THE PARACHUTE FIELD AMBULANCE

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"Every officer and soldier, whatever his rank or arm of the Service, needs to be a skilled infantry fighter because that is the sum total of the value of each individual, no more and no less, in the opening moments of an airborne assault."

(Major-General E. L. Bols, C.B., D.S.O., Commander 6 Airborne Division).

INTRODUCTION.

(1) The parachute field ambulance is a comparatively new unit and its special features are not well known outside the Airborne Forces. In addition, little has been committed to paper on the subject and those officers with most experience have now left the Army.

[The Parachute Field Ambulance as described by Lieutenant-Colonel Young, was composed of four elements. In the case of the Normandy operations, for example, these were disposed as follows: (a) Base details which remained in England. (b) The parachute element. (c) The glider element. (d) The "sea tail," i.e. transport, etc., which crossed with the Division attacking to join up with the Parachute Division. When an effective junction was made the "sea tail" joined up with the parachute and glider elements.—Ed.]

(2) The first parachute field ambulance (16 Parachute Field Ambulance) was formed on April 6, 1942, and since then, parachute field ambulances have dropped into action in Tunisia (16 Parachute Field Ambulance), Sicily (16 Parachute Field Ambulance), France (224, 225 and 127 Parachute Field Ambulances), Holland (16 and 133 Parachute Field Ambulances), Germany (224 and 225 Parachute Field Ambulances), and Greece (127 Parachute Field Ambulance). They have also been used in a ground role in all these countries as well as in Italy (16, 127 and 133 Parachute Field Ambulances), Belgium (224 and 225 Parachute Field Ambulances) and Burma (80 Indian Parachute Field Ambulance).

[The following is an addition to the original paper—
It should be pointed out that the views expressed in this paper are the result of wartime experience and that, since the end of the war, the War Establishment of both a British airborne division and a parachute field ambulance have been changed. During the war an airborne division consisted of two parachute brigades and an airlanding brigade, a parachute field ambulance being attached to each parachute brigade. In 1946, the airlanding brigade was replaced by a third parachute brigade, thus providing three parachute field ambulances in each airborne division.

This paper was awarded the Leishman Memorial Prize for 1946.—Ed.]
The Parachute Field Ambulance

In April, 1947, the War Establishment of a parachute field ambulance became the same as that of an infantry division field ambulance and separate field surgical teams (parachute) were formed on the scale of two for each parachute field ambulance.

It is of interest to add that, although an airborne division possessed an airborne field hygiene section during the war, there never was an airborne field dressing station.

Object.

(3) The object of this paper is to consider the parachute field ambulance, from the selection of its personnel to their deployment in battle, with special reference to points of difference between it and the infantry division field ambulance.

Method.

(4) The subject will be considered under the following main headings:

(a) Selection of personnel.
(b) The War Establishment.
(c) Training of personnel.
(d) Administration at the Base.
(e) Operational preparations:
(f) Operational deployment.
(g) Consideration of A.F. I.1248 and A.F. G.1098 equipment.
(h) Conclusions.

Selection of Personnel.

(5) All R.A.M.C. personnel in a parachute field ambulance are qualified parachutists: All parachutists in the Army are Volunteers. These two facts show at once that the personnel problem is difficult compared with the infantry division field ambulance. Few men want to be in the Army in general, let alone in paratroops in particular.

(6) The medical standards of fitness required for parachute duties, laid down in A.C.I.s and War Office letters, are higher than those necessary for infantry of the line. But, in addition to physical standards, an indefinable mental outlook is also necessary; there is, in fact, a "parachute" type." It has been said that the most successful parachutists, officers and men, have been mild cases of anxiety neurosis. At any rate it will be appreciated that possession of nervous energy above the normal is a considerable factor in the mental make up.

Lastly, as a point of interest, some of the most successful paratroop officers have been quite unfit according to the laid-down physical standards, e.g. one of the most capable and courageous battalion commanders of the war required a special parachute and did only operational jumps because he had marked osteo-arthrosis of both knees—as well as chronic bronchitis. There was also the staff officer with one leg who still continued to parachute and who went across the Rhine in a glider.

(7) In selecting personnel it is essential to remember that the right man volunteers because of his individualism. Airborne Forces always had their
own psychiatrists (all qualified parachutists) during the war and they were a tremendous help at the selection stage. Parachute training is an expensive item financially and it is most important to recognize men who are likely to refuse to jump before completing the initial training or afterwards. Refusal to jump after qualifying as a parachutist is a Court Martial offence.

