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THE MEDICAL PROBLEMS OF A BASE AND OF THE L. OF C.¹

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This lecture has broken away from the routine of those of the winter period of training, which usually deal with the duties of a Regimental Medical Officer or of a Field Ambulance Commander, or of a Divisional Field Hygiene Section.

The problems are such as may affect in some way or other all medical officers and senior other ranks no matter what their rank, or what speciality they favour in peace, and therefore it behoves us all to study the different manuals which deal with them.

The manuals most concerned for quick reference are:

Official.
Manual of Movement (War), 1933.
Instructions for Movement Control, 1938.
Official History of the War (Medical Services of the Army).

Unofficial.

(1) What is the meaning of a Base and the L. of C.? The series of

¹ Based on a Lecture given at the Queen Alexandra Military Hospital, Milbank, to Officers, Warrant Officers and Non-Commissioned Officers, R.A.M.C.
definitions on pages xvi to xxii in Field Service Regulations, Vol. I, might well be our first study.

The definition of a "base" is given as "a sub-area organized to include two or more depots of men, animals or material."

The definition of "L. of C." is given as "the system of communications in a theatre of operations between the bases inclusive and the rear limit of administration by formation commanders (i.e. Corps or Divisional), along which the requirements of the field army are transported."

(2) The base is the group of depots and installations (vide definitions) established by the various services in the theatre of operations. In the case of our forces, who in the majority of cases are working overseas, the bases will be established in the vicinity of a port or ports of entry in order to expedite the reception of personnel, animals, vehicles, materials, supplies, and to facilitate the evacuation of casualties from the theatre of operations (Manual of Movement, Section 52).

Lieut.-Colonel Shaw, R.A.O.C., in his interesting book, "Supply in Modern War," describes a base as "the source whence power and mobility, where life itself and its expression in war must spring. It furnishes the ration, forage and fuel, which ensure movement, and also the wherewithal to fight, i.e. the natural supply and the war supply of a force."

The constituents of a base are as stated in Sections 56-58 of the Manual of Movement:

(i) The docks, which are solely a transit locality.

(ii) The depots.

(i) The transit locality consists of the docks, the various installations concerned with the loading of shipping and the clearance of cargoes, and with such railways or inland water transport organizations directly concerned with this work.

Dumps and depots should be avoided in the docks or only used very temporarily. This rule was frequently disobeyed in the Great War, causing confusion and delay in getting personnel and material clear of the docks and forward to the concentration area (vide Manual of Movement, Section 10).

(ii) The depots must each be located separately. The chief are:

(a) Personnel camps for troops in transit, infantry and general base depots.
(b) Personnel camps for civil labour (at docks or depots).
(c) Hospital and Convalescent Depots and Base Depot Medical Stores.
(d) Veterinary and Remount Areas (Veterinary Hospital Stores and Convalescent Camp).
(e) Ammunition Depots.
(f) Main Supply Depot and Detail Issue Depots (frozen meat, bakery, N.A.A.F.I. Canteen Stores).
(g) Petrol and Oil Depot (P.O.L.).
(h) M.T. Stores Depot.
(i) M.T. Vehicle Reception Depot, R.A.S.C.
(j) Ordnance Stores Depot (General Stores and Returned Stores Depot).
(k) Depot for Work Services and
Engineer Stores Service. (l) Transportation Stores Depot (stores in connexion with all transportation services, especially railway and inland water transport equipment, etc.). (m) Post Office, M.F.O. and Printing and Stationery Service. (n) R.A.F. Area (Stores Depot and Vehicle Park). (o) The various workshop and repair organizations connected with above. (p) R.N. Stores. (q) Base marshalling yard.

(3) To meet the preparations needed for the docks and depots of such a base, arrangements must be made for the reception of the force, its protection, immediate maintenance and accommodation.

Before any landing takes place it is essential that these preliminary plans should be drawn up for the maintenance of the force and the lay-out of the base.

These preliminary plans lay down the tentative proposals as to the methods by which the force shall be maintained, and are set out as administrative orders, known as "the maintenance project."

They also lay down the manner in which the base shall be laid out and depots on a large-scale plan called the "First Key Plan."

An advance party is sent to make these necessary arrangements (vide Manual of Movement, Section 55 (i)). This advance party will have a senior R.A.M.C. officer among its members to make the medical and sanitary arrangements.

As a result of the more reliable information collected by this advance party a more amended project is substituted, and a Second Key Plan shows the definite allotment of areas for the depots and installations. Later even a Third Key Plan may be issued to meet the permanent maintenance scheme.

In fixing the number and nature of the administrative units, the decision will depend on the nature of the country, the degree of development existing at the base port, also the facilities in the country for construction. What would suit France would not suit Irak, Palestine, West Africa, e.g. consider the different types of medical transport and equipment used in the Great War (vide R.A.M.C. Training, Chapter XX).

Usually the following units will be essential:

(i) R.E. (Transportation): Railway survey, construction and operating companies and dock companies.

