Past Events and Future Possibilities

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PAST EVENTS AND FUTURE POSSIBILITIES.

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INTRODUCTION.

"Impressions produced by actual experiences are more vivid and lasting than those resulting from study. But as the scope of experience, however wide and vivid, is strictly limited, the tendency to attach undue importance to these experiences must be guarded against. — F.S.R. II.—1920.

It is to avoid the bias consequent on personal experience that the operations which form the subject of this slight study of future possibilities are not taken from the European War.

The war is still too near and memories of actual experiences too vivid, also the alterations and improvements in arms and armament which are considered in this paper grew up during the war, and opinions were formed during this transition period which sometimes make it hard to appreciate fully the final results.

For example, the officer or man who only served on the Western Front from after the retreat from Mons has had little opportunity of appreciating the uses of cavalry or cyclists. Similarly, another whose experience of tanks is limited to the summer of 1917 in front of Ypres will have a limited view of the powers of the tank.

Further, it is necessary for a satisfactory consideration of future possibilities to study a war of movement and not permit oneself to be affected by the abnormal considerations of a war of positions and the conditions in the theatre of war resulting therefrom.

For these reasons the operations of the Japanese IInd Army from end of May to 15th June, 1904, have been selected for study.

The period is also of interest as affording an example of co-operation between Navy and Army, and the terrain is of sufficiently varying character to afford comparisons. Only sufficient narrative of the actual operations is given to enable each situation to be reviewed in the light of future possibilities, the object being not to attempt to lay down in any way what ought to be done, but rather to bring out the more probable possibilities, in each situation, and how they can be taken advantage of.

The assumptions required for the consideration of the possibilities are:

Each of the opposing would have attached:

(a) An adequate Air Service to carry out the tactical reconnaissances. No reference is made to long distance reconnaissances as this is the duty of G.H.Q. flights.
(b) Tanks.—With the Japanese—one group of three Brigades of fast-moving tanks. With the Russians—one Brigade of similar tanks.

These fast-moving tanks would at least be equal to and, it is considered a justifiable assumption, superior to the present day “Medium C” tank.

Such improvements would be slightly increased range of action on one refill—i.e., 80 or 90 miles, with a cross-country speed of 6-7 miles per hour. Such tanks should be armed with a light gun capable of dealing with hostile tanks, in addition to two Hotchkiss or similar weapons.

(c) Armoured Cars.—With the Japanese—one group of three companies of cars. With the Russians—a similar group.

(d) Field and Horse Artillery on both sides “mechanical,” not horse drawn.

(e) The Infantry Divisions armed comparably to our divisions at the end of the late war.

(f) Mechanical transport with the administrative services and of a type suitable to the country.

Such transport, even at the present moment, could be supplied from vehicles of the light box car or tender type. The experience gained in operations in unsettled and unorganised countries (e.g., operations in East Africa and the Dunster Force in Persia) have shown what extraordinary difficulties a light vehicle can overcome even in bad weather. Then, again, improvements are daily being made in the evolution of the “track or pedrail vehicle.” Final improvements will probably follow these lines, and a suggested organisation has been gone into in detail in a paper on transport for the administrative services published in the JOURNAL of February, 1921.

It must, however, be noticed that, although the mechanical and other improvements have been assumed to be equal, their handling is taken as only of the same standard as was shown in the actual operations with the weapons then available.

The pre-war tactical and other lessons taught by the operations are not touched on except where they affect future possibilities.

Physical Characteristics of the Theatre of Operations.

When studying any operations it is of the first importance to realise the physical characteristics of the theatre of war.