(8) The following are a few of the points to be on the look-out for:—

(a) It is well to try and elicit a man’s reason for volunteering. It is important that his womenfolk know what he is doing. If they object to his action he is a possible potential refusal. A paratroop C.O. spends much time writing to anxious, and often threatening, wives and mothers.

(b) The man who has just been jilted or who is involved in third party domestic trouble is best avoided. It is all too common when investigating refusals to jump to hear of “woman trouble” dating back to pre-parachuting days.

(c) A frequent type is the man who has volunteered purely and simply to get out of his previous unit. A.F. B 122 is a useful guide on these occasions although long crime sheets, except for those showing offences of an insubordinate nature, are not grounds per se for turning a man down.

(d) Personal vanity is possibly the main reason for most people volunteering to jump although few will admit it. The vain man usually fits in quite well because he submits to the doctrine that he belongs to a Corps d’Elite and will do everything in his power to maintain that status. But the film star type of vanity must be rejected at once; the man with the “pencil-line” moustache and the one who uses perfume are untrustworthy and usually break down quickly under operational strain. The loud-mouthed “line-shooter” should be dismissed without further ado.

(e) During the war it was not uncommon to find a man volunteering for purposes of revenge; the enemy had destroyed his family and his home and he wanted to get his own back. Most men in this category did well and the elaborate care they came to exercise on enemy wounded was quite astonishing.

(f) Lastly, when men are being interviewed all they are thinking about is parachuting—they want to be paratroopers and the fact that they may be nursing orderlies is well in the background. Nothing is more fatal than to coax a man to go parachuting because he is a clerk or an O.R.A. It is better to have a humble G.D.O. or N.O. III as a qualified parachutist, who can be trained as a specialist after he has passed the “jump happy” stage, than to be faced by the refusals of coaxed specialists and key men.

(9) All the foregoing points apply equally well to officers but an officer should have pronounced leadership qualities before he is accepted. Napoleon used to ask of his officer-to-be “Is he lucky?” Luck is a most useful factor on parachute operations; by listening patiently to an officer’s past history a lucky streak can sometimes be recognized and so turned to good advantage.

(10) There is a consolation to all this selection—by serving for a long time with paratroops an extra sense develops which enables one to choose the “type” on sight with reasonable accuracy.
The Parachute Field Ambulance

The War Establishment.

(11) The original 1942 War Establishment was based on the light field ambulance, as were the A.F. G 1098 tables.

The present War Establishment, dated June, 1945, is the third to be produced.

(12) It will be seen that the parachute field ambulance is a smaller unit than the infantry division field ambulance but that it is a specialized unit, having the necessary personnel for two surgical teams, compared with the latter.

Reference has already been made to the light field ambulance being its "foster-mother" and this, in a way, reveals the deployment of the unit in a ground role. However, the parachute field ambulance possesses very much more equipment than either the light field ambulance or the infantry division field ambulance, and comparison of the transport scales of these three units shows a relatively fewer number of vehicles, especially load-carrying ones, in the parachute field ambulance:

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<td>Ambulances, 2 stretcher 4 x 4</td>
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<td>Trailer, 2 wheeled lt. wt. water 200 gall.</td>
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(13) Before considering personnel in detail it is necessary to point out three further major features:

(a) A parachute battalion has one officer and eighteen other ranks R.A.M.C. on its War Establishment and there are no regimental stretcher-bearers. The usual deployment is to have one Cpl. and three Ptes. with each company and the Sjt. and one Pte. at battalion H.Q. with the R.M.O.

(b) A parachute brigade H.Q. has a medical officer on its War Establishment.

Thus in a parachute brigade group there are four officers and fifty-four other ranks R.A.M.C. in addition to the field ambulance and therefore the number of R.A.M.C. personnel per brigade is considerably greater in a parachute brigade than in any other brigade group.

(c) All ranks in the parachute field ambulance are armed, the R.A.M.C. having automatic pistols.

14. The parachute field ambulance consists of a H.Q. and four sections giving a total of 182 all ranks. In addition to this there are first-line reinforcements, one officer and nineteen other ranks, who are attached to and train with the unit at the Base.
The detail of the breakdown of the unit is as follows:—

(a) H.Q.: (i) 6 officers (C.O., 2 i/c, 2 surgeons, anaesthetist and QM.) R.A.M.C.
(ii) 35 other ranks R.A.M.C.

(b) 4 Sections:—each 1 officer and 19 other ranks R.A.M.C.

