By the evening of the fifth day of the Rhine assault, the main bridgehead had been consolidated, and 8 Corps had passed over the river to complete its concentration on the east bank. Moreover, bridges had been secured to the south over the river Issel and Second Army began its advance eastwards into N.-W. Germany on a three Corps front, with 30 Corps to the north, 12 Corps in the centre and 18 Corps on the southern axis.

This advance was therefore very different from the previous pursuit in that on this occasion all three Corps were involved so that there were no reserves to call on; this was particularly so in the case of ambulance cars where in the earlier advance, the MAC of 8 Corps was available in addition to the normal allotment of Amb Cars Coys.

The tremendous asset afforded by casualty air evacuation was demonstrated only too forcibly during the first week of April when the opening of airfield B108 at Rheine was considerably delayed by enemy action. Unfortunately it was impossible for technical reasons to make use of any of the other four airfields in service east of the Rhine, and casualties had to be cleared from the General Hospitals at Rheine by road to Bedburg or even Venrai, a journey of some 80 to 90 miles over congested roads with the inevitable long delays at the Rhine crossings and their approaches. This raised the time for ambulance car
turn round to thirty-six hours; with this long evacuation route it was necessary to use 34 Casualty Clearing Station at Borken as a casualty staging centre for which role this unit expanded to provide accommodation for nearly 400 cases at a time.

Further forward, where the evacuation route from forward medical units in some sectors to the hospitals at Rheine now exceeded 100 miles, similar arrangements were made, utilizing a Field Dressing Station to establish casualty staging centre at Böhme.

Casualty air evacuation from B108 at Rheine opened on April 10; and on April 14 from Diepholz B114 (24 Casualty Clearing Station acting as casualty air cushion). Particular attention had to be given to the ferrying forward by road of adequate replacements of stretchers and blankets, since the air freight bids at this time prevented the normal exchange of these items by returning casualty aircraft. Ambulance railhead moved forward to Bedburg (adjoining 77 General Hospital) on April 10, 1945.

"Y" Blood Bank and an Advanced Depot Medical Stores were established in the Rheine area. 13 Base Depot Medical Stores moved to the same area and opened on April 18, 1945. The Blood Bank later moved forward to Diepholz when air evacuation opened from B114.

On the right the 8 Corps' thrust developed rapidly and 12 Corps making moderate progress reached the River Weser at Hoya. Unfortunately progress in the 30 Corps sector was comparatively slow, and the Army medical plan was therefore amended and the proposed Casualty Clearing Station and Hospital sites at Bramsche and Nienburg were abandoned. Instead Uchte was temporarily used as a Casualty Clearing Station site to cover the Weser and a hospital area was established at Sulingen (7254) on April 15, 1945; initially this comprised 84 General Hospital which expanded to 350 beds, and was later augmented by the arrival of a second 200-bed General Hospital. Evacuation from Sulingen was by road to Diepholz, thence by air.

During the period April 17 to 23, a hospital area was established in Celle to cover casualty evacuation from the Elbe river line, and from the 12 Corps front to the north. 86 General Hospital (200 beds) opened in Celle on April 18, and 121 General Hospital (600 beds) opened five days later; evacuation was by air from B118 at Celle. 8 Advanced Depot Medical Stores and "Y" Blood Bank were also established in this area. Corps Casualty Clearing Stations were open at Bassum, Soltau, and Luneburg.

By an advance from Celle 8 Corps probed up the main road towards Luneburg but met considerable opposition in the neighbourhood of Uelzen. Meanwhile 11 Armd Div swinging north through Winsen reached the Elbe both to the north and south of Luneburg.

During their advance from Celle, 8 Corps on April 15 had uncovered the Concentration Camp at Belsen. Warning had been given to 8 Corps that this Camp contained 1,500 cases of typhus but no indication had been given of the horrors that this camp contained.