The Liao Tung Peninsula, in which the 2nd Army was operating at this period, lies between the Liao Tung Gulf and the Korean Bay, and is the S.W. extremity of Manchuria. As a whole, Southern Manchuria is a hilly country with two pronounced ranges, of which one, the Hsiung Yao Shan, runs down the Liao Tung Peninsula. In places the hills rise to nearly 4,000 ft., their precipitous slopes densely wooded with
Situation as affecting 2nd Army immediately prior to the advance.
innumerable spurs separating deep valleys and ravines. Along the N.W. coast of the peninsula, however, there is a belt 10 to 15 miles wide of somewhat less difficult country along which the railway to Port Arthur runs. Even this, however, was and is extremely difficult country for artillery or large bodies of cavalry, although infantry can traverse most of it. The lower hills throughout Southern Manchuria are generally of the same type—rounded, 300 ft. to 800 ft. high, and covered with extremely dense shrub and small trees. A pronounced characteristic is, however, the sharp peak or pyramid in which they culminate—this being more pronounced in the higher mountains, but maintained throughout in the spurs.

As regards the valleys and country generally, every flat space, however small, is cultivated with crops of millet, beans and peas. The millet crop should be especially remembered when studying any operations, as by September it has reached an enormous height. By August it is frequently higher than a horseman's head, and being carefully and closely grown in rows is easily transformed by bending down at about 3 ft. high into a difficult obstacle for mounted or even dismounted troops. It would afford even in June considerable cover from the air.

In addition to these difficulties, the climate and its consequent effect on the rivers must be realised. During the summer months the mountains are clear of snow, but the river valleys are often flooded, and the valleys of any large streams like the Liao Ho become almost a morass. Heavy rain storms may be expected between June and August.

There are no roads as understood in the "Great War." The best one available in the peninsula was the Port Arthur–Liao Yang Road, which ran via Fuchou, and was at this point some way from the railway, and therefore not in the direct line of advance to Telissu.

Being thickly populated there were, of course, numberless village tracks, but these were very bad and only suitable for the light country traffic in small rough vehicles.

**SITUATION.**

In June, 1904, as far as affects the 2nd Army, the situation was briefly as follows:—

The 3rd, 4th and 5th Divisions and 1st Cavalry Brigade were on the line Pulantien–Pitzuwo. The Russians had been driven back from Nanshan and were enclosed in the Port Arthur enceinte watched by the 1st Division.

The Japanese objective was to concentrate every available man at Liao Yang and defeat the Russians there before they became any stronger, the 2nd, 4th and 1st Army each operating along a different road and widely separated. The nature of the communications absolutely prevented greater concentration.

The Russian plan, on the other hand, was wavering, as General Kuropatkin wanted to wait reinforcements before fighting, and Admiral
Note.—The whole country is hilly. The stream valleys are thickly cultivated and densely populated.
Alexief insisted on the necessity of speedy relief of Port Arthur. This latter view was upheld from St. Petersburg, and orders issued accordingly.

Opposite the 2nd Army the Russians had a mixed force of some 100 guns, 3,000 cavalry, and 30,000 infantry scattered widely, at Kia Ping, Yinkou and the neighbourhood, with advanced cavalry at Telissu.

After discussion, and being unduly fearful of operations elsewhere, Kuropatkin eventually allowed Stakelberg additional troops. The final allotment being General Stakelberg's own 1st Siberian Army Corps, a Brigade of the 35th Infantry Division, a regiment of the 3rd Siberian Division, and a composite Cavalry Brigade.

When allotted to him the Cavalry Brigade was already marching south to recapture certain portions of the railway line. Its strength was about 1,600 sabres, 100 rifles and 6 guns.

No attempt is made to give more than the bare bones of the actual operations. Anyone interested can find them in detail in either Part I. of the Official History of the Russo-Japanese War or the German account of Wafang Koo, the other name for Telissu.

**NARRATIVE.**

General Oku, Commanding 2nd Army, had heard rumours of this proposed southern offensive, and on 30th May had sent forward the whole of the cavalry (1st Cavalry Brigade) to reconnoitre to the north of Wa Fang Tien, and on the afternoon of this day both sides were approaching Telissu.

