CBE in 1937, and promoted general in 1936 when he became Governor, and Constable of Edinburgh Castle. From 1929 to 1940 he was colonel of The Black Watch. He retired in 1937.
- Capper, Thompson (1863-1915). "Tommy". Served in India, and Egypt in the 1890s. During Boer War II, 1899-1901, he saw action at Spion Kop, and the relief of Ladysmith. Taught at the Staff College, Camberley, 1902-4. Went to the Staff College, Quetta, as commandant, where he remained until 1911. Then GOC, 13th Infantry Brigade, until 1913. In 1914, he was promoted major general, and commanded the 7th Division. They arrived in Belgium in October 1914, and were heavily involved in the first battle of Ypres. Wounded in an accident with a grenade in April 1915, he returned to active duty but was killed during the battle of Loos.
- Cardwell, Edward, Cardwell, Edward, first Viscount Cardwell (1813–1886), politician, Winchester College, and Balliol College, Oxford. MP for Clitheroe in 1842, secretary to the Treasury in 1845, left office with Peel in 1846. MP for Liverpool in 1847, president of the Board of Trade in 1852. 1853–74 was Liberal MP for Oxford City. 1859 secretary for Ireland, 1861-4 chancellor of the duchy of Lancaster, 1864-66 secretary of state for the

- colonies, 1868 secretary of state for war. He reformed the army by repatriating troops from the colonies, reducing battalion size to 500, reforming the War Office (The War Office Act (1870)), establishing that the C-in-C was merely the minister's principal military adviser. He introduced the concept of the 12-year short service Commission for officers, and abolished the practice of Commission purchase.
- Cavan, Frederick Rudolph Lambart, the Earl of (1865-1946). "Fatty". GOC 4th Guards
  Brigade 1914, GOC Guards Division (Battle of Loos) 1915, GOC XIV Corps (Somme,
  and Third Ypres) 1916-17. Took XIV Corps to Italy, 1917. Succeeded as GOC of British
  troops in Italy, March 1918.
- Charteris, John (1877–1946). Educated at Kelvinside Academy, and entered RMA Woolwich in 1893. He was commissioned in the Royal Engineers in 1896, and posted to India where he attended the staff college at Quetta, leaving in 1909 where he met Haig, then chief of staff to the C-in-C, India. Charteris was promoted from staff captain, HQ India (1909–10), to GSO2 operations section, general staff, India (1910–12). He then became Haig's assistant military secretary, and later still aide-de-camp. Haig asked him to establish an intelligence operation in I Corps in September 1914, and he followed Haig to First Army in December.
- Clarke, Francis Coningsby Hannam, CMG FRGS (4 February 1842, Brussels 27 August 1893, Hove) was a British military officer who served as the first Commander of the Ceylon Volunteers. He was appointed on 20 April 1888 until 27 August 1893.
- Cléry, Sir Cornelius Francis (1838–1926), army officer, was educated at Dublin, and at the RMC, Sandhurst. He was commissioned ensign in the 32nd foot in March 1858, promoted lieutenant in June 1859, and captain in January 1866. From 1868 to 1870 he studied at the Staff College. In 1871 he was appointed an instructor of tactics at Sandhurst, where he proved an immediate success, and in September 1872 was appointed professor of tactics. On completing his term of office in May 1875 he published 'Minor Tactics', the result of his Sandhurst teaching, which for thirty years was a leading, and influential textbook. He left Sandhurst in 1875 to go to army headquarters in Ireland and thereafter Aldershot in 1877. A year later he was sent to the Cape on special service as a major on half pay. In 1879 he was appointed staff officer to Colonel R. T. Glynn's column, and later adjutantgeneral to the flying column. He was present at the battle of Ulundi and was promoted brevet lieutenant-colonel for his services. In 1882 he went to Egypt as brigade major in Wolseley's army. After the battle of Tel el-Kebir he remained in Egypt on the staff, and subsequently acted as chief of staff in the Suakin expedition under Major-General Sir Gerald Graham in 1884, taking part in the actions at al-Teb and Tamai. He was promoted brevet colonel in 1884 and made CB. He served as DA&QMG in the Gordon relief expedition, and was appointed chief of staff of the army of occupation in Egypt in 1886. In 1888 he became commandant of the Staff College, and after five years there he reverted to half pay until promoted major-general in 1894. In 1896 he was appointed deputy adjutantgeneral at the War Office where he remained until 1899 when he command 2 Division in Natal, until 1900 when he returned to England. The reason for his recall was the subject of many rumours: indecisiveness in command, ill health, or personal considerations in high places that had no connection with his professional ability. He was created KCB in 1899 and KCMG in 1900, and retired in February 1901.
- Cobbe, Sir Alexander Stanhope (1870–1931) He was educated at Wellington College and RMC Sandhurst. He was commissioned in the South Wales Borderers in 1889, and promoted lieutenant in 1892 but transferred to the Indian Staff Corps where he was attached to the 32nd Sikh pioneers, with whom he saw active service in Chitral in 1895. He subsequently served in Nyasaland in 1898 and 1899 in various minor operations and with the West African regiment in the Asante kingdom in 1900, was wounded, and awarded the DSO. He was again on active service in 1902, in Somaliland, and won the VC at Erego on

6 October for good work with a Maxim gun when left alone in front of the line at a critical moment, while later he went out under heavy fire and brought in a wounded man. He was promoted captain in 1900 and in 1907 major and brevet lieutenant-colonel. Between 1902 and 1914 Cobbe held several staff appointments in India and at the War Office and was made aide-de-camp to the king and brevet colonel in 1911. He went to France in October 1914 as general staff officer of the Lahore division, and was transferred to the staff of the Indian corps in June 1915, thereafter he was BGGS I Corps. He returned to India in 1916 as director of staff duties and military training; and took over the Meerut 7th Indian division in Mesopotamia in the following June, becoming major-general, and two months later commanded the III Indian Corps in the operations of December 1916–February 1917 for the recapture of Kut al-Amara, Mashahida, Istabulat and Samarra and also in the advance to Tikrit. In 1918 III Corps advanced upon Mosul which culminated in the surrender of the main Turkish field force. Cobbe was appointed CB in 1915, KCB in 1917, CSI in 1918, and KCSI in 1919, the year in which he also became lieutenant-general. From October 1919 to June 1920 and from 1920 to 1926 he was military secretary at the India Office; he was general officer commanding-in-chief, northern command, in India from 1926 to 1930, and had returned to his old post at the India Office shortly before he died. He had been promoted full general in February 1924, and was made aide-de-camp general to the king and appointed GCB in 1928.

- Congreve, Walter Norris (1862-1927) VC KCB MVO DL KStJ. Educated at Twyford School, Harrow School, and Pembroke College, Oxford. Commissioned in the Rifle Brigade in 1885, and promoted to captain in 1893. Served in South Africa as a brigade major in the Ladysmith relief force. He was present at the Battle of Colenso where he was wounded, and won the VC. Served as adjutant of "Kitchener's Horse". 1900 Kitchener appointed him as his personal secretary. Promoted to major, and then brevet lieutenant-colonel in December 1901. After the Boer war he held several command posts in Britain, and Ireland. In November 1902 he was appointed Assistant Military Secretary, and Aidede-Camp to the C-in-C of the 3rd Army Corps in Ireland, the Duke of Connaught. In August 1914, he was a brigadier-general, commanding 18th Brigade, and took part in the Battle of the Aisne. May 1915 commanded the 6th Division, and XIII Corps from November 1915. 1918, GOC VII Corps. During the war, Congreve lost a hand in action. 1919 Promoted general, and knighted. 1919-1923 GOC the Egyptian Expeditionary Force. 1923-4 C-in-C Southern Command. 1924-1927, Governor of Malta, where he died.
- Currie [formerly Curry], Sir Arthur William (1875–1933. Educated at Strathroy Collegiate Institute (from 1889) and Strathroy model school. In 1894 he moved to Victoria, British Columbia, and became a schoolmaster in Sydney. He returned to Victoria in 1896 and taught until 1900, when he became an insurance salesman. Soon after arrival in Victoria he joined the militia (1897) as a gunner and changed the spelling of his name to Currie. In 1900 he was commissioned as a 2nd lieutenant and by 1909 was commanding officer of the 5th regiment, British Columbia brigade garrison artillery. He then went into business for himself and in 1904 took over the insurance agency for which he had been working. In 1908 he entered a real estate partnership and began selling and speculating on property. In 1913 he ended his term as commanding officer of the 5th regiment, just as the speculative bubble in west-coast real estate burst. Also in that year he was asked to take command of a newly formed militia unit, the 50th regiment. Deeply in debt when war broke out in 1914, he was not able to accept command of the British Columbia military district. When subsequently offered a brigade in the Canadian expeditionary force he borrowed money, paid off most of his debts, and left to take command of the 2nd Canadian brigade. With this brigade he withstood the onslaught of superior forces at St Julien in 1915 and in the same year was promoted successively colonel and brigadier-general. When the Canadian corps was formed in September 1915 Currie was given command of the 1st

Canadian division, and with the rank of major-general led his men on the Somme and at Vimy Ridge. In 1917 when General Byng was promoted to army commander, Currie became the first Canadian to become commander of the Canadian corps. Concerned at the time that his pre-war debts would become an impediment, he took steps to eliminate them. His promotion was approved with the endorsement of Sir Douglas Haig and the Canadian government. Currie's subsequent career was extraordinarily successful. He planned and carried through the battle of Hill 70 (August 1917) and led his corps at Passchendaele (October). Perhaps his and the Canadian Corps' greatest achievement was during the fighting from the battle of Amiens (August 1918) through to the Armistice on 11 November, known as the Hundred Days. This fighting was the greatest sustained advance for the British forces during the entire war. Currie and the Canadian Corps greatly distinguished themselves, but criticism of the campaign was launched in the Canadian parliament, by Sir Sam Hughes, which resulted in post-war controversy and a libel action in 1928 which totally vindicated Currie. He was mentioned in dispatches nine times, was appointed CB in 1915, KCMG in 1917, KCB in 1918, and GCMG in 1919. He received many foreign decorations.

- Davidson, John Humphrey (1876-1954). "Tavish". Served in Boer War II, seeing action at the battle of Ladysmith. Attended Staff College, Camberley, 1905. Various staff appointments, including a period as director of Training at the War Office, 1908-10. In 1912, returned to Staff College as an instructor. Staff officer. III Corps, 1914. Operations officer. First Army, under Haig, 1915. Continued to serve under Haig in a planning role until the end of the war.
- Davies, Francis John (1864-1948). "Joey". Served in Boer War II. Attended Staff College, 1892. GSO1 Aldershot, 1908. GOC Guards Brigade, 1909. BGGS Aldershot Command, 1910-13. Director Staff Duties, War Office, 1913-14. GOC 8th Division, 1914-1915. GOC VIII & IX Corps, 1915-1916. Gallipoli, 1915. Military Secretary, War Office, 1916-19.
- **DeGruyther**, Cuthbert Montagu, on leaving RMC Sandhurst, joined the Welsh Regiment in South Africa, in 1884, and the 1st Suffolk Regiment in 1885. He served in the North-West Frontier India Expedition as a Station Staff Officer, Jhansi, 1890-92. He passed the Staff College in 1896, and in 1897 returned to Sandhurst as an instructor in tactics. He was promoted major in 1904. His book, 'Tactics for Beginners' published by Gale, and Polden, was the approved text-book at Sandhurst.
- Du Cane, John Philip (1865-1947). Served in Boer War II, 1899-1902. DAAG, Staff College, 1905-7, GSO1, Army HQ, 1908-10, CRA, 3rd Division, 1911-12, BGGS III Corps, 1914, MGRA GHQ, 1915. Given special appointment. Ministry of Munitions, 1916. GOC XV Corps, 1916-18. British Representative to Marshal Foch, 1918. Later rose to Master general of Ordnance, 1920.
- d'Urbal, Victor Louis Lucien, baron d'Urbal, (1858-1943) was born in Sarreguemines. He entered the Ecole spéciale militaire de Saint-Cyr in 1876, and then the Ecole d'application de cavalerie at Saumur in 1878. He became Sous-lieutenant in 1879, lieutenant in 1882, and Capitaine in 1887 He served in Algeria from 1889-1890, and became Chef d'escadrons in 1897. In 1906 he commanded a cavalry regiment, became lieutenant-colonel in 1908, colonel in 1906, and as Général de brigade commanded the 4th Dragoon Brigade in 1911. In 1914 he became Général de division, and commanded successively the 7th Cavalry Division, the 33rd Army Corps, all French troops in Belgium, and 8th Army. In 1915, he commanded the 10th Army
- Edmonds, James Edward (Nickname Archimedes) (1861-1956). Educated at King's College School and entered RMA Woolwich in 1879. Won the Pollock Gold Medal, and the Sword of Honour. He was commissioned into the Royal Engineers in 1881, and spent four years in Chatham and a year in Malta studying submarine mining. He was then posted

to Hong Kong, promoted captain in 1890 and returned to Woolwich as an instructor in fortification. In 1895 he entered the Staff College, Camberley and passed out in 1899. While at the college, he co-wrote 'The History of the Civil War in the United States 1861-1865' (1905). In 1899, he became head of the Special Duties Section of the War Office which censored cable communications, spied on suspected agents, press correspondents and monitored matters of international law. In 1901 he went to South Africa to advise Kitchener on questions of international law and from 1902-1904 he worked for Lord Milner on the establishment of peace, and was promoted major. He returned to England in 1906 and took over MO3 (later renamed MO5) and until 1910 concentrated on counterespionage, intelligence gathering and cryptography. He devised a code called Double Playfair and in 1908 gave a lecture on tactical intelligence which compared the tasks of a field officer in a small war to that of their continental equivalents. During 1909 Edmonds was promoted to colonel, and in 1911 he joined the 4th Division, which in the corps manoeuvres of 1912 with the 3rd Division, defeated I Corps then commanded by Douglas Haig. The 4th Division disembarked at Le Havre on 24 August 1914 and joined the Expeditionary Force in time for the Battle of Le Cateau on 26 August. During the retreat from Mons he broke down from insufficient food, lack of sleep, and strain. The engineerin-chief stretched out an arm to him from GHQ, where he remained for the rest of the war, in the latter part of it as deputy engineer-in-chief. He was regularly consulted by Haig and regarded as a mentor on the general staff side and every branch of his own corps, which in its turn could afford him greater knowledge of transportation problems than those who had to undertake the tasks. He retired in 1919 with the honorary rank of brigadier-general and was appointed director of the historical section, military branch, committee of imperial defence. His task was to direct; all narratives were to be written by historians; but finding the first choice unsatisfactory, he took over the main field, the western front, and sowed and reaped it to the end. He was appointed CB in 1911, CMG in 1916, and knighted in 1928. He received the honorary degree of DLitt from the University of Oxford in 1935. He retired to Brecon House, Long Street, Sherborne, Dorset, and died there on 2 August 1956. Hic ille lacrimae.

- Elkington, Robert James Goodall. CRA 36th (Ulster) Division, and GOC 1/1st City of London Brigade, RFA which supported 36th (Ulster) Division until its own artillery joined it in December 1915. 1/1st City of London Brigade transferred to 38th (Welsh) Division. Later brigadier-general, CMG, DSO; he was MiD four times.
- Elles, Hugh Jamieson (1880 1945). Educated at Clifton College, and RMA, Woolwich, and in 1899 was commissioned in the Royal Engineers. He served in South Africa during the latter part of Boer War II, and thereafter at Aldershot. In 1913 he attended the Staff College. In August 1914, he was posted to the staff of the 4th Division, served at Le Cateau, took part in the Retreat to the Seine, the Battles of the Aisne, and Armentières. In February 1915, he was promoted to brevet major, and served as the brigade major of the 10th Brigade. He was wounded during the Second Battle of Ypres. In August 1915 he was selected by Robertson, to liaise with troops at the front, and pass the information directly to GHQ. In January 1916, he was sent by Haig, to investigate the first tanks or "caterpillars" being built in England. He attended the first trials of "Mother", and reported back to Haig on its success. He was awarded the DSO in June, and reported from the Battle of Flers Courcelette. In September he became a temporary colonel, and was appointed to head the Heavy Branch (the first tank units) of the Machine Gun Corps in France. After the failure of the tanks at Passchendaele in 1917, he pressed Haig to use massed tanks on the drier, open ground at Cambrai. On 20 November 1917 he led 350 tanks into battle at Cambrai in a Mark IV tank called Hilda, named after a favourite aunt. He continued to command what had become the Tank Corps until November 1918, whereafter he commanded the Tank Corps Training Centre from 1919 to 1923, and was Inspector of Tank Corps at the War

- Office. He then commanded the 9th Infantry Brigade being posted to HQ Eastern Command as Chief of Staff in August 1926. In 1930 he was appointed Director of Military Training at the War Office, and then, in 1933, became GOC of the 42nd (East Lancashire) Infantry Division, a Territorial Army formation, for a few months. In April 1934, he was appointed Master-general of the Ordnance in the rank of lieutenant-general; he was also the head of the Mechanisation Branch for which his previous service made him particularly suitable. He retired in 1938, and was Civil Defence Commissioner for South West England during the Second World War.
- Ellison, Sir Gerald Francis (1861–1947). Entered the army in 1882, passed out from the Staff College, Camberley, in 1889, and thereafter held a series of staff appointments at the War Office, and at Aldershot. MiD, and awarded the Queen's medal with four clasps for his services in South Africa, Published Home Defence (1896), which won the RUSI gold medal in 1895. As committee secretary helped Lord Esher, Admiral Fisher, and Sir George Clarke to reorganize the War Office. In four months the committee produced a whole series of far-reaching recommendations. 1908–11 served as director of army organization at the War Office. 1911-14 on the staff of general Sir Ian Hamilton, the inspector-general of overseas forces. With the substantive rank of major-general at Aldershot from 1916 to 1917, and later at the War Office as deputy quartermaster-general, and inspector of general communications.
- Esher, Reginald Baliol Brett, 2nd Viscount (1852-1930). British politician (Liberal). MP for Penryn, and Falmouth, 1880-5. Member of South African War Commission chaired by Lord Elgin, 1902, which recommended mild reform of the army. Chaired the War Office Reconstitution Committee (reported 1904), which recommended greater reform of the army, including the creation of a general Staff. The army that went to war in 1914 was heavily influenced by Esher's work.
- Fanshawe, Lieutenant General Sir Edward Arthur, KCB (1859 –1952). He was educated at Winchester College and RMA Woolwich, and joined the Royal Artillery in 1878 and served in the Second Anglo-Afghan War in 1878-80 and the Sudan expedition of 1885. He was promoted captain and later major in 1896 and was in charge of a battery of the RHA during the Second Boer War. Thereafter he was stationed in Lucknow. He was promoted lieutenant-colonel in 1903, and colonel in 1908. In 1909 he commanded the artillery in a regular division garrisoned in Ireland. In 1913, he was transferred to command the artillery of the Wessex Division. In 1914, he became the CRA 1st Division. He was promoted to major-general and recalled in mid-1915 to command the 31st Division but was transferred in August to command the 11th Division at Gallipoli and in 1916 was promoted to command V Corps. At the Battle of the Ancre in November, he commanded an attack which captured Beaumont Hamel and was knighted in 1917. He remained with the corps through 1917, through the Third Battle of Ypres, and into 1918, where it held an exposed salient between Third and Fifth Armies. It was heavily attacked in March 1918, and both it and the neighbouring VII Corps retreated and both Fanshawe and the commander of VII Corps, Walter Congreve, were removed from command. In August 1918 Fanshawe was appointed to command XXIII Corps, and shortly thereafter transferred to command the garrison on the Firth of Forth, a posting which he held until after the end of the war. He was formally confirmed in the permanent rank of lieutenant-general in 1919, and retired from the Army in 1923.
- Farrar-Hockley, Sir Anthony Heritage (1924–2006). 1941 Gloucestershire regiment, 70th young soldiers' battalion, 1942 6th Parachute regiment. 1944 was awarded an MC for operations in Greece. Returned to the Glosters in 1948 with the substantive rank of captain. 1951 adjutant of the 1st battalion in the Korean War, most notably in April 1951 during the defence of Hill 235 at the battle of the Imjin for which he won the DSO. POW to 31 August 1953, In 1954 published 'The Edge of the Sword', and in 1955 attended the Staff

College, and edited the final papers of general Sir Ian Hamilton, published as 'The Commander' in 1957. Appointed DAQMG of the 16th Parachute brigade, and later brigade major, served in Cyprus, and was appointed MBE for the Suez airborne landings. In 1959 returned to the Parachute regiment. 1962, commanded the 3rd battalion, Parachute regiment in the Persian Gulf, and was awarded a bar to his DSO in 1964 when the published 'The Somme'. In 1965 was chief of staff in Borneo during the confrontation with Indonesia, and in 1966-8 commanded the 16th Parachute brigade, and in 1967 published 'The Death of an Army'. 1968-70 attended Exeter College, Oxford, and studied for the BLitt with a thesis 'National service, and British society'. In 1969 he published 'The War in the Desert', and 'Airborne Carpet: Operation Market Garden'. In 1970 he became director of public relations (army), and in July 1971 commanded the 4th armoured division in Germany. He published 'General Student' in 1973, 'Goughie: the Life of general Sir Hubert Gough' in 1975, and 'Infantry Tactics, 1939–1945' in 1976. Lieutenant-general, KCB, and appointed GOC south-eastern district in 1977. In 1979-82 he was promoted general C-in-C allied forces northern Europe based in Oslo. 1982 aide-de-camp general to the Queen, CBE, and retirement. Published a two-volume history of the British contribution to the Korean war 'Distant Obligation' (1990), and 'An Honourable Discharge' (1995). From 2002-6 he was President of the Army Records Society.