A smaller combined prisoner of war and internee camp was later uncovered at Sandbostel in 30 Corps area; the internee camp was another concentration
camp which although in no way approaching the indescribable standards of Belsen nevertheless contained a large number of prisoners in the most horrible condition of starvation and disease (particularly pulmonary tuberculosis).

Meanwhile 12 Corps continued their advance to the Elbe and on April 16, reached a point two miles west of Soltau. On April 22 Buxtehunde, containing a big naval barracks, surrendered and Hamburg was invested.

At the same time 30 Corps holding Bremen from the south-west was directing 51 (H) Div to come in from the north-east. By midday on April 26 the centre of the town was in our hands and little opposition was encountered.

Guards Armd Div had meanwhile swung north-west and after stiff fighting completed the capture of Zeven on April 25. They now passed back to the command 30 Corps but continued on the same axis towards Bremervorde.

The problem of controlling large numbers of captured German hospitals (all holding small numbers of German military cases) increased as the advance progressed. It was decided to use the German military hospital (comprising some 2,000 beds) at Munster Lager as a Base hospital for prisoners of war. This hospital had its own railway siding and a captured German ambulance train was equipped, staffed and put into commission to run from Luneburg to Munster Lager; the hospital bed capacity was increased from 2,000 to 6,000 beds in ten days by the provision of medical staff, and stores from captured resources. Subsidiary Base hospital areas for prisoners of war were established west of the Elbe at Winsen (1,500 beds), Delmanhorst (1,500 beds), and Luneburg (1,200 beds). The total number of sick and wounded prisoners of war in German hospitals in the Army area amounted to 134,000 at the time of the Elbe assault.

The greatest care was taken to ensure that German military medical stores (which were now widely scattered and dispersed to minimize loss by Allied air attack) were promptly reported so that immediate steps could be taken to arrange for their collection into central dumps. Field medical units uncovering German medical stores collected these into small dumps, which were later centralized under Army control utilizing Captured Enemy Equipment Sections or Field Ambulances known to be well experienced in handling medical stores. Winsen (S6533) was selected for concentrating the medical stores of Wehrkreis Sanitatspark X, whilst stores from Wehrkreis Sanitatspark XI were collected together and formed into a central store at Bissendorf (X3738). Smaller dumps that had been collected in Vilsen and other areas were transferred to Celle to form a large dump for issue to Belsen camp, and to prisoner of war hospitals in the area; nearly 2,000 tons of German medical equipment were concentrated into Celle for sorting, storage and subsequent issue to German military hospitals and medical units, Allied ex-prisoner of war hospitals and concentration camp hospital areas.

To cover the 30 Corps attack on Bremen, and the subsequent clearing of the Cuxhaven peninsula 7 Canadian General Hospital moved to Bassum where it relieved 10 Casualty Clearing Station on May 2/3, 1945.

There remains little more to add to the tactical situation on 12 or 30 Corps front.
8 Corps on the other hand launched Operations ENTERPRISE and VOLCANO, the first an assault crossing of the River Elbe in conjunction with XVIII US Airborne Corps, which once again came under command Second Army, the second the break out of the bridgehead and an advance to the Baltic.

The assault was begun on April 29, 1945 and was a model crossing and despite slight scattered resistance went on at a good pace and the Baltic was reached on May 2.

XVIII US Airborne Corps, with 6 British Airborne Division under command commenced their attack on April 30, and crossed the river without opposition. Bridging (Class 40) was completed in a record time, and the build up on May 1 enabled the advance to commence on 3 axes. 6 (Br) Airborne Division reached the Baltic at Wismar and at 1200 hours on May 2 made contact with Russian forces advancing from the east.

For this phase a medical area had been built up in Luneburg consisting of both Corps and Army units, including 33 CCS and 81 General Hospital, 35 CCS moved up to establish a Casualty Air Evacuation Cushion at Luneburg airfield, and later 74 General Hospital (600 beds) and 9 Advance Depot Medical Stores also moved to Luneburg. With the arrival of 74 General Hospital 33 CCS were relieved and returned to 8 Corps, and finally 81 General Hospital were able to close and move forward.

