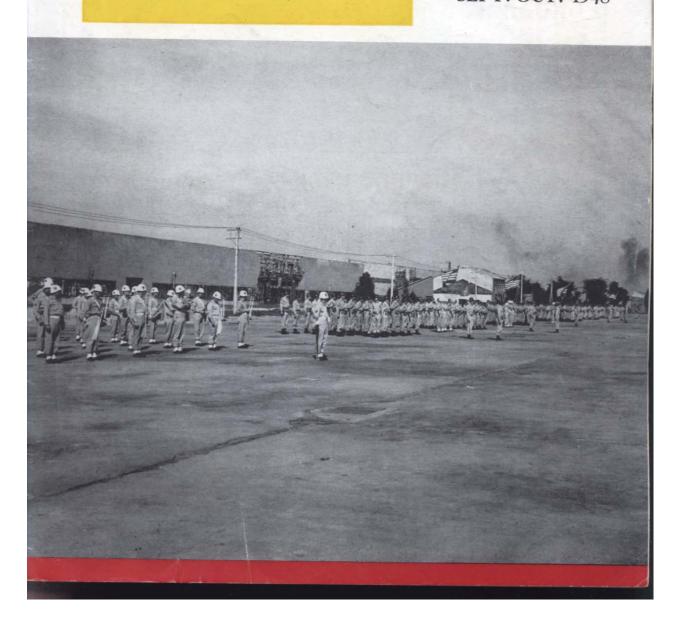
The FIELD ARTILLERY JOURNAL



SEPT.-OCT. 1948

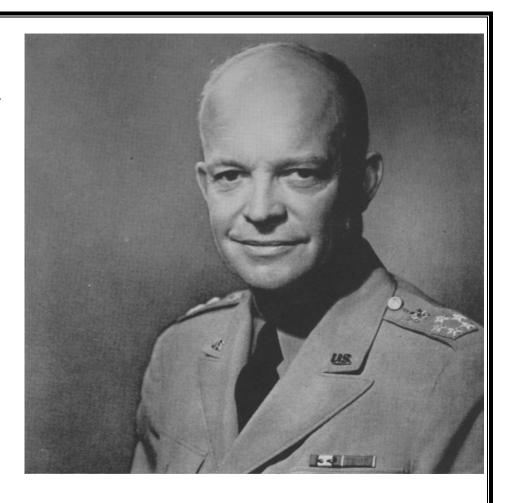


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In this age of atomic bombs, jet planes, airplane carriers, radar, and submarines, and other great weapons of war, we should not forget one of the oldest of the great weapons used by men throughout the ages. One that has carried his master, has suffered, and given his life for his country on battle grounds the world over. One such weapon is retired and grazing in a pasture at Fort Sam Houston, Texas, today. He sometimes stands in the cool of the early morning and gazes off with the "look of an eagle", thinking of the days when he had pulled his gun into action in World War I. This is his story. PAT was bought in 1912 when four years old, by Captain John Preston, now Major General John Preston, retired, living in San Antonio. Later General Preston sold him to General Charles C. Treat, who subsequently sold him to the government. He was assigned to the 12th Field Artillery and went overseas, where he saw action on the Western Front. He was returned to Fort Sam Houston, and later was officially retired. PAT's 12th Field Artillery blanket, displaying eleven service stripes, hangs in the stable and he wears it now and then on special occasions. PAT is now forty years old.

PUBLISHED BIMONTHLY BY THE UNITED STATES FIELD ARTILLERY ASSOCIATION WHICH WAS FOUNDED IN 1910 WITH THE FOLLOWING OBJECTS—AS WORTHY NOW AS THEN

The objects of the Association shall be the promotion of the efficiency of the Field Artillery by maintaining its best traditions; the publishing of a Journal for disseminating professional knowledge and furnishing information as to the field artillery's progress, development and best use in campaign; to cultivate, with the other arms, a common understanding of the powers and limitations of each; to foster a feeling of interdependence among the different arms and of hearty cooperation by all; and to promote understanding between the regular and milital forces by a closer bond; all of which objects are worthy and contribute to the good of our country.



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Organized June 7, 1910

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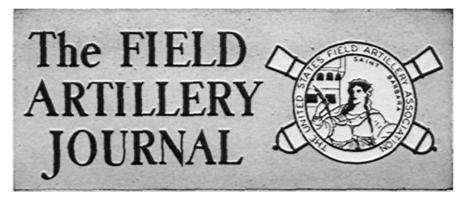
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No. 5

- Cover: The 1st Cav Div Art lines up for retreat parade in Japan.
- Frontispiece: "PAT."

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Shooting Without Factors

Prepared in the Department of Gunnery
THE ARTILLERY SCHOOL

By Capt. Donald E. McArthur, FA

NEW and simple method of conducting observed fire has been developed at The Artillery School. This new method has been approved by Headquarters, Army Field Forces as an alternate method to that prescribed in Change 2, FM 6-40. The observer's procedure has been so simplified in this new method that observer training time can be greatly reduced.

Probably the worst headache to the average artillery observer today is the mental juggling of factors. For example, an observer might reason as follows: "That last round was deflection short and about 20 mils left of the target. My d factor from ranging rounds is 30 and the guns are on my right. Therefore, to get on line I must drop $20/30 \times 100$ or 70yards. I'm moving right four S's or 320 yards (S = 80); therefore I must add 400. But the last time when I moved eight S's, I finally had to drop 1,000 yards to get on line! ?? D-**!X?! Therefore a 125-yard range change corresponds to each S (1,000/8 = 125). So this time I will add 500 instead of 400. My corrections then will be RIGHT 320, ADD 430."

The observer's mind is so occupied by these mental gymnastics that he will often forget such simple things as the size of his bracket. If the use of factors could be eliminated, the observer not only would be saved time and mental anguish, but his mind would be free to think about the often-neglected things in shooting, such as splitting the bracket, going into fire for effect at the proper time, etc.

This problem could be solved by doing as the Japanese did—avoid factors by doing all the observing from the gun or howitzer position. Such a procedure, however, is obviously impractical.

The purpose of this article is to present a new technique which will eliminate the use of factors *regardless of where the observer is located* and without requiring the observer's position to be known. This technique will allow the observer to shoot every problem as though he were at the battery position, even though he hasn't the slightest inkling as to where the battery is located.

The observer's procedure can best be illustrated by an example: The observer has just joined an infantry company in the front lines. He has no maps or photos, nor does he know where his batteries are located (the battalion was changing positions while he was on way forward). He can, however, identify the battalion base point on the ground. The infantry commander requests artillery

fire on an enemy machine-gun position which is holding up the advance. The artillery observer, with a pocket compass, measures the Y-azimuth to this target to be 4,350 mils. The target appears 200 mils right of the base point and approximately 1,000 yards nearer to the observer. The observer estimates the distance to the base point to be 3,000 yards. His initial fire request, then, is:

FIRE MISSION

AZIMUTH 4,350

From BP Right 600 (3 \times 200) Drop 1,000

MACHINE GUNS

WILL ADJUST

The first volley is fired and appears 40 mils left of the target, *doubtful* for range. Using the estimated distance to his target of 2,000 yards, the observer applies the mil relation and sends the correction, "RIGHT 80, REPEAT RANGE" $(2 \times 40 = 80)$.

The second volley is fired and the observer sees it in line with and beyond his target. His next correction then is

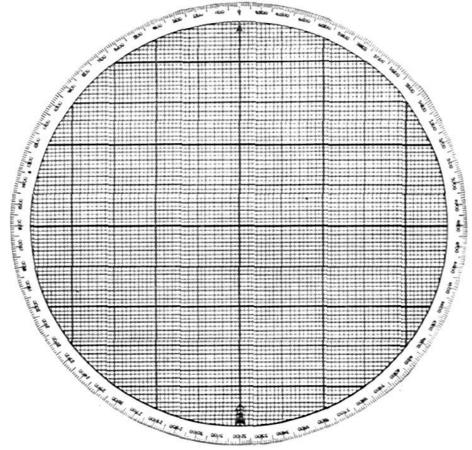


Figure 1. Target Grid

DROP 400. Notice that he is using no factors. The next volley lands between the observer and the target, so he says ADD 200. The next volley is also short, so the observer says ADD 100. This volley is over, so he says DROP 50, FIRE FOR EFFECT.

Why can the observer shoot this problem so easily without using S and d factors? The answer to this question is a device used at the fire-direction center known as the *target grid* (Figure 1).

The target grid is like a sheet of graph paper, differently weighted lines representing 1,000 yards, 500 yards, 100 yards, and 50 yards. It must be to the same scale as the firing chart being used. The azimuth circle on the target grid is for

the purpose of orienting the grid to the observer-target line. The center of the grid is fastened to the firing chart at the base point with a thumb tack, thus leaving the grid free to rotate around the base point to the reported observer-target azimuth.

In the example cited above, the observer reported AZIMUTH 4,350. The target grid is rotated until 4,350 on the azimuth circle appears opposite the north index. By doing this, the large arrow and all grid lines parallel to it are oriented to Y-azimuth 4,350. The chart location for the initial round in the problem is found by moving the target pin on the grid according to the observer's corrections from the base

point. The observer's corrections were From Base Point Right 600 Drop 1.000 (Figure 2).

Data for the initial round is then measured with a range-deflection fan, as will be shown later. When the observer's correction DROP 400 is received, the target pine is moved down the observertarget line 400 yards. Notice that the actual gun-target range is not reduced 400 yards but the position of the next burst is moved 400 yards nearer to the observer. Thus when data is measured to this new position of the target pin, the burst will automatically be kept on the observer-target line. The proper relation between the gun-target line and the observer-target line is established

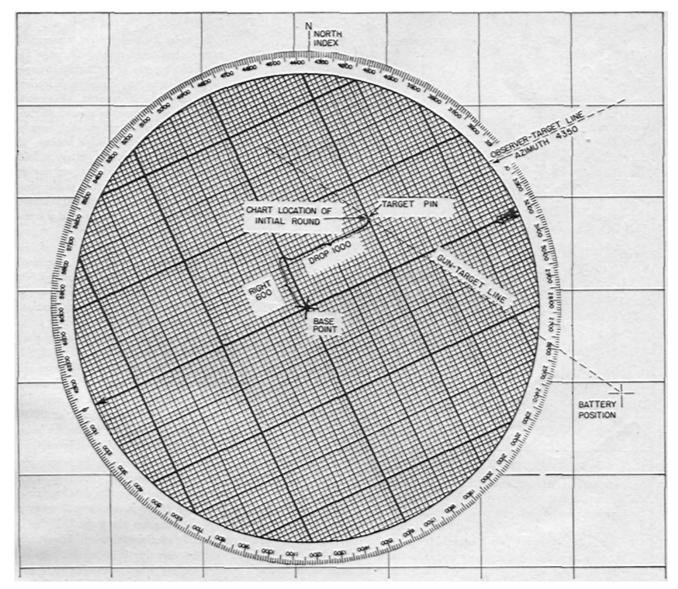


Figure 2. Placing the Target Pin According to the Observer's Corrections

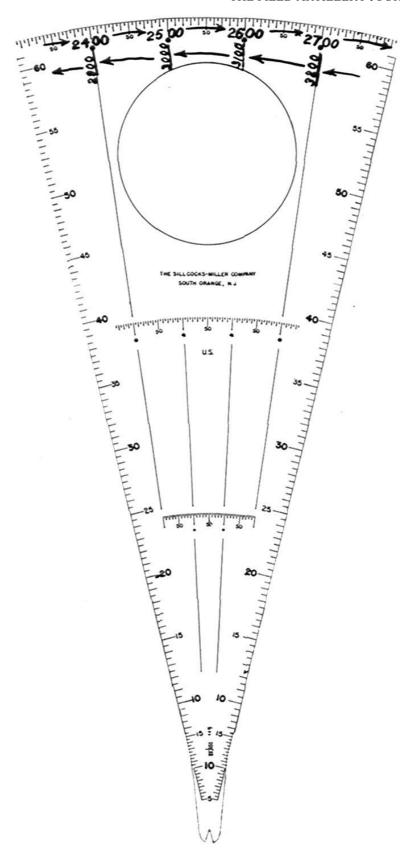


Figure 3. Marking Deflections on the Range-Deflection Fan

by the observer's azimuth to his target (which is constant throughout the problem) and the azimuth on which the guns are fired (which changes from round to round).

Instead of measuring a deflection shift for each round the actual deflection to be set on the piece is measured. In order to do this, deflections must be marked on the fan in grease pencil (Figure 3). Both edges of the fan will represent the same deflection, usually 2,800. For measuring to the right edge of the fan decreasing deflections are marked at each 100-mil graduation on the fan as 2,700, 2,600, 2,500, and 2,400. For measuring to the left edge of the fan, increasing deflections are marked at each 100-mil graduation as 2,900, 3,000, 3,100, and 3,200.

In order that deflection commands rather than deflection shifts may be handled properly at the firing battery, all pieces must have the same deflection when parallel. If possible, all aiming stakes are set out at the same deflection after the battery is laid parallel, usually 2,800. If this is impossible because of obstructions, the battery is laid parallel, aiming stakes are set out at random, sights are referred to the aiming stakes, and deflections and micrometer rings are adjusted to read a common deflection.

Deflections are read on the firing chart opposite the base-line extension, deflection for the base point being 2,800 or whatever deflection is marked on the edge of the fan. If, after registration, the adjusted deflection to the base point is found to be some figure other than an even hundred mils, such as 2,843, deflection 2,800 must be offset from the base-line extension. In this case, it would be 43 mils to the right. A new tick mark, then, is drawn at deflection 2,800, and this mark will be used as the index for measuring deflections (Figure 4).

In area fire missions, the target grid and range-deflection fan are used throughout to determine data for firing. Fire for effect is commenced when a 100-yard bracket along the OT line is split. In precision missions, however, it will be seen that it is impossible to refine deflection and elevation to 1 mil by graphic methods. Therefore, data

is determined by moving the target pin through the adjustment only. The final position of the target pin, then, is at the center of a 100-yard bracket along the OT line. From this point on, elevation is changed only if the first half-group of three rounds results in the same range sensing for all three rounds. Deflection is changed by the fire-direction center according to the observer's sensings.

The feasibility of shooting with a target grid has already been proven by experimental firing at The Artillery School. Results have been extremely promising, showing a substantial saving in both time and ammunition. Perhaps the best feature of all is in the training of observers. With the use of factors eliminated, anyone can learn to shoot well in a relatively short period of time.

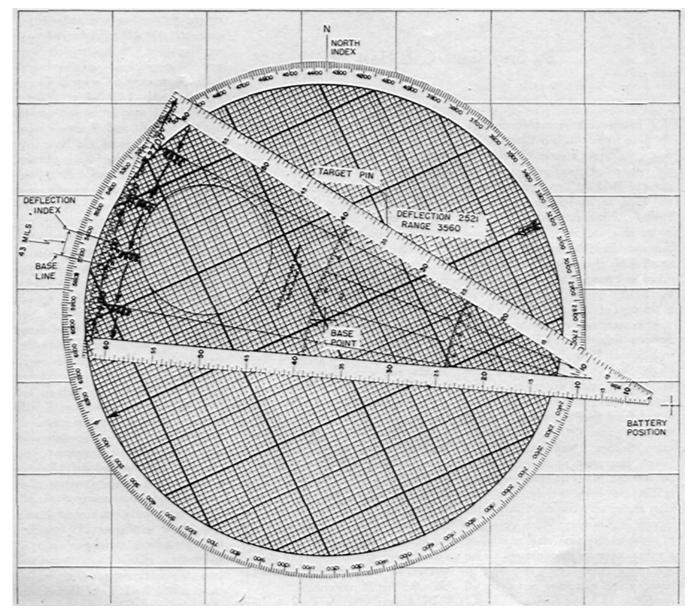


Figure 4. Measurement of Deflection and Range

NOTICE OF ANNUAL MEETING, U. S. FIELD ARTILLERY ASSOCIATION

In compliance with Article VII, Section 1, of the Constitution, notice is hereby given that the Executive Council has fixed 5:30 P. M. Monday, December 13, 1948, as the time of the annual meeting of the Association to be held at the Army and Navy Club, 1627 Eye St., N. W., Washington, D. C.

The business to be disposed of will be the election of three members of the Executive Council, (two Regular Army and one Organized Reserve), and the transaction of such other business as may properly come before the meeting. Nominations may be made by proxy, or from the floor of the meeting.

Artillery Representation on High Level Before and During Combat

By Brig. Gen. C. E. Hart

T IS my desire to record for the benefit of future Artillery Commanders, before the details become obliterated by the passage of time, an accurate account of Field Artillery participation in the War against Germany, 1942 to 1945. As the account unfolds, it is hoped that the need for strong and competent Field Artillery representation on all levels of command will be appreciated as a must, if this important supporting arm is to accomplish its mission to the limit of its capabilities.

After spending two years at the Field Artillery School, Fort Sill, Oklahoma, with School Troops and as a member of the Staff and Faculty, Department of Gunnery and Department of Advanced Field Artillery Tactics, I departed from Fort Sill under classified orders in June, 1942, to join the Artillery Section, Headquarters II US Corps, just prior to its embarkation for overseas. The Headquarters arrived in England—early in July, 1942—and after setting up a command post in the vicinity of Salisbury, Wilts, proceeded to organize the many staff sections of a reinforced corps headquarters into an operational team. This was a most interesting and instructive period for all hands.

I will first discuss the activities, pitfalls, etc., of the Artillery Section, Headquarters II US Corps. The Section consisted of approximately eight officers and a dozen enlisted men, all quite capable, enthusiastic, and most desirous

of doing an efficient and effective job, in spite of the lack of Field Artillery experience on corps headquarters level. This fact is quite understandable, inasmuch as little or no instruction on corps level was available during post-World War I years at the Field Artillery School or through the media of available training literature. During this period Field Artillery instruction at our service schools was principally confined to battery, battalion, and division levels, plus a rather sketchy coverage of corps, World War I vintage.

Utilizing Staff Officers Field Manual 101-10 as a very general guide, we proceeded to organize our group of officers and men conventional lines. Although we were well aware of the fact that the Corps Artillery Officer was responsible for the organization and execution counterbattery, very little was known as to the details of accomplishment. We were, however, thoroughly indoctrinated by the Corps Artillery Officer, Colonel T. E. Lewis, with the all-important attribute of any staff section-that of being helpful to subordinate units. I know of no single factor that contributed more to the success of the Field Artillery in combat than did that of cooperation.

By August 1942 the Field Artillery with the Corps consisted of the 13th Field Artillery Brigade (one regiment of 155mm guns, two regiments of 155mm howitzers) and an observation battalion, plus the division artilleries of the 1st and 34th Infantry Divisions and the 1st Armored Division. The Artillery Section, Headquarters II US Corps, occupied long hours during this period in an endeavor to help its subordinate Field Artillery units. Many personnel

and supply problems were solved or materially assisted through the untiring efforts of members of this recently formed Section. Additional problems with which this Section was confronted, and which were solved in due course of time, were the design and manufacture of engineer plotting scales, protractors, range-deflection fans and grid sheets of scale 1/25,000 (all Field Artillery units were equipped with and trained in the use of topographical equipment, scale 1/20,000, whereas all maps in Europe were of scale 1/25,000 or multiple thereof); the compilation and publication of latitude and departure tables designed to facilitate Field Artillery survey; the reconnaissance, selection, coordination of use of Field Artillery firing ranges and training areas throughout the United Kingdom; the development of a technique for the procurement, production, and of distribution gridded oblique photographs, to include the publication of a booklet providing basic coverage of the subject from the user's viewpoint (this booklet was an adaptation of British methods to the US mil scale and fire-direction technique); organization and operation of a training school for light-aviation (Air OP) pilots and mechanics (although light-aviation sections had been authorized as organic to all Field Artillery headquarters and units, no qualified pilots or mechanics were available at this time for assignment thereto); the drafting and publishing of necessary Field Artillery training directives; and, not of lesser importance, the continuing studies on counterbattery and Naval gunfiresupport organization, procedures, techniques, and coordination; and lastly, contemplated ammunition requirements to include basic vehicle loads. The British were particularly helpful in the accomplishment of these studies by furnishing to us the benefit of their combat experiences in the Middle East. Consequently, liaison was closely maintained with the British Artillery throughout the period of time that II US Corps was in the United Kingdom.

The period spent in the United Kingdom from July to October, 1942, was of inestimable value to the Field Artillery of all echelons. This period of

Gen. Hart left Headquarters First Army in September 1947 to become Director of the Antiaircraft and Guided Missiles Branch of the Artillery School at Ft. Bliss, Texas, which assignment he still holds

organizing, planning, equipping, and working out solutions to envisioned combat problems laid a sound foundation for the operations and events to come.

II US Corps, having been designated as the Center Task Force for the Allied invasion of North Africa, embarked from the United Kingdom late in October 1942. The Advance Echelon of the Corps Headquarters went ashore over the beaches at Arzew during the morning of D-Day, 8 November 1942. The operation was a complete surprise to the defenders, with the result that by D plus four all organized resistance had terminated, the important French city of Oran had been captured, and Headquarters II US Corps moved from Arzew and set up a command post in Oran.

After landing and prior to moving to Oran, the Corps Artillery Section was principally occupied with the survey, reorganization, and repair of the Coast Defenses within the sector of the Center Task Force, which had been previously manned by French Naval personnel. These defenses would have been of major importance to the II US Corps in the event of an Axis counterattack by sea. I am sure that no instruction was provided at the Field Artillery School on the subject of organization and operation of Fixed Seacoast Defenses and most certainly not those of the French variety. The old saying, "Necessity is the mother of invention," was never more applicable.

In anticipation of a coast-defense requirement, the 36th Field Artillery Regiment (155mm guns) had been given a short period of training in firing at water-borne targets on the southern coast of England. Upon the arrival of this regiment in North Africa, it was promptly assigned to a seacoast-defense role and integrated with the sadly depleted French Fixed Seacoast Defenses. This seacoastdefense experience was invaluable to both the members of the Corps Artillery Section and the 36th Field Artillery Regiment several months later when the seacoast defenses of Bizerte, Tunisia, had to be similarly organized and manned.

The six-weeks period during which Headquarters II US Corps operated in Oran was largely spent by the Artillery Section along lines of endeavor similar to those established in the United Kingdom, plus, of course, the seacoast-defense mission as outlined above. Even the Light Aviation Pilot and Mechanics School

previously established in England was physically moved to North Africa and set up a few miles south of Oran.

Shortly after the first of the year, 1943, Headquarters II US Corps was directed to proceed to Tebessa, Tunisia, to take over a sector of the rapidly growing front then held by the First British Army. Simultaneously with the movement of the Corps to Tunisia, Headquarters Fifth US Army was activated and set up a command post at Oudjda, French Morocco. Colonel T. E. Lewis, formerly the Corps Artillery Officer, became the Artillery Officer, Fifth US Army, and the writer assumed the duties of Artillery Officer, II US Corps. Upon the departure of Headquarters II US Corps for Tunisia, Headquarters Fifth US Army assumed responsibility for most of the unfinished business of the Corps; the Army Artillery Section, for that of the Corps Artillery Section.