Foch, Ferdinand (1851-1929) was born in Tarbes and attended school in Tarbes, Rodez, Gourdan-Polignan and at the Jesuit Collèges Saint-Michel and Saint-Clément. In 1870 he enlisted in the French 4th Infantry Regiment and in 1871, he entered the École Polytechnique, and eventually chose the school of artillery. In 1873, he was commissioned as a lieutenant in the 24th Artillery Regiment. In 1876, he attended the cavalry school of Saumur to train as a mounted artillery officer. He was promoted captain in 1878 and in 1879 became an assistant in the Central Personnel Service Depot of the artillery. In 1885 he studied at the École Supérieure de Guerre where he was later an instructor from 1895 to 1901. He was promoted lieutenant-colonel in 1898, colonel in 1903, and commanded the 35th Artillery Regiment. In 1907 he was promoted to Général de Brigade, and commanded the French War College until 1911, the year in which he was appointed Général de Division. Collections of his lectures, which reintroduced the concept of the offensive to French military theory, were published in the volumes "Des Principes de la Guerre" ("On the Principles of War") in 1903, and "De la Conduite de la Guerre" ("On the Conduct of War") in 1904. He influenced General Joseph Joffre when he drafted the French plan of campaign (Plan XVII) in 1913. In 1913 he commanded XX Corps at Nancy, part of the Second Army of General de Castelnau, and led it into battle in August 1914. On 14 August the Corps advanced towards the Sarrebourg-Morhange line, taking heavy casualties in the Battle of the Frontiers. Foch was then selected to command the newly formed Ninth Army during the First Battle of the Marne with Maxime Weygand as his chief of staff. In October 1914, he was made the Assistant Commander-in-Chief of the Northern Zone under Joseph Joffre. Foch's counterattack was an implementation of the theories he had developed during his staff college days and succeeded in stopping the German advance. Foch received further reinforcements from the Fifth Army and, following another attack on his forces, counter-attacked again on the Marne. The Germans dug in before eventually retreating. On 12 September, Foch regained the Marne at Châlons and liberated the city. When the Germans attacked on 13 October, they narrowly failed to break through the British and French lines. They tried again at the end of the month during the First Battle of Ypres, this time suffering terrible casualties. Foch had again succeeded in coordinating a defence and winning against the odds. In 1915, his responsibilities by now crystallised in command of the Northern Army Group, he conducted the Artois Offensive and, in 1916, the French effort at the Battle of the Somme. He was criticised for his tactics and the heavy casualties that were suffered, and in December 1916 was removed from command by Joffre and sent to command Allied units on the Italian front; Joffre was himself sacked

days later. A few months later, after the failure of General Robert Nivelle's offensive, General Philippe Pétain, the hero of Verdun, was appointed Chief of the General Staff; Foch hoped to succeed Pétain in command of Army Group Centre, but this job was instead given to General Fayolle. The following month Pétain was appointed C-in-C in place of Nivelle, and Foch was recalled and promoted to chief of the general staff. Like Pétain, Foch favoured only limited attacks. Until the end of 1916, the French under Joffre had been the dominant allied army but after 1917 this was no longer the case, due to the casualties France's armies had suffered. The Supreme War Council was formally established on 7 November 1917, containing the Prime Minister and a Minister from each of the Western Front powers (i.e., excluding Russia), to meet at least once a month. Foch (with Wilson and Italian general Cadorna) were appointed military representatives, to whom the general staffs of each country were to submit their plans. The French tried to have Foch as representative to increase their control over the Western Front and Wilson, a personal friend of Foch, was deliberately appointed as a rival to General Robertson, the British Chief of the Imperial General Staff, an ally of Haig's, who had lost 250,000 men at the battle of Ypres the same year. Clemenceau was eventually persuaded to appoint Foch's protégé Weygand instead, although many already suspected that Foch would eventually become the Allied Généralissime. In 1918, an executive board was set up to control the planned Allied General Reserve, Pétain agreed to release only eight French divisions and made a bilateral agreement with Haig, who was reluctant to release any divisions at all, to assist one another. The situation was worsened by Clemenceau's and Pétain's dislike of Foch. At a Supreme War Council meeting in London (14–15 March), with a German offensive clearly imminent, Foch protested to no avail for the formation of the Allied Reserve. Following the Michael offensive Foch was given the job of coordinating the activities of the Allied armies, forming a common reserve and using these divisions to guard the junction of the French and British armies and to plug the potentially fatal gap that would have followed a German breakthrough in the British Fifth Army sector. At a later conference he was given the title Supreme Commander of the Allied Armies with the title of Généralissime. In May 1918, in the fifth session of the Supreme War Council, Foch was given authority over the Italian Front. Foch controlled the Military Board of Allied Supply (MBAS), an Allied agency for the coordination of logistical support of the Allied forces. In March 1918 Colonel Charles G. Dawes, the general purchasing agent for the American Expeditionary Forces (AEF) recommended to his commanding general John J. Pershing that a new intergovernmental agency was necessary to coordinate transportation and storage of military supplies in France. Pershing took the recommendation to French Premier Georges Clemenceau. The British were hesitant at first but finally the key players were in agreement and the Board was established in May 1918. It involved coordinating the entirely different supply systems for the American, British, and French armies, as well as the Italian and Belgian armies. It started operation from its base in Paris at the end of June. Foch was surprised by the German offensive ("Blücher") on the Chemin des Dames believing it was a diversion to draw Allied reserves away from Flanders. This was partly true, although the planned German Flanders Offensive ("Hagen") never took place. The Allied armies under Foch's command ultimately held the advance of the German forces. At the sixth session of the Supreme War Council on 1 June Foch complained that the BEF was still shrinking in size and infuriated Lloyd George by implying that the British government was withholding manpower. At a major Allied conference at Beauvais Lord Milner agreed with Clemenceau that Foch should have the power to order all Allied troops as he saw fit, over the protests of Haig who argued that it would reduce his power to safeguard the interests of the British Army. The British were disappointed that Foch operated through his own staff rather than through the Permanent Military Representatives at Versailles, and on 11 July 1918 British ministers resolved to remind Foch that he was an Allied, and not a French, C-in-C. The Allies counterattacked at the Second Battle of the

Marne in July 1918. On 6 August 1918, Foch was made a Marshal of France. Along with the British commander, Field Marshal Sir Douglas Haig, Foch planned a Grand Offensive, opening on 26 September 1918, which led to the defeat of Germany. Before the armistice and after the Armistice of Villa Giusti, Foch controlled all the operations against Germany including a planned invasion from Italy into Bavaria. Foch accepted the German cessation of hostilities in November from the German delegate, Matthias Erzberger, at 5:00 a.m. local time. However, he refused to accede to the German negotiators' immediate request to declare a ceasefire or truce so that there would be no more useless waste of lives among the common soldiers. By not declaring a truce even between the signing of the documents for the Armistice at 5:45 a.m. and its entry into force, "at the eleventh hour of the eleventh day of the eleventh month", about 11,000 additional men were needlessly wounded or killed – far more than usual, according to the military statistics. On the day of the armistice, 11 November 1918, he was elected to the Académie des Sciences. Ten days later, he was unanimously elected to the Académie française.

- Foster, Hubert John (1855-1919), army officer, entered RMA, Woolwich, in 1873, graduated in 1895 with the sword of honour for 'exemplary conduct', and the Pollock prize for 'the most distinguished cadet of the season'. Commissioned in the Royal Engineers in January 1875, and joined the school of military engineering at Chatham for two years technical training. He was then posted to the 31st Company, R.E., and took part in the battle of Tel-el-Kebir on 13 September, and the occupation of Cairo. He graduated from the staff college at Camberley in December 1885, was promoted captain, and served from November 1886 to June 1890 as brigade major, R.E., to the commander of the Land Forces in Ireland. His next posting was to the Military Intelligence division of the War Office from 1890-95; in September 1894 he became a major. From August 1898 to April 1901, he was QMG of the Canadian forces, concerned with the preparation of Canadian troops for South Africa. In April 1901 he was posted to the district of Guernsey, and Alderney in August as commanding royal engineer, and in October was promoted lieutenant-colonel. From 1903-06 he held the dual appointment of British military attaché both in Washington, and Mexico City. In January 1906 he returned to the War Office, and later became the director of military science at the University of Sydney; he was initially appointed for three years from September 1906 where he ran a three-year diploma course. In October 1904, he became a brevet colonel, and in December 1907 a substantive colonel. On 4 October 1912 he was placed on the British Army's retired list.
- French, John Denton Pinkstone, first earl of Ypres (1852–1925), j The son of a naval commander, French served briefly as a midshipman before embarking on his army career in 1870. He commanded a detachment of Hussars in the Gordon relief expedition to Egypt in 1884 and, with experience in India and at the War Office, was posted to the Boer War as brigadier-general in 1899. Here French displayed his skill as a cavalry commander, clearing the Cape Province of rebels and playing an important role in the relief of Kimberley in February 1900. He was promoted to major-general and awarded the KCB. In 1912 he was appointed CIGS. In 1913, however, French signed an undertaking to a group of Irish officers based at Curragh that they would not be called on in any moves to coerce Ulster into Home Rule. Disavowal of this by the British cabinet forced French's resignation. Nonetheless, with the declaration of war in August 1914, French was appointed C-in-C of the British Expeditionary Force to France. From the outset, the British C-in-C's relationship with his French counterpart was strained. In the German advance of 1914, elements of French's force became separated, some continuing to retreat even after the enemy had been halted, thereby jeopardizing other Allied forces. The secretary of state for war, Lord Kitchener, met the pessimistic Général French in Paris to stiffen his resolve. When Smith-Dorrien (GOC II Corps) disobeyed his orders to stand and fight a desperate (although undoubtedly correct) rearguard action at Le Cateau on 26 August 1914, French

marked him out as dangerous and disloyal. The two clashed repeatedly during the Second Battle of Ypres in April and May 1915, after Smith-Dorrien questioned his orders about making repeated, fruitless counter-attacks and the need to retreat. After being constantly undermined, Smith-Dorrien resigned on 6 May. By 1915, his leadership became increasingly suspect. A number of assaults had failed, and in September French squandered an initial advantage in the battle of Loos, which finally proved inconclusive: French kept control of the General Reserve – two divisions of XI Corps to control Haig. When he released the General Reserve too late for it intervene on the first day, he was blamed for holding them too far in the rear and thus denying the BEF a breakthrough. In December he was replaced as C-in-C by Haig. French was appointed C-in-C of Home Forces, in which capacity he organized measures to counter raids over England by Zeppelin airships. He also served as lord-lieutenant of Ireland (1918–21), a job for which he was patently unsuited and from which he resigned having survived an attempt on his life. The appointment of a military man as lord lieutenant was widely seen as heralding an iron fist policy; however, massive nationalist mobilisation led to the indefinite postponement of conscription - though French opposed this decision and continued to press for its implementation. The ill-feeling aroused by his actions as lord lieutenant, which had included the confirmation of death sentences, made it impossible for him to retire to Ireland as he had intended. French became 1st earl of Ypres in June 1922. After a brief period in France he was appointed captain of Deal Castle in August 1923. He lived their until his death from bladder cancer on 22 May 1925 and was buried at Ripple.

Fuller, John Frederick Charles. (1878–1966), entered the RMC, Sandhurst, in September 1897, and was commissioned into the 1st battalion, Oxfordshire light infantry, in August 1898. He served in South Africa (1899-1902). In 1901-2 he spent six months as an independent intelligence officer—an episode which he later described in an entertaining book, 'The Last of the Gentlemen's Wars' (1937). As a light-infantryman Fuller quickly deduced that 'mobility is of crucial importance'. He was posted to India in 1903, and promoted captain in 1905. The following year he accepted the adjutancy of the 2nd South Middlesex volunteers rather than his own regiment; this became the 10th Middlesex after 1908. Dealing with keen territorials stimulated Fuller to write; he found a forum in The Army Review, and published 'Hints on Training Territorial Infantry' (1913), and 'Training Soldiers for War' (1914). He attended the Staff College, in 1914 but refused to accept the shibboleths of conventional tactical wisdom, especially that all military action should be based on the envelopment of open flanks. In his essays Fuller advocated penetration of the enemy's front as well as envelopment, and analysed military history by reference to principles of war of his own devising. Confident that he was right, and the authorities wrong, Fuller used these papers as the basis for four articles published in *The Journal of* the Royal United Services Institution (1914–16). In August 1914 he was a major and DAD of railway transport at Southampton, before moving to Dartmouth, and then to Tunbridge Wells as GSO3, Second Army staff. He joined the headquarters of VII Corps in France in July 1915, was promoted lieutenant-colonel, and posted GSO2 of the 37th Division in February 1916. His thoughts were applied to improving conventional infantry tactics, stimulated by the challenge of setting up a senior officers' school for the Third Army in the spring. In December 1916 he was posted GSO2 to the Heavy Branch Machine-Gun Corps (later the Royal Tank Corps). In January 1917 he was awarded the DSO. Fuller's first analysis of tank tactics was embodied in 'Training note no 16' arguing that tanks were mobile fortresses designed to reduce 'the resistance offered to the advance of the infantry bayonets'. Throughout 1917 Fuller proved himself a well-organized, imaginative, and meticulous staff officer, whose methods pioneered what would later be termed 'operational research'. He was promoted GSO1 (chief of staff) of the tank corps on 1 April 1917. His contribution to the plan for the battle of Cambrai in November 1917 was important: one of the duties of a chief of staff is to provide ideas for his commander, and the translation of

concepts into a practicable plan is a corporate activity during which the original source of an idea is often forgotten or overlooked. He stimulated much thought during the Cambrai planning process and his critical intelligence was directed towards analysing errors, after a German counter-attack had swallowed up the initial gains. Similar qualifications need to be attached to Fuller's finest achievement as a staff officer, his memorandum, 'Tactics of the attack as affected by the speed, and circuit of the medium "D" tank' (popularly known as 'Plan 1919'), completed in April, and May 1918. Fuller's paper was not a plan in any formal sense, and could not be used as such, but it succeeded in formulating the essential conceptual framework of future armoured warfare, indeed manoeuvre warfare at the operational level.

- Gathorne Hardy, General Sir John Francis, GCB, GCVO, CMG, DSO (1874-1949). Educated at Eton and RMC Sandhurst. He was commissioned second lieutenant in the Grenadier Guards in 1894, and promoted lieutenant in 1898. In 1900 he was involved with Army transport duties during the Second Boer War, and was promoted captain. Tereafter he served with the Lovat Scouts, and received the brevet rank of major in 1902. Following his return he became Superintendent of Gymnasia. He served as a General Staff Officer in the First World War. After commands as a General in Egypt and India, he was Commander in Chief at Northern Command from 1931 to 1933 and at Aldershot Command from 1933 to 1937.
- Godley, Alexander John (1867-1957). Attended Sandhurst. Commissioned in the Royal Dublin Fusiliers, 1886. During Boer War II he served in the Irish Guards. Attended Staff College. GOC New Zealand Forces 1910-14. GOC First ANZAC Corps in Egypt, and Gallipoli, 1915-16. GOC Second ANZAC Corps, later made into XXII Corps, 1916-18. In 1918, temporary GOC III Corps, then GOC XXII Corps again.
- Goltz, Colmar, Wilhelm Leopold, Frhr. v. d., lieutenant-general, general Inspector of the VI Array Inspection; born 1843 in East Prussia; after going through the usual cadet schools, appointed Leutenant, 41st Infantry Regiment, 1861; wounded in campaign of Trautenau, 1866; First lieutenant, 1869; on general Staff, 1870; captain in general Staff, 1871; captain in 96th Infantry Regiment, 1877; major in general Staff, 1878; on duty with the Turkish Army, 1883-1895; commanding Fifth Division, 1896; Chief of Engineers, and Pioneers, 1898; Commanding general I Corps, 1902; Inspector-general of Sixth Army Inspection, 1907.
- Gough, Hubert de la Poer (1870-1963). 1914, GOC 2nd Cavalry Division at first Battle of Ypres. In March 1915, GOC 7th Division, and later 1915, as lieutenant-general, appointed GOC I Corps. In 1916, GOC Fifth Army at the Somme, and in 1917, at Passchendaele. Replaced by Sir Henry Rawlinson, March 1918.
- Gough, Brigadier-General Sir John Edmond, VC, KCB, CMG (1871-1915), was commissioned a second lieutenant in the Rifle Brigade in 1891, and promoted lieutenant in 1893. He served in British Central Africa in 1896, the Sudan in 1898, and took part in the Occupation of Crete (1898–99). Promoted to captain on 5 December 1898, he served in the Second Boer War from 1899 until 1902, and received a brevet rank of major in 1900. In 1902 he went to Berbera, as a Staff Officer in the Somaliland Field Force during the Third Somaliland Expedition where he won the VC. He attended the Staff College from 1904–05, returned to Somaliland in 1909, then returned to the college as an influential lecturer on war studies from 1909 to 1913. He went to France as a brigadier-general in August 1914 with the BEF, as chief-of-staff to Douglas Haig's I Corps. In early 1915 he continued as Haig's principal staff officer when Haig was given command of the newly created British First Army. By February 1915 whilst working on planning for the forthcoming attack at Neuve Chapelle he was killed by a sniper.

- Greenly, Walter Howorth (1875-1955), was educated at Eton, and Sandhurst, and commissioned in the 12th Lancers on 20 February 1895. He served as Adjutant of his regiment in the South African War, where he won a D.S.O. Became p.s.c in December 1905, and spent six years from January 1906 in staff positions at Aldershot Command whereafter he commanded the 19th Hussars. On 19 September 1914 he was appointed GSO1 2nd (Cavalry) Division under the command of Hubert Gough. He remained in this post until 14 April 1915, when he was promoted GOC 9th (Cavalry) Brigade, 1st (Cavalry) Division. From November 1915 until November 1916 he was BGGS of XIII Corps under Sir Walter Congreve. In November 1916 he became GOC 2nd (Cavalry) Division. On 22 March 1918, he commanded the 14th (Light) Division which suffered in the German Spring Offensive. On 28 March 1918, having reported that 'he found himself incapable of thinking clearly, and could not trust himself to issue orders' was relieved of command, suffering 'exhaustion from exposure'. Haig recorded more brutally in his diary that 'Greenly ... went off his head with the strain' but recommended that Greenly be considered for a staff or field command after a six-month period of rest at home. 1918-1920 Chief of the Military Mission to Romania. Retired in 1920.
- Grierson, Sir James Moncrieff (1859–1914) was educated at Glasgow Academy, in Germany, and at RMA, Woolwich, from which he passed out fourth, and joined the Royal Artillery at Aldershot in 1878. In 1881 he joined his battery in India, but soon after was employed on intelligence work. He accompanied an Indian division to Egypt in 1882 for as DAQMG, being present at the battles of Qassasin, and Tel el-Kebir. He returned to India, and in 1883 passed first into the Staff College. His time at Camberley was broken by the Sudan campaign of 1885, in which he served as DAA, and QMG, being present at the battles of Hashin, and Tamai, and was again mentioned. At the Staff College he passed out with honours in French, and Russian. On leaving he served for a time in the Russian section of the intelligence division under Brackenbury. He was promoted captain in 1886, and next year joined a battery in India, but soon after was appointed DAQMG, first at Lucknow, and then at Peshawar. In the Hazara expedition of 1888 he served as DAQMG 2nd brigade, and was again mentioned. In 1889 he returned to the intelligence division, and became head of the Russian section but was constantly in Berlin, and the frequent guest of the Kaiser, and of German officers. In 1895 he was promoted brevet lieutenant-colonel, and served for a year as brigade major at Aldershot. In 1896 he was appointed military attaché at Berlin where he began to believe that a breach with England must come. Early in 1900 he was sent to the front in South Africa in charge of the military attachés; on his arrival at Paardeberg in February, Lord Roberts appointed him AAG. In August 1900 he was in China as British representative on the staff of Field Marshal Count von Waldersee, C-in-C of the allied forces against the Boxers, and entered Peking (Beijing) with him. He was of great service in smoothing the relations between the British, and the Germans, but his opinion of German methods of making war was influenced unfavourably by his experience in China, where he found that jealousy of Great Britain, and fear of Russia were the Germans' leading motives. Returning home in 1901 Grierson received a colonelcy, and the CB for his services, and spent two years with the II Corps, first as AQMG, and then as GSO1. On the reorganization of the War Office in 1904 he became DMO, and was promoted major-general. From 1906 to 1910 he commanded 1 Division at Aldershot in 1906, and for the next eight years he was employed first at Aldershot, and then (1912) as GOC C-in-C eastern command. In 1914 he was appointed to command the II Corps. He reached Le Havre on 16 August, and the day after his arrival he died suddenly in the train, near Amiens, of aneurism of the heart. He was buried at Glasgow.
- **Grigg**, Edward William Macleay, 1st Baron Altrincham, KCMG, KCVO, DSO, MC, PC (1879-1955) Born in Madras and educated at Winchester College and New College, Oxford, where he won the Gaisford Prize for Greek verse in 1902. Upon graduation, he

embarked on a career in journalism joining The Times in 1903 as secretary to the editor, George Earle Buckle. In 1905 he moved to The Outlook as assistant editor under James Louis Garvin. In 1906 he returned to The Times as head of the colonial department until 1913 when he resigned to become the co-editor of The Round Table Journal. In 1915 he was commissioned as a special-reserve second lieutenant (on probation) in the Grenadier Guards and was later promoted to temporary lieutenant and to temporary captain on 8 November. He served in France and distinguished himself in combat before transferring to the staff as a GSO 3 in 1916. In 1917 he received the Military Cross, the DSO in 1918 and was a lieutenant-colonel by the end of the war. He was the only non-regular officer to become GSO 1 of a division during the war. He was created CMG in 1919 and served as military secretary to Edward, Prince of Wales (later Edward VIII) from 1919 to 1920, accompanying the prince on tours of Canada, Australia and New Zealand.

- Gwatkin, Willoughby Garnons (1859-1925, educated at Shrewsbury School, then at King's College, Cambridge, and RMA, Sandhurst1880. He was commissioned into the Manchester Regiment as a lieutenant in 1882, and promoted captain in 1890. He served as staff captain was appointed a DAAG in 1890and later major. In 1902 he became DAQMG, and was posted to Canada as a staff officer in 1905. In 1907 he attended Staff College, and was promoted colonel. In 1913 he was appointed Chief Staff Officer, Canada, the first to be appointed by the Dominion Government instead of by the British War Office. In 1916 he was given the temporary rank of major-general, and retired from the Army in 1920.
- Haig, Sir Douglas (later the 1st Earl Haig), was born in Edinburgh to a distilling family. He attended Clifton College, a public school, and Oxford. After Sandhurst in 1884 he was commissioned as a lieutenant into the 7th Hussars in 1885. Thereafter he served in India as the regiment's adjutant in 1888. He entered the Staff College in 1896, and was later picked for the Mahdist War. In 1899 he became brigade major to the 1st Cavalry Brigade whose commander was Sir John French, and soon became his Assistant Adjutant general during the Boer War. He took part in the battle of Elandslaagte, the relief of Kimberley, and the captures of Bloemfontein, and Pretoria. Later, in India, he commanded the 17th Lancers until 1903, and was appointed Inspector-general of Cavalry, and Aide-de-Camp to King Edward VII in 1902. In 1906 He was appointed DMT at the War Office, and later DSD. He rewrote the 'Field Service Regulations', which was useful in expanding the BEF in WW1, and 'Cavalry Studies' which was not. In 1909 he became Chief of the general Staff in India until 1912 when he became GOC Aldershot. In August 1914, he helped organize the BEF, predicted that the war would last several years, and that an army of a million men, trained by officers, and NCOs withdrawn from the BEF, would be needed.
- Haldane, James Aylmer Lowthorpe (1862-1950). Saw active service in Boer War II, during which he was captured but escaped. Military attaché with the Japanese army, 1904. GOC 10th Infantry Brigade, 1910. During WW-1 he was GOC 3rd Division, then GOC VI Corps, 1916-18.
- Haldane, Richard Burdon, 1st Viscount (1856-1928).. Having studied philosophy at university (he later helped translate one of Schopenhauer's works), he became a lawyer. Elected to Parliament, 1885. Secretary of State for War, 1905-11. It was during this period that he oversaw substantial reform of the British army in preparation for a war in Europe, including the formation of a British Expeditionary Force (BEF), and the Imperial General Staff. He also promoted aviation through the establishment of an advisory committee. Made Lord Chancellor in 1912, he was forced to resign in 1915, accused of having German sympathies. He did not return to office until the 1920s, under a Labour government.
- **Hamilton**, Sir Ian Standish Monteith (1853–1947), Cheam, Wellington College, and Sandhurst where he was placed 76th out of 392. Studied in Germany, under I. S. Drammers, a retired general living in Dresden for six-months (1870–71) Gazetted to the

12th Suffolk regiment, and then joined the 92nd Gordon Highlanders in India. On returning from England he was appointed musketry instructor of his regiment. Saw active service in 1879 during the Second Anglo-Afghan War in the march to Kabul. In July, while recuperating from a bad attack of malaria, Hamilton took part in the rescue of survivors of a British outpost overrun by a party of Afghans. In 1881 he went with the Gordons to South Africa where they were defeated at Majuba Hill. He was promoted captain, and in June 1882 returned to India, as Roberts' assistant. In 1884 he saw action in the battle of Kirbekan where he was promoted brevet major. In 1886 he resumed his duties as aide-de-camp to Roberts and accompanied him to Burma. By early February 1887 he was a brevet lieutenant-colonel. In 1890 he was appointed AAG for musketry, Bengal, and promoted colonel in 1891, the youngest in the army. In April 1893 he became the military secretary to Sir George White and in 1895 served on the staff of general Stedman of the Chitral relief expedition as AAG, and AQMG. He was later appointed CB. In 1897 he commanded a Brigade of the Tirah expedition, and returned to Britain in April 1898 to command the musketry school at Hythe, but in 1899 joined Sir George White as AAG in South Africa. He commanded a brigade with the temporary rank of major-general at Elandslaagte, and Ladysmith. Thereafter he commanded a division of mounted infantry with the rank of lieutenant-general and took part in the march to Pretoria, was appointed KCB, and made a major-general. He became chief of staff to Kitchener in 1901 and in 1902 he helped end the conflict, and left South Africa a substantive lieutenant-general. In April 1903 he became quartermaster-general and was an observer of the Russo-Japanese War in 1904 whereafter he published his diary as A Staff Officer's Scrapbook (1912). In April 1905 he took over the southern command. Here he co-ordinated the different arms in manoeuvres, placed special emphasis on indirect artillery fire, the timing of barrages to coincide with the infantry assault, and made musketry practice a large part of the training. In 1907 he was promoted general. He was appointed adjutant-general (AG) in 1909, and the following year advanced to GCB. In 1911 he sailed to Malta to take over the Mediterranean command, and that of inspector-general of overseas forces. By July 1914 he was appointed aide-de-camp to the king, and thereafter command of the Central Force responsible for the defence of the kingdom. He went to the Dardanelles on 17 March 1915, and later Suvla Bay which failed. In October he was recalled.

