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Historical Section
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BARTHOLOMEW
COMMITTEE.

FINAL REPORT.

(Lessons of Ops. in Holland, 1940)

Notes or Letters written.

SECRET

BARTHOLOMEW COMMITTEE

FINAL REPORT

Historical Section
Offices of the Cabinet

TERMS OF REFERENCE

The terms of reference of the Committee were:-

1. To consider lessons of the recent operations in Flanders which can be applied usefully to our present organization and training.
2. To suggest the modifications in our organization, training and equipment which should be made to meet the problem with which the British Army will be faced in the event of an attempted enemy invasion of this country.

COMPOSITION OF THE COMMITTEE

Chairman General Sir William H. Bartholomew, G.C.B., C.M.G., D.S.O.

Members Major-General C.C. Malden, Director of Military Training.
 Major-General N.M.S. Irwin, D.S.O., M.C.
 Brigadier D.G. Watson, M.C.
 Brigadier W.C. Holden, D.S.O., M.C.

Secretariat Colonel R. Gurney, M.T.L.
 Major G.W.S. Burton
 Captain R.W.M. de Winton.

EVIDENCE

The Committee took evidence from the following officers:-

Lieut.-Gen. W.G. Lindsell, D.S.O., O.B.E., M.C.
 Lieut.-Gen. W.G. Holmes, C.B., D.S.O.
 Lieut.-Gen. Hon. H.R.L.G. Alexander, C.B., C.S.I., D.S.O., M.C.
 Lieut.-Gen. A.F.A.N. Thorne, C.B., C.M.G., D.S.O.
 Maj.-Gen. B.A. Hill, C.B., D.S.O.
 Maj.-Gen. D.G. Johnson, V.C., C.B., D.S.O., M.C.
 Maj.-Gen. H.E. Franklyn, D.S.O., M.C.
 Maj.-Gen. H.G. Martin, D.S.O., O.B.E.
 Maj.-Gen. G. le Q. Martel, D.S.O., M.C.
 Air Vice Marshal C.H.R. Blount, O.B.E., M.C.
 Maj.-Gen. R. Chenevix Trench, O.B.E., M.C.
 Maj.-Gen. F.N. Mason MacFarlane, C.B., M.C.
 Maj.-Gen. V.V. Pope, D.S.O., M.C.
 Brigadier J.G. Halsted, O.B.E., M.C.
 Brigadier C.J.S. King, C.B.E.
 Brigadier G.I. Gartlan, D.S.O., M.C.
 Brigadier C.E. Hudson, V.C., D.S.O., M.C.
 Brigadier D.H. Pratt, D.S.O., M.C.
 Brigadier C.B. Findlay, M.C.
 Brigadier Sir Oliver H. Leese, Bart. D.S.O.
 Brigadier E.H. Barker, D.S.O., M.C.
 Brigadier C.P.W. Perceval, D.S.O.
 Brigadier J.S. Steele, M.C.
 Brigadier C.H. V. Gubbins, M.C.
 Brigadier D.W. Furlong, D.S.O., O.B.E., M.C.
 Colonel E.M. Cowell, C.B.E., D.S.O., T.D.
 Lieut-Col. H. Lumsden, D.S.O., M.C.
 Lieut-Col. L. Bootle-Wilbraham, D.S.O., M.C.
 Lieut-Col. R. Briggs, D.S.O., M.C.
 Lieut-Col. D.A. Stirling.
 Lieut-Col. E.O. Herbert.
 Lieut-Col. T.J.W. Winterton.
 Lieut-Col. L.E. Bourke.
 Comd. A.Tk Regt. 48 Division.
 Bn. Comd. from 4 Division.
 Maj. D.N.W.N. Irvon.
 Maj. T.F.J. Collins.

In addition to the verbal evidence taken the Committee received evidence and opinions in writing from the following:

Maj-Gen. B.L.Montgomery, D.S.O.
 Maj-Gen. H.B.D.Willcox, D.S.O., M.C.
 G.O.C. 61st Division.

PART 1

GENERAL

It must be appreciated that the operations on which this report is based consisted almost entirely of a series of withdrawals which the B.E.F. was compelled to undertake to conform to the movements of Allied forces on our flanks. In spite of the enemy's superiority in materials, on no occasion were we forced to relinquish the main position by a frontal attack against the B.E.F. and, without question, the British soldier is at least as good as the German. In many cases attacks were made on abnormal formations holding extremely large frontages, and yet we kept the enemy back and succeeded in holding him off sufficiently to enable a very large proportion of the force to be evacuated. That this was done in spite of the fact that the main striking force of the German air arm was directed against the B.E.F. is proof, if proof were needed, that given a reasonable fighting chance the British Army may fight with confidence of success.

New and unexpected developments included the dive bombing attack, and a greater number of enemy armoured formations than had been anticipated. The German showed once more that he is a first class soldier and that he fights with the greatest determination, pressing forward through any weak spot or gap in the defences without any regard to the dangers to which his flanks may be exposed. If checked, his organization is such that rapid support from the air, mortars and his infantry guns is very quickly available.

By every means in his power, and often with great ingenuity the enemy has concentrated his means of attack on the morale of his opponents. In the application of his weapons he relies almost as much on terrorization by noise, as on material effect. The loud burst of the shell from his infantry gun was out of all proportion to the casualties it caused, while his dive bombers and the bombs themselves are fitted with noise producing gadgets. Enemy troops on our flanks, and those who succeeded in penetrating our positions appeared to change their positions and use their fire with the object of giving the impression that they were more numerous than they really were. Similar attempts to undermine morale included the dropping of dummy parachutists behind our lines, while ruses, such as passing troops through the lines disguised as refugees were also employed. Every conceivable ruse has been employed, and to counter them we must be active both mentally and physically.

Throughout the campaign the C-in-C was faced with the necessity for maintaining touch with the War Office and co-operating with the Allies on either flank, and the Commander of an Army Group, in addition to being responsible for the executive command of the B.E.F. This constituted a problem of extreme difficulty.

Faced with these problems, and against the methods described, our organization as planned (in many respects units, arms and material authorised were not available) and our tactical conceptions have on the whole stood the test.

Before any reference is made to detail, the Committee wishes to stress what appear to be the following major lessons of the campaign:-

(i) The offensive Spirit. The six months period devoted largely to the preparation of elaborate defensive positions tended to blunt the offensive spirit both of our own troops and of our Allies, although our immediate problem is once more one of defence, and the construction of concrete emplacements and defensive localities, this must not be allowed to prejudice the inculcation of a fiercer, aggressive spirit into their troops by all commanders. The key to success against the German is to hit him and to hit him hard at every opportunity - it is the only means of conducting a successful defence. Moreover the German dislikes being attacked and this may be the weak spot in his armour.

(ii) Discipline. Coupled with this offensive spirit, physical fitness, the ability to 'live hard' (for periods on short rations), and the need for rigid discipline are of paramount importance.

(iii) Air Superiority. Whilst being fully conscious of the magnificent effort of the R.A.F. in the face of great German numerical superiority, the Committee feels that urgent action is required to place co-operation between the two services on a better basis.

(iv) Anti-tank Defence. Against an enemy equipped with Armoured Fighting Vehicles on the scale of the German Army an increased scale of issue of Tanks and Anti-Tank weapons is of the first importance. In addition, all ranks must be taught to adopt aggressive tactics against any tanks which succeed in penetrating our positions; they should be hunted and ambushed by day and stalked and harried by night, relentlessly and tirelessly until they have been destroyed.

PART II

LESSONS

In this part of the report, the more general lessons of the campaign are dealt with, while Part III deals with the detailed application of these lessons in so far as they affect individual arms, organization and equipment.

1. HIGHER ORGANIZATION

(a) The Organization of G.H.Q.

It is considered that the many responsibilities with regard to liaison which fell to the C-in-C greatly increased his difficulties of executive command and it is strongly recommended, should a similar situation arise, that an army headquarters should be formed for executive command of the B.E.F., under G.H.Q.

The need for this, is further stressed by the fact that the G.H.Q. signal organization is not suitable for mobile operations involving frequent changes of headquarters, as G.H.Q. must remain tied to the international underground telephone system in order to maintain touch with our Allies and the War Office.

(b) Corps organization

Divisions were frequently transferred during the battle from one corps to another, and it has been suggested by some that the corps should be regarded as the basic fighting formation. The Committee does not take this view and considers that, while it is always desirable to keep divisions under the commanders and staffs they know, it is wrong to attempt to tie the hands of the higher command by laying too much stress on this point.

2. ORGANIZATION GENERALLY

(a) The Basic Fighting Formation

On the assumption that it will not be possible to restrict frontages, it is obvious that the lower the formation or unit which can be organized and equipped to fight by itself the better. The battalion group has much to commend it, but this would entail the battalion commander having too many subordinates, and would also lead to training difficulties. The brigade therefore seems to be the best to organize as the lowest self-contained fighting formation, in the form of a brigade group, within the division.

The tactical handling of the division should be based on these self-contained groups, which will be normal both for training and fighting. With this decentralization, it will be necessary for both brigade and battalion commanders to work more on their own initiative than in the past, though the principles in F.S.R. II Section 14 remain unaltered. An additional staff officer for operations on Brigade headquarters will be necessary. From the evidence given to the Committee it is very clear that divisions must have their own reconnaissance and protective unit, which, owing to the probability of its encountering enemy armoured reconnaissance units, should itself be armoured - see para (c) below. It also required its own defence against low flying aircraft, specialized troops for anti-tank defence and an addition of some medium artillery. There was also a general demand for an increase in the number of medium M.G.s. This is shown in more detail below:-

NEW ORGANIZATION WITHIN THE DIVISION

DIVISION

The following regrouping changes and additions to the establishment are recommended:-

One M.G. Bn of 5 Coys providing one M.G. Coy to each Bde (Bde Coys need not be "Fully Mobile").
One 6" How Regt
Light A.A. Regt

One "Tank Fighter" Coy as part of anti-tank regiment
Div recce unit

Notes

- (a) One battery of the anti-tank regiment should be given self-propelled mountings.
- (b) An Army tank counter-attack unit should also be included in the division, though it is realized that this must be a long term policy.

BRIGADE GROUP

Three battalions

One battery anti-tank regiment (allotted from div anti-tank regiment)

One company M.Gs (allotted from div M.Gs battalion)

One field regiment

One A.A. platoon of 4 heavy M.Gs e.g. Besa (as an integral part of the Brigade)

Notes

- (a) It is suggested that if they can be made available one troop of four 4.5 Hows should form an integral part of the brigade for close support, as a weapon capable of greater accuracy than the mortar is required for use in the same way as the German infantry gun.
- (b) The anti-tank company commander will remain as the brigade anti-tank officer.

BATTALION

No major alteration except the addition of one platoon of anti-tank guns (three guns) as an integral part of the unit and certain additions of equipment.

Notes

- (a) Personnel for the anti-tank troop will be found from a platoon of the present brigade anti-tank company.
- (b) As soon as possible this troop should be increased from 3 to 4 guns.

(b) Motor Divisions

The motor division as a separate organization should be abolished, as it is an uneconomical use of the M.T. available. The proportion of troop carrying companies should be not less than one per division, though companies should not be permanently allotted to specific divisions.

(c) Recce Groups and Divisional Recce Unit

It was evident that reconnaissance groups capable of independent action were necessary, and that such groups could not be permanently responsible for the protective and reconnaissance tasks required by divisions. From the evidence given to the Committee it is very clear that divisions must have their own reconnaissance and protective unit, and that owing to the probability of its encountering enemy armoured reconnaissance units it should itself be armoured. The existing divisional cavalry regiments should be grouped as Army Armoured Reconnaissance Brigades and, until such time as a Divisional Armoured Reconnaissance Unit can be provided, it is recommended that Divisions should be given a motor cycle battalion as their own reconnaissance unit.

1. EXPERIENCE

- (a) Such experience as we have consists mainly of rearguard actions. We have no experience of a prolonged defensive battle from which we can draw conclusions. Practically all the positions taken up by the B.E.F. were developed behind a water line. Whether this is always the best obstacle on which to base a defensive position is debatable, but it seems to be quite clear that where speed is necessary, where it is essential to impose immediate delay on the enemy and particularly on his A.F.Vs, and where any immediate offensive by our own troops for the time being is unlikely, the water obstacle is probably the best that can be found. Such an obstacle has, however, serious disadvantages. A river is liable to be overlooked by hills, and trenches covering the river are easily located by the enemy observation posts unless they are very carefully concealed. The water line may be a canal, the banks of which are raised above the level of the surrounding country, in which case the defence of the bank itself is a matter of considerable difficulty, as there is dead ground on the enemy side which cannot be overlooked, except possibly from a flank. Moreover the occupation of a water line, the bridges of which have been destroyed, denies to the defender any opportunities of offensive ~~action~~ except by fire, and makes it more difficult for them to patrol and find out what the enemy is doing. An additional disadvantage is that the water line frequently lengthens the ~~frontage~~ ^{frontage} to be held. On the other hand provided the bridges are blown and provided the obstacle is kept under fire and under observation a water line is probably a more difficult obstacle for the A.F.Vs to cross than any other. On the whole, therefore, it seems right to conclude that at any rate in withdrawal and in a rapidly organised defensive position the occupation of a water line is sound. This does not mean that, in the organisation of a defensive position for occupation over a long period, the front line should necessarily be a water obstacle. It might well be possible to use the water line as an obstacle covering the divisional reserve line whilst the forward defended localities are based on a continuous chain of natural and artificial tank obstacles. It is quite clear, however, that, no matter what the degree of organisation may be, it is essential to ensure that the forward line is covered by an obstacle or obstacles of sorts, that there is an occupied stop line somewhere in rear and that so far as possible the position is concealed and difficult to reconnoitre. As a matter of interest it is understood that the Germans contemplate the occupation of a position with their main obstacle covered by forward troops in a forward zone as well as by outposts.