The Tunisian Campaign proved to be a most effective proving ground for all subsequent combat operations in Sicily, Italy, and on the continent of Europe. The Field Artillery of all ranks and echelons, as well as the other combatant arms and services, learned lessons which contributed immeasurably to the success of the Allied effort in all future operations. Some of the more important Field Artillery combat lessons learned were as follows:

The knowledge on the part of commanders of capabilities and limitations of Field Artillery weapons — especially the heavier calibers—is essential, if maximum effect is to result from a minimum expenditure of ammunition.

Infantry commanders and even their division artillery advisors are prone to forget that the Field Artillery support available to the Infantry is not limited to the direct-support Field Artillery battalion, or even to the division artillery with its attachments. As a consequence, requests to the corps artillery for reinforcing fires often arrive too late to be of value. A prompt evaluation of the situation, particularly in the case of enemy counterattack, and immediate request for adequate Field Artillery support is essential to success.

Adequate orders should be prepared sufficiently in advance to permit a careful study in planning of Field Artillery fires.

The employment of Armored, Tank Destroyer, and Antiaircraft Artillery units in a secondary role as Field Artillery should be supervised and, if necessary, controlled by the artillery commander of the appropriate echelon.

Field Artillery fire is unsatisfactory for clearing gaps in mine fields. Such fire will destroy few mines; rather, it will disrupt the pattern of the mine field and introduce a greater quantity of metal which will increase the work of the mine-detector teams.

The detailed provision of aerial photography, including gridded obliques, is of paramount importance in obtaining the most effective Field Artillery support.

Dumping of Field Artillery ammunition in the position areas, except that necessary for the delivery of planned fires, should not be permitted. Failure to restrict this practice will normally result in a waste of ammunition when the Field Artillery is displaced.

A prescribed system for the rotation of Field Artillery units to rear areas for refitting, rest, and maintenance must be provided early in an operation. Otherwise, the effectiveness of all Field Artillery units will tend to deteriorate simultaneously and the command will suffer from the inability of the Field Artillery to maintain the bulk of its weapons in action.

Forward observers must be rotated frequently, inasmuch as they often will be required to maintain a position exposed to direct fire even after the Infantry is pinned to the ground and comparatively inactive. Seventy-two hours is the maximum time an experienced observer can be expected to observe effectively; under adverse conditions this time will be reduced to 48 hours.

The present allowances of personnel and equipment for the installation and maintenance of Field Artillery communications are generally inadequate. Division, corps, and army signal units must often supplement the organic Field Artillery facilities.

Trial and error methods were utilized in the solution of the counterbattery organization and operation problems. Before the termination of operations in effective counterbattery Tunisia, organization and procedure were evolved by the Corps Artillery Section in close collaboration with the 13th Field Artillery Brigade, and which, with only a comparatively few minor changes, were effectively used by all US corps artilleries throughout operations in Sicily, Italy, and on the continent of Europe. Under the general heading of counterbattery are included developments in:

Field Artillery intelligence, aerial photography of all types, photo interpretation, shelling reports, special communication nets, corps fire-direction centers, TOT method of fire, radar location of enemy guns, massing of fires by all available Field Artillery weapons with the corps, and innumerable other allied subjects. At times, each of these subjects presented insurmountable obstacles; however, through perseverance, ingenuity, and enthusiasm of this small band of Field Artillery combat pioneers, one by one the problems were solved.

At this point it might be well to point out a very definite deficiency in our overall Field Artillery organization which existed in the early days of operations in North Africa and unfortunately continued, for the most part, throughout the entire war in all Theaters. The deficiency to which I refer is the lack of suitable and adequate Field Artillery representation on high-level staffs. Not until after the Sicilian campaign did General Eisenhower recognize the need for a US Artillery Officer and Section in Allied Force Headquarters. When finally organized, this senior Artillery representation proved of great worth during the early days of the Italian campaign. Later, Allied however, when Force Headquarters was split into ETOUSA, NATOUSA, and MTOUSA, the Theater Section was dissolved.

The Tunisian campaign will be remembered for its broad fronts, few and relatively inexperienced troops, almost disastrous defeat at Kasserine Pass, and ultimate successes at El Guettar and Mateur.

Upon the unconditional surrender of the German Afrika Korps on Cap Bon Peninsula, Tunisia, in April 1943, to the US II Corps, then under the command of General O. N. Bradley, Headquarters II US Corps was promptly reassembled at Relizane, Algeria, to prepare for the invasion of Sicily.

Although initially assigned to the First British Army for operations in Southern Tunisia, II US Corps had operated throughout the major portion of Southern Tunisia and all of Northern Tunisia as an independent corps under General Alexander's 18th British Army Group. During this period the US Field

Artillery representation channel was about as follows: II US Corps Artillery Officer to Brigadier Royal Artillery, British Army Group, to Allied Force Headquarters (where no US Field Artillery representation existed), to Headquarters Army Ground Forces, where three or four greatly overworked field officers had little time from their Z. I. Field Artillery training inspection mission to provide our problems with more than a passing thought. For the Sicilian campaign, II US Corps was under the command of General Patton's I US Armored Corps (later redesignated Seventh US Army). This only served to one additional processing headquarters insofar as the solution of Field Artillery problems was concerned. The Army Artillery Officer could do little more than the Corps Artillery Officer had been able to do toward solving the ever-increasing problems confronting the Field Artillery in their efforts to effectively and adequately support the Corps.

The Sicilian campaign, commencing with the assault of the southern beaches on 10 July 1943 and ending with the capture of Messina by III US Corps thirty-eight days later, marked another step in the overall strategic plan for the defeat of the Axis powers. There were several noteworthy developments during this operation as far as the Field Artillery was concerned. Cooperation on the part of the Air Forces had been virtually unknown during the Tunisian campaign. Aerial photography for Ground Force use was completely lacking. However, prior to embarking for the invasion of Sicily, the Artillery Section, Headquarters II US Corps, provided a team consisting of an officer and two enlisted men as photo interpreter, assistant photo interpreter, and radio operator, complete with jeep and vehicular-mounted SCR 193 radio set, to operate in the British Army Group Photo Interpretation Center. Initially, this Center was set up in the vicinity of Tunis and later was moved to the Island of Sicily. The Corps Artillery Officer's radio net (SCR 193 set), developed through necessity during the closing phases of the Tunisian campaign, provided the means of dissemination of this extremely important, although at times meager information. This was to become a vital adjunct to the counterbattery technique and procedure developed during the combat operations in Tunisia. As will be seen, this small photo interpretation unit grew in size and effectiveness as operations progressed to Italy and the continent of Europe.

Another development on the chart of Field Artillery progress occurred during the attack of the defended town of Troina, Sicily. During this attack the aerial bombardment and Field Artillery fire plans were carefully prearranged and coordinated so as to obtain the maximum in surprise and effect. Two separate bomb runs were made, coordinated with massed Field Artillery fires on predetermined targets preceding, between, and following the aerial bombardments. The results were both impressive and effective. So far as is known to the writer, this was the first time that Air Force bombardment and Field Artillery massed fires were effectively coordinated by US Forces in combat.

As previously mentioned, the lack of Field Artillery representation on high level became most acute during the Sicilian campaign. It might be well to mention a few of the major problems Field Artillerv which confronted commanders in the field at this time, for which there were no apparent solutions as long as no US Field Artillery representation existed within Allied Force Headquarters. Some of these problems were the lack of replacement tubes and other vital parts for the 155mm M-1 gun, lack of replacement tractor prime movers for same, lack of 155mm M-1 howitzers as replacements for the long-since worn-out 155mm Schneider howitzers, lack of critical types of Field Artillery ammunition or certain components thereof, shortage of communication equipment in the form of wire, telephones, radios, and batteries, lack of light aircraft replacement planes, parts, and maintenance, lack of suitably qualified technical personnel required by Artillery the Field Observation Battalion, and many others. Corps and army artillery officers could scream their heads off to the unsympathetic ears of corps, army, and theater G-1's, G-3's, and G-4's and still no visible signs of response. It is not fair to say that these

important people were not sympathetic, for they really were; however, they were too busy performing their normal jobs to worry about the peculiar problems of one particular arm or service. At this point General Bradley, the Corps Commander, carried the representation deficiency to General Eisenhower personally, with the result that a Theater Artillery Section was promptly activated, but unfortunately about one year too late. As previously mentioned, upon the splitting of Allied Force Headquarters a few months later the Section was dissolved.

Upon the termination of the Sicilian campaign, General Bradley was designated as the commander for the First US Army, which was to be assembled in the United Kingdom in the fall of 1943 in preparation for a cross-channel invasion of the continent of Europe in June 1944. The writer, having been the Corps Artillery Officer, II US Corps, throughout the Tunisian and Sicilian campaigns, was designated to accompany General Bradley to the United Kingdom to become Artillery Officer for the First US Army. Having been authorized two officers and three enlisted men from the Corps Artillery Section to accompany me as a nucleus for a large Army Artillery Section of approximately twenty officers and forty enlisted men, I chose my Corps Artillery S-4 and Light Aviation Officer as the two officers and the senior non-commissioned officer plus a draftsman and a clerk as the enlisted quota. Early in October 1943, the bulk of Headquarters First US Army arrived in England from the United States and a command post was set up in Bristol, England, in preparation for future planning and operations on the continent of Europe.

The ensuing eight months in England. prior to embarkation for Normandy, were spent by the Army Artillery Section in working out an effective staff-section organization, assisting all First US Army Field Artillery units with their personnel, training, and supply problems, and other multitudinous details in connection with the preparation of the largest force in history to attempt such an amphibious operation. Keeping in mind the major combat lessons learned from operations in North Africa previously outlined and the additional ones acquired in Sicily, together with those passed on from the Italian campaign by the Artillery Officer, Fifth US Army, every possible effort was exerted by the Artillery Officer, First US Army, to enable the Field Artillery with First US Army to profit thereby. Some of the additional lessons not previously mentioned were:

Major preparations which include both air and artillery bombardment should be planned and coordinated by the Artillery Officer (Commander) of the senior echelon in order that there be no duplication of effort and to insure a thorough neutralization of the breakthrough area.

When friendly Field Artillery has successfully neutralized the enemy artillery, enemy mortars will become a major source of annoyance to the Infantry. Failure to neutralize these mortars will have a serious effect on the morale of front-line units. Therefore a carefully integrated employment of Infantry and Field Artillery counter-mortar facilities should be continuous.

The provision of an Air Force Mobile Reclamation and Repair Squadron or comparable unit for operation with the Army is a vital necessity in order to furnish continuous 3d and 4th echelon maintenance-and-supply support for the organic and attached liaison aircraft.

The physical condition of Air OP pilots must be closely watched in order to minimize accidents. Periodic resting of these pilots when operating under prolonged combat conditions considerably improves their performance and prolongs their usefulness.

Teams of one officer and two enlisted men, trained in shell identification and crater analysis, were employed with Infantry units to obtain complete and accurate shellreps. One team per Infantry regiment proved to be an effective ratio.

Continued emphasis by all units on the prompt and correct reporting of enemy artillery shelling provided Field Artillery units with a valuable means of pinpointing and ultimately destroying enemy weapons.

The use of colored smoke by Field Artillery units proved invaluable in marking close-in targets for air support.

An adequate proportion of the Air Force tactical-reconnaissance facilities available to an army should be set aside to permit the adjustment of long-range Field Artillery fire by high-performance aircraft.

Illuminating shells proved to be an effective means for the illumination of the battlefield, thereby permitting forward elements to observe enemy movements at night.

Timely information accurately distributed by leaflet-filled Field Artillery shells prompted many enemy personnel to surrender.

Realizing the potential reinforcing fire power of Tank Destroyers and Antiaircraft Artillery gun units available to First US Army, the Artillery Section took steps to coordinate their training and future operations, so as to permit utilization in combat, in a reinforcing role, when not required on their normal Force missions. Air cooperation improved to a major degree from what had been experienced in North Africa and even Sicily. As a result of this improved cooperation, great progress was made during this eight-months preparatory period in the procurement, production, and distribution of aerial photography to include gridded obliques, the adjustment of long-range Field Artillery by highperformance aircraft, and overall Air Force bombardment-Field Artillery fire coordination. Adequate provision for 3d and 4th echelon maintenance of liaison aircraft having been lacking during the Tunisian and Sicilian campaigns, the Ninth Air Force, upon our request, took steps to rectify this deficiency by organizing and attaching an Air Force Mobile Reclamation and Repair Squadron to First US Army and, subsequently, similar squadrons to the Third and Ninth US Armies.

Early in the North African campaign the requirement for close liaison between G-2 and the Artillery Officer was realized. The Field Artillery channel was a lucrative source of information for G-2; likewise. G-2 could be of invaluable assistance to the Artillery Officer, from both the standpoint of enemy information the procurement of aerial and photography, photo interpretation, and aerial reconnaissance. In order adequately to tie these two offices together, an Assistant Artillery S-2 was constantly kept on duty during combat in the G-2 office. Not only was this SOP within the Headquarters of II US Corps and First US Army, but it was adopted almost universally by the headquarters of all US armies, corps, and divisions.

The Army Artillery Section had a very definite responsibility in the organization, planning, and eventual execution of Naval gunfire support, inasmuch as Naval gunfire in an amphibious operation is by-and-large Field Artillery afloat, initially being in direct and general support and later reinforcing after Field Artillery gets ashore. In

close collaboration with the US Navy, Naval Shore Fire Control Parties were organized, equipped, and trained, both separately and subsequently with the Divisions with which they eventually operated. Several Airborne Naval Shore Fire Control Parties were also activated from volunteers and trained with the 82d and 101st Airborne Divisions for later employment with these divisions when they dropped in Normandy. This careful planning and training paid great dividends during early operations on the continent of Europe.

In order to be in close proximity to the following headquarters: SHAEF, ETOUSA, SOS, AEAF, ANCXF. British 21st Army Group, US Army Group, USNTF 122, and Second British Army, for planning purposes, a Planning Group from Headquarters First US Army, consisting of several officers and enlisted men from practically all general and special staff sections, assembled in London with the Army Commander and the Chief of Staff early in January of 1944. The Artillery representation with this group initially consisted of the Artillery Officer, S-3, and two enlisted men. However, as time progressed and requirements demanded, the Artillery Group was reinforced for short periods by the S-2, S-4, and Assistant S-3 (Communications Officer) and Artillery Light Aviation Officer.

The bulk of the Army Artillery Section in operation with Army Headquarters at Bristol was charged with the normal duties of such a section which pertain to the intelligence, training, operations, supply, and administration of the Field Artillery and Tank Destroyers with the army. Through well-rounded training programs the state of training of all Field Artillery and Tank Destroyer units was maintained, and in many instances implemented in the case of certain specific procedures and techniques.

Close liaison within the limits of security had to be constantly maintained between the London Artillery Planning Group and the remainder of the Artillery Section in order that formulated plans could ultimately be executed with effect. These plans, duly coordinated with all interested parties, consisted of the following:

a. Activation, organization, and training of Naval Shore Fire Control Parties for employment with airborne as well as ground troops.

- b. Formulation and publication of a procedure for the accomplishment of naval gunfire support for the assaulting forces.
- c. Draft, coordinate, revise, and publish the Prearranged Air and Naval Bombardment Plan for the assault.
- d. Draft, coordinate, revise, and publish the Artillery and Naval Gunfire Support Plan for the assault.
- e. Arrange for, obtain, and issue aerial photographs and interpretation of the assault areas.
- f. Conduct tests in conjunction with the Navy to determine the most practical modification to LCT's when used as support craft.
- g. Recommend, coordinate, revise, and publish troop lists pertaining to Field Artillery and Tank Destroyers of the assault, follow-up, and build-up.
- h. Arrange, coordinate, and prescribe methods for organic Field Artillery liaison-type aircraft to arrive in the assault areas when required.
- i. In conjunction with the Army Ordnance Officer, to determine, tabulate, and provide for the anticipated ammunition requirements for all Field Artillery and Tank Destroyer units ashore during the first fourteen days of the operation.

The Planning Group continued to function in London until April 1944. However, upon their return to the Army Headquarters in Bristol, planning on practically all of the aforementioned subjects was continued up to the time of embarkation.

Again, as in North Africa and Sicily, representation problems on high level put in their appearance. Such problems as the necessary personnel augmentations for recently activated corps artillerv headquarters, additional equipment required over and above authorized T/O&E (considered as a must during all previous combat operations), spare parts for certain types of Field Artillery materiel, suitable prime movers for the new 155mm M-1 howitzer, and innumerable others, presented formidable difficulties. Brigadier General W. B. Palmer, then Artillery Officer, US Army Group, assumed the additional duties of Theater Artillery Officer in order partially to rectify the Shortly before D-Day, however. General Palmer was appointed Corps Artillery Commander, VII US Corps, and from this time on the Theater Artillery Section was only sporadically in being, which was hardly a fair test of its effectiveness.

As time progressed after the initial landings in Normandy on 6 June 1944, additional combat lessons of major importance were learned and passed on by the Army Artillery Section to all subordinate Field Artillery and Tank Destroyer units of First US Army, as well as to neighboring US and British Armies and Army Groups. As early as October, 1943, the Artillery Officer, First US Army, saw the great need of a media for the dissemination to all Field Artillery and Tank Destroyer units of combat lessons learned, operational procedures, historical and statistical data, and other pertinent information. So it was decided to publish periodically such a compilation, titled "Artillery Information Service" (AIS). Some of the combat lessons not previously mentioned which were disseminated in this manner are outlined as follows:

During the major portion of the operations on the continent of Europe, Army Artillery, which included all 240mm howitzer battalions and 8-inch gun battalions, was controlled by the Army Commander through a Field Artillery brigade. By this organization, the Army Commander could cause the fire power of this long-range heavy artillery to be massed in support of the corps making the main effort or emplaced to reinforce the fires of several corps.

In the attack of a strongly defended town it does not pay to destroy buildings, even though they are fortified, until the direct-support artillery can take over and maintain neutralization from the time the heavy artillery lifts until the Infantry assaults the area. If any period of freedom from fire is allowed after the destruction is accomplished, the enemy can be expected to construct fortifications from the rubble which will, if anything, be harder to assault than the undestroyed buildings.

Corps and division commanders must be aware of the importance of employing long-range heavy artillery well forward in order to exploit its range capabilities.

Artillery concentrations, fired on known flak positions in coordination with air strikes, proved to materially reduce Air Force losses and permitted increased quantity and effectiveness of the air bombardment.

Rockets, when fired in mass, proved to be a most effective method of delivering concentrated fire on an area target. They should be employed to augment artillery fires and air strikes on critical areas.

A self-propelled 155mm gun battalion

should be organic to each armored division. When available, M12 battalions were habitually attached to armored divisions for interdiction and deep counterbattery missions, and for firing on medium and long-range targets of opportunity.

Reduction of the Siegfried Line concrete fortifications was facilitated by M12 weapons in a "direct-indirect" method of fire.

Allocation of ammunition is always based upon availability. Senior commanders have in many instances required the Artillery to expend more than their allocation. It should be realized by all echelons that this is a breach of supply discipline and may seriously affect future operations.

Base-ejection shells, loaded with medical supplies, were successfully fired into friendly areas surrounded by enemy troops.

The operations of First US Army in Europe, highlighted after the initial Normandy assault by the capture of Cherbourg, the St. Lo breakthrough, pursuit through northern France, the breach of the Siegfried Line, the Ardennes counteroffensive, the crossing of the Rhine, and the liquidation of the

Ruhr pocket, have now been recorded in the annals of history. However, it might be added that each one of these operations and the events leading up to them represented many hours, and often many days and weeks, of careful and thorough planning and coordination, as well as effective execution on the part of many commanders, staffs, and units. I am certain that it is an accepted fact that the Field Artillery carried out its portion of these requirements in an exemplary manner. The Artillery Section, First US Army, like other army artillery sections, labored conscientiously and untiringly to assist subordinate Field Artillery and Tank Destroyer units in rendering timely and effective support, the ultimate aim and desire of all good artillerymen.

As can be seen, the writer of this article has come a long way from the Command Post, II US Corps, set up in the vicinity of Salisbury, Wilts, early in July 1942. The redeployment of Headquarters First US Army to the Pacific, with a reorganization period of two months in the United States and then off by air to the Philippines in August, 1945, might be added to the trek. So too

has the artillery come a long way since July 1942, and it is still advancing and will continue to do so for many years to come. We now think of guided missiles, integrated fire control and direction, radar location of targets and survey, and innumerable other effective technical and tactical developments. As we improved our organization, procedures, techniques, materiel, and equipment during World War II, and through research and development since VJ-Day, let us improve the one existing major deficiency in organization, namely the of adequate and effective representation for the artillery on the respective levels of Theater, Army Field Forces, and the Department of the Army. conclusion, is it strongly recommended that representation for the artillery on the Department of the Army level be provided in the form of a Director of Artillery, charged with advising, assisting, and, in some instances, directing the solution of the many technical, tactical, organizational, and integrational problems for the supporting Field and Antiaircraft Artillery.

MAXWELL MURRAY 1885 - 1948

Major General Maxwell Murray, retired, died of a heart attack on August 4, 1948, at his summer home at Siasconset, Nantucket Island.

General Murray, the son of General Arthur Murray, was born at West Point, New York, June 19, 1885. Graduating from the Military Academy in 1907, he was commissioned in the Coast Artillery. While still a lieutenant of Coast Artillery he commanded a mine planter sailing from the United States to the Philippines by way of the Mediterranean. In 1917 he transferred to the Field Artillery and went to France, where he commanded the 5th Field Artillery Regiment, participating in the Cantigny and Soissons operations of the Aisne-Marne offensive.

After World War I, foreseeing the continued and extensive use of automotive equipment in the Army, he took a special course in automotive engineering at Massachusetts Institute of Technology. Always mechanically inclined, he put this special knowledge to great advantage. He was largely responsible for the development and adoption of much of the automotive equipment used in the Army in World War II; the 6×6 $2^{1/2}$ -ton truck, which played such a prominent part in the war, is an example.

Included among his varied assignments between the two World Wars were: four years in charge of Materiel Section of the Office of the Chief of Field Artillery; four years as member of the Field Artillery Board, specializing in motor equipment; three years in the Philippine Islands as Assistant to the Governor General;

Assistant Commandant of the Field Artillery School; Commanding General successively of the 11th Field Artillery Brigade in Hawaii and of the Hawaiian Division.

In April 1942, General Murray assumed command of the 35th Infantry Division at Camp San Luis Obispo and became commanding general of the Southern California Sector in January 1943. The following June he was given an unannounced assignment in the South Pacific. In December he became commander of the Guadalcanal Island Forward Area and the V Island Command. In June 1944, he took command of the II Island Command in Fiji, the following month the South Pacific Area in New Caledonia. He later resumed successive commands on Guadalcanal and New Caledonia until he returned to the United States in November 1945. He was retired for physical disability in September 1946.

While noted for strict attention to duty, he found time to take an active part in all social activities, and owing to his kindliness and buoyant nature was extremely popular with all ages and grades and with both men and women. An enthusiastic horseman, he rode to hounds whenever opportunity offered. A lover of boats, he built and sailed his own. One of his last activities was a trip in his motor boat from Washington to Florida.

