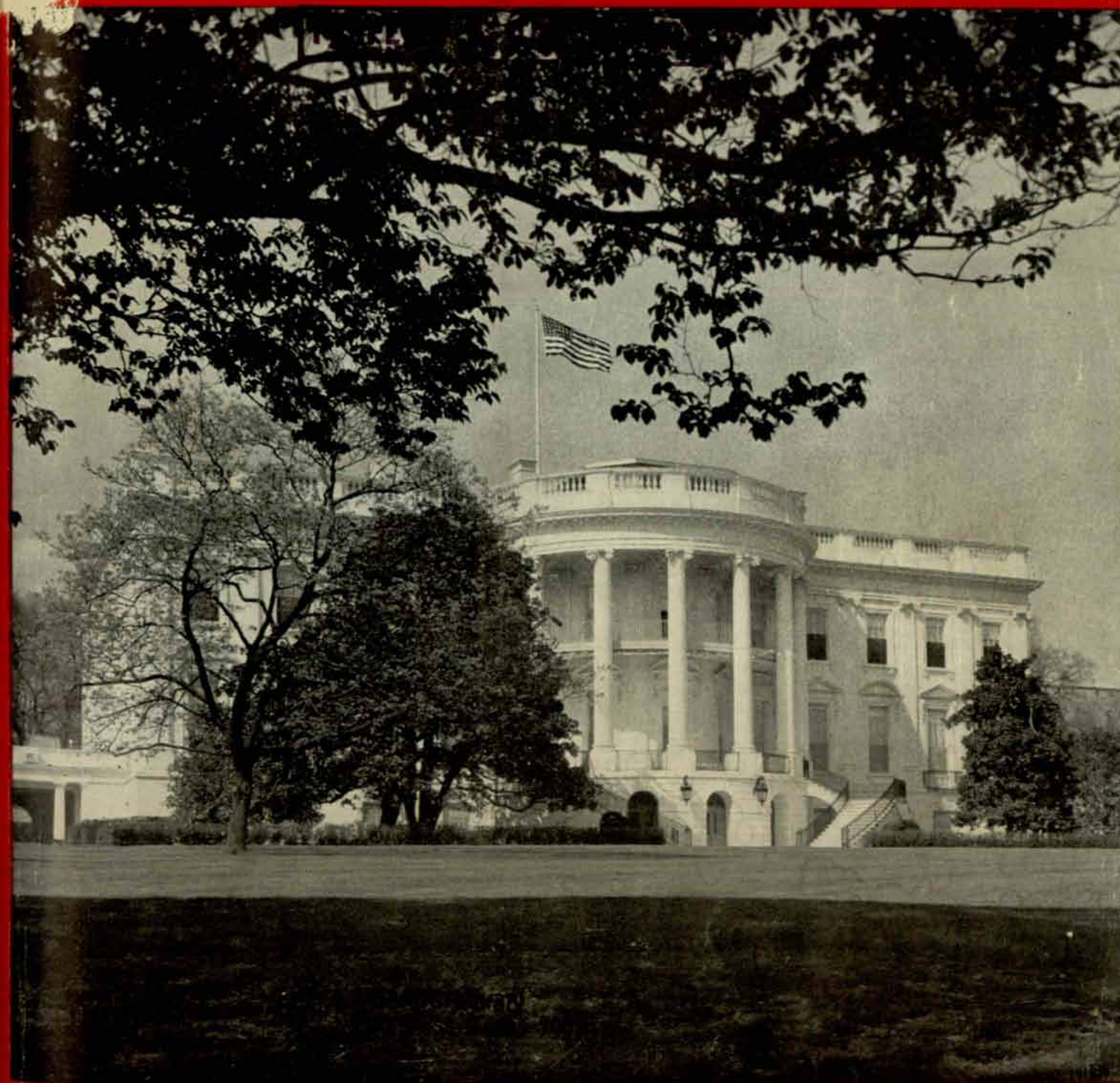


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The JOURNAL does not carry paid advertising. The JOURNAL pays for original articles upon publication. Manuscript should be addressed to the Editor. The JOURNAL is not responsible for manuscripts unaccompanied by return postage.

PUBLICATION DATE: February 1, 1953

Antiaircraft JOURNAL

FOUNDED IN 1892

Published from 1892 until 1922 as
THE JOURNAL OF THE UNITED STATES ARTILLERY
Published from 1922 until 1948 as the
COAST ARTILLERY JOURNAL

VOL. LXXXVI JANUARY-FEBRUARY, 1953 No. 1

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SUPPLY: WORLD WAR II

For Eisenhower's First Crusade Part II

By **LIEUT. GEN. LEROY LUTES**

Continued from the November-December 1952 Issue

Continued from the November-December issue. In April, 1944, General Lutes went to Great Britain at General Eisenhower's request to survey and to help in organizing and expediting the supply and logistic preparations for the cross channel invasion of Europe.



HAVING oriented ourselves fairly well at SHAEF, SOS, and the other main headquarters in London, we now desired to check with the field installations in Southern and Southwestern England—the base sections, districts, service depots, as well as the army, corps, and division headquarters. Our first destination was Cheltenham, the location of the field headquarters of SOS.

Our route was by way of Birmingham, High Wycombe, and Oxford. The English roads were well paved and had held up remarkably well throughout the war. Many of the towns and villages were very old, and looked like old prints from Dickens.

The English keep their countryside very beautiful. Their meadows were parked, their hedges boxed, the roads clean—no advertising along the roadside; so that the whole country for 150 miles northwest from London was very much like a large park with villages and towns dotted in it. We passed many people walking between the villages for recreation or going to work on bicycles. They have provided paths parallel to their motor roads for pedestrians and bicyclists. The British seem to think nothing of walking ten miles to a neighboring village or town, which of course, tends to make hardy and healthy people. However, it is a country of strange contrasts.

Although the countryside is beautiful and the English take great pride in it, their kitchens are not quite so inviting. Many of our men in London had trench mouth from dirty dishes. Our doctors had difficulties with British kitchen standards. When our troops occupied barracks or billets formerly occupied by the British troops, it required a bit of cleaning and scrubbing to get them in shape. They have a lot of tuberculosis which is contracted from tubercular milk. American troops were allowed to drink no British milk unless passed by doctors. Strange as it may seem, the British have resisted pasteurization and have made very little effort to eliminate tubercular cattle from British herds.

The Cheltenham area was misty, murky and much colder. One of the first installations inspected was the General Depot No. 25 at Toddington. Here were mostly parked vehicles and artillery—acres of it parked on acres of leased meadow land. Also there were stores at Ashchurch, including quartermaster, signal, ordnance and medical supplies and equipment as well as motor repair shops and motor assembly lines.

My objective here was to determine the amount of backlog of un-repaired equipment and whether or not a proper stock control system was operated, in order to insure that supplies and equipment that we had sent from the United States were properly inventoried, recorded and controlled. Unless we were sure that these operations were satisfactory, we could not tell whether shortages reported by the troops were due to failure of the local people to keep track of the supplies available, or whether the shortages were due to a failure in the United States. A spot check of the stock control system at Toddington and Ashchurch indicated it to be satisfactory.

We proceeded on to the field headquarters of the SOS in Cheltenham. This was the nerve center of the SOS organization in the field in England. A considerable number of British civilians were employed. The headquarters area consisted of a series of one-story brick buildings.

Our first step was to call a conference with the field SOS G4 and the chiefs of the technical services. Brig. Gen. Weaver, Deputy Field Commander for General Lee, was present. He had a good Army background, but little experience in supply matters. The following day I attended the routine weekly conference attended by the chiefs of the technical services of the base and also those from London, as well as the base section commanders from the field and the key staff officers of the various base sections in England. I talked to them briefly about our survey to insure that the invasion of Europe would be supported and stressed the need for advance planning and the anticipation of requirements in time.

We spent a few days in checking the stock control systems and in conferences with the chiefs of the technical services,

stressing that we wanted to uncover any critical shortages without delay in order that we could assist in filling these shortages from the United States prior to "D" Day.

Also during our stay in Cheltenham, the commander of the advance section of the Communications Zone assembled the members of his own staff for the first time. This section was the one that was to be on the continent handling the advance support of the operation early during the assault. I took the opportunity to go over with these officers the details of their plans to show that such plans were at least thirty days behind schedule and that they must do much work to catch up in time to be ready by D Day.

OUR next move was to the new headquarters of the First Army at Bristol. General Bradley was not there on my arrival, but his Chief of Staff, Brig. Gen. William B. Kean (now commanding general, Fifth Army), received me and immediately arranged for conferences with the G4 and the special staff of the First Army. We plunged into these conferences without delay. With us was Colonel Stratton, G4 to Gen. Lee, SOS commander, who had frankly told me that our conferences with the various Army corps and division staffs were a great help to him in finding his way to approach the logistic problems. By getting the members of the technical staffs together with G4, our first objective was to uncover their troubles and bottlenecks, after which we would attempt to improve procedures to smooth out future operations.

We then proceeded to the headquarters of the Advance Section of the Communications Zone, Brig. Gen. Ewart Plank commanding. His chief of staff was Colonel Hugh Cort, and his G4, Colonel E. F. Cardwell (now commanding general, 31st AAA Brigade). We found they had made great progress in studying the road net, terrain, and facilities on the Normandy Coast, but not much in planning for the outloaded coaster vessels and other small craft in maintaining the operations of Normandy. We tried to help them anticipate their main problems. General Plank and his officers seemed very impressed with the urgency of their work and were busy doing something about it.

We then returned to First Army Head-

quarters, where I was billeted in the house occupied by General Bradley and his staff, located on the University Campus at Bristol. Lieut. Gen. Courtney Hodges was out, so I occupied his room. Fortunately it had an open fireplace; I was nearly frozen. I enjoyed the luxury of a bathtub and a good night's sleep in his bed.

The following day I reviewed with the chief of staff of the First Army, Brig. Gen. William B. Kean, the results of the conferences of the previous day and assured him that we would continue to follow up carefully on the shortages of equipment that had been developed. We then left Bristol for Highbridge Depot, which was a petroleum products depot, consisting of open storage together with a repair plant and facilities for making gasoline cans, water cans and pallets for storage. We checked the preparation of these items for loading cross-channel craft for the invasion and then proceeded to Norton Manor, the headquarters of the V Corps, commanded by Maj. Gen. Leonard T. Gerow. As we arrived he was conducting a briefing of his staff and commanders on the V Corps operations on the French shore. We joined this conference, which consumed the entire morning. It was very interesting and gave us a very good general idea of the tactical problem and a glimpse of the strategy involved. Gerow had a fine, large relief map laid out on the floor,

which could be seen by all the officers and commanders sitting in bleacher seats. The briefing impressed upon all of us the difficulties that were to be encountered on the French beach, since the relief map showed clearly that the beach was very narrow and the bluffs behind the beach quite steep. The access roads from the beach inland were very few, which would handicap the use of combat vehicles and later handicap the vehicles used in supply and support of the rapid moves to be made forward.

We had lunch with General Gerow and his staff in a fine, old English country house, situated on a high hill overlooking the camp in a clump of cedar trees. Fortunately these old country houses always seemed to be handy for our commanders and staffs in England.

After a conference with Colonel Orlando C. Mood, Gerow's G4, I informed Gerow that there seemed to be no serious shortages except some particular artillery fuses and bazooka ammunition, which we would investigate and get corrected prior to D Day. Apparently the southern base section, Nineteenth District, was handling V Corps troop supplies satisfactorily.

We then moved on to the Nineteenth District Headquarters at Hestercombe, where Colonel Theodore Wyman, Engineer Corps, was the commanding officer. With the aid of his staff, we studied the maps showing the geographical limita-



Moving the 5th Division from England to Ireland . . . 1943.

tion of his command and the installations under his control. General Lee, the SOS commander, had given each of his district commanders the problem of supervising construction in their areas, traffic control, supply and general assistance in the mounting of the operations within the district; i.e., such as the marshalling of troops, housing them and processing the various units.

From here we visited Depot G-50 in Taunton, General Hospital No. 67, and the Marston-Magna Ammunition Depot.

Colonel Wyman was an affable host in an old type English farmhouse with high ceilings, open fireplaces, and surrounded by about five acres of neglected gardens. Like so many country houses in England, it had been owned by an Englishman who had worked most of his life abroad and who had saved his money with the idea of returning to England and buying himself a country house. He had been able to live in his nice place only ten years, and on his death none of his relatives desired to continue to live in the house. Here the cuckoo bird sounded so much like the cuckoo clock, I couldn't be sure which was which.

We proceeded next to the headquarters of the Southern Base Section at Wilton. The buildings of the headquarters were of temporary cantonment type, similar to those we were using in the United States, and were located on the grounds of an old estate. The commander was Brig. Gen. Charles O. Thrasher. He and his chief of staff gave us a briefing on the organization and the administration of the base section, and also took us into the secret war room where plans were posted, showing the general plans and procedures for mounting the operation from the south shore across the English Channel.

In another room they had a very complete display on the walls showing the title and location of each unit to be transported across the channel; the titles of the units were on small movable tabs which could be moved from one board to another, thus enabling them to post up the move of the unit as it proceeded from its permanent camp to its staging area and from the staging area to the mounting area. Knowing the capacities of each of the camps, this would enable them to keep a control of these movements, an excellent system.

The base commanders were responsible for seeing that the troops were sup-

plied. Each one was more or less an independent representative of the SOS commander in the field. However, when I faced this group of staff officers with the list of shortages that had been given me at Bradley's Army headquarters, they did not know of such shortages but did have some shortages of their own which had not been mentioned at the headquarters of the First Army. This indicated to me that the liaison between the two was not as close as it should be. However, there was no question but that the base commander made elaborate and careful preparations to put at the camp sites the initial vehicles and equipment needed by a new division. Moreover, he always left a liaison officer with the division for about a week to ten days to see that the unit got well started, all of which was very fine; but after this period of time, the actual investigations of supply difficulties of the units seemed to taper off and the division was left to make its own arrangements with the various depots in England. To my mind, this was not sufficiently thorough and I so informed them. While I noted a tendency toward eyewash in this important supply installation, by and large General Thrasher had his staff well organized and on the ball.

THE next step was to assemble my personal staff at the field headquarters in Cheltenham, compare notes and analyze the specific problems we had uncovered. I was most concerned in cleaning up the shortages quoted by Bradley's staff. Therefore, it was necessary to reconcile the differences in reports received in the Southern Base Section with those of Bradley's staff and those of the SOS field headquarters in Cheltenham. My staff went to work to clear it up. Before departing for London we conferred with G4 of the SOS to outline to him weak spots in procedures. He needed to improve the liaison or policing system to develop whether or not the troops in the field were getting proper supply action. The troops in the field were either dealing directly with him or with the chiefs of technical services in Cheltenham rather than with the district and base section commanders in the field. Either system might be satisfactory but under the system prescribed by SOS headquarters, the district and base section commanders were charged with

certain responsibilities which were not being fully carried out. Moreover, it appeared that the G4 himself was being left out of the picture a good deal due to the direct dealing between the chiefs of technical services and the troops in the field.

On departing for London, I left two of my staff, Colonel Bell and Captain Fralich, at Cheltenham to check the stock control systems used by the technical services and the depots and to keep in touch with me in London. I expected to proceed to Cheltenham and Bristol once more before the Cross-Channel operation was launched.

During the next few days, I discussed matters that had been investigated by my group with General Lee and worked in some detail with his G4, Colonel Stratton, in an attempt to assist in establishing tighter controls and coordination over supply procedures. Conferences were held with the various technical services to clear up difficulties and I talked to my office in Washington to get the shipment of some critical items expedited.

We started rechecking the steps we had taken a few weeks before with the First and Third Armies to firm up the relationships between these headquarters and SHAEF on logistic matters, particularly with a view to projecting logistic planning beyond D plus 41 days. I was determined that this should be advanced to D plus 90 days before we left Europe.

It was now time for action on the establishment of the Communications Zone on the continent after the channel crossing had been effected. These plans were in the hands of Brig. Gen. Harry Vaughan of the Engineer Corps, who was to command the forward echelon of the Communications Zone. But he had no clear and definite orders in the matter. I impressed upon him the necessity to demand that requisitions from the troops putting all lists of supplies and equipment to be needed after D Day plus 41 be turned in promptly in order that availability of these items could be carefully examined in the United Kingdom as well as the United States; that otherwise availability could not be determined and none of us could feel sure that sufficient support could be on hand on the continent after 41 days. It was also necessary to compute the tonnages and cubages in order to

determine the number of ships needed for the channel crossing and maintenance.

I had previously taken up some of the same matters with Brig. Gen. Plank, who commanded the Advance Section of the forward echelon of the Communications Zone and whose headquarters were near Bristol. We urged both Plank and Vaughan that the whole exercise could be war-gamed once they knew the supplies and equipment that would be needed, so that the number of ships, the number of turn-arounds, and the length of time required to move and unload and return to British shores could be determined. It is to Vaughan's credit that he was open-minded and accepted our suggestions promptly. We found three weeks later that he had made great progress in this forward planning.

Some of the shortages that were beginning to develop were due to the fact that during the previous year commitments had been made for the procurement of these items in England and that British manufacturing concerns were failing to make their schedules. As a result, we would have to call upon sources in the United States to correct these deficiencies without delay.

IN the latter part of April, a report from the Ninth Air Service Command stating that they were short in motor transportation caused me to take Colonel Westphalinger of my staff and proceed to Sunninghill to contact Major General Knerr. After listening patiently to his complaints that they did not have a sufficient number of trucks, I was able to produce data to show that the air forces in the United Kingdom had over 2,000 trucks more than they were authorized under the allocation system; that they were receiving more trucks in proportion to their strength than the ground forces; and that if any air force squadrons were short it was due to maldistribution within the air forces. General Knerr was fighting hard to have motor transportation earmarked directly at the factories in the United States for various bombardment and fighter squadrons in England and shipped directly to these squadrons. They just wanted a priority that we could not give ground force troops, but we could not grant it.

After observing a few amphibious training exercises in Southern England

we went to Knutsford in central England on May the First where Lt. Gen. George Patton was concentrating his Third Army. General Patton was absent in London at the time, having been called there for investigation by General Eisenhower for having made a speech in Manchester with some remarks about Russia which were resented by that country. While waiting for his return, the staff of the Third Army assembled in the headquarters to meet us and to brief us on their plan of operation for landing on the continent after the bridgehead had been formed on the continent by the First Army. The G4 of General Patton's army was Colonel Walter Muller, whom I had known as G4 of the 2nd Armored Division in the Louisiana maneuvers, a very fine G4. We then moved over to the large living room in General Patton's quarters where the fire was lighted in the fireplace, and we all stood around awaiting the return of "Georgie."

Just at dark he breezed into the room and without waiting on formalities, strode across the room to where I stood before the fireplace and impulsively burst out with, "Goddammit, Roy, be careful what you write back to the United States. I have just found out in London that my mail is being opened and read at GHQ." No introductions, no preliminary remarks, although it had been over a year since he had seen me. Just as he always was, direct to the point with his trouble. He later told me quietly that Ike had reprimanded him on his remarks about Russia and warned him that another incident of the sort would cause him to be relieved of command again. Georgie said, "Believe me I will be a good boy. I want to take this Army over." At dinner he was his old self, regaling us with tales of North Africa interspersed with his own style of emphatic profanity. The importance of teaching American soldiers to be willing to kill an enemy with their bare hands if necessary was his principal theme.

The dinner was served in very formal style. I never saw General Patton in the field without his silver and linen. After dinner, General Patton, his deputy, General Gaffey, and I retired to the living room for a more quiet and confidential talk, at which time I reviewed for them what I had been doing in the United Kingdom, and discussed with them the organization of the SOS in

England. General Patton kindly arranged a complete staff briefing for me the following morning and at this briefing was present himself. We spent the entire day going over a considerable number of details.

The Third Army had not completed its concentration in this area and was not fully equipped, due to the fact that they were on a lower priority than the First Army. Naturally, the staff feared that the First Army would not only get themselves equipped first, but would dip into the stockpiles reserved for the Third Army. This was natural, since the First Army had the initial landing to make and Bradley had been quite properly aggressive in demanding large reserves to be earmarked to maintain his Army.

As I left the old manor house, Georgie Patton towered straight and strong in the doorway. I thought of his swaggering days as 2nd Armored Division commander in the Louisiana maneuvers, of the time he made an end run around the flank of the Second Army by running over the Texas-Louisiana border. He had demanded that I get gasoline to him behind the enemy lines when he ran out of it. I did, but warned him if he ever got into real war he could not expect such service. I was not to see him again until his headquarters was on the Rhine just before the Battle of the Bulge, and before that I was to hear of another Patton end run in France and that he was again out of gasoline. He was a man of many contrasts. At heart a thorough gentleman, philosophical and religious, but outwardly trying to hide his gentler traits with bluster and profanity.

WE then visited the VIII Corps and the 79th Division and surveyed briefly their supply problems. Both had recently arrived and neither had gone far in analyzing their requirements for the cross-channel operations.

We arrived next in the area from which a large segment of the invading forces would start; i.e., the Western Base Section which had its headquarters in Chester. Our first step, of course, was the usual one of assembling the staff of the base section to give them an opportunity to brief us on their problems and give us an opportunity to question them. Although the Western Base Sec-



POL . . . up the Seine to Paris.



From Antwerp to the Bulge . . . December 1944.

tion was somewhat more meticulous than the Southern Base Section in following up their responsibilities to the combat troops, we found the same lack of close liaison between the technical services and some of the combat units. As an example, we had just left the 79th Division and knew of their ammunition shortages; but the Ordnance officer of the Western Base Section had no knowledge of their shortages. We impressed upon the staff the necessity for establishing closer contacts with General Patton's Third Army headquarters and all troops under him with a view to determine their shortages at once and to insure that sufficient stocks of equipment were left behind by the First Army to enable the Third Army to continue training and later to complete its allowances. They agreed.

Since Liverpool was one of the large ports through which we expected to continue to receive and ship equipment from the United States, I looked over their facilities and procedures. I had visited this port with General Somervell two years previously and now found a considerable improvement in dock and channel availability. Our first move was to check the records in the port to determine whether adequate information was available on incoming cargo; i.e., just what the cargo consisted of, on what

ship it was located, where docked, and what action was being taken to move the cargo to destinations. We were not very happy to find that records were not too clear. I harped on my old theme that unless we know what we have and where it is, it might just as well not have been manufactured or shipped. Facilities for unloading and embarking troops from Liverpool were superb. While we were there, Canadian troops were being embarked for Burma, and preparations were being made to receive a shipment of American troops at the Princess Loading Stage. The stage was very well placed and prepared to accommodate a large number of troops.

Our next step was to assemble the staff of the SOS Field Headquarters in Cheltenham once more to discuss the procedures and situations that we had developed in the Western Base Section and the Third Army on our trip. Again we stressed that the procedures which permitted the troops in the field to deal directly with the chiefs of the technical services in Cheltenham part of the time and directly with depots at other times prevented proper coordination by the base section commanders or by the G4 of the SOS Field Headquarters. In other words, if the base section was to be effective as a geographical policeman to represent the commanding general, SOS

and G4 in the field, they should be cut into the supply picture or else cut out of it entirely, one or the other. Also, there was much duplication in reporting. The base section commanders were compiling reports showing the supplies moved out of depots in their areas, the workload in labor, etc., and at the same time the Transportation Corps were submitting similar reports. We assisted the deputy G4 at this field headquarters in establishing the procedure which would enable him to know what shortages were developing among the combat troops, what the services were doing to supply these shortages from depots in the area, and a good stock control system to determine whether or not these shortages were actually short in the United Kingdom or whether they were items that must be supplied from the United States.

IT was time again to contact the commanding general of the Advance Section of the Communications Zone, since he would be responsible for the first support of the troops after they gained their hold on the continent. So we proceeded to Bristol. The weather was now drizzling and foggy. The ADSEC headquarters were in a large warehouse formerly occupied by a British cooperative purchasing system on the outskirts of Bristol.

The commander, Brig. Gen. "Eddie" Plank, like most of the other commanders in the SOS, was an Engineer officer. General Lee had seen to that. He assembled his staff for a round-table conference. We found that they had made considerable progress since our last visit in preparing plans for the Communications Zone. In the initial stages of the operation he was to be attached directly to the First Army and the First Army would control its own supply operations until at least D plus 14 days (actually this control lasted for 60 days). General Plank had never seen a Communications Zone until he visited the Base Section at Naples. His duties in the Engineer districts had been less exacting. However, he was earnest and ambitious to do a bang-up job, which he later did. His staff had a high morale and were very anxious to perform their mission in a meticulous way, but they were looking for guidance. Cardwell, the G4, was an aggressive antiaircraft officer with supply experience in Iceland, but had not had supply experience with field armies in combat. The Ordnance officer was getting organized fairly well. The Quartermaster had his plans in good shape.

We found that some of the staff had been concerned principally with statistics and had not visualized the real problems. I suggested to General Plank that they attempt before the jump-off to war-game every move on the far shore; i.e., to estimate just where the supplies would be placed and where they would be moved to and how they would be moved in each phase of the combat operation, all of which would involve truck and other transportation problems, tied into the general supply problem. They weren't able to do it, but we did prepare a check list for Plank of actions to be examined, which he later told me was his bible.

Since we were near the First Army headquarters I went over to see General Bradley again. He seemed glad to see me again and thanked me for expediting supplies to his Army and checking with his staff, but asked me in a caustic tone why General Lee was at the moment in the south inspecting the training of some of the First Army troops in landing operations on the south shore. His remarks were, "Why should you be checking my supplies when Lee should be doing the job, and instead he is but-

ting into my business, which is training in preparation for combat." There wasn't much I could do to answer that. I just tried to smooth it over the best way I could.

After the talk with Bradley and Hodges, I went back to Kean, checked his requirements for 81mm mortars and ammunition, and was later able to get his requirements filled.

On returning to London I prepared interim reports to General Lee, to General Somervell, and to General Eisenhower. I informed General Somervell that the operation on the continent could be supported. It was the duty of the Advance Section of the forward echelon to prepare complete plans for the support of the operation to D plus 41 days, and the duty of the forward echelon headquarters itself to prepare the plans for the remainder to 90 days. I was still concerned over the period D plus 41 days to D plus 90 days.

I informed General Somervell and General Lee of the various weaknesses within General Lee's staff; i.e., that there were a considerable number of inexperienced officers attempting to prepare the supply support of this great undertaking. I offered to bolster General Lee's staff with one or two of my own people on loan, and also suggested that some men experienced in supply from the North African Theater be placed in the staff. These movements were resisted by the chief of staff, Brig. Gen. Roy Lord, who seemed to fear that some of the new people would usurp the key positions. But I made certain that General Lee understood fully how I felt about the matter, as well as General Somervell. Knowing General Eisenhower very well, I did not want to excite him at this stage of the preparations, hoping that I could get all the threads tied together in time to give him a comforting report before the operation was launched.