Our comments at this stage apply to the defence of a water line though probably many of the lessons can be applied to the defence of a position covered by an obstacle other than water.

- (b) In considering enemy methods of attack which must influence our defensive tactics, we must remember that the Germans are extremely quick in gaining contact, and very pertinacious in maintaining it once gained. During the withdrawal from the River Dyle, their reconnaissance troops were very quickly in touch with us on each new position, and their snipers and mortars came rapidly into action. In addition, carrier planes often brought up reinforcements of infantry almost as soon as our positions had been located. The enemy had almost complete air superiority throughout the operations which enabled them to bring artillery fire to bear on all our positions very quickly and entirely prevented any reconnaissance, either tactical or artillery, by our own machines. This hampered all our operations from the very commencement. The German method of preparation for attack consists of rapid reconnaissance, which taps along the front line until a weak spot or gap is found. As soon as such a spot is located the crossing of the obstacle is effected and a small bridgehead made. This bridgehead is subsequently widened and a tank bridge speedily installed over which the tanks cross. Once ~~such~~ a crossing is made the bridgehead is widened to allow the passage of more and more troops. If a weak spot is not found as a result of the initial reconnaissance, a concentration

of gun and mortar fire, or dive bombing, is put down behind which a crossing is forced. The ensuing action is in both cases the same.

Subsequent to the forming of the bridgeheads, which may happen at one or more places, the Germans, by using infiltration methods and with a complete disregard for open flanks, attempt to push their mobile troops through, if necessary on a narrow front. The axis of such an advance will sooner or later be one of the roads leading back through our position.

It was proved in all our actions that the German does not like being counter-attacked and that rapid retaliation will frequently force him to withdraw or to try to penetrate somewhere else. The lessons that we can draw from this are that we must endeavour, if we can, to prevent him crossing the obstacle by good reconnaissance and by well placed fire; that any concentration which may presage a crossing must be at once engaged by fire and that any bridgehead or footing that the enemy may obtain on our own side of the line must be immediately counter-attacked with vigour. In addition the position must have depth, and localities must be capable of holding out though isolated, and must on no account withdraw because they are outflanked, or even surrounded.

- (c) As regards the general system of the layout of a defensive position the teaching of our manuals is correct, but the doctrine laid down in our pamphlets must be modified to suit the very wide fronts which were imposed upon us, and which are likely to become normal in future.

2. OCCUPATION OF A DEFENSIVE POSITION

In taking up a defensive position it is essential that reconnaissance and organization should be carried out quickly. Sufficient time, however, must be taken to ensure that the initial dispositions are sound and that the troops are given the best chance of doing themselves justice. As soon as possible a good system of observation must be established, combined with a really efficient sniping organization. Any enemy seen must be shot at and all movement must be made dangerous and difficult. Two sniper rifles per battalion are not enough and should be increased to the original eight, while in addition, the need for good rifle shots to combat the enemy's infiltration tactics was apparent.

F.D.Ls must be sited so that the whole obstacle is covered by fire; this is particularly applicable to a water line. Other posts in rear must be mutually supporting. The rear platoons of forward companies must be sited so that they can support the F.D.Ls by fire and counter-attack immediately to regain the forward lines.

Behind the front the defence must be organized in depth in a series of localities containing infantry, anti-tank guns and M.Gs.

Obvious trenches under enemy observation are useless and will be rendered untenable by mortar and gun fire. Trenches must be sited and dug to ensure the maximum concealment, and there must be plenty of alternative positions. Narrow slit trenches with a low parapet are probably the best type of trench until the position is developed.

Villages and woods are good anti-tank obstacles, but if they are occupied due consideration must be given to the fact that they are liable to be subjected to dive bombing attacks in which case well concealed slit trench positions outside the localities may be preferable.

3. ANTI-TANK LAYOUT

The greatest effect against enemy tanks will be obtained when they have been divorced from their supporting troops. Great depth in the anti-tank defence is therefore required. Guns should not be placed too far forward to cover positions already covered by obstacles against direct attack. Further, where the obstacle is a water line there is no necessity to place guns in forward localities because the obstacle acts as protection. Guns should be sited inside infantry localities, should be defiladed from the front and should engage tanks by surprise and in enfilade. The maximum use of natural cover must be made to obtain concealment both from view and fire.

In order to save time the initial layout of all anti-tank defences must be made by the Infantry Brigadier in each Brigade Sector, the Commander of the Infantry Brigade company co-ordinating the siting of guns and mines.

Subsequently the layout should be co-ordinated by the Commander of the anti-tank regiment in accordance with the Divisional Commander's orders.

It is clear that the Anti-Tank Regimental Commander must act as the adviser to the Divisional Commander in all anti-tank defence and not merely on the distribution and allotment of the guns. The Infantry Brigade Company Commander must act in the same capacity to his Brigadier, since the location of guns and mines and development of natural obstacles are all one problem.

4. MEDIUM MACHINE GUNS

As it is essential to ensure that the line of defended localities is held, as much fire as possible should be brought down in front of and between them. Some M.M.Gs must therefore be sited for this purpose. Other guns must be sited well back to protect rear areas and the divisional reserve line. Isolated sections will quickly be overrun and guns must therefore be sited inside the infantry localities. The closest touch must be maintained between M.M.Gs and the infantry units and sub-units in whose areas they are operating.

5. CARRIER PLATOON.

The Carrier Platoon provides the Battalion Commander with a reserve of fire power and the means with which to carry out a counter-attack both by direct action and by infiltration methods. They should therefore be sited well back in the battalion area so as to be available for any task required of them. They proved of immense value in every role, mounted, dismounted, or even when driven across the front without firing to frighten the enemy infantry.

6. MORTARS

Mortars in the battalion are insufficient and the number should be increased. They are invaluable for bringing fire rapidly to bear on enemy reconnaissance parties or on possible assembly areas etc. They may therefore be sited well forward. They require a means of communication between the O.P. and the detachment.

7. DEFENSIVE FIRE.

On wide fronts the organization of S.O.S. lines or defensive fire is difficult, and entails the registration of a number of alternative targets. The wider the front, the more flexible must be the plan for artillery support and the more must it rely on observed fire.

Speed in organization of defensive fire is essential and battalion and battery commanders should fix provisional defensive fire tasks quickly and get them registered. Adjustments and co-ordination can follow. The main principle is that guns should be in action and ready to shoot as soon as possible. For quick action armoured O.Ps are invaluable but it is open to question whether, owing to enemy D.F. methods, those can be used after the first 24 hours, without change of position. Owing to the shortage of gunner officers and ^{as} the number of O.Ps which can be manned is limited, O.Ps must be known to infantry officers so that they can point out targets to the gunner officers. If they cannot be pointed out, a map spotting must be given together with information as to the position of the nearest troops to the target.

8. CONCLUSIONS.

- (a) It is absolutely essential that all troops should be thoroughly imbued with the principle that it is their job to hold their positions whether they are outflanked or surrounded. Troops should make full use of alternative positions to avoid mortar and shell fire, and by constant shift of position they should try to keep the enemy guessing as to which position they are in fact occupying.

- (b) It must also be constantly and persistently rubbed into all ranks that in the defence they must be as aggressive as possible, that they must seize every opportunity of killing enemy, or attacking and exterminating parties infiltrating into their position.

The determination to hold on and to be aggressive depends largely on a high esprit de corps, but more particularly on a very high standard of leadership on the part of officers, W.Os and N.C.Os. These are points which require immediate attention, and no opportunity should be missed, in training, to instil into everybody that on their grim determination and on their resourcefulness may depend the success or failure of the defence in their part of the line.

- (c) It was apparent in the operations under consideration that many officers and men did not appreciate the extreme value of cunning and a high sense of the importance of not giving the enemy a target. All ranks must learn to avoid being observed so as to keep down the casualties which will be incurred from careless exposure.
- (d) Finally it cannot be too continuously emphasised that it is the duty of all commanders from the most senior downwards to impress on their subordinates that surprise and the use of the unexpected is just as important in defence as in attack.

4. DEFENCE AGAINST TANKS

The need of the moment is to counter-balance the shortage of tanks and anti-tank guns. The Committee have come to the following conclusions with regard to defence against tanks generally:-

- (a) The value of tank obstacles

With an enterprising enemy such as the Germans, the value of rivers, canals, woods, villages, and other natural obstacles can be over-estimated - this may well apply to the sea and no obstacle must be regarded as proof against tanks.

- (b) Tank hunting units

The offensive spirit in dealing with tanks should be instilled into all ranks and the creation of special tank hunting forces should be undertaken on the precedent of the Spanish Civil War. Their task would be to hunt, harry and ambush tanks which may have broken through, and to attack them by night in their "harbours" by dynamite, petrol bombs and other devices. An aggressive type of defence against any tanks which succeed in getting inside or behind our defensive system is essential.

- (c) Anti-tank mines

As anti-tank mines are often required at short notice, the first echelon of mines together with their vehicles, now with the Field Park company, should be transferred to the brigade transport.

- (d) Anti-tank weapons

The anti-tank defence within the division requires strengthening so far as weapons are available. Anti-tank guns should be included in the battalion and brigade. A proportion of the anti-tank guns in the division should be on armoured and on self-propelled mountings. All anti-tank guns should have an improved shield giving greater protection. The need for a tractor giving better protection against S.A.A. was very evident. It should be noted, however, that the 2-pr. anti-tank gun and the anti-tank rifle fully justified their introduction into the service. Even in the case of heavily armoured vehicles the anti-tank rifle was found to be effective against their tracks,

although the sight of the tracer cap flying off may have given rise to the belief that the bullet itself had ricocheted harmlessly. The importance of aiming at the tracks should therefore be stressed. Now that the Germans can obtain exact details of the powers of penetration of our present weapons it must be assumed that they will increase armour accordingly. We should therefore hasten the production of the 6-pr. anti-tank gun.

(e) Organization of anti-tank defence

Except in a very deliberate defence, the initial anti-tank measures of all kinds should be the responsibility of brigade commanders. Subsequently, the anti-tank defence by all means available should be co-ordinated by the O.C. A/Tk regiment under orders of the divisional commander.

5. DEFENCE AGAINST AIR ATTACK

The Committee came to the following conclusions:-

(a) Effect of air attack on roads

Despite the extreme unpleasantness and temporary delays caused by air attack on the movement of columns along roads, air attacks alone cannot prevent such movement taking place.

(b) Effect of air attack on railways

The delays caused by air attack on railway junctions, marshalling yards and other centres were often of a temporary nature only, as a diversion could soon be arranged. Damage to running lines at awkward spots, and at a distance from the repair facilities of railway centres, caused more lasting delays.

(c) Effect of dive bombing

Though dive bombing is effective against material targets and has considerable moral effect against inexperienced troops, the casualties inflicted on personnel are surprisingly small.

(d) Active defence against air attack

Fighters are undoubtedly the best protection, but all forms of A.A. armament have proved their efficiency. The allotment of A.A. artillery, both heavy and light, which could be made to the B.E.F. was inadequate for the task. The need for more A.A. fire in the forward areas was very strongly felt.

(e) A.A. small arms fire

Small arms fire is effective both for bringing down aircraft and for reducing the morale of the enemy pilot, but its greatest value by far is the "kick" it gives to the firer. The value of small arms A.A. fire must therefore be stressed and all troops should be trained to engage low flying aircraft with every available weapon - not, however, at too great a height.

Our present teaching that A.A. S.A. fire should be controlled under the platoon commanders orders is not practicable in present conditions; men should be trained to fire individually.

(f) Passive defence against air attack

The slit trench is the best means of passive defence and all troops should be trained to dig in immediately on every occasion. Careless exposure and casual movement were too prevalent until troops had learnt their dangers by experience. Rigid air defence discipline must therefore be enforced. If the men are below ground, they have little to fear. There is a mass of evidence to show that bombs bursting only 5 yards away have had practically no effect.

Everyone must be taught not to fear bombing. If men protect themselves by digging and take offensive action by fire, anger and ridicule will become the overriding emotions - not fear.