- Headlam, Major-General Sir John Emerson Wharton (1864-1946) (major general). Born 1864. Entered Army 1883, promoted captain 1892. Instructor, School of Gunnery 1892-7. Served at GHQ South Africa 1900-2. Became major 1900, and lieutenant-colonel 1902. HQ 1903-6. Promoted colonel 1905. GHQ India 1908-13. CRA 5 Division. First World War promoted major general for distinguished service in the field. MGRA GHQ. Retired 1921. colonel Commandant RA, 1928-34. Wrote a three-volume history of the RA. Died 1946.
- Hildyard, Sir Henry John Thoroton (1846–1916). Educated at the Royal Naval Academy, Gosport, and served as a lieutenant RN from 1859 to 1864. In 1867 he became an ensign in the 15th foot, and then the 71st foot. Promoted captain in October 1876, he graduated from the Staff College at Camberley in 1877 with special credit in German, and Spanish, and he contributed translations of German articles to the Journal of the Royal United Service Institution. Served as brigade major in Cyprus, and Gibraltar from 1878 to 1882, achieving his majority on 6 May 1882. His first major campaign was the 1882 expedition to Egypt, where he served as Sir Garnet Wolseley's deputy assistant adjutant, and quartermastergeneral, and was at Qassasin, and Tel el-Kebir. He was mentioned in dispatches, and received the Osmanieh (fourth class). He became a brevet lieutenant-colonel in 1882, and thereafter held a series of posts, until 1893 when he became commandant at the Staff College.. He restructured the examination system, abolishing the final examination, classifying students by their work during the course, and placed greater emphasis on the

practicalities of command, and staff work. The timing of his reforms was important, for many of the men who were to lead the British army in the First World War—Haig, Robertson, and Allenby among them—studied at Staff College in Hildyard's day. He left the Staff College in 1898 to command the 3rd brigade at Aldershot, being promoted majorgeneral in 1899. On the outbreak of the South African War he was appointed to command 2nd brigade of 1 Division. and was promoted lieutenant-general in 1900 and commanded 5 Division. In 1901 Hildyard returned to Britain on leave, and in 1903 he was appointed director-general of military education. In 1904 he returned to South Africa as lieutenant-general on the staff commanding troops, and from 1905 to 1908 served as general officer commanding-in-chief, South Africa.

- Holland, Lieutenant-General Sir Arthur Edward Aveling KCB KCMG DSO MVO (1862-1927)He was commissioned into the Royal Artillery in 1880, served in the Second Boer War and then became Assistant Military Secretary to the Governor and Commander-in-Chief of Malta in 1903 before holding a similar role at the War Office from 1910. In 1912 he was appointed Commandant of RMA, Woolwich. During World War I he became CRA of the 8th Division, and in July 1915 became CRA VII Corps. In September 1915 he was appointed GOC 1 Division. In June 1916 he became CRA Third Army and in 1917 was GOC I Corps before retiring in 1920.
- Home, Robert (1837–1879), was commissioned lieutenant on 7 April 1856. After serving at Chatham, and in Nova Scotia, in 1858 he was one of the first to join the new Staff College at Sandhurst, whereafter, he was attached at Aldershot to the other three arms of the service successively, to complete his training for the staff. In 1862 he went to Portland, and was employed in the new defences. He was promoted captain in 1864 and was sent to Canada, where he wrote an able report on the defence of the frontier against invasion, which attracted the attention of the authorities at home. The following year he was appointed to the staff at Aldershot as DAQMG. The ability he showed led to further special employment. In 1870 he became secretary of the Royal Engineers committee (a standing scientific committee), and in 1871 he was appointed to the topographical, and statistical department of the War Office, which in 1873 developed into the intelligence branch. In 1873 he was selected by Garnet Wolseley to be the commanding royal engineer of the Asante expedition. In the Second Anglo-Asante War he proved himself capable in the field, his energy, and force of character enabling him to overcome manifold difficulties in preparing the way for the march to Kumasi. He used 6000 local labourers to clear a road through 70 miles of bush, build seven way stations, and construct the forward base at Prasu. He received a brevet lieutenant-colonelcy, and a CB. On his return he resumed his duties at the intelligence branch, assisting its head, major-general Sir Patrick MacDougall (deputy adjutant-general for intelligence). In 1876 he succeeded major Charles Wilson as AQMG of the intelligence branch, the post he retained until his death.. Towards the end of 1876 he was sent to Turkey to report on the defence of Constantinople and his dispatches gained him a brevet colonelcy. He published A Précis of Modern Tactics in 1873 which was one of the few English books on the subject, and continued for some years the best, becoming an official textbook. In 1872 he translated Baron Stoffel's Military Reports, and a French work on the 'law of recruiting'. He also contributed to the Quarterly Review, Macmillan's Magazine, and other periodicals. He was a FRGS, and an associate of the Society of Telegraph Engineers.
- Holford-Walker, Allen (1890-1949) attended the RMC at Sandhurst, graduating in 1909 into 91st Battalion The Argyll, and Sutherland Highlanders. In May 1915 he was sent to France with the 10th (Service) Battalion of the Argylls. From May 1916 he oversaw tank training at Bisley, and Elveden, and commanded C Company of the new tank corps.
- Hordern, Maj. Gwyn Venables, was educated at Wellington College. He was commissioned in the King's Royal Rifle Corps in 1891, and saw service in the Nile

Expedition in 1899, in the Boer War 1899to 1902 when he was promoted to Brevet major. In 1907 he was a Brigade major, Southern Command, and in 1915 he was a major, general Staff 8th Division.

- Hore-Ruthven. Alexander Gore Arkwright (1872 –1955) joined a voluntary Yeomanry unit at the age of 17, and enlisted in the regular army at the age of 19. In 1889, he was commissioned a second lieutenant in the Lanarkshire Yeomanry Cavalry. After his return to England in 1892, he joined the regular army, and was commissioned as a lieutenant in the 3rd Battalion of the Highland Light Infantry. He was promoted to captain in 1896. During the Mahdist War, he was MiD., and was awarded the VC for saving a wounded Egyptian soldier. During 1903-4 he fought in the Somaliland campaign, and was promoted to a regular lieutenancy on 16 April 1904. In 1905, He became an aide-de-camp to Dudley, the Lord lieutenant of Ireland. He transferred to the 1st (King's) Dragoon Guards in 1908, and was promoted to supernumerary captain In 1908 he accompanied Dudley as his military secretary to Australia when Dudley became the Governor-general. He left Australia in 1910, and returned to military service in India. In 1915, he transferred to the Welsh Guards, and was promoted to major. He was appointed GSO1 in 1916, with the temporary rank of lieutenant-colonel, and was awarded the DSO. He finished the war as a brigadier-general.
- Horne, Henry Sinclair (1861-1929). A Scot, born in Wick, he was educated at Harrow. He was commissioned into the Royal Artillery in 1880. In September 1890 he was appointed staff captain, Royal Artillery, at Meerut, and two years later he became adjutant of the Royal Horse Artillery (RHA) at Kirkee. He served with Sir John French's cavalry during Boer War II, 1899-1902. brigadier, and Inspector of Artillery, 1912. BGRA I Corps under Haig, 1914-15. GOC, 2nd Division, 1915. GOC, XV Corps, 1916. GOC, First Army, 1916-19.
- Howell, Brigadier-General Philip (1877-1916) Lancing. 1897 entered Army, and in 1898 transferred to Indian Army (Corps of Guides), and 4th Hussars in 1913; 1903, Special Correspondent of The Times during the Macedonian Rebellions. p.s.c., 1907; North-West Frontier, 1908; Brigade-major to Inspector- general of Cavalry, India, and Special Correspondent of The Times during the Turkish revolution in 1908; GSO3 at the War Office, 1909-11; GSO2 at the Staff College, 1912-13; O.C. 4th Hussars, 1914; BGGS., Cavalry Corps in 1915; BGGS, X Corps, and XII Corps in 1915; C.G.S., G.H.Q., Salonika, 1915- 16; BGGS., II Corps, 1916; killed in action 7 October 1916. Author of The Campaign in Thrace 1912 (Rees, 1913).
- Hudson, Havelock (1862, 1944). 1881: commissioned into the Northamptonshire Regiment as a lieutenant. 1885: transferred to the Indian Staff Corps in the 19th Lancers, and was promoted to captain in 1892. 1900: China Field Force for the Boxer Rebellion. In 1901 he took part in the second Miranzai expedition. In 1910 he commanded the 19th Lancers, and was made GSO1, and in 1912 became Commandant of the Cavalry School at Sangor, and BGGS of the Northern Army in October 1912. Fromm 1914 he was a brigadier-general on the general Staff of the Indian Corps, and later GOC8 Division until 1916, and became Adjutant general, India from 1917 until 1920.
- Hunter-Weston, Aylmer Gould (1864-1940). "Hunter-Bunter". Educated Wellington, and Woolwich. Commissioned into Royal Engineers, 1884. Attended Staff College, 1898-9. Served in Boer War II. Served as a GSO1904-1911. Assistant Director Military Training, War Office 1911-14. GOC 11th Infantry Brigade. GOC 29th Division in Gallipoli, GOC VIII Corps in Gallipoli, and at Somme. Temporary lieutenant-general 1915, and GOC VIII Corps to the end of the war.
- **Jeudwine**, Hugh Sandham (1862-1942). Commissioned into the Royal Artillery in 1882. Served in Boer War II as Deputy Assistant QMG. Assistant Superintendent of Experiments

- at the School of Gunnery, 1904. On the staff of Aldershot Command, 1909, then transferred to the Staff College as a member of staff. GSO1, I Corps, 1914; GSO1st Division, 1914. BGGS V Corps, 1915. GOC 41st Brigade, 1915, and GOC 55th Division, 1916-19.
- Joffre, Joseph Jacques Césaire ('Papa') (1852-1931) was born in Rivesaltes, France. He entered the École Polytechnique in 1870, and became a career officer. He was a junior artillery officer during the Siege of Paris in the Franco-Prussian War, whereafter he returned to the École Polytechnique before transferring to the engineers. He then served in the colonies as a military engineer, in the Sino-French War (1884-1885), and later in Mali, and Madagascar where he was promoted to Général de brigade. He returned to France in 1903, and commanded the 19th Cavalry Brigade. In 1904 he became Director of Engineers, and next year was promoted to Général de division. Thereafter he commanded the 6th Infantry Division, served as Inspector of Military Schools, and from 1908 commanded the 2nd Army Corps. In 1910 he was appointed to the Conseil supérieur de la guerre, and in 1911 C-in-C (Généralissime). He held this post until 26 December 1916 when he was made Maréchal de France but was rendered powerless to direct the French Army thereafter.
- Karslake, lieutenant-general Sir Henry (1879-1942) Harrow, and RMA Woolwich Entered RGA, 1898; psc, 1913; South African War, 1900-1902 (despatches, DSO); lieutenant 1901, and captain 1905, Instructor, RMC, 1907-1911, and attended Staff College in 1912. Thereafter he was posted to the 129th Howitzer Battery, R.F.A., and embarked for France with the 3rd Division in August 1914, and was later promoted major. In June 1915 he was in France with the 12th Division, but in August he went to the newly-formed Third Army as G.S.O 2. In June1916 he became GSO1 50th Division, 1916-1917. He was critical of III Corps plan of attack of 15 Sep 1916, particularly that of the 47th Division attack on High Wood; GSO1 4th Division, 1917-1918; GSO1 Tank Corps, 1918; BGGS Tank Corps, 1918-1919. He succeeded Fuller to the former post in July 1918. GOC Baluchistan District, 1933-1935; retired 1938; re-employed, France, 1939-1940.
- Kavanagh, Charles Toler MacMorrough (1864 1950) was the son of Arthur MacMorrough Kavanagh, and Mary Frances Forde-Leathley. He was educated at Harrow School, and the RMC, Sandhurst, and commissioned into the 3rd Dragoon Guards in February 1884 transferring to the 10th Royal Hussars two weeks later. In 1891 he was promoted to captain, and in 1895 he was appointed adjutant to the 6th Yeomanry Brigade. In Boer War II he was Commanding Officer of the 10th Royal Hussars, and was promoted to major in 1900, and to brevet lieutenant-colonel the same year. He was MID by Lord Kitchener in his final despatch dated of 1902, and received the Distinguished Service Order (DSO) for his service in the war. In 1909 he commanded the 1st Cavalry Brigade at Aldershot Command in 1909.[2]He fought in the Great War as commander of the 7th Cavalry Brigade (part of the British Expeditionary Force) from 1914, as GOC 2nd Cavalry Division from April 1915, and as GOC 5th Division from July 1915. Therafter he served as commander of the Cavalry Corps from 1917, leading it to success at the Battle of Amiens, and remaining in post until the end of the War. He retired in 1920, and became Governor of the Military Knights of Windsor.
- Kiggell, Launcelot Edward (1862-1954) (pr. "Kidgel") was educated in Ireland, and Sandhurst. In 1882 he was commissioned into the Royal Warwickshire regiment where he became adjutant of the 2nd battalion in 1886. He entered the Staff College, Camberley, in 1893, graduated in December 1894, and returned to Sandhurst as an instructor in 1895. His first staff job was as DAA-G to the south-eastern district in 1897–9. Throughout the South African War was on the staff of Sir Redvers Buller, 1899 later at HQ Pretoria, and finally as AA-G, Harrismith district. He held the same post in Natal after the war. He was MiD, and made a brevet lieutenant-colonel. From 1904 to 1907 was DAA-G at the Staff College.

- His 1905 paper on the future shape of battle was criticized for being over-biassed towards superseded examples, and ignoring lessons of the more recent conflicts. He revised the once influential 'Operations of War' by Sir Edward Hamley. He accepted the then controversial view of the importance of political considerations in determining strategy. 1907–9, GSO1, army HQ then brigadier-general in charge of administration, Scottish command, and later (succeeding Haig), DSD at the War Office from 1909. 1913 Commandant at Camberley, succeeding Robertson until August 1914 when he was DMT then DHD until 1915 when he became Haig's CoS when Haig replaced French.1
- **Kitchener**, Horatio Herbert, 1st Earl Kitchener, (1850-1916) was privately educated in Switzerland, and later won a place at RMA, Woolwich as an engineer. He won the Battle of Omdurman, and succeeded Roberts as C-in-C. He became C-in-C (1902-09) of the Army in India, and later British Agent, and Consul-general in Egypt. In 1914 he joined the Government as Secretary of State for War, and was one of the few to foresee a long war. He organised the largest volunteer army that Britain had seen.
- Lecky, Major-General Robert St Clair, Born 11 Feb. 1863; 4th s of J. F. Lecky, DL, Ballykealey, Co. Carlow; m 1900, Muriel Edith, d of John Goldney, ICS; one s three d; died 4 June 1940, Entered Army, 1882; capt., 1891; Maj., 1900; Lt-Col 1908; Col 1912; Maj. Gen. 1917; ADC to major-general, Bengal, 1892–93; to Lt-general, Bombay, 1893–97; AQMG, India, 1913; served European War, 1914–18 (despatches seven times, CB, CMG, prom. major-Gen., Legion of Honour, St Stanislas, Russia); 3rd Afghan War, 1919 (medal, and clasp); Afghanistan (despatches); retired pay, 1920. CB 1915; CMG 1917; late RA.2
- Longridge, James Atkinson was born at Streatham in 1875, Entered RMA Sandhurst in 1893, and was commissioned into 2nd Queen's, Royal West Surrey Regiment in 1895, promoted lieutenant 1896, and later served with the 7th Bombay Lancers. In 1897 transferred to the Indian Staff Corps, 1904 promoted captain, and major in February, 1913. 1903-4 took part in operations in Somaliland, and was MiD in 1904. In 1916 he was promoted brevet lieutenant-colonel (GSO1) of 1 Division, and made CMG. He was killed in action 18 Aug., 1916, near Contalmaison.
- Luckock, Russell, Mortimer. Major-general. Russell Mortimer Luckock Major-General CB CMG DSO (1877 1950. He was commissioned as a second lieutenant in the King's Own Royal Regiment (Lancaster) in 1900, and shortly thereafter left for South Africa where he took part in operations in the Orange Free State from April to June 1900, then in the Transvaal and was promoted lieutenant. He later served in the First World War and became Commandant of the Small Arms School in India in February 1922, Commander of 163rd Brigade in June 1926 and Brigadier on the General Staff at Southern Command in October 1928. After that he became General Officer Commander 54th (East Anglian) Infantry Division in September 1934.[5] He also served as colonel of the King's Own Royal Regiment (Lancaster) (1945–47). Allegedly wrote a four-volume work entitled 'Battles of the Somme' which contained the war diary of the Fourth Army on 1 July 1916.
- Macmullen, General Sir Cyril Norman (1877-1944) Entered Army, 1897; transferred to
  Indian Army (15th Sikhs), 1899; North-West Frontier, 1897-98; Tibet, 1903-04; GSO3,
  and 2, H.Q., India, 1913-14; GSO1, 2nd Mounted Division, M.E.F., 1915-16; BGGS., XV
  Corps, M.E.F., 1916; GSO1, Fifth Army, 1916-17; GSO1, Operations, G.H.Q., 1917;
  BGGS., XIX Corps, 1917-18; retired, 1937.
- MacMunn, lieutenant-general Sir George Fletcher, KCB, KCSI, DSO, (1869 1952) was a British general, scholar, and Warden of Sackville College, East Grinstead. He entered RMA at Woolwich as a 2nd lieutenant on 27 July 1888; promoted to lieutenant 27 July 1891; captain 5 December 1898, Brevet major 29 November 1900; major 1 April 1904; Brevet lieutenant-colonel 10 May 1913; lieutenant-colonel 30 October 1914; Brevet

colonel 1 April 1915; Temporary brigadier-general 23 November 1915 to 27 March 1916; Temporary major-general 16 April to 31 December 1916; major-general 1 January 1917. He graduated from the Staff College in 1903. He served in Upper Burma on the Irrawaddy Column, 1892, Sadon, Sima column, 1893; Kohat Field Force, 1897; Tirah Expedition, 1897-1898; South Africa with Artillery, and on Staff, 1899-1902,; placed on the list of 'Officers considered qualified for Staff employment, in consequence of services on the Staff in the field'. He was Station Staff officer, South Africa, in 1900 then APM, South Africa and DAAG, South Africa, 1902; DAAG, India, 1904 to 1908; DAQMG,; GSO2, HQ, India, 1910 to 1912; DAD of Remounts, 1912 1914; AD of Remounts, 1914 to 1915; AQMG, Lines of Communication, MEF, 1915; DA, and QMG to 1916; Inspector-general of Communications, Indian Expeditionary Force 'D', and Mesopotamian Expeditionary Force, to 1919 He retired in 1925.. He retired in 1925, and was colonel Commandant of the Royal Artillery, 1927 to 1939; Commander, The Royal Hospital, Chelsea, 1932-1938; served in the Home Guard, 1940-1942. He was awarded the Royal Artillery Institution Duncan essay silver (1896), and gold (1900) medals, and the gold medal of the United Service Institution of India (1904).

- Marindin, Arthur Henry (1868-1947), CB, DSO, Served in South Africa 1899-1902. In 1901, dissatisfied with the Mekometer rangefinder in use in 1895 he invented the first working model of a parallax rangefinder. 1903 lieutenant in the Tibet Expedition. 1906 was promoted to captain, and with Arthur Wellesley published 'The Salamanca Campaign', and helped Launcelot Kiggell edit Hamley's 'Operations of War'. In 1907 published 'Staff Rides'. 1911 was Brigade major of the Black Watch, and wrote many exercises, and instructions. 1916 GSO1 in 17th Division. 26 Mar 1918 commanded the 105th Infantry Brigade (35th Division) during the German Operation Michael. 1919 was Brevet colonel (temporary major-general).
- Maxse, (Frederick) Ivor (1862-1958). Educated Rugby, and Sandhurst. Commissioned in 7th Royal Fusiliers, 1882. Transferred to the Coldstream Guards, 1891. Served with the Egyptian Army, 1897-9. During Boer War II, he served on Lord Roberts' staff. CO, 1st Battalion Coldstream Guards, 1903-7. GOC 1st Guards Brigade 1910-15. GOC 18th Division 1915-17. GOC XVIII Corps 1917-18. Inspector general of Training to the British Armies in France 1918-19.
- Mayne, Charles Blair 1855-1914. Colonel Royal Engineers. Was at RMC Kingston, Canada in August 1888.
- Mercer, Major-General Sir H. Frederick,, (1858-1936). Educated in Jersey, and the RMA Woolwich. Entered the Army in 1877, captain in 1885, major in 1895, brevet-colonel in 1905, colonel in 1907, and major-general in 1915. Served in the Afghan War in 1880, and took part in the relief of Kandahar. In 1886, and 1887 he was with the Burmah Expedition, and in 1888 he was in the Hamra operations:, and in 1897 served on the North-West Frontier with the Tirah Expeditionary Force. He served from 1900 to 1902 in South Africa. He was made a C.B. In 1911 he became Inspector of Royal Horse, and RFA in India but was soon re-appointed A.D.C. to King George V until 1915 when he became GOC RA First Army. In the Great War he served from 1914 to 1918. In 1918 he was created K.CMG.
- Milne, Field Marshal George Francis, 1st Baron Milne, GCB, GCMG, DSO (1866-1948) was educated at MacMillan's School in Aberdeen and RMA, Woolwich. He was commissioned into the Royal Artillery in 1885, and posted to a battery at Trimulgherry in India and then at Aldershot in 1889 and Meerut in 1891. He was promoted captain in 1895, and joined the garrison artillery in Malta, before being appointed battery captain at Hilsea. He attended the Staff College, Camberley in 1897 and took part in the Nile Expedition in 1898. He served in South Africa, and was appointed DDAG in 1900 and promoted major. He was awarded the DSO in 1902 and the brevet rank of lieutenant-colonel. In UK he was

appointed DAQMG in the intelligence division in 1903 and promoted colonel in 1905, becoming a GSO at the HQ of the North Midland Division in 1908. He joined the staff of 6 Division in Cork in 1909 and became CB in 1912. In 1913 he was promoted BGRA of 4 Division in 1913. In 1914 he fought on the Marne and the Aisne and joined the general staff of III Corps in 1915, was promoted major general and fought in the Second Battle of Ypres. He was appointed GOC 27 Division in July. In 1916 he was appointed to command XVI Corps in Salonika and in May he became c-in-c of the British Salonika Army. He was promoted lieutenant-general in 1917 but was placed under the command of a French General Sarrail (with right of appeal to his own government). He undertook many offensives in support of his French and Serbian Allies with limited resources. His troops were constantly suffering from malaria. He became KCB in 1918. After the Armistice, he was responsible for the military administration of a vast area around the Black Sea at a time of considerable internal disorder following the Russian Revolution and the start of the Turkish War of Independence. He toured the Caucasus in early 1919 and at the end of August 1919 the British withdrew from Baku. In March 1920 he occupied Constantinople and took over the administration of the city, which was collapsing.