He was a thoroughly well rounded field artilleryman and a gentleman of high ideals and great accomplishments.

Happy Harry Heads for Heaven

By Colonel Christiancy Pickett, FA

YOU all know Happy Harry Hooglesdorf. Remember when he was a battery commander in the old 603d? If you'd been in that battalion you'd remember. He was always being held up as an example to everyone else.

Harry never disagreed with higher authority. His reports were always in on time and they always pictured perfection. He was never the bearer of ill tidings to superiors. He never objected that he could not get a certain thing done within the time limit desired. Of such stuff, my young readers, is success woven.

Ever go in Harry's orderly room? Remember the splendid, glass-topped desk with the elegant pen set and the brass name-plate reading "Captain Harry Hooglesdorf, III"?

The prize exhibit in that orderly room, however, was the progress chart. "Up to date?" Harry would say. "Of course it's up to date; no trouble to keep it that way. When this man on line four, for example, has had another hour of instruction in booby traps or Information and Education we merely move this gold-painted peg to the next hole. When he has finished the subject we hang this pink and yellow tag on this silver-plated hook. Very simple."

"Splendid!" the inspectors would say.

"And I notice that there are a lot of tags on hooks, so there must be a great many men in your battery who have qualified in all or most of their subjects."

"Oh, yes!" Harry would respond. "As a matter of fact, last year when I gave gunners' examinations to all my men — assisted by my NCO's — every man qualified, and all of them were expert gunners except one."

"I want to know why," demanded our battalion commander at officers' call, "why don't you other battery commanders have a progress chart like Hooglesdorf's?"

Harry was the best dressed officer I've ever seen. He shone like the noonday sun. When he turned out for inspection his men were the same way. The battalion commander always gave him

the job of meeting dignitaries, turning out guards of honor, and firing salutes, but Harry never complained that it interfered with his training schedule.

The varnished spokes of his extra set of caisson wheels, which he kept for inspections, were the talk of the garrison. The morning of an inspection you could always spot Harry's barracks by the fresh whitewash on the curb outside. The crossed cannons, designed from matched round rocks that he placed on the lawn, would have a fresh coat of white, too.

We all got hell because our barracks didn't look bright and cheery like Harry's, and when we offered the lame excuse that there was no paint available at the QM our Colonel would grunt and say, "Where'n hell did Hooglesdorf get it then?"

There was no answer to that, for unquestionably Harry had gotten it and spread it all over the walls and ceilings — lovely white paint, trimmed red around the fire extinguishers and cuspidors.

"How do you do it, Harry?" I often asked him.

"Decentralization," he'd say. "I merely assign responsibilities to my subordinates and sit back while my first sergeant gets it done for me. He's a wonder. You never saw such records as he keeps. I'll never get into trouble with a man like Sergeant Thunderwhistle. His collection sheets are never out a penny."

There is no doubt that some day Harry might have gone high in the service, but Fate intervened and he was bumped off in North Africa. His battery was the last to withdraw from a little scrap in Tunisia and the Nazis wiped it out. A shell got Harry at his OP. Nobody knows much about how it happened, but Harry got a posthumous Medal of Honor.

That ought to be the end of the story, but it isn't. I got the rest of it from Pete Frisbie, his executive. Pete was one of these rare people who get killed but come to life again. He lingered for days on his hospital cot, his pulse so faint that twice the doctors were ready to wheel

him out and give his bed to another patient. But finally he rallied and slowly recovered. The first thing Frisbie said when he regained consciousness was, "Boys, I've been dead. I've been right up to the gates of Heaven and almost went in."

This remark, of course, inevitably brought in the swarm of psychiatrists which infest every army hospital, and one after another they interviewed him till he was so fed up with it that he began to amuse himself at the expense of the doctors. The result is that he got a special board, was retired and sent to an institution. Personally I don't think it was Frisbie who had the crows in his loft, but the records say so. At any rate, Frisbie's story is interesting and relevant, since it finishes for us the account of the career of Captain Harry Hooglesdorf, III.

* * * *

PETE FRISBIE'S STORY

Sure I was dead. I actually did go to the gates of Heaven and almost got inside. I guess they weren't ready for me yet, for here I am back on earth again and alive. But I hung around there quite a while.

Harry Hooglesdorf, my battery commander, checked in at the same time, and being senior to me he was ahead of me in the line of candidates waiting to interview St. Peter's Chief of Staff

"Captain Harold Hooglesdorf, III, reports," said Harry, giving the chief a snappy salute.

The Chief of Staff was a gruff old angel. He put on his GI spectacles and ran a horny finger down the roster.

"Hall, Herman, Hill, Hilton," he read off. "I don't see any Hooglesdorfs here."

"I'm sure your G-1 has my record," said Harry with smiling assurance.

"You can talk to the old man. Maybe he has a record of you."

So Happy Harry went straight on through the door marked "St. Peter. Private."

"Hooglesdorf?" repeated the old angel acidly. "Yes, we do have your record."

"Fine," beamed Harry. "My worries are over. Sometimes they lose your record, but if you have it I'm sure everything is O.K. because it's a nice 6.7

superior."

"That's not what it says on *our* form 66-1," grunted Saint Peter.

"Oh, but I always got commended by every inspector——"

"Eyewash!" snorted the saint.

"My barracks were always——'

"Glittering like a palace with paint you bought out of the battery fund. But did you have any chairs in the day room, or any magazines or a pool table? Where did you get the money to varnish those spare wheels you used to put on for inspectors?"

"Out of the battery fund," Harry admitted, for he knew old St. Pete had the answer to that one, anyway.

"A violation of regulations," growled St. Peter. "You kept the fund broke buying eyewash for inspectors. You never had time to see where the money went, did you?"

"My collection sheet always checked to the penny."

"It was nevertheless one of the crookedest documents a first sergeant ever put over on a lazy battery commander. Old Sergeant Thunderwhistle's sweating blood down below for that right now. But you're as guilty as he was because you never tried to find out why he kept two duty rosters."

"Two duty rosters?"

"Yes, one to show you and the inspectors and one which he actually used as a basis for fatigue details. The first one showed every man doing his share of the work, but the second roster, the one he kept out of sight, would have shown over half of the battery not doing a lick of work. These were the men who loaned Sergeant Thunderwhistle \$25 every year and never asked him for it back. The others complained, of course, but Thunderwhistle wouldn't let them in to see you. You were out playing golf or polo most of the time and that made it easy for him."

"But, St. Peter. I had the best trained battery in the Division. My progress chart——"

"Your progress chart was the biggest fraud ever perpetrated upon gullible observers. Your expert gunners made more 100-mil errors and laid on more wrong aiming stakes than any similar group of men in the AUS. The very shell that fell on your OP and killed you was from one of your own

howitzers, laid at elevation 230 instead of 320."

"But my battery stayed to the last, covering the withdrawal of the rest of the battalion——"

"And was wiped out so that nobody on earth knows the true story. But we up in Heaven here have the facts: A couple of your prime movers stalled in the narrow pass leading back from your position and caused a road jam. They were not stopped by enemy shell fire; they stalled from engine trouble. You know why? Several reasons. Paint on the spark plugs was one; and you'd been shining up gas lines and oil lines so long they had worn loose at the unions and were leaking badly. You never went to motor maintenance periods to see if the firstechelon maintenance was being carried out-

"My trip tickets were all filled out and signed, proving that the long list of operations shown on the back had all been regularly done."

"Your trip tickets!" snorted St. Peter. "Don't ever talk to me about trip tickets! If a driver ever really did everything listed on the back of one of those things, he'd be working all night and day. That's absurd, so instead of honestly attending to the really important items of daily or periodic maintenance your drivers made a few futile passes at the vehicle with a rag and then pencil checked all the items on the back of the trip ticket! You can't keep a truck going by sharpening pencils and filling out false reports, but you wouldn't know that, because you never went to a motor maintenance period. All you ever did was call in the motor sergeant and say 'Sergeant, I want all those engine blocks cleaned up, painted, and polished like a tray full of jewelry.'

"In short, Hooglesdorf, you're a fraud and a faker, and your laziness and neglect caused over a hundred men to be killed, wounded, or captured. I haven't any more time to talk to you, so there's the door."

"But don't I get into Heaven?"
"Emphatically not!"

"But where, then, shall I go?"

* * * *

We will not insult the intelligence of our readers by considering it necessary to quote St. Peter's reply as he slammed the door in Happy Harry's face.

REVISION OF ENLISTED GRADE TITLES

A complete revision of grade titles for enlisted men went into effect August 1.

The rejuggling of the grade structure for enlisted persons was necessitated in part by a new promotion system which places the newly enlisted soldier in recruit status for the first four months of his service, with automatic advancement to the sixth pay grade assured on completion of basic training. Mandatory promotion to the fifth pay grade is also guaranteed upon completion of a stated period of satisfactory service, regardless of local unit vacancies.

In place of the present grade of private for the lowest enlisted pay bracket, the new program establishes the title "recruit." Private as a rank will be assigned to the sixth pay grade, which at present is known as private first class. Titles of technicians, fifth, fourth, and third grade are abolished, as are those of technical and staff sergeants. The first pay grade will be that of master sergeant, eliminating first sergeant as a rank title but retaining it as an occupational designation.

The table shows the old and new grade structures.

Grade	Old Title	New Title	Chevrons
1	Master Sergeant First Sergeant	Master Sergeant (Regiment al Sergeant Major) (First Sergeant)	3 up, 3 down (First Sergeant chevrons have lozenge in the center)
2	Technical Sergeant	Sergeant First Class	3 up, 2 down
3	Staff Sergeant Technician Third Grade	Sergeant	3 up, 1 down
4	Sergeant Technician Fourth Grade	Corporal	2 up
5	Corporal Technician Fifth Grade	Private First Class	1 up
6	Private First Class	Private	none
7	Private	Recruit	none

The sleeve chevrons are changed to approximately two-thirds their present size, and will differentiate by color those persons designated as "combat" and "non-combat" troops.

1948 Association Medal Winners











Francis T. Colbert

Burton W. French

Wayne H. Friedrich

Gordon K. George

Calvin J. Hatley

Iowa State College. Cadet Lt. Col. Francis T. Colbert won the award. In college he commanded the ROTC Artillery Battalion. In W. W. II he saw action with the 17th ABn Div in the Normandy, Northern France, Ardennes, Rhineland, and Central Europe campaigns, being awarded the Bronze Star Medal and the Bronze Arrowhead.

Texas A and M College. Cadet Burton W. French won the award. He was First Sergeant of Battery "B" of the ROTC. He graduated from Beaumont High School in 1945 and saw no combat in W. W II

Cornell University. Cadet Wayne H. Friedrich won the award. He graduated from Haddonfield Memorial High School in 1945 and has not previously served in the Armed Forces.

University of Utah. Cadet Lt. Col. Gordon K. George won the award. In college, he commanded the ROTC Artillery Battalion. He was in the army from 1943 to 1945, participating in action, as a member of the 411th Inf

Regt in France, Rhineland, Austria, and Italy, earning the Purple Heart and Good Conduct Medal.

Arkansas State College. Cadet Major Calvin J. Hatley won the award. In college, he has been President of the Cadet Officers Club and executive officer of the Battalion of Cadets, and has been consistently on the College Honor Roll. He was in the army from 1943 to 1946, serving for 14 months in the European Theater.

West Virginia State College. Cadet Capt. Claude S. Rogers won the award. He is commander of Battery A of the ROTC Artillery Battalion.

University of Oklahoma. Cadet Carl R. Patterson won the award.

University of Nebraska. Cadet 2nd Lt. Marvin M. Peirce won the award. He is a member of Pi Tau Sigma, the National Honorary Mechanical Engineering Fraternity, and the Historical Society of the Sons of the American Revolution. In W. W. II he served overseas in the 499th Armd FA Bn, 14th Armd Div.

Duquesne University. Cadet Robert C. Styslinger won the award. He is a 1st Sgt. in the Corps of Cadets and an active member of Scabbard and Blade. In W. W. II. he saw action, as a member of an antitank company of the 96th Inf Div, on Leyte and Okinawa, earning the Combat Infantryman badge and the Good Conduct Medal.

Colorado A and M College. Cadet Capt. Charles P. Woodbury won the award. He was captain of Scabbard and Blade and a member of Wings and Cannon Club. He was in the army from 1943 to 1946, seeing action in the Asiatic-Pacific Theater.

University of Cincinnati. Cadet Capt. George M. Alter won the award. He was a member of Scabbard and Blade and Commander of Company E, 1st Regt Pershing Rifles. As a member of the 50th Field Hospital, he went overseas and participated in various actions, including that of the 101st A Bn Div at Eindhoven, Holland.















Carl R. Patterson

Marvin M. Peirce

Robert C. Styslinger

Charles P. Woodbury

Caves and the War of 1812

By George F. Jackson

RECENT speculation regarding the possibility of using the caves of the United States as underground workshops, factories, and places of refuge in case of an Atomic War brings to mind the little-known fact that some of our caves contributed greatly toward our success in an earlier conflict — the War of 1812.

This war might have ended in disaster for the United States had it not been for the abundance of saltpeter, one of the principal ingredients of gunpowder, furnished by some American caverns. At the start of hostilities we were completely cut off from foreign sources of supply by England's embargo, and for a number of years after the start of the war enormous quantities of the then precious mineral were "mined" in various sections of Kentucky and Indiana.

The fact that saltpeter, or potassium nitrate, could be made from the nitrous dirt in some of the caves was among the many enterprising discoveries of the pioneers who followed in the footsteps of Daniel Boone during the early part of the nineteenth century. Since gunpowder was one of the absolute necessities of life and its importation through wilderness trails and over lofty mountain passes was a long, hazardous, and complicated operation, this was an important milestone.

As early as 1806 the American Philosophical Society of Philadelphia had in its possession a report of the resources of certain Kentucky and Virgina caves, which said that they would be quite valuable in time of war. This report was prepared by a Dr. Samuel Brown of Lexington, Kentucky, and described in detail a "great cave" where, in one spot, workmen dug for fifteen feet through solid niter on the floor of the cavern. Dr. Brown's report continued with an appeal to all patriotic make themselves Americans to independent of foreign sources of supply, stating that the domestic saltpeter was far superior to that imported from India and Spain. Prompted by this report the owner of the largest gunpowder plant in the country prepared, in 1807, to make arrangements for a trip through the same region to investigate the saltpeter deposits. It is not now a matter of record that he ever found the time to make the trip, but history shows that his itinerary was mapped out and that he realized the importance of securing nitrates from a home source.

Today, in both Mammoth Cave, Kentucky, now part of Mammoth Cave National Park, and in Wyandotte Cave, Indiana — two of the largest known caves in the world — may be seen the remains of the old saltpeter "mines." In Mammoth the relics are perfectly preserved and may be seen in almost their entirety just as left by the old miners, more than 136 years ago. The ancient wooden pipes, leaching vats, wooden hoppers, and their supports, the actual tracks of the ox-carts, and the hub marks worn on the sides of the narrow tunnels by the creaking wagons are still in a remarkable state of preservation. These are all that are left to tell the story of hard labor in dim subterranean workshops — labor that cannot be applauded too highly because it contributed greatly toward our successes in the second conflict with England.

At Wyandotte Cave, in southern Indiana, the remains of the saltpeter mines are not so well preserved, since they were abandoned nearer the outer air, and temperature and moisture changes have caused the wooden equipment to disappear almost entirely. Had they been left back in the cavern, the dry, even temperature would have kept them in perfect shape for ages.

Probably the first published account of the saltpeter deposits in the United States — and also the first printed account of any cave in the country appeared in 1819 in William McMurtrie's "Sketches of Louisville and its Environs" and described Wyandotte Cave. Referring to it as the "Mammoth Cave of Indiana." McMurtrie quotes General William Henry Harrison as saying at the time he visited the cave (1806) "... there were ...

enormous lumps of same saline matter scattered over the floor, individual pieces of which ... would have weighed from one to two hundred pounds." This is undoubtedly an exaggeration and what Harrison probably had reference to were the huge piles of fallen rock that still dot the passageway here and there. Continuing, McMurtrie says that the earth in the cave "... contains about five pounds of the nitrate of lime, or magnesia, to the bushel, and is composed of decaying animal and vegetable matter." At the time of McMurtrie's report Wyandotte was in the possession of a Dr. Samuel Adams who had secured the cave and the land surrounding its mouth from the government for the purpose of making saltpeter. The only portion of the cavern then known was the part now called the "Old Cave Route" and to it Dr. Adams gave the name "Indiana Saltpeter Cave," although he later referred to it as his "Epsom Salts Cave."

The next account of American saltpeter deposits appeared in Volume I, "Transactions and Collections of the American Antiquarian Society," which was printed in 1820. The report appeared in an appendix entitled "Account of a Great and very Extraordinary Cave in Kentucky." The letter was written by Dr. Adams on February 27, 1818, but was not published until 1820. He referred to the cave as his "Epsom Salts Cave" and mentioned the amount of that mineral abounding in the cavern, and also stated that "The next production is the nitrate of lime or saltpeter earth. There are vast quantities of this earth and equal in strength to any that I have ever seen." Dr. Adams carried on the business of making saltpeter on a very extensive scale. However, with the war over the business became less profitable and he gave up his claim on the cave for more lucrative fields.

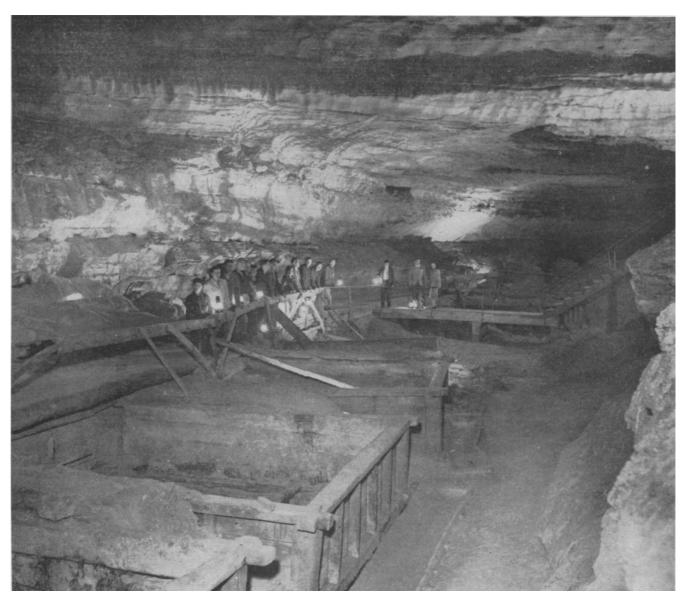
Meanwhile, down in central Kentucky, reports of its nitrous dirt by early explorers of Mammoth Cave led to its purchase by a Mr. McLean in 1811. He kept it just about long enough to sell it to a Mr. Gatewood, that gentleman selling almost immediately to Messrs. Gratz and Wilkins at about the time the War of 1812 started. Most of the old accounts are quite

vague, but all seem to agree that Mr. Archibald Miller, acting as agent for Gratz and Wilkins, made a "fortune for them from the saltpeter business" during the War of 1812.

Undoubtedly, slave labor was used for mining within the cave and for all heavy work outside. The nitrous dirt was probably gathered up in sacks in the smaller and more remote channels and carried to the large passageways where it was dumped in great piles. From these supply dumps ox carts again transported the dirt to the leaching vats, or hoppers. Marks of the huge hubs of the unwieldy carts are plainly seen today on some of the limestone walls. The vats were from eight to ten feet wide, four or five feet

long, and about the same depth, with bottoms of small logs, split in halves. These were roughly grooved and placed in two layers, the first resting on wooden supports with curved surfaces down, the second with convex surface up, and fitting into grooves in those beneath. The water needed for the leaching process was piped, also in wooden pipes, from the outside and after passing through the fine dirt in the hoppers was made to flow into the small pits near the vats, from where it was conducted to a larger reservoir to be pumped to the surface. The leached and discarded dirt was thrown into large piles to one side, well out of the way of operations. Upon reaching the

entrance the concentrated water, or "beer" as the workers called it, was run through hoppers filled with wood ashes, then boiled and cooled in wooden troughs. About 24 hours later the crystals of potassium nitrate which formed were removed, packed, and shipped to the East — probably Philadelphia — by pack mules and other primitive methods of transportation. Miller is quoted as having told his employers that they "could supply the whole population of the globe with saltpeter from Mammoth Cave alone." One old writer says that the average daily yield was from three to five hundred pounds of saltpeter, "worth from sixteen to twenty-five cents a pound,"



Mammoth Cave, Ky. Vets used in 1812 by saltpeter miners.

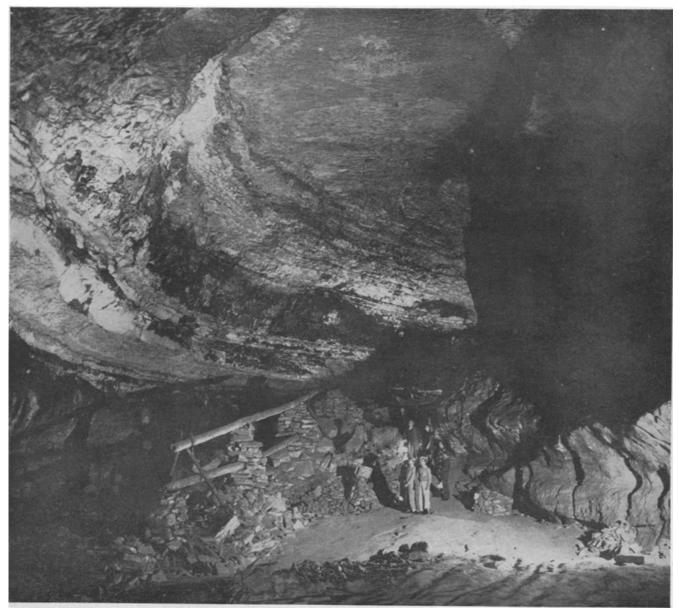
and that the cost of making was about four cents a pound.

Although a number of other caves were mined for saltpeter during the early part of the nineteenth century, apparently at none of them were the workings as extensive as at Mammoth and Wyandotte caves, or else, these caves not having become famous as have the two cited, they have been forgotten, in most cases, even by local history. Scattered throughout the cave section of the country there are many caves known today as "Saltpeter Cave" or "Salt Cave" because of this early industry, but all of them were worked on a comparatively small scale. Dixon's Cave, said by some speleologist

to have been the original mouth of Mammoth, was well worked by the "peter" miners and its floor completely overturned by them. The rocky piles of discarded material within it give some idea of the amount of labor involved, for many are from thirty to forty feet in height and forty feet through the base. Saltpeter Cave, located a quarter of a mile from Wyandotte, was also mined during the War of 1812, but since the cave is fairly short it could have furnished only a small part of the nitrates mined in these parts. Donaldson's Cave, in what is now Spring Mill State Park, may have been worked during the petermining era, for Prof. John Collett — in the Indiana

Geological Report for 1873 — says that "about the year 1800 gunpowder was here made from the great supply of nitrous earth in the upper chambers of the cave, remains of the powdermill still being visible." What he may have referred to, however, is the grist mill that stands near the cave entrance and which was erected by the first pioneer settlers of the region.