A few days after my return to London from the Bristol area, Brig. Gen. "Eddie" Plank arrived to discuss further the procedures of his Advance Section of the Communications Zone and his personnel problems. He agreed with me that he should make a shuffle within his organization to create a deputy for himself and to strengthen his G4 section. Also, Colonel Muller, G4 of Patton's Third Army, came to the city to see me and brought his complete operational plans for support of that Army, including

both supply and administrative plans. We went over these in detail and I found them excellent.

I had Colonel Evans of my own staff go into the petroleum supply plans of the First U. S. Army Group from D to D plus 90 days. The engineer supply situation in England was not too good at this time. Maj. Gen. Moore, the engineer of the SOS staff, had spent most of his time in England on construction matters and had neglected the installation of a suitable stock record system. But he agreed to throw his personnel into this job without delay in an attempt to determine what supplies he would need in the United Kingdom and what could be sent to the continent. We went over his special projects such as petroleum pipelines and pumps, bridging equipment and operational requirements of this sort. Fortunately, we found that most of the critical operational items had already arrived in England or were on the water. There were a few shortages which we corrected by a conversation with Washington.

BY the 8th of May I became suspicious that General Lee wasn't receiving some of the reports that I had been submitting. I asked for a conference with him and found that he was in complete ignorance of every subject I had covered in my reports to both General Eisenhower and General Somervell, I had made weekly reports to General Eisenhower on my findings and outlined the corrective action suggested, and on several occasions had actually discussed them with Ike. General Lee read some of these reports in my presence and asked me to leave copies with him, which I did. He listened attentively to the descriptions of some of the procedures between SHAEF, the First U. S. Army Group, and ETO.

I then became concerned for fear G4 of the First U. S. Army Group, Brig. Gen. Moses, might be in a similar situation, and so he was. He had relied entirely upon the planning of the Advance Section of the Communications Zone, which was to support the 21st Army Group. I explained to him that there must be some misunderstanding in the lower echelons, since the Advance Section of the Communications Zone was looking to his headquarters for guidance on the allocation of tonnages

to the ports for cross-channel movement, as well as some guidance and operational supply planning for the on-continent operations. There would be some requirements for heavy equipment, for example, which would have to be translated into tonnages, and I recommended that he go over these matters with the 21st Army Group to insure that information was promptly passed on to the Communications Zone for preparation of supplies to be moved and for the compilation of tonnages to be delivered in each class of supplies. It was the first knowledge that he had that the advance section of the Communications Zone was over four weeks behind in its planning due to the lack of this information from topside. Although General Moses agreed to go into these matters, he still took time to protest the idea that the SOS commander, General Lee, also held the position as deputy theater commander. This was an old story to me, as I had heard similar comments from Generals Bradley and Hodges. To me it was Ike's problem.

My staff was busy expediting critical items needed by the airborne troops, and with success, as these supplies arrived in time for the operation. They included special items such as luminous tape for packages to be dropped from the air for the marking of landing fields.

On the 9th of May I had an interim conversation with General Eisenhower and his chief of staff, Lieut. Gen. Bedell Smith. We went over the procedures briefly as they pertained to the G4 section of SHAEF, the SOS Headquarters, and the First U. S. Army Group.

General Eisenhower got quite personal on certain members of General Lee's staff and some of those of the staff of the First U. S. Army Group. He was quite aware of the feelings of Generals Bradley, Hodges and Patton concerning General Lee's staff and was concerned over the fact that General Lee spent so much time in the field on matters which did not directly contribute to the logistic support of the proposed operation on the continent. I informed him that nevertheless, I thought General Lee had done a fine job in organization and that he now would have his supplies under control sufficiently to know what was actually in England to a large degree. Ike asked me to stay as long as I could in England and to see him again before I returned to the

United States.

After this I was invited by General Lee to a dinner at Number Two Mansfield, where I met most of the key people of his staff as well as Brig. Gen. Barker, G1 at SHAEF, Maj. Gen. Crawford, G4, SHAEF, and Maj. Gen. Holley, the chief surgeon. This dinner was a commendable effort on the part of General Lee to smooth out the personal relationships between his headquarters staff and the G4 Section staff of General Eisenhower's headquarters.

The following day we worked with the chief surgeon at SHAEF, who was quite anxious about medical supplies and equipment. Fortunately, we had gone into this matter in our travels about England and were able to prove to him that there were no large shortages such as he had feared.

On the 12th of May, we held conferences with Maj. Gen. Frank Ross, chief of transportation, on the progress of the actual movement of supplies to shipside for the assault forces during the first days of the invasion—D to D plus 14. These movements were going very smoothly, with every indication that the supplies needed by the First Army would be loaded according to their loading plans on time. The First Army had liaison officers present at dockside to insure that the supplies for these first landings were loaded in the priority needed. We checked the system of reporting between shipside and the chief of transportation's office to insure that this system was satisfactory, and that the schedule would not fall behind without the transportation office knowing it.

The first assault forces of about 85,000 were already in their marshalling areas, and the follow up for these forces were 80% into the marshalling areas.

We then held conferences with interested parties at headquarters and Washington, by telephone, concerning petroleum supplies.

On the 13th of May, we held conferences at SHAEF with the chief of staff, General Bedell Smith, and later with the G4 Section, concerning the evacuation of the wounded, after which we went over these plans with the surgeon general. General Crawford, G4, was still complaining on this date that he was not getting the information from General Lee's staff, in spite of all the attempts we had made to iron out the differences between SHAEF and SOS

headquarters.

THE 15th of May was the date of the final briefing of the high command for the big operation across channel. This conference was quite historical; both the King and the Prime Minister were present. General Eisenhower led off with a very brief talk, reviewing the cooperation between the British and American staffs to date and emphasizing his insistence on continued cooperation between the two staffs, stating that any officer who failed to cooperate to the fullest extent would be relieved.

I sat four rows behind Churchill and the King. The conference was held on the second floor of St. Paul's School, a college building in the heart of London. The seats that we sat on were stiff backed benches, or stalls, which had been used by students in lecture periods. These were in tiers arranged in such a way that each row of seats was about one foot above the row in front, which gave all officers present a complete view of one another and of the maps, particularly the large relief map on the floor. This relief map filled the entire room and was sloped up at the back so that all of it could be seen from any seat in the room.

After General Eisenhower had oriented the entire group as to the purpose of the meeting, and emphasized his points on cooperation, he stated that he would be followed by General Montgomery, who would outline the plan of strategy and then by the other subordinate commanders, who each in turn would indicate their plan of operation.

This was my first chance to hear Montgomery in conference. He impressed me as a bright man, with much confidence in himself and much confidence in his ability to estimate his opponent—Field Marshal Rommel. There seemed to be one danger in that he was considering Rommel and what Rommel would do more than anything else. If the Germans should shift commanders, he might be caught off guard. His estimate as to where his tanks and armored units would meet Rommel later proved to be correct. However, he failed to defeat the German armor, and the subsequent victory in Normandy was due to the mobility of Patton's Third Army, which swept around the end and enveloped the German rear.

It was evident that Montgomery would have liked to be top man in Europe. I was told that he leads a very careful life, turning in early at night, and that he would not tolerate any smoking in his presence if he could help it.

He was followed by General Omar Bradley, who gave an excellent presentation of his plans, after which General Dempsey of the British Second Army spoke. Dempsey was rather tall, thin, with a very decided British accent, a firm determination.

At noon Eisenhower again addressed the group to introduce the King, stating that since the King had to leave earlier than originally contemplated, he would ask the King to address the party then. The King made an excellent, brief talk, off the cuff. The struggles that he has had to overcome his stammering handicap were evident. He did not stammer, but there were long pauses in which you could see the muscles on his neck stiffen when he attempted to overcome his failing. But nevertheless his talk was brief, to the point, and very clear.

We then went to luncheon served on the floor above. I sat with a mixed group of American and British officers. About eighty to one hundred were seated in a large mess hall served by WRENS of the British Forces. During the luncheon hour several officers of both the British and American staffs were decorated: General Bradley was made Knight of the Bath by a British representative of the King.

After luncheon, the conference was continued, with other subordinate officers presenting their plans; among them Sir Humphrey Gale, who presented the over-all supply plan. He emphasized the

seriousness of any supply failures and gave imposing statistics on the tonnages that would have to be transported to the continent.

The meeting was closed by a rousing talk by the Prime Minister, Winston Churchill, punctured as usual by much humor. He looked pink as a baby with his extraordinarily large head and large eyes. He looked as if he had stepped from the pages of a very old English book.

Meanwhile, my staff conferred with the G4 section and a representative of OPD of the War Department in Washington relative to preshipment of supplies and equipment to England for additional troops to be sent over. Also, they worked with the Forward Echelon of the Communications Zone on the progress of our Forward Echelon planning and their preparations for operations.

The 16th of May found us continuing vital arrangements for priorities and tonnage allocations and procedures for the handling of requisitions from New York. We were in conference with New York by telephone. On this date also General Eisenhower came into London and sent for me. Fortunately, I was able to make my final oral report to him much more encouraging. He thanked me and emphasized that he still wanted my services permanently the moment I could be released in Washington.

On the 17th of May, we conferred with the Forward Echelon under Brig. Gen. Harry Vaughan, to go over their final plans and found that they had made great strides since our last conference. They were new at this business, but their plan was good, and if they could show the ability to carry them

through, their operations would be successful.

Our conferences with the New York Port and the chief Quartermaster continued, because we began to get information that the British were falling short in meeting some of their contracts on blankets and woolen items. Also, on this date, we were briefed on the progress being made on artificial harbors, known under the code as "mulberries."

We needed to know what would be required to maintain this operation. Before leaving the United States we had pushed to completion plans to rehabilitate the harbors of France including specially equipped boats with machines to do every anticipated job.

On the 18th day of May, our last day, we held final conferences with the SOS staff on the final touch to critical items. By this time we had checked and rechecked the status of supplies and equipment in the British Isles; we had expedited quantities of critical items in over 200 categories; pushed support planning from 41 to 90 days; effected better coordination between the staffs concerned; arranged a priority system for future support; and taken many other actions to button up preparations. In the afternoon we paid final visits to SHAEF and then prepared for the return flight to the United States.

Two days later we landed in Washington, thus closing what I believed to be a successful bit of work for General Eisenhower and his forces. I felt confident that, as far as logistic support was concerned, he would be supported for three months and it was now our job to see to it that further support would build up rapidly from the United States.



Unloading stage at Cherbourg . . . 1944.



The Red Ball, supply link to the Siegfried Line . . . 1944.

The New Defense Team

AS we go to press some of the industrial executives selected by President Eisenhower to head up the National Defense team have not yet completed the hurdles of Senate confirmation.

Charles E. Wilson, former President of General Motors, has been confirmed as the Secretary of Defense. Likewise, Roger M. Kyes, former Vice President of General Motors, has been confirmed as the Deputy Secretary. Others designated but not yet confirmed are:

Secretary of the Army: Robert Ten Broeck Stevens, World War I Field Artillery lieutenant and now President of the textile firm, J. P. Stevens & Co.

Secretary of the Navy: Robert B. Anderson, Texas lawyer and general manager of the 500,000-acre W. T. Waggoner estate.

Secretary of the Air Force: Harold E. Talbott, World War II director of aircraft production on the War Production Board and now chairman of the board of North American Aviation.



U.S. Army Photo
Secretary of Defense Charles E. Wilson (seated left) with Deputy Roger M. Kyes. Standing (l to r) Robert Ten Broeck Stevens (Army), Robert B. Anderson (Navy) and Harold E. Talbott (Air Force).

34th AAA BRIGADE

By MAJOR THEODORE WYCKOFF

A RECENTLY joined member of the brigade is Col. Galvin L. Partin, from the Artillery Section, Seventh Army, to become commanding officer of the 12th AAA Group in Karlsruhe. He replaces Col. Chester F. Diestel, who has gone to Headquarters US Army, Europe, Logistics Division, in Heidelberg. The 12th Group staff continues with most of its longtime members: Lt. Col. Edward W. Fitzgerald as executive, Major Reno A. Mazzucchi as S3, Major C. P. Roundtree as S2, and Major H. V. Davis as S4.

Colonel Robert A. Kessler has just arrived to take over command of the 242nd AAA Group in Mannheim. The 242nd, representing the Connecticut National Guard very creditably, is a neighbor of the 34th Brigade Headquarters in Mannheim.

The 8th AAA Group in Wiesbaden, commanded by Col. Olaf F. Kyster, has been walking away with a good many athletic honors recently. Lt. Col. C. F. Coffey's 63rd AAA Gun Battalion won first place in the summer and fall competition for the Commanding General's Athletic Participation Trophy, while Lt. Col. R. I. Shagrin's 5th AAA AW Battal-

ion took second place.

The brigade staff continues much the same, with Col. J. S. Albergotti as executive, Lt. Col. C. E. Gushurst as S3, and Majors J. F. Butler, R. H. Zimmerman, and R. W. Fiske at S1, S2, and S4 respectively. 1st Lieut. Wendell W. Barney is now aide to Brig. Gen. Robert W. Crichlow, brigade commander.

Lt. Col. J. P. Tawes now commands the 67th AAA Gun Battalion, located at Worms.

Major J. R. Henderson relieved Lt. Col. R. A. Clafée in command of the 91st AAA AW Battalion at Ludwisburg.

Lt. Col. E. F. Boomer has relieved Lt. Col. I. J. Dalrymple in command of the 633rd AAA Gun Battalion in Wiesbaden.

With winter's arrival, and the prevalence of bad weather at brigade firing ranges at Grafenwohr, Hohenfels, and Putlos, the emphasis on training has shifted to the individual and small unit. And, while I write, the finishing touches are being put on 1952's training program: The 8th and 242nd Groups are in the field, taking their annual Army Training Tests, while the last battalions are just finishing theirs.

THE ARMY BUDGET

By LT. COL. CHESTER E. GLASSEN, GSC

THE President submitted to the Congress in early January, a 1600 page document entitled, "The Budget of the United States." Actually it is not strictly the budget of the United States, but rather the recommendations of the President to the Congress on the financial program of the country for the fiscal year beginning 1 July 1953 and extending to 30 June 1954, referred to as Fiscal Year 1954.

This document has been under preparation and revision for more than a year by thousands of Federal employees in the Bureau of the Budget and in the planning and budgeting agencies throughout the government. Its submission occasioned much pointed comment, pro and con. Evidently it still has a long hard road to travel before it becomes legally enacted into law, a road on which it will be examined, reexamined, debated, criticized, praised, and pruned.

The budget of the United States in the past few years has become important not only to the citizens of this country, but to all people throughout the world. In it can be found the specific plans and intentions of America as a major force for peace in the world. It is of particular importance this year because it will be reviewed and acted upon by a new administration whose approach to both foreign and domestic problems may well first be indicated by the action taken on the budget.

The budget has special significance for the members of the Armed Forces since, at the present time, such a large part of each budget dollar is required for the maintenance and support of the military services. In 1951, prior to the beginning of the Korean War, 32 cents

out of each tax dollar of income was required for the military services. By 1952 the amount rose to 60 cents, and in the recently released budget for FY 1954 it is indicated that 59 cents out of every dollar will be used for the Armed Forces.

The budget and the budgetary process are basic requirements for a democratic form of government since they provide the means by which the elected representatives of the people may decide upon the actions to be taken by the government. When the Lords and Barons of the realm closed in on King John at Runnymede in the year 1215 they demanded, among other things, that taxes be levied only by the common council of the Kingdom. They were tired of being handed the bill without having the right to decide, in advance, upon the wisdom of the action which had been undertaken. In the history of the United States the cry, "Taxation without representation," expresses one of the principal reasons which brought about the Revolutionary War. Again the issue was the right of the people to decide upon the costs of government, which in turn, requires a knowledge of the government's program.

In the Army, as well as in all of the other departments of the Government, operations are usually controlled by the resources which the Congress makes available. The repair of the roofs at Fort Bliss, the availability of gasoline and ammunition to conduct target practice, the trucks which carry the equipment, and even the light bulbs in the quarters and offices must be provided for in the budget.

Planning and programming without determining the resources required and the probability of obtaining these resources comes under the heading of wishful thinking. On occasions we see the wheels spin because due attention was not paid to the practicability of getting the materials needed to do the job.

To carry out a program in the Army, it is necessary to have the program supported by the budget. No matter what

anyone says, money counts, too! Someone expressed the same thought when he remarked that it really didn't make much difference whether you were rich or poor so long as you had money.

What is the Budget?

The term "budget" is derived from the French word, "*bougette*," meaning a small leather bag. The connection between *bougette* and budget came about because the Ministers of Finance normally brought the report on the status of the government's financial situation to the legislature in a small leather bag. The original meaning and the present day connotation should not be confused, however, for when something is in the budget it does not necessarily mean that it is in the bag!

Perhaps one of the most commonly accepted definitions of a budget is that it is a plan expressed in financial terms. It is a setting forth in some established format the actions proposed by the agency along with the estimated costs thereof. Although it reports on anticipated income, probable expenditures and the amount of additional funds required to carry out a program, it is not just a document of dollars. Obviously no one can arrive at the financial aspects of any problem until the original desire has been examined and some specific lines of action have been considered. Of course, the budget can be overemphasized. It is only a part of the overall approach to an objective. It must be coordinated with the estimate of the situation, the plan of action conceived, and the specific programming which must be developed. There is still a tendency in the Army, however, to underestimate rather than overestimate the role of the budget in operations.

In 1921 the Congress passed the first comprehensive legislation dealing with budgeting and accounting procedures in the government. This Act required that a budget officer be appointed for each executive department, and it was in response to this law that the position of

Lieut. Col. Glassen is assigned to the Plans and Coordination office in the Army Budget Division where he also serves as Secretary to the Budget Advisory Committee. Entering the Army through Fordham ROTC, he served with AAA during the War, was integrated in the Regular Army in 1946. In 1950 he completed his graduate work in Political Science at Syracuse University.

Budget Officer of the Army was established. The Act also set up the Bureau of the Budget, the General Accounting Office, headed by the Comptroller General of the United States, and specified most of the procedures and policies which are being followed today. It is interesting to note that the first two directors of the Bureau of the Budget were men holding high military rank, General Charles G. Dawes and General Herbert W. Lord.

Public interest arose along with the introduction of the federal income tax. Under the spending and taxing programs of the past two decades the matter has now become of vital interest.

In 1949 the Congress enacted an amendment to the National Defense Act of 1947 which contained a whole new section devoted entirely to budgetary and fiscal procedures and organization within the national military establishment (Title IV, Public Law 216, 81st Congress). In 1950 a major revision in the Budgeting and Accounting Act of 1921 was made. Among the first pieces of legislation introduced in the new 83rd Congress is a proposal for the establishment of a Commission to examine again the budgetary and other procedures of the government. So budgeting is indeed a current issue.

Many terms have already developed in budgeting to make up the jargon of the trade. Perhaps the three basic terms are "appropriation," "obligation," and "expenditure." It may be helpful to look into the more precise meaning of these terms in the budgetary sense.

An appropriation is the *authorization* contained in an Act of Congress to make obligations for specified purposes and to make payments out of the treasury to meet these obligations.

Obligations, on the other hand, are the actions taken after an appropriation has been authorized. They are the amounts of orders placed, contracts awarded, services rendered, and similar transactions during a given period, requiring future payment of money. When a contract is signed to purchase new AA fire control equipment, it is said that the funds have been obligated. The Army has certain standing obligations from year to year, among them being the pay of its soldiers and the pay of civilian employees as well as other services which must be obtained.

The term "expenditure" is perhaps the

most confusing of the three. Usually when someone says that he has made an expenditure he means that he went to the store or elsewhere and spent some money—that is, actually transferred some cash from his pocket or bank to the waiting hands of the seller. In fiscal operations, expenditures are the liabilities incurred for goods or services received, whether or not paid for or whether or not a bill or invoice has been received. The actual outlay of money is referred to as a disbursement which may be a payment either by cash or check. The jargon becomes more complicated as we delve further; however, a command of the meanings of "appropriation," "obligation" and "expenditure" is all that is needed to get off the ground.

The budget was called a financial plan in which anticipated receipts, estimated expenditures and estimated new appropriations or obligational authority were set forth. The President's budget is just such a plan, including a report on the prior year, the current year and the new fiscal year (the budget year). The three year comparison provides those who must review the plans for the budget year with a basis for making decisions. The telephone-size book, which is always publicized and commented on, obtains its bulk mostly because of the detailed explanations given concerning the new obligational authority required; that is, why we need more money for procurement, research, maintenance, etc.

Aside from terminology another significant aspect of budgeting is the form used to set down the budget. In family finances this can be quite informal. As a matter of fact it may consist of a check book or merely a mental review of things desired compared with the cash available. When operations multiply and become more complex, as they do in government, it is necessary to establish certain standard procedures and methods of writing down all of the information involved. In many respects a budget format is similar to the well known five paragraph field order used for Army operations. Sometime in the past it was decided to use five paragraphs and to specify what each paragraph would contain. In this way anyone could pick up the order and know where to look for certain kinds of information. This standardization is equally important in budget operations. The efforts that have gone into the development of the form

of the Federal budget is a complete story by itself. One of the most recent episodes was initiated as a result of the National Defense Act Amendments of 1949 which specified that the three services would adopt a "performance-type" budget.

The Act required that budget estimates of the Department of Defense be prepared, presented, justified and, where practicable, administered in a manner which would reveal, account for, and report "the cost of performance of readily identifiable functional programs and activities, with segregation of operating and capital programs." It further required that "the budget estimates and authorized programs of the military departments shall be set forth in readily comparable form and shall follow a uniform pattern."

A better name for this type of format would be "Program Budget" because it is intended to focus attention upon the general character and relative importance of the program of the Service, that is, on the work to be done rather than on the things to be acquired. Adoption of this method of budgeting was intended to concentrate Congressional action and attention, as well as executive direction, on the scope and magnitude of Army programs rather than on the shopping lists of nuts, bolts, and wheels, or on the details of personal services or other items required to do the job. It did not mean that the shopping lists were to be ignored since this detail properly subordinated was an essential part of the problem. However, primary interest was to be centered on the program and its cost.

There was, and still is, much discussion on the subject of the performance-type budget. Many people found that it was a lot easier to theorize than to actually develop such a budget. Others resented the change from the format with which they had become familiar. And as recently as a few weeks ago, some four years after its appearance on the scene, Representative John Taber (R., N. Y.), the new Chairman of the House Appropriation Committee, was reported to have referred to the performance system of Federal budget making as a "swindle." This reaction probably reflects a feeling that details are covered up and the shopping list is not as complete as in the past. In 1950, the Congress passed the new Budgeting and

Accounting Act, amending the 1921 legislation, in which the term "performance budget" was specifically eliminated, even though authority for using such an approach was not necessarily discouraged.

The Army went to work in 1949 on the job of changing its budget structure to the performance type. The task was an enormous one and required nearly two years to complete; even then it could not be said to have actually been finished. Under the previous budget structure there were approximately 21 different appropriation titles. Among them were such classifications as "Finance Service," "Quartermaster Service," "Engineer Service," "Ordnance Service and Supplies," "Salaries," "Department of the Army" and so on, stressing the technical and administrative organizational structure of the Department. Under the new appropriation structure the major programs involved in the operation of the Army are emphasized.

The Army Budget

There are now eight major appropriation titles: *Military Personnel, Maintenance and Operations, Procurement and Production, Research and Development, Military Construction, Army National Guard, Reserve Personnel Requirements, Military Construction for the Army Civilian Components.* Under each of these major appropriations there are grouped a number of programs varying from two to fourteen and totaling 46 all together. Each program in turn is broken down into a number of projects and sub-projects relating to allied activities and functions. When viewed as one package along with the required details and justification, we have in this structure the Army budget. Although a good deal more complicated than the five paragraph field order, it nevertheless shares similar characteristics—a format for expressing something in an orderly manner and in a way which will produce the greatest amount of understanding with the least possible error.

Figure 1 is a graphical presentation of the Army budget, showing the three comparisons. Figure 2 tells the same story in table form. It will be noted that the term "direct obligation" is used in both illustrations. The reason for this is that in selecting a way to present the dollar amounts it is preferable to speak in terms of planned or actual obligations rather than in terms of appropriated

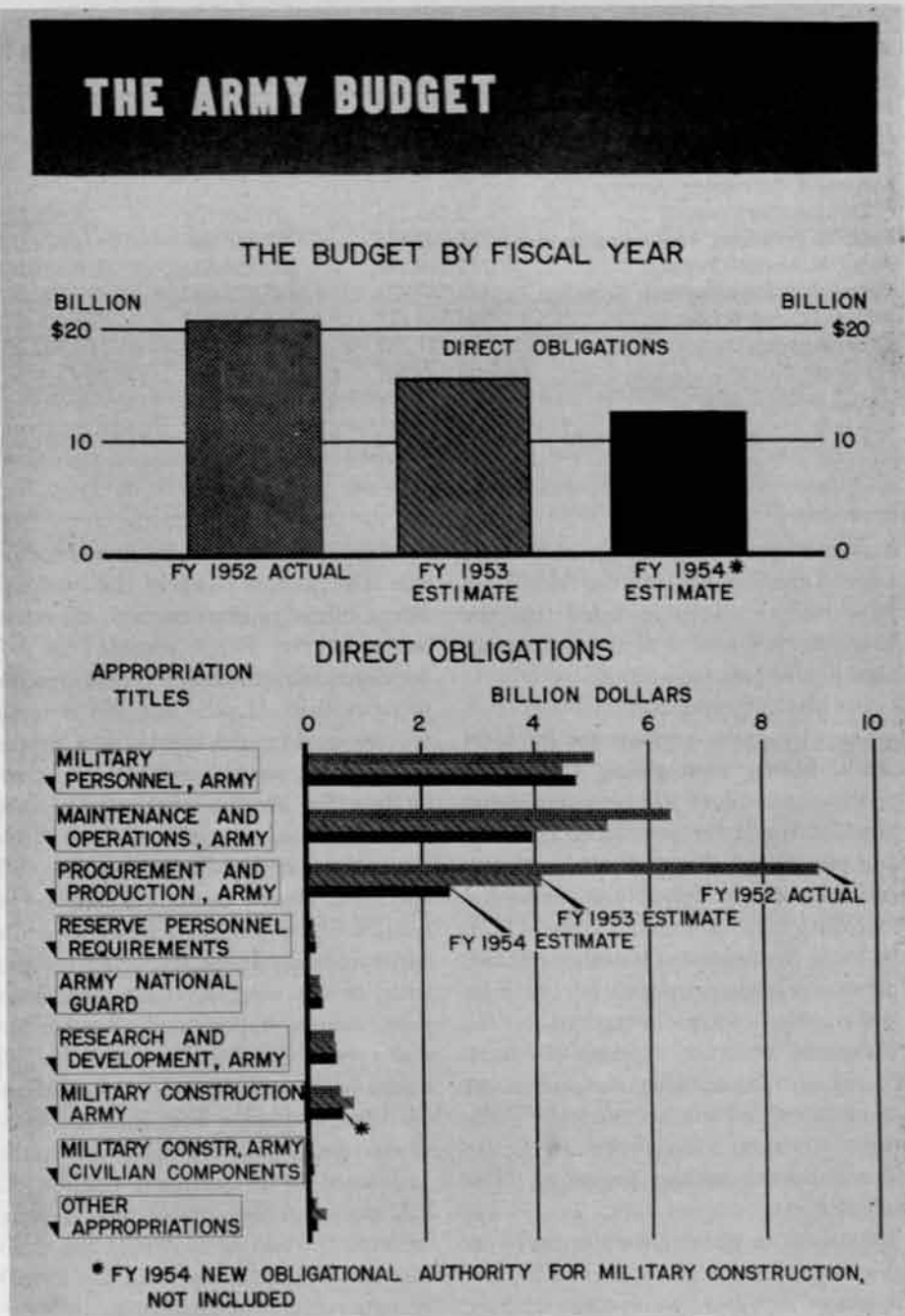


Figure 1

amounts alone. The difference is that direct obligations reflect not only the money authorized for the particular year, but the availability of certain unobligated balances from previous years. In this way emphasis is placed on the total programmed use of funds rather than on the new money received. It is somewhat analogous to considering personal financial plans in terms of things to be done, taking into consideration your present bank balance and the "new" money which will be received when your pay check is deposited. In Figure 2 the amounts actually appropriated by the Congress for each of the three years are shown in the last line, entitled "Total

Appropriation or Estimate."