6. EMPLOYMENT OF AIR RESOURCES

(a) General

The B.E.F. met with slight air opposition in its advance to the Dyle. In its withdrawal to the ESCAUT, opposition increased and, later, in the attack on its flank and rear by enemy armoured formations, and in its subsequent withdrawal to the coast and embarkation - as was learnt from an intercepted message - the whole effort of the German Air Force was directed against it.

(b) Lessons

The outstanding features of the German air action and the lessons learnt were:-

- (i) The concentration of the maximum air effort to assist in achieving the immediate object in view. There were abundant examples of this. The concentration on the Belgians and the advanced French cavalry formations in the early days. The support of the break-through on our right. The concentration on our rear and flank as the armoured attack developed in that area. The concentration on our roads at the time of the withdrawal to the coast and finally the concentration on the points of embarkation. At such times attacks at other points were slight and it was almost possible to deduce from the air action alone, the enemy's intention for the day. Apparently at no time during the period when the defeat of the Allied armies in the north was the aim of the German High Command were there any serious diversions of the aircraft against strategical objectives.
- (ii) The close co-operation between the enemy's army and air forces. There is little doubt that the policy of equipment, organization and training of the enemy has been directed to this end. Air action, both in time and place was always intimately connected with the tactical situation on the ground. Even in the case of "impromptu" attack it was seldom more than 25 minutes before the call was answered. This indicated not only good organization and communications for the purpose, but the siting of many of their landing grounds close up behind their advanced troops. Efforts should at once be made to simplify and improve our own intercommunication between ground and air for ^{similar} purposes. Another example of the close co-operation which existed was the many instances in which troops were ferried across the demolished zones by troop carriers to land in fields close to our forward localities almost immediately after contact on the ground was made.
- (iii) The outstanding value of air attack as "supporting fire" to cover the assault of armoured and, at times, infantry formations. According to the reports from formations concerned, it was this feature which contributed to the successful "break-through" against the French on our right more than any other factor. Although this "close tactical bombing", which is carried out by dive bombers with both M.Gs and bombs, is a form of artillery "preparation", it can be carried out under circumstances of time and place when effective artillery fire would not be possible. It is accurate and has the great advantage of placing the fire to conform with the observed movements of the assaulting troops - an extremely difficult, if not impossible problem for the artillery observer in a ground O.P.

- (c) It is imperative to ensure forthwith that a system comparable to that of the Germans should be introduced into our Army and Air Force. Even the brigade group must be able to call up immediate support by wireless, a process which ought to be easier in the defence than in the attack.

(d) Use of aircraft for intercommunication

The enemy used aircraft for the control of his armoured divisions to the fullest extent, and even carried unit commanders. It is recommended that we should study this development in the control of our own formations. In the meantime the aircraft employed by the Germans for this purpose are easily recognisable and when seen should be attacked with the greatest vigour.

(e) General effect on morale

The magnificent work done by the R.A.F. in the face of German numerical superiority, is appreciated by all. The Committee, would, however, like to point out that by the nature of things, neither the actual bombing carried out by the R.A.F. in support of the B.E.F. nor its effect was seen by the man in the field. All day he saw swarms of enemy bombers escorted by fighters and suffered from their attack. Occasionally he saw or heard above the clouds an attack by our fighters. Unlike the German soldier, he had never seen aircraft closely co-operating with him to defeat his own particular enemy opposite to him. All this had a very definite effect on morale and gave the impression that the enemy superiority was complete and that our own air force hardly existed. Radio news reports that the Ruhr and Hamburg had been bombed were cold comfort. There are three steps which can be taken to put matters right.

First, as a matter of training, all ranks must be taught how the R.A.F. work, where fighters patrol, and get their greatest successes, the localities and nature of the targets bombed and the effect on the battle in which the soldier is taking part etc., Suitable lectures by good lecturers are needed together with study and demonstration during exercises.

Secondly, early provision should be made of suitable close support aircraft together with the developments of organization and training to use them.

Thirdly, until such aircraft are available, the R.A.F. must "show the flag" to the troops in the forward areas - even at the expense of other tasks - by carrying out some bombing with existing machines in sight of our lines.

(f) Reconnaissance

As decided before the advance, tactical reconnaissance under corps took the form of "tip and run" sorties at the times when fighter "sweeps" were taking place. It produced good results up to about the fifth day, after which the German fighter concentration made reconnaissances of any kind by Lysanders impossible. Corps reconnaissance then virtually ceased. The "tip and run" sortie could probably have been continued throughout the operations if suitable fast aircraft had been available. Whether we shall ever be able to return to the deliberate type of reconnaissance with a comparatively slow machine is doubtful. Escorts of fighters may enable it to be done. It should be noted in this connection that the Germans with their great superiority in the air, were able to keep artillery machines, of similar type to the Lysander, almost constantly over the front, to the great discomfort of our forward troops.

7. COMMAND AND CONTROL

(a) "Ad hoc" formations

As far as possible control must be exercised through normal existing headquarters, and only in exceptional cases should "ad hoc" formations be created. Co-ordination of the operations of such forces is extremely difficult and they have not the necessary means for control or administration.

It is appreciated that in certain circumstances the creation of "ad hoc" formations is necessary. The operations did however emphasise the difficulties which ensue, through lack of adequate means for control and administration.

(b) Size of Headquarters

Headquarters of all formations have gradually been increased. This is mainly due to attached personnel, most of whom must be shed when mobile operations begin. In view of air attack it is generally necessary to divide headquarters during operations into a command post and a rear organization.

(c) Confirmation of orders

Orders issued by higher formations often took the form of conferences and verbal orders which were not confirmed. As some people affected by the orders were not present, they received no orders or information on essential matters.

(d) Value of motor contact officers

There is complete unanimity among all witnesses that the motor contact officers have proved invaluable, and an increased scale as follows is desirable. It is understood that steps have already been taken to this end and the Committee regard this provision an urgent matter.

Scale	Corps	6
	Division	4
	Brigade	3

(e) Mobility of commanders

There is a definite need for some carriers, scout cars or motor cycles with pillions in lower formations and unit H.Qs for use during the battle. This will allow some reduction in the scale of motor cars with headquarters.

(f) Intercommunication

(i) Wireless

The B.E.F. did not make the best use of wireless. The Germans, on the other hand, appeared to use wireless to the maximum extent and mostly "in clear". We had no difficulty in intercepting information but there was so much that it was rarely possible to extract items in time to take action on them. Approval was given in the B.E.F. to break wireless silence on crossing the frontier and our failure to make full use of it was due to:-

- (a) lack of training and practice in view of restrictions during the static period;
- (b) the ingrained habit of wireless silence during this period;
- (c) the fear of D.F.

It is recommended that a greater use of wireless should be made at all times, that restriction should be reduced to a minimum, and that once operations are joined, the maximum use of wireless should be made. Certain precautions are, however, necessary to counter the enemy's D.F. organization which is most efficient; these will include the use of remote control, and periodical moves of wireless sets, which should be dug in, particularly after contact has been made for more than 24 hours and the enemy D.F. organization is well established.

(ii) Codes

Ciphers were for many purposes too slow to be used inside and forward of corps areas. Simple improvised word codes for place names and numbers and phrases (e.g. advance, zero hour, relieve) were used and

proved to be of value. The use of these codes should receive official approval, as an alternative to the more cumbersome use of cipher.

(iii) Light Signals

Neither the scale of issue nor the quality of the signal is adequate. It is recommended that the allotment of very pistols should be increased to 1 per section, together with a generous scale of lights. A good system of light signals for use as an S.O.S. is an urgent necessity.

8. QUESTIONS OF ADMINISTRATION

The Committee wish to call attention to the following points:-

(a) Administration generally

General Lindsell reported that administrative plans were prepared in the greatest detail to deal with every eventuality which could be foreseen. In the light of experience he expressed the opinion that broader instructions in the form of directives, leaving details to be worked out by Corps, would have been preferable.

(b) Railheads

The problem of supply in the field hinges on railheads. It was realised that the most obvious places for selection as railheads, by reason of the facilities available, would be immediate targets for aerial bombardment. In view of this, railheads were established at minor stations, where the facilities we have been trained to expect for operations of this scale were not available, and were constantly moved. In spite of these restrictions the supply system worked satisfactorily, which suggests that our desiderata are too academic.

(c) Refugees

The refugee problem plays a very important part in an operation of this type. The only really satisfactory course is to forbid all movement, except for key men, who must be got away early. From the experience of Flanders (a short resume is attached at Appendix A), the following lessons have emerged:-

- (i) A pre-arranged refugee scheme is essential and controlling forces must be placed in position before the main flood of refugees starts.
- (ii) Use of sideroads etc. requires many more men for control than allowing flow along a natural artery, and in addition by-roads are more easily blocked.
- (iii) Force must be used to immobilise vehicles. Without it vehicles will move on again at the slightest opportunity. Removal of distributor parts from cars and harness from horses are the easier methods.
- (iv) Uncontrolled evacuation leads not merely to traffic jams but to dislocation of local services (light, water, sanitation, hospital, etc).
- (v) Refugee streams once started must be allowed to flow. To attempt to stem the tide involves an inevitable block.
- (vi) Refugees must be persuaded to leave parked vehicles if they are to avoid heavy casualties. In one day on a refugee road in Belgium the killed in four parks were 12, 5, 15, 7.

(d) Maintenance

Once the Abbeville line had been cut, the army depended on a 7 days supply of requirements which had been dumped north of the Somme. From the evidence given by G.H.Q. "Q" staff it is considered that dumping should be reduced to the minimum, reserves being held as far as possible in the en cas mobile trains.

(e) Transport

- (i) L of C railways companies using 10-ton lorries were found to be too heavy for en cas mobile road convoys.
- (ii) The size of the tail of a corps and the number of transport vehicles tied up in it was a matter of considerable comment. The vehicles available as reserves in the hands of G.H.Q. were always inadequate for the large unforeseen demands they had to meet. Although no concrete proposals were put forward it is considered that the whole question merits consideration by an expert committee. The lines on which economies might be effected are:-

The removal from Corps of all unnecessary or "luxury" units and units such as mobile ordnance workshops which might well be army units on a less mobile basis.

The reduction of scales of reserves, ammunition, petrol, specialized equipment and tools.

The carriage of reserves, when required, by vehicles from a pool instead of having vehicles "tied up" for specific purposes.

(f) Movement Control

This whole subject should be studied in greater detail than was possible by this Committee. From the evidence already taken, the procedure developed in peace appears to have worked satisfactorily. In the case of the control of movement in the rear areas (i.e. behind divisions) it is desirable to have some specially trained organization on the lines of the French R.R., the use of troops even in the divisional areas is wasteful of fighting material.

(g) Troop Carrying Companies

During operations it was sometimes found difficult to find troop carrying companies for the issue of fresh instructions. Wireless sets should be provided for headquarters of troop carrying companies for communication with the formation to which it has been allotted.

PART III1. GENERAL

Part III of the report is intended to supplement the broader principles outlined in Part II. Recommendations are submitted only on those points which have been covered by the evidence taken in Committee. It is appreciated that further and more detailed suggestions will be forthcoming from other committees which have taken evidence on their own arm of the service.

In the case of the Armoured Car Regiment and the A.A. artillery our report is based on the evidence of an individual officer. The committee is in general agreement with the views expressed, but wishes to make no comment on the technical issues.

2. ROYAL ARMoured CORPSA. Armoured car regiment

Opinion was unanimous that the armoured car regiment with wheeled vehicles able to cover long distances with little maintenance was invaluable.

The present organization, as a whole, is considered suitable but the number of troops in a squadron should be increased from three to five.

Certain increases in, and modifications to, the equipment of the armoured car regiment are required:-

- (i) A 4-man vehicle is essential for reconnaissance purposes.
- (ii) Vehicles must have a four-wheeled drive.
- (iii) Wireless sets should have the power of a No.9. set.
- (iv) Every vehicle must have some form of anti-tank gun - preferably a 2-pdr, or at least a .8 M.G., and must be proof against A.P. S.A.A.

Operational and training

The attachment of one truck load of Engineers to each squadron proved most valuable. While some engineers should always train with armoured car regiments, they should not be an integral part of the regiment. At night the regiment was always withdrawn to the rear to link up with its maintenance services. It is suggested that we should train to the German system, whereby armoured vehicles "laager" where they end up at nightfall, and the maintenance services are sent up to them - in spite of certain obvious risks.

B. Divisional Cavalry Regiments.

Their general organization has already been dealt with in Part I. If retained, the following reorganization within the regiment is recommended:-

- (i) Being a reconnaissance unit, it is essential it should have its own rear link wireless and anchor set.
- (ii) 12 scout or armoured cars are required in R.H.Q. The need for some wheeled vehicle in this regiment is strongly felt.
- (iii) All tanks should be cruiser tanks, preferably heavy cruisers, armed with 2-pdr guns.