Thus it may be seen that the caves of America had their day of glory in helping us to win one war and it is quite possible that some of our greater caves, with their thick protective layers of rock and soil, may again do their share in serving as shelter and factory sites if there is a future one in store for us.



Mammoth Cave, Ky. Wooden pipes used in 1812 for leaching saltpeter.

A Seagoing Redleg

By Lt. Col. John C. Hayden, FA

A NUMBER of Army officers are on duty with the Navy. For some reason the majority of these officers are redlegs. It should be of interest to other artillerymen to know what these officers are doing.

You will find these officers in a number of places such as the Naval War College, the Naval Academy, Amphibious Training Command Pacific Fleet (at Coronado, California), Naval Amphibious Base, Little Virginia, First Task Fleet, Eastern Atlantic and Mediterranean Fleet, Amphibious Force Pacific Fleet, and many other places. It would be impracticable in a short article to describe in detail all of the duties performed by this group of officers. Consequently this article will be confined to my personal experiences with the Navy.

Even before the unification of the services the Army-Navy Staff College was in operation. This was followed by the establishment of the Armed Forces Staff College at Norfolk. One hundred and fifty students per class attend this college and study joint operations and planning from the theater level. The Army, Navy, and Air Force each furnish fifty of the students. I attended the second class held at this college. Although we learned considerable about the other services, the school term was too short to allow for details and the average student felt that there were many questions that remained unanswered. Therefore I was very pleased on graduating to find that I had been selected for assignment to the staff of the Commander First Task Fleet. I would now have the opportunity to work with the Navy as a member of the family and ascertain the answers to my questions about the Navy.

The First Task Fleet is directly under the Commander-in-Chief of the Pacific Fleet and, although it does not have a joint staff, the staff is quite unique in that it contains members from all of the services.

Before proceeding to any details about the staff of the First Task Fleet, it will be appropriate to answer the question: "What is a Task Fleet?" During the late war the Navy developed numbered fleets as tactical headquarters for planning and executing naval operations, employing combat ships of all types. These fleets were composed of a varying number of ships of diverse types such as fast carriers, battleships, cruisers, destroyers, etc. The best examples of these fleets were the 5th and 3rd Fleets which famous under Spruance and Halsey. Actually the ships concerned were the same in both fleets. since the integral part of each fleet consisted of only the commander and his staff. After the war the Navy Department, because of the successes obtained by such organization, created the 1st and 2nd Task Fleets. The 1st Task Fleet is assigned to the Pacific Fleet and is the old 5th Fleet (headquarters). The 2nd Task Fleet is assigned to the Atlantic Fleet. Since the formation of these fleets the 6th Task Fleet has been organized in the Mediterranean.

Now if we consider a fleet (such as the Pacific Fleet) as an army (although in actual numbers and area covered it would exceed an army in size) the Task Fleet can be best considered as a Corps Headquarters functioning under the Army (Fleet). The Army (Fleet) can have one or more corps (Task Fleets) and units can be assigned to each as the situation warrants.

Where do the ships of the Task Fleet come from? The Navy has type commands such as Commander Battleships-Cruisers Pacific, Commander Destroyers Pacific, etc.

These commands are both tactical and administrative and are directly under the fleet. This organization exists in both the Pacific and Atlantic Fleets.

These type commands resemble to some extent the branches that existed in the Army under the Chief of Infantry, Chief of Field Artillery, etc. The type commands direct the training of their type and fit the ships assigned to them for combined training. The type commands are also responsible for all administration, which includes maintenance, medical service, etc. The Commanderin-Chief of the Fleet makes available, to the Task Fleet, units from the type commands, for intertype exercises, fleet problems, or in war for operations, in much the same manner as an Army commander makes divisions and battalions of various types available to a corps. When units are made available to a Task Fleet they come under the operational control of the Task Fleet and administration remains with the type commanders.

Therefore the Task Fleet in operation is similar to an Army corps. Missions are assigned by the Commander-in-Chief of the Fleet and the Task Fleet then plans and executes these missions. Other functions may be assigned but administrative duties, as in the Army corps, are not performed by a Task Fleet.

The Task Fleet is capable of handling any type of ship. It may be composed of fast carriers and be used as a striking force. Just as in the Army corps the forces assigned are tailored to meet the mission given. The only ship permanently assigned is the flagship. Thus the staff of a Task Fleet is purely an operating and planning group, which when not engaged in operations or exercises

is busy planning future operations and keeping any existing plans up to date.

The staff of the Commander First Task Fleet is rather unusual, as stated earlier, in that all services are represented in a staff capacity and not as liaison officers. This is due to the efforts of Vice Admiral G. D. Murray, who, on assuming command of the Task Fleet, convinced the Chief of Naval Operations that his staff in addition to Naval officers should include an Army officer, an Air Force officer, and Marine Corps ground and air officers.

The staff is divided into five sections: personnel, intelligence, plans operations, logistics, and communications. All of the officers of the other services are assigned to the plans and operations section, although they may have other duties in addition. For example, I am also chief of the intelligence section and have the two Marines as assistants. The Marine aviator is in charge of air combat intelligence. The non-Naval officers are also advisors to the chief of the logistics section on matters pertaining to their services.

Besides the other services, all parts of the Navy are represented on the staff. The Admiral, the chief of plans and operations, and two other officers are naval aviators. The Chief of Staff and the assistant plans and operations officer are submariners. The logistics section contains an engineering specialist and a member of the Navy Supply Corps.

Sections normally present in a corps, such as finance, medical, chaplains, transportation, etc., are not included in the Task Fleet staff. Such services are rendered by the personnel of the flagship. This enables the Task Fleet headquarters to function with a much smaller number of personnel than an Army corps. In fact the staff of the 1st Task Fleet consists of only twenty officers and eighty enlisted men.

The headquarters moves readily from ship to ship and adapts itself to the accommodations furnished with a minimum of trouble, and with very little effect on routine operations or other staff duties. During the short time that I have been on this staff we have moved several times. Such moving is conducive to clean housekeeping and as a result there

is very little obsolete material in the headquarters.

The staff is best pictured as being the general staff of a corps with the communications section placed on the general staff level. Just as on the corps staff, the Chief of Staff is the principal staff officer and coordinates the activities which, as stated earlier, are very similar to a corps. They include operating and planning, both of which, as in the corps, can be concurrent. For example, during one exercise that we conducted, the staff was also engaged in writing the operation order for the next operation as well as preparing the official report on the exercise held during the previous month.

The operations section is the principal staff section and contains additional personnel not found in the corps, such as an Aerology Officer. Aerology is an important subject in the Navy, since the commander would have his hands full fighting the weather and the enemy fleet at the same time. Also advantage can be taken of weather in making approaches under cover of a storm. In addition to the Aerology Officer this section contains the Submarine Officer, the Aviation Officer. Fleet **Employment** Organization Officer, Combat Readiness Navigation Officer. Officer, Gunnery Officer.

The personnel, intelligence, logistics, and communications sections are quite small and, although they function the same as those in a corps, their members operate directly with the operations section on many problems. The entire staff is a lot closer knit than the average Army staff. This undoubtedly results from the fact that the officers are all on the same ship and are generally quartered close together and near their various offices. They also eat together and really have no way of getting away from each other without jumping overboard — and abandoning a ship still afloat and desertion are practically one and the same in the Navy.

As to members of other services working on such a staff, we have found that a well-trained staff officer is right at home. There are slight differences in Naval orders, letters, dispatches, etc., but these are readily learned. Basically we are just as much at home as though we were on a staff of our own service.

Terminology appears confusing at first. SOP means Senior Officer Present. CIC stands for Combat Information Center and is not related to the Counter Intelligence Corps. Needless to say "upstairs" and "downstairs" do not exist; it is either "topside" or "below." Likewise all "floors" are "decks" even though the locale happens to be a building. The loudspeaker is apt to sound off with "Now seaman second class Jones will lay aft to the fantail." This does not indicate that he is to go take a nap since when translated it means that he will proceed as rapidly as possible to the rear (aft) of the main deck till he arrives at the fantail, which is just as far as he can go without leaving the ship. Recently while witnessing air operations on a carrier I was surprised to hear the stirring notes of "Boots and Saddles" coming over the loudspeakers. I practically started for the stables before I realized that I was in the middle of the ocean. Scouting around to see what was going on I found myself pushed aside by a wild scramble of aviators rushing to the flight deck to jump into their planes.

The Marine Officer, the Air Force Officer, and I stand duty watches in port the same as the Navy members of the staff. At sea we stand underway watches with running mates from the Navy. There are many things in which we would have to qualify before we could stand underway watches by ourselves. We all hope that we can qualify before our tours of duty are finished and know that the admiral would be pleased to state that we could only be told from Naval officers by looking at our uniforms.

It is quite an experience to greet visitors on the quarter deck or to pipe an admiral aboard and watch the expression on his face when he finds the staff duty officer clothed in an Army uniform. It is equally diverting to attend a high-level staff conference and be introduced as representing an admiral. While visiting an Army headquarters I found it was also difficult to explain to members of my own service that I was not a liaison officer but a member of the Task Fleet staff.

The customs of our sister services appear strange until one has had experience with them. Those of us from the

services other who have privileged to serve with the First Task Fleet find that it is a pleasure to serve with a sister service and be treated as a member of the family. We make mistakes at times, mistakes that even an ensign should avoid, but everyone is helpful and we are doing our best. Although we may not qualify as Naval officers, we are having an excellent course in the school of practical experience. Our associates are Naval officers. We work for them and they work for us. The wardroom conversation is naval. We had to tie our horses and cannons up at the dock before we could

come aboard. If we talk shop it must be good in order to hold the attention of others. As a result we are learning to think of the things that count and weed out the trivialities. We have made over the armed forces many times in the wardroom and although our solutions may not be any better than the present ones, they are different. We are having the opportunity of discovering for ourselves how the Navy thinks and acts and how it accomplishes its business. This is a practical school and we feel that the knowledge we acquire will be of great benefit both personally and to our respective services. We also hope that by our personal actions we will leave an excellent picture of our own services with the Naval officers with whom we have served.

I am thoroughly convinced that the best way to learn about another service is to obtain an assignment to it and merge oneself with it. The best step that the Department of Defense could make in unification of the services would be to assign a liberal number of officers from all the services to duty as integral members of all staffs, on levels corresponding to and higher than an Army division, in the Army, the Navy, and the Air Force.

The Undeclared Mexican War

By Melvin Goodman

FOUR years before the Mexican War, on October 19, 1842, California was made a possession of the United States for twenty-four hours.

This footnote in American history was brought about by an intrepid and impulsive sea officer, Commodore Thomas ap Catesby Jones. With the relations between Mexico and the United States unsteady, Commodore Jones credited rumors to the effect that Mexico had declared war. Without waiting for official word, he made a surprise descent upon the city of Monterey, raised the American flag, and declared California a possession of the United States.

The incidents that led to this unparalleled event and their consequences are worthy of explanation. In 1842 the Pacific Ocean was the focal point of the colonial ambitions of several nations. France occupied, in short order, the Marquesas Islands, Tahiti, and the Society Islands. These acts caused storms of protest in both Great Britain and the United States. The situation was made still more complicated in the same year when an English fleet steamed into Sandwich Islands and took possession. After a great many heated notes were exchanged between the United States and England, the islands were restored to their native rulers in 1843.

In the meantime, America had joined in this international checker game for a foothold in the Pacific. Though adverse to colonization, the United States had her eyes on California, a possession of Mexico. Commodore Jones, a naval hero in the War of 1812, was placed in command of the Pacific Squadron. Essentially a man of impetuous nature and a keen thinker, Commodore Jones was well aware that England also coveted California. This rich territory was the center for many rumors, and especially recurring was the one that Great Britain was negotiating to purchase California from Mexico.

Commodore Jones realized that some definitive action probably would have to be taken, and, to be prepared for any emergencies, he began to train his men while sailing for the California coast. From the log book of the frigate *United States*, upon which Commodore Jones traveled, is recorded the following: "The crew were exercised at the Great Guns, and, when we experience calms, the crew were practiced in firing at a mark . . . two whiskey barrells lashed together and a flag staff erected between them. This mark was dropt from the Ship and the crew discharged 100 balls at it."

The Commodore's fleet arrived in Monterey harbor on October 19th and he imediately sent an ultimatum to the Mexican governor to surrender. Eighteen hours were allowed for consideration of the proposal. But before fourteen hours had elapsed, two

Mexican officers came aboard the *United States* to discuss surrender terms. Seemingly impatient to give up the country, they signed the articles of capitulation before duplicates could be made. And without precedent in international negotiations, the commissioners did not ask a single question or even inquire why the American fleet had taken such action.

Commodore Jones then dispatched a party of 150 men to take over the city. The American flag was raised without incident after gun salutes were exchanged between the Mexican forts and the American ships.

An extremely colorful description of life in California was entered in the log book of the *United States*. "The inhabitants subsist entirely by fishing and hunting. The women are compelled to cultivate the soil while the husbands live at perfect ease in idleness. Murders are of common occurrence, as there is little or no law."

However, the men on board Commodore Jones' ships did not have too much time to do any extended sight-seeing. After finding some Mexican newspapers which said nothing about a war, Jones decided to call a conference with some of his officers. What went on in Jones' cabin is not known, but the results were apparent immediately. The

American flag was hauled down from the Monterey government house and the Mexican flag was raised. Jones explained to the inhabitants of the city that his action in taking the city was not completely justifiable, and apologized.

Thus, the 24-hour American occupation of Monterey was ended. But in an effort to leave the Mexican officials with a good opinion of American conduct, Commodore Jones held a dinner and dance on board the *United States*. The event was marked with joviality and friendliness on both sides, and the Monterey incident closed with toasts instead of gunpowder.

However, this historic occurrence did not end when Commodore Jones' fleet sailed out of Monterey harbor. After Jones made a full report to Washington, he was removed from command of the squadron. That the American government was not displeased with the vigilance of Jones is shown by the fact thas his actions were not censured and his recall was merely a conciliatory measure.

One of the most ridiculous aspects of the Monterey episode involved Mexican General Micheltorena, who was appointed governor of California before Jones unfurled the American flag. Upon hearing of the seizure of Monterey, he wrote to the Secretary of War at Mexico: "I wished myself a thunderbolt, to fly and annihilate the invaders; but 110 leagues intervened between me and them, and my forces are all infantry. . . . Nevertheless, the next day we started to march, during which time, my soul was rapt in ecstacies at the flattering prospect of a speedy and certain victory."

The eloquent imagination of General Micheltorena was further displayed in the demand for reparations that he sent to Commodore Jones. Although he had only 400 troops, the Mexican General asked for fifteen hundred complete infantry uniforms to replace those of his forces which he claimed were ruined in the "violent march." Also demanded was fifteen thusand dollars to pay for the expenses incurred from the general alarm. But the request to end requests was the demand for a complete set of military musical instruments.

War between the United States and Mexico was declared finally in May, 1846. At this time, Monterey was legally captured by the Pacific Squadron under Commodore Sloat, aided by a land expedition under Major John Charles Fremont and Kit Carson. However, the closing chapter to the Monterey episode was written by the indomitable

Commodore Jones. At the close of the war, Jones again was placed in command of the Pacific Squadron. And at Monterey, on October 19, 1848, exactly six years after his first unofficial visit to that city, Jones delivered a memorable lecture to his men on "discipline." Referring to the necessity of obeying all orders of a superior officer, he declared:

"A circumstance occurred here a few years past when the Commander of the US Squadron on this station, for reasons satisfactory to himself at least, directed a hostile descent upon a town and portion of a neighboring state in peace and amity with the United States. For this act, unauthorized by the Government, the Commander alone was called to account for the unlawfulness of the order. . . . No questions were ever asked of the inferiors who executed the order. Let this lesson be remembered and guide you in your conduct."

The Monterey incident is unrecorded in many history books. However, it remains a brilliant example of the spirit and ingenuity of America's pioneering military men. By Commodore Jones' placing of service to his country above personal consequences, he carved a place for himself in United States military history.

The Last Straw

By Francis L. Fugate

It was during World War I. The defendent was probably the saddest looking private ever to face a courtsmartial. Desertion was the charge, and the private didn't have a leg to stand on.

The young officer assigned as Defense Counsel was doing a monumental job. Under no condition was the defendent to take the stand in his own behalf. The lieutenant was haranging the court:

"Gentlemen, picture yourselves in the place of this young man—fresh from a farm—coming from civilian life, where if you don't like a job you can move to

another. With honesty typical of our men of the soil, this young farmer was careful to take nothing belonging to his former employer. He just wanted to go back to the farm. Then, think of yourselves, back among friends, tilling the soil you love, suddenly arrested and snatched back to stand trial for something you didn't realize was a crime, because of Army Regulations you didn't know existed!"

The young officer paused to survey the effect of his words on the members of the court. Their gazes had shifted to the sad-eyed thatch-headed private—an almost unanimous look of sympathy. The lieutenant launched a final, clinching burst of oratory:

"Gentlemen, I hope this court will weigh carefully the many extenuating circumstances before passing judgment on this young man, this poor farm boy, this bewildered rookie, who —"

"Whaddayuh mean — rookie?" The sad-eyed private was on his feet, arms waving indignantly. "I did a hitch in the cavalry at Fort Riley back in '12! No pink-eared ninety-day wonder is gonna stand up there an' call me a rookie!"

Stars Fell on Iwo Jima

By Franklin W. Ball

THREE hundred enemy craft are now advancing toward the south beach! What of it? They are easy pickings anyway. Come one, come all! The Musashing combat unit (suicide unit) has already received its orders and is ready for combat. Everyone is in high spirits."

Thus wrote Japanese Lieutenant Sugihara Zenrui Tan in a meticulously kept diary starting January 11, 1945 and ending (apparently with his death) February 26. This entry represents the crest of Japanese optimism on Iwo Jima which the diarist tried to portray throughout the entire period.

Safely barricaded, for the time, at least, in his cave in the northern part of the island was Lieutenant General Tadamichi Kuribayashi, commander of Jap defenses on the island. He was not so optimistic. He had visited Canada for a period of two years previous to the war, had spent some time inspecting U. S. plants, and hinted from the start that America would win the war. Many high in Japanese authority believed Japan couldn't hold Iwo Jima, and some considered "sinking" it. Kuribayashi and his assistant, Major Y. Horie, visited the island in September 1944 to inspect it with regard to its destruction. Deeming this impossible, defense to the last man was decided upon. Let it cost America as heavily as possible. Buildings were razed, pillboxes erected, and tunnel-like caves dug into the hills. Tunnels aggregating some 100,000 feet were planned, but by the time of the battle less than 17,000 feet had been completed. The strength of the forces was raised from 1,500 with adequate arms ammunition in August 1944 to 23,000 men and 20 tanks February 1, 1945.

By this time, American air superiority had made further shipping next to impossible, and the Japs could do little else than wait out the terrific bombing they were getting from the sea and the skies. The Nipponese made every arrangement possible for the defense of the strategic little isle $2\frac{1}{2}$ miles wide and $4\frac{1}{2}$ miles long. "Each man should think his defense position his graveyard, fight until the last and give many damages to the enemy," the high command ordered.

Then came the United States Marines to land on the south beach at 9 AM February 15, 1945, and the historical battle began to approach its zenith.

The first American air raid on Iwo Jima had been made June 15, 1944, and the civilians, 1,019 in number, were immediately evacuated to the homeland. From that date until the date of invasion no section of like size was ever subjected to such a terrific bombing. Giant planes from the Marianas dumped thousands of tons of bombs on the tiny island to the great discomfort of the Japs. The planes and antiaircraft guns of the Japanese empire were about all spent and defense against our air forces was mild.

"Took refuge in air raid shelter because of continuous enemy night raids which began late yesterday," the diary records January 11, 1945. And on February 1, "Bombs were dropping all around me. Upon hearing the sound of the bombers, I looked up and saw bombs so large that they looked like the B-29's of the first formation that had gone by. I thought of escaping but it was too late. So I slipped into the bath tub and prepared for the worst to come. Ten bombs dropped about 30 feet away."

Daily the diarist wrote of raids, raids, and more raids, deeply lamenting the fact that there were no planes or navy vessels available for defense. "Under these conditions our

forces are compelled to wait until the enemy's fighting power diminishes."

But his power didn't diminish. For the three days preceding the invasion, the American air assault and naval bombardment was the heaviest in the history of warfare. "The violence of the enemy's bombardments are far beyond description," wrote Major Horie from Chici Jima 30 miles away. The Japs fired back at our naval vessels with considerable damage but were unable to do much against our planes.

Then the Fifth Amphibious Force hit the beach and the Japs prepared for the greatest defense they could muster. No more vicious fighting is recorded in the annals of our country's wars.

Planes dropped a continuous stream of bombs on the dug-in Nipponese, shaking the earth into which they were honeycombed. Naval vessels offshore poured a steady stream of fire into the sides of Mt. Suribachi, chief defense spot of the enemy. "It seems the farther one goes into a bomb shelter, the greater the concussion from the bombs," the diarist lamented. Despite enemy resistance arms, pillboxes, heavy and small rocket and mortar fire, and hand grenades, the brave Americans, aided by the powerful Navy fire support, drove forward yard by yard as the Japs poured death-dealing volley after volley into their ranks. "The enemy has lost over half the troops that landed," Sugihara wrote on the very first day of the invasion. But on the third, "Enemy planes have been very active since early morning. Looking down the beach I saw many warships line up in a row trying to enforce their beach head. What a hateful sight! Just wait, we'll slaughter all of you." And from a report on the same date, February 21, "The enemy has suffered 10,000 casualties to date. Our south

beach defenses are still intact. This is a winning battle. Be persistent! Hold out! Whip the enemy till their blood runs. We must definitely build the foundation of victory for this greater east Asia war."

In the meantime, the terrific pounding of Mt. Suribachi continued. Nearby ships kept a steady stream of explosives pouring into it, and far offshore the mighty battleships kept training their heavy guns in the direction of the mighty mountain. The *West Virginia*, resurrected from her watery grave at Pearl Harbor, had long since returned to action against her treacherous enemy, and from a mile offshore had succeeded in blasting off one side of the Jap stronghold.

On February 23, 1945, members of the 28th Regimental Combat Team of the Fifth Marine Division scaled the precipitous sides of Suribachi 545 feet to plant the Stars and Stripes upon its summit in the act that has been since recorded in bronze.

But the battle was by no means over. For 21 days more the forces of America fought on. The Japs were slowly compressed into the northern sector of the island, leaving their thousands of dead on the slopes and in the caves of Mt. Suribachi and other sections of the island.

"When I received the telegram (of the fall of Suribachi) at Chichi Jima," wrote Major Horie after the war, "I was bursted with emotion. I never thought of losing Mt. Suribachi in only four days." And from Lieutenant Sugihara near the end, "What is death! We will fight bravely in face of certain death. We will resist to the end. It seems as though they are trying to seek out our gun positions and crush us as though we were fleas by incessant bombing and strafing. Having no planes, we can do nothing but let them run rampant." For three more days the pessimistic entries continue, to stop abruptly at 8 AM February 26, 1945. Presumably, Sugihara, Zenrui, Tan, stopped as abruptly as his diary.