Monash, Sir John (1865–1931), Educated at St Stephen's Church of England School, Richmond, Victoria and Jerilderie public school, New South Wales (1875–7). He then attended Scotch College, Melbourne (1877-81) and matriculated at the University of Melbourne in 1882 in engineering (1893) and arts and law (1895). He was a member of the university company of the Victorian rifles. In 1886 he worked on the Princes Bridge over the River Yarra and in 1888 supervised the construction of Melbourne's outer circle eastern metropolitan railway. The logistical, leadership, and management skills he thus acquired never left him. He was 'retrenched' in 1894, and entered private practice with J. T. Noble Anderson eventually becoming an advocate and expert witness in legal-engineering cases. In 1898 Anderson purchased the Victorian agency for Monier reinforced concrete construction. In 1886, when the university company disbanded, he joined the garrison artillery, responsible for the harbour defences, was commissioned a year later, rose to captain in 1895, and major and battery commander in 1897 and lieutenant-colonel in 1908 in charge of the Victorian section of the newly formed Australian intelligence corps (militia). He initiated a programme of military mapping, attended schools in military science at the University of Sydney, and wrote a prize-winning essay on the Wilderness campaign of 1864. In 1913 he was made colonel and commander of the 13th infantry brigade. He wrote a much-praised training pamphlet in 1913: 100 Hints for Company Officers. When war broke out, Monash was appointed (after a month as deputy chief censor) to command the 4th infantry brigade, Australian Imperial Force (AIF). His brigade was in the reserve during the Gallipoli landings of 25 April 1915 and later took its place in the line. On the night of 2–3 May, against Monash's better judgement, they were thrown unprepared into a disastrous assault on the key position of Baby 700. He and the brigade recovered sufficiently to help repel the major Turkish attack on 19 May. In July Monash was promoted to brigadier-general. In July 1916, he was made major-general and commander of 3 Division. His first battle as divisional commander was at Messines in June 1917, during which the untried 3rd division was entrusted with the important southern flank. On 4 October he won a notable victory at Broodseinde by using leap-frogging tactics to maintain pressure on the enemy, but two weeks later his division suffered the mud and carnage of Passchendaele. In March 1918 the division moved very quickly to plug a 10mile hole in the line before Amiens, helping to blunt the German spring offensive. During these battles Monash developed his habit of remaining at his headquarters, and sustaining directive control. I ANZAC was formed in November 1917, and on 1 June 1918 he was promoted lieutenant-general in command of it. On 4 July he fought the small but important Battle of Hamel which ended after 93 minutes, at a cost of 1400 casualties on each side; 1600 German prisoners were taken and 177 German machine guns captured. The

- Australian Corps played a central role in the battle of Amiens on 8 August, and later the battles of Mont-St Quentin and Péronne on 1–2 September. Finally, with 200,000 men under his control, Monash helped breach the Hindenburg line near Bellecourt a month later.
- Monro, Sir Charles Carmichael, baronet (1860–1929) attended Sherborne School, and later RMC, Sandhurst in 1878, and was posted to the 2nd foot, (1st battalion the Queen's Royal regiment), in 1879., becoming adjutant until 1886. He attended the Staff College, Camberley, in 1889–90, and rejoined his battalion later becoming brigade major in 1898, and company commander. He arrived in South Africa in 1900, participated in the march to Pretoria, Paardeberg, the battles of Poplar Grove, and Driefontein. He was promoted brevet lieutenant-colonel, and became the commandant at the School of Musketry at Hythe in 1902. He then commanded the 13th infantry brigade in 1903 with the rank of brigadiergeneral, and was promoted to major-general in 1911 with the command of the 2nd London division in the spring of 1912. In 1914 the division proceeded to France, and formed part of Haig's 1st corps. He played a key role in the first battle of Ypres. At the close of 1914 Monro commanded the 1st corps with the temporary rank of lieutenant-general.
- Montgomery (-Massingberd), Archibald Armar (1871-1947). "Archie". Rawlinson's chief of staff for much of the war. Educated Charterhouse, and RMA Woolwich. Commissioned in Royal Artillery, 1891. To India, 1892. Served during Boer War II. Passed Staff College, 1906. Staff Officer, Aldershot Command, 1909, then to the Staff College, Quetta, in 1912. Began the First World War as GSO2, 4th Division. Acting GSO1 when Rawlinson became GOC Fourth Army. Chief of Staff IV Corps 1915, and of Fourth Army 1916-18. Ended his career as a field-marshal. Left a valuable collection of papers relating to the First World War.
- **Montgomery**, Hugh M. (dates unknown). "Hugo". Elder brother of Archibald Montgomery. Chief of Staff to General Capper, 1914.
- Napier, William, brigadier-general, (1863-1925) Served in South Africa, Queen's medal, and throughout WW-I, being wounded, MiD, CB, and CMG. Became Director-general of Artillery at the War Office, and retired in 1922.
- Pétain, Henri Philippe Benoni Omer 1856-1951. 1876 joined French army, and in 1887, St Cyr Military Academy, and École Supérieure de Guerre. 1878, and 1899 served in the Chasseurs à pied, the elite light infantry, and thereafter, alternated between staff, and regimental assignments. 1890 captain, and major in 1900. In March 1904 was appointed adjunct professor of applied infantry tactics at the École Supérieure de Guerre, and became lieutenant-colonel, and professor in 1908. From 1911 as colonel, he commanded the 33rd Infantry Regiment at Arras, and in 1914 commanded a brigade which he led at the Battle of Guise. Thereafter he was promoted to brigadier-general, and commanded the 6th Division at the First Battle of the Marne in October 1914, and later became XXXIII Corps commander. Led his corps in the spring 1915 Artois Offensive, and in July 1915 was commanded the Second Army, which he led in the Champagne Offensive that autumn, and at the start of the Battle of Verdun in February 1916. During the battle, he was promoted to Commander of Army Group Centre, which contained a total of 52 divisions. Rather than holding down the same infantry divisions on the Verdun battlefield for months, akin to the German system, he rotated them out after only two weeks on the front lines. His decision to organise truck transport over the "Voie Sacrée" to bring a continuous stream of artillery, ammunition, and fresh troops into besieged Verdun also played a key role in grinding down the German onslaught to a final halt in July 1916. After the failed Nivelle Offensive, and subsequent mutinies he was appointed C-in-C, and repaired the army's confidence. He remained in command for the rest of the war, and emerged as a national hero. From 1918 he was head of the peacetime French Army, commanded joint Franco-Spanish operations during the Rif War, and served twice as a government minister. In June 1940 he was

- appointed President of the Ministerial Council by President Lebrun at Bordeaux, and the Cabinet resolved to sign armistice agreements with Germany, and Italy. The French government subsequently moved to Vichy in central France. His government collaborated with the Axis. After Germany, and Italy occupied, and disarmed France in November 1942, he became a puppet of the German military administration. After the war, he was tried, convicted of treason, and sentenced to death, but due to his age, and World War I service his sentence was commuted to life in prison.
- Murray, Sir Archibald James (1860–1945), army officer, Entered the army through the RMC, Sandhurst, and in 1879 was gazetted to the 27th regiment which later, became the Royal Inniskilling Fusiliers. Served in Hong Kong, Singapore, and the Cape, where in 1888, as a captain, he took part in the suppression of a Zulu rising. In 1890 he married Caroline Helen. They had a son. Entered the Staff College, Camberley in 1897 with Robertson, Haig, Edmonds, and Allenby. In 1899 he was appointed intelligence officer on the staff of Sir William Penn Symons, GOC Natal on whose death Murray brought the British force to Ladysmith. Promoted lieutenant-colonel in 1900, and was on the staff of Sir George White during the siege of Ladysmith; and senior staff officer to Sir Archibald Hunter of the 10th division. In 1901 he commanded the 2nd battalion of his regiment in India, and in February 1902 in South Africa. Won a DSO when wounded during an attack in northern Transvaal. From 1902-1914 was senior general staff officer of the 1st division (Aldershot); 1907-12 was one of two directors of military training at the War Office (Haig was the other); and inspector of infantry (1912–14). 1910 promoted major-general in 1910, 1911 was appointed KC. In 1912 married Mildred Georgina Dooner. Was GOC 2nd Division in 1914, but was appointed CGS of the BEF at the express wish of Sir John French, under whose command he was serving at Aldershot. By December 1914 had fallen sick, and in January 1915 went to England for rest, being replaced by Robertson. In February 1915 was made deputy CIGS to superintend the training of the New Army by Kitchener, and in September was promoted CIGS, and became KCMG. In December 1915 became GOC Egypt. In August, the Egyptian expeditionary force (EEF) defeated the Turks at Romani (20 miles from the Suez canal), and later advanced across the Sinai peninsula. Early in 1917 he was instructed to advance into Palestine, and twice attempted to capture Gaza but failed, and was superseded by Allenby. Became GCMG in 1917. Became GOC Aldershot in August 1919, and in 1920 he published the full text of his dispatches. He retired from the army in 1922, became GCB in 1928, and died in 1945.
- Paley, Alan Thomas, DSO, CMG, psc, 1876-1950. He was educated at Eton, and RMC Sandhurst, and then commissioned into the 3rd battalion Rifle Brigade on the 17th March 1897. Saw service in the Tirah expedition, and received the medal with clasp for this campaign then the Sudan, and the Nile expedition of 1898 where he was at the battle of Khartoum, earning the Egyptian medal with clasp. On promotion to lieutenant on the 2nd August 1899 he proceeded to South Africa, and was involved in the defence of Ladysmith He was twice MiD., and qualified for the Queen's South African medal with clasp. He was promoted to captain on the 18th January 1902, and became adjutant until 7th March 1907 when he returned to Sandhurst. In 1911 he attended the staff college, and passed psc in 1912. He then served at the War Office as a GSO3 until August 1914, when he was assigned to 6th division as a GSO3 where he became the Brigade major of the 18th brigade on 28th October 1914. He won the D.S.O. on the 23rd June 1915, and on the 14th July he took up the position of GSO2 VII Corps. On 7 March 1915 he joined the 21st division, and was gazetted brevet Lt-colonel on the 3 June 1916, having originally been temporary from the 7th March. On the 16th October 1917 became Assistant Commandant, RMC (temporary colonel) until 31st December 1918. On 1st January 1919 he was created brevet colonel, having been MiD five times during the war. He had also been made CMG. in 1918, and also a Legion of Honour.

- Pitt-Taylor, Walter William (1878-1950. Commissioned into the Army Militia as a second lieutenant in the Rifle Brigade on 4 December 1895, and transferred to the regular army four years later. Served in South Africa, and was part of the force sent to relieve Ladysmith, and took part in the battles of Colenso, Vaal Krantz, and the Tugela Heights. He was promoted to lieutenant on 1 August 1900, and served in Natal, and in the Transvaal, staying in South Africa until the end of the war, and being awarded a DSO. In 1913, as a captain, he graduated from the Staff College, and in the 1914-18 war held staff appointments in III Corps, 12 Brigade, 37 Division, and Fourth Army, before going to Italy in 1917 as a GSOI. During the final campaign there he was brigadier-general, General Staff, XIV Corps. He was created CMG. in 1918, and C.B, in 1919. He came from Italy to the War Office in March, 1919, on appointment as military assistant to the Chief of the Imperial general Staff, Sir Henry Wilson, but in September, 1920, he took up the appointment of Director of Military Operations at the headquarters of the Army in India, and after various brigade commands he was in 1926 appointed A.D.C. to the King. His promotion to major-general came in 1929 when he returned to the War Office as Director of Recruiting, and Organization, and in November, 1932, he went to Bulford to command 3 Division. Here he remained for less than two years, befor he was promoted lieutenantgeneral in October, 1934, and went on half-pay. He was appointed lieutenant of the Tower of London in March, 1935, but in October of that year went out to India again to officiate as GOC-in-C., Western Command. The appointment was confirmed in March, 1936, and he was promoted K.C.B. He was promoted general in 1938, and retired the following year.
- Plumer, Herbert Charles Onslow (1857-1932). "Plum". Commissioned into an infantry regiment in 1876, serving as adjutant from 1879 to 1886. Served in the Sudan in 1884. Passed Staff College, 1887. After a period in Jersey, he served in South Africa (1896) in command of an irregular force of mounted rifles. GOC 4th Brigade, 1902. GOC 10th Division, 1903. QMG, 1904. GOC 7th Division, 1906. GOC 5th Division, 1907. GOC Northern Command, 1911. GOC II Corps, 1914-15. GOC Second Army, 1915-17. Important victory at Messines, 1917. GOC-in-C Italy, November 1917-March 1918. GOC Second Army, March 1918-1919. Noted for his meticulous planning.
- Pottle, William. Captain, Adjutant of the 1st Bn. Lancashire Fusiliers. The 1916
   Lancashire Fusiliers Annual states he was from 4th Bn Bedfordshire Regiment, and was appointed Acting Adjutant in 1st Lancashire Fusiliers. He was wounded in 1st July 1916.
   A typewritten list of officers states he joined from the 1st Bedfordshires on 21/1/1916, and left 1st Lancashire Fusiliers on 1st July 1916 on returning, wounded, to the UK.
- Pulteney, William (1861-1941). "Putty". From the Oxford Militia, he transferred to the Scots Guards, and served with them in the Anglo-Egyptian War, and Boer War II. CO, 1st Battalion Scots Guards, 1900. GOC 16th Brigade, 1908. GOC 6th Division, 1910. GOC 111 Corps, August 1914-February 1918. GOC XXIII Corps, February 1918-April 1919.
- Rawlinson, Henry Seymour (1864-1925) Educated at Eton until 1882, and then RMA Sandhurst. Commissioned in the KRRC in 1884. 1886, served in Burma, and In 1889 transferred to the Coldstream Guards, and was promoted captain in 1891. Served on Kitchener's staff in Sudan in 1898, and was promoted to major, and to brevet lieutenant-colonel 1899. From 1899 to 1902, served in South Africa, and was promoted to the local rank of colonel in 1901, and CB in 1902. He was promoted colonel in 1903, and became commandant of the Army Staff College. Promoted to temporary brigadier-general in1907, and commanded 2nd Brigade at Aldershot. In 1909: promoted to major-general, and in 1910 became GOC 3rd Division In 1914 briefly served as Director of Recruiting at the War Office before being appointed GOC 4th Division as temporary lieutenant-general, and later took command of the IV Corps. In October he oversaw the preparation of 8th Division in UK, and returned in November commanding IV Corps under Haig at Neuve Chapelle At the end of 1915 he was promoted to temporary general, and then lieutenant-

- general in 1916, taking command of the new Fourth Army during the Somme offensive. In January 1917, he was promoted General. In 1917–18, he also commanded the Second Army, and in February 1918 was appointed British Permanent Military Representative to the inter-Allied Supreme War Council at Versailles. In 1918, Rawlinson took over Fifth Army from Hubert Gough, and fought the battles of Le Hamel, and Amiens, and later broke the Hindenburg Line, and thereafter won the Battles of the Selle, the Sambre, and Oise Canal. In 1917 he became KCRVO, and in 1918 KCMG, and in 1919, he was raised to the peerage as Baron Rawlinson of Trent in the County of Dorset, and KCB. In 1919 he became GOC-in-C for Aldershot Command., and in 1920, C-in-C, India until his death.
- Ricardo, Ambrose St. Quintin, CMG:, C.B.E., D.S.O., brigadier-general (1869-1923), Educated at Cambridge, and joined the Army in 1888 serving on the North-West Frontier of India with the Royal Inskilling Fusiliers, and in South Africa for which he was awarded the D.S.O. In May 1893 married Ella Herdman, daughter of a prominent Ulster linen mill owner, and thereby became involved in Ulster Unionist politics, and the Ulster Volunteers. In August 1914 he was a captain, and was placed in charge of the depôt at Armagh from which he recruited two companies from the Tyrone Volunteers for a battalion of the Royal Inskilling Fusiliers which became the nucleus of the 109th Infantry Brigade of the 9th Royal Inskilling Fusiliers which he commanded in France from 1914-18. Served in the Somme, and Cambrai with the 36th Division whereafter he commanded the Base at Dieppe.
- Roberts, Frederick Sleigh, first Earl Roberts (1832–1914), educated privately, at Eton College, at RMC Sandhurst in 1847, and the East India Company's college at Addiscombe in 1850. He was commissioned into the Bengal artillery at Peshawar, where he later commanded a horse artillery troop. In 1856 he became the ADAQMG at Peshawar. With the Indian mutiny of 1857 he volunteered for the siege of Delhi, and later helped relieve Lucknow, winning the VC in January 1858. In 1859 he joined the QMG's department, and was promoted to captain, and given a brevet majority in 1860. In 1863 he was in the Ambela campaign, and 1868 was a AQMG in Abyssinia, and received a brevet lieutenantcolonelcy. In 1871 he organized the logistics of a military expedition to Assam, and was created CB, and in 1873 was AQMG India. On 1 January 1875 he was promoted to substantive colonel, and became QMG India, with the temporary rank of major-general. In 1878 commanding the Punjab frontier force in the First Afghan war, he occupied the Kurram valley, and defeated the Afghan force at its northern exit. With the treaty of Gandamak in 1879 he was made KCB. The treaty was broken, and in just over a month he had occupied Kabul, defeating en route a large Afghan force outside the city. In 1879 he was besieged in Sherpur where he repulsed a huge assault, and reoccupied Kabul. In 1880 with a picked force of 10, 00 he relieved the garrison of Kandahar, and defeated a local claimant to the Afghan throne, Ayub Khan. He was made GCB, given a baronetcy, and a grant of £12, 500, became C-in-C of the Madras army, and in 1885, C-in-C India. He conducted the Third Anglo-Burmese War between 1886, and 1887, and became Baron Roberts of Kandahar in 1892, left India in 1893, was promoted field marshal in 1895, and became GOC Ireland. With the First Boer War in 1899 he went to South Africa with Kitchener as his chief of staff, and replaced Sir Redvers Buller. They reached Cape Town in 1900, and concentrated all available forces behind Methuen on the line of the westernmost railway, from Cape Town to Kimberley, which was the besieged. He raised two new mounted regiments of local volunteers, 3000 mounted infantry, concentrated a force of 37, 000, and relieved Kimberley. Cronje, his Boer opponent, surrendered, and Roberts eventually advanced on Bloemfontein, through the Orange Free State into Transvaal, occupying Johannesburg, Pretoria, Machadodorp, and Koomati Port. Kruger, the Boer President fled to Europe. Roberts ordered the selective destruction of Boer farms, as reprisals for guerrilla raids, and to deny them resources. In 1900 he became C-in-C of

- the British army, received the Order of the Garter, an earldom, and a grant of £100, 000. He left the post in 1904.
- Robertson, William Robert (1860-1933). "Wully". The first man in the history of the British army to progress from the lowest rank to the highest. Son of a Lincolnshire tailor, he joined a lancer regiment as a private in 1877, rose to sergeant major in 1885, and was then commissioned into the 3rd Dragoon Guards while serving in India. Qualified as an interpreter in various languages, and served in the Intelligence Corps in India. Returned to England to attend Staff College, 1896-7. Intelligence officer to Lord Roberts during Boer War II. Headed the foreign section of the Intelligence department of the War Office in London. Commandant of the Staff College, 1910-13. Quarter-Master general then Chief of Staff of the BEF, 1914-December 1915. Chief of the Imperial general Staff, December 1915-Febniary 1918. GOC Eastern Command, 1918.
- Rotton, John Guy, brigadier-general (1867-1940) Haileybury College 1881-1884, 9 August 1914, major, RHA, October 1915, Lieut-Colonel, 'N' Battery RHA, 1 January 1916 lieutenant-colonel (temporary brigadier-general).
- Romer, Sir Cecil Francis (1869-1962) was commissioned into the Royal Dublin Fusiliers as a Second lieutenant on 1 March 1890, promoted lieutenant in 1893, and captain in 1898. He served in Boer War II between 1899, and 1902, and received the brevet rank of major in 1900. Thereafter he was seconded as an Adjutant of Volunteers in February 1902, and five months later he was Brigade major to the 13th Brigade, in Dublin. He went on to become a general Staff Officer in 1904. In World War I, he fought on the Western Front as BGGS in III Corps under Pulteney. He became GOC 59th Division between 1917, and 1918.
- Rupprecht, Robert Maria Leopold Ferdinand, Crown Prince of Bavaria (1869 1955), was educated privately, and later at the Maximilian-Gymnasium in Munich, and then entered the Bavarian Army's Infanterie-Leibregiment as a Second lieutenant, and then studied at the universities of Munich, and Berlin from 1889-1891. He was promoted colonel, and became the commanding officer of the 2nd Infanterie Regiment Kronprinz. In 1906 he was made commander of the Bavarian I Army Corps, with the rank of lieutenant-general of the infantry, and promoted to full general in 1913. In 1914 he commanded the German Sixth Army in Lorraine, and proved to be a highly able commander.
- Strong, Brigadier-General William was born in 1870, and served during WW1 as a RFA Staff Officer. He landed in France on 20 August 1914, with the rank of major. On his promotion to brigadier-general, he first commanded the Royal Artillery Reserve Corps, and from May 1916 took over command of the Royal Artillery for VIII Corps, holding this post until July 1917. For his distinguished service, he was awarded a CB, a CMG as well as foreign awards, including the Order of St. Maurice, and St. Lazarus. He died in 1956.
- Smith-Dorrien, Sir Horace Lockwood (1858–1930). Educated at Egypt House preparatory school, Harrow School until 1875. In 1876 he was commissioned second lieutenant in the 95th (Derbyshire) Foot and attended Sandhurst, promoted lieutenant in 1877 and becoming adjutant in 1878. In 1879 he was supernumerary transport officer in the Anglo-Zulu War where he survived Isandlwana and later Ulundi receiving his first mention in dispatches. In August 1882 he was promoted captain, as his battalion arrived in Egypt where he organized patrols against Arab raids near Alexandria. He accompanied his battalion to India in 1883, but was invalided to Britain with a recurring ailment. He was in Egypt in January 1884 and acted as adjutant of the mounted infantry battalion of the Suakin field force, and as a staff officer with the Egyptian cavalry at the battle of Giniss in 1885, for which he won the DSO. In1886 he alternated between Britain and Egypt, where he raised and commanded the 13th Sudanese battalion and in 1887 entered the Staff College, Camberley, rejoining his battalion in India in 1889 as p.s.c. He was promoted major in

1892 and saw service during the Tirah expedition for which he was made brevet lieutenant-colonel. In 1898 he commanded the 13th Sudanese battalion at the battle of Omdurman and was then in charge of Kitchener's escort for the 'Fashoda incident'. He received a brevet colonelcy, and spent year in Malta commanding 1 Sherwood Foresters with whom he went to South Africa in 1899. In February 1900 he commanded 19 Brigade which included the cavalry division under John French at Paardeberg Drift, the advance to Pretoria, and the battle of Zand River. In the guerrilla phase of the war he commanded his own division-sized column Kitchener. In April 1901 he was promoted adjutant-general of the Indian army with the rank of major-general and was involved in the confrontation between the viceroy and the acting c-in-c, General Sir Arthur Power Palmer which deteriorated when Kitchener arrived to replace Palmer. Smith-Dorrien requested a transfer, and was given 4th (Quetta) Division in April 1903. In 1907 he was promoted lieutenantgeneral and knighted before taking over Aldershot command. In February 1912 he was appointed to Southern Command, and made a general in August. In 1914 he took over II Corps and three days later the BEF was heavily engaged in the battle of Mons, followed by a retreat closely pursued by considerably superior German forces. Early on 26 August he was advised by Allenby that his cavalry were too dispersed to cover the II Corps retreat. Against French's orders to continue the retreat he fought the Battle of Le Cateau: his troops, with both their flanks in the air, fought a German attack of about twice their own strength to a standstill, and then marched away in broad daylight. His military reputation has come to rest heavily on this small but important battle. He commanded II Corps through the battles of the Marne, the Aisne, and the first battle of Ypres. On 26 December his expanded command was renamed Second Army. However, his relations with French deteriorated further, and after advising a limited withdrawal at Second Ypres on 27 April, he was relieved of his command. On Smith-Dorrien's return to Britain, he was offered command of the campaign in German East Africa and left Britain in December, but was contracted severe pneumonia and was invalided back. In January 1917 he was made lieutenant of the Tower of London, and in September 1918 he was appointed governor of Gibraltar, serving for five years until his retirement from active service in November 1923. He died after a car crash on the Bath Road in 1930.