Another item which requires some explanation is the entry "Other Appropriations." These are in addition to the eight regular appropriations of the Army performance budget and include such items as The Operation, Maintenance and Construction for the Alaska Communication System, Promotion of Rifle Practice, and Civilian Relief in Korea. Some of these are of a temporary nature, and others are being carried as a part of the budget pending a decision as to where they shall be listed.

Armed with a working knowledge of some budget terminology and some background on the performance budget,

SUMMARY OF FY 1954 BUDGET—6 January 1953

Appropriations & Budget Programs (Direct Obligations)	FY 1952 (Actual)	FY 1953 (Est.)	FY 1954 (Est.)
Military Personnel, Army	\$ 5,070,504,583	\$ 4,502,784,459	\$ 4,729,437,000
Maintenance & Operations, Army .	6,406,646,472	5,295,791,845	3,999,504,000
Procurement & Production, Army .	8,970,571,591	4,109,777,094	2,471,779,000
Military Construction, Army			
Civilian Components	8,060,826	31,089,174	38,500,000
Reserve Personnel Requirements ..	65,943,145	92,638,067	116,636,000
Army National Guard	172,586,847	200,564,832	215,355,000
Research & Development, Army ...	433,547,731	447,870,000	475,000,000
Military Construction	534,364,427	766,752,867	575,000,000
Other Appropriations	78,421,759	253,592,129	88,280,000
Total Direct Obligations	\$21,740,647,381	\$15,700,860,467	\$12,709,491,000
Net Adjustments	— 342,615,351	— 2,256,450,467	— 599,900,000
Tot. Appropriation or Estimate ..	\$21,398,032,030	\$13,444,410,000	\$12,109,591,000

Figure 2

it is now possible to begin examining some of the highlights of the Army's FY 1954 budget. Keep in mind that the Congressional review of these same figures is now just beginning.

For the appropriation, *Military Personnel Army*, the estimate for FY 1954 is \$4.7 billion, representing 37 per cent of the new budget. This appropriation provides funds for pay, food, clothing, and permanent change of station travel, and related costs for military personnel including pay of cadets of the U. S. Military Academy and for other military personnel requirements such as welfare and morale, information and education, Chaplains' activities, expenses of courts, boards and commissions, apprehension of deserters and interest on soldiers' deposits. In brief, it covers the direct costs of maintaining military personnel. The calculation of needed funds in this appropriation is based almost entirely on the strength of the Army. For FY 1954 is proposed to have an average military strength of 1,555,200, a slight increase over FY 1953, and to maintain a twenty division structure with supporting units, including a sizeable antiaircraft organization.

The next appropriation, *Maintenance and Operations, Army*, is one of the more complex since it covers a very wide field of activity. The nearly \$4 billion being requested is required for the maintenance and operation of all organization equipment and facilities of the Army, including the Army Reserve Forces; a procurement of a very large percentage of organizational equipment and supplies, production of training films and aids, operation of service-wide establishment-wide activities, such as service-wide command administrative

communications networks, finance activities, Disciplinary Barracks, the National War College, military surveys and maps, among others. Funds provided by this appropriation, which in FY 1954 amount to more than 31 per cent of the total, will be used for the operation of depots in the Army supply system, schools, including the Artillery School, training, field exercises, recreation and all other programs related to the maintenance and operation of the Army. There are a total of fifteen budget programs in this appropriation. It is developed on the basis of the requests submitted from posts, camps, stations and all other installations throughout the world. The lights, heat, and building repairs which must be provided at Fort Bliss and elsewhere are dependent upon the funds authorized for this section of the budget. Efficiency and economy are most directly reflected in this area. The Cost Consciousness program initiated by former Secretary Pace was directed at the activities in this appropriation perhaps more than any other. Failure to properly maintain equipment, waste in carrying out the day to day operations all run up the cost of M&O.

The pay for 80 per cent of the approximately 550,000 civilian employees of the Army is contained in this appropriation. In this connection it is interesting to note that pay of civilian employees, amounting to approximately \$1.7 billion, accounts for about 13 per cent of the budget. Adding just the payroll part of the pay of military personnel to this, \$3.7 billion, reveals that a total of nearly 42 per cent of the money required for FY 1954 will be needed to meet payrolls. This percentage approximates the pre-Korea post-war

period. It was lower in FY 1951 and FY 1952, due to the very large increase in the requirements for major procurement and production.

The *Procurement and Production Army*, appropriation is, in FY 1954, the third in order of magnitude. The \$2.4 billion being requested will be used for purchasing major items of equipment such as weapons, electronics, ammunition and guided missiles, support vehicles, aircraft, and for providing certain needed production facilities. Both the chart and table show that this appropriation has been reduced in size during the three years being considered. In FY 1952 it represented 41 per cent of the budget, in FY 1953 it was almost 26 per cent, but in FY 1954 it will be just about 20 per cent. This downward trend reflects the leveling off which has taken place since the upsurge which followed the outbreak of the Korean war. More and more reliance is being placed on the production capabilities which have been developed. Many millions of procurement dollars appropriated in prior years are still working and on the books because a number of the more costly items financed in this category require long periods for manufacture. The strength of the Army is largely dependent upon the procurement and production program.

A review of the three appropriations which support the Army Reserve Forces, *Reserve Personnel Requirements, Army National Guard, and Military Construction, Army, Civilian Components* bears out the fact that both the Army Reserve and the Army National Guard are experiencing major increases as a result of the return to an inactive status of the organizations and individuals who were called some two years ago in response to the national emergency. For all three appropriations the Army is planning to obligate \$370.5 million during FY 1954, about three per cent of the total. In FY 1953 the ratio is two per cent and in FY 1952 it was one and one-tenth per cent.

The appropriation, *Reserve Personnel Requirements*, is, as indicated by the title, limited to the personnel aspects of the Army Reserve program. It provides for the pay and allowances, travel for training duty, procurement of subsistence supplies and individual clothing for both the Army Reserve and the ROTC for inactive duty and on active duty for training purposes. All of the other re-

quirements of the Army Reserve are met through the other Army appropriations. New items of major equipment, maintenance of existing equipment and other similar items are budgeted for with the requirements of the Regular Army.

With the exception of major items of equipment, the appropriation, Army National Guard, is essentially self-sufficient. It provides for the expenses incurred in equipping, maintaining, operating and training the Guard. The breakdown within the appropriation somewhat parallels the main subdivisions of the Army budget. There are programs for Military Personnel Costs, Maintenance and Operations, Procurement of Ammunition, and Operation of Facilities. In addition, the appropriation contains a program which provides the funds for the expenses involved in the administration of the National Guard Bureau in Washington.

The separate Military Construction appropriation for Army Reserve Forces covers the expenses incurred for the acquisition of real property, surveys, engineering and construction design, field inspection and supervision, and construction or modification of buildings and structures such as armories and similar facilities.

The funds provided in the appropriation, *Research and Development*, are used to insure that the Army reaches and maintains a significant measure of superiority over our actual and possible enemies. When hostilities broke out in Korea the research and development program was called upon to meet the demands of combat. The 3.5 inch rocket, the M47 and M48 tanks and the frost proof boot were just a few of the items which were whisked off the drafting boards. The Army's interest in this program is quite evident from the increase in the amount of funds requested even in the face of reduced budgets. The \$475 million sought for FY 1954 is 3.75 per cent of the total estimated obligations, whereas the \$433.5 million used during FY 1952 was only two per cent. This appropriation provides for the expenses incurred for basic and applied scientific research and development by contract or otherwise, including costs for procurement or manufacture of components and of technical equipment and apparatus required. It includes costs of research, development, and evaluation incident to matériel and techniques for long com-

bat, air defense, airborne landing, amphibious, supply and maintenance, and specialized warfare operations. It provides for research in personnel, intelligence, planning, supporting research and other operations, and operation of technical services and Army Field Forces Testing Boards. There are literally thousands of projects under study, all of which are coordinated with the Research and Development Board of the Department of Defense and the other military departments. To listen to a presentation of the Research and Development program is an experience during which time and space seem to lose dimension and the future unfolds before you.

A comment on the FY 1954 Military Construction program is necessary because the \$575 million contained in the FY 1954 column of the table does not represent the amount being requested for new obligational authority, but rather the unobligated balance which will be available for obligation during that year. The additional funds required to carry out the program adequately are still being determined. Appropriation action on Military Construction must await approval, in the form of authorizing legislation, of the complete construction program. This is the one program which must first be presented to the Armed Services Committees for review and recommendation, as well as enactment into law, before any request for new obligational authority may be submitted.

The total direct obligations for FY 1954 are estimated to be \$12.7 billion. In order to carry out this program the Army is requesting a total appropriation of new funds amounting to \$12.1 billion. Although somewhat less than that appropriated during FY 1951 (approximately \$20 billion), FY 1952 and FY 1953, it is still a large chunk of the total national product. Administering funds of this proportion places an unusual responsibility upon the Secretary, Chief of Staff, the Comptroller and all other members of the Army. In one way or another everyone is involved in the budget.

Budget Formulation and Review

Figure 3 shows a flow chart which summarizes the principal steps which a budget must go through before coming into being as legal basis for using funds. The dates placed over most of the boxes

indicate that it takes almost 18 months to go through the cycle. It is a big job and absorbs the time of thousands of people. There really doesn't seem to be any particular budget season. Right at the present time the Budget Division of the Army is working on the operating details of the FY 1953 budget, presenting the FY 1954 budget to the Congress, and completing the directive for the FY 1955 budget. Taking such liberties with time produces confusion. There was a period, prior to being assigned to a budget job, when a year was a year and not two or three years in either direction.

The law (Budgeting and Accounting Act of 1950) requires the President to transmit his budget to the Congress during the first fifteen days of each regular session, that is, sometime around the 15th day of January. The work required to produce that budget is normally begun ten to twelve months earlier and involves every echelon of the Army. Actually many of the basic policy and program decisions must be made before that time in order that the work of the budget may begin on the basis of approved plans and programs. Once it has been decided that certain forces shall be maintained and certain plans carried out it is necessary that all operating agencies be informed and requested to submit their requirements. From that point on the processing of a budget is principally one of review and revision until a final product is developed. The budget is a decision demanding document and since it is tied to a definite date of submission, decisions must be timely or the result is chaos.

After the estimates are received from the major field commands and technical, administrative and other agencies, they are consolidated and the appropriate sections are turned over to the Budget Program Directors. The Budget Program Directors are the Assistant Chiefs of Staff except in a very few cases. They review those parts of budget which logically fall within their area of specialization, assisted by the Budget Division of the Office of the Comptroller of the Army.

For example, G1 reviews the part of the budget pertaining to the pay of military personnel, welfare and other G1 matters; G3 reviews the budget for training and field exercises; G4 reviews the budget for the major portion of the M&O appropriations, military construc-

tion and like matters.

When this preliminary review is completed the estimates are returned to the Budget Division where budget analysts go over them again and develop recommendations for the Army Budget Advisory Committee. This committee, established in accordance with Army Regulation 15-35, is composed of the Chief of the Budget Division, the Deputy Assistant Chiefs of Staff of the Army General Staff, a representative of the office of the Deputy Chief of Staff for Plans and Research, the Special Assistant to the Chief of Staff on Civilian Component Affairs, and a representative of the Chief of the Army Field Forces.

The review by the BAC is the last detailed inspection of the estimates prior to their being presented to the Chief of Staff and the Secretary. The review sessions of the BAC extend up to six weeks and are marked by some 18 hour continuous sessions. Obviously a grind such as this takes its toll in patience, humor, and aching backs. The struggle at times seems unending and the parade of witnesses without termination. Each pro-

ponent of a program or function is convinced that the future of successful operations depends upon favorable approval of his proposal.

The BAC sessions are hardly ended and the Chief of Staff and Secretary satisfied when the struggle begins anew before the analysts of the Defense Department. This is repeated again before the Bureau of the Budget where every last detail is examined again. For a while, before the beginning of hostilities in Korea, a Budget Advisory Committee served the Joint Chiefs of Staff. At these sessions each of the services had an opportunity to review and comment upon the budgets of the other two services.

The final test, of course, is the presentation to the Congress. At that time the programs must be outlined in detail and all of the necessary justification data provided. The Congressional examinations vary slightly from year to year, but always the purpose is to insure that maximum security is going to be obtained for each tax dollar spent. The task of the Congressional Appropriations Committees is certainly one of the most

difficult of all. Within a fairly short period the members of the Committee must acquaint themselves with enough of the information to make an intelligent recommendation. Great responsibility for the eventual course which will be followed rests upon their shoulders. In conclusion we would emphasize again that the Army budget actually controls the operations of the Army. The budgeting process as practiced in the United States is one of the finest examples of democracy at work. General Joseph T. McNarney said, in this connection:

"In the last analysis, however competent its leadership, however sturdy its ranks, the usefulness of any American Service as an effective instrument of defense is dictated by the adequacy of funds appropriated for its operations. Principles, policies, developments, reforms—all must be adjusted to the taxpayer's dollar which is the master of them all. This purse string control of Department of Defense operations is just and necessary for absolute civilian control of the country's military instrument."

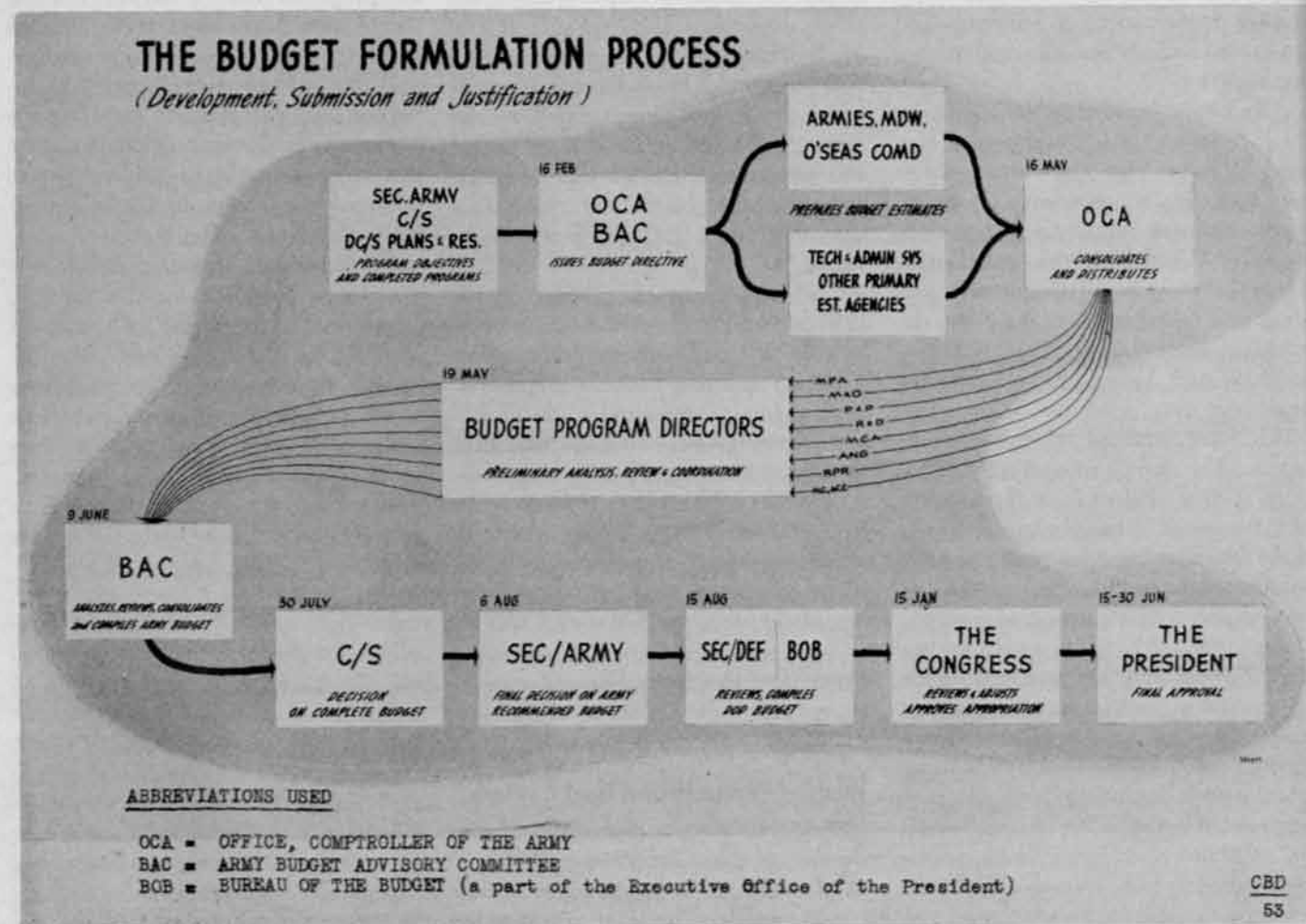


Figure 3

Grand Strategy and the American People*

By BRIG. GEN. PAUL M. ROBINETT

IN all the great wars of modern times the aggressor dictated grand strategy in the pursuit of political objectives as long as he had liberty of decision and action. Once he lost liberty of decision and action the aggressor was thrown back on the defensive, and his ability to determine grand strategy passed to adversaries. From that time on the original aggressor could only counter the strategy of opponents who frequently were satisfied to merely thwart his political designs. It can, therefore, be concluded that grand strategy is a military activity reserved for the chiefs of state of unengaged major powers and those involved in war who are still capable of the offensive.

By way of historical illustration one must turn to the great wars of history, particularly those of recent times. The best examples are the wars of Louis XIV and Napoleon of France, and of Kaiser William II and Hitler of Germany. In the two earlier wars France was attempting to dominate Europe, the seat of world power, as Germany was in the latter two wars.

Before Louis XIV became the aggressor, France had been unified and strengthened largely through the influence of two capable ministers, Richelieu and Mazarin. It was a homogeneous whole unequalled in Europe. On the death of Mazarin in 1661, Louis XIV took over the direction of the government himself. Taking advantage of the great power and wealth that accrued to him in pursuit of his own and dynastic ambitions, he became the aggressor and fought three wars against coalitions, sometimes with and at other times without allies; until, in the end, he was contained, even though he had acquired numerous continental advantages. While

the aggressor, Louis XIV had made the strategical moves against which the others had to react. He left an impoverished country and a diminished empire across the seas. The consequence was a bloody revolution inherited by one of his successors. Although France was impoverished and the people savagely divided, the vision of Louis XIV did not die. Neither had the physical unity of France been lost.

With advantages inherent in France and in stronger leadership, Bonaparte took up the torch. By dazzling victories he caught the imagination of the French people which enabled him to restore unity where chaos had prevailed. Having achieved this success he was prepared to undertake the task left unfinished by Louis XIV. He attempted to unify all Europe under French domination by a succession of wars. He fought against coalitions, at first with allies and, at the end, without them. Finally, he was decisively defeated and France, bled white and in poverty, was returned to its original frontiers. As long as Napoleon was able to take the offensive he dictated the course of events and others had to conform.

ON the German side a divided people finally achieved unity under the guidance of a Prussian king with the help of a great chancellor, Bismarck. When the process of unification had been completed the stage was set for great internal improvements which made it possible for an aggressive sovereign to undertake external adventure. In World War I Kaiser William II initially had the advantage of a united and prosperous country. Germany fought against a great coalition with allies and ultimately lost the war under the sheer weight of numbers and matériel. The Kaiser lost his throne and Germany was weakened and impoverished and stripped of overseas possessions and of a limited amount of territory in Europe. In this war as in the previous examples the course of events was dictated by the

side that was capable of the offensive.

Again we have an example of another picking up the torch determined to carry out the vision of his predecessor. As Hitler was gaining power, Germany was internally weak and divided. After gaining political control, he soon created unity and the military forces that permitted resumption of the struggle. In time Germany was involved in a full-scale war against a great coalition but with allies. After winning victories, eclipsing even the greatest of Napoleon, Hitler failed. But at this point the parallel ceases because the successful coalition fought until Germany was occupied and its armed forces destroyed. Germany lost all possibilities of action. During the conflict, Hitler was able to determine the course of events or the grand strategy until the initiative or power of the offensive passed to his enemies. From then on he could only react to their decisions.

But the passing of Hitler and his allies has only marked the rise of a new aggressor—the tyranny of Communism with its dictatorial centralization of power in the chief of a one-party state. This is of transcendent interest to all adult American citizens who collectively use responsible for the selection of a President or Commander in Chief of the Armed Forces every four years. It is this individual who must decide the grand strategy which will guide the ship of state through the rough waters of world politics during his term of office. If a selection should prove to be an unfortunate one, the Republic may be destroyed by the counter strategy of enemies that lie in wait or founder under the weight of domestic barnacles accumulated through inaction. A consideration of the American role in allied strategy, particularly Anglo-American strategy, in World War II will throw some light on the current problem.

THE plain facts are that in spite of America's good but oftentimes misguided intentions, the strategy of the present

*Reprinted from *Military Affairs*.

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and of the immediate past has failed to produce the peace so sincerely desired. Therefore, we can only conclude that there has been some deficiency in the strategical leadership of our presidents or commanders in chief. It is to this level that we must look because modern communications and means of transportation have completely restricted grand strategy to the chiefs of state, even in republics. Among the chiefs of state it is largely limited to those who are capable of offensive action. The others must conform to the strategy imposed upon them or, in a suicidal manner, adopt a role obviously beyond their means.

The American people who know only what they read in the newspapers or hear and see over the air have been given the impression that the top military and naval figures of our time have been great strategists. This is hardly exact because American military men had only a minor role in strategical matters in World War II. The Anglo-American side of the war was directed by President Roosevelt and Prime Minister Churchill, a dual command with the inefficiency that usually accompanies divided responsibility. It is, therefore, impossible to say that there was an American strategy in World War II. It is only possible to determine the degree and quality of American contributions in the strategy that was adopted as compared with the extent and quality of British contributions.

Of the chiefs of state, Churchill was more experienced in war and had more than two years' current practice before Roosevelt openly assumed the role of war lord. The latter, however, played the role before Pearl Harbor and shifted commanders, particularly admirals, when their views of strategy did not agree with his own. The best illustration of this is Roosevelt's employment of the fleet. Having initiated an anti-submarine campaign against the Germans in the Atlantic as early as mid-June 1941, he left the capital ships in the Pacific in a precarious situation because of a lack of destroyer escorts, carriers, and other auxiliary ships and naval aviation. Mahan's principle of concentration which had dominated the professional thinking of naval men for some time was abandoned by an amateur who, at the time, was being proclaimed, by at least one columnist, as a profound student of naval strategy and more capa-

ble in that field than the admirals themselves. Protesting the decision, Admiral Richardson was relieved and a more tractable Admiral Kimmel appointed in his stead. Richardson lived up to Lord Nelson's dictum that "An officer should have political courage." To his undying credit, he incurred professional oblivion but not unenviable association with a military disaster.

With the ready acquiescence of Roosevelt, Churchill succeeded in tapping the American treasury, in raiding the very limited reserve of arms available in the United States, in employing certain elements of the United States Navy in the Atlantic in actual operations against the German Navy, and in drawing the United States into military planning at the General Staff level before America officially entered the war. To compensate for these very practical advantages Roosevelt got access to certain overseas bases and British concurrence for the nebulous Atlantic Charter which includes the basis of the very unrealistic political objectives of Roosevelt. To these unrealistic political objectives can be traced the beginning of much postwar uncertainty.

THE Pearl Harbor disaster can now be classified as a political victory for Roosevelt. It united a peace-minded country behind the man who had already initiated war against Germany. But it also had profound repercussions upon the conduct of the war, drawing United States forces into the Pacific regardless of the overriding aim of Roosevelt, in agreement with Churchill, of making the defeat of Germany the first military objective. The war in the Pacific thus became secondary to the European conflict and largely an American undertaking.

Churchill entered the Arcadia Conference in Washington, December 1941-January 1942, with a definite idea of world strategy which had apparently been developed in consultation with his chiefs of staff. On the other hand, Roosevelt had developed his ideas from conversations with numerous advisers and without serious co-ordinated consultation with his chiefs of staff. To make matters worse, Churchill lived at the White House during the Conference and was able, therefore, to have his professional military assistants there from

time to time. This contributed to the preponderance of British influence in that initial Conference which oriented Anglo-American strategy, not only against Germany but through the Mediterranean. About the only important American contributions in the Arcadia Conference were the ideas of unity of command in theaters of operations and of the designation of China as a theater of operations, which were advanced by General Marshall and accepted by Roosevelt and eventually by Churchill.

The Arcadia Conference was hardly concluded before General Marshall urged the abandonment of the Mediterranean approach in favor of a direct assault upon Western Europe. The lack of logistical preparation, particularly in shipping, precluded the early undertaking of such an ambitious project. If it had been adopted United States troops would have continued in idleness, waiting for adequate landing craft, or would have suffered needless losses in piecemeal action. Churchill was largely responsible for the retention of the Mediterranean strategy and the opening campaign in North Africa which appear to have been correct.

ACTUAL operations in Africa were sloth-like and conducted without strategical imagination. The main effort was made by the British Eighth Army from a base in Egypt, about 24,000 turn-around miles from New York, an effort which might well have been shifted to reinforce operations against Tunisia and Sicily, the turn-around distance to which was only 6,000 miles from New York and 3,500 from London. Unity of command should have been established in Africa from the beginning but was not. By an offensive known as the Kasserine Affair, the Germans were able to disrupt the situation and bring about a crisis before unity of command was established. But the crowning strategical mistake emerging from the area, one that haunts the world today, was Roosevelt's unilateral announcement of "Unconditional Surrender" following the Casablanca Conference. That pronouncement prolonged the war, increased American losses and eventually advanced Soviet interests in the world.

Churchill's operational ideas continued to prevail for a time and brought on the Sicilian and Italian campaigns.