3: ARTILLERY

(A Committee under the Inspector of Artillery is sitting at Larkhill)

A. Field artillery

It is the consensus of opinion that the field regiment should be reorganized into three batteries of two troops of four guns. The four gun troop is considered to be a very good fighting unit. Whatever establishment is adopted the number of officers appears to be too small, and it is suggested that it should be increased to 11 officers per 8 gun battery. Suggested increases in equipment are given below:-

- (i) Armoured O.P.'s should be increased from two to six at the scale of one per troop.
- (ii) Transport All officers should have a motor cycle with pillion. A compensating decrease can be made in the number of cars.

B. Medium artillery

As stated in Part II, the 6" How, the range of which is too short for counter battery, should be an integral part of the divisional artillery.

C. Anti-tank artillery

- (i) The detailed distribution of anti-tank guns within the division has already been suggested in Part II.
- (ii) At present there is no anti-tank artillery in the corps for the protection of the corps administrative area. To avoid divisional anti-tank artillery being taken away for this purpose, it is suggested that a corps anti-tank regiment should be provided as soon as guns are available.
- (iii) The following changes in personnel and equipment are recommended:-

It is essential that all troops should be commanded by Officers.
 Addition of one regimental transport officer.
 Increase of gun crew from 5 to 6, exclusive driver, to enable the Bren gun to be manned at the same time.
 Cooking facilities to be on a gun basis.
 Provision of scout car for the battery commander.
 Provision of motor cycle with pillion for the battery captain.

D. A.A. Artillery

- (i) Training
Heavy A.A.

Certain faults in fire control were noted and the necessity for correcting them in training should be stressed. Fire effect appeared to be generally speaking low and behind. 400 feet should therefore be added to the predicted height. Fire was wasted on single aircraft. It should be limited to the initial burst of eight rounds, as avoiding action by the aircraft will render further bursts uneconomical. On the other hand, against mass formations of aircraft a barrage should be maintained against the leader of the first echelon, on the principle that the following waves will fly into it. Generally speaking the 3" was more suitable than the 3.7" for mobile operations.

Light A.A.

Guns should not as a rule engage single reconnaissance machines. By so doing they call attention to the fact that there is something in the area worth protecting. Fire should not be opened until the enemy is within 1000 yards (ground range). Within this range the fire of the Bofors has proved very effective.

(ii) Meteor

Poor meteor was responsible for much inaccuracy. The establishment should be increased by two men per regiment, one meteor expert and one orderly.

(iii) Motor cyclists

It was suggested that the motor cyclists of a Light A.A. regiment should be increased as follows:-

Regimental H.Q.	4.
Battery	3.
Troop	2.

(The Committee are not in full agreement on this measure).

(iv) Kerrison Predictor

It is considered that this predictor is not required in the forward areas.

4. R.E.(a) Organization field companies

In spite of the frequent need to decentralise and the variety of tasks which a field company has to perform, the Committee is of the opinion that the present organization of a field company is adequate. The equipment on the other hand, carried by the company can be drastically reduced for mobile operations. At present every possible requirement is held. Most of the tools are never used and it is suggested that the G.1098 should be divided into two parts:-

- (i) Equipment required for mobile operations
- (ii) Equipment required for static warfare.

The latter category should be kept at the engineer dump.

(b) Bridging

Our whole bridging policy is too complicated and wants overhauling. It is recommended that there should be nothing between a rubber boat and kapok and an all-purpose bridge capable of taking a tank.

It has been suggested that the bridge company is too large, unwieldy and difficult to hide. It should be split up into sections, one for each division. While this may be practicable, if an all-purpose bridge is adopted, it is realised that with our shortage of equipment it would probably be uneconomical to do this.

(c) Explosives

The shortage of weather-proof explosive - i.e. plastic was acute.

(d) Motor Cycles

There is a demand for more motor cycles in a field company and it is suggested that the numbers should be increased by 30%.

5. SIGNALS(a) Higher Formations

It was agreed that on the whole in front of Corps the teaching of the Training Manuals was sound, and the equipment satisfactory for both mobile and static warfare.

Behind Corps it was not so satisfactory. Light Armoured cable and Ultra low frequency wireless is required. The signal organization of G.H.Q. wants reconsideration with a view to increasing its mobility.

(b) Cable

The present line laying vehicle has poor cross country performance with the result that line is laid alongside roads and is cut by saboteurs or shell fire. If production allows, it is suggested that there should be a tracked line laying vehicle - especially for the Artillery.

(c) Wireless

Wireless below Corps should be simplified. The No.3 set is too cumbersome, and its abolition would allow the replacement of a 3 ton lorry by a 30 cwt truck.

6. INFANTRY

It was agreed that with minor modifications in organization and increases in equipment, the battalion could be made into a more efficient fighting unit. These changes are small and within the range of our present resources.

(a) Riflemen

In mobile warfare the need for good rifle shots is more apparent than ever, to combat the infiltration tactics of the Germans. Snipers proved invaluable but there must be at least eight Sniper rifles in a battalion.

(b) Anti-Tank guns

As stated in Part II the Committee are convinced that the battalion must have some anti-tank gun protection of its own. A new platoon of three (to be increased later to four) 2-pr guns should be formed in the headquarter company. The personnel can be found from a platoon of the present brigade anti-tank company.

(c) 3-inch Mortars

The present scale of two mortars should be increased to six. At the same time means of communication must be provided, between the mortar and its O.P. by the addition of telephone and a short length of cable.

(d) 2-inch Mortars

There was no evidence as to the value of this weapon, because little or no H.E. was available. Most witnesses, however, agreed that it was well worth retaining on the assumption that H.E. was provided in the proportion of 75% H.E. to 25% smoke. It was felt that any weapon which would give the platoon its own intimate support was of value.

(c) Carriers

The carrier was a great success even when used in an assault role, for which it was never intended. There was a general demand for increased numbers by all arms, and for many purposes. It is recommended that the carrier platoon should be increased by four carriers, including one to be used by the commanding officer for command purposes and that an A.T. rifle should be provided for every carrier and a pad fitted to enable fire to be directed backwards.

The following improvements are recommended, provided they do not prejudice the rate of production.

- (i) Armour should be raised by two to three inches especially at the back.
- (ii) Each carrier should carry smoke grenades or some other means of smoke production; a 2" mortar might be suitable.
- (iii) An A.A. mounting is required.

Every battalion commander recommended the provision of two D.R.'s for the carrier platoon.

(f) A.A. L.H.G.'s

It is considered that the single Bren in an A.A. role produces too small a cone of fire, and that twin mounted guns should be introduced. While the difficulties of production may preclude it, it is recommended that the Bren - used solely in an A.A. role as in the A.A. Platoon of Battalions - should be superseded by a more powerful weapon such as a heavy Besa.

The present allotment of one truck per gun in the A.A. platoon is wasteful. Lastly, as all the new types of B vehicles have an enclosed cab it is suggested that the Scarfe ring should be fitted in place of the Motley mounting.

(g) Tommy guns

These should be issued on the scale of one per section, carrier and group of five transport vehicles.

(h) Pioneers

The pioneer platoon proved its value, but it requires an increase in some items of equipment e.g. cold chisels and crowbars.

(i) Entrenching Tool

The light entrenching tool was a success and should be carried in the platoon truck until contact is made. The existing tools (picks and shovels) will still be required.

APPENDIX APART II

Report by Lt.-Col. E.O. Herbert

NARRATIVE

By J day the situation was briefly that:--

- (a) The B.E.F. had selected and notified to the Belgian authorities a main arterial road west from BRUSSELS with the intention of feeding minor refugee columns into this artery. The artery was, incidentally, also an "up" route for troops.
- (b) The French had refused to permit these refugees to be passed into France except at some later and unspecified date by train.
- (c) The Belgians had no refugee plan and said there would be no refugees. The French had an elaborate plan, but it was not clear when it would be put into operation.

The Command Post A officer went immediately to BRUSSELS arriving at J - 1½ hours. After not unexpected delays and with the aid of the British Embassy, arrangements were made for some assistance to be afforded by the Brussels authorities. During the whole of the advance refugees were NOT a vital factor in hindering the B.E.F., with the exception of one night in the BIVINOVE - BRUSSELS road where there was a stoppage for about 3 hours. This stoppage was in fact caused more by refugee Belgian troops than civilians. Approximately two battalions of infantry were made available by Corps to control refugees during this period and with their assistance refugee traffic was immobilized at night.

As anticipated, Allied reverses first increased the car refugee traffic and later the cart, cyclist and pedestrian traffic. Again in the forward area except where refugees were turned by 1 Corps into sideroads, obstruction of troops was NOT serious. In order to clear the roads for rearguards, refugee vehicles were made to park under guard in fields until rear parties arrived. Only in one instance where C.M.P. three days out from England had left their post, was there any serious danger of breakdown. Here a refugee column that had got out on to a stretch of level ground alongside the main rearguard road, were caught and bombed for 30 mins. and despite continuous efforts by G.H.Q. (A) officer who happened to arrive, the road was reduced to one-way traffic.

Meanwhile the situation in rear was not so good owing to restrictions on passing into France, and serious blocks occurred, particularly in the TOURNAI area. This delay in the end had most serious results as it left enormous numbers of refugees both French and Belgian in the fighting zone who had nowhere to go and nothing to eat.

The French scheme was never put into operation, yet much unofficial evacuation took place and an endless variety of orders were issued by local officials. Almost immediately after the return to the Escaut, German pressure began from the West producing further refugees and faster moving rumours. The French authorities admitted that most of their officials had gone and that they could not even make contact with local authorities. Hundreds of roads and tracks were in use by refugees, French and Belgian, moving in all directions. Under the circumstances, G.H.Q. control was no longer possible. All that could be done was to order Corps to turn refugees off the road for 48 hours, and to use the small G.H.Q. reserve to clear certain important roads that were required by the various Forces (Macforce etc.) who had no Provost. Close liaison was maintained with the Prefet du Nord at Lille who had remained at his post.

In order to get back essential public service workers etc. the French authorities encouraged a return to Lille, where there were also food supplies. This movement which eased the food situation in the villages and helped to clear the country roads was agreed to. The worst congestion was on the Franco-Belgian border where futile attempts at security control slowed up movement of traffic. A partial evacuation of Roubaix and Tourecoing into Lille was also agreed to and carried out.

In the final withdrawal to the coast refugee traffic had largely stopped, the inhabitants realising there was nowhere safe for them to go.

AL
118WAR OFFICE.DIRECTORATE OF MILITARY TRAINING.

Notes of a Committee set up to consider the lessons to be learnt from the operations in Flanders.

Wednesday, 12th June, 1940.

PRESENT: General Bartholemew (Chairman)
Brigadier Holden
General Irwin
General Malden
Brigadier Watson
Colonel Gurney (Secretary).

WITNESSES: Brigadier Sir Oliver W.H. Leese
Lt.Col. the Viscount Bridgeman
Major Kimmins.

Note taken by Treasury Reporter.

CHAIRMAN: Now, gentlemen, I think we will begin. ---

A. (BRIGADIER LEESE) Shall I start first of all with the general detail of the whole campaign?

Q. May I just say what we are doing. Our terms of reference are to find out the lessons of the recent operations in Flanders and see how they can be applied usefully to our present organisation and training. I may say with certain limitations we are not here to upset the whole organisation of the army, but to go as far as we can having regard to the weapons available and the time factor, and possibly dividing our report into two or three parts, what we can do at once, what we can do a little later and what we can do a long time later and we are going to ask you this morning to give us, because I feel it is very essential an outline of the operations in Belgium and Flanders and then to go on to Staff duties, questions such as the ~~xxxx~~ sizes of Staffs, distribution of work, methods of issue of orders, signals and inter-communication work and liaison with the B.E.F., air support, effects upon Headquarters and Communications and one or two others things, but that has no rigid definition of what we want to do. Certain other things may come out of it and we may ask you certain questions. The first essential is to give us as concise a picture as you can of the progress of operations. I have asked members of the Committee, if I do not ask the questions they want answered, to put them themselves. --- A. May I make it clear first of all we have practically no war diaries at the moment from which we can annotate the information. I think that situation possibly may improve, but at the present time as far as we can make out the majority were either lost at Dunkirk or destroyed in the sea coming back.

From the political point of view dealing with the French Higher Command we have had a very valuable private diary of the C.G.S. which has practically been our only guide to the actual dates on which various incidents have occurred. I have brought with me today Lt.Col. Briggeman and Major Kimmins so that at any time you may want to stop me as I go on, if I cannot answer your questions they may be able to do so. Lt.Col. Briggeman was in France during the whole period previous to the war, I only joined G.H.Q. when war finally broke out.

Now we have divided the campaign into four sections. First of all, the advance to the Dyle, the defence of the Dyle, the defence of the Escaut position and then the withdrawal back to the Frontier defences and the defence of Arras, thirdly, the withdrawal from Arras to the Frontier defences in Dunkirk and fourthly, the final evacuation.