Attaching at Annexures A, B and C, are sketch maps illustrating the lay-out of Army medical units at April 7, 14 and 24.

**The Surrender of the German Forces.**

The German forces finally signed an act of unconditional surrender to Field-Marshall Montgomery at approximately 1805 hours, May 4, 1945, after the preliminary surrender of the port of Hamburg to the Second Army Commander on May 3, 1945.

This ended the war in N.-W. Europe and now began a period of intense activity to prevent a complete breakdown of any form of organization still existing in the German forces east of the Elbe. The refugee problem there was also completely chaotic and food was likely to run short in the very near future. It was also of paramount importance that the highest priority was given to returning to the land sufficient men to harvest the magnificent crops in production this year.

The surrender of the German Armed Forces considerably increased the problems confronting the Medical Services of the Second Army. German casualties from both Western and Eastern fronts had during the last two or three weeks of the fighting been evacuated to hospitals in Schleswig Holstein and Denmark. Furthermore convoys of German wounded were still arriving by sea from Kurland. German medical supplies were generally short and stocks of certain essential items were entirely exhausted. It was estimated that there were some 80,000 German sick and wounded in medical units in Schleswig Holstein, a further 60,000 in German hospitals in Denmark, and some 10,000 casualties already in transit by sea from the Eastern front. Clearly, the responsibility for arranging adequate medical care and attention for these casualties
had to remain that of the German Army Medical Services, our own medical resources were already fully stretched dealing with British troops, and the heavy commitments for Allied ex-prisoners of war and the concentration camps at Belsen and Sandbostel. It was therefore obvious that no assistance could or would be given from British Medical resources, and the German Army Medical Services working under British supervision, would have to work out their own salvation.

The method of co-ordination planned by the General Staff was that there should be parallel German HQs to those existing in Second Army at any rate down to Corps level and probably Divisional as well at a later stage.

**ANNEXURE “A” TO CHAPTER V.**

![Map of locations as on April 10, 1945.]

The HQ of Army Blumentritt was to be the medium through which Second Army would issue all orders. The surrendered German Forces were to be concentrated by the three German Corps comprising Army Blumentritt in three peninsulas—Cuxhaven, Heide and West Schleswig, and Oldenburg.

Arrangements were made for the Senior Medical Officer Army Group Blumentritt (Generalarzt Stahm) to attend the staff co-ordination conferences held by the Second Army at Luneberg. A medical conference (over which DDMS Second Army presided) was held after each staff co-ordination conference. As many of the medical problems arising related to static medical installations, the Senior Medical Officer Wehrkreis X (General Stabsarzt Asel—a
The former Senior Medical Officer to Rommel was ordered to be represented at these conferences. Medical representatives of the German Navy and Luftwaffe were also summoned to attend one of the meetings so that a clear picture of the German Medical organization could be obtained. One meeting, the second of the series, was attended by the Director-General of Medical Services—General Oberstabsarzt Handloser, accompanied by his Chief of Medical Staff, hygiene and medical equipment officers. It was impressed upon General Handloser that it was of the utmost importance that all available information concerning the production and manufacture of pharmaceutical products and medical supplies be compiled without delay; great importance was also attached to the medical welfare problems especially the supply and fitting of artificial limbs.

**ANNEXURE “B” TO CHAPTER V.**

Locations as on April 15, 1945.

Rehabilitation of limbless patients and the provision of adequate welfare and medical institutional care for helpless war casualties including the blind.

Whilst the problem of hospitalizing the vast numbers of German wounded was being dealt with, the redeployment of medical units of Second Army into the occupational “Corps Districts” was taking place in conformity with the general plan. In general this followed the original proposals of one large Military Hospital (600 to 1,200 beds), one smaller hospital (200-600 beds), one CCS, a Light Field Ambulance, two FDSs and three FSUs (to provide accessible emergency surgery) to each Corps District—1, 8 and 30 Corps.