The Japs fought on in face of continually increasing odds. The caves of Iwo Jima have never given up their thousands of Japanese dead, sealed within by American explosives. Their

casualties as of V-J Day were 23,000 killed and 1,259 taken prisoner.

America's Iwo Jima casualties on the same day stood at 4,763 killed, 16,424 wounded, and 401 missing. The many rows of white crosses in Iwo Jima's two American cemeteries give mute evidence of the price paid for this strategic landing place. In one Japanese cemetery lie 1,972 dead, and in a smaller one at the foot of Mt. Suribachi lie 200 more. The majority of those not in these cemeteries are sealed up within the numerous caves.

Before the Battle of Iwo Jima was half over, crippled combat aircraft were landing there. By V-J Day, 3,582 B-29's had found the island a haven in time of trouble. They might otherwise have been lost trying to find their Marianas bases.

The battle over, the airfields of Iwo Jima were immediately repaired and improved. Central airfield, the largest of the three, is over a mile long. Before mopping-up operations were complete, the sturdy and resolute Americans had done the impossible—in the Jap mind—built a two-lane roadway to the top of Mt. Suribachi. At present it is spiraled by a four-lane roadway almost completely paved, ten miles in total length. The face of Iwo Jima has been "lifted."

Two well-kept cemeteries, the Fifth Marine Division Cemetery and the

Third and Fourth Marine Division Cemetery, hold the remains of the thousands of Marines who fell in the battle. Many of the fallen Navy and Army personnel are also buried in these cemeteries. A monument and flagstaff crown the crest of the famous mountain so bravely scaled in the midst of battle.

A point of much interest is the headquarters cave of Lieutenant General Kuribayashi on the northern part of the island. It is generally believed that the general died with his men, yet no trace of him was ever found. The cave was sealed by the marines, but was later reopend and cleaned out by the Army's 147th Infantry. Fifty-two dead Japs were found in the cave.

Huge battered pillboxes overlooking the invasion beach may still be seen by travelers, and remnants of Jap landing craft are scattered along the beaches. Also near the landing beach lie the rusted remains of American ships sunk or battered beyond usefulness during the invasion. The caves may still be inspected, and the debris of fallen planes of both sides may still be found.

But the general scars of battle are gone. Iwo Jima has been made as habitable as possible for the 1,000 soldiers stationed there, and as presentable as can be for the thousands of visitors who will visit this shrine of American valor throughout the years to come.

THE PASS

By T. E. Bussey

PRIVATE BARNEY RAINES stared at the bulletin board. He had to read that again. His eyes focused on the typewritten notice and he repeated it half aloud.

A SPECIAL 48-HOUR WEEK-END PASS WILL BE GIVEN TO THE MAN HAVING THE NEATEST BUNK, LOCKER, AND PERSONAL APPEARANCE AT FRIDAY'S INSPECTION.

CAPT. G. R. GUERNSEY, COMMANDING OFFICER

He looked at his pal, Frenchy Stokes, standing beside him, and spoke, "Boy, what a break, Frenchy. Do you see that?" "I'm standing right here reading it, am I not," shot back Frenchy,

"but what good is it going to do you? You are absolutely the sloppiest private that the Army ever had the unfortunate privilege to number among its personnel."

Frenchy was medium sized, dark haired, and not a bad-looking fellow. Barney, on the other hand, was tall, slim, unkempt, and quite homely. The two made quite a contrast when strolling down the street. Frenchy was always ribbing Barney, stressing particularly his lack of brainmatter. The last remark was no exception. The reply that came from Barney was extremely earnest and optimistic. "Cut it out, Frenchy. Don't you see—I can keep that date with Marie, that cute little

waitress we met at Charlie's Cafe the other night." "I repeat, my military misfit, how are you going to be best at the inspection when only my untiring efforts on your behalf have allowed you to barely get by on Friday inspections heretofore?" queried Frenchy Barnev disgustedly. hesitated momentarily before replying, "I've just gotta win it, Frenchy. This is a big moment. You're gonna have to help me." "It is physically, mentally, and humanly impossible, my barrack-bag romeo. Besides, this Marie has probably made a date with every other dogface in camp for this weekend. Wise up, Barney. Let's do as we usually do-try to get by for the inspection, and then settle down to a quiet game of gin rummy." Irritated, Barney shot back, "I'm tired of your insults. I'll win this on my own." Frenchy shrugged his shoulders helplessly and turned away muttering, "There is absolutely no use trying to talk to a sad sack whose head is too large for his fatigue hat. I shall discontinue carrying on conversation with him."

After Frenchy had walked away, Barney felt a little sorry for the way he had acted. He didn't have time to feel too sorry, though, because he had to spend the majority of his time figuring out how he was going to get that 48-hour pass. He had to admit that his ex-buddy was partly right. Barney had needed his help at inspection time. The inspiration of Marie put things in a different light this time, and Barney knew he would go all out for victory.

The next couple of days were trying. Barney spent every spare moment shining brass buttons, polishing shoes, rolling socks, and every other thing he could think of to try to get in tip-top shape. Whenever he saw Frenchy the latter would stiffly avoid Barney's somewhat guilty countenance. He did wish that Frenchy would loosen up a little, because no one could make a bunk quite so neatly as his old time cohort.

Despite all of his arduous labor and ardent preparation, by the time Friday rolled around Barney did not feel so

In FA-CMG, Lt. Col. Harold E. Marr, Jr., has replaced Lt. Col. Warren H. Hoover, and Lt. Col. Lawrence M. Scarborough has replaced Lt. Col. Neil M. Wallace.

confident. Admittedly he had surpassed all of his previous individual efforts in preparing for inspection, but a sickening feeling of impending failure was creeping up on him. He could see that wonderful dream week-end with Marie going up in smoke, and he was feeling quite disconsolate. He had to do something or think of something right soon.

At precisely 1415 the voice of Sgt. Andrews boomed the length of the barracks. "Attennnnnnnshunnn!" Twenty-two soldiers, counting Barney, snapped to attention at the foot of their respective bunks. Captain Guernsey, accompanied by Sgt. Andrews and Corporal Pike, strode through the door. Barney was thankful that his bunk was next to last in the barracks. That would give him time to start breathing again by the time the Captain reached him. From the corner of his eye he saw Frenchy standing erect in front of the next bunk, and he wished then and there they hadn't had their little spat. Frenchy had been a pretty good buddy and Barney might need a few bucks on the cuff for his impending blowout—he hoped. The Captain moved along rapidly, stopping occasionally to point a query at one of the G.I.'s whenever any discrepancy was noted. Inevitably he reached Barney's bunk.

He gave the inwardly quivering Barney a quick once-over. He glanced at his bunk and he then looked down toward his footlocker. His eye caught something in the locker and his voice rasped forth. "What is that sticking out between those socks, Raines?"

Barney stammered, "Er-r-r, nothing, Sir. It's a piece of paper. I must have forgotten to put it away, Sir."

"Let me see it," demanded the Captain.

"Yes, Sir," Barney quaveringly replied, and he took the white piece of paper from its place of lodging and handed it to the C.O.

The Captain scanned the writing on the paper and somewhat embarrassedly mumbled, "Er, ah, you should know better than to have your correspondence lying around at inspection time. Be more careful next time."

"Yes, Sir. Sorry, Sir," answered Barney, with a surge of hope rising within him.

The Captain went on to the last bunk and gave it a quick look of approval. Immediately following the inspection of the last bunk, he consulted the notes taken during the tour. After a few moments he turned and faced the anxiously awaiting men and announced, "The winner of the 48-hour pass for presenting the best general appearance at this inspection is—Private Raines. Congratulations, Raines." Barney felt like doing a hand spring and kissing the Old Man, but instead he beamingly acknowledged, "Thank you, Sir. Thank you very much."

As soon as the barracks door had closed behind the inspecting C.O., Frenchy rushed over to the jubilant Barney and said, "I'm sorry for the way I acted, pal. I didn't think you could do it. It is especially puzzling when I think of that letter the Captain found protruding from your footlocker."

Barney took the letter and proudly handed it to his befuddled buddy. "I'll forgive you, Frenchy. In fact, I'll even let you read it."

Frenchy's eyes bulged as he read what apparently had been the start of a letter that had not been completed.

Dere Ma and Pa.

This army aint haf as bad as I thot it wuz going to be. The resen that it aint so bad is that we have the best commanding oficer in the hole army, his name is captin gurnsey and he is tops and

"Well I'll be," blurted Frenchy, "but I thought you were raised in an orphans' home."

"I was, answered Barney triumphantly, "but one thing you gotta learn, chum. What you ain't got in talent you gotta make up for in brains. So long, my friend, I'm on the way to my dream girl.

Frenchy just shook his head sadly. He did agree that Marie was a cute number all right. But he didn't have the heart to tell Barney that she was so cute that she and Frenchy had been married two nights before.

ILLUSTRATION CREDITS

(If not listed, unsigned illustrations are from authors, by the Journal staff, or from special sources. Reference numbers are pages.)

U. S. Army: Cover, Frontispiece. Natl. Park Service: 218, 219.

The Climb Toward Perfection

By Capt. Henry J. Blossy, USMCR

WHEN the first units of the First Provisional Antiaircraft Artillery Group went ashore on the Okinawa beachhead in 1945 there was a decade of Marine Corps research, experiment, theorizing, and plain honest-togoodness sweat behind every principle and piece of equipment used in this highly technical aspect of modern warfare. For these antiaircraft artillery units were an outgrowth of the inconspicuous, lightly-taken beginning of the Defense Battalion in the 1930's, when this specialized artillery was first adopted and organized on a small scale by the Marine Corps. From that time the technique of antiaircraft fire plowed steadily forward with the culmination point for the most effective antiaircraft defense being reached during the Okinawa operation.

In addition, as the Okinawa invasion was destined to be the last of World War II, the participation of Marine antiaircraft artillery in it set a mark for antiaircraft action which stretched from the pre-war occupation of Iceland, the first Marine action at Pearl Harbor on December 7, and the heroic defense of Wake Island, right down to the last days before the Japanese surrender.

The steady progression which developed antiaircraft artillery from a crude, hit-or-miss proposition to the exacting, highly technical, accurate science of today had little respect for man or equipment. Ideas, theories, and materiel were outmoded in rapid succession as the quest for "perfection" continued relentlessly on.

A graphic picture of the constant state of flux in which the antiaircraft technique has always been in the Marine Corps is gotten by an inspection of the equipment used at the beginning

of the war and that carried by the four battalions of the First Provisional Antiaircraft Group on Okinawa. During this period of time, changes in weapons and fire-control equipment almost completely transformed the antiaircraft firing procedure. On Okinawa, for instance, all hands did not have to strain their eyes to pick up an approaching Jap plane, with the resulting confusion as the Range Chief guided the director trackers on to the plane. Instead, the SCR 584 (firecontrol radar) picked up a plane and tracked it, and even though it was out of sight could distinguish it as friend or enemy. Then, when the plane came into view, the mere expedient of matching "bugs" on the director brought the cross hairs in the tracking scopes on the plane. (These latter procedures will be explained more fully later in the article when a complete review of the Heavy Antiaircraft Battery's equipment is given.)

Considered as "ultramodern" in the way of antiaircraft weapons just prior to hostilities were the .30- and .50-caliber machine guns, and the 37mm and 3" guns. Fire-control equipment was crude at best. For example, take the First Defense Battalion. What did it have with which to defend Wake Island against air attack? Its antiaircraft defense weapons consisted of 12 three-inch guns, half lacking in any fire control, 18 heavy machine guns, and 30 light machine guns.

Compare this with the equipment carried by the Fifth Antiaircraft Artillery Battalion, one of the four units in the First Provisional Group. This battalion contained:

1. A Heavy Antiaircraft Group, consisting of four batteries of 90mm

guns (four guns to a battery). Each of these heavy batteries also carried four .50-caliber machine guns for action against low-flying aircraft.

- 2. A Light Antiaircraft Group, consisting of two batteries of 40mm, 20mm, and .50-caliber machine guns.
- 3. A Searchlight Battery, armed with .50-caliber machine guns to defend against strafing attacks.

Add to this the highly important firecontrol equipment which directed the fire of the 90mm, 40mm, and 20mm guns with precise accuracy, and you get a clear picture of the advancement over the four-year period.

Although the changeover from the Defense Battalion divested Antiaircraft Artillery Battalion of seacoast weapons, as such, it is interesting to note the flexibility of the mission entrusted to the Provisional Group on Okinawa. Because the 90mm gun could be adapted to seacoast and field artillery firing, a sizable portion of the heavy batteries' training was devoted toward this end. As a result, units became as proficient at anti-boat and field artillery techniques as they were antiaircraft firing.

Written into the operations order for the First Provisional Group on Okinawa were the following missions in addition to the antiaircraft defense of the island: to provide anti-boat defense of the landing beaches; to be prepared to fire seacoast artillery missions on call; and to supplement field artillery and provide direct support as directed by the corps artillery commander.

An all-inclusive look at the antiaircraft defense plan of Okinawa is perhaps the best way to start the account of this operation and the Marine antiaircraft action in it.

The Commander Air Support Control Unit, through his Force Fighter Director Officer, given was responsibility for air defense initially. This Force Fighter Director Officer exercised operational control over all antiaircraft artillery from the Combat Information Center aboard Headquarters Ship.

The next step saw the responsibility for air defense pass from the Commander Air Support Control Unit to the Air Defense Commander ashore. This Air Defense Commander exercised operational control of antiaircraft artillery from the Air Defense Control Center, through the 53rd Antiaircraft Artillery Brigade (Army), to the First Provisional Group.

There were three warnings and fireconditions which control responsible officer could set. When Flash Red was set, "air attack was imminent because of enemy aircraft in the vicinity." All equipment was manned during this condition, of course. The condition Flash Blue indicated that "air attack was probable because of unidentified aircraft in the vicinity." Equipment was either fully manned in this condition or, sometimes, to a slightly less degree. The setting of the condition Flash White indicated that there were no Japanese or unidentified aircraft in the vicinity. Lookouts were kept at battery positions in this condition but equipment was not manned by the crews.

The three fire-control designations were: Control Green, Control Purple, and Control Yellow. When Control Green was set, antiaircraft artillery weapons were restricted to firing on aircraft who were visually recognized as enemy and attacking within range of the fire unit concerned. Control Purple permitted antiaircraft weapons to fire on any plane within range that was either visually recognized as enemy or was attacking friendly installations. When Control Yellow prevailed fire on any plane within range not identified or recognized as friendly was permitted. Fire against unseen planes not showing IFF was allowed in this condition also.

It might be well to pause and explain the term IFF at this time. Briefly, IFF -short for "Identification Friend or Foe"—is the name given to the device and procedure by which the identity of unseen targets being tracked by radar can be facilitated. The system requires a set on the ground which is oriented with the fire-control radar and another set in the plane. (These sets were carried by all American planes.) The basic principle is that the set in the plane will send out prescribed signals which will be received by the IFF set on the ground when it is beamed at the plane. For example, say radar A picks up a plane. The IFF operator then picks up the same plane with his equipment. He will get a response if it is an American plane. The Jap planes, having no equipment, would give no response, thus identifying them as enemy craft. Therefore, with the knowledge of what American planes were supposed to be up and in the vicinity, it was further possible to check the authenticity of the IFF response.

Since the First Provisional Group and its components were responsible to the Army 53rd Antiaircraft Artillery Brigade. there were close communication ties-wire and radiobetween Group Headquarters and the 53rd. Each of the four Marine battalions in turn was in direct communication with Provisional Group Headquarters. Wire and communications within battalions were also elaborate in fulfilling the mission of tieing all batteries in with their battalion headquarters. With this communication set-up there was little delay in the transmission of conditions. fire-control status, information from higher echelons.

Another important phase of the antiaircraft mission on Okinawa was the intricate system of spotting incoming enemy flights and guiding firing units to them. The search-radars, which were strategically placed at vantage points across the island, kept a 24-hour vigil for Japanese raiders. Any pickups were transmitted to plotting boards which located the exact position of the plane and traced its line of flight.

The 53rd Brigade Headquarters was the hub of this operation for Marine and Army units alike. The huge

plotting board at Brigade Headquarters recorded all enemy planes as they were funneled in from the search radars from all over the island. The First Provisional Group also maintained a board, as did each battalion headquarters. All heavy batteries also were equipped with small boards on which to record incoming Jap planes. With this system, all radar pick-ups of enemy planes found their way to the "hub" for dissemination among all antiaircraft units on the island.

With the overall antiaircraft theory for the defense of the island roughly outlined, let's slip down to the organizations which actually did the firing. Since this article is primarily concerned with the experiences of "D" Battery of the Fifth Antiaircraft Artillery Battalion, an inspection of its equipment and the theory behind its firing procedure will best serve to study one of the fire units. "D" Battery was one of the 16 heavy batteries within the First Provisional Group. Included in its equipment were: four 90mm guns, one M7 director, one SCR 584 (fire-control radar), an IFF set, one height-finder, one Mark 20 radar, two M7 generators, one complete set of gun cables, a plotting board, T74, T80, M43, and M48 ammunition, and a maze of other equipment. Actually, above though. the mentioned equipment was enough to complete the cycle and enable accurate firing, so the incidental material can be left unmentioned.

Briefly, the use of each piece of equipment mentioned in the working out of the antiaircraft problem on Okinawa was as follows:

The M7 director computed the firing data for the guns. The needed information for the "solving" of the problem was supplied to the director by the SCR 584, which tracks the plane. (The height-finder, which transmits the height of the plane above the guns to the director, is interchangeable with the 584; however, because of the accuracy of the radar data and the fact that it can track unseen targets, the height-finder was outmoded on Okinawa and was used only as a supplementary instrument in case the 584 went out of action.)

The generating units supplied the electricity to operate the motors, lights, and power for the transmission of data.

The cable system connected the various pieces of equipment, transmitting power and electrical data.

The Mark 20 Radar was used as "search radar" within the battery. Because of its wider beam it could pick up targets faster than the SCR 584 and thereby often aid it in locating a soughtafter plane. The IFF set has been explained already.

Through the use of the plotting board in the battery CP the battery commander had a complete picture of enemy flights before him and could relay information from the board to the 584 crew for a specific pick-up desired.

The T74 and T80 ammunition had "proximity" fuzes which automatically burst the shell when in the vicinity of the target. The 74 was for aerial fire, while the 80 was for ground fire.

The M43 was the "time" fuze. The time at which the shell would burst was gotten from the director and set by a fuze pot on the guns. The M48 ammunition was a point-detonating fuze.

A typical firing run, such as the one which follows, will tend to clarify the functions of the individual pieces of equipment further.

A plot is gotten in the battery CP. This is relayed on to the 584 crew (azimuth and range). With this information, the 584 picks up the plane. The IFF is then checked. If it is daytime, or searchlights pick up the plane at night, the trackers on the director begin tracking the plane as soon as they are able. Meanwhile, the trackers on the guns have also been tracking by matching "bugs" on their dials, thereby keeping their guns pointed in the right direction. Then, when the command is given they shift into "remote control" and the guns follow automatically from then on.

So now we have the radar tracking the plane, the trackers on the director visually tracking the plane, and the guns automatically pointed correctly with the data being sent from the director through the data-transmission system. Now, when the target gets within range and the director computes "firing data", the firing can commence with a high degree of probability that it will be effective.

With the jump from the overall airdefense plans for Okinawa to the equipment and firing procedure of an individual firing unit completed, we can now look behind the "theory" and inspect actual happenings.

Some of the questions which need answering are: How did the elaborate air-warning system work out in actual combat? What about the various pieces of equipment—the search and firecontrol radar, "proximity" ammunition, etc? Did they live up to expectations? And what about the Marine antiaircraft artillery; what was its role in the Tenth Army's antiaircraft defense of Okinawa?

The first objectives in Okinawa were Kadena and Yontan airstrips. With the unopposed landings these two objectives were soon secured and the defense of these two points had to be put into immediate effect. The defense of these two important airfields fell to the First Provisional Group. In the final positions by battalions, the Eighth Battalion was located farthest north and the Fifth Battalion the farthest south, below Kadena. The Second and Sixteenth were located within these confines.

Although all the battalions of the First Provisional Group were at one time on the Island of Kauai, Hawaii, they did not all begin their approach to Okinawa from there. The Second and Sixteenth left a few months before the operation and took up positions on the Marianas. They were combat loaded in LSTs' at the Marianas and constituted the first elements of the First Provisional Group to participate in the operation. Landing with units of the First and Sixth Divisions, they took up their positions near Kadena and Yontan and prepared to defend the airfields and landing beaches. The Eighth Battalion followed shortly afterward, as did the Fifth.

Coming in after the initial assault afforded the Fifth a good opportunity to make a more careful selection of positions than ordinarily. Taking advantage of this situation, an advanced element left the transport, the APA 175, at Eniwetok and flew on to Okinawa. Among those in the party was Major Don Regan, Heavy Antiaircraft Group Commander. After learning the battalion's specific mission he set out on an extended search for suitable positions for his four batteries.

When APA 175 arrived he explained the mission assigned to the Fifth to his four battery commanders and took them to their respective positions. The Fifth's firepower was to be utilized primarily for the defense of Kadena airfield and, in effect, it completed the Marine defense ring around the Yontan and Kadena airfield area.

The positions selected by Major Regan formed a rough semicircle below the Kadena airstrip. The Charlie Battery position was on high ground on the East China Sea coast. Able Battery occupied the next position inland, with Dog Battery placed in about the center of the Island, near the town of Chibana. Baker Battery was to the north of Dog Battery.

Charlie Battery, having its equipment on the same ship as the personnel, was the first to set up. The other three batteries were delayed until the cargo ship arrived with theirs.

Once Dog Battery's guns and fire-control material were unloaded little time was wasted in preparing to fire the first mission. The rain and resulting mud made the task a knotty one, but thanks to strong backs and two bulldozers, emplacements were prepared and the equipment ready to fire in short order. A TD 18 with a blade (a large bulldozer) scooped out holes to begin the first phase of erecting the barricades. It was then used to get the guns into the holes it had dug.

Dog Battery gun positions were built of empty oil drums, of which there was a plentiful supply on the island. They were all filled with dirt, thereby making a substantial buttress against close bomb hits as well as emplacements which would be long-lasting. Because of the rain, emplacements made of sandbags often rotted in a short time.

Each gun position had four ammunition bins capable of holding about 40 rounds each. In this way there was always an ample supply of ammunition at the position and a bin would be accessible no matter how far the gun traversed during a firing run.

Elaborate drainage systems had to be constructed in almost every position because of all the rain. In gun position No. 1 the gun captain, Sgt. Chepulis, had to dig a drainage ditch from his gun about forty yards long. That was the nearest spot where the water would flow off because the ground was lower. Ditches of shorter length were tried at first, but the water would not drain properly and kept backing up.

The damp, rainy weather also was hard on equipment, especially the SCR 584. Through careful daily checks of all equipment this bugaboo was kept in check, however.

The radar technicians found that their sets needed almost 24-hour servicing. Hardly a day passed that something did not have to be repaired, adjusted, or replaced because of the workings of the elements. However, through the untiring efforts of these men the instances where radars were not in operating order when a firing run was made in the Fifth Battalion were very rare.