(ii) R.E. (other than Transportation): Field survey, electrical and mechanical companies, workshop and park field companies.

(iii) Signal units.

(iv) R.A.S.C. supply and transport units, both for maintenance and for the initial supply and transport work occasioned by the landing of the force (butchery, bakery, frozen meat store, other supplies, M.T. Company for transport in base).

(v) Medical and veterinary.
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(vi) Ordnance (Store Company, Workshop Company, Ammunition Company).

(vii) Pay and Provost—Post and Publications.

(viii) Base depots for personnel (troops, Labour Corps).

The advance party sets aside sites for temporary lay-out to meet the immediate arrival of the troops, and sites for the permanent lay-out. Sometimes the base for the temporary lay-out may be a different one to the base for the permanent lay-out.

The type of depot for personnel or animals or stores will assist in determining its locality.

(a) Personnel camps should be within easy marching distance from the landing places, to allow of a short march to camp.

(b) Hospitals should have easy access to broad-gauge railway and to the docks for loading hospital ships, also near a good main road. They should not be too near personnel camps or store depots in case of bombing.

(c) Petrol and ammunition should be well apart from all other depots and from each other, also on sidings away from main lines on ground suitable for concealment.

(d) M.T. on suitable ground of wide area for M.T. standings and near access to road and railway.

(e) The base marshalling yard is an important depot for marshalling trucks from other depots (Ordnance, S. and T., R.E. Stores, etc.) to make up full trains. (Manual of Movement, 1933, Section 68, and Instructions for Movement Control, 1938, Section 18.) This is placed forward of all other depots of the base ready to accept a forward flow of vehicles from other depots.

In addition to these depots are the A.A. defences for the base sub-area.

We have thus got the numerous depots and installations for which medical arrangements must be made.

(4) The medical problems of the base concern the following:

(i) Medical base—other bases.

(ii) Sanitation in all bases.

(iii) First aid at rest camps.

(iv) First aid at docks.

(v) Medical aid to other depots.

(vi) Medical transport in the base sub-area.

(vii) Supply of medical stores at the base.

(viii) Transport of casualties by train to the base.

(i) The Medical Base is a separate base set aside for medical duties only. The enemy must be informed of its position and its work as a medical base.

It has no air-defences nor combatant units in it, and therefore should not be subject to interference by enemy from the air or by other form of attack.
The Detail Issue Depot for supplies and possibly a small Ordnance Store are the only units other than R.A.M.C. in its area and are placed near a suitable rail-siding taken off from that for ambulance trains.

The Medical Base Commandant is a D.D.M.S. with the usual assistants and hygiene expert, five consultants in special subjects, and E.M.O., assisted by two "Q" officers for transportation and other departmental officers.

The lay-out includes: (a) General Hospitals (600 or 1,200 bedded). (Two or more must arrive with the first combatant units to deal with the early wounded or routine sick). (b) Ambulance trains with special sidings for unloading. (c) Ambulance Car Company. (d) Field Hygiene Section (this should arrive almost first of all units). (e) Base Depot Medical Stores. (f) Convalescent Depots. (g) A Detailed Issue Depot (D.I.D.), with R.A.S.C. detachment, for supplies of the whole base. (h) An Ordnance store for blankets, and other Ordnance stores for hospitals. (i) Hospital ships. (j) Quays for hospital ships.

This base will take the chief percentage of all casualties from the front and therefore must have room for expansion in size and number of its General Hospitals.

Other bases will each have (a) a 600-bedded hospital, or a section of such a hospital (or a 200-bedded hospital, if re-established), for the sick and casualties among their occupants, depending on the size of the base, also (e), (d), and (g), above.

(ii) Sanitation: A Field Hygiene Section will be required as one of the first units of the whole force to arrive in each base, as sanitation of all ports, especially foreign ports, is at all times bad. In large bases the unit will have to be split into sub-sections, e.g. one being placed at the docks, another at rest camps for troops or for labour, and another near the large store depots, and so on.

(iii) Medical arrangements at Rest Camps: A M.I. Room will be established, and possibly a small detention or reception station of a few beds to detain mild cases at the rest camp, at infantry or general base depots. The base depots have two medical officers allotted to them.

(iv) Medical arrangements at Docks: At most docks of large ports civil first-aid posts are already established. These can be elaborated with extra R.A.M.C. orderlies, with suitable medical and first-aid necessaries. The E.M.O. or a special M.O. (e.g. M.O. i/c Labour Company at Docks) will be in charge. Accidents will certainly happen, and sick require early attention.

(v) First Aid at other large depots with numerous personnel: Medical Officers in charge of Labour Companies or base depots will probably be in medical charge of other large nearby depots not provided with medical officers, e.g. Base Ordnance, S. and T., and R.E. Depots, and workshops, ammunition depot, or base marshalling yard.
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(vi) Medical transport in the base sub-area: An Ambulance Car Company (a R.A.S.C. unit), now consists of a headquarters and five sections of twenty-five cars each. The unit may be split up, e.g. one section may be at each ordinary base and two or more sections and headquarters at the medical base. This unit evacuates cases from ambulance trains to general hospitals, and from general hospitals to hospital ships or to convalescent depots, and acts locally to bring in cases from base depots to hospitals.