In the end, however, his efforts to extend operations into Southeastern Europe were rejected by Roosevelt. From this time to the close of operations, the strategy of the Anglo-American war effort more closely paralleled American ideas than British.

Strategical imagination was rarely demonstrated during the invasion and conquest of "Fortress Europe." It was evidenced in the deceptive measures adopted to conceal the main point of invasion and in logistical arrangements for the operational support of the armies in Europe. Possibilities of a greater and more crushing blitz than the Germans themselves had been able to accomplish were forfeited in conventional ground attacks on a broad front and in piecemeal airborne operations. The possibility of a great mobile sweep into Germany was beyond the comprehension of either Roosevelt or Churchill.

Military victory found the Anglo-American forces established in Germany amidst a desolation brought about by promiscuous air bombing and the collapse of every element of political and military strength in the country. Germany became at once something more than a liability. The utter destruction of all balance of power on the continent in the face of overwhelming Soviet military strength at a time when Europe could not reconstitute the balance and the political leaders of the United States and Great Britain could not understand the necessity of filling the void was the height of strategical stupidity. This culminating mistake in the European theater was more of American doing than British.

THE Soviet Union was granted exorbitant concessions to bring it into the war against a tottering Japan. Encouraging Soviet Russia's entry into this

conflict was a strategical mistake. Thanks to General MacArthur, there came out of the conflict a partial political victory when "unconditional surrender" was not insisted upon and the Japanese people were allowed to choose their own type of government.

Military victory over the Axis powers made possible the transformation of the nebulous objectives of the Atlantic Charter into the United Nations Organization. To the fighting men in the far flung battle line the words United Nations sounded unfamiliar. They thought of them only as a novel way of speaking of allies. Many were shocked when they learned that the name had far reaching implications worked out in their absence. When the United Nations Organization was accepted by the Congress, Roosevelt achieved the political objective which he himself laid down as the war aims of the United States. Apparently, Great Britain also adopted the United Nations as its political objective. But time has shown this organization to be almost useless as an instrument of peace. In fact it may even be argued that the instrument has increased friction and conflict in the world, and served as a propaganda agency for communist world revolution. An institution that breeds confusion and unrest is a detriment to civilization regardless of its aims.

A false political objective led both the United States and Great Britain to squander the military victory won over the Axis at such an enormous expenditure. Political leadership in both lands demonstrated a lack of historical understanding which teaches that *coalitions are bound together by common interests and fall apart when those interests have been served*. New combinations invariably follow. The minimum Anglo-American precaution should have been the retention of sufficient armed forces

to insure a proper peace in a broken world. Instead there was a rapid demobilization in defiance of the lessons of history so well illustrated following the initial downfall of Napoleon when Great Britain and Prussia held their field forces together and were thus in a position to crush the Emperor's attempt to regain power. In the United States this was a deliberately planned demobilization. There were no sound reasons justifying the administration's faith in the good intentions of the imperialistic Soviet dictatorship.

An enlightened American people should insist upon a re-examination of the political objectives of the United States by practical men who are grounded in world history. The bad old world needs to proceed from what is practical and possible at the moment towards a brighter goal in the future. Otherwise, the Korean War will lead to no sound political objective. This is of the greatest importance in the United States where the people themselves must select their director of grand strategy every four years. If they continue to elect impatient, impractical men, who are improperly grounded in history, the United States will sooner or later be led to ruin and western civilization with it. Collectively the adult citizens of the United States are responsible for their own fate. Other republics have existed in the past only to fail and disappear. Many are the reasons for their failure, but none are more important than the apathy and ignorance of the citizens of those republics. They either elevated to power the leaders who led them to ruin or, through negligence and folly, allowed leadership to slip into untrustworthy hands. *The price which must be paid for freedom under republican institutions is eternal and wise collective vigilance.*

35th AAA BRIGADE UNITS IN INAUGURAL

Two batteries of the 35th AAA Brigade participated in the Inauguration Day Parade on January 20th when President Eisenhower assumed office in Washington.

Battery A, 71st AAA Gun Battalion, commanded by 1st Lt. Charles E. Cantley, and Battery D, 14th AAA Gun Battalion, under 1st Lt. Dalton L. King, turned out with full equipment

of 90mm and 120mm firing units, respectively.

Additional support for the ceremonies was furnished by radio equipped jeeps of the brigade that were tied in with the communications control net which was established along the route of march on Pennsylvania Avenue from Capitol Hill to the White House.

SOUTH KOREANS AND FREE CHINESE TRAIN TO FIGHT REDS—U.S. HELPS

By **BRIG. GEN. THOMAS R. PHILLIPS**

Military Analyst for the St. Louis Post Dispatch

ROKS MAKE TOP FIGHTERS

TAEGU, Korea, Dec. 16—"The realization of the Republic of Korea army," Gen. James A. Van Fleet has said, "by the United States Korean Military Advisory Group has been the most significant event in Korea in the last 12 months." The advisory group, consisting of about 600 officers and 1300 men, conducts all stages of the training of the Korean army and now has in its camps and schools continuously about 100,000 Koreans preparing to join their divisions or to form new ones.

Gen. John R. Hodge, who commanded our occupation forces in Korea until they were withdrawn, remarked after he recently inspected the training system: "I did not believe it could be done."

The impossible has been done. The idea and the inspiration behind it were Gen. Van Fleet's.

Men Who Performed Miracle

The men who have actually performed the miracle are Maj. Gen. Cornelius E. Ryan and his chief of staff, Col. Frank H. Maerdian, together with carefully selected instructors of all ranks.

KMAG evolved from the advisory group which was left behind when our occupation forces withdrew. It really only began to get a full head of steam when Gen. Van Fleet got behind it and Gen. Ryan was assigned as an expert in training foreign nationals. In July 1951 the start was made under difficult conditions.

The Korean army was inclined to blame its American training for its early failures, while the poor performance of Korean troops had led the American instructors to lose faith in them. Both were wrong. Thousands of Koreans had been sent to battle with only 10 days of training and few had fired more than five rounds from their rifles.

This big establishment is run by 98 American officers and men. This indicates the degree to which the Koreans have learned to carry on their own military training. Technical schools are not so far advanced. Nevertheless, the most optimistic American officers do not believe the Koreans could manage their own training and operations for many years. Estimates run from five to 10.

American instructors have gained the affection and confidence of the Koreans to a remarkable degree. When some of the officers have been rotated, the Koreans have come and wept and pleaded that they be retained. On some occasions petitions signed with thousands of names have begged that the adviser should not leave.

The success of the Army system of instruction has greatly impressed Koreans of all levels. President Syngman Rhee told this reporter that when the time came for economic rebuilding, the same system used by the armed forces should be applied to teach Korean workmen and managers how to operate the factories which he hopes will be built.

Not Enough Training

There was nothing the matter with American training, except that enough had not been given. There was nothing the matter with the Koreans, except that they had not been trained adequately and that their leaders, especially, were woefully deficient in military knowledge.

All this has been overcome, except that there is still a severe shortage of trained officers. There are now 10 veteran, proved divisions in the ROK army, and two more ready for combat. All of these divisions have had the physically unfit removed and discharged and all have been withdrawn from the lines for a period of retraining and re-equipment.

There is no lack of confidence in the ROK army today. Where once it was felt necessary to have an American division sandwiched in on each side of each ROK division—and how our troops feared for their flanks then—now up to nine ROK divisions have been side by side in line, with no fear by the American high command that they might crumble.

"Rice Bowl . . . and Candle"

What can you do when a Korean translates a headlight as "the rice bowl with a candle in it mounted on the fender of a truck"? To overcome this, American technical terms are used. Listening to Korean instructors one hears a lot of incomprehensible talk interlarded with English terms like "breech-block," "piston," "carburetor."

The counterpart system is used throughout the Korean Army. Gen. Ryan is the adviser of the Korean chief of staff, Lt. Gen. Pail Sun Yup. Each corps, division and regimental commander has his American counterpart and the system extends to field artillery battalions.

The entire American induction and training system has been duplicated to include all of the technical schools, a general staff college, and even a military academy which was established in January of this year. At Cheju-do, the replacement training center has 50,000 men continuously in training.

The training system duplicates in its entirety that used in the United States and the training cycle is completed in the same time. This does not mean that the Koreans learn as fast through interpreters as our own troops. Instead, they train 60 hours a week while our troops train 44. They have a passionate intensity to learn which makes up for some of the difficulties.

Score Highest Average

The Korean officers in the latest class at the United States field artillery school had the highest average of any group of students ever to go through the school, in spite of the language barrier and the need for interpreters, who are sent to the schools along with the officers.

American texts translated into Korean are used in KMAG. To make sure they are accurate, they are first translated into Korean and then retranslated into English before they are mimeographed. Mimeographing is a major problem. All the characters have to be cut on the stencil by hand and each takes about an hour to prepare. The lack of technical

* * *

CHINESE ON FORMOSA COULD RAID MAINLAND

TAIPEH, Dec. 19—The men of the Military Assistance Advisory Group (MAAG), under Maj. Gen. William C. Chase, commander of the famous Second Cavalry Division, are doing superbly one of those difficult tasks that fall to the lot of the American military services today.

Their job is to train, advise and supervise the equipping of the more than 500,000 troops of Free China on this lush island.

Initially, this was an extremely difficult and sensitive assignment. The Nationalist Chinese had lost faith in the United States, believing we had let them down at a critical moment. They welcomed the MAAG when it was established more than a year ago, but their feelings were confined to wondering if we really meant it this time.

Delays in supplying equipment contributed to this in the early days. All doubt is now ended. Equipment is coming in adequate quantities. A shipload of artillery arrived not long ago. The Chinese divisions now have division artillery, where a year ago they felt well supplied with four 37mm guns.

Gen. Chase has won the complete confidence of the Nationalist government and military authorities. There is now a respectable number of divisions equipped adequately, although on an austere basis, not only willing, but anxious to raid the mainland.

Along with supply of equipment, training has proceeded to a degree that the troops of Free China can be termed first class troops by Oriental standards.

The larger part of the armed forces

terms is a difficulty.

What is being done in Korea is being done by the armed forces elsewhere in the world. Turkish boys, Italian boys, Chinese boys, as well as Koreans, are being advanced 100 years in techniques and training in an incredibly short time.

When these same boys return to their mud or thatched huts, life in the villages will take a spurt toward sanitation and improved methods.

It will never be the same again. The practical effort we are making militarily to assist our Allies in the cold war may turn out to be one of the most significant acts ever undertaken by the United States.

are composed of men who came from China. Most of them are faithful veterans with an average age of 28 or 29. By next year, many of these will be replaced by soldiers enlisted on Formosa.

The language difficulties encountered are fantastic. Not only do texts have to be translated into Chinese, but into several kinds of Chinese. Men from one province in China cannot understand the language of men from another with much more facility than the French can understand Italian.

As a result, divisions must be composed of men all from one province and the instructions especially translated for them.

The MAAG is composed of about 700 officers and men. Training teams are assigned to all units. The counterpart system of placing opposite numbers as advisors is used.

One particular difficulty which had to be overcome was the Chinese idea of face. A captain who went to school in the States would never think of offering advice or suggestions to his colonel. The colonel would lose face if he admitted he did not know all the captain knew.

The senior officers finally realized that they would have to keep face by learning and they now are the most ardent students in the Taiwan military schools.

Chase Is Like Head Coach

Gen. Chase has duplicated the American training system throughout and has organized all the military schools up to a general staff college. The advisory and assistance nature of the mission is

emphasized. No effort is made to influence policy in any way. Chase occupies a position about like that of a head coach to the Generalissimo and his team, without authority to order, but with knowledge and experience which assure regard for his advice.

The Nationalist Army is a good bargain for the United States. The same number of American troops would cost 100 times as much as our assistance to Free China. Pay for soldiers is about \$1 a month and a ration of 24 ounces of rice daily. A major in the air force with his flight pay gets about \$35 a month. Major generals receive little more.

Living is not cheap. Wives work whenever they can get employment and many receive more pay as civilians than do generals. This holds true also of high members of the Government. The Nationalists who came from the mainland live a life of austerity little realized by Americans. The few who were able to bring any wealth with them have used it up before now.

Profiteers Stigmatized

All are characterized by a sense of devotion that argues well for the future of the Nationalist cause. Such profiteers as H. H. Kung and T. V. Soong, who are alleged to have taken great wealth out of China to the Americas and Europe, are regarded as criminals. The Nationalists say: "It was the people's money they took and we shall get it back for the people."

The Nationalists use a political commissar system in the army that once was about as injurious as the Russian practice. The commissar had to countersign all military orders. Their authority has been lessened until now they handle only such matters as investigations, morale, welfare, etc. The chief political officer is the Generalissimo's son. He has a Russian wife and there are many who do not trust him.

Today the Nationalists are a real asset, although the economy of Formosa cannot maintain more than 10 per cent of the present force. If there were any sort of international settlement which led to a reduction of military expenditures by the United States, Nationalist hopes of regaining the mainland of China would be ended. They know it, but live and pray for an opportunity to regain their homes.

HONOR ROLL

Original Honor Roll

88th AAA Airborne Bn
Lt. Col. R. B. Barry, Jr.
228th AAA Group
Col. T. H. Pope
107th AAA AW Bn (M)
Lt. Col. E. R. McIver
305th AAA Group
Col. John S. Mayer, N. Y.

Separate Commands

Army AAA Command
Lieut. Gen. J. L. Lewis
Third Army Training Center
Brig. Gen. C. H. Armstrong
East AAA Command
Brig. Gen. F. L. Hayden
Central AAA Command
Col. D. J. Bailey
West AAA Command
Brig. Gen. R. W. Berry
Hqs. Far East AAA Spec. Sch.
Lt. Col. W. H. Nicolson

Guided Missile Dept.

AA & GM School
Col. F. M. McGoldrick
Officer Candidate School
Col. K. R. Kenerick
AAA Repl Training Center
Col. E. W. Heathcote

Brigades

34th AAA Brigade
Brig. Gen. R. W. Chrichlow
35th AAA Brigade
Col. T. V. Stayton
45th AAA Brigade
Col. S. C. Russell
47th AAA Brigade
Col. G. C. Gibbs
105th AAA Brigade
Brig. Gen. A. H. Doud, N. Y.
107th AAA Brigade
Brig. Gen. J. W. Squire, Va.
111th AAA Brigade
Brig. Gen. Chas. G. Sage, N. Mex.
112th AAA Brigade
Brig. Gen. J. W. Cook, Calif.

Groups

1st Composite Group
Col. T. H. Leary
4th AAA Group
Col. L. A. Bonifay
6th AAA Group
Col. W. J. Wuest
7th AAA Group
Col. M. J. Marfin
10th AAA Group
Col. G. R. Carey
11th AAA Group
Col. F. H. Shepardon
13th AAA Group
Col. W. A. Cauthen
14th AAA Group
Col. H. E. Michelet
65th AAA Group
Col. B. E. Cordell
68th AAA Group
Col. W. B. Hawthorne
142d AAA Group
Col. J. Snead, Ala.
200th AAA Group
Col. C. M. Woodbury, N. Mex.

205th AAA Group
Lt. Col. J. H. Pindell
207th AAA Group
Lt. Col. R. G. Irish, N. Y.
211th AAA Group
Col. G. F. Lineham, Jr., Mass.
214th AAA Group
Col. J. G. Johnson, Ga.
218th AAA Group
Col. V. P. Lupinacci, Pa.
220th AAA Group
Col. D. MacDuff
227th AAA Group
Col. P. L. Wall, Fla.
228th AAA Group
Col. T. H. Pope
233rd AAA Group
Col. W. T. Stone, Calif.
250th AAA Group

260th AAA Group
Lt. Col. G. V. Selwyn, D. C.
326th AAA Group
Col. M. D. Meyers, Pa.
374th AAA Group
Col. T. F. Mullaney, Jr., Illinois
515th AAA Group
Col. F. G. Rowell, N. Mex.

Battalions

1st AAA Training Bn
Lt. Col. H. E. Graham
2nd AAA AW Bn
Lt. Col. W. J. Green
2nd AAA Training Bn
Lt. Col. J. Martinelli
3rd AAA AW Bn
Lt. Col. J. P. Goettl
3rd AAA Tng. Bn.
Lt. Col. A. S. Naylor
4th AAA Training Bn
Maj. C. M. Smith
5th AAA Training Bn
Maj. F. R. Whitehead, Sr.
6th AAA Training Bn
Lt. Col. G. L. Crawford, Jr.
7th AAA AW Bn
Lt. Col. S. J. Paciorek
8th AAA Training Bn
Maj. M. D. Kert
9th AAA Training Bn
Maj. W. E. Osburn
10th AAA Training Bn
Lt. Col. V. T. Terribile
11th AAA AW Bn
Lt. Col. J. E. Wales
11th AAA Training Bn
Lt. Col. A. O. Chittenden
12th AAA Training Bn
Maj. L. E. Marlowe
14th AAA Gun Bn
Maj. H. C. Lorck
15th AAA AW Bn (SP)
Lt. Col. B. H. Johnson
21st AAA AW Bn (SP)
Lt. Col. J. W. Dry
32nd AAA AW Bn
Lt. Col. E. F. Moody
34th AAA Gun Bn
Lt. Col. H. B. Reubel
36th AAA Gun Bn
Lt. Col. G. W. Best
37th AAA Gun Bn
Maj. R. G. Duncan
38th AAA Gun Bn
Lt. Col. S. R. Kelley
39th AAA AW Bn (M)
Lt. Col. P. J. Lacey, Jr.
41st AAA Gun Bn
Lt. Col. C. F. Chirico
48th AAA Gun Bn
Lt. Col. D. W. Malone
50th AAA AW Bn
Lt. Col. J. T. Hennessy
53rd AAA Gun Bn
Lt. Col. J. H. McCann, Jr.
56th AAA Gun Bn
Lt. Col. M. A. Selsor, Jr.
60th AAA AW Bn
Lt. Col. Wm. D. Ward
63rd AAA Gun Bn
Lt. Col. C. F. Coffey
64th AAA Gun Bn.
Lt. Col. D. B. Nye
65th AAA Gun Bn
Lt. Col. H. C. Brown
66th AAA Gun Bn
Lt. Col. C. M. Brown
68th AAA Gun Bn
Lt. Col. R. H. Stephens
71st AAA Gun Bn
Lt. Col. B. R. Brown
73rd AAA AW Bn
Lt. Col. P. W. Pedrotti
74th AAA Gun Bn
Maj. L. A. Waple
76th AAA Gun Bn
Lt. Col. J. D. Gemmell
77th AAA Gun Bn
Lt. Col. W. P. Wright, Jr.
79th AAA Gun Bn
Lt. Col. W. A. Brinkerhoff
80th AAA Airborne Bn
Lt. Col. J. Evans
82nd AAA AW Bn
Lt. Col. H. K. Clark
96th AAA Gun Bn
Lt. Col. R. E. Hood
97th AAA Gun Bn
Lt. Col. W. F. Corcoran
107th AAA Gun Bn
Lt. Col. F. R. McIver
120th AAA Gun Bn
Lt. Col. H. C. Gray, N. Mex.
123rd AAA Gun Bn
Lt. Col. I. E. Dominguez, P. R.
127th AAA AW Bn (SP)
Lt. Col. H. G. White, N. Y.
133rd AAA AW Bn
Lt. Col. E. J. Modjeske, Illinois
137th AAA AW Bn
Maj. F. R. Nairn
140th AAA AW Bn
Lt. Col. L. H. Ripley
144th AAA AW Bn
Lt. Col. R. T. Dunn
145th AAA Gun Bn
Lt. Col. H. J. Cunningham
150th AAA Gun Bn
Lt. Col. L. O. Ellis, Jr., N. C.
259th AAA Gun Bn
Lt. Col. M. E. Chotas
336th AAA Gun Bn
Lt. Col. P. A. Voyatzis
340th AAA Gun Bn
Lt. Col. G. V. Selwyn, D. C.
387th AAA Gun Bn
Lt. Col. R. Weitherall
443rd AAA AW Bn (SP)
Lt. Col. T. F. Gordon
450th AAA AW Bn
Lt. Col. B. N. Singleton
459th AAA AW Bn
Maj. M. W. Johnson

464th AAA AW Bn
Lt. Col. R. E. Glasgow
495th AAA AW Bn
Lt. Col. J. M. Moore
502nd AAA Gun Bn
Lt. Col. P. J. Maline
506th AAA AW Bn
Lt. Col. J. H. Valliere
507th AAA AW Bn
Lt. Col. J. M. Carson
550th AAA Gun Bn
Lt. Col. N. E. Cole
552d AAA Gun Bn
Lt. Col. L. N. Riemann
678th AAA AW Bn
Maj. J. B. Crayton, S. C.
697th AAA AW Bn
Maj. W. C. Thompson, N. Mex.
698th AAA Gun Bn
Lt. Col. F. Monico, Illinois
708th AAA Gun Bn
Lt. Col. F. F. Quist
710th AAA Gun Bn.
Capt. T. T. Chisman
712th AAA Gun Bn
Lt. Col. R. W. Harnett
716th AAA Gun Bn
Lt. Col. Joe R. Stewart, N. Mex.
717th AAA Gun Bn
Lt. Col. E. D. Pelzer, N. Mex.
720th AAA Gun Bn.
Lt. Col. G. A. Duke, Calif.
726th AAA Gun Bn
Lt. Col. C. F. Arnold, N. Mex.
764th AAA Gun Bn
Lt. Col. E. D. Wynsted
768th AAA Gun Bn.
Lt. Col. T. H. Kuyper
773rd AAA Gun Bn
Lt. Col. G. F. Slavin
804th AAA AW Bn (M)
Maj. S. N. Caudill, N. Mex.
867th AAA AW Bn
Lt. Col. W. R. Parr
903rd AAA AW Bn
Lt. Col. F. J. Petrilli
933rd AAA AW Bn
Lt. Col. R. M. Huston
950th AAA AW Bn
Lt. Col. J. P. Wallis, Ga.
951st AAA Gun Bn
Lt. Col. W. G. Babbitt
30th AAA Lt. Btry
Capt. W. A. Brant
Btry A, 37th AAA Gun Bn
Lt. A. B. Whitesides

Operations Detachments

131st AAA Opns. Det.
Maj. J. L. Welling, S. C.
142nd AAA Opns. Det.
Maj. B. D. Boyett, Ala.
177th AAA Opns. Det.
Capt. J. J. Niehoff
181st AAA Opns. Det.
Capt. C. Geek
286th AAA Opns. Det.
Capt. J. B. Stopyra, Dela.
327th AAA Opns. Det.
Maj. F. W. Smith
500th AAA Opns. Det.
Maj. C. D. May, Jr.
502nd AAA Opns. Det.
Capt. J. R. Myers
506th AAA Opns. Det.
510th AAA Opns. Det.
Maj. R. H. Moser
511th AAA Opns. Det.
Maj. G. J. Burke

THE DEVELOPMENT OF HEAVY ANTI-AIRCRAFT ARTILLERY

Part 3

By COL. WILLIAM J. WUEST

IN the first article in this series, mention was made of the Brocq Corrector and R.A. Corrector, angular travel data computers of World War I. These data computers were used in conjunction with the various AA guns developed by the United States in 1917 and 1918 and which were covered in the second article of this series.

Before describing these two data computers, let us take a look at some of the men who were our early anti-aircraft artillerymen.

Paragraph 10, Confidential Order No. 17, War Department, July 14, 1917, believed to be the first U. S. Army order published regarding anti-aircraft defense, directed Lieutenant Colonel James A. Shipton, 1st Lieutenants George F. Humbert and Glenn P. Anderson, all CAC, to proceed to France, and report to the commanding general, with the view to assignment to the work of organization and training in tactical and technical anti-aviation defense.

These officers departed from New York on 26 July 1917 on the *Philadelphia*, sailing without convoy (slow boat, unescorted?). Twice in one morning off Tory Island at the entrance to the Irish Sea, the *Philadelphia* was attacked by submarines. The first torpedoes missed the stern by inches.

Landing at Liverpool on 14 August 1917, they immediately entrained for Folkestone where they boarded ship for Boulogne. The channel crossing was heavily guarded. The officers reported to the American GHQ in Paris. Fifteen days after leaving New York they were at the front wearing steel helmets and gas masks for the first time. Accompanied by Captain Rollet, the liaison officer from the French AA school at Arnouville-les-Gonnesse, they made a reconnaissance trip through the French anti-aircraft defenses in the active Chem-

in des Dames sector. The French had single 75mm anti-aircraft guns in the front line trenches.

After the reconnaissance was completed, they were assigned an office in the U. S. Air Service building in Paris, and from there commuted to the AA School at Arnouville. The location of the U. S. AA School was next to that of the French, where advantage could be taken of their matériel, instructors and textbooks. A beautiful chateau on the outskirts of Arnouville was requisitioned for classrooms and barracks.

French textbooks and many lengthy treatises had to be translated into English and mimeographed for the use of the Americans. All the material for the use of the students—bunks, mattresses, and bedding—had to be obtained and set up in the chateau. This work was done by Captains Humbert and Anderson. Colonel Shipton, who had been promoted to brigadier general, was in England looking over the British anti-aircraft methods.

The school was ready for students about the middle of September 1917. The students arrived at the beginning of October, and instruction began at once. The students were all second and first lieutenants, most of them fresh from college. The faculty consisted of Captains Humbert and Anderson and Captains Rollet and Gassier, French Army.

Lieutenant Colonel J. P. Hopkins (now Brigadier General, retired) replaced Captain Humbert after about one month. Captain Humbert was desirous of more active service than the school provided and managed to effect a transfer. Colonel Hopkins had been a member of the Coast Artillery School faculty for four and one-half years and so was well fitted for the duty. However, he took a rather dim view of his new as-

signment.

In a letter to the writer of this article in June 1952, Brigadier General Hopkins wrote, "General Shipton (who had general supervision of the AA School) came to the camp of the Provisional Heavy Artillery Brigade to get a substitute (for Humbert). They took me. My guess is that my four and a half years at Coast Artillery School at Fort Monroe had some influence on the choice.

"Only the day before, I had taken over for my battalion the first railway artillery to be issued to U. S. troops and I was none too well pleased at the transfer. . . .

"On completion of the school course, the officers were sent to various French batteries at the front—until arrival of the first battalion of AAA troops.

"The battalion officers were relieved to take instruction and the troops were instructed by officers who had finished school."

General Hopkins (then Colonel) eventually became Chief of AA Service, American Expeditionary Force, with station at Chaumont under Maj. Gen. Ernest Hinds, Chief of Artillery, AEF. Colonel George T. Perkins was Chief of AA Service for the First Army and Colonel Robert W. Collins for the Second Army. Colonel Harry S. Schwabe was in command of the AA School after Colonel Hopkins became Chief of AA Service, AEF.

Colonel Hopkins submitted to General Shipton a proposed reorganization of AAA troops. General Shipton forwarded the tables of organization to General Pershing who referred them to General Hinds who referred them to Colonel Hopkins as his assistant. With only slight changes, Colonel Hopkins recommended adoption and it went through. (This is what is known as

the round robin method of getting something approved and there is a remote possibility that such a method may be used occasionally, even in our streamlined present day Army.)