Swinton, Ernest Dunlop (1868-1951), KBE, CB, DSO. He attended various schools before entering RMA, Woolwich. He was commissioned a second lieutenant in the Corps of Royal Engineers in 1888. He served in India, and became a lieutenant in 1891, and captain in 1899. He served in Boer War II from 1899–1902, and was awarded the DSO. He was interested in tactics, fortifications, and the effectiveness of modern weaponry. He wrote 'The Defence of Duffer's Drift', and served as a staff officer, and as an official historian of the Russo-Japanese War. In 1914 he was appointed the official British war correspondent on the Western Front where he conceived the idea of the tank, and suggested to Sir Maurice Hankey, Secretary of the Committee of Imperial Defence, the construction of a bullet-proof, tracked vehicle that could destroy enemy machine guns in November 1914. Next year he was given a post in the War Office, and formed a working friendship with Stern the secretary of the Landships Committee. He persuade Asquith to call interdepartmental conferences in 1915 which ensured the army's cooperation, and drew up the specifications of the performance which the army would require. To maintain secrecy, he coined the euphemism 'tank' to describe the new weapon. In 1916 he was promoted to lieutenant-colonel, and, being responsible for training the first tank units, wrote the first tactical instructions for armoured warfare. In February 1916 a prototype tank was trialled at Hatfield Park, and the tank detachment, to be renamed Heavy Branch, Machine-Gun Corps three months later, was formed. In 1917 it became the Royal Tank Corps. Swinton was given the task of recruiting, and training the new unit, at Elveden, near Thetford, but his lack of command experience precluded him from leading the unit to France. In November 1916 he returned to Whitehall, and became an assistant military secretary in the

- war cabinet secretariat. In September 1917, and February 1918. he went to the United States as staff officer to Lord Reading's mission. He retired from the army in 1919 with the rank of major-general, and took the Chichele chair of military history, and a fellowship of All Souls College, Oxford, in 1925, and colonel-commandant of the Royal Tank Corps in 1934.
- Uniacke, Herbert Crofton Campbell (1866-1934). Commissioned in the Royal Artillery in 1885. Commanded 5th Brigade, RHA, 1914-15. GOC artillery 5th Corps, 1915-16. GOC artillery 3rd Corps, 1916. MGRA, Reserve Army, 1916-18. GOC artillery. Fifth Army, 1918. Deputy Inspector general of Training, army in France, and Flanders, 1918-19.
- Vaughan, Louis Ridley (1875-1942) Educated at Uppingham School, and the RMC at Sandhurst, entering the army in 1895, and transferred to the Indian Army in 1896, and was made captain in 1904, having served in the 78th Moplah Rifles. In 1907 he transferred to the 113th Infantry, and attended the Staff College, Camberley from 1908 to 1910, and served as a GSO 3 in India from 1910 to 1912. From 1912 to 1914 he served in the War Office as GSO2, and was promoted to major in 1913, by then having transferred to the 7th Gurkha Rifles. From 1914 to 1018 he was a staff officer, and MiD nine times. In 1915 he became GSO1, temporary brigadier-general in 1916, and temporary major-general in 1917. He was chief of staff to Byng, commander of the Third Army from May 1917 until the end of the war, and was made a substantive major-general in 1919.
- von Moltke, Helmuth Johannes Ludwig Graf (25 May 1848 18 June 1916), also known as Moltke the Younger, was a German general who served as the Chief of the German general Staff from 1906 to 1914. He was a nephew of generalfeldmarschall (Field Marshal) Helmuth Karl Bernhard von Moltke who is commonly called "Moltke the Elder" to differentiate the two.. During the Franco-Prussian War, Moltke served with the 7th Grenadier Regiment, and was cited for bravery. He attended the War Academy between 1875, and 1878, and joined the general Staff in 1880. In 1882 he became personal adjutant to his uncle, who was then Chief of the general Staff. In 1891, on the death of his uncle, Moltke became aide-de-camp to Kaiser Wilhem II, thus becoming part of the Emperor's inner circle. In 1898 he became commander of the 1st Guards Infantry Brigade, and in 1902, being promoted to lieutenant-general, received command of the 1st Guards Infantry Division. In 1904 Moltke was made Quartermaster-general; in effect, Deputy Chief of the general Staff, and in 1906, he became chief on the retirement of Alfred von Schlieffen. Moltke's friendship with the Kaiser permitted him a latitude that others could not have enjoyed. Moltke's health broke down as a consequence of German defeat at the first battle of the Marne, and on 14 September 1914, he was succeeded by Erich von Falkenhayn.
- Watts, H. E., Sir Herbert Edward, 1858-1934, Educated at The King's School, Peterborough, and Tours, and was commissioned as a second lieutenant into the 14th Regiment of Foot in April 1880. Promoted lieutenant on 1 July 1881, captain on 6 March 1889, and major on 20 March 1899. Served with the in South Africa 1899-1902: operations in Natal, and the Transvaal. Was MiD five times, and received the brevet promotion to lieutenant-colonel on 29 November 1900, and became 2nd in command of his battalion on 7 March 1902. Promoted colonel in 1908, and retired in 1914 to return almost immediately to the Army. Commanded 21st Brigade in 7th Division until Capper's death at the Battle of Loos in September 1915. 27 September 1915 promoted to major general. He became GOC the XIX Corps in 1918.
- Wavell, Archibald Percival, first Earl Wavell (1883–1950) Educated at Winchester College, and passed fourth into Sandhurst in 1900. Thereafter he joined the Black Watch in time to see service in South Africa. In 1903 he went to India and took part in the Bazar valley campaign of 1908. He attended the Staff College and in 1911 graduating with an 'A' pass, and was sent for a year to the Russian army. In 1914 he was in the War Office, but joined the British expeditionary force in September. At Ypres on 16 June 1915 he lost

- an eye and was awarded the MC. By October 1916 he was a major and returned as liaison officer to the Russian army. On returning to London in June 1917, he became the chief of the Imperial General Staff's personal liaison officer to General Sir Edmund Allenby. After three months with the Supreme Allied War Council in Versailles, he returned to Palestine in March 1918 as a brigadier-general, and joined the staff of Sir Philip Chetwode, commanding the XX Corps. He played a major role in the final offensive and was appointed CMG in 1919.
- Webber, Norman William CMG DSO, 1881-1950, educated at Bradfield College, and RMA Woolwich. 1899 second lieutenant RE. In 1901 he served with the 23rd Field Company RE, and was promoted to lieutenant. From 1903-5 he was in Gibraltar with the 32nd Field Company RE, and in 1906 he was posted to India with the 3rd Bombay Sappers & Miners. In 1911 he commanded a section of the 19th Sappers in the Makran coast expedition. In 1912 he attended the Staff College, Camberley becoming psc in 1914, and became a captain with the 26th Field Company RE. At 1st Ypres he received an MiD, and on 2 November was appointed GSO3 at 1st Division HQ. In June 1915, by now a major, he was posted as GSO2 to the 47th London Division, and on May 1916 was promoted to Temporary lieutenant-colonel, and posted as GSO1 to the 2nd Canadian Division, which was then engaged in the Battle of Mount Sorrel. In 1916 he received the DSO, and helped to compile SS135 'Instructions for the Training of Divisions for Offensive Action'. After Flers-Courcelette, the Canadian Corps was moved to west of Vimy Ridge, were he planned a part of the Battle of Arras, for which he was praised by brigadier-general Alexander Ross as being 'the most approachable, the most helpful, and most cooperative' of the British staff officers attached to the Canadian Corps, and he received another MiD. He received another MiD after Passchendaele. In December 1917 he was reported on the organisation of British Anti-Aircraft forces, and recommended that they be put in charge of an Assistant Director at GHQ. He was given the job, and appointed CMG in the 1918 New Years Honours. In March 1918 her was posted to the War Office with the rank of Temporary brigadiergeneral as Deputy-Director of Mobilisation but returned to France on the 24th, and was immediately attached to Gough's staff at Dury, south of Amiens, and on 8 April was posted as BGGS, to the Canadian Corps under lieutenant-general Sir Arthur Currie. He was involved in the planning of the Battle of Amiens (8 August 1918). After Amiens the Canadian Corps moved to a position east of Arras to face the German 'Drocourt-Quéant' defensive line. He planned the successful night attack on the first objective, the village of Monchy-le-Preux, on 26 August. Two weeks before the Armistice Webber was recalled to the War Office as deputy director of demobilisation under the director, Burnett-Hitchcock. He was further MiD on 8 November 1918, and 5 July 1919. He remained with the War Office until the end of 1919, and then then returned to the Staff College with the substantive rank of colonel. He retired from the army with the rank of honorary brigadiergeneral on 21 November 1921.
- Wellesley, Richard Ashmore Colley (1868-1939), brigadier-general. Royal Horse, and Field Artillery. BGRA 21st Division, 6 October 1915 12 May 1917; BGRA XIII Corps, 13 May 1917 Armistice. MiD six times. Assistant District Commissioner for the Boy Scouts; one of the Governors of the Star, and Garter Home for wounded ex-soldiers.
- Whigham, Robert, Dundas, GCB, KCMG, DSO, general, (1865-1950), Educated at Fettes College, and at Sandhurst, and was commissioned into the 1st Battalion Royal Warwickshire Regiment as a lieutenant on 9 May 1885. He was promoted to captain in 1892, and became Adjutant for the Regiment. In 1892, he was seconded to the Egyptian Army, and served in the Nile Expedition of 1898. During Boer War II he was Aide-decamp to major-general Hector MacDonald, in command of the Highland brigade from 1899–1900, and was promoted to major in 1900. He was awarded a DSO in 1902, and became Brigade major for 2nd Army Corps. In 1914 he served with the BEF, and in 1915

- was appointed Deputy Chief of the Imperial general Staff. He became GOC 59th (2nd North Midland) Division in June 1918, and GOC 62nd (2nd West Riding) Division in August 1918. After the War he became GOC of the Light Division in the British Army of the Rhine. He was appointed GOC 3rd Division in 1919, Adjutant-general to the Forces in 1923, and GOC-in-Chief for Eastern Command in 1927.
- Willcocks, Sir James (1857–1926) was educated at Easton in Somerset. He left RMC Sandhurst, and was gazetted in January 1878 to the 100th Foot, (later Prince of Wales's Leinster Regiment), and served as a transport officer, and served in several regiments in this role before becoming adjutant of the 1st battalion. In 1889 he served as intelligence officer a number of expeditions, and 1899 became colonel-commandant of the West African Frontier Force. He commanded the Asante field force for the relief of Kumasi in 1900. He was promoted to major-general in 1906, and commanded two expeditions on the north-west frontier in 1908. In 1908 he was promoted lieutenant-general, and in 1910 commanded the northern army in India. From 1914-1918, he commanded the Indian Army Corps.
- Wilson, Sir Henry Hughes, baronet (1864–1922), Educated at Marlborough College from 1877 to 1880, but failed the entrance exams for both Woolwich and Sandhurst. He entered the army through the Longford militia, passed the examination for the regular army in 1884 and was commissioned in the Rifle Brigade. In 1893 he passed the Staff College course and from 1894 he served in the intelligence department of the War Office. From 1897 to 1899 he was brigade major of the 3 Brigade at Aldershot which became the 4 Brigade when the force moved to South Africa in 1899. He was at Colenso in December 1899, and also at the defeat at Spion Kop in 1900. After the relief of Ladysmith, Roberts took Wilson onto his staff, eventually as assistant military secretary. Thereafter he commanded 9 Battalion at Colchester in 1902 and in 1903 he returned to the War Office as AAG for military education and training and assistant DSD. in 1907 he became commandant of the Staff College with the rank of brigadier-general until 1910 when he became Director of military operations, and in 1911 prompted by the Agadir crisis he convinced the politicians to plan to deploy the British Expeditionary Force to northern France and was promoted major-general. He supported the armed resistance to home rule being planned by Ulster Unionists in the years immediately preceding the First World War, and played a central role in the 'Curragh incident' of March 1914, when a number of army officers with Unionist convictions resigned their commissions rather than follow orders which they believed were aimed at coercing Ulster into a home-ruled Ireland. In August 1914 he became sub-chief of the general staff of the BEF under Sir Archibald Murray. At the end of 1915 Sir John French was replaced as commander-in-chief of the BEF by Sir Douglas Haig, who in December gave Wilson command of IV Corps which saw little action, as all energies were concentrated on the Somme to the south. In May when Monro, went on leave Wilson temporarily took charge of the First Army but his reputation suffered when an enemy attack captured three-quarters of a mile of his line near Vimy Ridge and a planned counter-attack was vetoed by Monro on the grounds that it would be too costly. Thus when Monro was posted to Mesopotamia in August, Wilson was passed over for the command of the First Army. On 1 December 1916 Wilson was selected to be the British military representative on a full-scale Anglo-French mission to Russia, a belated and futile attempt to shore up the eastern ally. On his return Wilson, with the rank of lieutenantgeneral, once again became chief liaison officer at the French headquarters. In June Wilson resigned the appointment and returned to London. For the next two months he was unemployed but at the beginning of September he accepted the eastern command, with its headquarters in London. In October the Italian defeat at Caporetto brought the matter of allied co-ordination to a head, and next month Lloyd George obtained French and Italian consent to the creation of a supreme war council to supervise policy at a high level.

Wilson, became the British permanent military representative. In January 1918 Wilson developed a scheme for a combined general reserve of troops for the Western and Italian fronts which provoked a fierce debate as to who should control it. The council accepted Wilson's plan for a war board to control the proposed reserve. Lloyd George replaced Robertson with Wilson, who became CIGS. with effect from 18 February 1918. The main crisis he faced, the German 'Michael offensive of March 1918, drove the unification of allied military command with Foch as 'généralissime'. Following the armistice of November 1918 he headed the military section of the British delegation to the peace conference, and in July 1919 he was promoted field marshal, and in August created a baronet. He was then assassinated by the IRA, Sir Henry Hughes, baronet (1864–1922), Educated at Marlborough College from 1877 to 1880, but failed the entrance exams for both Woolwich and Sandhurst. He entered the army through the Longford militia, passed the examination for the regular army in 1884 and was commissioned in the Rifle Brigade. In 1893 he passed the Staff College course and from 1894 he served in the intelligence department of the War Office. From 1897 to 1899 he was brigade major of the 3 Brigade at Aldershot which became the 4 Brigade when the force moved to South Africa in 1899. He was at Colenso in December 1899, and also at the defeat at Spion Kop in 1900. After the relief of Ladysmith, Roberts took Wilson onto his staff, eventually as assistant military secretary. Thereafter he commanded 9 Battalion at Colchester in 1902 and in 1903 he returned to the War Office as AAG for military education and training and assistant DSD. in 1907 he became commandant of the Staff College with the rank of brigadier-general until 1910 when he became Director of military operations, and in 1911 prompted by the Agadir crisis he convinced the politicians to plan to deploy the British Expeditionary Force to northern France and was promoted major-general. He supported the armed resistance to home rule being planned by Ulster Unionists in the years immediately preceding the First World War, and played a central role in the 'Curragh incident' of March 1914, when a number of army officers with Unionist convictions resigned their commissions rather than follow orders which they believed were aimed at coercing Ulster into a home-ruled Ireland. In August 1914 he became sub-chief of the general staff of the BEF under Sir Archibald Murray. At the end of 1915 Sir John French was replaced as commander-inchief of the BEF by Sir Douglas Haig, who in December gave Wilson command of IV Corps which saw little action, as all energies were concentrated on the Somme to the south. In May when Monro, went on leave Wilson temporarily took charge of the First Army but his reputation suffered when an enemy attack captured three-quarters of a mile of his line near Vimy Ridge and a planned counter-attack was vetoed by Monro on the grounds that it would be too costly. Thus when Monro was posted to Mesopotamia in August, Wilson was passed over for the command of the First Army. On 1 December 1916 Wilson was selected to be the British military representative on a full-scale Anglo-French mission to Russia, a belated and futile attempt to shore up the eastern ally. On his return Wilson, with the rank of lieutenant-general, once again became chief liaison officer at the French headquarters. In June Wilson resigned the appointment and returned to London. For the next two months he was unemployed but at the beginning of September he accepted the eastern command, with its headquarters in London. In October the Italian defeat at Caporetto brought the matter of allied co-ordination to a head, and next month Lloyd George obtained French and Italian consent to the creation of a supreme war council to supervise policy at a high level. Wilson, became the British permanent military representative. In January 1918 Wilson developed a scheme for a combined general reserve of troops for the Western and Italian fronts which provoked a fierce debate as to who should control it. The council accepted Wilson's plan for a war board to control the proposed reserve. Lloyd George replaced Robertson with Wilson, who became CIGS. with effect from 18 February 1918. The main crisis he faced, the German 'Michael offensive of March 1918, drove the unification of allied military command with Foch as 'généralissime'. Following the armistice of

- November 1918 he headed the military section of the British delegation to the peace conference, and in July 1919 he was promoted field marshal, and in August created a baronet. He was assassinated by the IRA in 1922.
- Wing, Major-General Frederick Drummond Vincent, CB (1860-1915) In 1880 he graduated from RMA Woolwich and joined the Royal Horse Artillery in 1888 he was promoted to captain and to major in 1898. He served in South Africa where he took part in actions at Talana, Ladysmith and the Battle of Lombard's Kop. He received a brevet promotion as lieutenant-colonel in 1900. In early 1902, he was appointed a Companion of the Order of the Bath in 1902, and commanded Z Battery, Royal Horse Artillery, stationed at Newbridge and joined the staff of Lord Roberts in 1903. In 1913, he was CRA of 3 Division and accompanied them to France in 1914 and in 1915, took overall command of 12 (Eastern) Division. He was killed at Loos.
- Woollcombe, Sir Charles Louis KCB KCMG (1857 1934). He was educated at Marlborough College. In 1876 entered RMC Sandhurst and served with the 1st Devon Militia before obtaining a Regular commission in the 46th (South Devonshire) Regiment of Foot in 1876. In 1877, he transferred to the 25th Regiment of Foot, which was retitled as the King's Own Scottish Borderers in 1887. He took part in the Peshawar Valley expedition and the Khyber Line Force in Afghanistan between 1878 and 1880 and in the Chin Lushai expedition in Burma between 1889 and 1890. He was DAAG for Musketry in Bengal from 1890 and then Brigade Major for the Chitral Relief Force in Burma in 1895. He then served on the North West Frontier in India becoming AAG of the Mohmand Field Force in 1897. He took part in the Tirah expedition from 1897 to 1898 and then became AAG in India in 1899. He served in South Africa and then became AAG for Musketry in India between 1901 and 1906. He commanded the Allahabad Brigade in 1906, and the Garhwal Brigade in 1907 and GOC the Highland Division in 1911. In 1914 he was appointed GOC-in-C Eastern Command until 1915 when he became GOC-in-C of Second Army. Then in 1916 he commanded 11 Division on the Western Front (normally a majorgeneral's command) until 1 December when he became GOC IV Corps. Finally in 1918 he returned to his post as GOC-in-Chief at Eastern Command and retired in 1920.

# Appendix E - Japanese and British Field Service regulations

These has been taken from page 680 of The Russo-Japanese war, reports from

British Officers attached to the Japanese and Russian forces in the field. Vol. II.

HMSO, (London: ) (London: 1908). This shows an extract from the Japanese FSR.

### E.1 (Japanese) After-Action Report outline

When an action is over, a report of the occurrence must be made without delay to higher authority. As soon as possible by afterwards a complete report will be drawn np framed in a by similar manner, and this report will be based upon the reports by received from units. There is no regulation form for these by reports, but events will be recorded according to the hours at by which they took place. In the case of a battle happening in a by large district, this district may be divided up into areas, and by what took place in each area will be reported upon separately.

The main object of the full report—which is sent in after by the immediate report—is to provide, through general officers by commanding, the head-quarters with all important details of by what has occurred so that guidance may be obtained in carrying by out future operations.

For this reason the full report of a large unit must contain by information under the following headings:

- 1. Conditions of both hostile armies before the beginning of by the action.
- 2. Time when the action began.
- 3. Natural features of the battlefield (only necessary ones).
- 4. Strength of both armies.
- 5. How the enemy's position was captured.
- 6. How units were arranged for the attack.
- 7. Written and verbal orders, &c.
- 8. Conditions of every period of the fight.
- 9. Conditions at the crisis or point of the fight which brought about success or the reverse.
- 10. Movement of neighbouring units during the crisis.
- 11. How the engagement terminated and the results that followed.
- 12. Position and movements of both hostile armies after the battle.
- 13. Plan of operations intended to be carried out on the night by following the battle or on the next day.
- 14. Regimental numbers and names of superior officers of the by enemy engaged.

The above are the principal points and those which are considered of first importance, but they may be added to if desired or some omitted if thought necessary. The latter course might be followed when a unit has fought alone or with a much larger force.

Orders and reports which have been received and issued during an action, and which have had a favourable or adverse effect on its conduct, will be

attached to the report.

In the full report there must be lists showing casualties, captures, arms lost or injured, and ammunition expended. (In the appendices to the Regulations are forms for these lists, which will accompany the full translation of the work later.)

Gallant actions on the part of individuals or units will also be brought to

Sketches.—For those districts which appear on the map in the hands of the troops, sketches will merely be required to amplify them.

Simple rough sketches are useful in the following cases: —

To show the battle ground at the time when it was reconnoitred, to show the defences of the enemy in detail, to take the place of long explanations and complicated sentences.

As rough sketches have frequently to be made on horse- back and in haste, great accuracy is not necessary. The width of a river need not be drawn to scale, but it may be marked in figures alongside it. What is required, above all, is clearness and sufficient accuracy to make the sketch useful.

## E.2 (Japanese) War Diaries.

Entries must be made in war diaries as soon as possible after the occurrence. If the entry is postponed it becomes less valuable the greater the delay.

1. The following units are responsible for keeping a war diary:—Every department of Imperial Head-Quarters, except the postal department; each head-quarters commanded by a general, and if, from the nature of its organization, this be subdivided into sections, each section, except the postal section, will keep a diary; every department of the inspector of the line of communication; every line of communication post, regiment., battalion, detached company, regimental column of artillery, unit in a fortress, independent fortress, independent fort, telegraph corps, sanitary corps, hospital columns, corps of observation, arms dept, reserve corps, reserve depot, bearer corps for sick and wounded, and horse depôt.

Every head-quarters of a depth and every unit of reserve at home will also keep a depot diary according to the above sub divisions, and the points to be entered in the diary are as shown below under head "B", paragraph 3.

- 2. A war diary or depôt diary will be kept from the day of mobilization. Those units, especially established for temporary duty, will begin their respective diaries, firstly, by the hand of an officer or warrant officer who may first arrive at the place of mobilization of such unit, and the diary will be continued by the person deputed to take charge of the record.
- 3. The object of keeping diaries is two-fold, viz.: —
- A. To furnish a history of an individual or unit and to keep a record of occurrences which have been actually witnessed. From these accounts a history of the war can be prepared, and from them it can be seen whether each individual has fulfilled his duties.
- B. To serve for future reference, with the idea of making improvements in the following:—Organization, education, supply, reserve, sanitation, arms, ammunition, tools, material, clothing, equipment, and all other military matters
- 4. In order to attain the object stated under "A", the following points must be borne in mind:
- (1) All orders, instructions, and reports must be recorded. (Matters of a confidential nature will be entered in the confidential diary, note to this effect

being made in the diary.)

- (2) Every day's position, that is to say, the arrival at, departure from, or halt at such and such a place, &c.
- (3) Everything regarding the line of march and quarters.
- (4) Report regarding the fighting, giving the conditions in every detail, the respective connection with other units in the neighbourhood, sketch showing the positions of units at the most important phases. These sketches should be as clear and minute as possible.
- 5. Any important matters that have occurred during the fighting. In filling in the report of an action in the diary, the hour at which occurrences took place should be entered with exactitude; the state of the weather, conditions of the ground and roads, and the presence of houses, &c., affecting units should also be noted
- 6. What part of the front, &c., was occupied by the unit furnishing the diary, that is to say, whether the unit formed a piquet, was head of the advanced guard or the main body, &c.
- 7. Changes in personnel, killed and wounded, &c., giving the name and rank in the case of officers, and only the number in the case of the rank and file or animals.
- 8. Description of quarters during a halt.
- 9. Construction of field works.
- 10. Any other matters of importance which may occur day by day.

The following points should be borne in mind in order to carry out the requirements of "B":—

- (1) Everything regarding arms ammunition, tools, material, clothing, and equipment.
- (2) In what way organization and regulations have stood the test of operations.
- (3) Everything regarding the reserve (men and horses) supply and sanitation.
- (4) All points regarding education and discipline.
- (5) Action taken at times of emergency, such as the collection of a heavy indemnity from the inhabitants of the enemy's country.
- (6) All orders issued by the general commanding, orders by units, and from other authorities, reports made, detailed information of all kinds, lists of casualties, lists of expenditure of arms and ammunition, reports from outposts, &c., must be entered in the diaries. Matters of a confidential nature will be entered later if, on account of their confidential character, they cannot be entered at once.
- (7) On these diaries the date, the hour, and the name of the place should be clearly entered, and the commander or chief of the staff of the units should examine, and will sign at the end of each day's record.
- (8) On demobilization the diaries will be closed, and the duplicate will be sent to the War Department, the original being kept with the unit. The War Department, after extracting the necessary information, will pass the duplicate to the General Staff, where it will be preserved in the library.
- (9) All the above regulations—viz., from (1) to (8)—will be written in at the beginning of each war diary.