(c) Attached personal: (i) R.E. — 1 Spr.
(ii) R.A.S.C. — 1 officer and 51 other ranks.
(iii) A.D. Corps — 1 officer and 1 other rank.
(iv) A.P.T.C. — 1 other rank.
(v) A.C.C. — 5 other ranks.

It is now worth while examining the other rank personnel in H.Q., especially those employed on purely surgical duties. These are as follows:—

1 Sjt. N.O.
3 L/Cpls. O.R.A.
3 Ptes. O.R.A.
6 Ptes. N.O.
5 Ptes. S.B.
1 Pte. Masseur.

This provides little more than the bare outline of two surgical teams (each team usually has three O.R.A.s, three N.O.s and one S.B.). Personnel must be available for resuscitation and post-operative nursing in addition to the other departments in a field ambulance H.Q. The immediate answer is to incorporate Section 4 in H.Q. and train this section in post-operative nursing, blood transfusion and resuscitation. But even then sufficient personnel are not available to run an efficient M.D.S. (nor A.D.S. as in the infantry and armoured divisions) and it will be necessary to draw on Sections 1, 2 and 3.

Having considered the surgical staff along general lines, it is now proposed to consider the administrative staff.

(a) Clerks: An additional clerk is essential in the field ambulance office and can conveniently be taken from Section 4 (N.B. each section has its own clerk).

(b) QM. Stores: The staff allotted on the War Establishment is too small and a ration N.C.O. and an additional storeman are necessary. The latter is found by taking one of the five H.Q. S.B.s and employing him part-time as storeman and batman to the QM. A second H.Q. S.B. is already in the QM. Stores as a shoemaker.

(c) Batmen: There are three whole-time batmen on the War Establishment and it is best to allot them to the C.O., 2 i/c and R.S.M. respectively. The QM., as has been shown, has a H.Q. S.B. as a part-time batman. The G.D.O. in each section is batman to the section officer. The transport officer uses his driver as a batman-driver. The S.B. in each surgical team is batman to the surgeon and anaesthetist of the team, the anaesthetist in the second team being the dental officer.

(d) Officers' Mess: On the War Establishment there is one A.C.C. cook, and, of course there are the two whole-time batmen of the C.O. and 2 i/c
respectively. It is not advisable to employ the C.O.'s batman as N.C.O. i/c Mess because he must be well trained in fieldcraft and as a runner. An N.C.O., usually local acting unpaid, must therefore be found from the sections.

(c) Serjeants' Mess: On the original War Establishment an A.C.C. cook was allotted to the Serjeants' Mess then, for some inexplicable reason he was cut out of the new War Establishment. The Mess must obviously have a cook and this can be done by using the fifth, and last, H.Q. S.B. This gives the Mess the R.S.M.'s batman and a cook.

(f) Miscellaneous: Personnel are necessary to run the sports store, the unit canteen and the question of forming a small "I" Section might be considered.

(g) Fortunately Sections 1, 2 and 3 can easily be reduced in strength without resultant loss in efficiency and if this is realized at the outset many administrative worries will never appear.

**TRAINING OF PERSONNEL.**

(18) All field ambulances have certain training features in common and before listing the cardinal points in training a parachute field ambulance it must be understood that, whereas in an infantry division field ambulance lip-service is often paid to subjects like fieldcraft, such an attitude to training would be fatal in a parachute field ambulance. The parachute field ambulance commander must always have the following points uppermost in his mind when formulating his training policy:

(a) All those under his command are individuals and he must therefore ensure that all ranks are thrown together as much as possible and get to know each other's temperamental make-up really well.

(b) He commands a unit of parachutists and that physical fitness is of prime importance. The A.P.T.C. Sjt/Instr. must have every access to him and always enjoy his confidence about doubtful personnel.

(c) On operations his unit will drop by day and by night right into enemy territory and therefore fieldcraft, map reading, direction finding by the stars, and, if necessary, self-defence must be taught.

(d) The success of his unit will depend entirely upon the leadership qualities of himself, and his officers and N.C.O.s.

(e) Most of the officers and N.C.O.s he will have will be young (the top age limit for parachuting is at present 32 years) and inexperienced, both regimentally and administratively, and he will therefore have to organize officers' and N.C.O.s' cadre classes.

(f) Because of the very nature of a parachute operation he will have casualties and he must strive to make all ranks capable of doing more than one job, i.e., aim at versatility.

(g) Then, and then only, can he consider R.A.M.C. training.