Again quoting from General Hopkins' letter, "O. L. Spiller was my chief of staff. Assistants were Harmon and Lawrence—and later a clerk (promoted) Sidney Hotchner.

"Spiller was ideal as executive officer. Lawrence was a brilliant student. Harmon brilliant and an ideal leader. I guessed that he would go farther than any of us. But an airplane accident finally got him.

"William Hesketh was in general charge of QM and mess affairs at the AA Arty School—very active and competent. . . .

"Do you remember that Paul Bunker kept part of the American flag from Corregidor and while a prisoner entrusted it to another officer who later delivered it to Washington?

"This other officer was one of my battery commanders. One of our batteries was going to pieces—discipline: I placed this officer, Colonel Delbert Ausmus, then captain, in command and results were entirely satisfactory."

General Hopkins also mentioned in his letter that the first plane brought down by our AA artillery was by a battery under command, at the time, of a lieutenant whose record in school was hopeless. General Hopkins continues, "He had been in police secret service. I had already recommended his transfer, which later was made, and he gave excellent service.

"This particular morning, trial shots had indicated a plus correction of about 500 yards at the height tested. In the firing, one gun was manned by the French. The bursts were in two groups, one about 500 yards above the other. The higher group got the plane. A check showed that our lieutenant had applied the correction indicated by the trial shots. The French had not.

"I inferred that he had absorbed the most essential part of the school."

The AA Data Computer Model 1916 (Figure 1), commonly known as the Brocq, was an electrical data computer used in anti-aircraft position finding for the purpose of obtaining: (1) the approximate principal vertical deflection, (2) the approximate principal lateral



Figure 1. Brocq Corrector, complete equipment

deflection, (3) the future fuze range.

To understand the operation of the Brocq, it should be remembered that in any d-c generator, the voltage is directly proportional to the rate of rotation of the generator and the flux strength of the field. If the field be set up by a permanent magnet; the flux strength is constant and the voltage then becomes a direct function of the speed of the generator.

This was the basic principle of the Brocq. Constant field generators were connected to the operating handles of the double sight element. These handles also drove the two sights that moved together vertically and in azimuth. Since the rate at which the sights must be moved is the rate of angular travel of the target both in azimuth and elevation and since the sights and the generators

were driven by the same mechanism, then the voltages from the generators were proportional to the rates of angular travel, that is, to the angular speed.

These angular speeds must then be multiplied by the time of flight in order to obtain the approximate deflections corresponding to the angular speeds, that is, the deflections uncorrected for the angular travel error. Time of flight was introduced by means of a circular resistance with a sliding contact passing over it (Fig 2).

To obtain fuze range, the vertical circuit was used. If future angular height and altitude were known, fuze range could be determined. Future angular height is the sum of angular height at observation, the vertical angle through which the target traveled during dead time, and the vertical angle through which the target traveled during time of flight.

Future angular height was obtained as follows. A contact arm was attached to the vertical sight of the double sight and moved with it in angular height. This contact arm passed over a sinusoidal resistance, the IR drop up to any point of contact being proportional to the angle passed over, if a constant current was flowing. A 4-volt battery imposed a constant voltage on this resistance, thus causing a constant current to flow.

The voltage drop across that part of the sinusoidal resistance included in the

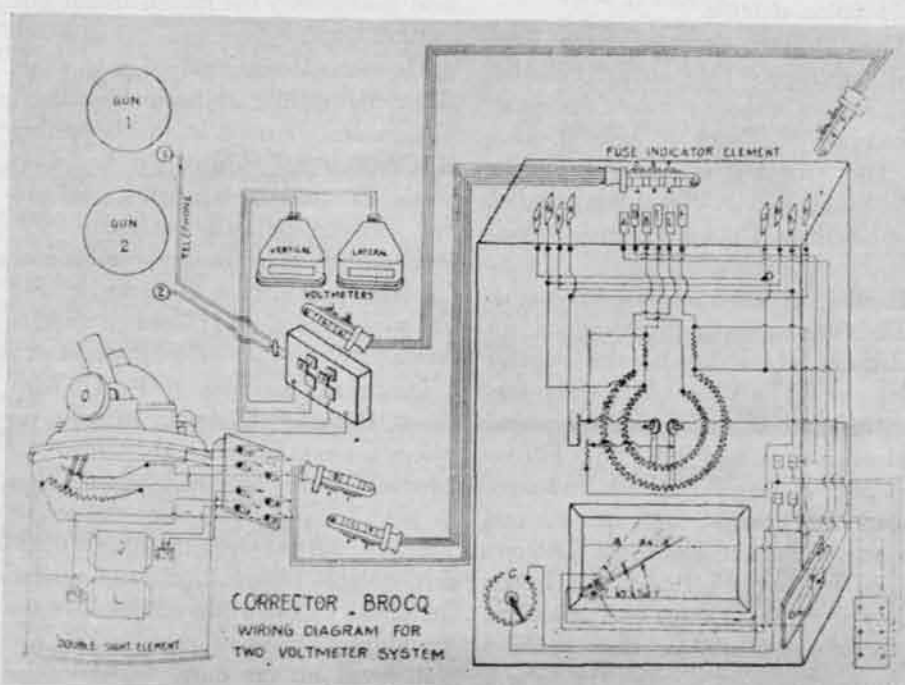


Figure 2. Brocq Corrector, system wiring diagram

voltmeter circuit was therefore proportional to the angle to which the sight had been raised, since the contact arm moved with the sight, and the voltmeter needle of the range indicator necessarily took an angular position equal to angular height at observation.

The angular height needle of the range indicator voltmeter was operated by two coils, one of which raised the needle to the position just described. The second coil was so connected that the voltage drop across a constant resistance corresponding to dead time (eight seconds) and the voltage drop of the vertical deflection voltmeter circuit was applied. This resulted in adding to angular height at observation the vertical angle through which the target traveled during dead time and time of flight so that the combined effect of the two voltmeter coils was to raise the needle to the future angular height.

A glass window showing fuze ranges, which were plotted directly in functions of angular height and altitude, was set over the angular height needle. Then when the altitude strip of the range indicator was set at the proper altitude and the needle raised to future angular height, the intersection of the strip and the needle was the future position of the target for which the fuze was read directly over the intersection from the

graduations on the window. The altitude of the target and the ballistic corrections, when used, were the only data needed for the instrument to function.

A later modification permitted the vertical and lateral voltmeters to be placed either on the gun carriage or adjacent thereto. This direct electrical method eliminated the loss of time occasioned by telephone transmission since the deflection corrections could be read from the voltmeters and set immediately.

As previously noted, the Brocq computed the approximate lateral and vertical deflections. Although not used during World War I, an instrument known as AA Deflection Computer, Model 1920, was developed to make correction for the angular travel error and thus determine the total vertical and lateral deflections to be applied to the guns.

The AA Data Computer, Model 1917, familiarly known in our service as the R.A. Corrector, was a nonballistic type of mechanical data computer, which calculated uncorrected firing data for use with Case 1½ pointing methods. It was designed by M. Routin, a Frenchman, and developed at the Arnouville Antiaircraft School (French) in 1917.

Considered the best of its kind in 1917, it was adopted by the United States and the procurement program resulted in the manufacture of several hundred. At the time the instrument was devised, the electrical transmission of data to the guns had not been developed, and it was contemplated that firing data would be telephoned to the guns. Hence the time required for the transmission and application of data to the gun had to be taken into consideration in the original calculation for the target's future position.

This one factor, the telephonic transmission of data, required a modification in the concept of instantaneous and continuous calculation of data and its application to the gun. The AA data computer was invariably used in conjunction with sighting equipment on the gun. In actual operation the gun sight was pointed continuously at the target and the gun was caused to diverge from this line of sight by the lateral and vertical angles through which the target traveled during the time of flight of the projectile. The computer must calculate these angles a sufficient time prior to the instant of firing the gun to permit telephonic transmission of data. The time interval, called dead time, quite obvious-

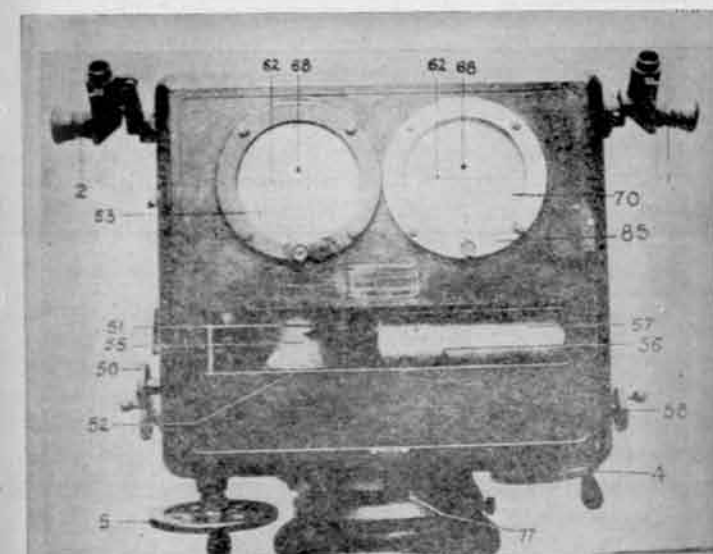


Figure 3—The Antiaircraft Data Computer, M1917 (Front)

- | | |
|--|--|
| 1. Vertical telescope. | 59. Dead time pointer. |
| 2. Lateral telescope. | 57. Dead time cylinder. |
| 3. Elevating handwheel. | 58. Dead time pointer operating knob. |
| 4. Traversing handwheel. | 62. Speedometer needles. |
| 5. Complementary term cylinder operating knob. | 63. Lateral deflection scale. |
| 6. Complementary term pointer. | 68. Shutters (red or black). |
| 7. Lateral deflection setting index. | 70. Vertical deflection scale. |
| 8. Complementary term cylinder. | 85. Improved vertical deflection scales. |

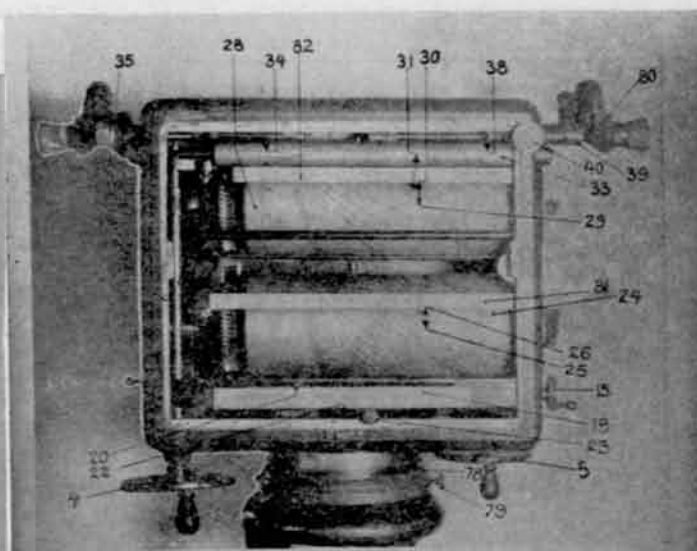


Figure 4—The Antiaircraft Data Computer, M1917 (Back)

- | | |
|--------------------------------------|---|
| 9. Elevating handwheel. | 31. Vertical deflection setting pointer. |
| 10. Traversing handwheel. | 33. Corrected time cylinder. |
| 11. Altitude pointer operating knob. | 34. Vertical time pointer. |
| 12. Altitude scale. | 35. Vertical time pointer operating knob. |
| 13. Altitude pointer. | 38. Lateral time pointer. |
| 14. Adjustable altitude index. | 39. Lateral time pointer operating knob. |
| 15. Altitude correction knob. | 40. Corrected time cylinder operating knob. |
| 16. Fuze range cylinder. | 80. Collimator. |
| 17. Fuze range pointer. | 81. Future angular height scale. |
| 18. Future angular height pointer. | 82. Present angular height scale. |
| 19. Time of flight cylinder. | |
| 20. Time of flight pointer. | |
| 21. Present angular height pointer. | |

ly entered into the calculating process. For well trained personnel, dead time was four seconds or less.

The computer also calculated fuze range and was designed to be used with the bracket fuze setter, M1916. The operation of reading, transmitting by telephone, applying fuze range to the fuze setter, cutting the fuze, and loading the projectile into the gun generally required more time than did the operation of setting lateral and vertical deflections on the gun. The instrument was therefore designed to allow for a dead time of eight seconds in calculating fuze range.

The computer calculated vertical deflection, lateral deflection, and fuze range. The vertical angular velocity was multiplied by the time of flight to the

target's present position, and a factor called the complementary term was added, which corrected for the angular travel error and allowed for dead time. The lateral angular velocity was multiplied by the time of flight to the target's position at instant of observation and further multiplied by a factor which corrected for the angular travel error and allowed for dead time. The fuze range that corresponded to the altitude and future angular height of the target was read from a chart on a cylindrical drum.

Altitude, received from an altimeter, was set in by positioning the pointer on the altitude scale. Superelevation was added to vertical deflection at the gun to give quadrant elevation by means of the fuze range disk on the gun.

Corrections in vertical and lateral deflection and in altitude were made by displacing the appropriate scales on the computer. Corrections for wind, drift, density, and muzzle velocity were lumped and applied as single equivalent flat corrections to vertical and lateral deflection and altitude.

The computer was contained in an aluminum case and supported on a tripod. Total weight was about 200 pounds.

This computer was standard in the United States Army for ten years. Despite its inaccuracies, it produced good results when in the hands of well trained personnel.

The various pieces of fire control equipment associated with these data computers will be described in the next article of this series.



M E R G E R

As we go to press the balloting on the proposal to merge with the Association of the U. S. Army and the *Combat Forces Journal* stands: FOR 919; AGAINST 82.

The balloting will close February 28th.

If the merger is approved by the membership, it is anticipated that the Council will complete the arrangements to make it effective on May 1st. In any event the March-April issue of the *ANTI-AIRCRAFT JOURNAL* will be published.

For comment by the membership see letters to the Editor below.

Pro and Con on the Merger

To the Editor:

I vote in favor of the merger. Both the merger and the closer integration of the combat arms are along the lines of opinions which I have held for years, and expressed even when such views were considered heretical.

I suggest you publish the financial statements of both the Antiaircraft Association and the Association of the U. S. Army. If, as I suspect, we are making a substantial donation to the Association of the U. S. Army, I would like to enjoy the feeling of philanthropy that goes with such generosity. On the other hand, if we are penniless, I'd like to know that the extension of my subscription is at a bargain rate.

C. E. COTTER
Colonel (Arty) IG

Hq 5th Army
Chicago, Ill.

The net worth of the Association of

the U. S. Army 30 June, 1952, as per reliable audit was \$226,128.44. The circulation of the Combat Forces Journal is now 33,000.

The net worth of our Association at last audit was \$64,004.22. The ANTI-AIRCRAFT JOURNAL has a circulation of 7,700.—ED.

To the Editor:

We have confidence in the Council's judgment that the merger will be to the best interests of the service as a whole, although, personally, I seriously question the advantages to be gained by submerging the valuable technical information which we have always received from the *JOURNAL* in a general service publication.

From the standpoint of the reservist, there is a matter of time available to read military publications, and I have liked the concentrated information given by OUR OWN *JOURNAL*.

I do hope that something can be done this year to alleviate our recruiting problem. The manner in which the calls to active duty for Korea were handled has made the Reserve a major liability to a man in civilian life. Many concerns here now find Reservists unacceptable for employment, never, of course, giving Reserve membership as the reason, but making it clear that, other things being equal, such membership tips the scales away from the Reservist.

I have lost several good men on ETS, also, because it was intimated that, should they re-enlist, promotions would be given to non-reservists, as the concern could not depend upon their continuity of employment as long as they were members of the Reserve.

Also, provisions of the Selective Service Law regarding the eight year service obligation, with its compulsory enrollment in the Active Reserve, should be enforced universally or repealed.

JOHN M. WELCH
Colonel, Arty., USAR

302nd AAA Group
Cincinnati, Ohio

To the Editor:

Opinion is useless unless it is articulate.

I am one of the charter members of the Antiaircraft Association when it was the Coast Artillery Association in 1931. I am opposed to submerging our identity

(Continued on page 45)

ANTI-AIRCRAFT JOURNAL

IMPROVING THE ROTC COURSE

By CAPTAIN ALBAN E. REID, JR., Infantry
ROTC Instructor at Yale University

SOME college professor has always been ready to hurl at the military instructor the jibe that "ROTC does little to challenge the intellect of the average college student." And he has usually gotten an adequate reply. Be that as it may, in the years since World War I the Army instructors and authorities have found and done a great deal to improve ROTC instruction.

These courses are designed to give the student the tools of war. They consist of a series of subcourses which deal with everything from the technique of individual hygiene in the field to the tactics employed in leading a unit into combat. The subject matter of these courses is sound and essential. Too frequently though the instructors may have failed to tie the subcourses together into an overall framework. "You want to be an infantry officer? Here's what you've got to know." Often there was repetition of material from one year to the next without due attempt to establish a sense of continuity or progression. In this atmosphere on some college campuses, military science came to be regarded as a course in "nuts and bolts." There was nothing wrong with the subject matter. The fault lay in treating each course as unique and distinct in itself. In short, military science seemed to be a misnomer in itself since science implies systematized knowledge.

With the tremendous importance of ROTC in the past few years, this subject has naturally received renewed critical attention. Princeton University decided that ROTC students of all services were receiving insufficient instruction in the broader and more general aspects of the military problem. As a result a course was added this year in current military affairs, to be taught by a panel of outstanding men. The purpose: to raise the academic level of ROTC instruction.

Similar reactions have taken place on other campuses. The Army has also made its own studies and has come up with a tentative change in its program. In 25 new ROTC institutions and in

about an equal number of the established senior ROTC units, the Army is testing during the current school year a Branch General program.

Since this tentative program looks toward the eventual replacement of all branch courses in Army ROTC by the new Branch General Army ROTC course it is a matter of keen interest. This program rates a fair test; however we can also make a critical examination without being charged with heresy.

The first obvious fault with the Branch General course is that it proposes to drop instruction and training for specific arms (other than infantry) in order to concentrate upon motivating the student through the study in brief and altogether inadequate fashion of U. S. military history.

All of this has been done to motivate the student or to sell "the Army as an institution worthy of the students' consideration." Is it worth the cost? Henceforth in order to provide officers for the other arms and services, the ROTC graduate must undergo an expensive and time-consuming supplementary branch course. The question arises as to whether this plan will fit the future. Just now nearly every graduate of ROTC is being called to active duty and attends one of the branch basic courses. What happens though when the cold war ends and the ROTC graduate goes directly to his inactive duty assignment with a standby reserve unit? How much leisure will we enjoy to complete the training job we failed to complete when we had the opportunity? How long will it take to make artillerymen, tankers, signalmen, yes and even infantrymen, of these Branch General officers? We tried to retrain officers in World War II in a six weeks' training program, but the results were not always satisfactory. Will we have six weeks to do this job next time?

Of course from one standpoint, the Branch General program has a great deal of merit. Most of the World War II retrain training was designed to make infantrymen of officers from other serv-

ices. Now we would train the ROTC student in infantry first in order to avoid a recurrence of past experience. However, will not this emphasis on infantry training have a possible adverse effect upon an Army ROTC enrollment which is already suffering from the popularity on the campuses of the so-called "safe" services? And what of the *esprit de corps* possible in units of the various arms and services?

The Branch General curriculum also appears to suffer the same weakness which affected the branch material course; that is, the overwhelming sense of hodgepodge in the subject matter presented. The importance of the subject matter cannot be denied. The demand was rather for organization of material into logical sequence in order to establish continuity and progression from one year to the next.

The authors of the new program undoubtedly had this aim in mind. There is merit in using history as the objective correlative for the study of military science. The history which they prescribe is, however, according to the scope set forth, more a period of indoctrination through propagandist methods than an effort through scientific study of past warfare to develop certain principles which will enable the student to understand the how, the why, and the wherefore of modern war.

In organizing the subject matter of the Branch General program, the authors are again on the right track. They lump all of the material into four major groups: history and organization; military personnel management; operations, tactics and techniques; and logistics and material. This indicates the beginnings of an integrated approach, but the integration ends too soon. The organization of the subcourses within the general areas as still too reminiscent of traditional "nuts and bolts." The close relationship between many of the subcourses is ignored. The tie between motivation and learning is lost.

For example, the best motivation for the study of infantry weapons is to learn

how they are utilized in small unit tactics. Actual instruction in nomenclature, functioning and marksmanship should be closely correlated with this tactical use. Whether to teach utilization prior to the teaching of techniques is an academic question. Certainly, though, there is value to teaching light crew-served weapons during the same year that instruction is given in how to put those weapons to work practically. But this is not done under the new setup. The technical courses precede weapons tactics and even organization by a full academic year.

The failure to relate instruction in military teaching methods to the actual giving of instruction by senior cadets is another example of how the new program falls short of the mark.

These are some of the more apparent criticisms. The actual test of the new course will reveal more flaws which if rectified will serve to alter the program more in keeping with the high aims and traditions of the Army and of its ROTC program. Such things as attempting to teach day and night patrolling in the classroom show a lack of realism and experience. These are things which can and should be taught at summer camp.

Repetition of subject matter has been a major criticism of ROTC curriculum in the past. And yet there are still instances of repetition. There is no reason why map reading cannot be taught in toto at some time during the four years. If review is necessary, it could be made applicatory in relation to tactics and other subjects.

THE problem of whether to retain branch material training or shift to Branch General can only be determined by manpower requirements. If infantry officers are required in such large numbers as to preclude production of ROTC officers of other arms and services, then the aim of any criticism of Branch General curriculum should be to iron out the existing kinks in the present tentative program before it is implemented to replace branch material in all units throughout the country. If, on the other hand, Branch General has been devised as a means of improving a weak branch material program, we might do better by drawing up a branch material course which can turn out officers with a high level of technical knowledge and skill

rather than with the more nebulous qualities which appear to be the aim of the tentative Branch General program.

The first thing is to do a better job of convincing the ROTC student why he has to be trained and ready to fight for his country. Call it motivation if you want. But we do need to build up in the ROTC student a strong faith and devotion to his country and determination to serve it in fair weather or foul.

Another matter is that we need to add emphasis to the training in principles rather than in routine rules of procedure. In this age of rapid development and change, the techniques may become obsolete and the tools outmoded all too soon. The best preventive for premature obsolescence is to lay a sound foundation in the principles of science and war. If we can indoctrinate him to learn the principles involved and acquaint him with the elements in which change occurs, we can prepare him to meet change as it occurs and even perhaps to contribute to the change himself. Finally, we can build upon this foundation the specific technical and tactical knowledge which he needs to become a skilled officer of his assigned arm upon graduation from college.

In my opinion, the objective of any effort to modify ROTC curriculum should point toward an upward revision of academic standards. Emphasis should be placed upon outside preparation of reading assignments which present a real challenge to the intellect of the college student. With the facilities and personnel available at the planning level, it should not be difficult to provide training units with concise and complete material to broaden and integrate the course of instruction. The U. S. Marine Corps has an excellent curriculum with which it provides its instructors. Included in it are detailed lesson outlines, with specific instructor references as well as student reading assignments. These outlines include, incidentally, a history course, and are organized as year courses as against the "nuts and bolts" subcourses of the Army Training Program.

The first step to revamping ROTC should be to divide all subject matter into three categories: material to be taught in the classroom, that to be presented during the college drill period, and that to be given at summer camp. Repetition

and overlapping of instruction should occur only as a projection of subject matter from the explanation phase to application or practical work. Weapon and marksmanship instruction can be used to illustrate this concept. Nomenclature and functioning might be taught in the classroom; care and cleaning during drill period; marksmanship training could be conducted at summer camp with actual range firing as its logical culmination. This would put each phase of instruction in the locale where training could be expected to be most effective. The resultant elimination of repetition should tend to establish a closer and more logical relationship between the three phases of training. As a result there would be greater interest on the part of the student in working to understand these related phases.

The next step in revising the curriculum should be to organize the subject matter into four year-courses with emphasis upon continuity and progression from one year to the next. If history is to provide the unifying framework, it should be taught in a scientific method in order to teach the student the logical nature of war.

THE four year-courses should be designed to carry the ROTC student through four stages of coordinated development. The first year would lay the foundation. Classroom work would revolve around a study of the history of warfare from earliest times down to the present. The study would include weapons, tactics, organization, manpower resources and logistics to give the student a sound understanding of war. His instruction during the first year would deal with the fundamental skills of military life from the standpoint of the individual.

The second-year course would build upon the knowledge of the first. U. S. military history could serve as the unifying force for this year of study. Evolution of U. S. military organization, weapons and tactics would culminate in a study of the U. S. military as presently constituted. The aim throughout both first and second-year history courses would be to establish tactical, organizational and logistical principles which would serve to guide the neophyte officer throughout his military career. Emphasis during the second year would

tend progressively toward a more specialized study of the branch for which the student is being trained. Practical training during this year as well as first year basic would take place during the laboratory period where it belongs. The military history courses, far from detracting from training in techniques, would serve to arouse interest.

Third year branch material training should be geared to preparation for summer camp. Stress should be placed upon operations, tactics, logistics and communications for the specific branch. Problems of administering to, supplying and commanding units in that branch should be covered thoroughly. Field period training would develop the qualities essential to leadership and command through actual assignments as an instructor and commander of first and second-year students. Primary emphasis upon perfecting fundamental techniques (gunnery for example) at college would create more time for tactical training at summer camp, thus eliminating much of the present repetition of subject matter. In passing, it is pointed out that the interim Branch General program this year fails to give adequate time for preparatory training for students assigned this coming summer to branch material camps. The challenge to camp instructor personnel will be tremendously increased. Instead of rehashing old subject matter they will be teaching fresh material to students whose branch proficiency will depend wholly upon the calibre of instruction which is presented at the summer camp.

The last year of ROTC should be set up as a progressive training exercise in which students would be oriented to the actual functioning of units within their branch. Having spent three years and a summer learning the things an officer should know, they would now spend a final year *doing* what they as

officers will be expected to do. Here the student makes the final transition from follower to leader by performing the various command and staff duties. A year of on-the-job training.

THE changes which have been here recommended do not represent the final solution to the problem of bettering ROTC. They do represent improvement. There can be no doubt as to the need to abandon the "nuts and bolts" concept of military training. It must go. And in its place we need a new comprehensive and integrated course of instruction. Whether Branch General is here to stay is not for us to decide. It should be realized, however, that we don't have to abandon branch material training in order to accomplish our mission.