Dog Battery, with one of the oldest 584 sets on the island, came in for its share of the difficulties. Thanks to the prodigious work of Staff Sgt. Anthony De Lorenzo, who worked many entire nights tracking down "bugs" which had developed in his set, Dog Battery never missed a firing opportunity because the 584 was out of action.

The island's air-warning system was a study in perfection. Designed to alert firing units in ample time to be ready to meet attacking Jap planes with fully manned equipment, it did just this. Very few enemy aircraft slipped unnoticed into the islands inner defenses.

The only hitch in the system was the excessive number of false alerts. They kept batteries hopping to their battle stations at all times throughout the day and night. The cause of this can be traced back directly to the forgetful pilots who neglected to switch on their IFF sets when approaching the island. Without IFF they were considered as "bogie", or enemy craft, until otherwise identified.

The elaborate plotting system, with its vast network of plotting boards, was effective, although there were some faults to be found. Plots which were sent down from higher echelon were usually stale. That is, the position of a flight relayed to a battery board usually indicated where it was some minutes before and not where the flight was at the time that the plot was received. Even these plots indicated the line of flight of planes and focused attention on a general area wherein enemy planes were to be found. This was not the case with information on enemy planes circulated within battalions. These plots were usually very accurate. In fact, in the Fifth, the most help in locating enemy planes in a hurry was given from one battery to another.

An innovation by the Fifth's 584 radar officer, Lt. Lanier, aided immeasurably in this respect. Lt. Lanier concocted an arrangement on the individual battery plotting boards whereby azimuth, range, and altitude of a target being tracked by radars were shown on the boards. Often this information was passed from battery to battery.

The proximity ammunition used by Marine units added to their firing efficiency. Previously, when time ammunition was used solely, many variable factors made these time settings the main cause of ineffectual firing.

Because the supremacy of the air was in the hands of the American forces, there was a paucity of antiaircraft action during the daylight hours. The American night-fighters, although they did a herculean job, could not intercept all planes sent down from Japan. As a result, there were many attackers who did get through to their objectives. These night sorties usually followed a pattern. They would come down the East China Sea, past Ie Shima and Bolo Point, and concentrate on Yontan airfield. Although the Fifth's first defense mission was Kadena airfield, the Yontan attacks were within range of all batteries and that is actually where most of the battalion's firing was done.

It is safe to say, I think, that the antiaircraft fire units on Okinawa did an exemplary job in fulfilling their primary purpose. This purpose was to prevent enemy planes from accomplishing their missions. There were three ways which antiaircraft units on the island could do this, and the accurate fire directed at incoming planes resulted in all three methods being actually put to use. The three methods were: 1) destroy them; 2) make them fly so high or maneuver so rapidly that they could not hit their target; 3) make them turn back before they could drop their bombs.

The Japanese bombing missions directed against Yontan airfield were for the most part fruitless ones, attesting to the accuracy of the Marine antiaircraft. Very few bombs found their mark in the many which were dropped on the countless missions sent out from Japan. However, an observer Okinawa not familiar antiaircraft firing might well have had sour words for some of the firing he might have witnessed, for many times the firing looked erratic. The explanation for this is simple. Go back to the second method in which antiaircraft can fulfill its mission and then consider that to have smooth firing data for antiaircraft fire a plane must fly a fairly even course. Japanese bombers, as soon as antiaircraft fire opened on them or they were caught in searchlights, went into drastic maneuvers, varying from deep dives to zigzagging courses. These evasive accurate moves made bombing impossible: that the antiaircraft fire became erratic as a result of them is really inconsequential and a purely secondary consideration. The antiaircraft units fulfilled their mission when they made the manuevers necessary as the Jap bomber pilots sought to save their own skins.

So the end of the war saw the Marine antiaircraft technique at its highest point. That it will be constantly improved upon still further goes without saying. There is still room for improvement, without a doubt. But the rapid advancement this type of Marine artillery has already made since its introduction into the Corps speaks well for the ingenuity of those who have already pooled their knowledge in its behalf.



IPIERIMIETTERS in IPAIRAGRAIPIS



By Col. Conrad H. Lanza, Ret.

RUSSIA

Prepared by a widely known military scholar and writer, PERIMETERS IN PARAGRAPHS is a recurring feature dealing with the military, political and economic realities in world affairs. Whereas an understanding of these realities is deemed essential to the American soldier, it is emphasized that PERIMETERS IN PARAGRAPHS reflects the opinions of the author, alone. This installment covers the period 1 July - 31 August 1948.—Editor.

RUSSIAN INTENTIONS

No change has been noted since the preceding report in PERIMETERS that Russia desires no major war at this time. Her armies remain in positions of readiness, prepared to take advantage of any favorable opportunities which may arise. During the period covered by this report confirmation of this view has appeared from Russian sources.

First — on 4 May the Russian High Command sent a strong letter to Yugoslavia remonstrating on its belligerent attitude versus the Western Powers. The original copy of this was discovered in Belgrade by the N. Y. TIMES correspondent, Mr. Cianfarra, and was published in that paper on 23 August. It contained the following statement:

"After having exhausted all other means, the Soviet Union had only one means left to give Trieste to Yugoslavia—to war against the Anglo-Americans and occupy Trieste by force.

"The Yugoslav comrades could not be unaware that the USSR could not embark in a new war after having waged one so hard."

Second—on 15 August the Moscow radio broadcast that the Soviet armed forces were in readiness and would be so maintained, and that

"in view of the expansionist policy of American imperialism, the Soviet people are carefully watching the intrigues of the incendiaries of a new war. These are taking place on land and sea. Imperialists who dream of world domination are trying to secure new naval and strategic bases in all parts of the world, are trampling on the sovereignity and interests of other countries, and are not hesitating at extortion and blackmail.

"The so-called *visits* of American squadrons, made with advertising and ballyhoo, are among the many illustrative examples of the expansionist policy of American imperialism."

The important point is what in the Russian view would constitute a favorable opportunity for launching armed forces in some new adventure from their positions in readiness. Nobody knows. The Polit Bureau, which determines Russian policy, is opportunistic and inclined to make decisions suddenly.

Editorials in the Russian press indicate that the following might be included as constituting favorable opportunities:

First, and above all—an economic depression in the United States. Russian economists have predicted this for a long time. It must be a serious disappointment that it hasn't occurred. The Russians are still hoping that it will

Second—peaceful and gradual transformation of Great Britain into a communist state allied with Russia instead of with the United States.

Third—chaos in China, in Southeast Asia, or any other available area which would induce the United States to engage strong armed forces and much transportation in theaters of operation distant from Russia. To bring this about is one of the major duties of the Cominform.

In the current "cold war." Russian action for the present is limited to diplomatic activity, propaganda, and organization and strengthening of 5th

Columns throughout the World. The armed forces are held back, but they are there.

RELATIONS WITH GERMANY

On 6 July the United States delivered a note at Moscow regarding the Russian blockade of Berlin. After arguing that the blockade was completely illegal, it stated:

"The United States is ready as a first step to participate in negotiations in Berlin among the four Allied occupying authorities for the settlement of any question in dispute arising out of the administration of the city of Berlin.

It is, however, a prerequisite that the lines of communication and the movement of persons and goods between the United Kingdom, United States, and French sectors in Berlin and the Western Zones shall have been fully restored."

Russia answered on 14 July. After charging that the Western Powers had acted illegally by arranging for a West German Government, and had thereby forfeited all right to be in Berlin, the note continued:

"While not objecting to negotiations, the Soviet Government, however, deems it necessary to declare it can not link the start of these negotiations with the fulfillment of any preliminary conditions..."

Soon thereafter meetings began in Moscow between the ambassadors of the Western Powers and Messrs. Stalin and Molotov representing Russia, which as this account closes had not been concluded. No information is available as to what has been under discussion.

During August, the United States reinforced its armed forces in Germany by opening air bases in England and sending to that country and to Germany substantial numbers of heavy bomber and jet fighter units. Joint maneuvers with the British Air Force soon followed.

BREAK IN CONSULAR RELATIONS

Russia had for a considerable period operated a school for children of Russian personnel on official duty in New York. In July it issued orders relieving certain of these teachers and ordering them to proceed to Russia, by transport sailing 31 July, for reassignment. Three teachers failed to board the transport. Two of were found by American authorities, to whom they declared that they refused to go back to Russia on account of alleged intolerable conditions there. The third teacher, a woman, was located by the Russian consul, who arrested her and transported her to the Russian Consulate in New York, where she was placed in confinement, presumably charged with desertion. The teacher escaped by jumping out of a window, whereupon she was rescued by the New York Police.

Based upon the above facts which are not disputed, Russia on 12 August charged the United States with having collaborated with gangsters kidnapping the three teachers. Demand was made that they be surrendered to the Soviet authorities. On 19 August the United States replied. It charged that the Russian Consul at New York had abused his position by seizing and confining persons within the United States without authority of American laws. His recall was requested. Russia complied with this request by recalling all consular personnel within the United States, and closing her only two consulates—at New York and at San Francisco. She asked that the United States close consulates within Russia. This was promptly done. Only one. Vladivostock, was operational. Another at Leningrad never has been in operation.

Comment. Consular relations were broken with Germany before World War I and with the Axis states before World War II. Rupture of diplomatic relations and then war followed, in that order. History by no means always repeats itself. However, breaking consular relations is a serious matter and introduces a new factor in the "cold war" now on.

THE COMINFORM

This organization was reactivated at the beginning of October 1947. Its leader was Colonel-General Andrei A. Zhdanov, a prominent member of the Russian Polit Bureau. The missions of the reorganized Cominform were announced by its own communiqué as:

- a. Establishing communist governments in Germany, Italy, and France.
- b. Keeping the wars going in Greece, Palestine, and China.
- c. Consolidating the Russian satellite states.

Communist activity within the Russian sector of Germany has been initiated. Notwithstanding that the majority of Germans don't want communism, this movement is noisily advancing. Erection of a communist state in East Germany must be considered as probable. Against this success, the Cominform's efforts to establish communist governments in Italy and France were complete failures.

The war in Greece has continued (see section on Greece) and according to United Nation observers is largely maintained by Russian aid. The war in Palestine is at the moment dormant, and was never more than a minor war. War in China (see section on China) is growing, but how responsible the Cominform is for this is uncertain.

In consolidation of satellites much opposition has arisen. No satellite state wants to be consolidated with Russian communism. In Finland. Russian efforts have failed, and the communist party there has notably declined. In Poland and Czechoslovakia the local governments have been brought into closer control by Russia at the expense of mass discontent and a growing underground movement. Strong dissatisfaction exists in Hungary. The greatest rebuff was by Yugoslavia, which openly defied the Cominform and made it clear that Yugoslavia would not obey Cominform orders. Against this open defiance Russia has appeared impotent. It probably could occupy Yugoslavia by force; but if that were done it would start a Balkan war. Experience shows that Balkan wars may cause a World War. As Russia fears that at this date, it has done nothing. Her prestige consequently suffered a severe blow. It was not therefore surprising that Russia announced on 31 August that the Cominform Chief, Colonel General Zhdanov had "died." He had been absent from duty since 24 July.

Comment. Colonel General Zhdanov tried to do too much in too little time. He had too many failures. In the opinion of this writer he was liquidated for bringing about the Yugoslav situation after his defeats in Italy and France.

THE DANUBE CONFERENCE

A conference has been held at Belgrade between Russia, the western powers, and the states bordering on the Danube, less Germany and Austria. Its mission was to negotiate a new treaty of navigation for the Danube River. On 13 August, Russia and its satellites outvoted the three western powers and set up a Danube Authority in which the United States, Great Britain, France, Germany, and Austria were excluded.

On 18 August, the State Department announced:

"The United States will not, of course, recognize, either for itself or for those parts of Austria and Germany which are under its control, the authority of any commission set up in this manner to exercise any jurisdiction in those (occupied) portions of Austria and Germany."

Thus a new factor of discord in the "cold war" arises—one more grievance.

THE BRUSSELS UNION

In the preceding installment of PERIMETERS, reference was made to a military and economic alliance concluded at Brussels, Belgium, on 17 March last, between Great Britain, France, Netherlands, Belgium, and Luxembourg. A GHQ was then established, which became operational at London on 5 May.

On 20 July, representatives of the foregoing five powers met at the Hague and

"decided to do everything possible in order to defend their independence, integrity, and institutions."

They made it clear that they did not have the military forces to meet the present threatening situation.

On the same day the British Foreign Office communique stated:

"A small number of Canadian and United States military experts are now in London to participate as non-members in the conversations now in progress in the military committee of the Brussels Treaty Powers."

Ireland, which refused to enter World War II, at this date announced that it would associate itself with the Brussels Treaty Powers. The latter are therefore assured of powerful support and must be considered as a factor in future military estimates.

COMMUNIST 5TH COLUMNS IN AMERICA

The CP for the Caribbean Area is apparently in Venezuela. A strong 5th Column has been organized in that country and is partly armed. Its main mission, to be undertaken at the proper time, is to seize the oil wells and interrupt the supply of oil to the United States and Western Europe. Direct liaison is maintained with Moscow.

RUSSIA vs RELIGION

Prior to World War II Russia undertook a violent attack against all religions. Churches were closed, ministers were liquidated, the teaching of religion to anyone under 18 was prohibited, a vigorous propaganda against any idea of God was fostered by the state. Notwithstanding a severe persecution, it appears that religion is not dead in Russia. High-ranking communist officers are fanatical atheists, but others are so only for safety reasons, and privately do not believe in some of the fantastic doctrines of the communist ideology. Scientists and artists are generally suspected of giving but lip service to communism.

The Polit Bureau is probably sincere in its belief that atheistic communism is best for mankind. However, a large part of the Russian population isn't convinced that this is so. The disaffected element in Russia is growing. Many want freedom of worship. The Polit Bureau looks upon this as a military weakness, as the disaffected are likely to join an enemy in case of war. However, the solution to the

problem hasn't appeared. Persecution has been tried and has failed. This was just a repetition of history, which shows that religions increase their adherents during times of persecution.

Provisionally, Russia has started a new press campaign against all religions. In Poland, Hungary, and Romania members of the clergy are being slowly liquidated, as a result of charges which allege anti-democratic sermons, or collaboration with a foreign government (which is usually the United States), all regardless of the facts. Receiving relief supplies from American religious organizations has been made a basis for placing recipients on a Black List, which deprives them of the right to work, to hold ration cards, etc.

Best evidence indicates that this kind of action is resulting in a strong reinforcement of the various underground organizations, without materially reinforcing Russian military strength.

GERMANY

A NEW WEST GERMAN STATE

On 1 July, the Minister-Presidents of the several German states in the western occupied zones were convened at Frankfurt by the joint Military Governors of the Western Powers. The former were authorized to arrange for an Assembly to meet by 1 September to draft a democratic constitution for a Federal Government comprising their states. The constitution was to be subject to the Military Governors' controlling foreign relations and foreign trade, the Ruhr, reparations, etc., and the interests of the occupying powers. The Military Governors were to have the right to disapprove laws, provided that they act within 21 days. The Constitution after approval of the Military Governors would be submitted to the German people for ratification. On 10 July, the Minister-Presidents replied. They considered it inadvisable to erect a federal state, but had no objection to a provisional government acting as an agent of the occupying powers. With that change, on 26 July the Germans accepted the mandate.

RUSSIAN REACTION

On 23 June Russia had interrupted land lines of communication from the Western Zones to their sectors in Berlin. On 1 July it withdrew from the

Joint Allied Council which governed Berlin, thus dividing the city into two zones—Russian and Western. A few days later the Moscow radio commenced to broadcast charges that the proposed new West German State was a violation by the West of agreements for a 4-power-sponsored Germany.

The United States on 6 July filed a protest at Moscow against the Berlin blockade, claiming that this was a clear violation of agreements. It represented that Berlin was not a part of the Russian occupied zone but was a separate entity, in which the United States had its rights, and "insisted" that the blockade be removed and railroad traffic fully restored.

Russia answered on the 14th, stating that it was the Western Powers, not Russia, which were guilty of violating agreements, by such illegal actions as setting up a West German state. It refused to admit that Berlin was divorced from the Russian occupied zone, and stated that, now that the 4-power Allied Council was no longer working, the Western Powers had forfeited all right to be in Berlin. It declined to lift the blockade.

On 26 July, the Western Powers closed all lines of communication from the Western Zones into the Russian Zone, thereby interrupting deliveries to Russia of reparations, coal and other supplies.

The blockade of Berlin has been overcome by an unexampled air transport managed by the American and British Air Forces. Together they have been moving supplies into Berlin sufficient to maintain a population of well over two millions—a great record.

Up to the end of August, the Russians in their sector of Berlin had one after another brought on a series of petty annoyances and harassments for the three Western Allies in Berlin. These were accompanied by statements and actions which were unnecessarily insulting to the dignity of the United States. The object of such acts is unknown. It may be for propaganda to show other nations how far the United States can be pushed around without bringing on a conflict.

Comments. A West German state is a prime requirement of a West Europe and the proper functioning of the Marshall Plan. To make this work, German cooperation is necessary. For this a policy toward Germany is a prerequisite.

Is Germany a nation to be punished; or is it a friend?

Germans doubt the sincerity of the Western Powers. They do not believe they mean what they say. They note that the Western Powers do not agree among themselves over matters most important to the German future. They fear that if a World War III comes, and they think it will, their country is likely to be fought over. If Russia should occupy western Germany, will they be put to death as "collaborators" with the West? Very probably so; so no German wishes to be listed as collaborating with a Western Power. The best he will do is to fix things so he will appear as an unwilling agent.

GENERAL SITUATION

Communist agitations exist throughout southeast Asia, including the Philippines. Organized rebellions are in progress in Burma, Malaya, Indo-China, and Indonesia. These are much more serious than commonly supposed. Russia has openly sympathized with these revolts, but tactical connection has not been discovered.

A communist meeting was held in India last February, at which each of the southeast Asia states was represented, as well as Russia. At this meeting the general outline for the various contemplated operations was discussed, but there appears to have been no master plan. A common mission was arranged for, which was:

- a. To slow the export of rubber, oil, tin, etc., to the United States (this may have been suggested by the Russian representative).
- b. To secure independence for each country (this as a bait to the natives).

An armed series of revolts was immediately possible. During the war with Japan the United States and Great Britain had dropped arms ammunition for use by natives against the Japanese. It has since appeared that little action was taken against Japan, and that the arms and ammunition were retained and are now in communist possession. The communists secured much more munitions directly from the Japanese when the latter surrendered.

Some examples of why Germans don't trust the West follow:

- a. While the United States is now favoring an end to dismantling industries, Great Britain opposes this. The reason is fear that industries in Germany may fall into the possession of a Third Power.
- b. They see no apparent sense in the method of dismantling industries. For example, a large soap factory was recently torn down, although this is not connected with military operations and was much needed. At Mulheim the ATH steel plant has just been destroyed. This had been repaired since the war at a cost of

SOUTHEAST ASIA

The people know little about communism, but they have come to hate white masters. The natives want complete independence, with the right to manage their own foreign service, maintain their own military forces, enact their own laws, and generally do as they please. For this objective they are ready to follow the communist banner, which is the only one in the field which stands for independence.

The British avoided this issue in India by granting that immense country real independence. As a result the Indians are tending to forget past differences, and to remember the good things the British did for them. They are in the British Empire and likely to remain so.

Contrary to the British example the French and Dutch are seeking to remain dominant in Indo-China and Indonesia. Great wealth among the whites and native adherents and extreme poverty among the mass of natives has bred discontent. Communism now comes offering freedom and falsely promising not only that but a better life. The natives believe that joining the communists may improve conditions, and can't possibly bring about worse ones. With arms available, strong communist forces are in the field.

BURMA

Burma became independent in January 1948. Immediately afterwards communist disorders started. There are two communist parties—White, in

\$15,000,000. Its reduction to scrap produced \$7,000,000 of metal from a \$100,000,000 plant, and threw 24,000 men out of work.

c. Americans talk about the freedom of speech, press, etc. However, no such freedom exists. Censorship is strong. Thus it is forbidden to discuss excessive and improper cutting in German forests, alleged to be for the interests of the occupying powers.

Until all three Western Powers agree upon a consistent policy regarding Germany, the Germans will regard all orders and directions with suspicion. German cooperation is not promising.

liaison with Russia; and Red, which is against the present Russia regime. The Government has also two parties, Socialists and Independents. The latter proposed coming to terms with the White communists. This disapproved by the Socialists. Thereupon, on 29 July, at least a considerable part of the Independents joined the White communists and started a major rebellion.

Between 5 and 9 August a large part of the army deserted to the White (Russian) thereby communists, materially increasing the amount of weapons and ammunition in their hands. The army is composed of contingents of Burmese and various hill tribes having different languages, customs, and religions. It was the Burmese who deserted. Most troops belonging to units of Kachins, Chins, etc., have so far remained loyal. The strength of these units is unknown. By 13 August the communists had blocked land lines of communication out of Rangoon, the capital city. The first Government reaction was a joint ground, air, and naval force, which advanced north to open the Irrawaddy valley. By 19 August this had been stopped near Wataya, about 25 miles from Rangoon. No other military operations were undertaken during August.

The communist leader and Commander-in-Chief is Than Tun, who is Russian trained. His CP is at Pyinmana in the Sittang valley. The mission of the revolt appears to be an improvement in living standards by a proposed seizure of oil fields and other

property without compensation to owners.

The Kachins in North Burma, who aided our General Stilwell in 1944 and 1945, have announced their loyalty to the government. The Kachins can defend themselves if supplied with arms, but they are not equipped to undertake operations beyond their own territory.

Burma is one of the rice bowls of India and southeast Asia. Interruption in the export of rice, which is not yet serious, will have serious repercussions from India to the Philippines. The probability that the Burmese government can quell the present communist uprising is not apparent, but neither does it appear that the communists are at present able to overthrow the government. A stalemate exists, with the future unpredictable.

MALAYA

This revolution is communist led, but is racial. The original inhabitants of Malaya and their descendants are Mohamedan Malays. In the past 50 years, under British occupation, which for the first time established law and order, large numbers of Chinese entered. In places they now form a majority of the population; Singapore is one of these places. The Chinese claim that they should govern the country where they are a majority. The Malays feel that this would be depriving them of their proper birthrights.

In principle this dispute is similar to that of the Jews and the Arabs in Palestine. Two races having different languages, customs, and religions just won't unite. The revolt in Malaya is so far confined to communists in liaison with their comrades in China; the Chinese favoring the Kuomintang, and the Malays the Government.

Communist commander is Chang Ming-ching. His main force, estimated as 4,000 strong, is well armed and is believed to be near the Siam border. In addition there are an unknown number of terrorist bands or bandits, who roam the vast territory and assassinate anticommunists. Owing to the size of Malaya (750 miles long) and its jungle-covered mountains, with food almost everywhere, running down these bandits is no easy task. The government has succeeded in furnishing adequate

protection to tin mines and rubber plantations. Up to 31 August production was normal.

Government forces on 1 July included 8 battalions of Gurkha infantry, 4,000 MPs, and an Air Detachment with rocket-firing Spitfire planes. Communists have neither an air force nor antiaircraft weapons. Consequently, the Government planes can fly now. They locate enemy bands, which are then trailed by ground troops to their hideout. This is then attacked by joint air and ground action. Good results have been obtained, but the enemy's main force has not been contacted.