The combat resulting in this meeting was the first fight at Telissu, and opposing forces remained in touch with daily skirmishes and minor combats until 3rd June, when the Japanese Commander, having obtained sufficient information, ordered the withdrawal of the Cavalry Brigade, with the infantry and artillery he had sent to their support, leaving patrols only in observation.

On the other hand, the Russians had learnt from the presence of the supporting artillery that it was very probable stronger Japanese forces were in the neighbourhood.

**DISCUSSION.**

This was purely a struggle for information.

What possibilities does the present and future hold for us in such a situation?

Telissu is only roughly 30 miles from Pulantien along the railway, and for most of this distance the railway runs one side or other of the Hsiung Yao Shan ridge—the main road, as had been said, running N.W. to Fuchou or away from the railway.

Will such a cavalry operation in similar conditions be necessary or not?

As regards the air it is unlikely that at such an early stage either side would have obtained anything approaching mastery.
It would have been the **role** of low-flying aircraft to obtain the tactical information required, and for the flights of the higher command to reconnoitre the rail movements and concentrations, perhaps as far as Liao Yang itself.

Now, in country such as has been described, provided the hostile troops took full advantage of the cover afforded by villages, crops, woods, and the slope of the ground, it would appear practically impossible for the most careful and daring low fliers to obtain anything but the vaguest information.

Land troops, therefore, as indicated in F.S.R. II., would be essential, and the rule of "Fight to learn" applies.

This being so, what possibilities do the tank and armoured car offer?

The distance to and from Telissu is well within the radius of the modern tank as described above, or armoured car, in a day, even allowing for skirmishes with the hostile screen.

In this case the Japanese desired information as to whether the Russians were on the move forward and, if so, how near they had got.

It is suggested, therefore, always remembering the nature of the country, and that as it was necessary to support the cavalry reconnaissance with infantry and guns, that the future solution of such problem will be by the despatch of force composed somewhat as below.

On the Fuchou road, a company of armoured cars supported by two companies of infantry and Stokes' mortar battery on lorries, and two sections of mechanically-drawn field artillery. The latter to afford protection should the reconnaissance meet fast moving tanks or with guns.

For the main reconnaissance on Telissu, where the tracks are unfavourable for cars: one battalion of tanks supported and assisted by two regiments of cavalry and a battery of horse artillery.

It may be argued, use either cavalry or tanks, but do not mix them, especially as a tank will move faster than cavalry.

It is submitted, however, that in such a theatre a combination will produce the best results.

Much of the country, owing to woods on the hills and the wet close cultivation of the valleys, would be impassable to tanks.

Lorries carrying infantry would not be able to move fast, if at all, along the tracks, and the result would be that the tank without support would have a limited zone of activity, and be liable to surprise and defeat from anti-tank defences.

On the other hand cavalry alone might easily be held up by machine guns in the villages and at the crossings of the numberless nullahs and streams, even if hostile tanks were not encountered.

Going further into detail, it is suggested that a suitable disposition for such reconnoitring force along the railway would be:—

**Cavalry.**—One regiment on each side of the railway, forming a screen covering the front required, with due proportion (one-and-a-half to two squadrons) kept in hand to fight.
Artillery.—Moving with the main body of the tanks in vicinity of the railway.

Tanks.—Headquarters, Wireless Section, and two companies along the railway or its vicinity. One company on the right supporting the cavalry on their flank—a wireless tank to accompany this section. The left flank is to a certain extent covered by the force on the Fuchou road, with which it would be in wireless touch.

There is another solution, however, of this first problem which is perhaps worthy of consideration—always remembering the characteristics of the theatre.

If an enemy is kept continually under observation he cannot carry out a surprise. Hence the ideal outpost is one where the enemy is picketted and consequently always under observation. The new tanks and armoured cars appear to offer facilities for this.

It is suggested that where, as in this case, the front is restricted, the possible lines of advance for large bodies limited, and the natural obstacles considerable, the Commander would be justified in using a very large proportion of his tanks and armoured cars in a far distant line of observation, especially as he could be constantly in touch with it by wireless.