The allocation of medical units to this end was of course largely dependent on the medical man-power situation governed as it was by the pressing need
ANNEXURE "C" TO CHAPTER V.

Locations as on April 23, 1945.
for return of the earlier release groups, and the large demand expected for RAMC personnel in later release groups to be transferred to the Far East.

Moreover provision had to be made for the four Infantry Divisions and two Armoured Divisions remaining operational to retain their full complement of medical units.

It was hoped to establish in each Corps District one 1,200-bedded General Hospital, two 600-bedded General Hospitals and one 200-bedded General Hospital (or CCS functioning as such). This was of course subject to local requirements, and obviously 30 Corps District required an initial increase on this scale, whereas 8 Corps District on the other hand did not require the full allotment of General Hospitals in addition to the two General Hospitals under command 8 Base Sub Area. Outlying areas were to be covered by the establishment of Camp Reception Stations as in the United Kingdom. It was anticipated that as demands for medical demobilization were met and demands for RAMC drafts fulfilled for the Far East it would gradually become necessary to amend the scale of medical units in non-operational Divisions to one Field Ambulance per Division, with the possibility of also retaining one Field Dressing Station per Division.

Advanced Depots Medical Stores were allotted, one to each Corps District and established near to the Corps railhead area. The requirements of medical evacuation were met initially by allocating one complete motor-ambulance convoy and one platoon of an ambulance car company to each Corps District; as the motor ambulance convoys were withdrawn a partial replacement was planned using ambulance car company resources so as to provide each Corps District with the equivalent of 60 ambulance cars (excluding those held by medical units). German ambulance trains were allotted five to each Corps District, under control of the DDMS Corps; it was not proposed to allocate British ambulance trains to Corps Districts.

(1) General.

The campaign in North-West Europe provided the first experience in trying out the new Casualty Clearing Station (reorganized in July 1942) in large-scale operations. The new Casualty Clearing Station fulfilled its role adequately and although it had frequently been criticized as being too small, in practice by attaching two or three Field Surgical Units to a Casualty Clearing Station the additional tentage and 40 to 60 beds so provided easily overcame any shortage that might have been apparent; moreover experience showed that the size of the smaller Casualty Clearing Station was in every way adequate for its surgical potential, and any increase in its accommodation served no useful purpose unless there was a corresponding increase in its surgical potential. It was always possible to move a Casualty Clearing Station with one platoon of three-ton lorries and, even under the most trying conditions; Q staff were usually able to provide a platoon for moving Casualty Clearing Stations whereas a larger bid for transport would have been rejected owing to other heavy operational demands. The smaller amount of transport required to move the new
Casualty Clearing Station was, from the staff point of view, a definite asset and is a strong argument against any increase in the size of the unit.

The conversion of Casualty Clearing Stations from Corps Troops to Army Troops (though unpopular with the CCSs themselves) did not produce any material change. In practice it was always advisable to move Casualty Clearing Stations under command of the formations with whom they had previously worked, except on those occasions when an intra-Corps relief was proceeding and transport could be saved by leaving Casualty Clearing Stations in situ. Under these circumstances the CCSs passed under command of the relieving Corps; whenever possible they returned to their original Corps at the earliest opportunity.

(2) **Movement of Casualty Clearing Stations.**

It was invariably found that a Casualty Clearing Station with its full complement of Nursing Officers and carrying a proportion of reserve stretchers, blankets and medical stores (normally 500 stretchers, 1,500 blankets and 1 ton of medical stores), together with reserve rations and hospital supplies required a full platoon of three-ton lorries for movement.

(3) **Lay-out of Casualty Clearing Station.**

Lay-out of tented Casualty Clearing Stations varied greatly in the early stages of the campaign, many CCSs adopted the policy of dispersal (as a protection against air attack, shelling and possible fire); this, however, was soon discarded in favour of more centred lay-out which greatly facilitated internal working, in particular nursing.