# E.3 (British) Combined Training (Provisional) regulations

#### E.3.1 Orders, reports or other field messages, sketches

#### E.3.1.1 General rules

- 1. Whenever time and circumstance allow, important messages will be in writing. Verbal messages of any importance will be committed to writing by the recipient.
- 2. It will often happen that local circumstances, impossible to foresee, may render the precise execution of the orders given to subordinate leaders not only unsuitable but impracticable. Moreover, when it is impossible, as must often be the case, to issue more than very general instructions the attainment of the object aimed at must be left to the initiative and intelligence of these leaders.

Decentralisation of command and a full recognition of the responsibilities of subordinates in action, are thus absolutely necessary and leaders must train their subordinates not only to work intelligently and resolutely in accordance with brief and very general instructions, but also to take upon, themselves, whenever it may be necessary, the responsibility of departing from, or, of varying, the orders they, may have received.

- 3. The following rules are to be observed:
- A formal order is never to be departed from, either in letter or spirit, so
  long as the officer who issued it is present and can see what is going on; or,
  if he cannot see what is going on, provided that there is time to report to
  him without losing an opportunity or endangering the command.
- A departure from either the spirit or the letter of an order is justified if the subordinate who assumes the responsibility is conscientiously satisfied that he is acting as his superior would order him to act if he were present.
- If a subordinate, in the absence of a superior, neglects to depart from the letter of his orders, when such departure is clearly justified by circumstances and failure ensues, he will be held responsible for such failure.

#### **E.3.1.2** Framing orders and reports

The following rules will be observed in drawing up a written order, report, or other message in the field:

- The field message book (Army Book 153) and envelope (Army Form C 398) should be used, when obtainable. Officers commanding units will, on active service; procure these from Army Ordnance Department.
- Clear writing is of first importance.
- Messages will be divided into paras., which will be numbered.
- The message must be as concise consistent with clearness. as possible, The hour of 12 will be followed by "noon" or "midnight" written in words. In describing a night, both days will be given thus: Night 29/30 Sept.; or Night 30 Sept. /1 Oct.
- Names of places and persons will be written in block capitals, e. g., LONDON or WELLINGTON.
- If a map is referred to, the one used must be specified. The position of places will, as a rule, be denoted either by the points of the compass, e. g., "wood, 600 yards S. E. of TETSWORTH" or by descriptions, e. g. "point 276, close to the second E in HASELEY", the letter indicated being underlined. A road is best indicated by the names of two places on it. The terms "right" and "left" are used in describing river banks, it being assumed that the writer is looking down stream. Otherwise indefinite or

- ambiguous terms such as right, left, before, behind, beyond, front, rear, on this side of, etc., must not be used.
- If the message refers to troops reaching a place at a certain time, it is assumed that the head of the main body is meant, unless otherwise stated.
- The writer, having finished his message, should read it through carefully and ask himself whether it is clear, and, in the case of an order, whether it is calculated to influence the recipient in the way only that is intended. The message must be clearly signed, the rank of the sender, his appointment and the force he is with, being stated. It closes with the number of the message (all messages being numbered consecutively), place whence sent (fully described), date, official title (or name) of the person addressed and the exact time of issue or despatch.
- A message sent simultaneously to several authorities will have the fact noted on each copy sent.

# E.4 Orders for night operations (British) FSR I (1905) section 144.

- 1. In framing orders for night operations it may be necessary to deal with the following points in addition to those dealt with in S.S. 3 and 115.:
- Time of assembly at, and departure from position of assembly. Description of position of assembly.
- Order of march, and formations on leaving the position of assembly. Distances and intervals. Maintenance of communication.
- Compass bearing of the route.
- Time and duration of halts.
- If possible, the position of deployment should be described, and its
  distance from the position of assembly and from the point selected for
  attack notified
- Formation to be adopted at the position of deployment.
- Special instructions for the assault, and the signal for it.
- Action in case the enemy opens fire.
- Deleted
- Attention should be drawn to the instructions referred to in S. 141, 2.
- Distinctive marks and watchword.
- Place of the commander at the position of assembly, during the march thence, and at the position of deployment.
- Deleted

Orders will usually be communicated beforehand to those officers only from whom action is required, so that timely arrangements may be made. Until the troops reach the position of assembly, no more should be made known to them than is absolutely necessary. It may be advisable, in order to deceive spies, that misleading orders should be given out.

# E.5 Extracts from The Russo-Japanese war, reports from British Officers attached to the Japanese and Russian forces in the field. Vol. II, (London: 1908)

#### NIGHT ATTACKS.

521

The system followed has been the same in all the battles in which the Second Army has been engaged, and its success has depended upon certain elements which may be described under the following headings:—

- (a.) A precise knowledge of the enemy's strength and position.
- (b.) A knowledge of the character of the ground to be passed over in the advance.
- (c.) The maintenance of the proper direction during the advance.
- (d.) The maintenance of connection with troops to flanks and front.
- (c.) A full appreciation on the part of all concerned of the service about to be undertaken and how it is to be carried out.
- (f.) The most suitable formation of units.
- (a.) During daylight the enemy's position, so far as it can be seen, is examined and his strength as far as possible ascertained. After dark, scouts—specially selected men—under an officer, or officers, are sent forward, their duty being to push close to the defensive line and discover its extent and nature, what obstacles there are, and how they may be avoided or passed through. These scouts, while exercising great care to avoid detection, act with boldness, for on their reports depend to a considerable degree the success or failure of the ultimate advance. Their task has been much simplified, and night attacks have frequently come as a surprise to the enemy, from the fact that the Russian sentries are not remarkable for excessive vigilance, and that the outposts are generally retained in close proximity to the works they cover.

If the intention of the Japanese is to assault a work by night, a plan of it would be prepared by means of information obtained from scouts.

(b.) The features of the ground to be passed over, so far as the eye can see, are noted by day, and further examined by the scouts sont to perform the duty mentioned in heading (a).

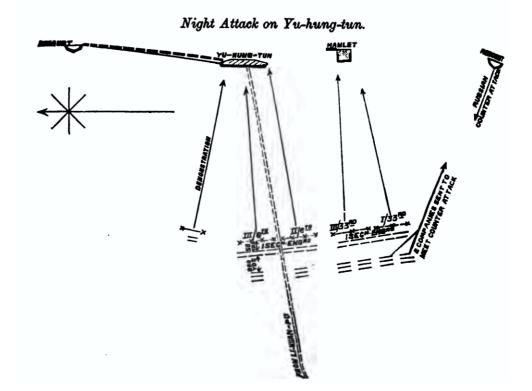
On several occasions, where circumstances have prevented a deliberate reconnaissance of the ground, or even when this has taken place, bushes and trees have in the dark been mistaken for the enemy, or a bank or natural ditch for his defensive works

(c.) During daylight all marks or objects which might assist in maintaining direction at night are noted; these include bushes, trees, houses, and hill or mountain tops. At dusk a small party under an officer is sent forward to place sticks or flags in the direction which is later to be taken. From the foremost of these marks, back to the troops in rear connecting files are posted, so that when the advance is undertaken there may be the least possible trouble in maintaining the correct line.

522

#### JAPÁNESE ARMY.

- (d.) Connection with troops on either flank or with those in rear is maintained by means of connecting files.
- (e.) The object of the operation being to reach the enemy or a point as near to him as possible without discovery, and so render the attack a surprise, silence must be maintained, and no firing is permitted to take place. Should the enemy open fire during the advance the troops immediately lie down without word of command. Frequently the Russians have opened fire for a short time more as a precaution than as an indication that the advance has been discovered, and, by making a brief halt, the Japanese have been enabled to continue the movement and at length approach the position unobserved. If, however, fire be opened when the attackers are on the point of assaulting, bayonets if not already fixed would be fixed and the position charged. As it is inadvisable to issue orders during the advance, everything that can be foreseen is explained beforehand, and all precautions are taken to avoid the possibility of panic or confusion.
- (f.) The formation adopted by the Japanese, one to which it is understood they have adhered on all occasions, is column of sections, and in the diagram below will be found the dispositions of the units in the last night attack undertaken by a portion of the Second Army in the battle of Mukden.



Lethal Dialectic - Final version 1.0.docx

Sometimes the first line consists of two and at other times of three companies, from each of which one section is extended in single rank at one pace interval. The two remaining sections of each company follow, unextended, the one behind the other, at a distance of fifty yards from the extended line and ten paces between themselves. The reserve of the battalion follows in line of section columns about one hundred yards further to the rear; and behind it again, also in line of section columns, and at a distance of about two hundred yards comes the second line. Connecting files link the whole body together, and whether the enemy is attacked in this formation, or a further extension takes place, must depend upon the particular circumstances of each attack. The companies of the second line would be moved behind the centre or on either flank, according to the orders of the regimental commander.

In order to remove obstacles a small party of engineers invariably follows directly behind the extended line, and with the supports or reserve is another party whose duty it is to throw hand-grenades or work the mortars which are used for firing bombs.

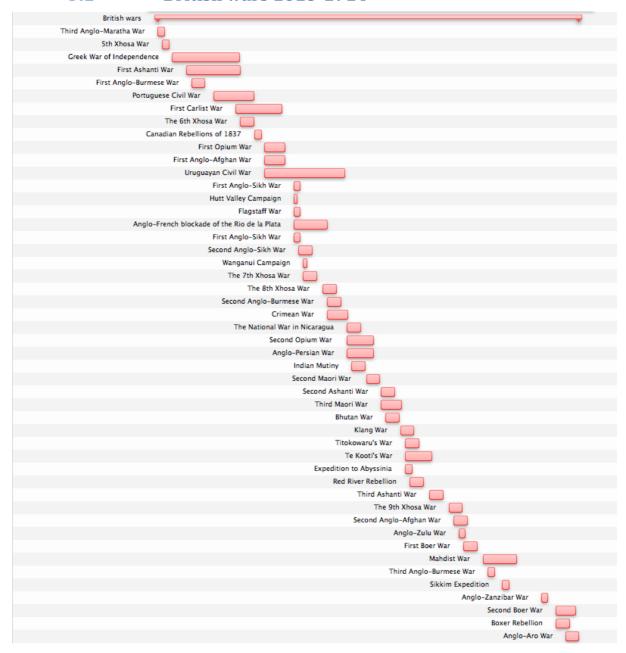
It is recognized that mixing up of sections, companies, and battalions must occur during a night attack, but, as each Japanese regiment consists of three battalions accustomed to work together on all occasions, the confusion and intermixture of units are not material. Nevertheless, every effort is made to keep them separate during the advance, and each battalion commander is held responsible that the proper direction is maintained and that his unit is kept as intact as possible.

In spite of every care being taken by the Japanese it is admitted that mistakes have occurred which have on several occasions made attacks by night fail in their object, and though, as stated, the distance to be covered is generally short, there has sometimes been a lack of co-operation, one portion of the force striking the enemy's line before another. Except when the kaoliang was standing, the ground has been exceptionally favourable for night operations, and the generally passive nature of Russian defence has allowed of their being carried out with great deliberation and comparative safety—a fact which has in no way made the Japanese lessen those precautions which are a marked feature of their advances in the dark. During the movement over level, open ground their losses have been inconsiderable, and this may be accounted for by the fact that the Russians when firing at night invariably shoot high.

Vol. I., page 264, No. III.

# **Appendix F - Previous wars**

#### F.1 British wars 1815-1914



| Start | Finish | Name                         | Allies                                     | Enemies                               | Outcome  |
|-------|--------|------------------------------|--|---------------------------------------|--|
| 1817  | 1818   | Third Anglo-<br>Maratha War  | East India Company                         | Maratha Empire                        | Virtually all territory south of the Sutlej<br>River controlled by Britain |
| 1818  | 1819   | 5th Xhosa War                | Khoikhoi Forces                            | Forces of Xhosa<br>Chief Maqana Nxele | Xhosa pushed beyond Keiskama River   |
| 1820  | 1830   | Greek War of<br>Independence | Greek<br>revolutionaries<br>Ionian Islands | Ottoman Empire<br>Egypt               | Establishment of the Kingdom of Greece                                     |
| 1823  | 1831   | First Ashanti War            |  | Ashanti Empire                        | British retreat to Sierra Leone  |
| 1824  | 1826   | First Anglo-<br>Burmese War  | East India Company<br>Native tribes        | Kingdom of Burma                      | Treaty of Yandabo:   |

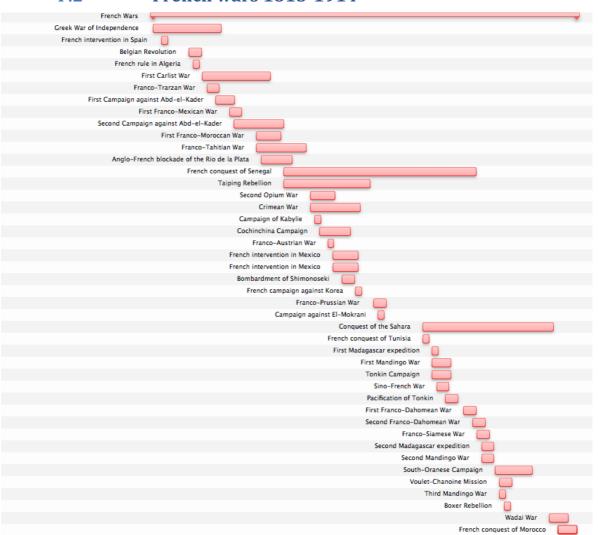
| Start | Finish | Name                                    | Allies  | Enemies  | Outcome   |
|-------|--------|---|---|--|---|
|       |        |   |   |  | <ul> <li>Assam, Manipur, Rakhine, and<br/>Taninthayi coast south of Salween<br/>river ceded from Burmah.</li> <li>£1,000,000 compensation from<br/>Burma</li> </ul> |
| 1828  | 1834   | Portuguese Civil<br>War.                | Liberal Forces of<br>Queen Maria II<br>Spain  | Absolutist Forces of<br>King Miguel  | Concession of Evoramonte:<br>Defeat and exile of King Miguel  |
| 1833  | 1840   | First Carlist War                       | Forces of Queen<br>Isabella II<br>French Kingdom<br>Forces of Queen<br>Maria II           | Carlists  • Forces of Infante Carlos  • Forces of King Miguel                        | British-mediated Convention of Vergara  |
| 1834  | 1836   | The 6th Xhosa War                       | Free Khoikhoi   | Xhosa tribes   | Extensive territorial gains from Xhosa  |
| 1837  | 1838   | Rebellions of 1837                      | Province of Upper<br>Canada<br>Province of Lower<br>Canada<br>Great Britain               | Patriote movement<br>American<br>Volunteers<br>Hunters' Lodges<br>Republic of Canada | Rebellion defeated. Report on the Affairs of British North America: Pro-French policy in Québec ended Lower and Upper Canada merged into single province            |
| 1839  | 1842   | First Anglo-Afghan<br>War               | East India Company  | Emirate of<br>Afghanistan  | British retreat from Afghanistan  |
| 1839  | 1842   | First Opium War                         |   | Manchu-China   | Treaty of Nanking: Five Chinese ports open to foreign trade \$21,000,000 compensation from the Qing Empire Hong Kong Island ceded from the Qing Empire              |
| 1839  | 1851   | Uruguayan Civil<br>War                  | Colorados Argentine Unitarians French Kingdom Riograndense Republic Brazil Italian Legion | Blancos<br>Argentine<br>Confederation  | British and French withdrawal before<br>war's conclusion<br>Peace treaty with the Argentine<br>Confederation[2][3]<br>Eventual Colorados victory                    |
| 1845  | 1846   | First Anglo-Sikh<br>War                 | East India Company<br>Patiala State   | Sikh Empire  | Treaty of Lahore: Extensive territory ceded from the Sikh Empire Partial control over Sikh foreign affairs  |
| 1845  | 1846   | Flagstaff War                           | Forces of Tamati<br>Waka Nene   | Ng?puhi Iwi  | Stalemate   |
| 1846  | 1846   | Hutt Valley<br>Campaign                 | Te ?ti Awa Iwi  | Ng?ti Toa Iwi  | Ng?ti Toa Iwi retreat   |
| 1846  | 1847   | The 7th Xhosa War<br>The War of the Axe |   | Xhosa tribes   | Territory ceded from Xhosa  |
| 1847  | 1847   | Wanganui<br>Campaign                    | M?ori Kupapa  | M?ori Iwis   | Stalemate<br>12 year peace and trade  |
| 1848  | 1849   | Second Anglo-Sikh<br>War                | East India Company  | Sikh Empire  | Complete annexation of the Punjab by the East India Company   |
| 1851  | 1853   | The 8th Xhosa War<br>Mlanjeni's War     | Xhosa tribes<br>Khoikhoi tribes<br>Native Kafir Police                                    |  | Xhosa-Khoi attacks defeated.<br>Status quo ante bellum  |

| Start | Finish | Name                                   | Allies  | Enemies  | Outcome  |
|-------|--------|--|---|--|--|
| 1852  | 1853   | Second Anglo-<br>Burmese War           |   | Kingdom of Burma   | Burmese revolution ended fighting.<br>Lower Burma annexed  |
| 1853  | 1856   | Crimean War                            | French Empire<br>Ottoman Empire<br>Kingdom of<br>Sardinia   | Russian Empire<br>Bulgarian Legion   | Treaty of Paris  |
| 1856  | 1857   | The National War<br>in Nicaragua       | Costa Rica<br>Honduras<br>Rebel Forces of<br>Patricio Rivas<br>The Mosquito Coast   | Sonora<br>Nicaragua  | American-Nicaraguan government<br>defeated<br>Slavery outlawed   |
| 1856  | 1860   | Second Opium War<br>Arrow War          | French Empire<br>United States  | Manchu-China   | The Treaty of Tientsin: Kowloon ceded from the Qing Empire Peking opened to foreign trade 11 more Chinese ports opened to foreign trade Yangtze River opened to foreign warships 4,000,000 taels of silver compensation China banned from referring to subjects of the crown as barbarians |
| 1856  | 1857   | Anglo-Persian War                      | Afghanistan<br>East India Company   | Herat<br>Persia  | Persian withdrawal from Herat  |
| 1857  | 1858   | Indian Mutiny                          | East India Company Nepal Jammu and Kashmir Princely states: Jaipur Bikaner Marwar Rampur Kapurthala Nabha Bhopal Sirohi Udaipur Patiala Sirmur Alwar Bharathpur Bundi Jaora Bijawar Ajaigarh Rewa Kendujhar Hyderabad | Sepoys of the East<br>India Company<br>Mughal Empire<br>Awadh<br>Jhansi<br>7 Princely states | Act for the Better Government of India: Company rule in India dissolved Indian Empire established Ban on Christian missionaries in India   |
| 1860  | 1861   | First Taranaki War<br>Second Maori War |   | Maori King<br>Movement<br>Maori Iwis   | Stalemate  |
| 1863  | 1864   | Second Ashanti<br>War                  |   | Ashanti Empire   | Stalemate  |

| Start | Finish | Name   | Allies  | Enemies                       | Outcome   |
|-------|--------|--|---|-------------------------------|---|
| 1863  | 1866   | Invasion of<br>Waikato<br>Third Maori War                | Maori Kupapa  | Maori King<br>Movement        | Maori King Movement defeated,<br>confined to King Country   |
| 1864  | 1865   | Bhutan War   | India   | Bhutan                        | Treaty of Sinchula:  Bhutan cedes Assam Duars and Bengal Duars to India  Bhutan cedes territory in Dewangiri to India                                     |
| 1867  | 1874   | Klang War<br>Selangor Civil War                          | British Straits<br>Settlements<br>Forces of Raja<br>Abdullah of Klang | Forces of Raja<br>Mahadi      |   |
| 1868  | 1869   | Titokowaru's War<br>Part of the New<br>Zealand land wars | Maori Kupapa  | Ngati Ruanui Iwi              | Ngati Ruanui Iwi withdrawal   |
| 1868  | 1868   | 1868 Expedition to<br>Abyssinia                          | India   | Abyssinia                     | British hostages freed<br>War of the Abyssinian Succession begins   |
| 1868  | 1872   | Te Kooti's War<br>Part of the New<br>Zealand land wars   | Maori Kupapa  | Maori Iwis                    | End of New Zealand land wars<br>Territory ceded by Maori Iwis   |
| 1869  | 1869   | Red River<br>Rebellion                                   | Dominion of<br>Canada<br>Métis Loyalists                              | Métis Forces of<br>Louis Riel | Defeat of rebellion<br>Manitoba Act:<br>Creation of the Province of Manitoba  |
| 1873  | 1874   | Third Ashanti War  |   | Ashanti Empire                | Treaty of Fomena: 50,000 oz of gold compensation from Ashanti Empire Ashanti withdrawal from coastal areas Ashanti banned from practicing human sacrifice |
| 1877  | 1878   | The 9th Xhosa War  | Mfengu Tribe  | Xhosa Gcaleka<br>Tribe        | All Xhosa territory annexed to the Cape<br>Colony   |
| 1878  | 1880   | Second Anglo-<br>Afghan War                              | India   | Afghanistan                   | British control over Afghan foreign<br>affairs  |
| 1879  | 1879   | Anglo-Zulu War   | Natal   | Zulu Kingdom                  | Zululand annexed to Natal   |
| 1880  | 1881   | First Boer War   |   | South African<br>Republic     | Pretoria Convention:<br>South African Republic granted self-<br>government  |
| 1884  | 1889   | Mahdist War  | Egypt<br>Italy<br>Belgium   | Mahdist Sudan                 | Sudan ruled by Britain and Egypt  |
| 1885  | 1885   | Third Anglo-<br>Burmese War                              |   | Kingdom of Burma              | Upper Burma annexed to British Raj  |
| 1888  | 1888   | Sikkim Expedition  | India   | Tibet                         | Tibet recognizes British suzerainty over<br>Sikkim  |
| 1896  | 1896   | Anglo-Zanzibar<br>War                                    |   | Zanzibar                      | Pro-British Sultan installed  |

| Start | Finish | Name            | Allies  | Enemies  | Outcome   |
|-------|--------|-----------------|---|--|---|
| 1899  | 1901   | Boxer Rebellion | Japan<br>Russia<br>France<br>United States<br>Germany<br>Italy<br>Austria-Hungary<br>Manchu-China | Righteous Harmony<br>Society                   | Boxer Protocol:<br>Anti-foreign societies banned in China   |
| 1899  | 1902   | Second Boer War |   | Orange Free State<br>South African<br>Republic | Treaty of Vereeniging: All Boers to surrender arms and swear allegiance to the Crown  |
|       |        |                 |   | Foreign volunteers                             | Dutch language permitted in education Promise to grant Boer republics self- government £3,000,000 compensation "reconstruction aid" to Afrikaners |
| 1901  | 1902   | Anglo-Aro War   |   | Aro Confederacy                                | Aro Confederacy destroyed   |