If this argument is accepted it is suggested that under conditions of the near future, the 2nd Japanese Army would have had an outpost line of armoured cars and tanks extending from the Pili-Ho, east of Telissu, thence to Telissu, and so down the Fuchou Ho, stiffened at particularly dangerous points by infantry and guns.

It must not be forgotten also that with M.T. large bodies of infantry can be moved rapidly, and that tanks can easily drive in an ordinary outpost line. It seems, therefore, that, as the second duty of the outpost line is to delay the enemy long enough to enable the main body to get into its position to fight, and that whereas the time required for the occupation of a battle position cannot be materially reduced, the outpost to fulfil their duty must either be placed farther away or on the line of some natural feature which affords an efficient obstacle to tanks and mechanically transported infantry.

It may be urged that tanks are not much use at night, and owing to increased air observations, surprise attacks will be more and more carried out under the cover of darkness. In such cases, however, the outpost tanks will have been able to reconnoitre and possibly mark their particular area, and so distinctly have the advantage of any attackers.

Lastly, the only effective mobile weapon against tanks are tanks and guns, so it appears that for adequate protection in future the outpost line must be strongly supported by these weapons, even if the argument as to distance is not accepted.

Narrative—continued.

As a result of certain orders and information, the G.O.C. 2nd Army was free from the 4th June to prevent General Stakelberg's advance, and, in fact, to advance himself in accordance with the general scheme.
At this time his force consisted of three divisions and a Naval contingent of 1,500 all ranks, and six field guns. The advance was delayed owing to the trains not yet having been disembarked.

The Russians under-estimated this force in the most extraordinary way, and General Stakelberg received orders on the 7th June to advance and capture Nan-Shan. This order was made more difficult of accomplishment by the Commander-in-Chief refusing to allow General Stakelberg to concentrate what forces he had.

It is obvious, of course, that with modern facilities of observation this false appreciation could hardly have been made by the Russians. The Japanese, on the narrow Pulantien-Pitzuwo position, must have disclosed their considerable strength to the air.

Directly the Japanese G.H.Q. realised the Russians were committed to this advance all the other armies were ordered to carry out active operations with the object, which was successful, of weakening the Russian effort.

The Navy also co-operated in bombarding the coast as far north as Kai Ping, and obtained information as to the Russian movements.

On the 7th the Russians had their outposts on the line Ma-Chuantzu-Hsiao-Chia-Chen-Chi Chiatun, with also independent posts further out. This is about a 30-mile front, and watched all the Japanese approaches. The reasoning as to use of cars and tanks in distant observation line applies also to this situation.

Between the 9th and the 11th cavalry reconnaissances obtained accurate information as to the extent and nature of the Russian force, and that in certain places the outposts were strengthened by infantry. On the other hand the Russian information was indifferent, and thus although the withdrawal of Japanese ships relieved one anxiety it was not till the 12th that General Stakelberg was permitted to concentrate his command.

The comments on the previous reconnaissance applies to those operations also. Either side, making full use of and properly handling tanks available under modern conditions, could have driven in the opposing outposts and obtained still better information.

General Stakelberg still under-estimated the numbers against him. On the 12th of June General Oku's trains had arrived, and on the 13th his advance had begun.

On that date, moving in three divisional columns, the 2nd Army reached the line Tai Ping Chuang, Kuan Chiatun, Wuchia Tun(s), and at 7 p.m. orders were issued for the advance next day.

The lines of advance are given on the maps; the instruction was to drive back the enemy with the 3rd and 5th Divisions, while the 4th moved via Fuchou to operate against the enemy's right and guard against any advance along the main road.