(19) The medical training of a parachute field ambulance has become progressively more difficult for the following reasons:

(a) In 1942, at the time when only one parachute field ambulance was in existence, it was possible to reject personnel not up to the N.O. II standard.

(b) In 1943 it was impossible to maintain four parachute field ambulances
with R.A.M.C., other ranks and conscientious objectors were voluntarily transferred from the N.C.C. to make up the deficiencies. Each of the two parachute field ambulances in 6 Airborne Division which went to Normandy in 1944 was one-third composed of conscientious objectors. These men were excellent in battle but could not, of course, be promoted, and this led to more difficulties than ever.

(c) In 1945 recruiting from the N.C.C. stopped and recourse had to be taken to voluntary transfers from the The Parachute Regiment. At the time of writing approximately 60 per cent of R.A.M.C. other ranks in parachute field ambulances belong to this latter category.

From the foregoing facts it will be appreciated that R.A.M.C. training has to start from the very beginning, be intensive, and produce quick results. A two months’ intensive training programme proved most successful as a basis for the D-Day landings in Normandy.

(20) During initial training it is well to recognize that the men have a distinct aversion to wearing R.A.M.C. cap badges and shoulder titles—they much prefer the Parachute Regiment insignia and frequently wear them when on leave—but, after one battle they emerge R.A.M.C. “proud” and never look back. The lesson here is not to keep harping on “The Corps” during training; forced esprit de corps has only a negative value.

(21) With all these difficulties which have been so far encountered it is clear that the system of recruiting has not been taken sufficiently seriously. During the war there was possibly not sufficient time, but this year the passing of recruits from The Parachute Regiment I.T.C. to the R.A.M.C. Depot for basic R.A.M.C. training has been less successful than the wartime procedure. There would appear to be two solutions: (a) A parachute company at the R.A.M.C. Depot or (b) a continuation of the wartime system.

There can be little doubt that the first alternative is the ideal but to be successful it would require most careful organizing.

(22) In a parachute field ambulance everything revolves round the two surgical teams and the fact that, during the initial stages of a parachute operation, there is no evacuation to L of C medical units. Training priorities on the medical side are therefore going to be associated with the operating theatre and the resuscitation and nursing departments.

(23) Technical training of the surgical teams can only be carried out efficiently in a large general hospital. It is of no avail attaching the odd O.R.A. to this hospital here and that hospital there: the surgical team must be a team in every sense of the word. The likes and dislikes of each individual surgeon must be known before an operation in order to save the maximum life.

(24) Section 4, instead of being regarded as a reserve section, must specialize in nursing and blood transfusion. This means more attachments to hospitals and also blood transfusion courses, but it is the only way.

(25) On the administrative side it is imperative to train at least three times the number of clerks shown on the War Establishment and to get every likely pay clerk off on a course. After the surgical teams the QM. should have first
choice in personnel. Improvised cooking in the field must become second nature to all ranks.

(26) The R.A.S.C. section, although seldom more than a dozen of it go on the parachute phase of an operation, are every bit as important as the R.A.M.C. element. Due to the lack of transport after landing it is essential to have fitters to mobilize captured enemy vehicles, and the electrician is invaluable in ensuring adequate lighting arrangements for the M.D.S. The R.A.S.C. are also combatant personnel and are infantry trained. It is therefore important that their weapon training is of a high order and that drivers are not merely regarded as such.

Movement by road, including night convoys, camouflage of vehicles and positioning of air sentries must become automatic with them and be a hundred per cent efficient.

(27) The necessity for digging slit trenches is very real when surrounded by the enemy and the only way of ensuring efficiency in this line is to make the unit repeatedly dig slit trenches during exercises.

(28) It is considered worth copying the German parachutists and encouraging all ranks to learn at least one foreign language—but this must be done during parade hours.

(29) The officers, first, last, and all the time must look after their men. They should be ready at all times to listen to their complaints and quick to dismiss frivolous ones. They must always maintain their positions as leaders. As much time as possible in the training programme should be given to “Section Commander’s Disposal” in order to foster responsibility in the officer and to enable him to get to know his men as individuals. The good officer will recognize potential refusals early and much future trouble in the section will be saved since refusals to jump are very “infectious.”

(30) Lastly, outside the training programme, there is still the importance of organizing all ranks in games, debates, discussions, concerts, all ranks dances, etc. The ideal is to throw officers and other ranks together “off the record” resulting in the officer gaining more knowledge and admiration of his men and the other rank deriving more confidence in, and more respect for, his officer.