## F.2 French wars 1815-1914



| Start | Finish | Name   | Start | Finish | Name                               |
|-------|--------|--|-------|--------|------------------------------------|
| 1821  | 1832   | Greek War of Independence                          | 1866  | 1866   | French campaign against Korea      |
| 1823  | 1823   | French intervention in Spain                       | 1870  | 1871   | Franco-Prussian War                |
| 1829  | 1830   | Belgian Revolution                                 | 1871  | 1871   | Campaign against El-Mokrani (1871) |
| 1830  | 1830   | Invasion of Algiers                                | 1881  | 1902   | Conquest of the Sahara (1881-1902) |
| 1832  | 1839   | First Carlist War                                  | 1881  | 1881   | French conquest of Tunisia         |
| 1833  | 1835   | Franco-Trarzan War                                 | 1883  | 1886   | First Mandingo War                 |
| 1835  | 1837   | First Campaign against Abd-el-Kader<br>(1835-1837) | 1883  | 1883   | First Madagascar expedition        |
| 1838  | 1839   | First Franco-Mexican War                           | 1883  | 1886   | Tonkin Campaign                    |
| 1839  | 1847   | Second Campaign against Abd-el-Kader (1839-1847)   | 1884  | 1885   | Sino-French War                    |
| 1844  |        | First Franco-Moroccan War (1 month)                | 1886  | 1896   | Pacification of Tonkin             |
| 1844  | 1847   | Franco-Tahitian War                                | 1890  | 1890   | First Franco-Dahomean War          |
| 1845  | 1850   | Anglo-French blockade of the Rio de la<br>Plata    | 1892  | 1894   | Second Franco-Dahomean War         |
| 1850  | 1881   | French conquest of Senegal                         | 1893  | 1893   | Franco-Siamese War                 |
| 1850  | 1864   | Taiping Rebellion                                  | 1894  | 1895   | Second Mandingo War                |
| 1853  | 1856   | Crimean War  | 1894  | 1895   | Second Madagascar expedition       |
| 1856  | 1860   | Second Opium War                                   | 1897  | 1903   | South-Oranese Campaign (1897-1903) |
| 1857  | 1857   | Campaign of Kabylie                                | 1898  | 1898   | Third Mandingo War                 |
| 1858  | 1862   | Cochin china Campaign                              | 1898  | 1900   | Voulet-Chanoine Mission            |
| 1859  | 1859   | Franco-Austrian War                                | 1899  | 1901   | Boxer Rebellion                    |
| 1861  | 1866   | French intervention in Mexico                      | 1909  | 1911   | Wadai War                          |
| 1863  | 1864   | Bombardment of Shimonoseki                         | 1911  | 1912   | French conquest of Morocco         |

# F.3 Belgian wars 1830-1914

| Start | Finish | Name   | Allies   | Enemies   | Outcome   |
|-------|--------|--|--|---|---|
| 1830  | 1831   | The Belgian Revolution<br>Ten Days' Campaign | France   | <sup>*</sup> United Kingdom<br>of the<br>Netherlands                            | Treaty of London:<br>Recognition by the European powers<br>of the independence and neutrality of<br>Belgium |
| 1832  | 1834   | Liberal Wars                                 | Portugal<br>United Kingdom<br>France<br>Spain                              | Miguelites  | Liberal victory, Constitutional<br>monarchy is restored   |
| 1861  | 1867   | The French intervention in Mexico            | Mexican Empire,<br>France<br>and others                                    | United Mexican<br>States<br>United States of<br>America<br>(entered in<br>1865) | French withdrawal, Republican victory   |
| 1881  | 1899   | Mahdist War                                  | British Empire<br>Kingdom of Italy<br>Congo Free State<br>Ethiopian Empire | Mahdist<br>Sudanese   | Anglo-Egyptian victory  |
| 1892  | 1894   | Belgo-Arab War                               | Congo Free State   | Zanzibari slave<br>traders  | Congo Free State victory  |

| Start | Finish | Name                | Allies           | Enemies         | Outcome                  |
|-------|--------|---------------------|------------------|-----------------|--------------------------|
| 1895  | 1908   | Batetela Rebellions | Congo Free State | Batetela people | Congo Free State victory |

# F.4 German/Prussian Wars 1800-1914



| Start | End  | Conflict                           | Combatant 1   | Combatant 2   | Results   |
|-------|------|------------------------------------|---|---|---|
| 1806  | 1807 | War of the<br>Fourth<br>Coalition  | Prussia, Russia   | France  |   |
| 1813  | 1814 | War of the<br>Sixth<br>Coalition   | Prussia, Russia,<br>Austria   | France  |   |
| 1815  | 1815 | War of the<br>Seventh<br>Coalition | Prussia, Britain  | France  |   |
| 1848  | 1851 | First<br>Schleswig<br>War          | Prussia   | Denmark   |   |
| 1864  | 1864 | Second<br>Schleswig<br>War         | Prussia   | Denmark   |   |
| 1866  | 1866 | Austro-<br>Prussian<br>War         | Prussia   | Austria, German<br>Confederation                    |   |
| 1870  | 1871 | Franco-<br>Prussian<br>War         | North German<br>Confederation<br>Prussia<br>Baden<br>Bavaria<br>Württemberg<br>Hesse-Darmstadt<br>Germany | French Third<br>Republic<br>Second French<br>Empire | <ul> <li>Treaty of Frankfurt</li> <li>Formation of the German Empire</li> <li>Fall of the Second French Empire</li> <li>Formation of the French Third Republic</li> <li>* German annexation of Alsace-Lorraine</li> </ul> |
| 1888  | 1889 | Abushiri<br>Revolt                 | Germany<br>German East<br>Africa Company<br>United Kingdom  | Rebels  | <ul> <li>Rebellion put down</li> <li>German Government takes control of<br/>Tanganyika from German East Africa<br/>Company</li> </ul>   |

## **Lethal Dialectic**

| Start | End  | Conflict            | Combatant 1   | Combatant 2                     | Results   |
|-------|------|---------------------|---|---------------------------------|---|
| 1899  | 1901 | Boxer<br>Rebellion  | United Kingdom Russia Japan France United States Germany Italy Austria-Hungary Right Division of Guard Army China | Righteous<br>Harmony<br>Society | <ul> <li>The rebellion was suppressed</li> <li>Signing of the Boxer Protocol</li> <li>* Provisions for foreign troops to be stationed in Beijing</li> </ul> |
| 1904  | 1908 | Herero<br>Wars      | Germany<br>Namaqua<br>Namibians   | Herero                          | * German authority over the territory   |
| 1910  | 1911 | Sokehs<br>Rebellion | Germany   | Sokehs                          | <ul><li>Uprising defeated</li><li>* Order restored</li></ul>  |

# F.5 Italian Wars (1800-1914)



| Start | End  | Conflict                             | Combatant 1      | Combatant 2                    | Results           |
|-------|------|--------------------------------------|------------------|--------------------------------|-------------------|
| 1820  | 1820 | Two Sicilies insurrection            | Italians         | Austrians                      | Italians defeated |
| 1821  | 1821 | Piedmont<br>insurrection             | Italians         | Austrians                      | Italians defeated |
| 1830  | 1830 | Various<br>insurrections             | Italians         | Austrians                      | Italians defeated |
| 1844  | 1844 | Insurrectionary<br>raid              | Italians         | Kingdom of the<br>Two Sicilies | Italians defeated |
| 1848  | 1848 | Milanese and<br>Venetian revolts     | Italians         | Austria                        | Italians defeated |
| 1849  | 1849 | First Italian<br>Independence<br>War | Italians         | Austria                        | Italians defeated |
| 1853  | 1856 | Crimean war                          | Italy and Allies | Russia                         | Russia defeated   |

## **Lethal Dialectic**

| Start | End  | Conflict                              | Combatant 1         | Combatant 2                  | Results                                    |
|-------|------|---------------------------------------|---------------------|------------------------------|--|
| 1859  | 1859 | Second Italian<br>Independence<br>War | Italians and French | Austria                      | Truce. Austria cedes Lombardy              |
| 1860  | 1860 | Risorgimento                          | Piedmontese         | Bourbons and<br>Papal States | Piedmontese win.                           |
| 1866  | 1866 | Third Italian<br>Independence<br>War  | Italians            | Austria                      | Austria cedes Venice under German pressure |
| 1867  | 1867 | Mentana                               | Italians            | French Papal<br>troops       | French Papal troops                        |

## F.6 Russian Wars



| Start | End  | Conflict                    |
|-------|------|-----------------------------|
| 1800  | 1864 | Russian-Circassian War      |
| 1803  | 1806 | War of the Third Coalition  |
| 1804  | 1813 | Russo-Persian War           |
| 1806  | 1807 | War of the Fourth Coalition |
| 1807  | 1812 | Anglo-Russian War           |
| 1808  | 1809 | Finnish War                 |
| 1809  | 1809 | War of the Fifth Coalition  |
| 1813  | 1814 | War of the Sixth Coalition  |
| 1826  | 1829 | Russo-Persian War           |
| 1830  | 1831 | Polish-Russian War          |
| 1830  | 1830 | November uprising           |
| 1863  | 1864 | January uprising            |
| 1877  | 1878 | Russo-Turkish War           |
| 1899  | 1901 | Boxer rebellion             |
| 1904  | 1904 | Russo Japanese War          |

# Appendix G - Appreciations, plans and reconnaissance reports

## G.1 Essentials of an Appreciation

The essentials of an Appreciation have here been recomposed from Cadell and Marindin. They assume two sides to a battle: "A" and "B". An Appreciation should contain minimally the following information:

- The organization, strength, positions and orders, intentions or objectives of each side
- Those political, financial, geographical, resourcing, topographical, communication, social, morale, historical and meteorological constraints affecting the situation with their priorities, which affect either or both sides.
- The strategical, tactical and operational considerations affecting each side.
- The possible or probable movements of each side with reasons for and against.
- The preferred option, with reasons.
- The implications of victory or defeat

## G.2 Appreciations in T&MR 1913

T&MR 1913 contains an outline of an Appreciation in section 14:

The object to be attained.

- · The Factors which might influence the attainment of the object.
- · The courses open to both sides.
- · A definite plan of action.
- 5. The *heading* should state what the situation is, and from whose point of view it is being appreciated.
- 6. The *object* should be clearly and concisely given and should be kept in view throughout the appreciation.
- 7. Among the factors ... the position and relative strength and efficiency of the opposing forces, including probable reinforcements, topographical and climatic conditions, the political situation, time and space, the enemy's vulnerable points, character of the opposing commander, railways, telegraphs, and communications generally ...
- 8. The arguments for and against each *course* open to either side should be briefly discussed, and its practicability proved if necessary. ... (distinguish) ... between established facts and assumptions ...
- 9. The plan of action must be simple, practical, and definite. The more simple the plan the greater chance there is of its successful execution. A complicated plan usually takes longer to carry out ... The plan must be concisely stated, but all essentials must be given, so that front a staff officer shall be able to draft the orders required to carry it out."

Figure 425 - Outline of an appreciation in T&MR 1913

## **G.3** Reconnaissance of a position

The following text has been taken from Regulation 96 of FSR I 1912

Peter Farrell-Vinay

<sup>1490</sup> Cadell, Op. Cit. and Marindin Op. Cit..

- In reconnoitring a position with a view to attack, information should be obtained on the following points:
- · The extent of the position.
- The weak parts of the position.
- Any point or points the capture of which will facilitate the development of a searching enfilade or reverse fire against a large extent of the position, and thus render it untenable; and to what extent such point or points have been strengthened.
- The best line of attack, and the tactical points of which the possession will favour
  the development of an effective fire against the weak parts of the position.
- · Localities from which covering fire can he directed.
- 2. When it is intended to occupy a defensive position, the chief points to be noted are:
- · The best distribution of the infantry, and the means of protecting the flanks.
- · The positions for the artillery.
- The positions which the enemy may endeavour to seize in order to develop an
  effective fire against the position.
- · The probable positions of the enemy's artillery.
- Any points the possession of which might exert a decisive influence on the issue
  of the fight.
- The most favourable lines of attack.
- · The most favourable ground for the counter-attack.
- Ground to be occupied by the general reserve, by the cavalry, and by the other mounted troops.

Positions to be occupied in case of retreat

#### Figure 426 - Regulation 96 of FSR I 1912

#### G.4 Plans

- 2. The commander of the force and subordinate commanders will be guided by the following principles in framing orders for an attack:
- A definite objective or task should be assigned to each body of troops, the
  actual limits of frontage being specified as far as possible. Each body of
  troops thus assigned to a distinct tactical operation should be placed under
  one commander.
- The direction of the attack to be made by each body of troops should be distinctly stated.
- Most careful arrangements should be made to ensure that attacks intended to be simultaneous should be so in reality.
- The choice of the manner in which the task assigned to each body of troops is to be performed should be left to its commander.

Figure 427 - Regulation 104 (2) of FSR I 1912 (Preliminary Measures)

## G.5 Example of a Camberley appreciation and plan

- ENGLAND and SCOTLAND are two independent states. SCOTLAND and BELGIUM conjointly declared war against ENGLAND on 7 Mar 1913, both countries having commenced to mobilise their armies some days before that date.
- 2. The available military forces are as follows:- ENGLAND (RED).

Thesame in all respects as the British Expeditionary Force, and in peace time are located thus:-

1st Division at MANCHESTER

2nd Division at BIRMINGHAM

3rd Division at CHATHAM

4th Division at IPSWICH

5th Division at DURHAM

6th Division at CARLISLE

Cavalry Division and two Mountod Bdes. at MIDLANDS

#### SCOTLAND

Three divisions and three cavalry brigades) of the same strength and organization as the English.

#### BELGIUM (BLUE).

Four divisions and I oavalry divisions of three cavalry brigades and a due proportion of divisional troops, all of the same ostablishment as the English, and with the same proportion of army troops, but no mounted brigade. All the Belgian units and formations are respectively numbered from 1 upwards, (e.g., 1st Division includes the 1st, .3nd and 3rd, Infantry Brigades - the 1st Infantry Brigade the 1st, 2nd, 3rd and 4th Battalions). The three Cavalry Brigades are; respectively composed of Lancers, Dragoons, Hussars.

- Both BELGIUM and SCOTLAND have a large mercantile marine, and a small navy. ENGLAND has no navy.
- 4. SOUTHAMPTON is the chief commercial port of ENGLANDand MARLBOROUGH is the capital. The only existing railway available for the conveyance of troops and supplies south ofthe Great Western Railway from LONDON to BRISTOL via SWINDON is the one from READING to SOUTHAMPTON via GUILDFORD and HAVANT.
- 5. On the 18th March it is generally known that the Scottish troops are concentrated near RE.D's northern frontier ready to cross; that RED has assembled a considerable force for the protection of that frontier; and that BELGIAN troops have been landing in the vicinity of WEYMOUTH since the 14th March. The lancting was unopposed, as apparently RED expected it would be made on the east coasts and kept large bodies of troops conveniently near there for the purpose of dealing with such a landing.

Figure 428 - Example of a Camberley appreciation

Staff Tour. 17th - 19th March.

## BLUE General Plan for 17th.

Meve direct on SOUTHAMPTON but in such formation as will enable me to fight at any time facing in any direction between east and north at all events till I knew more of the enemy.

I may meet the enemy, and possibly in superior force, any day from the 19th. onward. Therefore I wish to arrive on the line of the AVON with my force fairly concentrated.

Lancer Brigade to cover left flank, and recommoitre to merth.

3rd Division to move slightly echelormed back.
Oavalry Division, less Tancer Brigade, to secure
NOW crossings RINGWOOD to BREAMORE INCLUSIVE - and
reconneitre towards SOUTHAMPTON.

Enemy, for the sake of saving time is probably using both READING - SOUTHAMPTON and READING - BRISTOL railway to bring up troops. If so I may be able to deal with his force in detail.

By pushing on towards SOUTHAMPTON - besides carrying out the general plan of campaign - I increase my chance of dealing with any force sent via SOUTHAMPTON before it can be joined by forces sent via READING -BRISTOL line.

If I meet with the enemy in this direction I shall endeaveur to drive him eastwards and prevent any retirement towards the north.

Figure 429 - Example of a Camberley plan page 1

## INSTRUCTIONS TO U.G.S.

(Assume that the Divisions are billeted in depth.)

My plan is as above.

Oavalry Division to secure the line of the AVON from RINGWOOD to BREAMORE (both inclusive) - and to ascertain movements of onemy (if any) on or west of line AV.DERBURY incl. - LANDFORD - CADNAM - BROCKENHURST - LYMINGTON (incl.).

Lancer Brigade: cover left flank and ascertain movement if any north of ALDERBURY - COCMBE BISSETT - BT.ANDFORD.

1st Division to about KINSON.

2nd .. COLEHILL.

3rd ,, witchampton.

Be careful that Transport of 3rd Division is not too much exposed. Get up the Bridging Train as soon as it is landed, and warm Divisions that bridging operations may have to be undertaken. See that proper precautions are taken as regards left flank.

I want all the information of the enemy's movements that I can get from the R.F.C. especially:-

- (1) Any houtile movement in the area SOUTHAMPTON -SALISBURY - CHRISTCHURCH.
- (2) About SHEPTON MAILET WARMINSTER SAIJSBURY WINCHESTER SOUTHAMPTON.
- (3) On or W. of SOUTHAMPTON READING railway; on or S. of READING - BRISTOL railway.

I place the importance of these items in the above order.

Figure 430 - Example of a Camberley plan page 2

Staff Tour. 17th - 19th March.

#### BLUE plan for 18th.

Centinue mevement on SALISBURY.

#### Instructions to C.G.S.

Oavalry Division. Loaving sufficient troops to held AVON crossings till Divisions reach them, to push on to line TOTTON-DUNBRIDGE. Secure crossings over R. TEST on this line and observe river line from DUNBRIDGE to ALDERBURY (incl.) Ascertain situation in SOUTHAMPTON and push patrols to the line FAREHAM - BISHOP'S WALTHAM - WINCHESTER - STOCKBRIDGE - WINTERSLOW.

Lancer Brigade to continuo protection of left flankcheerving RED Mtd. Bde., but avoiding engagement unloss favourable opportunity offers. To continue ebservation of line ALDERBURY (excl.) - BLANDFORD. Patrols towards WINTERBOURNE GUNNER - WOODFORD - GREAT WISHFORD.

1st Division to about STONY CROSS (2 m. N.W. of MINSTEAD) via RINGWOOD.

2nd Division FRITHAM (4 m. N.W. of MINSTEAD) via FORDINGBRIDGE. To cross after the 3rd Division.

3rd Division GODSHILL via FORDINGBRIDGE.
General Hd. Qrs.

Information required from RaF.C. in order of importance Movements and strength of enemy:-

(1) Between R. TEST and AVON, north of line MOTTISFONT - ALDERBUFY.

#### This is specially important.

- (2) N. and W. of line ALDERBURY SALISBURY BLANDFORD WORLD.
- (3) N. and E. of line FAREHAM BISHOP'S WALTHAM WINCHESTER STOCKBRIDGE.

Figure 431 - Example of a Camberley plan page 3

## Staff Tour. 17th - 19th March.

## BLUE Plan for 19th.

1st Division on OWER via CADNAM.

2nd .. on WEST WELLOW via PLAITFORD.

3rd ,, on PICKET CORNER. (General Reservo).

All march at 7 a.m. Goneral Hd. Qrs. remain as at present.

Lancer Brigado to continue to watch left and try at once to get patrols through to line of WINTERBOURNE GUNNER - WEST DEAN.

Romainder of cavalry to draw off to left when 1st and 2nd Divisions gain the line MINSTEAD - LANDFORD. Also to try at cnoc to got through patrols between WEST DEAN and ROMSEY.

The doubtful point at present is where are the oclumns seen youterday at ANDOVER and TIDWORTH.

R.F.C. to be out as early as possible to-morrow N. of SALISBURY - MOTTISFORT line.

Figure 432 - Example of a Camberley plan page 4

# G.6 A raid on a German sap

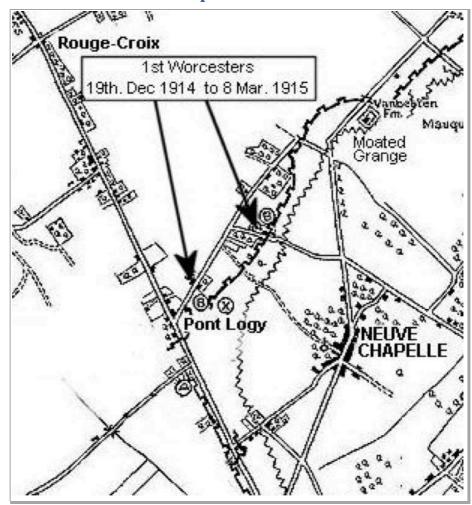


Figure 433 - Raid of 3 Jan 1915 near Pont Logy (sap head marked by "X")

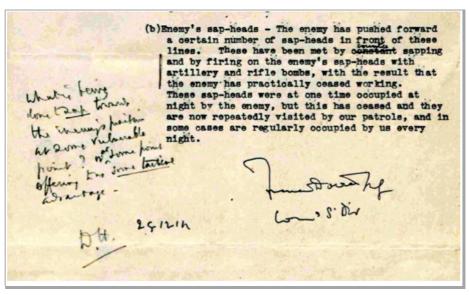


Figure 434 - Davies' report on 28 Dec 1914 and Haig's note1491

<sup>1491</sup> 

24 Orders to Lieut Roberts - USO. Is It has been deceded to attack the saphead" in front of your company this evening . you with 25 men from your Plation or valuntiers from A By as you may decide well on necest of orders from Capt Capel & Northants Regt advance over the parapet, and encircle the saphead - There is to be no firing 3. Having seached the saphrad you will if you find it unoccupied, return at once as quetly as possible to your trench. 3 Should you find the saphead accupied, you will bayoned or capture as many of the enemy as possible; but you will on no account advance further than from 50 to 70 yourds down the trench. On a preconcerted segral arranged by ou, your men well return with all possible speed to our trench. 5 The whole operations should not occupy more than from 3 to 5 minutes. I am completion of operation you will nature With your platon to your-billets at LA CORGUE I This order will be buint before you commence the attack.

Figure 435 - A raid on a German sap - initial order to the raiders

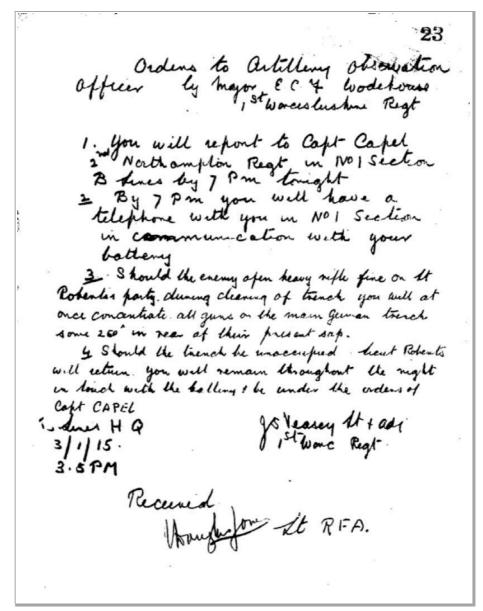


Figure 436 - A raid on a German sap - initial order to the artillery for support

30 Lent 4.0 Roberts 1/Ware Regt. to his 1 Party to be divided into 4 sections of 5 to 6 men each under an NCO. 2 N cos x a number of nen were shown the direction by It Roberts by means of a large tree behind the guman tranches 3 Party to be down in front of our pove to parapet and section commanders again direction shown them, and were to keep I'm eyes on It Roberts given by It Roberts standing up. & No noise or cheering to be made at cut off in + safety catch back - No equipment to be carried but one bandolier of amnunition I It saphead is empty every man " Il return fortwith 8. It gumans found in saphead they are to be killed - Prisoners only to be taken if possible in the time 2 The whole operation to take 2 minutes 10 ho man to advance down the track more than 30 yards 14 Two wheatles as signal for men to return to their own trenches 12 No wounded to be touched skearcht

Figure 437 - A raid on a German sap - instructions

8.Q.8th Div. IV Corps. In accordance with instructions given by me to the G.O.C. 24th Inf. Bde., a party of 25 men lat Bn. Wordestershire Regt., under Lieut. F.C. Roberts, attacked a German sap-head about 80 yards in front of "B" lines, North of MEUVE CHAPELLE, on 3rd Jamuary, 1915. Lieut. Roberts and his men rushed forward from "B" Lines at 7-45 p.m. When within eight yards of the enemy's trench, two sentries fired and shouted the alarm, but they were "too late and the party encircled the sap-head and completely surprised the occupants of the adjacent trench, who were found. asleep-five men to a traverse. About 30 Germans were bayoneted and the party immediately returned to their lines; the whole operation occupying not more than 4 or 5 minutes. Casualties - 2 men missing and one man slightly wounded (still at duty). I attribute the success of this enterprise to thecareful plans and instructions drawn up by Major E. Wodehouse. . D.S.O., Commanding 1st Bn. Worcestershire Regt., and to the gallant manner in which they were carried out by Lieut. Roberte and his men. . Lieut. Roberts has been awarded the D.S.O., and I beg to recommend the undermentioned W.C.Gs and man for the Distinguished Conduct Medal :-So. 4725 Sergt. H.Edwards L.Moroestershire Regt. 10895 L/Opl. G.Darby 8910 Pte. H.Evane (64) Francis Davies, Major-General, Commanding 8th Division. 6th January, 1915

Figure 438 - A raid on a German sap - the final report

#### The raid on Cuinchy **G.7**

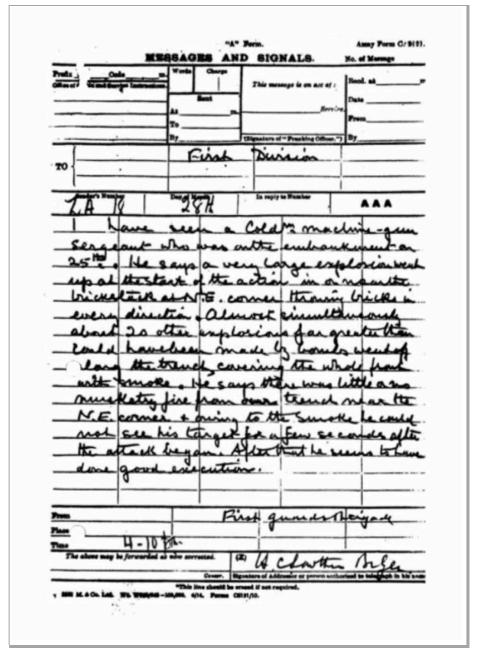


Figure 439 - 28 Jan 1915 - Brig. - Gen. Lowther's  $message^{1492}$ 

<sup>1492</sup> Jan 1915 - First Army war diary - TNA WO 95/154/3.