General Stakelberg, on the other hand, had given up the offensive, and decided to await the Japanese in a position he had selected south of Telissu.
He again incorrectly appreciated the position and disposed his troops so that he had a whole division and four batteries to the east, and a weak brigade, two batteries and the bulk of his cavalry to the west of the railway, whereas the Japanese had two divisions to the west and one division and a cavalry brigade to the east. Three regiments of infantry were still on the train coming up to the Russians.

On the 14th the Japanese moved as ordered. Dispositions and moves are shown on the map.

On this morning General Oku, Commanding the 2nd Army, heard that the 6th Division had disembarked some troops, and he ordered them on to Latzu Shan at once. By 2 p.m. the 3rd and 5th Divisions had pushed in all the enemy's advanced troops and a heavy artillery duel started; under cover of this the Russian position from Ta Fang Shien to Lung Wang Miao was reconnoitred. At 3 p.m. the duel was at its height, but, although the Russians had disclosed thereby the whole of their artillery, the Japanese 3rd Divisional Artillery only had come into action.

About this time the right of the Japanese attacked without success the Russians about Wa Fang Wopu; the latter were reinforced and the attack was repulsed. General Stakelberg received a verbal report of this about 3 p.m. on visiting this area.

No important success was gained, and at sunset the 3rd and 5th Divisions held a line running from Ssu Chia-Cho through Lung Chia Tow to Wuchia Tun. Headquarters 2nd Army moved to Wa Fang Tien, reaching there about 3.30 p.m. The Cavalry Brigade on the extreme right did nothing during the day. On the left the 4th Division reached the position assigned to it, a detachment clearing a company of Russians out of the town of Fu Chou during the day.

Meanwhile General Stakelberg, with a quite incorrect appreciation of the situation in his head, returned to Telissu and moved his reserve out to his left with orders to come under General Glasko's control.

This erroneous appreciation could not have been formed if modern facilities of air observation were available. Although no reports of engagements west of the railway had been received, low-flying aeroplanes would surely have located the 5th Division, and perhaps the 4th Division also.

However, General Stakelberg decided on a counterstroke on the 15th, and as a result of his movements had three-quarters of his force east of the railway, and his only available reserves were still coming up by train.

General Oku, on the other hand, decided the enemy were weaker than his force, although being constantly reinforced by rail. Orders were therefore sent out at 11 p.m. for further attack on the morrow. The moves consequent are indicated on the map.

General Oku also reduced his reserves to two regiments by returning one regiment to the 5th Division. The leading troops of the 6th Division, however, might be shortly expected. His plan was to attack the left
and centre of the Russians with the 3rd Division and turn their flank with the 5th and part of the 4th Divisions. The cavalry were to operate on the right flank.

It is necessary here to consider the topography of the battle field.

In front of the 2nd Army position lies a line of hills rising 600 ft. to 1,000 ft. above the valleys, blocking the view beyond and about 2,000 yards north of it lay the main Russian position. The range of hills lies like a screen before the position, and almost entirely hides all movements behind it. The railway, road and Hou Tou river pass through a gap in this line of hills, the boundaries of the gap rising in two bare steep peaks. The gap extends for about half a mile, and of the same length, narrowing in the centre to about a quarter of a mile. The hills on either side are inaccessible to field artillery. To the west and at the extremity of the range is another and larger gap through which the Fuchou Ho runs. Directly behind the railway gap and covering it runs out the Lung Wang Miao spur, and between the two are villages surrounded by large trees. This spur was the main artillery position of the Russians. North-eastward from the eastern boundary peak of the railway gap, the position follows a curve of commanding points to Fei Chia Tun. Here were trenches and gun pits. The valley of the Fu Chou Ho is flat, open and heavily cultivated, and very gradually narrows to Telissu. In this valley connecting the right and Lung Wang Miao were infantry trenches and gun pits, while the main line on the right ran along a well defined feature N. of N.W. of Ta Fang Shen.

From west to east the position measured about eight and a half miles.

A heavy mist at dawn in the Hou Tou and Fuchou valleys enabled the Japanese infantry, who had started at midnight, to get to the Russian position.