(31) Success in all these points will produce a real team which is what a parachute field ambulance must be if it is to do its battle job efficiently.

**Administration at the Base.**

(32) All parachute units have a base from which they launch operations and to which they return for refitting after the battle is over. Administration at the base is therefore divided into two distinct phases: 
(a) when the complete unit is there, and
(b) when home details only are there.

(33) It is a platitude to say that a unit badly administered at the base will do badly in action. In a parachute battalion there is a special administrative officer and approximately forty other ranks who are not parachutists in the operational sense. In a parachute field ambulance, however, there are no special administrative personnel and the whole problem is very difficult.

(34) Most officers, including the C.O.s, are extremely young and want to be
regimental, rather than administrative officers. There are always officer casualties on operations and they have almost invariably got to be replaced from within Airborne Forces. In a parachute brigade group it is a sound plan to regard the brigade HQ. M.O., the officer i/c Section 4 and the first line reinforcement officer as potential 2 i/c and therefore as potential C.O.s. Their training for their future duties must be the personal responsibility of the C.O. It is considered that this low age factor in C.O.s and 2 i/c's must be accepted and, if anything, encouraged.

(35) The two officers primarily concerned with administration when the unit is at the base are the C.O. and 2 i/c. It is a pity that the latter is not known as the "Deputy C.O." because that is what he is and he must not be regarded as the administrative expert as is so often the case. There must be absolute co-operation between him and the C.O. on all matters affecting the policy and training of the unit.

(36) The division of administrative duties in the unit may be summarized as follows:—

(a) Commanding Officer
   Training  
   Policy  
   Imprest account
   War diary
   All matters affecting officers
   All correspondence with higher authority
   Personnel (with 2 i/c and R.S.M.)
   Liaison with brigade commander and A.D.M.S.

(b) Second-in-Command
   Pri
   Serjeants' Mess account
   Other rank documentation
   Training programme
   Personnel (with C.O. and R.S.M.)
   Liaison with brigade D.A.A. & Q.M.G. and D.A.D.M.S.

(c) The other administrative duties undertaken by officers, such as P.M.C., Messing Officer, Sports Officer, Entertainments Officer, Welfare Officer, Education Officer, P.A.D. Officer, Fire Officer, etc., have to be considered very carefully. Selection for these appointments will naturally depend upon the talent available in the first instance, but versatility should always be aimed at and officers should be changed around at least every three months—an ideal only possible in peacetime.

Of all the jobs enumerated it is felt that that of Messing Officer is the best test of the administrative mind and a good Messing Officer is a potential 2 i/c.

The specialist officers are seldom administratively inclined but are usually a good choice for welfare and education duties. Attached officers, i.e. the Dental Officer and the Transport Officer should never be employed in an administrative capacity outside of their own spheres. The practice of using the Dental Officer as an "Adjutant" is a bad one since he cannot become 2 i/c,
and if a C.O. must have an "Adjutant" he should always choose an R.A.M.C. officer likely to become a 2 i/c.

(d) The Section Officer must be held responsible for his Section's clothing and equipment—the QM. will put him on the right lines—and he should be encouraged to produce S.C.D. Training Programmes and orders for Section exercises. He should be given the disciplinary powers of a Company Commander, but only after he has received a good grounding in Military Law.

(e) The R.A.S.C. Section must be treated as a whole and the Transport Officer made responsible for its administration. He is also the unit Weapon Training Officer.

(37) When the unit is away on operations the Home Details Officer has the following duties:—

(a) Administration of all personnel L.O.B. and of reinforcements joining at the base.

(b) Maintenance of barracks and equipment.

(c) Despatch of kits of casualties to Effects Branch.

(d) Visits to wounded in U.K. hospitals and to next of kin.

(e) Sending a weekly "Diary of Events" to the C.O. overseas.

OPERATIONAL PREPARATIONS.

(38) The C.O. of a parachute field ambulance must be more security minded than any other field medical unit C.O. for obvious reasons.

Very short notice is given of an Airborne Operation. Generally speaking, the C.O. will be given the outline plan, but not the date, anything from a few days to about three weeks prior to the operation. The 2 i/c and chief clerk will possibly be briefed about a week or ten days before, and the remainder of the unit not more than four days before D-Day.

(39) Elaborate briefing of all ranks is a feature of Airborne Forces and involves much time in the preparation of briefing material. There are maps to be got ready, air photographs to be pieced together and also mounted for stereoscopic use, and a sand or plasticine model of the area has to be made. It is felt that the field ambulance must have its own briefing room instead of sharing one with brigade HQ. From the above points it will be appreciated that the C.O. has a very tiring time, from the day he is briefed until the initial parachute landing is over, just attending to the "G" side alone.