#### Three main points :-

- Present line must not be given up, nor left of French uncovered.
- "Keep" near CUINCHY may be mined by enemy. to be taken to prevent this. The best course would be to throw the enemy back from brickfield so that he will be too distant to be able to mine.
  - 3. Prevent enemy from turning GIVENCHY from the north.

(Intd) DEH. 30th January, 1915. 8.30: a.m.

2nd Division.

Copies of above have been sent to 1st Division and 4th Guards Brigade.

1st Corps. 50th January, 1915. 9.50 a.m.

(Sd) R. Whigham, Brig-General, General Staff, 1st Corps.

1st Division. 4th Brigade.

The Lieutenant-General Commanding relies on you to give effect to the above.

1st Corps: 30th January, 1915. 9.50 a.m.

(Sd) R. Whigham, Brig-General, General Staff, 1st Corps.

Figure 440 - "Three points" memo from Sir Douglas Haig<sup>1493</sup>

<sup>1493</sup> I Corps War diary 191502 Headquarters Branches and Services - General Staff - TNA WO 95/590/2.

```
SECRET
                                                Appendix DD.1.
                                                        Copy No.
      1ST CORPS OPERATION ORDER NO. 68.
                                                5th February, 1915.
     1. The 2nd Division will attack the enemy east of CUINCHY
tomorrow.
Object:- Capture of brickstacks now held by the Germans north-east of the *KEEP*.
2. The infantry attack will issue from the front trenches of the 4th Guards Brigade at 2:15 p.m., and will be preceded
by an artillery bombardment.
3. The bombardment will begin at 2 p.m. after registration of targets during the morning.
4. The artillery of the Meerut Division will take part in the bombardment, its fire being directed on the trigngle and the hostile trenches and lines of approach east of GIVEWCHY.
5. The artillery of the 58th French Division will support the attack by bringing fire to bear on the hostile trenches in front of the south-west face of the triangle.
6. At 2:15 p.m. the artillery will direct their fire on to pre-arranged targets further to the eastwards.
7. The details of the infantry attack will be arranged under the orders of G.O.C. 2nd Division.
     8. Report Centre unchanged.
                                      (Sd). R. WHIGHAM.
                                                                         Brig.General.
                                                   S.G.S.O. 1st Corps.
  Issued at 4.20 p.m. to :-
           1st Division.
           2nd Division.
           lst Army.
Indian Corps.
XXI O.dAA.
R.F.C.
```

Figure 441 - 1st Army operation order No 68 Whigham of I Corps (WO 95/154/2)

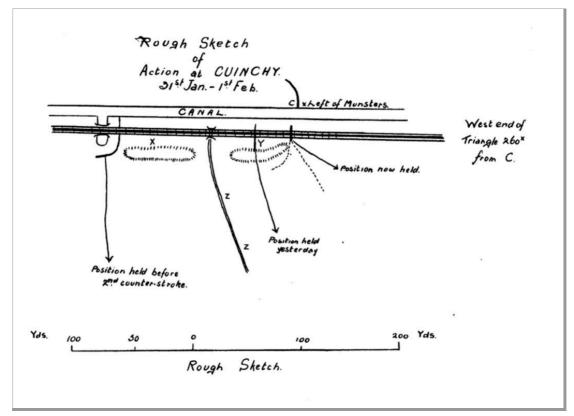


Figure 442 - Map of 1st Army operation order No 68 (WO 95/154/2)

SECRET.

APPENDIX 1. Copy 30.

OPERATION ORDER No.30

Hajor-General H.S. Horne, C.B., Commanding 2nd Division.

Reference Hap 1/20,000 and plans in possession of R.A. and 4th Guards Brigade.

Rue GAMBETTA, BETHUNE.

- 1. The 4th Guardo Brigade will attack the enemy B. of CUINCHY to-morrow, .bject capture of the brickstacks now held by the Germans N.E. of the KEEP.
- At 2 p.m. the R.A. will shell -
  - (a) The brickstacks referred to in para 1 (hereafter referred to as B).
  - (b) Also the brickstacks some 200 yards to the E. of B (referred to as 0).
  - (c) The towpath of the Canal.
  - (d) The exits from the railway triangle.
  - (e) The space between B & O and the approaches from the Bast.
  - (f) The hostile batteries.

The Artillery of the MEERUT Division has been directed to assist by firing on the Triangle, on the exits from LA BASSEE and on the communications from the N.E. and to engage hostile artillery N. of the Canal.

The Artillery of the French 58th Division have undertaken to shell the triangle and to sweep with shrapnel E. of the brickstacks O, and the main LA BASSEE road. The French 58th Division intend also to assist the attack generally with rifle

The bombardment of the brickstacks at B will be heavy and will cease at 3-15 p.m. when the fire will be transferred to 0 and the approaches from the East.

- 3. Immediately the fire on B ceases (2-15 p.m.) the infantry attack will be launched. On no account is the attack to push on beyond this objective, which will be entremeded at once, a party of the 11th Field Company R.E. assisting.
- 4. The attack will be covered by rifle and machine gun fire from the embaniment and from the trenches S. of the KEEP.
- 5. During the time the infantry is establishing itself in its new position the Artillery will continue its covering fire.
- 6. From 2 p.m. onwards activity will be displayed by the 5th and 6th Infantry Brigades, with occasional bursts of fire. These brigades will exercise vigilance to meet any counter-attack.
- 7. O.C. No.1 dotor Machine Gun battery will send one Section to report at 4th Brigade H.Q. at 1-30 p.m. tomorrow. The Battery (less 2 Sections) will hold itself in readiness to move from 1-50 p.m. onwards. O.O.Battery will report at Div..Hd.Qrs. at 1-50 p.m.

8.

Figure 443 - 2nd Division operation order No 30 part 1 (WO 95/154/5)1494

Figure 444 - 2nd Division operation order No 30 part 2 (WO 95/154/2)

APPENDIX 3. Copy Ho.10. OPERATION ORDER Mo.5 Brig.General The Earl of Cavan. G.O.C.4th GuardsBde. CAMMAIN. 5th Pebruary, 1915. Reference siap 1/40,000 and accompanying sketch. 1. The 4th (Guards) Erigade supported by the Artillery under command of the 0.G. 25th F.A. Brigade will attack the ERICKSTACKS Nos.1, 2, 5, 4, 5, 6, 7, 8 8. (see accompanying sketch) now held by the enemy.

The French Artillery will co-operate but, no infantry advance by the French except by sap is contemplated. Intention. 2. From 2 p.m. to 2-15 p.m. the 3th instant temerrow the Artillery will be bard the BRICKSTACKS as specified in para 1 under arrangements to be made by the 0.6. 25th F.A.Brigado.

After 2-15 p.m. all Artillery fire will be directed at the Drickstacks further East and at the enemy's Orders to Artillery. Col.Geddes Commdg.25th trenches. At 2-15 p.m. the 4th(Guards) Brigado will attack Orders to as under :(a) The Irish Guards will attack the BRIOKSTAOKS Nos.1, 2, 3, 4, 25. Infantry. 1st En. Irish Gds. Maj.Hon.J. Trefusis. (b) The 3rd Bn. Coldstream Guards will attack the BRICKSTACKS 3, 7 & 8 and will also make good the tronch known as the CULVERT Read.

Details of the assuult will be drawn up by the C.C. 3rd Bn. Coldstream Guards and let Bn. Irish Guards whose attention is drawn to the list of points issued to them in writing at the Conference with the Brigadier this morning. The front line of tronches now occupied will be held firmly throughout the attack.

The places of the assaulting parties will be filled when evacuated by the supports in rear, who will move by the communition trenches. Srd Bn.Cold-stream Gds. Lt.Col.G. Fielding. lat Bn.Herts. (c) The lat En. Herts. Regiment, (less the Company Regt. in the CUINCHY supporting point) will be in a position Maj.H.D.Croft.of readiness in the tronches immediately last of the PONT FIXE Read, with a haversack ration by 8 a.m. and will be careful on no account to disclose their position. 2nd Bn.Gronadier Gds.

(d) The 2nd Bn. Grenadier Guards (less 2 Companies)
adier Gds.

will be in a covered position behind the Western wall
Lt.Col.W.Smith.of Erigade Headquarters by 1-30 p.m. moving in small
parties, via the LA BASSEE Road.

The remaining two Companies will be ready to move
from their billots at a moments notice from 2 p.m. The O.C. 11th Field Company R.E. will detail 2 Orders for parties to be under the orders of the O.O. let En.
Irich Guards and 3rd En. Coldstream Guards respectively
to follow the assault and place the captured ERICKSTACKS
in a state of defence. 11th Field, Co.R.E.

Figure 445 - 4th Guards Brigade operation order No 5 part 1 (WO 95/154/2)

```
The strength of these parties will be left to the discretion of the 0.0.1th Field Company R.S.

The 0's.O. let Dn. Irish Guards and 3rd Dn.
Coldstroam Guards will inform Engade Headquarters as soon as possible after the recolpt of these orders where and when they would like these parties to report.

**Machine gums.**

5. (a) All the machine gums of the Irish Guards less the 1 machine gum of the French Lines will be at the disposal of the 0.0. Irish Guards for placing in positions at the BRIGKTACKS immediately after their capture, to resist a counter stroke.

The Machine gum of the Irish Guards on the LA RASSEM Road will be relieved by G a.m. by one machine gum from the Herts.

(b) The machine gums of the 3rd Battalion Coldstream Guards are placed at the disposal of the 0.0.Unit and will be placed in position in consultation with the Brigade Machine Gum Officer.

6. Immediately after the assault, all communication trenches leading from the BRIGKERACKE toward the enemy will be blocked.

***Matches will be set by a Divisional Staff Officer and the correct time communicated to all concerned tomorrow-morning.**

Dressing S. Dressing stations will be at the usual places.

Station.

G.A.A.Reserve. 9. Advanced S.A.A.Depots have been formed at the R.E.Depot CUINCHY and under the BIG OULVEUT.

***The Depot CUINCHY and under the BIG OULVEUT.**

**Will be situated at the Brigade Headquarters all the morning to give any further explanations required and will remain there during operations.

(Sgd.) V.Vivian, Major,

4th (Guards) Brigade.

(Sgd.) V.Vivian, Major,

4th (Guards) Brigade.

***Copy No.1 to 0.0. 2nd Bn. Grenadier Gdo.

***J. 2 mad Bn. Coldstroam Gdo.

**J. 3 mad Bn. Coldstroam Gdo.

**J. 4 mad Bn. Coldstroam Gdo.

**J. 5 mad Bn. Coldstroam Gdo.

**J. 6 mad Bn. Coldstroam Gdo.

**J. 7 mad Bn. Coldstroam Gdo.

**J. 8 mad Bn. Coldstroam Gdo.

**J. 7 mad Bn. Coldstroam Gdo.

**J. 8 mad Bn. Coldstroam Gdo.

**J. 1 mad Bn. 2 mad Bn. 4 mad Bn. 2 mad Bn
```

Figure 446 - 4th Guards Brigade operation order No 5 part 2 (WO 95/154/2)

APPENDIX 5

#### OPERATION ORDERS

by Lieut. Colonel G.Fielding, D.S.O., Commanding 3rd Dn. Coldstream Guards.

C-2-15.

- 1. The 4th (Guards) Brigade supported by Artillery will, today attack the Brickstacks already pointed out to Officers Commanding Companies, which are now hold by the enemy. French Artillery will co-operate but no infantry advance by the French is contemplated.
- 2. From 2 p.m. to 2-15 p.m. the Artillery will bombard the Brickstacks montioned above. After 2-15 p.m. the artillery fire will be directed on the brickstacks further East and onemy's trenches further East.
- At 2-15 p.m. 4th (Guarde) Brigade will attack as under :-
- The 1st Irish Guards will attack 5 of the Brickstacks on our right.

  (b) The 3rd Coldstream Guarda will attack the 3 left Brickstacks and will also make good the trench known as CULVERT Read.
- 4. (a) No.1 Company will be assembled by 2 p.m. in a position which has been pointed out to O.C.Company. This company will make the assault on the three Brickstacks at 2-15 p.m. precisely, and will entrench on the E. side of them. It is to be clearly explained to the assaulting party that the Artillery bembardment on the point to be assaulted will coase at 2-15 p.m. but guns will continue to fire on the further Brickstacks. The important point is, the infantry will assault at 2-15 p.m. by the watch. (b) No.2 Company (loss 2 plateons) will by 2 p.m. be in a position in the fire trenches now hold by No.1 Company, where it can move into the position of assembly vacated by No.1 Company when the assaults begins.

  This position will be pointed out by O.C.No.1 Company.

  The other two plateons will be at the railway arch, one of which will be placed under command of O.C.No.3 Company.

- (c) No.5 Company will support the assault with covering fire, and wall fire on any target offering itself during the bombardment. The plateon of No. 2 Company attached to No.3 Company will, as the assault begins, be sent down the CULVENT Road communicating trench to hold it. This party will take tools.
- (d) No.4 Company will move into the supporting trenches via CLD KENT Road so as to be in position by 2 p.m.

  The post at the railway bridge near the EREWERY will remain
- (e) The Machine Gun Section will act in accordance with verbal instructions already given.
- 5. (a) All movements before 2 p.m. must be made with the greatest secrecy possible and all ranks must be impressed with the importance of not showing themselves during the movement.
- (b) When the signal is given to begin the assault by 0.C. No.1 Company, it is of the greatest importance that the whole of the leading ranks should rise together.
- Battalion Headquarters will be established at the embankment in No.3 Company at 1-30 p.m. where all reports are to be cent.

Figure 447 - 3rd Bn. Coldstream Guards operation order (unnumbered) part 1 (WO 95/154/2)

Figure 448 - 3rd Bn. Coldstream Guards operation order (unnumbered) part 2 (WO 95/154/2)

Figure 449 - Cuinchy attack guidance (WO 95/154/2)

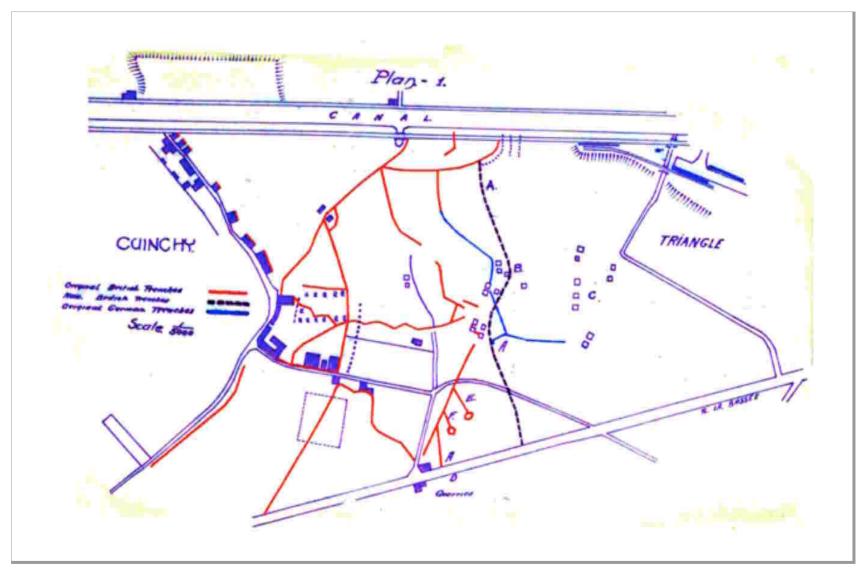


Figure 450 - Cuinchy attack maps 1 (WO 95/154/2)

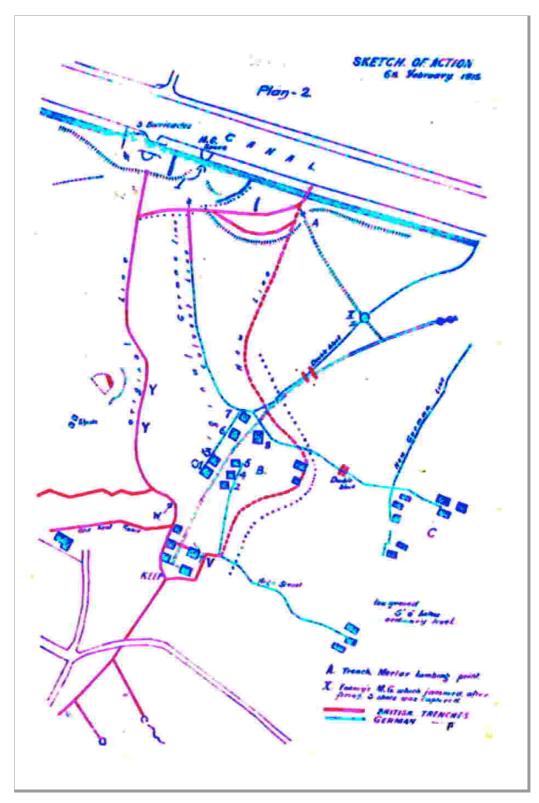


Figure 451 - Cuinchy attack maps 2 (WO 95/154/2)

# G.8 Rawlinson's plan for an attack on Trivelet

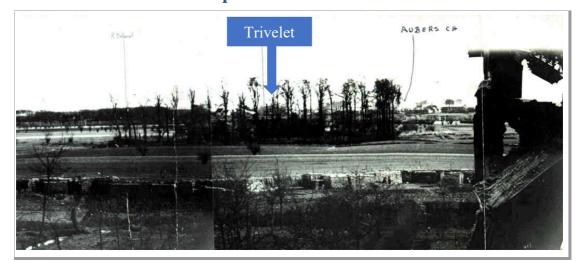


Figure 452 - Photo of Trivelet taken on 3 Mar 1915 from the **house** behind Fauquissart Church, looking from East - by - North to South - by - West (WO 95/1650/2.2)

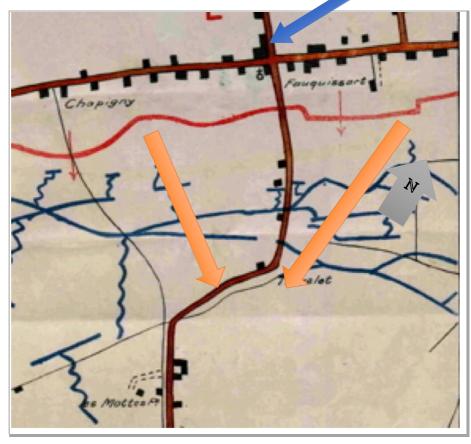


Figure 453 - Map of Fauquissart cross - roads and Trivelet



Figure 454 - Fauquissart crossroads (W0 95/1707/3/2) Note the reflection of the sun on the waterlogged fields

Trivelet is a hamlet a mere 3.2 kms. north-east of Neuve Chapelle. Rawlinson planned a diversionary attack on it. 1495 The plan betrays a number of problems: It is expected to be cascaded down to two divisions, yet it is unclear if both are to be involved and if so how and which was to lead the planning. Fauquissart is misspelled, there was no Appreciation and therefore no assessment of the value of Trivelet, map reference or explanation of what the rest of the 1st Army would do. The right column (section 2) would have to cross 5 German trenches, the left column only 2, if successful the attack would leave

<sup>1495</sup> 

a tiny salient very susceptible to being retaken and an entire division (or two) would have been expended on capturing 5 houses.

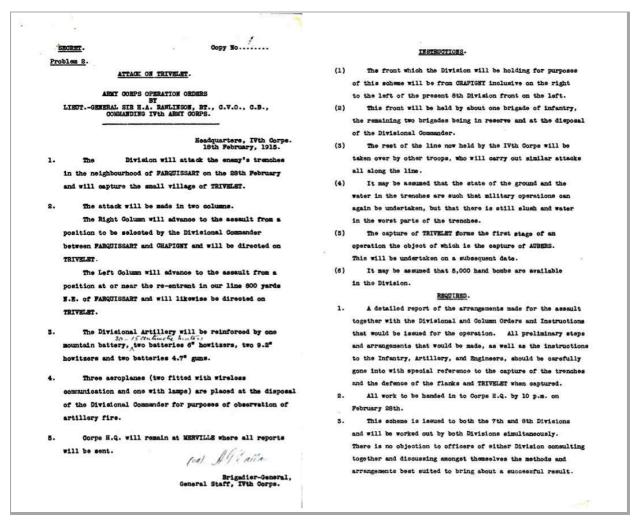


Figure 455 - Pages 1 and 2 of Rawlinson's plan

Beyond Trivelet itself there was one German trench. Had the attack succeeded and had any preparation been included for its continuation towards Aubers, it could have provided the breakthrough for which Haig evidently hoped.

Rawlinson mentioned preparations for Trivelet to Haig on 18 and 24 Feb 1915 and thereafter no more was heard of it.

(18) Wire and bombs, how to carry them forward in sufficient quantities. NOTES on some points to be considered in working out the (14) Men to attack without their kits ? ATTACK on TRIVELET. (15) Construction of Communication trenches back to our own lines. (1) Distinct duty and objective to be assigned to each (16) Covering fire of Infantry and Manhine Guns should be Battalion. 'earefully arranged for by troops not taking part in (2) All Storming Battalions to have bombing and sandbag storming the position. parties with them. (17) Maxims must play an important part in covering fire.-(5) Engineer Corps to carry explosives, sandbags and wire. (4) Batteries to be told off each for a separate and Keep enon, ' heads down during assault,' distinct task. (10) Establish maxims in new line at earliest moment, protected by bombers. Batteries to fire on lines of approach. Heavy 4.7 (19) Aeroplane observation most necessary to direct fire and 6" Batteries to search the enemy's trenches with on to enemy reserves and reinforcements. lyddite where-ever and whenever required. Shraphel (20) Artillery after registering proper target to rate up for counter-attacks. and fire on other targets until the moment for action (6) All Batteries to have triplicate wires to their advanced observers - These wires to be laid across fields and not day roads. The actual selection of a (21) Discovery of Kachine Gume by company officers in the trenches to be marked on the peets photos. sufficient number of good observing stations for the (22) The Mountain Battery will be useful to knock out advanced observers. (7) How to assemble storming batteries and arrange for enemy's machine guns when discovered. Advisability flanks to be protected during the advance. of taking some Mountain Guns in pieces carried on (8) All movements of troops to new positions must be done men's backs with the storming parties. at night with the utmost secrecy. (25 Bombing parties - Regimental and Brigade - how should (9) The closest touch to be maintained between Infantry they be used ? What orders should be given them ? and supporting Artillery. How will an adequate supply of bombs be made available (10) The switching or stop firing of the Artillery to be arranged by time. (24) Food and water for the Storming parties - How will (11) Position of Divisional Healquartone & Brigade Hd.Qrs. they be supplied. (12) A Corps reserve will be retained at ESTAIRES.

Figure 456 - Pages 3 and 4 of Rawlinson's plan