The British High Command desires to take no chances. During August, reinforcements were brought in of 1 battalion of British infantry from Hong Kong, and a detachment of Dyak Scouts from Borneo. Australia furnished arms and ammunition. Under orders for Malaya are 5 battalions of British infantry from England, who should join by early October. Plans are in preparation for increasing the number of Gurkha battalions. With these new troops it is estimated that it will take a full year to comb the bandits out of the jungle.

INDOCHINA

After two years of war, France, with over 100,000 troops in the field, including an armored division, has been unable to defeat the Viet Nam, whose well-organized guerrillas swarm over the country.

France has a native puppet government under General Nguyen van Xuan as President. It is supposed to have control of local affairs, with France supervising foreign relations and major economic problems. The puppet government has not attracted native support.

Commander-in-Chief of the Viet Nam is Ho Chi Minh, who demands complete independence. No member of his party joined the puppet government, and the latter is unable to enforce its authority outside of the French lines. The national economy is deteriorating, as it is impracticable to harvest and export the usual enormous rice and rubber crops. In Tonkin and Cochin China, the two provinces where the greater part of the wealth is concentrated, the French

control the large cities, and the Viet Nam the remainder of the country. The Viet Nam is about 20 per cent communist, with a higher percentage among leaders.

INDONESIA

The Dutch Army is now estimated as about 120,000 men, well armed and equipped. Major units are equivalent to brigade combat groups. Eleven of these are in Java, including an armored one with American equipment; 3 combat groups are in Sumatra. The Dutch Navy and Air Force maintain a close blockade. Products of this very rich area are supposed to be exported through the Dutch, and in general this is being done. What the natives want is a lifting of the blockade and the right to sell their products to any customer nation without requiring them to pass through Dutch hands.

The Dutch are going ahead with forming a United States of Indonesia where the natives have local autonomy, but where the real power, including foreign relations and public defense, is under Dutch control. So far, the independent Indonesia government, located in Java with CP at Jogjakarta, has refused to go along with the Dutch, as it demands complete independence. This native government is largely communist.

No hostilities are in progress. There probably will be if the Dutch attempt to force the Jogjakarta Government to come under Dutch rule. The probability is that the 11 Dutch combat groups in Java could readily overcome the Jogjakarta forces.

PHILIPPINES

On 17 July, the capital at Manila was closed, and was reopened the same day at Quezon, a new city 10 miles to the northeast. The main problem before the government is what to do about the Hukbalahaps. This is a communist organization variously reported as having up to 200,000 active members through northern Luzon. They are believed to be armed with perhaps 40,000 weapons, with ammunition. Part of this was supplied by the United States during the war for use against the Japs, and part was secured directly from Japanese. The American arms were not

much used prior to their being turned against the present government. The Huks have a secret government, collect taxes, maintain courts, and enforce decisions by terroristic acts.

On 25 June a general amnesty was granted to the Hukbalahaps, contingent on their surrendering with arms not later than 15 August. Ten men surrendered. During the amnesty the minor fighting which had existed was discontinued; it has now started again. The general opinion is that the amnesty afforded the Huks a much -desired period for rest and reorganization, with no corresponding advantage to the government.

Comments. The number of communists in southeast Asia is small. Best reports show 10,000 in Malaya and 50,000 in Siam, where there is no rebellion. The number in Burma, Indo-China, Indonesia, and the Philippines has not been established. It is certain that they include only a small fraction of the population. Notwithstanding numerical inferiority, the communists have the

initiative and are seeking to overthrow existing governments.

A possibility which should not be overlooked is that if Russia is stopped in Europe it may shift the weight of its effort to Asia by directly supporting the various communist parties in that densely populated region. That might well occur first in China, but it would be bound to spread to India and southeast Asia. Should these countries be brought within the Iron Curtain, it would seriously affect the economic life of the Western Powers and profoundly alter the world strategical situation. Such a possibility may not happen, but it would be an error not to provide against it. That requires speedy suppression rebellions by communist minorities. To wait, as has been done in China, until the communists organize large armies and control extensive territories would be a major strategical blunder. A large state once organized, regardless of whether it is communist or not, cannot be overthrown except by a first-class military operation. In Indo-China a French Army of 100,000 men cannot overcome the communist organization. British action in heavily reinforcing in Malaya is sound—not permitting a small minority to expand and seize control.

The Western Powers have advantage in Asia which they do not have in Europe. Despite opinions to the contrary, illiterate masses are not easily attracted to communism. Communism spreads best among the educated. Militant communist leaders are largely from college faculties, writers, and other intellectual classes. Communism does not particularly impress the ignorant and has nowhere spread in Asia to a point where it has popular support. Where it does exist, it is due to force imposed upon an unwilling majority, or to some secondary reason such as a promised lowering of in China. or establishing independence in Southeast Asia.

The solution to this important problem is to avoid acting too late and with too little. Time is the important factor.

GREECE

THE GENERAL SITUATION

Only one major operation was in progress—Operation Crown. This was against a communist redoubt based along the Albania frontier whose center was Mt. Grammos. On 1 July the perimeter of the redoubt was: Konitsa (Greece)—Mt. Mitsikeli (Communist) — Samarina (C) — Nestorion (G). This line was approximately 80 miles in length through mountainous and difficult terrain.

The Communists were commanded by General Markos Vafiades. His redoubt consisted of lines of trenches, pill boxes, and caves, interconnected and protected by mine fields. The garrison consisted of three combat groups of about 4,000 men each, well equipped with infantry weapons, but with only about 1 battery of light guns each. However, at this time Greek G-2 underestimated the enemy as 7,000 bandits. Their actions might have merited a designation as bandits, but they were efficiently organized and instructed. Supplies arrived from Albania over newly opened all-weather roads.

The Greek attacking force was the II Corps, under Lieut. General Panas

Kalogeropoulos with CP at Kozane. He had commenced Operation Crown on 18 June, under a program which required reduction of the redoubt by 1 August, less mopping up, estimated as possibly requiring another month. The plan was:

9th Division—

from vicinity of Konitsa, attack northeast, parallel to the Albania border.

15th Division on right

1st Division on left

from vicinity of Nestorion, attack southwest towards the 9th Division.

2nd Division on right \ 10th Division on left

from vicinity of Grevena, attack northwest as a connecting group between preceding attack groups. 8th Division—

from vicinity of Ioannina, cover the base at Arta, and the line of communications therefrom to the 9th and 10th Divisions, against hostile elements debouching from Albania along the Ionian coast or mountains east thereof.

The III Corps, with CP at Salonika, covered the lines of communication

from hostile elements based on Yugoslavia. Greek corps and divisions had American instructors present as advisers. Troops had American rations; equipment was partly American and partly British.

MAIN OPERATION

Covered by air strikes and an artillery preparation, the 9th and 2nd Divisions attacked on 2 July with a common objective-Samarina. The 9th after a short advance was stopped by three communist battalions posted on Mts. Kleptis and Pyrgos (about 5,500 feet elevation). The 2nd Division reached Eptachorion, where it made contact with the 1st Division on its right, but left a gap of 9 miles between it and the 9th Division on its left. Attacks were renewed daily to include 6 July, but failed. The II Corps then ordered no further attacks except on Mt. Kleptis, until that strong point was captured. Greek casualties up to this date were reported as 1,200. G-2 estimated that the enemy had suffered 4,500 casualties (this is very doubtful). POWs having reported that the communists had received 2,000 replacements,

the new estimate of the enemy total strength present was 6,000 (probably again an underestimate.)

12 communist On July counteroffensive appeared west of Ioannina. It was launched by a combat group of about 2,000 men. The 8th Division discovered this in time and after two days of some hard fighting cleared the line of communication of a temporary interruption and drove the enemy back. This action resulted in a transfer of the 8th Division to the I Corps. In the meantime the II Corps had ordered a general renewal of the main attack. It failed to get ahead. On 26 July the 9th and 2nd Divisions, following a strong artillery preparation and an air strike, attempted to reduce the gap between them. They narrowed it from 9 to 8 miles against strong opposition, with the enemy still on Mt. Kleptis.

1 August was the date that Operation Crown was to have been completed. The High Command adjudged that Lieut. General Kalogeropoulos had had his chance and had failed. The reason for failure was charged as too great dependence on the artillery and the air force and too little aggressiveness by the infantry. On recommendation of the American Military Mission, General Kalogeropoulos was replaced by Lieut. General Stylianos Kitrilakis, who had been Deputy Chief of Staff. The new commander acted at once. By a surprise night attack, the 75th Brigade of the 9th Division captured Mt. Kleptis on the night 1/2 August, reducing the gap between it and the 2nd Division to 6 miles. The 10th Division was ordered to attack northwards from near Métsovon to close that gap.

The 15th Division was given some tanks, and on 3 August attacked with strong air and artillery support. The tanks met numerous traps, felled trees, mines. Nevertheless and Ammounda, which had held up this division for a month, was taken. The 9th Division, attacking on the 3rd, reached a connection with the 2nd Division on the 4th, leaving the 10th Division to mop up strong points which had been by-passed. The communists now abandoned their advanced lines and withdrew to a restricted position about Mt. Grammos, with a line which in places was only 2 miles from Albania. Their artillery was inside Albania. Greek standing orders prohibited firing against targets near a frontier, unless the fire was parallel thereto. This restricted the direction of attacks.

On 7 August an attack, following an artillery preparation, against Alevitsa by the 15th Division failed. Three days 9th Division captured later the Aetomilitsa but lost it to counterattack. On the 12th the 9th Division made an advance to high ground north of Oxyo. On the 15th a quick, sudden advance northwards along the frontier made substantial gains. On the 16th Mt. Grammos (elevation 8,000 feet) was taken, Aetomilitsa fell, and Lykorrachi was crumbling. The 10th Division had eliminated the by-passed positions and was in line between the 9th and 2nd Divisions. The communists now held a semicircular position whose are was 22 miles and chord 12 miles.

General Vafiades decided that further resistance was useless. He gave orders abandon the defense appropriate rear guards, to withdraw into Albania, and to march north to the vicinity of Corizza. This maneuver appears to have been well executed. The rear guards held out on a mountain near Skertsa until the 20th. On that day Operation Crown was completed, less some mopping up. Only 50 stragglers were found in the communist positions. The communists had removed their wounded, their small amount of artillery, and practically all of their supplies.

Greek losses for Operation Crown since 18 June were reported at 3,751 killed, wounded, and missing. Enemy losses were stated to include 3,128 killed counted on the ground; 603 FOWs, and an estimated 4,525 wounded. It is unknown how the latter figure was arrived at.

OTHER OPERATIONS

Communist General Vafiades opened a new CP at Pyxos within Albania and near Corizza on 20 August. Based on air reports, Greek G-2 reported that 3,000 communist bandits, withdrawn from Mt. Grammos area, reentered Greece on the 21st and assembled in the Vitsi Mountains northwest of the line Kastoria—Phlorina, with a base at Bitolj, Yugoslavia. This area had been held by the communists prior to

December 1947, when they moved down to the Mt. Grammos position. The Vitsi Mountains have trenches, pill boxes, etc., all ready to move into. The situation is therefore the same as it was at the end of 1947. It is probable that communists not noted by air reconnaissance also gained this new position.

In view of this unexpected action by the enemy, the II Corps on 22 August ordered the 15th and 1st Divisions to face about and proceed to the Kastoria area. The III Corps contributed the 11th Division near Phlorina for a projected attack against the Vitsi Mountains. Up to the end of August, the only actions were communist raids which interrupted the water supply of Kastoria.

MISCELLANEOUS

The communist force along the Yugoslav-Bulgar frontier, exclusive of the Vitsi Mountain force, is reported as 7,000 strong. It was expected that the next major Greek operation would be against this force, to be undertaken in the spring of 1949. In the meantime, using troops supposed to be available upon completion of Operation Crown, a campaign was to be undertaken against an estimated 3,000 communist troops in the Peloponnesus. It was stated that this might require the entire winter of 1948-49.

There is still another force of communists loose in the Pindus Mountains in central Greece; its strength is unknown.

Comments.—Operation Crown captured a strong redoubt which had been a thorn in the side of Greece. It failed to capture the enemy, who withdrew in reasonably good order through Albania to a new position. The speed with which this maneuver was executed indicates an efficient command and trained troops.

The war in Greece is liable to continue as long as the communists hold frontier positions in which they can be supplied from adjacent communist states. Unless war against those states is undertaken, the solution to a difficult problem is to seal the Greek frontiers, so that communists outside can't get in, while those inside can't get out. This will require more troops than are now available. This seems to be recognized, for on 24 August the Greek Government

called for an additional draft of 40,000 men. The present force succeeded in driving the enemy out of the Vitsi Mountains into the Mt. Grammos range, and now out of the latter back again to the Vitsi Mountains. It has taken 9 months of some heavy fighting

to do that. It is evident that both mountain positions must be held by the Greek forces as long as the enemy has uninterrupted lines of communication through adjacent states.

The mountain artillery furnished the Greek Army is probably too light to be

very efficient. Light guns are the dream of the desk soldier. Soldiers in the field want heavy guns, the heavier the better, notwithstanding their reduced mobility. If heavy artillery were used it would require work to emplace it, but it would also save infantry lives.

PALESTINE

THE FIRST TRUCE

At the beginning of the period a truce, which had been arranged by the United Nations and which was scheduled to last until 9 July, existed between Arabs and Jews. The main forces were along the line: Antipatris (A)—Petch Tiqva (A)— El Yehudiye (A)—Kafr Ana (J)—Lydda (A)—Er Ramle (A)—Rehovot (J)— Yibna (J). The Jews also held New Jerusalem inside the Arab lines. provisions Notwithstanding truce prohibiting changes in forces, both sides made changes, but unequally.

The Jews had access to sea and air communication. They had ample funds and brought in tanks, guns, planes, some small naval vessels, and supplies. They reorganized their troops, to provide for an increase from 45,000 to 60,000 as soon as equipment for the additional men was available. This was to form a corps of 3 divisions, with General Yaakov Destrovsky as Chief of Staff.

The Arabs were short of funds, had no arsenals or industrial plants, and were unable to bring in materiel. They did not have enough ammunition for their 32,000 troops. Their leadership was divided between five nations, among whom cooperation was imperfect. They could not replace the wastage of previous fighting.

THE JULY CAMPAIGN

The Jewish plan was to clear all of Palestine of Arabs. Arab plan was just to resist. The main Jewish force of 30,000 men was to attack along the line Tel Aviv—Jerusalem Road and free the New City. A detached force of 6,000 based on

Haifa was to drive off the Arabs in north Palestine.

On 12 July, the main Jewish attack was launched by 4,000 troops against Lydda and Er Ramle, defended as outposts by 300 Arabs. The attack had been planned and trained for during the truce. The Arabs did not contest the advance and it went off well. However, the Jews failed to continue the attack.

On the 14th, the north Jewish force advanced eastward from near Haifa towards Nazareth. This was abandoned by the Arabs on the request of the inhabitants; these were Christian Arabs, who preferred to surrender their holy city to the enemy rather than risk destruction of the sacred shrines.

On 16 July the Jewish forces in New Jerusalem attacked the old walled City. This too had been planned and trained for during the truce. It started at 10.30 PM with an artillery preparation to breach the walls. Arab counterbattery was weak, but a lucky hit exploded an ammunition dump and destroyed motor transportation and materiel for the assault. An Arab counterattack at 1.00 AM on the north side, although stopped after some gains, further interfered with plans. At 2.30 AM, the Jewish assault finally jumped off. They captured a gate and entered the Walled City. Attacked by Arabs from all directions, they were unable to maintain themselves and at daylight withdrew. This battle caused extensive damage to Jerusalem, and numerous civilian casualties.

On 18 July both sides shelled those parts of Jerusalem held by their

opponent. Again numerous civilians were killed and wounded and more damage done. At 3.00 PM that day a second truce became operative.

THE SECOND TRUCE

Jews were willing to suspend hostilities. They needed more time for reorganization. The Arabs also were willing, on account of low ammunition supply.

A new refugee problem has arisen. The object of the United Nations in erecting an independent Jewish state in Palestine was represented as being to provide a homeland for displaced Jews in Europe. The number to be transported this year was to be about 170,000, of whom 85,000 had arrived up to 1 August. A large part of these came from Russia or Russian satellite states—practically none from nations friendly to the United States. To make room for these Jews about 300,000 Arabs have been expelled from their homes and are now refugees. Heretofore the Arabs had been friendly to the United States, but not now.

On 20 August, Arab representatives met at Amman, Trans-Jordan, to effect a more efficient military organization. It was decided to appoint a C-in-C over all Arab units from Lebanon, Syria, Iraq, Trans-Jordan, and Egypt, with a CP at Amman. The principal problem of the Arabs is to secure war munitions and funds to finance a continuation of the war. The Western Powers have denied both funds and munitions to the Arabs, but have arranged to allow the new state of Israel to have ample resources.

CHINA

communists in the north continues. The Kuomintang controls China south of the Yangtze River; part of the area between

the Yangtze and Yellow Rivers; and large cities in North China and Manchuria. Communists hold Manchuria

GENERAL SITUATION

War between the Kuomintang (National) Party in the south and the

and North China, less the large cities referred to, and part of the area between the Yangtze and Yellow Rivers. The Kuomintang has lost the initiative and no major military operations have occurred.

THE POLITICAL SITUATION

In the May-June issue of this JOURNAL **PERIMETERS** mentioned probability that the communists might set up an entirely new state in the territory controlled by them, and declare independence from Kuomintang Government. This is on the way to accomplishment. During June, communist GHQ announced that they would organize an Assembly to create such a new state. The Assembly was duly "elected," and convened in North China on 7 August. 528 members represented the army, farmers, factory hands, women, students, and other Resolutions were classes. passed providing that effective 1 September a Provisional North China Government be established, whose mission would be to organize a permanent North China state within one year. It is to be independent of the Kuomintang, but the conquest of south China is envisaged so as to bring all China under one flag —the red one.

Communist-held China has a population of 40,000,000 and Manchuria 30,000,000 more. Only 2½ per cent of these people are communists, but they are armed and organized.

It should be expected that if and when the new state is organized it will be recognized by Russia for similar reasons and according to the precedent made in recognizing Israel in Palestine.

MILITARY OPERATIONS

Manchuria Theater. Kuomintang returns for 1 July show 21 divisions stationed at Mukden, 6 at Changchun, and 15 about the Hulutao base. These are the only places in Manchuria held by Kuomintang. Mukden Changchun are besieged and have only air communication with the outside. Hulutao has sea, land, and air connections. Kuomintang G-2 estimates the enemy as 700,000 men. This is probably greatly exaggerated. Conditions at Mukden are bad. Commercial planes fly in about 200 tons of supplies per day. Most of this is food for the 300,000 troops, who buy more locally. This leaves insufficient food for a civilian population of about 1,800,000, of whom one-fourth live on beans and tree bark. Similar conditions exist at Changchun, where the population numbers about 500,000.

From Mukden 2,000 refugees leave daily. Some are flown out; others go on foot through no-man's land. There they are robbed of clothing and valuables. When they arrive at the Hulutao base they are naked and starving. Their places in Mukden are taken by others escaping from communist territory, so that the population of the city remains about constant. In north China the refugees are joined by others, in a great mass movement to south of the Yangtze River.

The North Theater. The Kuomintang commander, General Fu Tso-yi, has about 15 good divisions, concentrated in the Peiping area. His operations have been confined to counterattacks against communist raids. He has been quite successful in that the raiders have had to withdraw earlier than they perhaps wished.

General Yen Hsi-chan is at Taiyuan with 6 Kuomintang divisions. He had had 7, but on 20 July one division deserted to the enemy. Of the remaining 6, the most reliable is a Japanese division which joined General Yen on the surrender of Japan.

The Central Theater. According to a Kuomintang General Order issued 9 April, 1948, this theater was to have first priority for major military operations intended to drive all communists out of the area south of the Yellow River during this summer. Absolutely no attention was given to that order, and no offensive has been undertaken.

On 14 July the communists captured Tzeyang, Shantung. In that rich province the Kuomintang now holds only Tsingtao, which is a US Naval Base, and Tsian. Communist patrols have been reported on the Yangtze River, but no large units. Substantial communist forces have reached the Han River, which is now their most advanced line to the southwest. The total communist force south of the Yellow River is estimated as 24 divisions. At the end of July they announced that a major operation would shortly start. However, up to 31 August nothing had developed.

The old Yellow and Red Spear Societies, now armed with infantry weapons, have appeared in Honan. They are local organizations charged with protecting their own communities against all raiders. This may be a sign that the worm is turning and that the Chinese may accomplish something against both of the present contending parties.

The West Theater. General Chang Chih-chung, Kuomintang commander for Kansu with CP at Lanchow, the capital city, on 9 August announced an agreement between himself and the communist C-in-C providing that neither would undertake military operations against the other. This agreement appears to have been made without the authority of Kuomintang GHQ.

Comments. Chinese ideas on the conduct of war are unlike American ideas. A Chinese general considers that to lose a battle would be a disastrous loss of face, and very probably degradation. To avoid that unhappy possibility he doesn't fight battles, and thereby never loses any. Face is preserved. The enemy continues in being, and that justifies appropriations for support of troops. Orders for offensives are issued from time to time and copies are furnished the American Military Mission. Orders read well. Nobody obeys them.

Orders not intended for American perusal stress the importance of not engaging large enemy forces. If the enemy advances, it is to be assumed that he must be in greatly superior strength to warrant such an operation. Consequently the troops avoid defeat by moving away. A concentration may then be made. When necessary strength has been built up, the troops which had withdrawn "counterattack." It is now the enemy's turn to withdraw. It is customary to issue communiques covering "strategic withdrawals" and "ferocious counterattacks," allegedly enormous casualties for both sides, most of which is imaginary.

There seems little hope that the Chinese civil war will end; or that either side wants it to end. In the meantime the economic condition of the Chinese nation is becoming increasingly desperate.

"Reading maketh a full man, conference a ready man, and writing an exact man."

-FRANCIS BACON



Great Commander

JOHN J. PERSHING, GENERAL OF THE ARMIES, by Frederick Palmer. 380 pages, photographs. Military Service Publishing Company. \$4.50.

By Robert S Thomas

Frederick Palmer brings to the reader an inimitable picture of a soldier whose stature is destined to grow rapidly into its true proportions in the coming years. Because of the intimate personal contacts it was Palmer's privilege to have, he is able to portray a Pershing of many sides — student, fledgling officer, commander of armies, acting diplomat and statesman. In all of the roles it was his to play, Palmer shows, in his effortless and entertaining manner of writing, that not once could it be said of Pershing that he was "Weighed in the balance and found wanting."

The biography is so balanced as to throw the weight of emphasis, where it rightly belongs, on Pershing as the Commander-in-Chief of the A. E. F. But, in reaching that stage, the author brings us a human and compelling story of a man whose character and principles reflect the best in American manhood. We see Pershing in his home area as a vigorous, friendly, wholesome person who easily earns the respect and affection of his associates. Next, as a West Point Cadet we see him begin the long climb towards the splendid military heights he later attained. Following cadet days, through the long and disappointing days of frontier service, we see him accept without question whatever the Orders set for him, even when it would have been easy to turn aside to enter the legal profession. But, he had only one goalto be the best possible soldier. Later, his inherent worth begins to attract the

favorable notice of those in high places. The Spanish-American War, the Philippine Insurrection, duty as an observer during the Russo-Japanese War, the "pursuit" of Villa—the moves toward the top come faster now. Then the crown of command, the American Expeditionary Forces for World War I.