Starting with the first phase from the 10th to the 15th May, a phase which I will not go into in any particular detail, with the First Corps on the right, the 1st, 2nd and 48th Divisions, the Second Corps on the left, the 3rd and 4th Divisions, they proceeded by mechanical transport to the River Dyle. The advance was extraordinarily well carried out. The traffic discipline worked extraordinarily well. There was no heavy hostile attack on our columns whatsoever and the whole operation as far as the Dyle was carried out according to plan. One of the divisions timing was late, but taken as a whole, the operation went according to plan. The 12th Lancers and Divisional Cavalry Regiment operated in front of the advance and gained contact with the enemy. We were in touch with the First French Army on our right and with the Belgian Army on our left. The Army Tank Brigade was railed up to the Forêt de Soignies and that operation was extremely successful. They were not spotted. They got into the woods. There was no question of their being bombed and the train flats which took them up were not hindered by the enemy at all during the advance. The 12th Lancers remained in contact with the enemy for several days and no heavy armoured fighting vehicle attack developed on the front of the B.E.F. Considerable attack developed against the French on our immediate right and as you know further South a very heavy German attack developed through the Ardennes against the French

th Army. Further down on our right information about that began to trickle into G.H.Q. within 48 hours of our arriving at the Dyle position. The 5th Division began to move forward from the main Escaut Area and was picked up by mechanical transport and moved forward to the Dendre position in accordance with the original plan. Almost immediately after the arrival at the Dendre owing to enemy threats towards our right flank the 5th Division was moved right up to the Brussels area in support of the First Corps and the 50th Division at that time took over the whole of the bridgeheads along the whole of the Dendre and started to prepare those for demolition.

Q. What had you in front? --- A. The First and Second Corps and the 48th Division slightly drawn back on our right.

Q. Behind the Second and First Divisions? --- A. The Third and Fourth Divisions and the Second Corps on the left, the 5th Division moving up in accordance with plan to the Dendre the idea being to have the 4th and 5th Divisions on the Dendre. Owing to the situation to our right the 5th Division moved up South-West to Brussels, the 50th Division took over the whole of the crossings over the Dendre. In the meantime the Third Corps with the 44th Division to the North and the 42nd Division in the South started to move into the line to take up a position along the Escaut.

Now during this period - in order to get the picture of the three D Divisions, to get them into the picture at the right time - during the first three days on the Escaut there were considerable numbers of rumours of parachutists being dropped on empty aerodromes in the Somme area and the 12th Division was ordered in conjunction with several army construction companies to ensure that all these aerodromes were guarded, mobile reserves were available and there was no question of parachutists being dropped into the neighbourhood of these empty aerodromes and troop carrying aircraft landing on the aerodromes in our rear and in our base area. The 23rd and 46th Divisions of Infantry and R.E. only, infantry at a very low scale and not armed with many, if any, anti-tank rifles, moved up, the 46th Division coming up to take over road traffic control posts and anti-sabotage duties between the Escaut and the Dendre thus relieving all the fighting troops of the First and Second Corps. The 23rd Division I will deal with later. They did not come further than Arras.

At that time, one important point was that it had been expected that the Belgians would hang on for approximately 72 hours in front so as to give a delay of about 72 hours during which time ourselves and the French could get up into position on the general Dyle position. In point of fact, the Belgians only did hold for some 24 to 36 hours. Maastricht went on the first day and directly the bridge at Maastricht went the enemy started to pour across it, not threatening our front so much as the French right coming in from Tirlemont and Tiendre. There was also great difficulty in regard to the, the tank obstacle which had not been placed by the Belgians in the position we understood it to be placed and also it was not completed but that was satisfactorily arranged between ourselves and the French to the right and the Belgians on our left and we never actually pushed forward our infantry to the obstacle in front of our position at all. We merely had divisional cavalry forward to the line.

Q. The obstacle was not under fire? --- A. No, Sir, except by divisional cavalry units and it was in no way complete and that had a great deal to do with the breaking of the French D.L.M's on our right. They never had a continuous obstacle to fight on.

At this moment the air factor - I propose if you agree to go into it very slightly with you because the whole thing is being gone into by another Committee which M.O.7 is running, the results of

which are going to come up in front of you I think and also I know that Air Marshal Blunt is doing the same thing; he is coming to give evidence in front of you and there is also a Committee on the same subject sitting under him.

During the first two days of the war the fighters immediately under the Air Component, four squadrons, were virtually finished and within 48 hours of the outbreak of hostilities we had continuous appeals coming through all the time from both the Corps for more fighter support, continuous appeals from the Belgians on our left and from the French on our right and within 48 hours we were on the telephone several times a day trying to get further fighters out from home. This was gradually done. As the fighters came out from home so owing to the serious situation of the French on our right reinforcements that came out were used much more freely on their front than on our front. As a result there is little doubt from the reports that came into G.H.Q. during the first three days or so anyhow that on the front of the B.E.F. the enemy low dive bombers were able to operate on the battlefield with extremely little, if any, interference.

The air co-operation situation on the front of the B.E.F. from the point of view of medium reconnaissance which was done by G.H.Q. was extraordinarily unsatisfactory. Brigadier Holden will be able to tell you more from the point of view of medium reconnaissance of the squadrons allotted to Corps, but from the point of view of the squadrons allotted to H.G.Q. within 48 hours of operations starting it was almost impossible to put up any machine to get the information that you wanted unless it was protected by at least a squadron of fighter aircraft and the squadrons of fighter aircraft were seldom available. If you wanted to put up reconnaissance over important places such as Maastricht to see the situation on the bridge there, all over these towns, Tirlemont or Tiendre where the enemy were moving into their concentration points for their further attacks on the French one found within a few hours of the Germans getting into these places the anti-aircraft defence was so strong you could not put an army reconnaissance machine over. There were very bad casualties among our squadrons there. There was the question of the Blenheim squadron which cropped up at the time. If you wanted to keep your Blenheims which should have been kept to carry out your reconnaissance it meant there was no aircraft of the Air Component suitable for day bombing.

Now by the 16th May the extent of the German breakthrough on the Meuse was definitely realised and we heard rumours that the enemy had broken through as far as the River Oise, therefore a withdrawal was ordered and was agreed to by the French and with the Belgians. It started first with a slight swingback of the First Corps down the LaSashe River leaving the remainder of the First Corps in the same position and the Second Corps in the Louvain bridgehead in touch with the Belgians on the left who up to that time had not been seriously attacked.

During the night of the 16th/17th the two Corps moved back to the Seneffe. There was a slight operation on the right of the First Corps just previous to that withdrawal, German cyclists and armoured cars trying to get in between the First Corps between the Foret de Soignies and Hal. Part of the 48th Division were moved up in support and the situation did not materialise into anything serious.

The withdrawal of the First and Second Corps from the Seneffe to the Dendre went on during the night 17th/18th. At that moment came the first alarm in regard to the danger to our Southern flank. The First French Army on our right had had their flank turned and the first decision was to form a force which we called Mac Force commanded by General Mason MacFarlane and we put them East on the line from Douai from Carvin to Maulde in order to

over our Southern flank. I want to make it absolutely clear at this stage the formation of these various forces was because there were no other troops available to do it. We had to complete that, to break organisation and to produce these ad hoc forces. The whole of the rest of our fighting formations were at that time actually in the line in contact with the enemy in process of withdrawal.

Now this first force of General Mason MacFarlane's, Mac Force, consisted of a brigade of the 42nd Division, I think the 127th Infantry Brigade, there was Royal Horse Artillery with them and a field company. I cannot be definite about the amount of artillery, at the moment I have no records of any of this force. The amount of artillery in any of these forces was entirely dictated by the crossings any particular force had to protect. The object from the start was to put any weapon we could against the enemy armoured vehicles on each bridge, to support that weapon with such infantry as was necessary to protect it and to ~~provide~~ provide a sufficient number of R.E.'s to prepare the crossings for demolition and to attempt to have a reserve of infantry for patrolling at night between the bridges, and later to provide a certain degree of mechanised mobile reserve by the employment of our light tank cavalry regiments. Into this force the first Army Tank Brigade was put for the moment. It was put in partially as a form of mobile reserve for this force mainly because actually it was in the area and it was moved back to the area immediately in the rear of Mac Force, for it either to be used with Mac Force; it was left under their command definitely for administration and protection because it had been moved from the area back to the Foret de Soignies. When you take evidence from the Tank Brigade in regard to the 'I' tanks I think this march is one of the most important points in the evidence.

Q. Where did they come from? --- A. From the Foret de Soignies and it is a considerable march. I cannot tell how far without measuring it. It was a long trek that they had to do. The whole organisation for getting the flats back broke down. The French drivers of the trains went absent. Our own drivers sent up, some were connected with trains, some were unable to be connected with trains. In some instances when they were connected with trains steam was not up. Other trains went back. Railway lines in certain cases were destroyed and the result was anyhow that none of the tanks were taken back by train from the Foret de Soignies to the Lille area. Pope will be able to give you details of that, but we started to suffer from mechanical breakdowns almost from the start of that march. That was in no way the fault of the Royal Tanks Corps. It was purely adverse circumstances demanding tanks to do a great deal more than they were mechanically ever intended to do.

BRIGADIER HOLDEN: They actually did more than the 75 miles back because they were on their way back from Hal and the order went out that night when we heard the enemy forces had broken through towards Hals and they actually did a counter march back to Hal and I think they must have done 110 to 115 miles.

GENERAL MELDEN: I think it was said they did 105 miles. --- A. (BRIGADIER LEESE): Now we will go to the situation in front of Arras. It now became increasingly clear that this gap on our right was extremely serious and that the enemy were striking towards Abbeville and they might either turn and go across the Somme or they might move in the Northerly direction towards the Channel Ports. About this moment it began to become obvious to G.H.Q. that although the gap was a French responsibility if anything was going to be done to stop it at all in view of the complete demoralisation of the First French Army we should have to do it ourselves so a force was formed in Arras, Peter Force, about which Lt.Col. Bridgeman can give you the greatest detail because he actually formed that force with the object partially of defending Arras because it had a great deal of our G.H.Q. organisation still in it. The whole of the main G.H.Q. was there. Also

to start and form blocks on the main arteries of communications along which these armoured tanks were trying to force themselves because there is no doubt in the initial stages these armoured columns moved straight along main roads and we came to the conclusion if we could block a certain number of the main points where these large roads collected in some of these larger towns like Arras and St. Pol we should have a considerable delaying effect on the advance of the enemy's mechanised columns so a force called the Peter force was formed in Arras under the command of General Peter who had come up ahead ~~xxx~~ of his division, the 12th Division. --- A. (LT. COL. BRIDGEMAN) The Peter Force was formed on the 17th May as a result of the information and the lack of information which we were getting from the French on our right. The 17th May began so far as this operation is concerned by us, that is to say, the rear headquarters, rear G.H.Q. at Arras, receiving an order from General Georges transmitted through Division for the 23rd Division which is one of the Labour Divisions, to occupy a line from Ruyalcourt along the Canal du Nord to Arleux. Enquiries made during the rest of the day established to our satisfaction that there was a complete gap on the front of the First French Army in the area of St. Quentin and that the Germans could cross the River Oise. During the day it became quite evident despite the operation orders issued by the French First Army and G.Q.G. there were no French troops available to stop that gap nor would there be for at least 24 hours, probably more like 48 hours. It therefore became necessary in view of the fact particularly that the tanks were reported as using the main roads and at that time the main roads only, it became necessary to organise a series of strong points, viz. the nodal points on the roads which in that part of France were very clearly marked. There was one order divided into two parts, first of all to prolong the right flank of the B.E.F. which in the first instance was secured by placing Arras in a state of defence, secondly, with the object of slowing down, if possible arresting, the enemy penetration due West which was having the result of severing the L. of C. from the fighting troops. To do that no properly trained troops were available except for one battalion of the Welsh Guards which were in Arras and we had to rely in the first instance on the 23rd Division with such parts of the 12th Division, about half the 12th Division, as had at that time succeeded in detrainning. The railway situation was becoming more acute from hour to hour, certain chemical companies and construction companies and troops of the R.E. and a garrison battalion of the West Yorkshire Regiment.

The first step was to comply with whatever misgiving we might have with the order to place the 23rd Division on the line Ruyalcourt to Arleux... The second business as we saw it at G.H.Q. - we were in telephonic communication with the Command Po, they knew and approved what we were doing - the second step was to place Arras in a state of defence. That was done by placing Colonel Griffiths commanding 1st Battalion Welsh Guards as Commander the British Troops commanding Arras. He had with him a garrison battalion, the 9th West Sussex, certain chemical companies and construction companies R.E. of which I have not complete details because we never knew who was in and who was not, and a composite unit of eight or nine tanks formed out of the Headquarters Squadron of the First Army Reconnaissance Brigade which happened to be nearby the tanks being made up by raiding the advance ordnance depot.

CHAIRMAN: Where did this order come from? Did Gort issue this order from his headquarters? --- A. No, Sir.

Q. It was entirely your own or somebody's initiative?
A. (BRIGADIER LEESE) They started on their own. Our headquarters us know they were doing it.