(40) On the actual planning side there are two points the C.O. must consider right away with the A.D.M.S.: (a) Clearance of D.Z. (Dropping Zone) casualties—and this requires most active co-operation from the brigade commander, and (b) the question of re-supply.

Nothing is more disheartening to a C.O. than to have equipment for re-supply sent to him two days before his unit is due to move into the Transit Camp and to have to pack and paint containers, etc., at that late stage.

This question of re-supply packing could well be taken out of the hands of parachute field ambulance and done centrally, away from the unit in every sense, as in India.
(41) In the preparation stage it has to be carefully considered what personnel are to be left behind at the base. First-line reinforcements are obviously left there and in this respect the first-line reinforcement officer must not be the worst officer in the unit. The job at the base is an important one and a keen officer will get on with barrack improvements, etc., while the unit is overseas. But leaving first-line reinforcements is not enough. A senior N.C.O. from the QM. Stores and an N.C.O. clerk must also be left behind. It is common practice to leave the QM. himself behind but it is considered preferable to have him on the operation to marshal re-supplies on the D.Z. A cook, too, will be wanted, and a truck and driver.

(42) An important part of the preparatory stage is to think in advance of the welfare of the unit overseas. It is a good thing to keep "frozen" in U.K. a stock of library books, gramophones and records, wireless sets, sports kit, N.A.A.F.I. packs, etc. The books can be divided up among personnel before emplaning and will constitute an immediate library on landing. It is always appreciated if the Home Details Officer forwards to the unit overseas the daily papers they were accustomed to get at the base.

(43) The unit will usually move into a Transit Camp anything up to a week before the operation. Surplus kits are handed into the QM. Stores just prior to this and it is important that all articles are clearly labelled and that a receipt is obtained for them. Keys of safes, stores, etc., should be handed over to the first-line reinforcement officer not less than twenty-four hours before the move to the Transit Camp.

OPERATIONAL DEPLOYMENT.¹

(44) In order to avoid being seemingly theoretical in this section there are attached at Appendix “F”, the operational load tables and at Appendix “G” a sketch map of the actual deployment of 224 Parachute Field Ambulance on operation OVERLORD. From these Appendices the following points emerge:

(a) The necessity for wide distribution of all items of medical equipment to ensure the arrival of essentials at the other end. On operation OVERLORD only one-third of the personnel of the unit mentioned above materialized on D-Day and, of that number, approximately 50 per cent. had their medical packs, etc., destroyed in the swamps. Only one Jeep arrived by glider—and this had to be given to the R.E. in order to demolish some vital bridges—and not one single item of the re-supply programme ever reached the unit. The sea-tail fortunately came through the enemy lines intact on D plus 2 and the position was saved.

(b) Personnel must be evenly distributed throughout the aircraft, e.g. the C.O. and 2 i/c never travel together, nor do the surgeons and other rank key personnel. Seven aircraft (Dakota) type and three gliders (Horsa) is the normal allotment to a parachute field ambulance for operational purposes.

(c) Essentially forward surgery is done. 224 Parachute Field Ambulance were in the position shown in the sketch-map at Appendix “G” for fourteen days.

¹We regret that space did not permit our publishing the rather comprehensive appendices to Colonel Young’s paper. The equipment for a P.F.A. is now being revised.—En.
For the first four the enemy was all round the position and throughout the entire period he was seldom more than five hundred yards from the M.D.S. During this period 822 casualties were admitted to the M.D.S., 112 major operations were performed, and there were only 17 deaths. There can be little doubt that such a position is too far forward for ideal surgery to be done—heads and bellies do badly under mortar fire—but it is the only solution until a successful link up with the ground-forces is made. From the patient's point of view, however, surgery at this level is more hopeful as a life-saving measure than the "forward" surgery of the C.C.S.

(45) To recapitulate just a little, a parachute field ambulance is deployed as follows: (a) Base details, which have already been considered; (b) parachute element; (c) glider element, usually three gliders with four jeeps and two trailers; (d) sea tail, remainder of the transport.

(46) On the air side of the operation the following factors must be realized: (a) There is no preliminary reconnaissance of the area; (b) initially there is no divisional control by the A.D.M.S. and the field ambulance C.O. is S.M.O. to the brigade commander; (c) there are usually immediately casualties on the D.Z.; (d) there is no L. of C.; (e) it may be necessary to defend the M.D.S.; (f) seldom, if ever, do all the personnel and equipment arrive anything like intact in the battle area.