(vii) Supply of medical stores at the base: A Base Depot of Medical Stores is a large unit established at the medical base usually near a railway station or siding in a large dry warehouse with a good road access. This supplies general hospitals, advanced depots of medical stores, ambulance trains and emergency supply in hospital ships, though the latter's routine supplies come from the base depot medical stores at the home base.

(viii) Transport of casualties by train to the base: Ambulance trains are not normally base units but L. of C. units. They are re-stocked at the garage or ambulance train depot, after evacuating their casualties at the base, from stores received from the base medical stores depot.

The medical staff of other base sub-areas consists of an A.D.M.S., a D.A.D.H., and an E.M.O. (if a port), and eight M.O.s, two in charge of the Labour Companies at the base, and six at the disposal of A.D.M.S. for emergency, transit, and other duties.

Hygiene and sanitation will be the foremost medical questions in these bases.

(5) Line of Communication—see definition under (1) above. This line includes rail-heads, road-heads, or river-heads, e.g. in Abyssinia the Italians had road-heads, and in Mesopotamia in the Great War there was a river-head. Lieut.-Colonel Shaw, R.A.O.C., describes the Line of Communication as the "Umbilical Cord joining the mother (i.e. the base) to the child (i.e. the force)." How glad would any G.O.C. be nowadays if only the "child" could be free of its "mother," and self-supporting. The Line of Communication must, however, be visualized as an area rather than the line of a railway, river or other artery of communication since in this area are located all the administrative installations, similar to those at the base in a more advanced area. These again must be suitably dispersed.

The units and depots on the Line of Communication are rail-head depots of Ordnance, S. and T., and R.E., rail-head and L. of C. A.A. Bdes., C.C.S.s, M.A.C.s, Advanced Depot of Medical Stores, Convalescent Depots, Regulating Stations [vide Manual of Movement, 1933, Sec. 68 (2)], Advanced General Hospitals, Advanced Base Depots, Workshops, Repair Shops, M.T. Companies on L. of C., Ambulance Car Companies on L. of C., N.A.A.F.I. Canteens, Ambulance Trains and garages. Few
of these units have their own M.O., so that in times of quiet M.O.s from C.C.S., Advanced General Hospitals and M.O.s i/c. definite units (e.g. M.T. Companies, and A.A. Bdes.) can look after troops in the L. of C. area.

A small pool of M.O.s for each L. of C. sub-area under the A.D.M.S. of the L. of C. sub-areas, similar to the pool of M.O.s at the base sub-area, is now being added to meet the shortage of M.O.s in that sub-area, and they could be located at regulating stations or other central places. This addition is of great advantage as M.O.s of C.C.S.s and Advanced General Hospitals will be far too busy during operations to manage the numerous small units and depots.

Air attack on the L. of C. will necessitate the presence of M.O.s at or near the different depots or installations to meet immediate medical calls.

The Medical Staff has a D.D.M.S., A.D.M.S., D.A.D.M.S. and A.D.H. (6) The chief duties of the D.D.M.S., L. of C. area, or A.D.M.S. L. of C. sub-area, are as follows:

(i) Hygiene: By far the most important are early and strict sanitation and hygiene, otherwise the ground will be rapidly fouled, and a disease-carrier sooner or later start an epidemic or upset the health of the troops passing along the L. of C. This necessitates the very early arrival of the A.D.H. and of a Field Hygiene Section in the L. of C.

(ii) Evacuation of casualties: To establish the medical units as early as possible so as to maintain the necessary flow of casualties down the line, i.e. C.C.S., M.A.C.s, Ambulance Trains, Advanced General Hospitals (these are necessary along the L. of C. in these days of intense bombing), Convalescent Depots.

(iii) Medical aid at regulating stations and railway rest stations: To get aid for troop trains up and ambulance trains on the down journey and for local casualties. P.A.D. First Aid Posts will be needed at all such stations. A separate M.O. must be available at each such station.

(iv) Ambulance trains: To establish these, or temporary ambulance trains, early, and to co-ordinate their routine work through the movement control on G.H.Q. in order to obtain an even evacuation to clear the expected casualties of the force in front of rail-head. (This may be co-ordinated direct by D.M.S. Force, or as in the Great War a D.D.M.S. i/c. Ambulance Trains, established). Brechot or Tintner or other suitable variety of apparatus must be early available (R.A.M.C. Training, para. 476).

(v) Medical P.A.D.: Establish at all medical units and large depots medical first aid posts to deal with wounded contaminated personnel.

(7) I am aware this lecture is sketchy, and only gives an outline of the medical problems which may crop up, but if it stimulates all ranks to look up further details in the various official manuals or unofficial books, it will have attained its object.