There are other changes which should be made in ROTC. One hundred fifty training hours a year should be required in basic as well as advanced ROTC. We need the extra 120 hours to do a thorough job. The new curriculum goes far to justify this need. Another modification should be the establishment of a four-year volunteer program with no break between second and third year. A four-year deferment contract would make this program feasible. It would do much to curtail attrition in schools where basic ROTC is mandatory. There is no need to provide deferments for students enrolled because of academic compulsion. Deferments should go only to those students who are headed because of desire and inclination toward reserve commissions. Such a policy would do much to enlarge the volunteer four-year program. Finally, the impotent and largely ineffectual DMS method of securing candidates for Regular Army commissions should be abandoned in favor of an Army Holloway Plan which selects, by pre-college examination, candidates

for RA commissions and places them in civilian colleges on the same pay, allowance and tuition basis as U. S. Military Academy cadets and Regular NROTC midshipmen. This plan has done much to build the prestige of NROTC on the campus and it could be expected to have a similar effect in raising the overall desirability of Army ROTC. The DMS program of RA commissioning could be retained in modified form to permit commissioning of outstanding contract students who desire an RA career.

These criticisms of ROTC are designed to be of a constructive nature and are motivated by a sincere belief in ROTC as the best and most economical means of maintaining the high professional calibre of our national defense establishment in an era of crying need. Where faults have been pointed out, it is in the hope that these faults will be eliminated; where recommendations are made, it is in the belief that perhaps, if we can consider ROTC from the standpoint not only of the high level planners but also from the standpoint of college authorities, faculty members, students and working ROTC instructors, we can come up with an unbeatable program.

It's good to see that a new program is in the works. However, we must take care that we do not merely substitute one set of faults for another in setting up this new program. If we keep in mind the threefold mission of ROTC we can get the job done. We've got to motivate the student to a sincere interest in ROTC. We must teach him tactical, technical and administrative principles which will endure regardless of changes in details throughout his military service. And finally, we must make of him a skilled and efficient officer of his arm or service.

ANTIAIRCRAFT ROTC AT TEXAS A & M

By 1st LT. ANDREW J. ARMSTRONG

AS the ROTC is now furnishing the bulk of the young battery-grade officers for the Army, we are interested in the system of training in vogue. An example

of this system is the AAA Section of the Military Science and Tactics Department at Texas A & M.

Major James W. Davis, the writer,

and M/Sgt. Alvin L. Crowder, compose that section. Along with ten other academic staffs representing eleven branches of the Army, it serves under

the supervision of Colonel Shelley P. Myers, Jr., the PMS&T, who, incidentally, is an antiaircraft artillery officer.

The Coast Artillery Corps program was originally established as part of the Department of Military Science and Tactics at Texas A & M in 1934. At this writing there are 121 sophomore, junior, and senior students taking AAA Military Science and Tactics, which is branch material instruction, beginning in the student's sophomore year. These students are organized into an antiaircraft artillery battery which is one of the four artillery batteries in the artillery battalion. The cadet battalion CO for this school year is an antiaircraft artillery student. The artillery battalion is a part of the First Division of the Corps of Cadets. The corps consists of three divisions—an Army Division, an Air Force Division, and a Basic Division. The first two divisions are organized on the same lines as their regular establishment counterparts. The Third or Basic Division contains all of the first-year military science students who, during their first year, pursue a branch general curriculum.

Near the end of their first year these students make application for admission to a branch material course the following school year. An important feature that cannot be overlooked in this organization is that while each of the Services preserves its integrity in the organization of its own units, these units are all a part of the Corps of Cadets and the *esprit* of the Corps is carefully nurtured by Army and Air Force ROTC cadets acting jointly as a team. The obvious advantage is that unification is subtly taught by a very palatable method.

All cadets live in dormitory style barracks under military discipline. One hour each week is devoted to practical application of leadership, drill, and exercise of command under the supervision of the members of the Military Science and Tactics Department. The students also have other opportunity to gain experience in this vital part of their education. All meals are preceded by military formation with reports being taken by the cadet first sergeants and then the units are turned over to the commanders who march the organizations to the mess hall. These thrice-daily formations give the cadet officers and non-coms additional experience in leader-



Gun Drill at Texas A & M

ship, drill, and exercise of command. Invaluable experience is also gained by the cadets in that commanders are responsible for all their units do or fail to do. The commander may inflict summary punishment for minor offenses under the provisions of the Articles of the Cadet Corps in the same manner that his "older brother" does under the provisions of Article 15 of the UCMJ. The cadet unit commander is required to keep a record of such punishment in a punishment book similar to the one kept by unit commanders in the regular establishment. If a more serious offense is committed, the offender may have charges preferred against him and be brought to trial before the Senior Court (similar in composition and jurisdiction to the Special Court-Martial).

DURING the academic year 1951-52, the AAA consisted of two batteries which were rated first and fourth in the Corps of Cadets in competitive drill. This is a distinction of considerable magnitude in light of the fact that there were 68 units competing for the honor. During his sophomore year the AAA student receives twenty-six hours of instruction on AAA guns (including ten hours of practical work on service of the piece), nineteen hours of instruction on AAA AW (including ten hours of practical work on service of the piece). In accordance with the Army Training Program the sophomores will receive this year for the first time ten hours of instruction on field artillery weapons. The AAA instructors have access to an ade-

quate quantity of 105mm howitzers, plotting equipment, lesson plans, etc. which were made available to the AAA by the FA instructional staff. In his Junior year the AAA student receives thirty-three hours of tactics (AAA and FA), fifty hours of gunnery, 12 hours of communications, eight hours of motor and transportation, twelve hours of organization and troop movements, and five hours of map reading. The AAA Senior receives fifty-seven hours of tactics, gunnery, and matériel, twenty-six hours of administration, and ten hours of military teaching methods. The remaining thirty-three hours of instruction are composed of general subjects such as map reading, command and staff, military intelligence, etc.

The classrooms are typical college classrooms fitted with blackout curtains to facilitate the use of visual aids. The AAA section has for its exclusive use a Bell & Howell sound projector, a film-strip projector, a Balopticon opaque projector, and a Vu-graph. The Film Library at Fort Sam Houston, Texas, provides quick, efficient service on requests for training films and film strips. The AA & GM Branch of The Artillery School at Fort Bliss, Texas, has furnished exceedingly valuable assistance in the supply of lesson plans and training aids. AAA matériel available to the section includes a 90mm AA gun, an M9 director system (less radar), an M4 tractor, a generator M18, a 40mm gun, an M5A2 director, a generator M5, and a multiple machine gun mount M55. There is a gun park available in which March Order, emplacement, Orientation and Synchronization, Disassembly, Assembly, Care and Cleaning of the Weapons may be taught with the students actually performing the various duties of the members of the gun and range sections. Although the students are habitually in class A uniforms, fatigues are an item of issue and are worn during practical work thus preserving the uniform. There is a Military Text Book Library which provides a sufficient quantity of Field Manuals and Technical Manuals for issue to the student.

During World War II more than 7000 officers who received their commissions at Texas A & M, served in the Armed Forces. Twenty-nine former students have been general officers. Six graduates have received the Medal of Honor—four posthumously.

PASS THE AMMUNITION*

By GEORGE FIELDING ELIOT

The artillery technique now being employed by our forces in Korea is simple: we try to lay down a concentration of fire so intense it will destroy the enemy's effectiveness. We exchange ammunition for lives—the lives of our fighting men. The cost comes high—we are firing at least 40,000 tons of steel per month—but it is the best investment we can make.

THE infantry platoon leader tapped his SCR-300 radio with an affectionate finger.

"That little green box," he grinned, "can deliver to my platoon, if I need it, as much as three tons of hot steel a minute.

His platoon, working its way through the broken hill country east of the Hwachon reservoir in Korea, had just 39 men in it plus the lieutenant himself.

Three tons of steel a minute in support of 40 foot soldiers! Incredible? Not in the U. S. Army. That's the way to keep your foot soldiers alive. Using steel and explosives freely to conserve the most precious of all our national assets—the lives of our youth—is standard procedure according to the American way of thinking.

Of course we don't fire three tons of shells every minute of every day in support of each individual infantry platoon in Korea. What the lieutenant meant was that he *could* get that much supporting fire if he had to have it. His little radio linked him with his company command post, through which he could call on such infantry weapons as mortars, tanks, recoilless rifles. Also at that command post, he knew he would find an artillery "forward observer" with a

more powerful radio hooked into the "artillery net." In a matter of seconds he could bring down a fire concentration by his whole battalion—eighteen 105mm howitzers—on any target within range. That should take care of any run-of-mill situation which a platoon might encounter. But within reach of the artillery net would also be three other battalions of divisional artillery and two or three battalions of corps artillery as well; big boys, 155mm guns and 8-inch howitzers.

So if a suitable target were to appear, the lieutenant could get his three tons of steel a minute all right. The murderous speed with which our artillery fire direction centers can concentrate the fire of a hundred guns on a given target has to be seen to be believed. The Chinese Reds didn't really believe it until it had cost them more than a million casualties.

But to do all this—and keep it up, day after day and month after month—there is one prime necessity: PLENTY OF AMMUNITION.

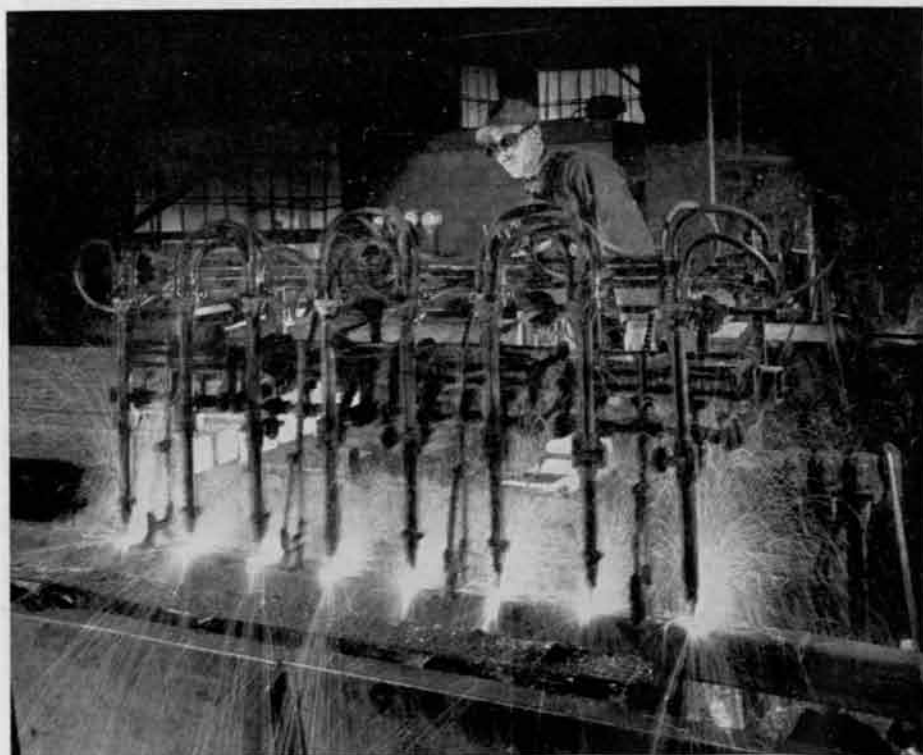
Plenty of ammunition at the front in Korea means plenty in dumps and de-

pots behind the front, plus plenty more in the trans-Pacific pipelines, and still plenty more in reserve or pouring off the production lines at ammunition plants here at home.

And I mean *plenty*.

In October 1951, for example, after the Korean front had become "stabilized," we fired 1,541,322 rounds of 105mm howitzer ammunition alone in Korea. This monthly expenditure has not been substantially reduced in succeeding months.

THE 105mm howitzer shell weighs 33 pounds. About 83 per cent of this weight is steel. So in just this one caliber, we're firing away over 21,500 tons of steel a month. Add other military calibers; add mortars, tank cannon, recoilless rifles; add naval ammunition on top of that—and it's a fair guess that we're shooting around 40,000 tons of steel monthly at the enemy in Korea: steel that isn't coming back, from which there is no salvage or recovery. That's equal to the weight of steel in an Essex-



Eight torches "nick" a steel billet so that a press can break it into specified lengths.

Long recognized as an expert on military affairs, George Fielding Eliot surveys our ammunition needs.

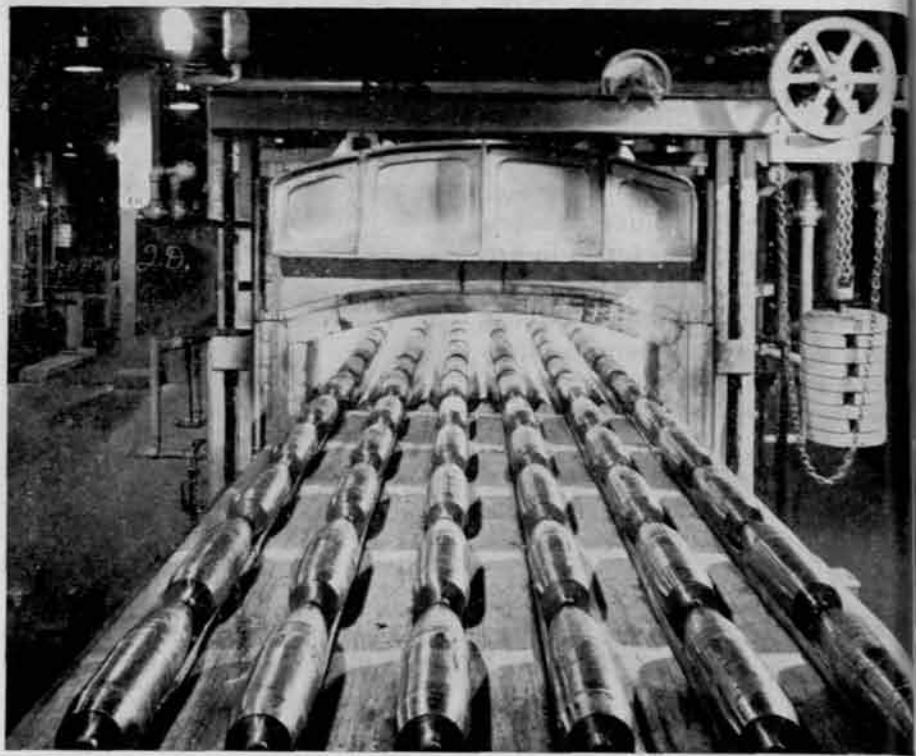
*Reprinted with permission from *Steelways*, published by American Iron and Steel Institute.

type aircraft carrier, or 1,000 medium tanks, or 20,000 105mm howitzers themselves. The Eighth Army in Korea is firing, just in support of patrol and outpost actions and sporadic minor combats, as much ammunition *every day* as any of Eisenhower's armies fired on the peak days of offensive fighting in World War II.

Where does it all come from? Luckily, when the Korean war started, we had a lot of ammunition left over from World War II. We didn't stint it and it was the pouring out of our ammunition reserves that shattered the great Red offensives while keeping our own infantry casualties at an astonishingly low level. But the ammunition inventories at home were going down—down—down toward the vanishing point. They could be replaced only by new production—and new production was painfully slow in getting started.

Why? Three reasons: (1) The effect on the postwar Congressional mind of the massive totals of the World War II ammunition reserve, so that precautionary expenditures for the maintenance of production facilities after the war were denied; (2) the "budget assumptions" of fiscal years 1951 and 1952 that the Korean "police action" would soon end; (3) the basic fact that ammunition production is a complicated and difficult process.

The production of explosive ammuni-



In perfect formation reminiscent of a parade-ground drill, shell cases move toward an automatic furnace where they will receive their final heat treatment.

tion includes three principal elements: (1) the metal components (projectile, fuse, primer, booster, rotating band, cartridge case); (2) the explosive components (bursting charge, propellant, detonators); (3) loading and assembly of completed rounds. Regulating the flow of the various components to the loading and assembly plants is almost a

science in itself, since rates of production are far from uniform.

At first sight this process looks like a setup for bottlenecks.

"What about critical materials?" I asked Brigadier General Merle H. Davis of the Ordnance Corps, who has been in what he calls "the ammunition business" all his life.

WE don't use 'em," he shot back. "The man who'd design any ammunition component which required a scarce raw material ought to have his head examined."

Of course compromises have to be made. Take copper, for example. In World War II it was used in enormous quantities to make brass cartridge cases for all types of fixed and semi-fixed ammunition: that is, for everything from pistol cartridges up to and including 105mm artillery rounds. It was also used for rotating bands and fuses. Since copper became a critical material, we began shifting to steel cartridge cases. They're harder to make and demand stringent controls. Moreover, their production requires long-stroke hydraulic presses which are in short supply and are just white elephants in civilian production. But the use of steel for cartridge cases saves 80 per cent of the copper and zinc



Here shell noses are being threaded. This machining operation must be fast, accurate.



Shellmaking is an intricate process. Cases shown are being rough turned.



Shells undergo many inspections. Here cases are being checked with a light.

formerly used in producing ammunition. So it's steel we're using, since we don't dare leave our ammunition producing capacity at the mercy of a critical materials shortage.

Also, we still have to use what copper we can count on for fuses and rotating bands. Steel was tried for both, but no soap. The manufacture of an important fuse, for example, required three separate operations instead of one. When soft steel was tried for rotating bands it so damaged the rifling of gun barrels that the demand for new barrels would have very soon outweighed in proportionate importance the saving we were making in copper.

Of the three basic elements of ammunition production (metal parts, explosives, loading and assembly) the two latter are now chiefly carried on in government-owned plants. Some of these have been recently rehabilitated and are being operated by civilian contractors with "residual experience" (as the current gobbledygook puts it) from the last war: for example, Procter & Gamble, Remington Rand and National Gypsum. But in producing metal ammunition parts there is almost complete reliance on private industry. This has required considerable conversion of facilities, which is a time-consumer; it takes about 15 months—for example—to convert a big machine shop to the production of 105mm shells. We can't afford such

time lags any more.

We have to find *some* economical way to keep *some* capacity in being. If ammunition production capacity is lacking, we'll have to buy time with blood, as our men had to do in Korea before the long supply lines across the Pacific got into operation.

But maintaining that capacity in itself is no simple matter. One very big problem is machine tools. Civilian industry has little use for the long-stroke presses already mentioned or for shell lathes (they cut off too much metal too fast) or for the monster multiple-spindle automatic machines required for quantity production of fuses. After World War II there were insufficient funds available for the Army and Navy to "buy" government-owned items of this type from the Defense Production Corporation in which title was vested. Some vital tools for which there was no industrial market (shell lathes, for example) were actually broken up for scrap. Others with a wider margin of civilian usefulness were sold to contractors under the termination regulations and scattered all over the country. Result: When the Korean emergency burst upon us, the Army's machine tool reserve was sadly unbalanced both as to type and modernity. In no case was it possible to furnish a new contractor with a full line of the necessary tools. The sudden burden thus piled on the shoulders of our machine

tool industry was enormous.

As it is, the Korean lesson may result in the expansion and modernization of our machine tool reserve. But there are long-term headaches in this, simple as it may appear. If machine tools are to be stored, quite complex measures for their preservation must be adopted. Keeping our inventory of machine tools up to date is another problem, demanding the closest relations between the services and industry so that full advantage may be taken by both of new inventions and improved processes.

OF course we can't do everything at once. Thus we are largely denied the very great benefits of the cold extrusion process for producing shells simply because we don't have the big presses which are also needed for cartridge cases and airframes.

Meanwhile the Korean drain continues and the vital flow of ammunition to Korea becomes more and more dependent on new production. The assumption that "Korea will soon be over," which influenced the '51 and '52 budgets, was discarded when work began on the '53 budget estimates. In those estimates, weapons were off 90 per cent from '52, but ammunition went up 20 per cent. Ammunition costs total more than two-thirds of the total Army "procurement and production" expenses for



With this "little green box," artillery support is summoned.



Somewhere in Korea this gun crew is slamming steel into entrenched Communist troops. It takes plenty of shells to give our infantry the support they need.

that fiscal year—over \$2.55 billion out of \$3.684 billion.

If the war in Korea slacks off or ends, current production schedules will begin to refill our reserve stocks of ammunition. But if, on the other hand, the Korean war is intensified, production will have to be further expanded, and fast.

We can't afford ever again to be caught at the outbreak of a full scale war without a quickly expandable ammunition production base, firmly found-

ed on the twin pillars of experienced civilian personnel and adequate, up-to-date tooling. Nor can we afford, in the meantime, ever to permit the red line "available supply rate" to fall below the blue line "required supply rate" on the charts of ammunition depot commanders in the field. When that happens, it means that all along the front, infantry lieutenants engaged with the enemy will have to start expending lives to accomplish missions which might have been at

least partially accomplished by expending more "hot steel."

That's the kind of war we can't win. The Communist enemy—in Korea or wherever we may meet him—will always be able to deliver more manpower at any given point than we will. We can beat him—as Korea has proved—only by delivering more fire power. From now on, the United States couldn't have a better slogan than "Praise the Lord and pass the ammunition."

29th AAA AW BN. (SP) WINS FIRST CAV. TROPHY

At the end of the Annual General Inspections in the First Cavalry Division last August, D Battery of the 29th AAA AW Battalion (SP) was announced as the outstanding unit in the division, and the battalion led all others in the Divarty.

Brigadier General Carl H. Jark, Divarty commander, at his farewell review presented the 29th with the following Certificate of Achievement:

"This certificate of achievement is awarded the 29th AAA AW BN (SP) for overall military proficiency for the period 1 January 1952 to 31 July 1952, inclusive, and signifies the possession of the First Cavalry Division Artillery Commanding General's Trophy for the Fiscal Year 1953.

"The officers and enlisted men of the 29th AAA AW BN (SP), by their combined efforts and cooperation, have achieved the distinction of being the outstanding battalion of the First

Cavalry Division Artillery. The loyalty, ambition and zealous pursuit of all problems by the personnel within the 29th AAA AW BN (SP) exemplifies the highest form of leadership, good sportsmanship and cooperative spirit and reflects commendably upon this battalion and the military service."

Carl H. Jark
Brigadier General U. S. Army
Commanding

The 29th has now completed one year of service as an organic part of the First Cavalry Division, having joined in December, 1951, when the division returned from combat in Korea to take station on the Island of Hokkaido, Japan.

The 29th, now stationed at Camp Chitose, has as its motto, "The best in the business." Evidently, they have lived up to the motto in every way to

become organic members of "The First Team."

Major Gen. Arthur Trudeau commands the 1st Cavalry Division; Brig. Gen. Ralph C. Cooper commands the Division Artillery; and Lt. Col. Henry von Kolnitz commands the battalion.

Other officers serving in the battalion include Maj. O. M. Plant, exec; Maj. J. A. Van Mameren, S3; Capt. Wm. Bowling, S2; Capt. Edwin De Marriot, MTO; Capt. A. L. Cortses, comm. O.; Lt. Belvin Freeman, S1; Lt. Marvin Allums, S4; and battery commanders: Capt. Max Leonard (Hq), Capt. Guy Margari (A), Capt. J. G. Burgess (B), Capt. Richard Coney (C), and Capt. Thomas McGovern (D).

WHAT HAS BECOME OF THE NCO?

By CAPT. RUSSELL P. MAHON

ON all sides, from lieutenants to colonels, from old soldiers, from regulars and from reserves, we hear the cry, "What has happened to the old-time NCO?"

What has happened, indeed? Has he become extinct like the dodo bird? Or have they all accepted commissions? I prefer to think that the NCO is still very much with us—perhaps out in the gun park with your battery, or platoon, your squad or section.

No; don't take a quick glance out of the window, he won't be shining like the evening star. You will have to find him, work with him, flatter him, cajole him, threaten him, build him up, BACK HIM UP, pat him on the back, promote him when he deserves it, reduce him, if necessary, and never let him forget that he is an NCO, a big wheel, the backbone of the Army!

Basically what has happened is that we have shorn him of his rights, responsibilities and privileges until even he has begun to think that he has disappeared. Give him the chance now, and he will prove to be just as efficient as the ones we had in the past.

What does our present day NCO lack? We can't say that he lacks combat experience, for many of them are veterans. We can't say that he is not educated well enough. The gist of the matter is that we have convinced ourselves that the NCO can't do the job—and as a result we do it, or try to do it—when, if the NCO were allowed, he could accomplish it as well or perhaps even better than we.

Did I hear someone say "Well, they lack initiative and push"? Just give them a fair chance to gain prestige, responsibility, and authority and you will see plenty of initiative and push.

Some may say the current crop of

NCO's lack experience. How many times have you been given an assignment in which you had no experience? Were you asked if you could handle it? No, you were given the job and you did it. Do the same with your NCO's, the results will surprise you.

Several years ago as a recent graduate of a fine service school for enlisted specialists I reported to an organization that had recently been issued the type of equipment on which I was supposedly an expert. The expert status was more or less true as far as the theoretical end was concerned, but I was very short on practical knowledge.

The battery commander welcomed me with something like this, "Sergeant, I know nothing about this equipment, my other officers know little or nothing about the equipment. We are all going to learn everything we can about it. I am not now able to tell you how to do your job. I will only say that the equipment will be your responsibility. I will assist you in every way that I am able and I will never knowingly hinder you in any way. When you feel your work is finished, you may do as you wish, within reason. But when we go out for drill, I want the equipment in topnotch condition, and I want no part of it to fail because of something that might have been prevented."

What more can an NCO ask for than that? The job was there, the responsibility was definitely in my lap, the reward for efficient performance of duty was plainly outlined, and the hint of what might happen if the job was not done, while not mentioned, was clearly in view. The captain intimated the equipment was mine, and so, I took care of it in that way. The equipment never failed. In return for the faith the captain showed in me I found that I was happy to assist in any other capacity that would help the battery.

Let us take another example which I noted later as an officer. A unit was preparing to move to the firing range in an oversea command. The battery

commander called the motor sergeant into his office and explained. He then proceeded to give the sergeant detailed instructions on gassing vehicles and the ten thousand other little details that arise preparatory to making a motor march. On the morning of the movement, the battery commander was hard at work checking the gas tanks of each vehicle to make sure they were gassed. You are right, three of them had not been gassed, and the resulting delay caused the march to be late in starting.

Later I became battery commander of the same unit. And inevitably came the time for my unit to move to the range. I called a meeting of my NCO's, the motor sergeant among them. The usual announcement of the move followed, together with the statement that each of them, as a responsible member of the organization, had his own duties to take care of in preparation for the move. I asked them to settle all details between themselves, as much as possible, and bring the knotty problems to me for solution.

The morning of the move arrived. I walked out of the orderly room, climbed into my jeep, gave the crank-up signal, and moved the battery out at the prescribed time. I kept my fingers crossed, for the unit previously had had vehicles run out of gas on a move, but nothing untoward happened in this one. I might also add that subsequent movements made under the same procedure were also uneventful.

Why the big difference? In one case the responsibility had been put where it belonged; the man who rightfully was responsible enjoyed the feeling that at last he was accepted as a person of some stature in the military world.

The final episode in this little incident occurred at the range within ten minutes after we arrived. I called the NCO's together and in a few words I gave them the equivalent of the Navy's "Well done" and told them that in the future all details would be handled in the same way, insofar as possible.

Captain Russell P. Mahon is assigned to the Department of Nonresident Instruction, AA & GM Branch, The Artillery School, Fort Bliss, Texas.