(47a) A parachute field ambulance C.O. should always plan on general principles and always consider alternatives to each phase of his plan as operations have a habit of not going according to plan. Appreciation of the situation must be constantly uppermost in his mind.

(b) Prior to the operation it is usual to detach the whole, or parts of Sections 1, 2 and 3 to the three battalions in the brigade. This gives a maximum total of 2 officers and 37 other ranks R.A.M.C. with each battalion and allows the battalion to be medically self-contained for twenty-four hours if necessary—communications between the battalions and the M.D.S. take time to develop. Under such circumstances the Section combines with the R.A.P. to form an A.D.S. Casualties to battalion R.A.M.C. must be replaced from the Section and the Section Officer is always the potential R.M.O.

The field ambulance H.Q. party may travel with brigade H.Q. or be split up within the brigade group. It invariably joins brigade H.Q. at the rendezvous on the ground.

(c) When the brigade group drops the scene on the ground is chaotic to say the least of it and this is the time when the Officers' leadership is so essential. The problem of D.Z. casualties is an extremely difficult one, especially on night operations. It is regarded as a field ambulance responsibility entirely and the battalion R.A.M.C. personnel should not be involved in it—it is more important for them to get off with their battalions. One section may be given this task of D.Z. clearance, or perhaps all four sections will be used. To quote 224 Parachute Field Ambulance once again—on OVERLORD one section was given the task and most of it was taken prisoner; on VARSITY/PLUNDER all four sections were employed but even with the help of some eighty prisoners the D.Z. was
not cleared of casualties until nearly twelve hours after the drop. It must be admitted that there is as yet no satisfactory solution to this problem.

(d) No attempts should be made to leave the rendezvous, which is usually a short distance from the D.Z., until orders are received from brigade H.Q.

(e) Where possible the M.D.S. should be sited within a battalion perimeter as that considerably reduces defence responsibilities.

(f) A surgical team should not be opened until it is quite certain that the brigade commander intends to hold the area until link-up with the ground forces takes place.

(g) As soon as possible a reconnaissance of all local food, water and vehicle resources must be made and all vehicles, including the useful horse and cart, capable of carrying casualties seized.

(h) The field ambulance C.O. should attend personally to the opening of his M.D.S. This should be a simple organization initially of reception, treatment and wards and elaborate details can be added later.

Once the position on the ground is reasonably stable and communications with the R.A.P.s are open Section personnel are recalled as necessary. The officers are the key personnel and are all required for medical work—triage, resuscitation, blood transfusion, anaesthetics. It is sometimes necessary to bring in the M.O. from brigade H.Q. Professional versatility on the part of all officers is absolutely essential.

(i) The excitement of a parachute operation gives way to fatigue—as does carrying stretchers. More men than are necessary to do a job should never be employed and forced rest in slit trenches for those not working must be organized as soon as possible.

(48a) When a parachute field ambulance is employed in a ground role there are two main problems: (i) There is not sufficient transport to move the unit complete, and (ii) being on the L. of C. it is doubtful, at least in static warfare, if the surgical teams should remain with the unit. If they are detached to a C.C.S. or hospital the field ambulance is left with a total of 97 other ranks R.A.M.C. only.

(b) In an airborne role, as has been shown, the unit finishes up with a central M.D.S.; in a ground role this is the start line. The M.D.S. is best sited not more than one hour’s ambulance car journey from any of the battalions (time and not distance is the important factor).

(c) An ambulance car or stretcher jeep, or both, with a junior N.C.O. and three men should be attached to each battalion R.A.P. and be changed over every week or fourteen days, depending upon the operational strain of the position.

(d) In a rapid advance it is almost certain that the C.C.S. will lag behind—in Germany it was not uncommon for it to be more than sixty miles behind the M.D.S. on a virtually unprotected L. of C. It is considered that, under such circumstances, the surgical teams should be with the unit, even if it does mean leaving nursing orderlies looking after small nests of post-operative cases all along the axis of advance.
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It is more essential than ever to keep an ambulance car with each battalion and, in addition, a half-Section should be attached to brigade H.Q. with two ambulance cars and a jeep. This is especially important if the A.D.M.S. is only opening one field ambulance at a time and the "Leap Frog" system is in operation. On such occasions the field ambulance C.O. gets hopelessly out of touch with his brigade and the officer i/c the half-Section at brigade H.Q. becomes responsible for clearing casualties from the battalions to whichever field ambulance in the division is open at the time. Provision of wireless for the field ambulance would overcome this problem.