The normal time taken for a Casualty Clearing Station to open in a tented site was between five and six hours, although it was possible for CCSs to receive patients in small numbers within two hours of arrival at selected site. On several occasions Casualty Clearing Stations took over sites previously occupied by Advanced Surgical Centres, and to simplify the move in and take over it was customary in planning to move a small advance party of the CCS with the Field Dressing Station which was to establish an Advance Surgical Centre; this advance party was then responsible for "pegging out" the CCS lay-out so that the subsequent take-over a few days later would thus be facilitated.

During the autumn and winter CCSs were accommodated in buildings, and under these circumstances usually required up to twelve hours before they could be fully established in a new site, although they were able to admit cases within four hours of arrival.

During peak battle periods, particularly the bridgehead, it was customary to open two Casualty Clearing Stations alongside each other; a Field Dressing Station or Light Field Ambulance was used to control admissions, screening the minor casualties and sick from the Casualty Clearing Stations and directing the more serious cases to whichever CCS was open. Admissions to the CCSs thus sited were alternated either on a time basis switching every twelve hours,
or on the basis of the number of casualties admitted depending on the flow of casualties. Examples of the successful use of such a filter are given below.

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<th>Admitted Day B</th>
<th>Admitted Day C</th>
<th>Admitted Day E</th>
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<td>108</td>
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<td>CCSs</td>
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<td>127</td>
<td>99</td>
<td>252</td>
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The employment of Casualty Clearing Station as the Army Casualty Air Evacuation Cushion has been dealt with separately in the account given of casualty air evacuations.

**Augmenting CCS Resources.**

Field Surgical Units and Field Transfusion Units were normally allotted on a scale of five or six FSUs and two or three FTUs per Corps, and being completely mobile could readily be switched from one CCS to another and utilized to build up the surgical potential of a busy CCS during peak battle periods.

By attaching to a CCS three FSUs and two FTUs, not only could an expansion of 60 surgical beds thus be provided, but the total surgical resources of the unit were thereby increased from two to five surgical teams with adequate pre-operative resuscitation facilities. Under such conditions, however, it became apparent that there was a lack of trained nursing officers and transfusion orderlies to supervise post-operative resuscitation and transfusion, since the FTU personnel were fully committed with the pre-operative work for five surgical teams. To meet this need in part, three extra nursing officers were allotted to Corps, and selected nursing orderlies in each CCS were given further training in transfusion methods.

**200-Bed General Hospitals.**

When sited singly, the capacity and specialist potential (limited as it was to one surgeon and one physician) proved to be inadequate to enable them to deal with reception of casualties evacuated from Corps area during battle periods. Even with a daily evacuation, the holding capacity of these hospitals was inadequate, and their surgical potential too small.

To overcome these difficulties the policy adopted was to site two 200-bed General Hospitals alongside each other, further augmenting their resources by opening a Field Dressing Station (100 to 120 beds) to act as a screen for admissions, by filtering off the minor sick and trivial casualties before passing on more serious cases to whichever hospital was receiving. Two FSUs were included in the scheme, one to each hospital, and frequently two special surgical teams one trained in neuro-surgery and the other in maxillo-facial work. In this way a potential of 500 to 600 beds was secured with six surgical teams including facilities for the first stages of special surgery as well.

For heavy static fighting in addition to the resources utilized above it was usually necessary to open a further 600-bed General Hospital moved forward from L of C.
SPECIAL CENTRES.

Further provision had to be made for special cases, including VD, infectious diseases and psychiatric cases. To meet this need it was usual to employ within the Army area a number of Field Dressing Stations with 80 to 100 beds and stretchers; in the case of VD and psychiatric treatment centres a specialist element was attached to the FDS concerned to organize and supervise the special treatment required.

THE ARMY CONVALESCENT DEPOT.