Q. And Gort was still at Seclin? --- A. Yes, moment when they started we were at Renné. --- A. (LT. COL. What actually happened was we made the plan down in rear

spoke on the telephone to General Eastwood who was at that time at forward Headquarters and gave him an outline of the plan which we had in mind to adopt and asked whether or not it was approved. That is how it actually worked. At that time the Adjutant-General who was the senior officer in rear Headquarters, he was not in Arras at the time, his office was in a village outside, in the course of the morning we got in touch with him and he came in and assumed control, but it became clear in the course of the day that G.H.Q. were not the proper people to run this battle. Furthermore they should not stay there or they would rapidly cease to function as G.H.Q. Fortunately in the course of the day General Peter who was commanding the 12th Division turned up though without his divisional staff at the same time as the 24th Division were arriving and it was arranged that he should take command of the whole of the forces operating in and around Arras including at the time the 23rd Division. In the course of the evening General Peter having been provided with a staff G.H.Q. handed over to him the task of the defence of Arras and the neighbourhood including the 23rd Division in Doullens and General Peter became a Commander acting in the ordinary way directly under G.H.Q. G.H.Q. withdrew the next day. --- A. (BRIGADIER LEESE): Then, Sir, it was decided in view of the exposed position of the 23rd Division on the line of Ruyalcourt - Arleux to withdraw those troops and permission was given for them to withdraw behind Arras. Unfortunately for various reasons their withdrawal orders were late and the collection of the troops was rather late on the ground and a certain number of the troops moving by mechanical transport by daylight ran into enemy armoured vehicles on their way back to Arras.

Q. They had absolutely no communications of any sort or kind? --- A. They had nothing at all except their staff and one or two liaison officers in motors.

Q. And they must have been on a front of about 20 miles? --- A. They were on an enormous front. It was an order by the French to hold that front. The French said they were definitely coming up on both flanks. They only came up on the left flank and there was a long wait before they came up from the Valenciennes area. That was the reason why in this completely exposed position they were drawn in. As a matter of fact they did not have casualties though in contact with the enemy, they did not have many casualties while fighting; the casualties took place during this unfortunate incident when they were caught on the road in mechanical transport.

We will leave that position of the 23rd Division such as were left drawn back behind Arras, the Arras garrison in position in Arras and on the night of the 18th/19th the final withdrawal to the Cyreeq was successfully carried out and the position then was with the First Corps on the right, the Second Corps in the centre and the Third Corps on the left with altogether six divisions in the line and the fifth division in G.H.Q. reserve.

On the following day the situation in the gap became more serious. Every day in this gap the enemy armoured divisions were advancing further and the enemy motorised infantry coming up behind them were extending further towards the North both driving themselves mainly in the direction of Abbeville, Boulogne and Calais and the off-shoots coming in towards the Canal which was to be our direction moving generally towards the sea so the 25th Infantry Brigade, a brigade which had been given to the 50th Division before operations began was moved by troop carrying transport and placed under the command of Mac Force to ~~maintain~~ continue the line from Carvin to La Bassée, a further attempt to extend the protection to our right flank.

The following day, the 20th, after consultation between the C.in-C. with the Army Group Commander - I think General Biart was still there, either General Biart was there or General Blanchard,

I do not think General Biart had had his accident at that time - we received orders to ~~xxxxxx~~ carry out an attack in a Southerly direction in order to try and stop the gap and to join up with an attack which was to be carried out from the Southernmost part of the gap. It was considered that this attack should definitely be carried out on the following day and that there was great haste and that if we did not do it as quickly as possible the fleeting opportunity would pass.

I want to be quite clear at this point in regard to these attacks the point of view of the C.in-C. was that we ~~were~~ were a beleaguered garrison who could make a sortie and would hold out a hand to those coming up from the South. We ourselves with our Corps were in close touch with the enemy fighting on the front and also being forced to extend our flank and therefore we had extraordinarily little troops available to make any attack. The 50th and 5th Divisions were ordered to make this attack and were concentrated during one night in the Vimy area. I think if you are dealing with traffic control at any time during your enquiry the move of these two divisions along two roads, the orders only being issued to them in the afternoon, and their getting out during that afternoon and during that night was an extraordinarily good incident ~~an~~ of disciplined traffic control.

Q. Who was that done by? --- A. By General Franklin who ran his own show. Orders were issued to him for the move of the 5th and 50th Divisions and this force became known as the Frank force. You want to be certain in dealing with that force to realise they only had two brigades in each of these two divisions.

Q. And no special staff? --- A. No special staff. In addition to that the Army Tank Brigade was placed under the command of General Franklin for this attack. The original orders for the attack envisaged the co-ordination of the attack by General Prioux commanding the French Corps which was ordered to co-operate in the attack. The Frank force was directed at Bapaume and the French Corps were directed at Cambrai. Two French D.L.M's and the 12th Lancers were to operate on the right flank of the Frank force. In actual fact there was no co-ordination whatsoever carried out by General Prioux. Eventually Frank Force attacked on one day and the French attack towards Cambrai on the following day. There was no co-ordination whatsoever by General Georges that this attack came in on the same day as any attack from the South. The Frank force attacked across the Scarpe here while the infantry and the tanks moved round Arras like that. The attack advanced for a distance of about three miles towards Bapaume. Evening was then drawing on. I think the enemy air attack was pretty strong against it that evening and there were insufficient reserves available really to push home the attack any further. There were not any serious casualties in the attack and I think you will find when you talk to General Pope that there are some quite good lessons came out in regard to the handling of the 'I' tanks. The timing was difficult in them and I believe the tanks actually when they went forward when coming round Arras were one or two miles ahead of the infantry but the enemy infantry resistance was not very strong, it was scattered anti-tank weapons and scattered automatic guns.

Then on the same day as that attack an attempt was made to place a small stopping force into St. Pol. We were ordered to do this about 4 o'clock in the evening. We had no more troops actually available to send over ourselves, but it was known that three battalions of the 46th Division which had not yet come up from the Amiens area were moving up by train and were either just arriving in St. Pol or had just passed St. Pol by train. We got into touch with these battalions. It was eventually found they were about 40 miles on the far side of St. Pol and an attempt was made to bring them into St. Pol and link them up with a battery sent out by the 5th Division

from our own side. As a matter of fact all that ever got into St. Pol that night was General Curtis commanding the 46th Division who was to command the Pol Force who arriving at St. Pol found a good defence of St. Pol being carried out by a Bath unit and a searchlight unit, both of which put up an extraordinarily good show and we have the reports of the Commanders of these units but in point of fact we never got any troops into St. Pol at all. We then took General Curtis the Commander of Pol Force, placed under him the 25th Infantry Brigade which you will remember had been put in the area Carvin to La Bassée and extended his command up as far as Bethune and subsequently up as far as St. Omer. That became a very mixed command containing French, there were some Belgians in it, the whole thing being to get something on every bridge between St. Omer and Carvin. Unfortunately without the records I cannot give you any further details of that but during that period and after about the first or second day of the start of the Pol Force all the available divisional light cavalry regiments and the first light armoured reconnaissance brigade under Brigadier Norman were placed under General Curtis for operations in that area.

Q. By this time where were you? - A. We were at Wohanjes.

Q. And Gort too? - A. Yes. I will explain to you later on how we broke up G.H.Q.

On the night of the 22nd/23rd the Corps withdrew from the Escaut position back to the frontier defences. At this time a conference took place with General Blanchard and with the Belgians once again to try and withdraw British Divisions out of the line in order to form another reserve to attempt another attack to the South to try and close this gap. The C.I.G.S. came out at that time and we received further orders then to carry out if possible another offensive to the South and attempt to close the gap but as you will see our reserves were dwindling and dwindling and there really was none available to us but this very weak and demoralised French Army to do that. The situation now deteriorated considerably and our Western flank

BRIGADIER WATSON: Before you go from there I can amplify that picture a little. In that proposed attack to the South the 5th and 50th were pulled back. - A. (BRIGADIER LEESE): I had not quite come to that but you go on with it now.

BRIGADIER WATSON: The 5th and the 50th were pulled back from the Arras area. They and the Tank Brigade were again concentrated in Balinpan North East of Carvin and the third corps was then ordered to take over these two Divisions and arrange the detail of the attack with the French. The Corps Commander and I and General Franklin and General Martell then went down to the French Headquarters. First we saw General Blanchard.

CHAIRMAN: Where was that roughly? - A. Roughly on a line with Orchies, I forget the name of the place and Blanchard beat his chest and got very excited. Finally it was decided that we would do the attack I think the next morning but one. We then went from there to Altmeyer who was the Corps Commander of the Corps which was going to put in two Divisions with our two Divisions, two semi-trained Divisions and a Cavalry Division. The idea again was to attack in the Cambrai direction. It was arranged that the following night we should make bridge heads. We, the British, had to supply some bridging material for the French Divisions; they in their turn were going to supply the heavy artillery. We were going to rely on our Divisional artillery. Having made our bridge heads in the evening we were then going to pass through the Divisions at dawn. The French on that Canal had blown all the bridges. They were overlooked by the Germans and you could not get down to the Canal in daylight at all for any reconnaissance and the whole operation was going to be a very hazardous one to say the least of it. Before it took

place the following day the Belgian break came, the 5th Division was taken away and the operation was called off. - A. (BRIGADIER LEESE): Now I must just go back a little bit to get the whole picture right. The situation materially deteriorated. First of all in the Bethune area an attack was launched against Bethune which was held up by Pol Force and Mac Force but the enemy started infiltrating towards their right in towards the Carvin area and as a result of that late in the evening of the 23rd it was decided that it would be impossible to leave the 50th and the 5th Divisions and the Petre Force in the Arras area with any reasonable chance of getting them out so orders were sent out very late in the evening to them. The motor contact officers had considerable difficulty in getting through. By an extraordinarily unlucky chance the telephone communications which had been through fairly decently for the last 48 hours broke down during the actual vital hour of getting it through. Information was got through both by wireless and motor contact officers and both Petre Force and those two Divisions did extraordinarily well to extricate themselves with practically no losses, a great deal of the move having to be carried out in the early hours of the morning in daylight. That left us with what appeared to be quite a large reserve but at that time the situation again got far worse along the Aire Canal and it was decided the only method of clearing up that situation was to put the 2nd and 44th Divisions in to take over from this mixed force there and hold the general line of the Canal from the Aire area down to the Carvin area. From the Carvin area down to Raches where the first French Army was General Curtis with Pol Force the 46th Division took over and in the North from Aire to the sea it was held by the French with one battalion of the 23rd Division. In the area of Gravelines in the North and in that area between the sea and St. Omer there were several small British units also operating with the French including one from the heavy artillery unit which held on to several bridge heads there extraordinarily well for several days. As soon as that was ordered as Brigadier Watson has explained to you the 50th and the 5th Divisions were ordered to carry out this attack towards the South. As he told you at that time the situation started to deteriorate badly on the Eastern flank where we were in touch with the Belgians and the 5th Division were sent off straight-away under command of the 2nd Corps. Owing to a slight misunderstanding in regard to the boundary with the Belgians that Division was put in to hold the line as far as Ypres along the Yser Canal. We had understood that part of the line was going to be held by the Belgians but owing to the difficulty of drawing a rear boundary there the Belgians had understood it was our responsibility. Anyhow the gap that occurred there was occupied by the 5th Division.

About that time we captured a German Operation Order which gave us the first communication of a large attack by two Corps carried out by the Germans between Ypres and Wytschaete and one brigade of the 48th Division was again sent over and put in on the left of the 5th Corps in order to extend our left flank in that direction.

Q. But where did they come from, the 48th Division, I have forgotten. - A. The 48th Division was a Division taken out of the line as a result of the French and the Belgians taking over more lines from us. We put the 2nd and the 44th Divisions in to protect our flank and these extraneous forces, Pol, Petre and Mac Forces, some had automatically fallen in before, all were abolished.

Now came the next situation that obviously we could not hold on in this position any longer. There was no doubt we could not break through towards Amiens and towards our communications. Boulogne and Calais by this time had gone and our only chance really lay in getting back to the sea and back to the one door at Dunkirk but we still could not make any final decision about this because we had orders from our authority to await the result of the attack of the French from the South.

In the meantime, the infiltration of this flank, which General Irwin will be able to explain to you far better than I can, was getting extremely serious. There were bridgeheads over the Canal Line at St.Omer; there were bridgeheads at Aire; there were more bridgeheads over at Bethune. For some inexplicable reason the enemy did not press hard against us along that flank for several days, but particularly in the Foret de Clairmaris, which is immediately north of St.Omer, and in the Foret de Nieppe and in the Aire area generally, there were packets of tanks across the river and we had absolutely nothing there; all we had on the left were Divisional Light Tank Regiments to deal with any tank elements that might break through in that area towards our lines of communication. It was, therefore, decided to put a series of stops out on the general line Aire-Worhouth-Cassel-Hazebrouck. We put in there two brigades of the 48th Division and I think it was the delaying power and the stopping power of those stops in that area, and the stops on the Canal Line, that finally left us an artery of communication through which we were able to get away. That, Sir, as we saw it, was the defence put up by the 44th and the 2nd Divisions on that flank.

