

CHAPTER 5

Supporting Arms

Section 12.—GENERAL

1. The regimental signalling officer is responsible for informing all supporting arms that join the regimental net of their link-signs, and ensuring that all stations are aware of the identity of the new link-signs. In addition, he must see that all stations are familiar with the order of answering, times of netting, hours of watch etc.
2. He must be prepared to arrange maintenance and battery charging facilities for newcomers to the regimental net and offer them every assistance in signal matters.

Section 13.—ROYAL ARTILLERY

1. A battery of artillery, usually self-propelled field, but sometimes towed field, or medium, is often put under command of an armoured regiment for a specific operation. On occasions a whole regiment may be under command. The artillery regimental commander or battery commander will usually travel, probably in his own tank OP, very close to the armoured regimental commander. His tank OP is equipped with two wireless sets, one of them being netted to the armoured regimental frequency, the other to the artillery. If the armoured regiment is attacking, for instance, as a regiment, artillery fire can be kept up until the tanks are almost on the target, and can be stopped by the battery commander. Where batteries or troops of a battery are assigned to particular armoured squadrons a FOO, also in a tank OP, will accompany the squadron leader, and control the fire of his guns in the same way. In this case squadrons generally have a semi-independent role, and will be working with squadron nets. The FOO's sets will therefore be netted to his own artillery net, and to the squadron net.

2. Communications for RA-RAC co-operation are further discussed in *Signal Training (All Arms) Pamphlet No. 7, Part III, Appendix C.*

Section 14.—THE MOTOR BATTALION

1. A company of the motor battalion of an armoured brigade will frequently be put under command of an armoured regiment for such tasks as mopping up, or clearing obstacles. The problems of Infantry-tank co-operation will not be so apparent in such a case

because motor battalions are equipped with the same sets as those used in the armoured regimental net, and can therefore join in this net without difficulty. The motor battalion, being part of the armoured brigade, will be well known to the regiment and used to working with it. Even so, the regimental signalling officer must take care to maintain close liaison with the signal officer of the motor battalion, because the motor companies will usually be put under command of the armour at very short notice, leaving no time for any special arrangements. The motor battalion signalling officer should always know, for instance, what frequencies are in use by armoured regiments and squadrons, so that companies can be attached rapidly to regiments.

2. Signal tactics in the motor battalion are dealt with fully in Part III of this pamphlet.

Section 15.—ROYAL ENGINEERS

1. Troops from the field squadrons RE of the division will often be under command of regiments. Each troop has one wireless set that it can net on to the regimental net, possibly flicking at intervals to its parent squadron. The field squadron has no signalling officer, communications usually being in the charge of a regimental signalling NCO. A NCO from N troop of the armoured divisional signals commands the rear link detachment of the squadron. The regimental signalling officer must make sure that the necessary instructions for netting are given to this NCO.

CHAPTER 6

Miscellaneous

Section 16.—SECURITY

1. The continuous use of wireless by regiments of the Royal Armoured Corps makes the observance of security a matter of primary importance. Lax security may be the means of giving away vital information and of ruining an operation. The rules for wireless security are laid down in *Pamphlet No. 7, Part I, Sec 11*, and *Part III, Appendix L*. COs and signalling officers of regiments must ensure that all officers and operators are conversant with the principles and practice of wireless security, and ensure that they are put into effect.

Section 17.—MAINTENANCE

1. Regiments of the Royal Armoured Corps contain well over a hundred wireless sets, and the signal troop has only six radio mechanics to look after them. The signal troop can cope with repairs and monthly inspections only, and maintenance must be largely the task of driver and gunner operators of the regiment. It is of the utmost importance for the efficiency of communications that the daily maintenance tasks applicable to each wireless set are carried out regularly and thoroughly. It is primarily the duty of squadron and troops leaders to see that maintenance is carried out properly, and it is the regimental signalling officer's responsibility to give assistance and advice, and to inform the CO if it is not being done. Regular checks must be made of the spare parts carried with each set. There is a tendency for operators to hoard equipment, particularly such items as useless pigtails which have been replaced, unserviceable valves and so on, and if this tendency is not checked spare parts boxes may become filled with useless equipment.