For far too many years I have been irked by the determination to regard all enlisted men with a rating as NCO's. I realize that the present pay system is much easier on the Finance Department but surely there must be some way to distinguish sergeants from motor mechanics. It doesn't seem that qualification with a screwdriver or wrench qualifies a man as a leader. A corporal will naturally feel a little slighted when he knows that the second cook is also a corporal. Let them keep the pay grade but for heaven's sake, let us call a cook a cook and not a corporal. Let us do away with this injustice and render credit where credit is due.

And in that connection let us hope that we do not go back to the career promotion system where men were promoted without a specific recommendation from their immediate organization commander.

As soon as the career promotion system was shelved at the outbreak of hostilities in Korea, I called my NCO's together and explained the situation to them and also explained that, starting at that moment, those who worked would be promoted and those who did not had nothing to look forward to as far as I was concerned. I adhered to that pronouncement, and, in a very short time, the unit showed a decided improvement due to the efforts of the men who were

trying to move forward in the world. It is an understandable, long-standing adage that NCO's make or break a unit, and those who are working for promotion will, in most cases, improve the unit.

To return to the earlier part of this work, there is one other thought to be considered. Perhaps, the star NCO of your unit has never worn a stripe. Maybe he is like the rose that "blooms to blush unseen." The big problem is to locate him.

Obviously the NCO's can help a lot in this since they are with the men more than the officers. Try holding a conference with your NCO's the next time you have a vacancy for an NCO position. There may be a few friends mentioned at first but that can easily be handled to keep the recommendations on a merit basis. Most of the NCO's are concerned with the battery good and know the value of competent junior NCO's.

There is one more thing that fails to strike any sympathetic chords in my heart and that is the so-called buddy system. I think that it hinders the performance of duty and that an NCO who pals around with men other than NCO's will eventually find that he has lost his control over his squad or section. I do not advocate Prussian-type discipline, but I feel that rank should be respected, both by the men who are subordinate, and

by the man who is wearing it.

One evening I found one of a NCO's in town with a private. That was all right but the fact that the private had his sleeves rolled up wasn't. I called both to my car, took them to the M station, took their passes, asked the M to issue them provisional passes, and sent them back to the unit. The following morning I called the NCO into my office, lectured him regarding his failure as an NCO, dismissed him, and forgot about the instance. I do know that that was the last time those two men were out together. Why? Because the NCO was proud of his rank and he was not going to lose it due to someone else's misdemeanors.

To sum up, I feel that the NCO, the good, solid citizen of the Army—is still with us, very much with us—eager to be an NCO, and very keen on getting another promotion.

So, let's find the man, develop him, give him the rank and the responsibility that goes with the rank, let him do his job to the best of his ability without supervising each step of his performance, promote him when he earns it, reduce him when needed, take him into our little world of earth-shaking plans and secrets, treat him as a link in the chain of command. Then we will find there's no reason at all for all this dither about the old time NCO.

3rd AAA AW BN. (SP) IN KOREA

To the Editor:

The 3rd AAA has been actively engaged in a close support ground role since August 1952. Battery D supported the 15th Infantry Regiment and 65th Infantry Regiment in the Kelly Hill operations in August and September, 1952. Batteries A, B, and D supported the 1st ROK Division in October 1952. Since October 24th, Battery C has been in close support of the 2nd ROK Division (17th and 31st Infantry Regiments), in the Triangle Hill area near Kuhmwa.

At the present time Battery C is supporting the 9th ROK Division, Battery A the 2nd ROK Division and the other two batteries, B and D, are performing normal AA missions in the 2nd ROK Division sector.

On January 1, 1953, the 8th Army AA Range at Inchon was opened for the first 1953 annual target practice. Four squads from the 3rd AAA departed by truck for the 95-mile trip to Inchon, two M16 ve-

hicles going overland on the 1st and the two M19's going by rail, departing from the division railhead at 1700 hours on 30 December 1952. Classes were held on the 2nd day of January and firing from the 3rd to the 7th.

The former battalion executive officer, Major Ogden Johnson, transferred to Japan, 15 December 1952 and is now assigned to the 37th AAA Gun Bn. at Johnson Air Base. He has been awarded the First Oak Leaf Cluster to the Bronze Star Medal for meritorious service in Korea, June-December 1952.

Major Guy Green was promoted on 8 December 1952 on D.A. orders. He is leaving the service soon, departing from the unit on 13 January 1953. He was Headquarters Battery commander and has been awarded the Commendation Ribbon for service in Korea.

Major Basil Spalding, Battalion S3, is now on duty with the 3rd Infantry Divi-

sion, G3 Section, as commandant, NCO Academy. The former battalion S2, Captain Jack Young, is now acting battalion S3.

A recent arrival from Fort Bliss is Captain Magill, who is now serving as battalion S2. Another recent arrival from Fort Bliss is Major Marvin L. Snow, Cml Corps, detailed to the Artillery, who is serving as battalion executive officer.

Captains William C. Williams and George E. Adcox, Lieutenants Chaney and Sumner are serving as air observers with the 6148th Tactical Control Squadron (Air Force). They are the observers who conduct the air strikes for close air support rendered by the Air Force for the infantry divisions.

O. A. MOOMAW
Lt. Col., Artillery

3rd AAA AW Bn. (SP)
Korea, 6 Jan. '53

STAND UP AND HOOK UP

By **LT. COL. G. B. MACAULAY**

YOU'RE never too old to jump! This paraphrase of an old cliché was forcibly brought home to me this past summer at the Army's Airborne School, Fort Benning, Ga.

For a number of years I had been attempting to attend the Jump Course without any luck. Finally, however, last summer I received orders to report to Basic Airborne Class No. 50. The six weeks prior to the reporting date were spent in an effort to achieve as good a physical condition as possible. Daily calisthenics and road work were at the top of my schedule; if I washed out of the course I didn't want it to be for physical reasons. Based on later developments this pre-course conditioning is strongly recommended for all prospective jump students since the physical training phase of the course is rigorous.

The first week of the course is for officers and selected noncommissioned officers only and consists of instruction in Air Transportability. We were taught the mechanics of loading and lashing, the different types of tie-downs, characteristics of cargo airplanes, and given practical work loading varied loads into mock-ups. The climax of the week's instruction came during two flights in C119 aircraft; one flight consisting of a resupply problem dropping supply bundles by the Monorail procedure, and the second flight utilizing heavy drop concepts dropping a ¼ Ton Truck by parachute. During the week we were also introduced to the physical training program which, in the main, consists of calisthenics to include the squat thrust, knee bend, push-ups, body twist, turn and bend, squat jumps and sit-ups plus a combination of run and walk of varying length. The program is of a progressive nature, each week seeing an increase in the number of repetitions and length of run. I might add that during the last week, Jump Week, no physical training is required.

During the second week of the course, actually the first week for the bulk of

the class, we set to work learning to become paratroopers. Physical conditioning was stepped up and we were introduced to the equipment we would be using for the remainder of the course. The proper method of wearing and adjusting the main and reserve parachute was thoroughly covered and we were instructed in the correct body position in exiting from the airplane. Many hours were spent in practicing parachute landing falls to cover every conceivable type of approach. This week we were Trolley Troopers, so called, because the heart of the week's training was centered around the 34 foot towers and attendant suspension system. Each member of the class was required to make many jumps from the towers until every one had a certain percentage of satisfactory performances. It was during this week that the class incurred most of the washouts it was to experience. Thirty-four feet is only 34 feet when viewed from the ground up but assumes gigantic proportions from the tower, particularly when required to jump out into space—not a normal undertaking for most individuals. And after making the jump it is gratifying indeed to report back to the grader and hear that welcome phrase "satisfactory jump."

THE next week we graduated to the Tower Trooper category. This week is the culmination of the physical conditioning program calling for the maximum amount of effort and repetitions. As Tower Troopers we were hoisted aloft to the top of the 250 foot towers and then released in a free fall, equipped, of course, with an opened parachute. Here we learned how to control the chute, to slip in any direction and to obtain practice in making parachute landing falls. Mass exits from the 34 foot towers were also undertaken this week as well as review of the seven jump commands, practice exits from mock-ups, and emergency procedures.

By Friday we had been prepared for our first jump as well as any embryonic jumpers had ever been.

There was a great deal of conjecture over the week end as to the type of airplane we would be using during Jump Week and, of course, much comparison, from hearsay only, of the merits of each type. Monday morning we reported to Lawson Field where the class was divided into plane loads and received final briefings. Since it is the custom of the school to have the senior officer of the class jump first, my plane load was sent first to the rigging room where we were issued and fitted with our parachutes. It developed that we would make our five qualifying jumps from C46 airplanes and from the ready room we loaded into the aircraft. Approaching Lee Field, the drop zone, we hooked up our parachute static lines to the anchor line and checked our equipment. Then came the command, "Stand In The Door." The days of the 34 foot tower and mock-ups were past—this was no dry run. All the instructions of the past two weeks chased through my mind as I stood on the threshold of my first parachute jump—at the age of 36. Make a vigorous exit—jump up and out—maintain a correct body position—grasp the reserve parachute firmly between both hands—count one thousand, two thousand, three thousand—keep your head down. The blast of the propeller took my breath away as I left the airplane and I felt my body slowly being turned by the onrushing air. After what seemed an interminable length of time I received the opening shock as the T7 parachute blossomed out above me. The opening shock was not as bad as I had expected, something that was remedied on my second jump when I was positive the airplane had pancaked on me. The ride down was the most exhilarating experience imaginable.

The first jump was made with no equipment other than the chutes and

(Continued on page 44)

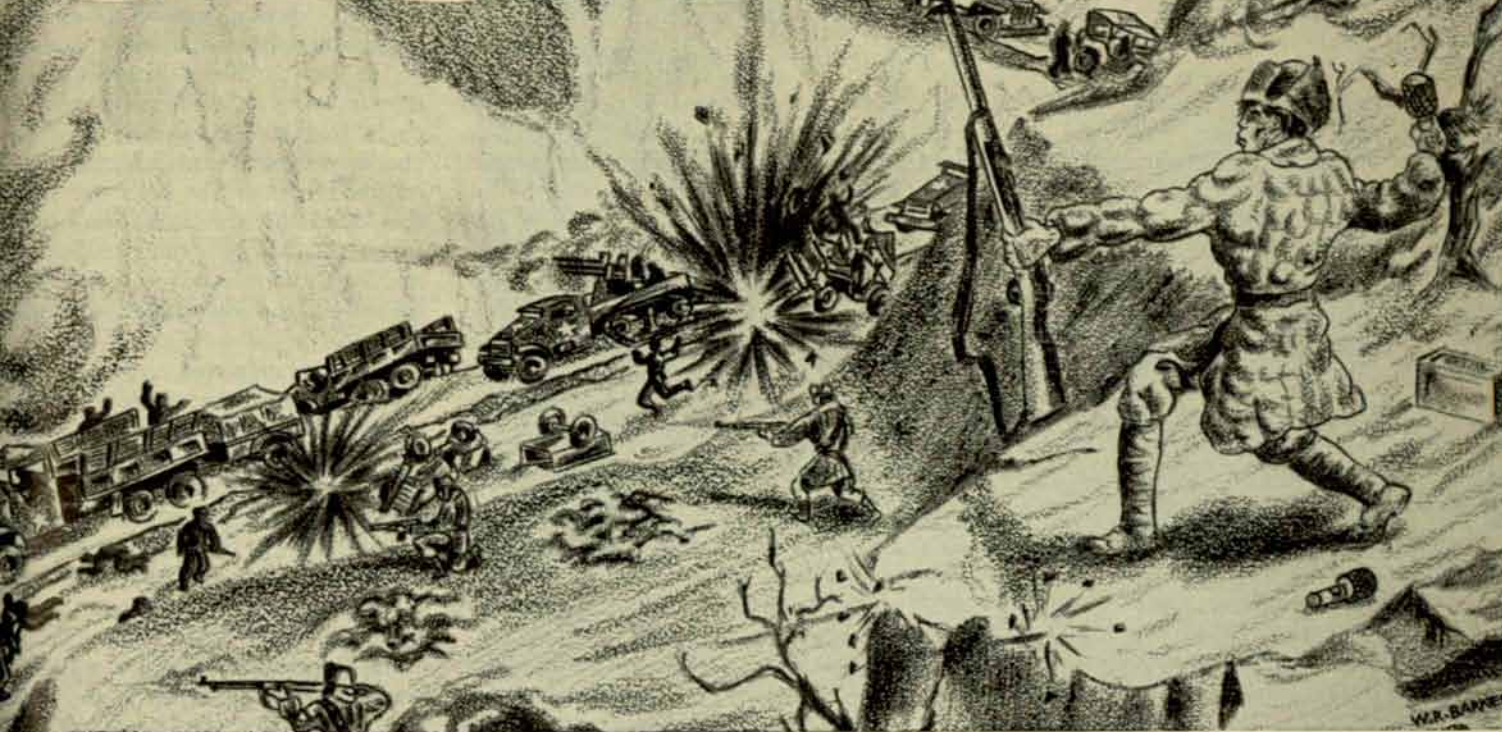
ROADBLOCK



MAJOR JOHN C. FRALISH, Artillery, was S3 of the 38th and 503d Artillery Battalions in Korea and fire support coordinator for the 2d Infantry Division. He is now an instructor in the Department of Gunnery, The Artillery School. He entered the Army in 1942 from the University of Florida and served as liaison officer and battery commander in Europe with the 63d Infantry Division. After the war he was integrated into the Regular Army.

ILLUSTRATED BY W. R. BARKER

OCK



In the bleak mountains of northern Korea two years ago, U. S. forces engaged in a perilous military operation and proved that valor, endurance, discipline, initiative and humor are still the hallmarks of the U. S. soldier.

Major John C. Fralish

The anti-aircraft artillery phase of Operation Roadblock was written by Lt. Col. Walter Killilae, then commanding the 82nd AAA AW Bn. (SP) with the Second Infantry Division and published in the March-April 1951 issue of the JOURNAL.—ED.

I WAS in the Fire Direction Center of the 503d Field Artillery Battalion supervising a fire mission when we were told that the Chinese had established a roadblock astride the 2d Division's MSR (main supply road).

"Oh, well," we thought, "they'll send some tanks

and a company of infantry down there and clean up that nuisance in a couple of hours."

That was the morning of 20 November 1950. The Chinese had launched their offensive and had rolled through the ROKs on the division's right flank. They had hit the 9th Infantry hard, and the 23d and the 38th had felt it, too. But Division thought that the Chinese could be stopped—until it found out that the units on both flanks were withdrawing and that the 2d was surrounded.

The order for a retrograde movement reached the 503d during the night of the 29th. The 9th Infantry was to go ahead, open the road, and hold the shoulders while the rest of the division with-

Reprinted from the January 1953 issue of the *Combat Forces Journal*.

drew. Then the 23d Regimental Combat Team (which consisted of the 23d Infantry, the 15th Field Artillery Battalion, some tanks, antiaircraft artillery automatic weapons units, and other attachments) was to relieve the 9th and fight the rear-guard action. A British tank unit was to fight north from Suncheon on the MSR until it met 2d Division forces coming south.

All through the night of the 29th, the 503d fired in support of the division units, and caught hostile small arms and mortar rounds occasionally. Throughout the next day the battalion continued to fire—mostly in support of the effort to break the “roadblock.” This obstacle, incidentally, turned out to be a large enemy force dug in on both sides of the road where it wound through a mountain pass about two miles south of our positions.

The 503d sent a forward observer to the site of the roadblock to adjust fire for the units trying to break through. Around noon he returned, explaining that he had been relieved by an observer from another battalion. From then until midafternoon we received no calls for fire on the roadblock.

Apparently our firing did some good, though, because the column moved spasmodically past our positions all day. Now we had word that Division headquarters had passed through, followed by other units, and that Divarty headquarters was beginning to move through too. That meant that soon it would be our turn to close station and hit the road.

WE were concerned about what might happen when night came. If we followed the plan outlined in the order, we would start moving through the roadblock area about dark. Several alternate plans were discussed: An Army aviator might fly reconnaissance for another route, and we might plan to destroy all heavy matériel and equipment, if necessary, in order to use that route. Or we could plan to make an infantry battalion out of the one engineer and two field artillery battalions, and fight our way out on foot in case there was no alternate route and the MSR was closed before we got through. Also we might send a reconnaissance party to see if the road through Sinanju was still open. (We didn't know that at that very minute the 23d RCT, which was supposed to be our rear guard, was moving south on that road and was not encountering a single enemy.) Finally, we might destroy our vehicles and everything else that could not be hand-carried and walk out over the hills.

Nothing came of all this discussion—except to follow the Division's plans. I sensed disaster, so prepared to meet it as best I could. I pulled off my new shoe-pacs, put on my oldest, most comfortable combat boots, stuffed my pockets with clean socks, and packed a getaway bag of C rations and small-arms ammo.

Late that afternoon, perhaps 1700 hours, the 38th Field Artillery and the 2d Engineer Battalion rendezvoused next to our position to await their turns to join the column. The order of march placed them behind us. Our battalion commander went over to have a conference with their commanders.

JUST at dusk, as the last of the 37th Field Artillery rolled slowly past, we march ordered and joined the column. Within our battalion the order of march was B, Headquarters, C, and A. Behind A Battery came the 38th Field Artillery Battalion. My FDC team had two trucks in the middle of the Hq Btry's column.

We had marched about one and one-half miles when the column halted and did not move again. I radioed the Battalion executive, who was leading the column, but got no answer. I tried calling some of the other stations that I knew were up forward, but received no answer from anyone. Dismounting, I told my men (except drivers) to take up positions on the flanks, while I walked to the head of the column to find out what was holding it up.

In the glow cast by a burning shack beside the road, I met the Hq Btry commander. He had heard my transmissions a few minutes earlier, but could not reply because his jeep's engine had quit on him. He said that B Btry had apparently been attacked from both sides and was almost wiped out. We looked around and found the first sergeant of B Btry and a few men in the last vehicle. I questioned the first sergeant, but he couldn't shed as much light on the situation as did a vehicle burning on the road ahead.

We carefully surveyed the road and the area lighted by the fire of a burning truck, but could neither detect activity nor hear any noise. We decided to try to move. The first sergeant of B Btry moved his vehicle forward, and the whole column began to creep along. We had progressed about twenty or thirty yards when we saw a shadowy figure running up the road toward us, emitting hysterical shrieks and babblings. He was a B Btry aid man.

According to him, the battery had been hit suddenly from both sides of the road. The leading and trailing trac-

tors, towing 155mm howitzers, had been knocked out and the enemy had swarmed over the column, killing or capturing some of the men. The aid man didn't know whether anyone else had escaped. The Chinese had machine guns, captured rocket launchers, mortars, and other weapons dug in on both sides of the road, and there was no sign of friendly infantry, which was supposed to be holding open the road.

IT seemed foolish to go forward. I walked back toward the tail of the column until I found the battalion commander. I briefed him on the situation and he decided to find the commander of the 38th Artillery Battalion and discuss it with him. The suggestion was made that we destroy our equipment and fight it out as infantry, but the executive officer of the 38th was against this. He requested permission from the CO to put direct fire on the hills on our left flank. Permission was granted, and the 105s of the 38th barked in the darkness.

Someone suggested that we should get the engineers in on the discussion, since they had had experience in fighting as infantry. The CO of the 38th liked this idea, so he instructed his executive and me to go back along the column and try to find the CO of the engineers. We started, but had not gone too far when Chinese mortars dropped a barrage on the road ahead of us. We heard the cough of the first rounds on the way, so we hit the ditch and waited until all of the shells had burst. They were too close for comfort. We decided that it was too late to go searching for the commander of the engineer battalion, since it looked like we would be attacked shortly. Hostile mortars kept firing with growing intensity. Bugle calls pierced the night and during lulls in the firing we could hear the Chinese laughing and talking in the distance.

The CO of the 38th, my own battalion CO, and I made a reconnaissance to the head of the column to see if there was any hope of getting it in motion.

As we approached the front, we saw a knocked-out vehicle on the right shoulder of the road and one of our trucks halted in the center. We spread out when we reached these vehicles so that the CO of the 38th was in the center between the two vehicles, my CO was on the right side of the road and I was on the left shoulder. The end of a ridge that paralleled the road up to this point turned toward the road; a little beyond was a culvert, and a dry creek bed ran off to our left.

As we stood listening and looking, a machine gun opened up from the culvert, and slugs hit the truck near my head. Several small steel particles imbedded themselves in the bridge of my nose, and a machine-gun bullet grazed my chin and left a burn on it. I hit the dirt, and began crawling back. I met my CO, who said that the CO of the 38th was dead.

As we drew back, we heard digging on the ridge to our right. Thinking they were our own men digging in, I shouted, "Who's digging up there?" No answer. I repeated the question two or three times, but still no answer. Then we knew. The Chinese were no more than fifty yards from us!

ENEMY mortar fire was taking a heavy toll. Ammunition vehicles were ablaze up and down the column, and the road was partially blocked in several places. It looked as though we would have to fight it out right here—with the enemy holding the high ground on both sides of the road and the three battalions strung out in a long column.

Bugles blared around us, and we could hear horses neigh and snort. I suggested we fire 155mm howitzers across the column and into the Chinese digging in on the ridge. The battalion commander said OK; that is the last time I saw him.

The C Btry commander put one of his howitzers in position and a lieutenant from A Btry went to the rear to bring up the four AAA automatic weapons. These were two twin 40mm guns on light tank chassis (M-19s) and two quad caliber .50 machine guns on half tracks (M-16s). I sent out several men for local security of the howitzer and began to fire it across the column at the ridge, sighting the piece on enemy positions by boresighting for each round. When we fired the third or fourth round, the enemy replied with a captured rocket launcher. The projectile hit the shield of our piece, damaged the traversing and elevating mechanism, came through the shield, and took off the number one cannoneer's head.

The antiaircraft AW vehicles pulled up. I pointed out an enemy machine gun in a culvert and directed the gunner on the first M-19 to take it under fire. The other AAA AW gunners opened up on enemy positions along the ridge. After the gunner fired on the machine gun in the culvert we approached it cautiously and found six dead Chinese and one old Japanese-type machine gun. Then I saw a body lying on the shoulder of the road, and recognized it as the



Doughboys of the 2d Infantry Division swarmed aboard a tank during the withdrawal from North Korea in December 1950.

CO of the 38th. He was still alive. We wrapped him in blankets and I looked around for an ambulance. Ammunition and fuel tanks continued to explode. Safety was not to be found in the vehicles. Surveying the scene, I thought, "No point in trying to avoid being hit." I prayed silently and kept moving.

Not finding an ambulance, I asked several men what had happened to the medics. Someone said that one of the medics had been hit; the others were "somewhere out there" taking care of the wounded. I gave up the search and went back to help put the colonel on one of the other vehicles. The soldier with whom I had left the colonel had already gotten help and had placed him on one of the M-19s.

I WALKED to the head of the column which had not moved an inch since I had left. Three or four junior officers had gathered there by now, and I told them to push forward one M-19, then some light vehicles with wounded, then an M-16, some more light vehicles, then the other M-19, and so on until we had everything moving. Riflemen were to protect the flanks.

I urged the driver of the leading M-19 forward, instructing the gunner to return any hostile fire the source of which he could locate. The riflemen had instructions to shoot at whatever targets they could find, and if no targets could be seen, to fire generally toward the ridges and enemy positions. Everyone was to make plenty of noise. We figured that stealth would be impossible (the enemy already knew where we were) and that noise and firing would help our morale.

The leading M-19 moved slowly along the road. At the narrow place across the culvert the road was covered by enemy fire, and a knocked-out vehicle held up the column. A truck was halted a few paces from this point and the driver could not be found. A volunteer jumped in the truck to drive it past the knocked-out vehicle, but a burst of fire from an automatic gun hit him and he slumped in the seat.

For a time after this I remember nothing. I was told later that I mounted the cab of the truck and drove it through the bottleneck. At any rate, we somehow did succeed in neutralizing the hostile fire on this point and got thirty to forty trucks and the four AAA AW vehicles moving south along the road.

During the fierce fighting many individuals performed courageous deeds. The operations sergeant of the 503d (now a battlefield-commissioned lieu-

tenant) neutralized an enemy machine gun by firing at it with his carbine on full automatic from an exposed position so that other soldiers could rescue a number of wounded. Another member of the fire direction center of our battalion took a bazooka and went after two machine guns that were raking the column. He was wounded in the process, but he knocked out the two guns.

Others, whose identities are not known but whose deeds were no less heroic, are now dead or prisoners of the Chinese. There was the work of one soldier from Battery A. A machine gun on the slope of a ridge fifty yards away was raking our vehicles and the men in the ditch with fire. This brave soldier sneaked up through the shadows behind the enemy machine gunner, grabbed the hostile weapon, and swung it at the enemy's head. The flabbergasted Chinese jumped up and disappeared over the ridge amid a hail of bullets from our men who were watching the encounter. But the American soldier never came back.

WE moved at a snail's pace, and it was difficult to keep the vehicles moving—cursing, begging, threatening, and practically pushing them forward by hand at times. When the lead vehicle moved, a few others would follow, but others farther to the rear would get stuck at places where the road was blocked by stalled or overturned trucks, disabled tanks, artillery pieces, or enemy tank traps dug all the way across the road. Sometimes it was necessary for men to pick up a stuck vehicle and shove it back on the road.

We kept the column moving. When I became exhausted, I crawled on the nearest vehicle and rode until I could breathe normally again. The men walking would occasionally spot an abandoned jeep or truck that appeared to be in good condition, and they'd try to get it started. Sometimes they succeeded, and then more could ride.

Though the column drew away from the site of the roadblock it was under constant enemy observation and fire of all types from the high ground on both flanks. The gunners on the AAA vehicles and the riflemen shot back promptly, and we suffered few casualties from the running fight that lasted throughout the next eight miles.

As we rounded a curve in the road, we found ourselves at the top of a hill overlooking a small town. We could see that the enemy held the town in considerable strength, and apparently some friendly forces from the south were fighting for control of the road down

there. The fire fight was raging furiously, with tracers flying in every direction. Soon we were fired on. The men scattered and took cover while the vehicles backed behind an embankment for protection against the hostile fire.

I called the officers together for a brief conference to decide our next move. I had a map, but no flashlight. Someone produced a few matches and a cigarette lighter, and with this primitive illumination we studied a map underneath an overcoat until the light expired. We determined a direction if we had to take to the hills, and announced it to everyone.

This raised the problem of what to do with the wounded who could not walk. The drivers were asked whether they wanted to take these wounded and try a run for it through the town. Most of them wanted to try it, and soon enough drivers agreed to take all of the vehicles through. The walking wounded, about 100 men and three officers, were asked whether they wanted to take the road through town or make a beeline over the hills for Suncheon, which we figured was about ten miles away. (Actually, the distance turned out to be about twenty miles.) The decision finally reached was to send a bodyguard of two officers and a number of men along with the drivers through the town with the seriously wounded. The rest of us would go over the hills to Suncheon.