Considerations of A.F. I 1248 and A.F. G. 1098 Equipment.

(49) It must be realized from the outset that there is nothing in the A.F. I 1248 special to Airborne and only a few items in the A.F. G 1098 such as stretchers, folding, Airborne, trestles, Airborne, trolleys, folding, bicycles, folding, carriages, stretcher, folding, Airborne, cross, distinguishing, Airborne, packs, medical types "D" and "S," etc., and the special individual clothing and equipment peculiar to all parachutists.

(50) The A.F. I 1248 is lavish and includes sufficient items for five days re-supply. It is packed by the field ambulance into special "D" and "S" packs, but it would be much simpler and save wastage if these packs were issued complete by medical stores. The "D" and "S" packs have proved their worth over and over again and have definitely come to stay.

(51) The A.F. G 1098 could easily stand considerable reduction as quite a proportion of the equipment has never been required for use. Certain items are of little use at all, e.g. the carriage, stretcher, folding, Airborne, and other items are too excessive a scale, e.g. these are 46 harnesses, manifold.

(52) Certain equipment should, however, be added to the present scale and the main items of this are as follows:

(a) A 1 kW. or 2½ kW. lighting set should be provided as in other field ambulances. The parachute field ambulance is only provided with three Tiny Tim portable charging sets and thirty 12 v. batteries. Such an arrangement is only makeshift at the best of times and is not consistent with the best possible surgical treatment in a M.D.S. A lighting set proper can easily be placed in a jeep trailer in a glider on operations and a second set could follow up with the sea-tail.

(b) Post-operative nursing on Airborne stretchers is far from desirable and it is submitted that safari beds of the Hounslow type could be jettisoned on the D.Z. and not only solve this problem but also release stretchers for the purpose for which they were designed.

(c) Another useful addition to the A.F. G 1098 would be the provision of a stencil set for producing directional signs in a hurry.

(d) Wireless has already been mentioned and it is considered that the solution to this problem is a .22 set in a jeep detached from "J," etc., Section of divisional signals, complete with driver and operator.
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Conclusions.

(53) Since the formation of 16 Parachute Field Ambulance in 1942 a comprehensive field medical service has been built up within Airborne Forces which has outstripped all previous ideas of forward surgical treatment. Results, in terms of saving of life, have been better than those obtained by normal ground field medical units.

(54) These results must be mainly due to the special allotment of R.A.M.C. personnel in a parachute brigade: (a) Two surgical teams within the War Establishment of the parachute field ambulance; (b) a medical officer at brigade H.Q.; and (c) eighteen other ranks R.A.M.C. on the War Establishment of each parachute battalion.

(55) Few R.A.M.C. personnel, especially other ranks, have been volunteering for parachute duties and therefore, if parachute field ambulances are to be maintained and developed, special attention will require to be paid to this branch of the R.A.M.C.

(56) It is submitted that the Airborne arm of the Service is only in its infancy and that Airborne medical services will have to be constantly reviewed in the light of future developments.

The following points are considered to be worthy of immediate attention: (a) The correlation of all parachute field ambulances' operational reports, etc., with a view to deducing agreement on the War Establishment and deployment of the unit; (b) examination of Airborne medical services in the United States Army. Considerable liaison existed with the Americans during the war and, of course, the commander of First Allied Airborne Army was an American. It is felt that much can be learned from the Americans and vice versa; (c) the formation of a R.A.M.C. Parachute Company at the R.A.M.C. Depot. This could be run along the lines of a cadre parachute field ambulance.

Acknowledgments.

I wish to thank Major-General E. L. Bols, C.B., D.S.O., for permission to use the quotation at the head of this paper, Major-General J. C. A. Dowse, C.B., C.B.E., M.C., for his constructive criticism of the original draft, and Colonel D. S. Skelton, C.B., D.S.O., for his advice on the final paper.

I would also like to acknowledge the encouragement given me at all times by my teachers and pioneers in the Medical Services in Airborne Forces—Brigadier A. Austin Eagger, C.B.E., Colonel M. MacEwan, D.S.O., O.B.E., D.F.C., T.D., and Colonel P. R. Wheatley, D.S.O.

Finally my thanks are due to Brigadier G. S. McConkey, O.B.E., for permission to submit this paper for publication.