At 5.25 a.m. the weather cleared and the artillery opened.

During the night the Russians had made some alteration in their tactical dispositions and were ready to attack on their extreme left. Orders, however, for the attack were late, and considerable misunderstandings arose owing to some vagueness in their expression, the result being the attack by General Glasko, which was to have started between 1 and 2 a.m., had not started at dawn. More delay occurred after the Japanese artillery opened, for the matter was still being discussed by the Commanders concerned. When eventually orders were issued to advance, a vague order was received from General Stakelberg giving instructions for a withdrawal if the Japanese advanced, or for a halt if they retired.

General Gerngross, however, had advanced between 7 and 8 a.m., and progressed slowly, and pinned the Japanese to the rough trenches they had thrown up at night.

The 5th Division, while this action was in progress, had got on well, and when it was realised that the 3rd Division were being attacked, the advance was pushed with even more vigour, with the result that
by 10 a.m. Tafang Shen and the heights above it had been definitely captured.

As a result of this, artillery fire was concentrated on the Lung Wang Miao position and the Russian artillery silenced and knocked out. The 4th Division troops were now beginning to come into action and had got touch with the 5th Division near Yang Chia Tun at 9 a.m.

General Stakelberg's efforts, on hearing of the situation, to reinforce this flank were quite unavailing. His communications were, of course, bad, but there were unnecessary delays and other faults. At 11.30 a general order to retire was given, and about mid-day the retreat on the right began.

Meanwhile the attack on the 3rd Division had no success though pressed home, and shortly after 10 a.m. the right of General Gemgross's force came under flanking fire from the 5th Division. As a result about noon orders were given for a withdrawal on this sector also.

The 3rd Division resumed the offensive and, securing the railway gap, the artillery advanced and occupied the Lung Wang Miao spur and so commanded the valley to the north.

About 2 p.m., two battalions of Russian infantry arrived by train and detraining at a siding were of marked assistance in checking the Japanese turning movement. Added to this a heavy rainstorm came on at 3 p.m. which effectively blinded the Japanese artillery and materially assisted the Russians to get away.

The Japanese did not follow up their victory, ammunition was running short, and the ground near and beyond Telissu was unsuited for cavalry action. Two squadrons only were sent north and behind them outposts were established. Thus the attempt to relieve Port Arthur was a signal failure.

**Consideration of Possibilities.**

Now accepting the general plan adopted by each leader it is for consideration what use could have been made of the air and mechanical weapons. As regards the air service much comment is not required, except a prepared position should generally be obvious in the photographs taken, although in a scrub-covered country a well trained army would doubtless be very hard to locate from the air.

On the other hand, to attack requires movement, and troops on the move, even in such difficult country, are far more likely to be spotted. As regards actual attacks from the air, attackers would be likely to suffer more severely than the defenders in this country, but once the retreat commenced great damage could be done to the retiring troops forced to pass through the defiles north of Telissu.

Turning to the rôle of the tanks and armoured car units, the possibilities are not so easy to explore.

A detailed study of a map (large scale) brings out the fact that behind the right and N.W. of Telissu there is a cluster of steep hills, and that the
whole of the country along and immediately behind the Russian left is similarly rugged.

The Japanese cavalry also were unable to pursue, although it is extremely probable a cavalry force similar to the Desert Mounted Corps in Palestine would have got further.

Leaving the ground out of consideration for the moment, it is for decision whether the tanks available can be more profitably used to co-operate with the infantry on the divisional fronts, or acting independently to break the enemy’s line at some point and so facilitate the advance elsewhere, or lastly to be saved to exploit success and complete the destruction of the enemy.

The tank being essentially an offensive weapon, it may be anticipated that the defenders’ tanks will be used entirely for a counter-attack, or to engage the tanks attacking with the infantry.