IT was well past midnight when we started out. We headed east to skirt the town, keeping well up on the slope along the edge of the sparsely wooded top of the hill. We walked as fast as we could through the clear and extremely cold night. Our course was uphill most of the time, and I had to discard my rubber overshoes because they made the going too difficult.

As we hiked along, we could hear the engines of the AAA AW vehicles as they neared the town. When they entered the town, we heard a brief, furious fire fight, and then the engine of only one vehicle as it sped away to the south. The officer who led the vehicle column later described the action which occurred there.

The column reached a bridge across a small stream in the center of the town only to find that the bridge was blocked by an M-16, abandoned earlier when an antitank gun had demolished one of its front wheels. There was a bypass to the left of the bridge, and a handful of soldiers had taken up firing positions in it and around the bridge. They were having a "fine time" as they described

it, fighting off charge after charge by Chinese and North Koreans from the nearby houses. There were Turks, South Koreans, and both white and Negro Americans in this small force. This was the fire fight that we had observed from the hill.

As the leading M-19 headed for the bypass the enemy launched a new charge. One enemy soldier dashed for the turret of the M-16 on the bridge, apparently hoping to turn the quadruple caliber .50 machine guns on U.N. troops. A Negro warrant officer, who later said that he had never before thrown a hand grenade, calmly tossed two grenades into the turret from about 30 yards away, completely disabling the turret and the machine guns. Hostile guns hidden in the surrounding shadows took a heavy toll of our vehicles. Only one finally made it through the bypass. This was the leading M-19, on which the wounded colonel had been wrapped up and tied down so that he would not freeze to death or fall off.

Many men escaped on foot and made their way back to our lines, but most of the wounded who could not walk were either killed or captured.

THE group I was with climbed the hill overlooking the town until suddenly we were taken under fire by what seemed to be caliber .50 machine guns. The fire certainly was not friendly, but we never found out whether it was enemy. It scattered us and some men hit the ground until the firing stopped while others took off rapidly.

The going was extremely rough. The slope was so steep in places that we had to grasp small trees to keep from falling or sliding down the mountain-side. Once we stopped briefly to rest, but the temperature was so low that I soon realized we would freeze if we stopped for long, so I aroused everyone and we started again.

At daylight we were well up into the mountains overlooking the town, and could look down on the activity there. Some enemy soldiers, civilians, horses, and Russian jeeps were all we could see.

We continued our march. About noon we came to a place overlooking the junction of the Taedong River and a smaller stream, about fifteen miles from our destination. Here we halted and discussed the situation. An Air Force AT-6 Mosquito flew over. I pulled off the parka I was wearing, turned the white side out, and waved it to attract the attention of the pilot. The plane flew low, circled and flew away. Later 503d Battalion airplanes came to our aid.

While resting near the river junction we saw troops plodding northwest along a road several thousand yards to the east. They seemed to be wearing American uniforms, but were too far away for us to identify them positively, so we kept out of sight until they disappeared. About an hour later we saw them again, south of the position where we first spotted them. This time we recognized them as Americans, so we hailed them and waited in a small wooded area until they approached.

THE addition of this group gave us a strength of about 200. We organized flank and rear-guard security, appointed a first sergeant, and from then on proceeded across country in a more secure and organized manner. We selected the easiest route in order to save energy and time, and marched with the wounded in the front with the rest of the men following in a column of twos.

Eventually we reached the Taedong River, but there was no way to get across except to wade. Chunks of ice were floating on the water and solid ice lined the banks. Nevertheless we waded hip deep through the cold current fifty yards to the other side. The rocky bottom offered little foothold, and the current almost swept our feet from under us.

When we reached the other side, we found ourselves in a wide, dry rice paddy, with shocks of rice straw all over the field. We built fires and dried our socks, trousers, and boots. While we were do-

ing this, a light airplane circled over us, and I recognized the pilot from the 503d FA. He circled and surveyed the area, apparently searching for a place to land. I made a quick reconnaissance and found that by clearing the large boulders from a bar along the river a field for the plane could be prepared.

We worked furiously, and within minutes the plane landed with two cases of C rations and a five-gallon can of drinking water. The two most seriously wounded men—a ROK and an American—were put aboard the plane, and the pilot took off. We had marched some distance when the other pilot from the 503d FA came over, dropped another case of C rations, and flew cover for us, guiding us along the most favorable route.

About 1700 hours, we reached the Taedong River again. Troops of the 1st Cavalry Division were waiting for us with a boat, and they ferried us across. The wounded were immediately evacuated to medical aid stations by jeeps.

We marched for two or three miles to the outskirts of Suncheon where we were picked up by trucks.

Eventually we were delivered to our own units—or to what was left of them. For days, others who had escaped the trap straggled in singly and by twos and threes. They told of gallant stands made by small bands, overrun by superior numbers after their ammunition was exhausted, or which were wiped out while attacking enemy positions.



Two months before the Chinese intervention, these 2d Division artillerymen had turned captured Soviet 76mm guns against the enemy in the Naktong Valley.

FORT BLISS NEWS

New Barracks at Bliss

The Fort Bliss skyline, as seen from the El Paso International Airport, is taking on a completely new aspect as the 31 new three story barracks under construction on the easterly edge of the post near completion.

Located in an area which but a few months ago was unused desert, the new permanent masonry structures present an exhibition of the ultimate in modern construction methods.

The ten million dollar project was started last March. Included in the contract are 31 barracks, six motor parks, complete with repair shops.

The buildings vary in size from 105 man units to 225 man barracks. Each is complete with a modern kitchen, dining hall, day room and squad rooms. Corps of Engineers officials say the new standard permanent type barracks will not only provide more comfortable quarters for soldiers, but will effect long range savings to the Army in lower maintenance costs, more efficient use of utilities and in the greater ease with which the Army's standard of cleanliness may be maintained.

Within a few months these barracks will be occupied by guided missile and skysweeper battalions.

AA RTC Review

Noel Field parade ground at Fort Bliss was filled to capacity on December 20 when forty-six batteries of the AAA RTC paraded in the largest mass presentation of training troops held at the post since World War II.

The 8,000 troops ranged from seasoned veterans who form the RTC training cadre, to trainees with only two weeks service.

The reviewing officer was Col. Earl W. Heathcote.

6th AAA Group at Logan Heights

The 6th AAA Group, under Col. William J. Wuest, is now showing new activity in the Logan Heights area. The following battalions are assigned:

531st AAA AW Bn. (Lt. 75mm Mbl.), Lt. Col. Gordan G. Walters.

168th AAA Bn. (Lt. 75mm Mbl), Lt. Col. Rogers E. George, Jr.

495th AAA Bn. (Lt. 75mm Mbl.), Lt. Col. James M. Moore, commanding.

Lt. Col. Moore has recently returned from Korea where he commanded the 15th AAA AW Bn, with the 7th Div.

Gen. Ennis Arrives at Bliss

Brigadier General William P. Ennis, former Artillery Commander of XVIII Airborne Corps, has arrived at Fort Bliss to assume his duties with the Army's recently organized Combat Developments Agency.

Although assigned directly to Army Field Forces, General Ennis will serve as Director of Special Weapons Developments, and operate a field staff section at the AA and GM Center where training of troops and testing of the new weapons are in progress.

An artillery officer since his graduation from the U. S. Military Academy in 1926, General Ennis served during World War II in the North African invasion and in the Mediterranean Theater. In Korea he commanded the X Corps Artillery from the Inchon landing until November 1951.

Decorations

Since publication of the last issue of the JOURNAL the following have received decorations for service in Korea:

Silver Star

M/Sgt. U. G. Logan, Jr.

Bronze Star with Cluster

Maj. Joseph P. McElligott

Bronze Star

SFC. John L. Gore

M/Sgt. G. A. Gates

M/Sgt. Leon L. Luth

M/Sgt. Henry C. Hycner

Maj. Walter S. Hanson

Capt. C. M. Beckwith

Capt. T. R. Taylor

Capt. W. L. Berthelsen

Capt. J. W. Grantham

Lt. Chas. H. Peck

Lt. George L. Shelhorse

Legion of Merit

Col. Daniel A. O'Connor

Soldier's Medal

Sgt. Kenneth Cronkite

Air Medal

Lt. Richard O. Hutto



Pvt. Galen Dodge receives the American Spirit of Honor Medal.

100th Leader's Course

The one hundredth class to graduate from the AAA RTC Leader's Course received their diplomas Saturday, December 13th at a unique military review staged entirely by enlisted men from the school. Commander of troops at the ceremonies was Private Roland B. Raven.

Stand Up and Hook Up

(Continued from page 37)

steel helmet. Each succeeding jump more equipment was added until we were jumping with an M1 rifle strapped to our sides and a field pack in front. It is noteworthy that not a single man refused to jump during the week, so well had the school built up their confidence in the equipment and themselves. Graduation day was a proud moment for all of us and the congratulations tendered by members of the school were also a welcome to the Airborne.

Officers were required to attend an additional two day jumpmaster course which included one more jump, this time from a C119.

The school instructors were one of the finest groups I have yet encountered. The majority were enlisted men of the lower grades who turned in consistently fine performances. The Airborne School has reason to be proud of the boast that if a man is a good soldier now he'll be even better when he has completed his Airborne training.

If you have been delaying your request to attend the Airborne School or if you feel you are too old my only advice is to emulate the seventh jump command—GO!

Pro and Con on the Merger

(Continued from page 26)

in that of the larger and more impersonal organization. I believe the value of the morale and *esprit de corps* of the Antiaircraft Artillery is much greater than it will be as a member of the Combat Forces Association. I believe that the Antiaircraft and Armor boards did correctly when they declined to join three years ago. Now I have had my say.

JOHN HARRY
Wethersfield, Conn. Col., Arty.

To the Editor:

I am against the merger with AUSA for the reason stated below.

The AAA is a specialist field and should continue with a separate publication for that specific reason. The specialists in antiaircraft may not have the opportunity or the authority to write as they wish or the space to cover the subject sufficiently. We tend to become specialists as we learn more about our jobs. We must consider the job to be done and realize that we cannot overlook the fact that some jobs must be handled by specialists. Some claim we specialize too much, yet we must have the technical know how to do the job. Knowledge is a weapon which is hard to defeat—information in concise practical form is of great importance to the education and advancement of the technician doing the job.

If the merger allows Antiaircraft proper space and enough representatives to do a thorough job, then the merger will be for the good of all concerned. If this guarantee is effected, then I would be for the merger.

CHARLES J. DEMAREST
PFC, Btry A, 16th AAA Gun Bn.

To the Editor:

I am voting for the merger heartily! May the executive council bring the new journal up to the high standards of the present AA JOURNAL. Many of my friends like it better than the *Combat Forces Journal*. I like a good professional magazine but I like a good harmonious army better—one that fights the enemy and not one another about a magazine.

RAMON C. DOUGAN
Newport, R. I. Lt. Col., Arty.

To the Editor:

I wholeheartedly support the proposed merger. I belong to both associations at present and would like to see AA & GM articles placed in the *Combat Forces Journal* where they will receive wider audience.

CHARLES E. HOGAN
Ft. Bliss, Texas Major, Arty.

* * *

To the Editor:

Two years ago I allowed the subscription that I entered in 1920 on a renew and bill basis to lapse. My check for a 1953 renewal is enclosed, for I am lonely without the JOURNAL.

More and more I realize how important the JOURNAL was to us as junior officers in the 20's and 30's. It was one of the vital forces that inculcated the old Army spirit of always working to find better ways of getting the job done.

Tomorrow I leave the comparatively easy assignment as Ordnance officer to take command of the new Ryukyus Service Command. The problem is to consolidate five major subordinate commands and a so called general depot into one Station Service Command.

We hope to improve the service and also to economize on personnel and shift

some to firing batteries. Colonel Gene Walter and I get together frequently to consider ways and means of making this a "shooting army."

HERBERT C. REUTER
Colonel, Ordnance Corps.

65th AAA Group Anniversary

The 65th AAA Group, Fort Clayton, Panama Canal Zone, celebrated its sixth anniversary in its present activation on January 15.

The two composite battalions of the group stationed at either end of the Canal, are under the command of Colonel Ben E. Cordell. Actual sites of the gun batteries are scattered throughout the Isthmus.

Guarding the dual mouths of the waterway are the 764th AAA Gun Battalion, commanded by Lt. Col. Elton D. Winstead and the 903rd AAA AW Battalion, led by Lt. Col. F. J. Petrilli. From Fort Amador, the 38th RCAT Detachment, under command of 1st Lt. Melvin Holst, provides robot planes for antiaircraft target practice.

The 506th AAA Operations Detachment, under Major Robert S. Gruhn, maintains communications, liaison, and early warning service.

* * *

Soldiers' deposits in the 903rd AAA AW Battalion, Fort Clayton, Canal Zone, in 1952 amounted to \$103,666. The battalion commander gives the battery commanders and CWO William Vesser, personnel officer, main credit for this notable record.

AAA Officers to Staff College

Lt. Col. Frank A. deLatour
Lt. Col. Harry T. Smith
Lt. Col. Page Smith
Lt. Col. Hugh J. Turner, Jr.
Lt. Col. William H. Vail, Jr.

U. S. ANTI-AIRCRAFT ASSOCIATION BALLOT

- For the merger with Association of the U. S. Army.
 Against the merger.

(DATE)

(SIGNATURE)

1-53

(RANK)

(UNIT)

News and Comment

AAA Assn. Elections

In the recent Association annual election, Lieut. Gen. John T. Lewis was reelected President for a term of two years. General Lewis was released in early January from Fitzsimons Army Hospital and has resumed command of the Army Antiaircraft Command with headquarters at Ent Air Force Base, Col.

Brig. Gen. Charles G. Sage, Commanding General, 111th AAA Brigade, and Adjutant General of New Mexico, was reelected as the National Guard Member of the Executive Council.

Brig. Gen. H. Russell Drowne, Commanding General, 300th AAA Brigade, New York City, was elected as the Organized Reserve member.

Lt. Col. George W. Best, Jr., commanding 36th AAA Gun Battalion, Fort Meade, Md., was also elected as a member of the Executive Council.

Assignments

Brig. Gen. Homer Case departed by air from San Francisco in late January for his new assignment with the Korean Logistical Command.

Since last September, General Case has commanded the Eastern Army AA Command with headquarters at Middletown, N. Y. Prior to that he had commanded the 35th AAA Brigade at Fort Meade, Maryland.

* * *

Brig. Gen. Frank C. McConnell has been assigned to duty in Washington with the Assistant Chief of Staff, G4, as Deputy for Foreign Military Aids.

General McConnell served as assistant division commander, 25th Division, in Korea until May, 1952, when he was transferred to duty with the Armistice Delegation for the negotiations at Panmunjon. He is returning to Washington via Fort Benning, Georgia, where he is taking a short refresher course.

* * *

Colonel Harold P. Hennessy, commander of the 45th AAA Brigade in Chicago, has received orders assigning him to duty with USAREUR.

Colonel Tom V. Stayton has arrived at Fort Meade, Md., to take command of the 35th AAA Brigade. His last assignment was in the office of the Chief of Army Field Forces at Fort Monroe.

* * *

Colonel Sam C. Russell has been assigned to command the 45th AAA Brigade in Chicago. His last assignment was on General Handy's Staff in the European Command in Frankfurt.

* * *

The 3rd AAA Group moved from Fort Meade to Norfolk in December. Colonel John S. Sabine arrived recently from Fort Huachuca, Arizona, to take command. Lieutenant Colonel Christopher Cushing is the Executive.

* * *

The 56th AAA Gun Battalion, under command of Lieutenant Colonel Mark A. Selsor, Jr., recently moved from Camp Stewart, Georgia to Fort Monroe, Virginia.

Retirements

Colonel Lloyd W. Goepfert retired at Fort Williams, Maine on December 31st after more than 35 years service in the Army. His last duty was as the commanding officer at Fort Williams. He and Mrs. Goepfert retired to their new home in Bradenton, Florida.

* * *

Colonel John G. Murphy retires at Fort Meade, Maryland, on January 31st for age, after more than 35 years service. Colonel Murphy has served as G4 of the Second Army since April 1950.

Early in World War II Colonel Murphy served as the AA officer of the Western Defense Command at the Presidio of San Francisco, California. In 1943 he joined the 9th Army Headquarters as the AA officer when it was organized, served in that capacity throughout the campaigns in France and Germany, and was awarded the DSM for his outstanding service.

He and Mrs. Murphy will reside in Washington, D. C.

Colonel Archibald L. Parmelee retired at Fort Wadsworth, New York on January 31st for age, after more than 35 years service. He has served as the post commander at Fort Wadsworth since 1948.

He and Mrs. Parmelee plan to take a leisurely trip by the southern route to California.

Antiaircraft Troop Housing

Many of our readers will have noted the report in *Time* Jan. 12 as follows:

The Army Retreats

Protecting Greater New York against a possible sneak air attack is the dreary chore assigned to gunners of the 52nd Antiaircraft Artillery Brigade. Looking to a cold winter, the Army brass decided to give the 52nd—housed in drafty canvas tents—a better deal in living quarters. Warmth and cheer in the form of the latest steel and plywood prefab huts were delivered in 5,400 enormous crates; the GIs started to assemble them.

Building trades councils of the A.F.L. got wind of the project, objected that prefabs assembled by soldiers took work away from union members. The unions threatened strikes on other vital construction. The Army faltered, retreated from its housing plans; some Arctic-type tents were ordered. Last week the GIs began to store the crated prefabs. While the wind shrieked outside, the 52nd was back under canvas.

This matter also attracted the attention and treatment in like vein by the *New York Times*, *Washington Evening Star*, and other leading dailies.

The assembly of prefab shelter for the AAA troops not only pertains to urgently needed shelter as so well recognized, but it also constitutes legitimate and essential troop training. The AAA troops rushed to Iceland, Alaska, and other like stations in World War II had to erect their own prefab shelter. And there was no competition with labor unions.

The Army still has this matter under negotiation with prospects that the 52nd may yet get its prefab shelter.

Fortunately for AAA troops stationed elsewhere, the labor difficulty was purely local. In the Washington area the 35th AAA Brigade troops are rapidly completing the assembly of their own prefab shelter. Each battery gets eleven of the 20 by 48 foot huts—eight for shelter and three for office, recreation, and store room space.

In addition each battery gets a semi-permanent mess hall with modern kitchen equipment, water and lights, and a latrine. The latter facilities are under construction by civilian labor.

ARTILLERY ORDERS

DA Special Orders Covering December 1 through January 31.
Promotions and demotions not included.

COLONELS

Baker, Harry T., Far East Command, Yokohama
Bird, John F., United States Army Europe, Bremerhaven
Brownfield, Albert R., Stu. Det. Armed Forces Staff College, Norfolk, Va.
Chesarek, Ferdinand, Stu. Det. Armed Forces Staff College, Norfolk, Va.
Corcoran, Charles, Stu. Det. Armed Forces Staff College, Norfolk, Va.
Dahlquist, Frederick C., 6514th ASU Ore. Mil. Dist., Vancouver Bks., Washington.
Howard, John G., OTIG 8591st—10, AAU, Oakland, Calif.
Neely, R. B., OCAFF, 8575th AAU, Fort Monroe, Va.
Shreve, Arthur L., United States Army Caribbean, Ft. Amador, CZ
Weber, Richard E., Jr., United States Army Alaska, Ft. Richardson
Wuest, William J., United States Army Forces, Far East, Yokohama

LIEUTENANT COLONELS

Arbischer, Louis J., Hq Fourth Army, Ft Sam Houston, Texas
Alexander, Urey W., Stu Det Armed Forces Staff College, Norfolk, Va.
Bane, John C., United States Army Forces, Far East, Yokohama
Bowden, Walter D., United States Army Europe, Bremerhaven
Boynton, Ralph E., United States Army Europe, Bremerhaven
Conner, Karl, OAC of S G3, 8534th AAU, Washington, D. C.
Corey, Robert R., 35th AAA Brigade, Fort Meade, Maryland
Delatour, Frank A., Stu Det Armed Forces Staff College, Norfolk, Va.
Dietz, George E., United States Army Forces, Far East Yokohama
Dougan, Murray D., OSecyof Defense, 8475th AAU, Washington, D. C.
Gilmore, Joseph D., United States Army Forces, Far East, Yokohama
Golladay, Howard O., 5th Armored Division, Camp Chaffee, Ark.
Harvey, Harold E., 4050th ASU, TAS, Fort Sill, Oklahoma
Healy, Patrick J., Hq AA Command 8577th AAU, Ent Air Force Base, Colorado Springs, Colorado
Loughran, John J., United States Army Forces, Far East, Yokohama
Marshall, Arthur W., 31st Infantry Division, Camp Atterbury, Ind.
Quante, Frank, Jr., United States Army Forces Europe, Bremerhaven
Raymond, Edward A., United States Army Forces Europe, Air Returnee Center, Frankfurt, Germany
Rue, Charles H., Stu Det ASA TC, 8622nd AAU, Fort Devens, Mass.
Rundquist, Eric A., United States Army Forces Europe, Bremerhaven
Scheurlein, Frank W., United States Army Forces, Far East, Yokohama
Shackelford, Tom G., United States Army Forces, Far East, Yokohama
Shively, Harry T., United States Army Forces, Far East, Yokohama
Showalter, Wilbur E., United States Army Forces Europe, Bremerhaven
Slaughter, John E., Hq 2nd Army, Fort Meade, Maryland

Smith, Harry T., Stu Det Armed Forces Staff College, Norfolk, Va.
Turner, Hugh J., Jr., Stu Det Armed Forces Staff College, Norfolk, Va.
Turnley, Percy R., 5102nd ASU, Ill. Mil. Dist., Chicago
Vail, William H., Jr., Stu Det Armed Forces Staff College, Norfolk, Va.

MAJORS

Callahan, L. G., Jr., OCAFF 8575th AAU, Fort Monroe, Va.
Dee, Chester H., 7689th Hq Gp USFA, Salzburg, Austria
Gorman, Daniel F., United States Army Alaska, Fort Richardson
Wronowski, Stephen J., United States Army Europe, Bremerhaven

CAPTAINS

Bantham, Harry C., Jr., Stu Det AA & GM Br TAS, Fort Bliss, Tex.
Baumgartner, Ira P., United States Army Forces, Far East, Yokohama
Berg, Jacob J., United States Army Forces, Far East, Yokohama
Boscher, H. W., United States Army Forces, Far East, Yokohama
Elliott, Donald C., United States Army Forces, Far East, Yokohama
Ensminger, Harrison, 22nd AAA Group, Fort Sheridan, Illinois
Faulhaber, George B., United States Army Alaska, Fort Richardson
Gerth, Henry C., 4052nd ASU AAA RTC, Fort Bliss, Tex.
Hasper, John E., United States Army Forces Europe, Bremerhaven
Hemenway, R. W., United States Army Forces, Far East, Yokohama
Klerekoper, Maurice R., United States Army Forces, Far East, Yokohama
Korecki, Steven, Stu Det AA & GM BR TAS, Fort Bliss, Texas
Lindsey, R. E., United States Army Forces, Far East, Yokohama
Mitchell, Shelton O., Stu Det TAS, Fort Sill, Oklahoma
Myers, Robert B., United States Army Alaska, Fort Richardson
Pease, William K., United States Army Forces Europe, Bremerhaven
Smith, W. V., United States Army Forces, Far East, Yokohama
Steirnagle, Wendell F., United States Army Forces Europe, Bremerhaven
Strong, Harold E., 698th AAA Gun Bn., Fort Custer, Michigan
Turner, John W., 66th AAA Gun Bn., Fort Hamilton, N. Y.
Wilson, T. L., United States Army Forces, Far East, Yokohama

FIRST LIEUTENANTS

Brantley, Charles S., 90th AAA Gun Bn, Fort Bliss, Tex.
Cartmill, Daniel E., United States Army Forces Alaska, Fort Richardson
Dawson, Fred D., United States Army Forces, Far East, Yokohama
Dixon, Romand M., 495th AAA Gun Bn., Fort Bliss, Tex.
Doughtie, Claude H., 66th AAA Gun Bn., Fort Hamilton, N. Y.
Epstein, Abraham, United States Army Forces Alaska, Fort Richardson

Fogarty, James S., United States Army Forces Europe, Bremerhaven
Green, William A., Jr., 168th AAA Gun Bn., Fort Bliss, Tex.
Guntton, Wallace A., 44th AAA Gun Bn., Niagara Falls, N. Y.
Honaker, Ernest, United States Army Forces Europe, Bremerhaven
Miller, John E., Stu Det TAS, Fort Sill, Oklahoma
Mitchell, George E., Stu Det TAS, Fort Sill, Oklahoma
Muhbauer, J. W., United States Army Forces, Far East, Yokohama
Oglesby, James C., United States Army Caribbean, Fort Amador, CZ
Peters, Robert L., 115th AAA Gun Bn., Army Cml Cen Maryland
Ray, Reubin W., United States Army Forces Europe, Bremerhaven
Roe, Leonard S., United States Army Forces Europe, Bremerhaven
Salinas, Basilio G., Stu Det TAS, Fort Sill, Oklahoma
Schleiman, Darwin A., Stu Det TAS, Fort Sill, Oklahoma
Shepard, Arthur C., 501st AAA Gun Bn., Camp Hanford, Washington
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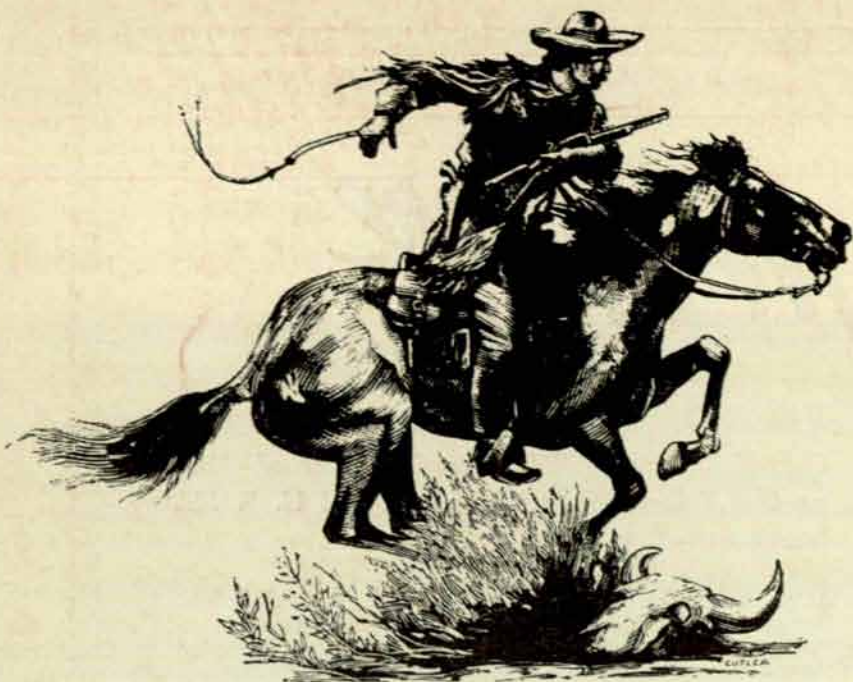
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