Q. Those stops were without guns, were they? --- A.No, Sir, they all had guns.

Q. Anti-tank guns? --- A. Artillery guns and anti-tank weapons.

BRIGADIER WATSON: Such anti-tank guns as were left; they had all lost a fair proportion of their guns.

CHAIRMAN: I wanted to be quite sure that it was not merely infantry? --- A. No, Sir, they had such guns as were left.

BRIGADIER HOLDEN: They had about 30 anti-tank guns. --- A. Yes. We had always, of course, realised that we wanted anti-tank weapons and guns in all these stops, but they were just not available in the initial stages, the original Pol Force, but these stops, as far as we could, were equipped with all arms.

BRIGADIER HOLDEN: We had a large number of 18-pdrs.

BRIGADIER LEESE: Would you like to say anything at this stage, General?

GENERAL IRWIN: No. I think that is perfectly correct. I have only minor amplifications, but they are not important.

BRIGADIER LEESE: On the night of the 26th it was finally decided that we would go back and the first withdrawal from the frontier defences to divisional reserve positions took place. A liaison officer from the Belgians came up that night and was extraordinarily insistent that, if we went back, we would "cart" the Belgians; the Belgians wanted to remain and to fight where they were. At the same time he said that if we went back the Belgians would withdraw in a northerly direction towards Bruges and Ghent. At that time the line went roughly from Menin, or rather behind Menin actually at that time, to Ypres and then in a bulge round from Ypres to Roulers, to Thielt, to Ghent, so that there was no earthly reason why the Belgians should ~~not~~ not fall back perfectly normally alongside with us on to the line of the Canal. Fortunately, that night no answer was sent back to the Belgians about it at all, but it had all been worked out with them. They had been asked definitely to co-operate with us. The following morning, without any warning whatsoever, the Belgian Government or rather the Belgian King capitulated and a message was sent to us from the Hopkinson (?) Mission to that effect. We had no actual warning.

CHAIRMAN: Up to that time they had hardly been seriously attacked? --- A. They had been seriously attacked only as far as Ypres, which really largely came down to an attack on us.

Q. In the southern portion of their area? --- A. Yes; they broke and the rest of the attack really came on to us.

BRIGADIER HOLDEN: They broke at Courtrai? --- A. Yes.

On that night too General Adam was sent back to take command of all the troops in the Dunkirk-Nieuport perimeter and to start making preparations for our evacuation. Orders were issued to Corps to send back all, what we called at that time "useless mouths"; it was really to get back everybody we could - G.H.Q., Corps Troops, anybody not urgently required for fighting. Three reception areas immediately south of the perimeter were allotted, one to each Corps, and the Corps were told that the only transport to go into the perimeter was to be water-carts, certain fighting vehicles, and that the remainder was to be dumped in these reception areas south of the perimeter.

As the situation deteriorated on the Belgian Front, so the 50th Division was also pushed in on the left of the 5th Division. During the 27th and 28th the withdrawal continued and General Rooke took the 3rd Division out of his front and pushed it in further on the left of the 50th Division in order to continue that front there and try and stop the enemy breaking through towards Nieuport. At the same time ~~an~~ ^{a force} was organised in the back areas by General Adam and was put into the perimeter and managed to get into Nieuport in time to save the town of Nieuport, but not the bridge in Nieuport. The bridge in Nieuport was extremely difficult to blow; we could not get there in time to get it prepared for demolition and throughout the defence of the perimeter the Germans had the main bridge in Nieuport.

During this time on the way back and during the time of the projected attack of the 5th and 50th Divisions the whole administrative situation, as you will see, was going from bad to worse. We were cut off from the Abbeville base; we were cut off from Calais and Boulogne; we were down to our echelons of ammunition, that was all there was for the attack. We were lucky in that we got through at the last moment one explosives train, so that we were never really short of explosives for the demolition of bridges. For the last two days down to the base the Force was on half rations. The situation material improved from the administrative point of view directly we got into the base area, owing to the forethought in sending us out barges filled with one part ammunition, one part rations and one part water. Although, as I think you will find when you come to go into it, certain scattered elements of the Force undoubtedly were hungry for one or two days, as a general whole the food of the Force held out and when we finally came away there was five days' rations left with the elements of the First Corps that were left behind.

On the 27th, the day before we moved into the perimeter the C. in C. definitely received a telegram from the War Office agreeing to our withdrawal; saying that there was no question of the French continuing the attack from the south and that our primary role was to ensure the safety of the British Expeditionary Force.

During the 28th, 29th and 30th, evacuation was carried on from the beaches of all useless mouths and everybody whom the Corps could thin out. The Third Corps H.Q. was not put into the perimeter and was sent home complete. The holding of the perimeter was done by the Second Corps holding that part of the perimeter in Belgium and the First Corps holding that part of the perimeter in France as far as Bergue where it was taken over by the French.

BRIGADIER WATSON: In point of fact, we were responsible for the perimeter for two days. --- A. Yes, that is quite true. The final evacuation was on the night of the 31st. The original position on the 30th was, therefore, that we wanted to evacuate the whole Force at the same time, to draw in everybody off the perimeter together, but we were not allowed to do that owing to the necessity to evacuate the French at the same time and at the same rate as ourselves. This, in fact, was never a possibility because during the first three days of the evacuation no attempt had been made by the French to carry out any evacuation, neither had they during the first thirty-six hours expressed any desire to do so; in fact, the majority of the First Army had failed to come back with us at all which had made the whole withdrawal considerably more difficult and exposed our right flank. They had remained in the Armentieres-Lille area, only General Gallency's (?) Corps actually came back with us. The main numbers of the French within the perimeter were really stragglers who had come back straggling, walking or in motor buses, and the only formed units were some Territorial Divisions, the two Gallency Divisions that came back after us and one D.L.M. Eventually, the C. in C. obtained permission for one Corps to be withdrawn complete and the withdrawal of the Second Corps was ordered for the night 31st/1st which I think was carried out and I think the majority of them got away that night.

On the same day, in accordance with orders, again following that same instruction, the C. in C. handed over control to the First Corps and the First Corps carried out their withdrawal on the following night, the night of 1st/2nd June.

Q. Out of the perimeter? --- A. Out of the perimeter. The majority of them got away that night and General Alexander and about a couple of thousand people moved in to a closer perimeter. I do not think they were ever actually attacked on that closer perimeter, because the French remained out on the wider perimeter for another two days. I do not think they were ever attacked, or ever pressed at all, and the majority of our force then came away, the remainder of it, on the night of 2nd/3rd June. The whole appreciation of ourselves at G.H.Q. and both Corps was that, with that length of perimeter, if we were seriously attacked we could not conceivably have held on until any date later than those two days on which we ordered the evacuation, i.e. the night of the 31st/1st for the Second Corps and the night of the 1st/2nd for the First Corps.

CHAIRMAN: When did the Third Division and those troops of the 50th Division get away? --- A. They got away with the Second Corps.

Q. They were considered as part of the Second Corps? --- A. Yes, all those troops came into the Second Corps group. If there is any question about the original organisation of the perimeter, ~~Mr~~ Lt. Colonel Bridgeman can answer that, because he was Chief Staff Officer to General Adam for the first twelve hours when the Adam Force was formed.

Q. I wanted to know how they got away, that is all.

--- A. (LT.COL. BRIDGEMAN): At the time when the perimeter first began to be organised, the position was (indicating on map) that the 1st Division, the 3rd Division, the 4th Division and all that remained of the 5th and 50th Divisions were on this flank, the 2nd Division, the 44th Division and the 48th Division were here; the best part of the 46th Division was here; of the 23rd Division one battalion was here and the remainder were not engaged in the battle, but in the sector area. The perimeter itself was organised by means of some elements of the 48th Division and this battalion of the 23rd Division and nobody else except odd R.E. Units, General Construction Companies, which had been drifting back slowly all the time, a, so to speak, dismounted searchlight regiment, and other people of whom we have no record. The following day the position began to be occupied in accordance with the orders General Adam had issued, in consultation with G.H.Q. and particularly with General Brooke commanding the Corps. The first to arrive was the 4th Division who occupied the area exclusive of Furnes but inclusive of Nieuport. They were followed by the Third Division who took the area - inclusive Furnes to a point about the Aisne Canal. At the same time the First Division, which came from the right of our original line, came back very completely and in good order.

BRIGADIER HOLDEN: Two brigades came back and one brigade was sent to join up with the Second Corps. --- A. Yes. That brigade came and was split up into three battalions.

Q. Yes, we sent a battalion to each brigade of the Second Corps which was holding the Ypres line, and the other two went straight on. --- A. The Third brigade was collected within twenty-four hours, yes. The 50th Division followed in and about twenty-four hours after the arrival of the Third Division took up a small sector, corresponding roughly with the Aisne Canal on that map. That leaves the 2nd Division, and the 44th Division, and the Third Corps, or such as remained at that time.

GENERAL IRWIN: The 46th Division were the first in. --- A. Yes. The 46th took part in the battle again, but the 2nd and the 44th did not. I was going on to say, the 2nd and the 44th, having completed their task of defence, were not in any shape to take any further part in the battle, and they were withdrawn direct to the beaches.

Q. The 2nd Division were given orders to occupy the Canal, inclusive Bergue and inclusive of the next ridge to the east. --- A. Yes.

BRIGADIER WATSON: We were given a sector. Actually there is another canal there. The Third Corps had a sector there (indicating on map) and the ~~Second Corps~~ First Corps here and the Second Corps on the left, knowing that such as remained of the 2nd Division here would become disengaged first, because the 44th Division had to stand as they came through, allotted our sector of the Second Division to take over that bit of front, and the 44th Division when they came in to take over this bit of front. We did not really know the constitution of the 46th Division who were in the midst of scattered fighting and we put them in an area behind, with Corps Troops here. That was on the flank and what happened was that the 2nd Division came in and we never collected more on the Arras Canal than about 700.

GENERAL IRWIN: 450. --- A. The 44th Division then came in and we collected considerably more of them, but practically no officers; something like 5,000. They also collected side by side with the 2nd Division. When we actually

arrived in the perimeter we found the best part of two brigades of the 46th Division and we used them for putting two weak battalions along here and a battalion here and they were really, plus S.D.F. the only troops, plus the Usher Force, which were a composite force. They were the only ones on our perimeter, and remained the only ones on the perimeter, for 2½ days.

Q. Could you give me the relative dates? ~~We were~~ were fighting on the Canal, let us say, on the 27th and withdrawing on the morning of the 28th; what was happening on those two days on the Second Corps front? What day were they ordered to withdraw to the perimeter? --- A. (BRIGADIER LEESE): The orders for the start of the withdrawal were the night of 26th/27th and it went on during the night 26th/27th, the whole of the 27th and the 28th. The main bodies finally got into the perimeter on the 29th.

Q. We left the Armentieres Canal on the afternoon of the 28th. How does that compare with what was happening on the left? --- A. The main bodies, on the night 27th/28th withdrew behind Lys.

Q. That is the Lys Canal? --- A. Yes. On the 28th the withdrawal continued. It was the 29th when they finally came back into the perimeter. We ourselves got back into the perimeter on the 28th and they got back on the night 28th/29th.

BRIGADIER HOLDEN: Actually the last British troops to reach the perimeter were the 42nd Division, which was our extreme right division. They came in, falling back from one river line to the other, and they withdrew to the perimeter and got in on the morning of the 30th. That was the 42nd Division under George Holmes, and they came in with a very open flank.

BRIGADIER WATSON: Except the 48th. --- A. B..... had elements out at Cassel and so on.

Q. The command of these divisions was at times just a little nebulous. The 48th Division was really under G.H.Q. at that particular time and I think the Third Corps was administering seven divisions at one time during this period. They finished up roughly on a line like that, the 48th Division with their Headquarters moved from Bergue to Hazebrouck and they remained out until the morning of the 30th when they were ordered to come in. --- A. Yes.

BRIGADIER HOLDEN: Yes, but the 42nd Division came in behind them. The 42nd Division were actually on the Yser Line at 4.30 on the 30th, and we ordered them to quit that at 4.30 on the 30th May; they were right away down with the French.

BRIGADIER WATSON: Yes, but the 48th Division were ordered to go into our sector of the perimeter and we never saw or heard of them from the time that B..... moved over to Poperinghe (?).

(At this stage the Committee adjourned for five minutes).

ON RESUMPTION:

CHAIRMAN: I would like to thank you for an extraordinarily clear definition of what happened out there; I am very grateful and I am sure we call are; it is absolutely clear.

Now I want to ask you a few questions. First of all I would like to ask one psychological question, did you feel during this show that you had control? First of all let me talk about the Commander-in-Chief. I suppose the Commander-in-Chief was occupied up to the hilt with ~~the~~ negotiations with the French and negotiations with home and that sort of thing? ---
A. Yes, that was going on the whole time.