(1) General.—Excluding the pursuit phase from the Normandy Bridgehead into Belgium, Second Army was throughout the campaign allotted its own convalescent depot. The value of this cannot be overstated, and a material saving in man-power was afforded by using the facilities that the convalescent depot afforded, the saving amounting to a reduction of 34 per cent in the total number of cases requiring evacuation to base hospitals L of C.

The depot was normally located near the Rear Army boundary where it was sited in close proximity to the FDS acting as Army Exhaustion Centre (the FDS staff assisting the Convalescent Depot in providing minor medical attention for convalescents) and to the Reinforcement Holding Units.

(2) Object.—The primary object of the Depot was to save man-power within the Army area.

A large percentage (approximately one-third) of the total cases admitted to forward medical units including CCSs and General Hospitals were suffering from minor wounds or short-term sickness requiring only five to ten days' hospital treatment; at the end of this period though fit for discharge inasmuch as they required no further treatment the majority of these cases were still not fit for discharge to the units for "full duty." Though an Army in the field is unable to carry "light duty men," it was found that selected cases of the type described above could be made fit in an Advanced Convalescent Depot in an average period of fourteen days and then returned to their units through the Reinforcement Group.

This Rehabilitation Scheme ensured:

(a) A quick outlet whereby General Hospitals, CCSs and Army FDSs could conserve their beds for more serious cases including battle casualties.

(b) A saving of transport and man-hours otherwise wasted in evacuating convalescent light sick or minor wounded L of C installations.

(3) Organization.—As mentioned above the Convalescent Depot was normally sited adjoining an FDS, so that the medical staff of this FDS could assist in providing minor medical attention and dressings for the convalescents. In practice, as the Convalescent Depot was invariably sited near the Reinforcement Group (and Personnel Railhead) the FDS involved in this role was that acting as Army Exhaustion Centre, and by virtue of this fact a useful neighbour for the Convalescent Depot.
In addition the Army Venereal Disease Treatment Centre and minor infectious unit formed by a second FDS was seldom more than 10 to 15 miles from the Convalescent Depot.

Without outside assistance from an FDS, the Convalescent Depot as at present constituted is unable to deal with convalescents requiring minor attention and daily treatment of the “outpatient” type, nor can it deal properly with the medical boards and recategorization arising during convalescence.

(4) Routine.—After routine admission procedure had been completed and soldiers introduced to their Company Officer and NCOs, they were medically and dentally inspected and graded according to their physical condition, type of illness or injury and medical category. Arrangements were made for any necessary inoculations and for dental treatment. Convalescents were placed in one of three grades for rehabilitation and training, and if specially recommended were ordered as an “extra” (i) physiotherapy, (ii) special remedial training, or (iii) occupational therapy. Cases were re-examined at intervals of five to six days and their grades (for rehabilitation and training) altered as necessary.

On an average most cases passed the physical grade tests appropriate to their category at the end of their second week at the Depot; they were now in their correct medical category and after reclothing and re-equipping to scale were transferred to the Reinforcement Holding Unit. The great importance of keeping the convalescents fully occupied cannot be stressed too strongly, and full use was made of wireless sets, games rooms, ENSA shows, canteen facilities as well as more stimulating distractions such as lectures, discussion groups, topical talks and “Padre’s Hours.” The depot training was also supplemented by road work, cross-country runs, endurance training and “battle courses,” route marches and “potted sports.”

Capacity.—Normal capacity required was for 1,000 other ranks, with a small officers’ wing accommodating 20 convalescent officers. During an advance this depot was designed to split into two equal sections providing a forward convalescent wing of 500 beds, and a rear wing of similar size which closed down and moved forward later with the Rear Army Railhead installations.

An analysis of 4,000 admissions to the convalescent depot showed that of this total, 1,474 cases were purely surgical and 2,171 were medical. 85 per cent cases were category A1 on discharge from the depot where they had an average length of stay of fourteen days. 14.5 per cent cases required special remedial exercises, but only 5 per cent cases required electrotherapy.

(To be continued.)