In a battle like this, still without considering topography, no continuous defensive lines will be met, and the defence will consist of a series of defended localities. It would appear better, therefore, provided no exceptional preparation has been made, to use as few as possible of the tank units with the infantry, and even these as a reserve of power to overcome unforeseen difficulties and to keep the bulk to rush forward and immediately exploit success. To do this their location in the battle area will have to be most carefully selected.

The immediate exploitation of success is always difficult even with the best arrangements, but the mobility and fire power of the tank should render it peculiarly effective for this purpose. The minutes of wonderful possibility just after a successful assault fly only too quickly, and at such a time a rapid advance by tanks should reap enormous benefits. They cannot, of course, be left entirely by themselves, but should be followed and accompanied by any other troops on foot or horse that are available. It is very easy for a tank to capture, but very hard for it to hold or maintain an advantage won.

Now, turning to the actual ground and applying the above arguments. It will be seen that centre and left only offer possibilities for the best use of tanks.

It is suggested, therefore, the allocation should be somewhat as follows:—

Attached to the 3rd Division.—Two companies to assist the infantry in dealing with defended villages.

With the 5th Division.—One battalion, their rôle being to exploit success in the centre and along the valley. One company of this battalion might be attached to the infantry to assist in the capture of defended villages, the primary rôle, however, being to rush forward and over the defences immediately after the assault.

In Army Reserve.—A Brigade less the two companies with the 3rd Division and the battalion with the 5th Division.
With the 4th Division.—Here some difference with the plan adopted for the actual battle is suggested.

About 20 miles north of Telissu and 30 miles from Fuchou the main Port Arthur-Liao Yang road meets the railway along which, in the event of defeat, the Russians would retire.

It is suggested that only one brigade of infantry and a proportion of 4th Division artillery would be ordered to support and co-operate with the 5th Division against the Russian right. The remainder of the Division should be held ready with the necessary M.T. to "embus" directly the battle was won. With them would be two brigades of tanks and two armoured car companies. The rôle of this force would be to head off the retreating army at the junction of road and railway and hold them until the main body, following up their success, would arrive. Special precautions by air will be necessary to protect this operation and ensure surprise.

If successful this would ensure the capture or destruction of the whole enemy force, and even if only partially so would drive them off the road into the hilly country to the east.

Or if it arrived too late at the junction, it would still be in position to continue a close and merciless pursuit.

The remaining armoured car company would remain in G.H.Q. Reserve to be attached to the cavalry operating on the right flank if the tracks were found passable.

The 4th Division Commander in allotting his troops would, of course, take special care to ensure that the tanks always had an adequate reserve, so that the crews could be rested without having to break off the fight once touch was gained.

In open warfare it will always be difficult to foresee for certain what localities are most likely to hold up the infantry; considering the handling of the tanks with the 3rd Division in more detail, it is therefore suggested that no definite allotment of frontage within the Division should be given.

The advance guard might be allotted two sections to move by bounds between the van and main guard and operate outwards when the protecting troops have been driven in, to assist in locating and fixing the enemy's flanks.

The remainder of the tanks, i.e., two companies less two sections, should be kept under control of the Divisional Commander, to be utilised as and when it was seen definitely that any locality was holding up the advance.

With the 5th Division the possibilities are more definite, certain villages and localities will obviously be organised as strong points, and it is desirable to make certain of breaking through rapidly.

It is suggested, therefore, that one company should be definitely allotted the rôle of leading the infantry on through the villages—one section detailed to assist in the capture of the hill to the west of the railway gap as far as it is scalable on its western side, and the remainder, moving by bounds, follow up so as to be able to immediately exploit the success
gained. A proportion of tank bridges would have to be carried by this party to prevent delay once the valley was reached and irrigation channels met.

There are numberless other points worthy of consideration. No two military situations are the same, but no improvement in armaments or weapons has ever altered the fundamental principles of war, and there are few more fascinating studies than that of the history of a past campaign in the light of recent or personal experience and envisaging future possibilities.