Q. All you could do was to make plans and ask him if he approved? --- A. Yes, but he did very much more than that. He did the work of three men. In addition to the whole political side, and almost the diplomatic side with the French Higher Command, he had made his own plans too.

Q. He could do that? --- A. Yes, he could do that. I do not think he could have lasted for a much longer period.

Q. I ask that question because really it looks as if you have to have somebody, under him of course, to deal with that side of it. --- A. Of course, we were reinforced from that point of view by having General Eastwood there; that made a tremendous difference. At the start General Eastwood did not take over the 4th Division; he came in and he was used by the C. in C. and by the C.G.S. to go off on a tremendous number of missions which otherwise would have taken up the time of the C. in C. and C.G.S., missions to General Blanchard and other people.

Q. I really cannot understand how Lord Gort could have done it; it must have been terrific. Did you feel, in spite of all the muddle that was going on and the difficulties, did you feel that you at G.H.Q. had a grip on the situation? --- A. Yes, we really did the whole time. I think a great deal of it was due to the ~~the~~ enormous trouble taken by the Corps always to let us know where they were and to the fact that somebody always came in to see us. There was never a day without either Corps Commander or D.D.G.S. or somebody dropping in and conferences took place each day with regard to the situation. It was done with the greatest difficulty in certain cases because we really relied upon this civil telephone. Now, Sir, it goes back in a way that we fought an Army battle and in certain places a Corps battle with a G.H.Q. which we had not really had an opportunity to try out in the field. We tried, first of all, working with a Command Post and G.H.Q. some way behind, but it never worked satisfactorily. At one time we had three headquarters; we had a Command Post right up, where there was the C. in C., the C.G.S., G.I. Operations and one or two clerks; we then had a kind of intermediary headquarters where I was, trying to sort the information from both ends and keep it together and get it forward and getting the information back, ~~and~~ with regard to orders to be issued from the Command Post, getting those orders back. That was an almost impossible situation which went on for about forty-eight hours. Finally we got into a situation where we had a majority of the Operational Staff needed, a very very modified amount of 'I', all our Liaison Officers and our Advisers at one Headquarters and everybody else at one time back at Arras and Hazebrouck and towards the end right away from us at Boulogne and in certain cases at Dunkirk. From the point of view of G.H.Q. we never really got a good working system going in the time with the speed with which the operation went, but we have been thinking it out a good deal and I think we can get a very much better system going for G.H.Q. for the

future. Undoubtedly, from our point of view, in the Operational Headquarters we had going, I think we were in touch with the situation. We had command at one time, not one of the seven Corps, but several of these Forces at the same time and we never had a complete breakdown of communications with any of them. There were certainly moments when we were not in touch with anybody. The whole situation was made so much more difficult by the fact that the location of G.H.Q. had always to be where the telephone went back, at any rate to the main system in France and, if possible, to England. That necessitated tying ourselves to this underground international cable which only came up to breathe at certain places. You could not locate yourself within thirty or forty miles of the place where it came up, you had to locate yourself quite close and it is actually a very complicated signalling process to tack yourself on to the line where it comes out and it only comes up in a very limited number of places.

Then again we had great difficulty because the majority of our communications with Corps were so far back that we had to use the ordinary air line, the ordinary civil air line, for our communications. That, of course, enabled us to have a great deal more speech than we could ever have done with ordinary field telephones over those distances, but it was sometimes very difficult to get calls through in a reasonable time and, of course, we had to be extremely careful what we said.

Taken as a general whole, the answer to your question is that in what were considerable difficulties and in a situation in which we did not have G.H.Q. organised for battle as well as I think we can do it in future, we were in touch under difficulties with the Corps and with the Forces, primarily, as I say, on the civil telephone and secondarily by wireless. I would suggest it might be of great value, when the Chief Signal Officer gives evidence, to see whether there is really sufficient wireless to enable G.H.Q. under similar circumstances to keep in contact with scattered forces as well as with Corps.

We found motor contact officers and liaison officers absolutely invaluable and a tremendous amount of our work was done by them. Our Senior Liaison Officers - Majors and Lt.Colonels working with the French Armies did extraordinarily good work. The motor contact officers proved very good. They were rather young and I think for the future it would be better to have some of the motor contact officers a little bit older.

Q. You said you could devise a system; could you give us a short note inside the next five or six days about that?
--- A. Yes, Sir. That is what we are busy working out now.

Q. Is that going to another person or committee?
--- A. No, Sir.

Q. I think we would be very grateful if we could have that. --- A. It has been worked out by General Perceval and we could send the same evidence to both and we would come and explain it. We are thinking it over.

BRIGADIER HOLDEN: Would it have been possible to have established headquarters always within telephone communication, telephone quite independent of the civil telephone? As you know, our only means of communication was usually forward, up to Brussels and back, and at many times you had three Command Posts and we did not know which was

dealing with operations. --- A. There is no question we shall have to have, and we are going to try and work out, one Headquarters.

Q. One Command Post? --- A. One Command Post

Q. The Corps were looking back instead of forward. -- A. It is reliance on the civil telephone that is the dominating factor and that forces us to go to certain places. Otherwise, we could have been much closer to you.

CHAIRMAN: I shall be very grateful if you will let us have that. One cannot help noticing that you kept on having to break up Corps and form ad hoc Forces, which I quite understand but was it always essential to change divisions from one Corps to another very often. I daresay it was. I am not criticising in any way. --- A. I do not think that is avoidable in certain cases. I remember the Corps coming earlier on and saying could they not keep the same divisions they had had for the last three or four weeks, but depending on the way operations went sometimes you could take a division out on the left and sometimes on the right and I do not think it was possible to avoid that.

BRIGADIER WATSON: We actually had every division except the 1st and the 3rd. --- A. There was a moment when you had seven Divisions under your administration.

GENERAL IRWIN: From the Divisional point of view, I ~~xxx~~ had the following Commanders in twenty-four hours. I started off with the Pol Force, which tried to exercise command over me; I do not think they were entitled to do so. They were followed by the Eastwood Force, Third Corps and Adam. At one point in one day I had three actual Commanders. I cannot help feeling that some of that must be avoidable. --- A. It is the speed with which operations move and the speed with which the situation changes. Every attempt was made to avoid that kind of thing, but undoubtedly it happened in a very large number of cases. I honestly do not think that anywhere where it did happen it was really ~~xxx~~ avoidable. Decisions had to be made so very quickly and so often could not be confirmed on the information coming in. Because of these armoured vehicles, the general moves the Germans made were so quick and where you may have a stable situation in the morning, by 7 o'clock or 8 o'clock in the evening, if you did not act and do something, the situation might be irretrievably lost.

Q. Anything which causes you to make one Corps Command the Commander of an offensive operation, to command a Corps and to command the base within forty-eight hours must mean something wrong in co-ordination. --- A. I can explain actually the situation that arose over that. Originally there was no intention for the 2nd Division to go on to the Pol Force. That was an independent Division and that was merely a misunderstanding. Then when we got that Force out of that left flank we had got to a situation where, as a G.H.Q., we were commanding, as I said, three Corps, plus three or four, if not more, additional Forces. It was therefore decided to try and tidy up that situation and in order to cut down the number of people we were dealing with General Eastwood was appointed to the command of the Eastwood Force to control that flank. At the same time, literally within twelve hours of appointing General Eastwood to that command, the Third Corps operations to carry out the attack to the South were cancelled, which left the Third Corps immediately vacant. Therefore, they were put in instead of General Eastwood and being properly Corps Headquarters they commanded in that area. It was because General Eastwood had

no proper Headquarters to command that front. Then came the situation at the Base and the C. in C. decided that the one man in that case he would like to organise his base was General Adam and so General Wesson was taken from Artillery Adviser to go in and command the Third Corps. That is actually how it happened.

BRIGADIER WATSON: What I felt at the time was that somebody like that from G.H.Q. could have taken over the base and the Corps Commander could have been left.

BRIGADIER HOLDEN: Was there any real difficulty when you were handing over?

GENERAL IRWIN: There was no difficulty until it came to the morning, trying to get in touch and give information to your next Higher Commander, with whom we had no wireless contact at all and it simply meant I think that Divisional Commanders were fighting their battles by the light of God and hoping that the M.C.O. who had pushed back would in the ~~XXXXXX~~ course of his journey pick up one of the headquarters under whom the division thought it was operating.

BRIGADIER HOLDEN: Given efficient communication by wireless, if you could have worked with wireless it was simply a question of having to switch over to another Commander?

GENERAL IRWIN: Yes, but it is not satisfactory. You do not know who you are dealing with and you do not know where they are. I feel myself it would be better if we could always keep on some sort of area basis and then, if you want to do so, move the divisions within that area, but to keep on putting into that area three or four different sets of commanders is highly ~~XXXXXX~~ confusing.

BRIGADIER WATSON: Leaving out the difficulties of this particular situation and taking it on its merits, there is no doubt that if you could leave a Corps as a Corps, it is much more efficient, as witness the Canadians in the last war.

CHAIRMAN: I have a great deal of sympathy with G.H.Q. over this; I have been in a somewhat similar situation. Of course, the French in this case ran everything?

GENERAL IRWIN: Yes.

~~GENERAL~~ ~~BRIGADIER~~ MALDEN: You say your wireless was not working?

GENERAL IRWIN: Not backwards at all. I had no wireless communication with Corps because I was given no set to work with.

GENERAL MALDEN: Your link with Corps Signals had disappeared; they had not one to send up to you with the result that the line just snapped?

GENERAL IRWIN: Yes.

BRIGADIER WATSON: It snapped on the division coming into there, but we did establish wireless communication at intervals; we were in touch with them by wireless at intervals, but not for long.

GENERAL IRWIN: I believe after we got back to the La Bassée line only.

BRIGADIER WATSON: I was told 'at intervals'.

CHAIRMAN: When your note comes, I take it you will tell us two things. You will say something about wireless? --- A. That will come from the Chief Signal Officer. From our point of view, we never had too much wireless, if ever enough. There is one small point with regard to that, that in all these things you must remember that in this particular operation we were never able to replace any equipment lost, from the start of the operation to the end, and that makes a great difference.

Q. Will you consider the question of the strength of the Operations Staff. There are a lot of people on the Staff now and one wants to avoid adding to the number, but will you consider in your note any increase in the Operations Staff to provide for ad hoc forces; will you say something about that? --- A. Yes, Sir.

Q. It looks to me as if you were short. We will leave that now, if you will consider that. Then on the question of air support, we are going to hear Air Marshal Blunt in a minute, but have you anything to say about that? --- A. No more than I said originally. The whole thing has been gone into by a committee.

Q. We have really got it from you, because you have told us how much or how little support you had; I think we have got that broadly. There is nothing you want to add to that? We shall come on to reconnaissance and artillery machines and that sort of thing presently. --- A. Of course the whole question of air support we agreed we would go into with M.O.7 and with Air Marshal Blunt and until we have had that sub-committee I would sooner not say anything about it.

GENERAL MALDEN: Were you bombed much? --- A. I think everybody at G.H.Q. was bombed and machine gunned at different moments on roads and so on, but we were never caught at G.H.Q. we were never given away there at all. We had it close to us and we had it in La Panne when we were there; people dropped bombs in our windows once or twice and we were machine gunned, but they never stopped our operations throughout the whole operation.

Q. It was not sufficient to hold up the control? --- A. Oh no, never. We were never turned out of our Headquarters; there was never any question of that at all. Our rear Headquarters, Arras and Hazebrouck, were both bombed and attacked, but our Advanced Headquarters were never found, not the actual place, although the area in which we were was attacked.

Q. The last point is the question of the D.F. --- A. I would like to say one word about that. It was of enormous value for intercepted German messages; we gained a lot of interesting information which was of extreme value to us. It was mostly corroborative evidence, but it did give us a great deal of very valuable information.

CHAIRMAN: Did you use a cipher at all? --- A. Yes, we used cipher for everything ourselves. It delayed messages

considerably, of course, but it had to be used. It was the only method of sending messages by wireless.

Q. You would not say in a special case, in the middle things got into, it would have been worth while giving up the cipher? --- A. If we were to have any communication with Corps by wireless, it was absolutely essential to use cipher to get it through.

Q. It was essential to use cipher? --- A. Yes, and in certain cases for sending messages back to England too.

GENERAL MALDEN: Even with the delay, you suggest it is still worth while using the cipher. --- A. Yes. Undoubtedly, as you will find out if you check up on it, there were certain absolutely regrettable delays, I know of certain instances where messages sent out took as much as thirty-six hours to reach the recipient.

Q. In cipher? --- A. I am not prepared to say whether it was cipher or whether it was by other means; I have not been into it fully.

Q. It was not necessarily cipher. --- A. Taken as a general whole there was not a breakdown and we got the information through.

BRIGADIER HOLDEN: But cipher traffic meant three or four hours delay before an 'immediate' message could be dealt with.

CHAIRMAN: I do not propose to keep Brigadier Leese any longer, unless you have any more questions to ask.

Thank you.

(The witness^{ss} withdrew).