Section 18.—BATTERIES AND BATTERY CHARGING

1. Wireless batteries are probably the least satisfactory feature of the army wireless system, and proper attention to their care is essential. Careful handling and regular maintenance are amply repaid.
2. In the armoured regiment battery, charging is always carried out centrally at regimental headquarters. In the armoured car and reconnoitre regiments a central charging system should be adopted when possible, i.e. when the regiment is concentrated.

3. When squadrons of armoured car or reconnoitre regiments are acting independently, battery charging arrangements are normally made on a squadron basis.

4. The establishment of wireless batteries in the regiment includes approximately 100 per cent. spares to replace batteries that are on charge. This number is only just sufficient to meet normal requirements; a battery that may discharge in about six hours with a regimental net wireless set takes 10 hrs to charge. A systematic and efficient charging drill is therefore essential. When battery charging is centralized, the batteries must be brought in by squadrons to the signal troop daily and at a time laid down by the regimental signalling officer. Batteries that are damaged or do not hold their charge are sorted out by the signal troop for exchange and replacement at once. A battery replacement system is organized by armoured divisional signals.

Section 19.—RELIEF OPERATORS

1. As long as any particular AFV is in action the operator in it remains on duty, and when the AFV comes out of action he closes down his set as ordered. When the regiment is in close harbour for the night or for a period, only the rear link set to brigade headquarters remains open. It is more usual, however, to harbour by squadrons, keeping squadron rear links and the regimental control set open. These sets have only one operator each, and are often manned by the regimental signalling sergeant and squadron signalling NCOs who have other duties to perform, anyway, as soon as the regiment pulls out of action. The drill for harbouring therefore must include arrangements for the closing of all unnecessary wireless links, and the immediate relief of the key men who usually operate the sets remaining open. Relief operators should be changed over every two or four hours during the night or period of rest. Failure to arrange reliefs properly will result sooner or later in operators falling asleep on duty.

Section 20.—OTHER MEANS OF COMMUNICATION

1. *Hand Signals*.—Standard hand signals for the tactical manoeuvring of troops and squadrons were devised before the WS No. 19 was fitted to all tanks. They have obvious disadvantages, particularly in close country, but may be useful in an emergency, and they should therefore be familiar to everyone.
2. *Despatch riders*.—The intercommunication troop of the headquarters squadron contains seven scout cars, each with a driver operator and a driver, and one with the troop sergeant and a

driver. These eight scout cars are distributed between regimental and squadron headquarters and the echelons, usually permanently, and are used for such tasks as the carrying of messages during wireless silence and the carrying of liaison officers, *eg*, for co-operation with the Infantry. There are also six motor-cyclists in the administrative troop of the headquarters squadron who are used for carrying messages, and are permanently distributed in the same way. The use of these motor-cyclists and of the intercommunication troop is rarely controlled by the regimental signalling officer. He will, however, be responsible for training the driver operators of the intercommunication troop and for teaching the motor-cyclist the use of DR docketts and such other things as are required for efficient message-carrying.

3. Lines.—Line Communication in an armoured division is seldom essential, but it is always convenient when it can be provided. Brigade will therefore always give its regiments telephone communication when conditions are stable enough to warrant it, thus enabling rear link wireless sets to close down. Similarly, the regiment will arrange telephone communication to its squadrons in static positions, enabling their wireless sets to close. The regiment has no line stores on its establishment, and the equipment for providing this communication must be obtained from outside, possibly from the brigade signal officer. Line communication is secure, easy to use, and popular with the user. For regiments of the Royal Armoured Corps wireless is the only method which will give the required facilities in action, and the popularity of line sometimes leads commanding officers and others to demand it in circumstances for which it is not suited. If the use of line is attempted when operations are at all mobile there is considerable risk of slowing up progress.