For Pershing's part in World War I, Mr. Palmer has sketched in dramatic, hard-hitting fashion the indomitable courage and determination which enabled Pershing to battle successfully against terrific odds and emerge the victor. He had to build with every step; there was no textbook. establishment of long supply lines by land and by sea; the determination of future battle areas wherein the as yet nebulous American Army should fight; the selection of the right men for the difficult jobs; the battling against foreign politicos motivated principally by their overweening desires for personal and national gains at others' expense; the training of the so-raw recruits received from America; and always the fierce, fixed purpose that from it all must emerge an American Army fighting under its own flag and commanded by its own officers. In the latter portion of the book, the author shows us how the dominant, compelling Pershing moves his men on the chessboard of war to the final victory which broke Germany's aims at world domination.

The battle won, Pershing—the soldier—avoids the pitfalls of politics so that he may work harder than ever at his military trade. His efforts go to the building of a better American Army because of the lessons learned from the A. E. F. Whatever his country set for him to do he accepted as his task; whatever honors his country and other

nations heaped upon him he accepted with humility. When the final call of all came, he was ready to rest between the cedar trees on the sunlit knoll in Arlington National Cemetery.

Such is the soldier Frederick Palmer has put on the pages of his book and by so doing has rendered a great service to all Americans. The book is one of living truth and inspiration. Every soldier, enlisted and commissioned, should read this splendid biography as an epitome of military service and devotion; every civilian should read it, especially in these days of trumpeted false values, so that he may learn what it means and can mean to be a real American, an American such as was John J. Pershing, General of the Armies of the United States.

History With Current Impact

THE UNITED STATES ARMY IN WORLD WAR II. The Army Ground Forces: The Procurement and Training of Ground Combat Troops. By Robert R. Palmer, Ben J. Wiley and William R. Keast, of the Historical Section, Army Ground Forces. Historical Division, Department of the Army, Washington, D. C., 1948. 663 pages; index. Government Printing Office, \$4.50.

By Colonel W. S. Nye

This second published volume of the official history of the late war has extreme timeliness and value because of the current Army expansion program. It is to be hoped that it has been brought to the attention of all officials charged with making highlevel decisions. It should be studied also by individuals and agencies in the procurement, engaged classification, distribution, and training of personnel in the Army.

It would be impossible to review the

entire book in a few words by doing other than listing the topic headings. It seems preferable, therefore, to discuss in detail only the subject matter of the first section: namely, the procurement of enlisted personnel. The reader is urged to give equally close study to the remainder of the work.

In 1942 the Army received personnel generally of poorer quality than the other armed forces. And in the Army itself, the combat arms in turn received the bulk of the substandard inductees. For this there were various reasons, at least one of which has not been widely understood. After World War I, possibly as a result of imperfect classification and assignment procedures used therein, there was a general urge to adopt more scientific methods should a new emergency arise. One of the keenest criticisms of the Army has been that it did not make proper use of occupational skills held by prospective citizen soldiers. Consequently, in 1940 and 1941, even before the United States was actually in the war, a new system was developed whereby men were to be classified by physical and mental capability and also according to occupational skills. This was undoubtedly a great step forward. Some inequities occurred during the implementation, however, which possibly could not have been foreseen. The net result was serious — almost calamitous—to the actual fighting units of the Army.

"Classification and Assignment by Physical Capacity," according to Dr. Palmer's opening chapter, "was very broad. For induction, detailed and fairly high physical standards, including psychiatric standards, were prescribed. Once in the Army, men were classified on simple lines. Whereas the British and German armies recognized several grades of physical capacity, according to muscular strength, endurance, agility, coordination, and other criteria, and assigned men to positions making corresponding demands on physique; the United States Army recognized only one category of general service and one category of limited service. In 1943, limited service was abolished as a category in classification."

Dr. Palmer's study points out that this system worked out less than perfectly in practice. Even today assignment

agencies are handicapped by the exclusive use of "general service" as a means of physical classification. In effect the Surgeon General has placed the burden on assignment agencies of deciding where and how certain physically substandard personnel (particularly officers) may be utilized. This sometimes poses fine questions as to the American principle of preserving human rights.

"Classification by Mental Capacity," Palmer continues, "was more precise. For this purpose inductees were given an Army General Classification Test (AGCT) designed to measure the ability to learn. Numerical scores were grouped into five classes of which Class I represented men of the highest intelligence and Class V the lowest. To qualify as an officer candidate a man had to fall into Classes I or II. Other things being equal (which they were not), all arms and services were to receive the same proportionate distribution of men in the five AGCT classes."

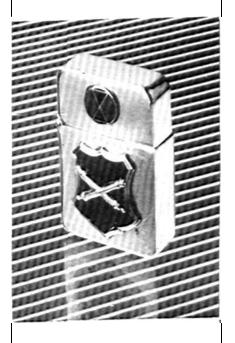
The third method of classification. namely by occupational skills, had been widely publicized prior to 1942 in an effort to make compulsory service more palatable. So much emphasis had been placed on this method that the satisfaction of the hopes of the prospective inductee that his civilian skills would be properly utilized was deemed an important morale factor. occupational classification, Hence. though not adapted primarily to the needs of the combat arms, was, nevertheless, the main basis of assignment. The War Department was aware that civilian vocation was not, in itself, an adequate basis for military assignment. The trouble was that no definite means had been developed to determine a man's potentialities as a fighter or as a combat leader. The net result was that men being established in trades or skills in civilian life tended to be assigned to the non-combat elements of the Army. The loss of civilian skills to the ground arms was of slight importance since most military skills had to be learned after induction; but the loss of the type of men who had acquired skills in civilian life left the ground arms with a sub-average portion of the available manpower.

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In addition, the Army Air Forces, the Army Specialist Training Program, and many of the Army Service Forces were given heavy preference in the assignment of men according to intellectual capacity. For the six months preceding 1 March 1942, the Army average of men assigned by AGCT scores was below the general average for the armed forces, and that of the combat arms was below the average for the Army. One might expect that the two artilleries, on account of their need for technicians to operate survey, meteorological, fire-control, communication equipment, in addition to numerous types of motor vehicles and complicated weapons, might expect to receive at least the average accorded the combat arms. Such was not the case. The Field Artillery received the poorest men (i.e., the fewest Class I, II and III, and the most Class IV and V), and the Coast Artillery (AAA) was next to the bottom.

	Class I	II	III	$\mathit{IV} \And V$
Ground Force				
Average	6.9%	26.8%	31.1%	35.2%
Field Artillery	6.3%	25.9%	31.2%	36.6%

During the next six months the relative position of the combat arms deteriorated still further. It remained unfavorable until late in 1944 when many thousands of air cadets and ASTP men were transferred to the ground arms in a belated effort to remedy a desperate situation. This occurred too late to raise the standard of the fighting units, for the new men didn't get much farther than the "repple depples" before the war was over.

"Another remedy tried was the Infantry Program, which gave Infantry in combat somewhat better pay and a badge which became a coveted honor. Another was the Physical Profile system. Although it was adopted too late and administered too loosely to produce decisive results, it pointed out a direction in which a solution for the problem of pre-selecting men suitable to the needs of the ground forces might be found. A solution for the problem of assigning to the ground forces men with adequate combat qualifications will continue to be a matter for national concern until ground combat can safely be eliminated from calculations in regard to war."

These and other important matters are set forth in the first 86 pages of the book. The remainder is devoted to equally vital topics: Procurement of officers, the provision of enlisted replacements, the operation of the service schools, the training of officer candidates and enlisted replacements. the building and training of infantry divisions and non-divisional units, the preparation of units for overseas movement, and redeployment training.

As the titles indicate, these topics are of keen interest, particularly at the present time. The portions dealing with training do not appear to be exhaustive, some important phases such as the maneuvers being treated rather skimpily. I did not altogether like the arrangement of material in this part of the volume; but perhaps that stemmed from the impossibility of treating, either purely topically or chronologically, subjects which are interrelated and occur simultaneously. The book as a whole, like the first published volume, is of great value as a reference and a text, but is not to be regarded as light reading.

Civil War and Southern Occupation

REBEL RAIDER. Edited by Harpur Allen Gosnell, Lt. Com., USNR. 204 pages, appendices, index. University of North Carolina Press. \$3.75.

GETTYSBURG. By Earl Schenk Miers and Richard A. Brown. 291 pages, references, index. Rutgers University Press. \$3.50.

A UNION OFFICER IN THE RECONSTRUCTION. By John William De Forest. Edited by James H. Crushore and David M. Potter. 204 pages, index. Yale University Press. \$3.75.

By Robert F. Cocklin

Despite the fact that in more recent vears, the United States has been involved in several wars considerably greater magnitude, the Civil War continues to be the fairest literary game for our military historians. Three of our outstanding university presses have undertaken the publication of these most recent volumes on the subject, and while there is little likelihood that any one of them will gain any standing on the best-seller lists, all of them add more pieces to the giant jig-saw of our Civil War and its aftermath.

Taking these books in order of their appearance, we come first to Rebel Raider, the story of Raphael Semmes' cruise in the C.S.S. Sumter. On June 30, 1861, the Confederate ship Sumter, commanded by Capt. Raphael Semmes, slipped out of Pass a L'Outre at the mouth of the Mississippi. She got past the blockading ship Brooklyn and went on to a series of naval adventures as exciting as any you might find in a topnotch fiction story. The Sumter was a small, converted packet, capable of carrying only eight days fuel, but the havoc which she wreaked among Northern shipping made her one of the most feared of Confederate vessels and made a Southern hero out of her captain.

Raphael Semmes was apparently a far better skipper than he was a writer. Students of the Civil War have had to lean heavily on Semmes's Memoirs of Service Afloat for most of the material concerning the memorable cruise of this Southern raider. Unfortunately, Semmes was given to excess verbosity and a monotonously legal mind. Consequently, his memoirs give only passing attention to the numerous and exciting chases and captures in which they engaged; instead, the whole account is seriously hampered by the lengthy briefs which Semmes presents to point up the legality of his actions under International Law.

Commander Gosnell's efforts to bring us the exciting story of the *Sumter's* cruise, stripped of Semmes's paralyzing bombast, don't quite make the grade. Far too much extraneous matter still remains and little or no attempt has been made to rewrite this material adequately. There is much to recommend this volume to students of the Civil War, but the editor has muffed a beautiful chance to unfold one of the most thrilling stories of any war

In decided contrast to the foregoing volume, the editors of *Gettysburg* have succeeded in presenting in a refreshing manner still new facets to one of the most widely chronicled battles in history. This is the story of the Battle of Gettsyburg as seen through the eyes of some of the participants and civilian eye-witnesses.

The editors have broken entirely with conventional historical writing without sacrificing the continuity of action or neglecting the tactical developments of the battle. The grand strategy and official reports of this action have been given ample coverage in the past, but for the first time, we get a kaleidoscopic view of the battle itself and its effect on the civilian population in the immediate area. Gettysburg is written considerable skill. The isolated selections from participants spectators have been pieced together so that they form a thoroughly integrated narrative. Individuals of both sides, and some of the civilians who were almost neutral, present their views and the sum is a very realistic account of the battle on the working level.

The tremendous amount of research and work that has gone into this volume is much in evidence. Of the three volumes under discussion here, *Gettyburg* is by far the outstanding. No Civil War library would be complete without this book.

The third volume of this group concerns itself with the period in the South immediately following the Civil War. John William De Forest, the original author of this story, greatly enriched the actual narratives of the Civil War with his earlier book, A Volunteer's Adventures. This account of his service in the military occupation of the South evidences the same outstanding reportorial qualities that marked his earlier volume. De Forest's writing of this period seems to be uniquely reliable and unprejudiced and consequently provides one of the few clear pictures of this troubled era in our national history.

A Union Officer in the Reconstruction is retained very nearly as De Forest originally wrote it. The editors have exercised good judgment in their decision to limit their editing to matters of punctuation and proof-reading. Mr. Crushore and Mr. Potter are to be further commended for the splended introduction to this volume which gives the reader a background record of De Forest's experiences and an excellent summary of the problems reconstruction which he discusses. The appearance of this volume is doubly welcome since it opens a new vista to an era heretofore confined within the bindings of weighty historical tomes.

WHAT MAKES THE SOVIETS TICK?

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IN



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By NANCY SHEA

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Never to Underestimate

THE ARMY WIFE. By Nancy Shea. 394 pages. Postwar edition. Harper and Brothers. \$3.00.

By Susie-Lane Armstrong

Again Mrs. Shea has planted the seeds of good advice for Army wives to cultivate. Although her book is developed with great charm and showered with lively anecdotes, the author was distracted by greener fields and failed to post her boundaries.

Much of the book's common sense hides in a confusion of elaborate trimmings and some inaccuracies. While Army wives travel more than most of their sisters, they are not an unusual species, and their counterpart exists in cities, small towns, and suburbs. By eliminating the pages devoted to weddings, births, christenings, and party hints (capably handled in civilian circles) Mrs. Shea could have focused more attention upon the unique customs of the Army which enhance its service traditions. A short chapter on the bride's ride around the post would make

brighter reading if Emily Post weren't crowding the reservation too.

We trust our new Army wives have had their basic training in etiquette, even though they need Mrs. Shea's tips on insignia of rank, QM furnishings, and formal calls. This book is dedicated to Army brides, so some of the advice; i.e. "don't attempt a formal dinner unless you have an experienced cook, a butler, and a second maid" reaches wishful proportions as our dollars shrink.

Mrs. Shea has some ideas in which I fail to concur. Outside of a nice bow to the Army Mutual Aid Association, I believe she recommends only one other type of insurance—the educational policy. I suggest that instead of taking this expensive form of policy a lieutenant might be wiser to add more insurance on his own life as a future safeguard he can more easily afford. Again, I question the statement "two years of age is not too young for a child to enter nursery school. . . . The average busy mother is distracted by many other duties, whereas the childtraining specialist becomes a motherteacher, a play fellow, a companion (and) story teller. . . . " Perhaps some junior officers' pocketbooks could include this paragon, but one wonders why the Army mother can't find time to shape her tot's most tender years. Flat statements on controversial subjects weaken the author's primary purpose, well-worded in her introduction.

This edition mainly differs from the previous one in adding material on foreign service. The reader is cautioned here to remember that conditions overseas vary greatly and often change from, month to month.

Mrs. Shea expresses herself with such gaiety that her material is enjoyable and generally instructive. I look forward to a third revision of *The Army Wife*, which, if confined to the "customs of the service," would produce a much smaller but richer harvest.

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Life in the Far West

ACROSS THE WIDE MISSOURI. By Bernard De Voto. 384 pages. Appendices. Illustrations. Houghton-Mifflin. \$10.00.

By Dulany Terrett

An American who is not sure just where the West begins, and who is no better informed when a baritone tells him that it is at a location where the heart beats stronger, can mark it easily on a map. At about the 100th meridian, in the northern half of the country, there is a general change in the land, and the valley of the Missouri lifts into plains. Everything from this point outward to the Rockies, and over the Rockies to the slope of the Pacific ranges, is the West. It is the region, neither Middle West nor Los Angeles, which was a generation behind California and Oregon in becoming well enough settled to apply for statehood. Only two large cities mark it even now.

But the boundlessness which characterizes many areas of the Great Plains and Mountains is snug by comparison with the space which Lewis and Clark entered a century and a half ago. Then, and for many years afterward, a man from "the States" could range from above the Columbia to below the Arkansas, finding nothing that was human that was also fixed. Buffalo, Blackfeet. and blizzards shifted restlessly across it — or Crows, Arapahos, elk, deer, antelope, unchecked rivers, and hot, dry winds. In this land, across the wide Missouri, fur-trappers and traders began to appear on the very heels of the Louisiana Purchase expedition. In Canada, Hudson's Bay men were spreading their Company's commerce; along the coast north of Spanish California, Russian, British, and American business interests were vying for advantage. Some of the greatest fortunes of the nineteenth century were about to be made, and the men whose children would ennoble themselves with it were determined to have that wealth. Within a brief time, beaver-trappers had mapped the whole unknown region in their minds. Trading-posts appeared, usually at the junctions of rivers; the factors who manned them took Indian wives and, after a fashion, settled down. The Rocky Mountain Fur Company formed

and branched out; to challenge it, the American Fur Company (Astor's) built Fort Union and started two steamboats, the *Assiniboin* and the *Yellowstone*, plying the Missouri.

Captain William Drummond Stewart, a Scotsman; Prince Maximilian of Wied, a German: Benjamin Louis Eulalie de Bonneville, of French extraction and a captain in the 7th U.S. Infantry; Charles Bodmer, a Swiss painter; Alfred Jacob Miller, a Baltimore painter; Nathaniel Wyeth, a Yankee ice-merchant; Samuel Parker, a Yankee missionary, and gentlemen wandered westward and northward of the River, drawn by adventure, botanical interest, enterprise, piety-even, it may be in the case of Bonneville, by an important assignment in military intelligence. The space and silence which without perceptible alteration had swallowed centuries of tribal killing and thieving, now commenced to accommodate mass buffalo-hunts and the strife of the furtrade — still without much alteration. Yet steadily more and more men from the East were beginnings to know their fabulous American Desert. A change had begun which nothing could revoke. The West was about to turn, within a man's lifetime, from fable to fact.

In Across the Wide Missouri, Bernard De Voto tries to capture the moment of change. Trappers moved on, missionaries moved in; the market for salvation was rising although the fashion for beaver hats collapsed; but just before it did, both parties were in the West together, in the West with the Indians. This is the scene of the book. Its pages unfold, in both picture and text, the look of the West, the qualities both harsh and beautiful which are the same to us as they were to Joe Meek.

In the persons represented, the book is like the popular cycloramas of battles (Gettysburg, for instance) which crowd hundreds of participants, recognizably painted, into a bird's-eye view of history. Many of its figures are not in the conventional theater of history at all, not even in the peanut gallery with James Buchanan. Rather, they are the folk fiber of the frontier, people who move at the rim of legend: Kenneth McKenzie, King of the River, king of a golden river which looked just like beaver pelts and mud; Stewart,

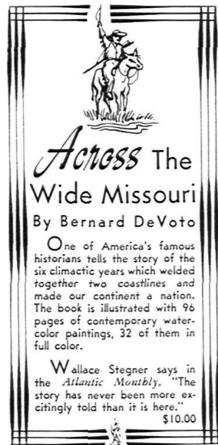
Lucien Fontenelle, James Archdale Hamilton and other cultivated expatriates; Dr. Marcus Whitman and his beautiful wife, Narcissa, tragic-fated missionaries; Jim Bridger, the famous scout, who spent a hundred and twenty dollars for a copy of Shakespeare and hired a young man to read it to him.

This sweep of scenes and people is partly recreated in another way. Although largely De Voto's, the book is not his alone. Eighty-one pictures illustrate it. Some of these are reproduced in color, are so beautiful that they almost give the impression that the West is never bleak. The major part of them, however, is confined to black-andwhite, a publisher's economy which, regrettable as it is, at any rate does not gild the subject. The pictures were the initial reason for publishing the book, and because of them its publication was apparently rushed. Mrs. Clyde Porter of Kansas City had a collection of Alfred Jacob Miller's watercolors, made at the place and in the time of De Voto's great field of interest. She has contributed them to Across the Wide Missouri, with an account of her discovery of them. A few others still held by the family of the supplemented them publication, as did ten fine Charles Bodmer pictures and three of George Catlin's.

In almost every way, this was a happy plan. It produced a good, thick, handsome book. In one way, however, it was a misfortune. Possibly because the proposal brought him to publication sooner than he had thought of, De Voto offers his book to the public short of the last stage. Unquestionably, Across the Wide Missouri is a choice book; but the pity is that with all the labor expended upon it, it could not have been choicer. It gives the impression of being a first revision rather than a final manuscript. Whether the Pulitzer Prize committee deplored this shortcoming, then decided to overlook it, one can only guess. De Voto is a scholar, and uses the method with thoroughness and enthusiasm: but research is a preliminary to writing, not a substitute for it. His style is his weak point in any case, and when for whatever reason his work seems to have been published without oiling and polishing and focusing, the results are often

somewhat obscure. By generously assuming that his readers are in pursuit with him, he negligently leaves them way behind, fording swollen sentences and struggling with an indistinct arrangement. The man who limits himself to easy reading, in short, will never get through the book.

But nobody can resist it who has ever looked at the West above the line-ofsight of drugstore fiction and bleatingcowboy movies. The goods are here, and one is willing to pick the knots apart in order to get at them. The author's apparently inexhaustible interest has collected a bundle of historical buckskin, homespun, and tapestry. He has rescued events and persons from shelves where they have lain forgotten or overlooked, and has brought both familiar and unfamiliar facts together with fresh perception. Across the Wide Missouri joins The Year of Decision in what seems to be emerging as a possible life work, reaching behind Mark Twain's America, collaring, and thrusting before our eyes again a stirring episode in our national life and culture.



A Book to Scare Anyone (in an important way)

ROAD TO SURVIVAL

By WILLIAM VOGT

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A brilliantly written, relentless portrayal of mankind's dilemma as the earth is rapidly being impoverished and overpopulated. A noted scientist shows what can be done about it—or else. \$4.00

U. S. FIELD ARTILLERY ASSOCIATION 1218 Conn. Ave., Washington 6, D. C.

The Wasted Land

ROAD TO SURVIVAL. By William Vogt. 288 pages. Bibliography; index; illustrations. William Sloane Assoc. \$4.00.

Though hardly great or enduring literature, in terms of its contribution toward the questionable prospect of mankind's continuing any recognizable degree of civilization, William Vogt's book could not be over-rated. Its style is as readable as that in the best of novels; the graphic drama of its content should get a strangle hold on anyone even casually interested in the world, his children, or himself. It seems a splendid piece for required reading by every high school student in the land and those of us who left that status without a good grounding in ecology (according to our dictionary, ". . . treats of the relation between organisms and environment") will find it strong meat easily gulped but hard to digest. Without even bothering about the interesting set of atomic possibilities, Vogt leaves no doubt that man has become the most troubled and troublesome of the world's current organisms, whiles he makes a

convincing case that the environment is rapidly deciding not to take it.

The author, a scientist of high repute and a man of broad perspective, works out a frightening analysis of mankind's basic problem: not the atoms, but a rapidly increasing population coupled to a seriously wasted and rapidly declining land capacity. Continent by continent he examines our natural resources in terms of the past, present, and future (?). This panorama of man's greed for exploitation (often unthinking and perhaps genuinely confused with short-range progress, but nevertheless makes oft-praised deadly) our "conquest" of nature appear remarkably like suicidal rape. He points to various sectors of the earth—China, India, the Mediterranean — as being already bankrupt ecologically while other regions approach that state, and nearly all areas-including the still-wealthy North American continent — continue lavishly to spend their principal. At the social-economic time developments and medical facilities continue encouraging a great increase in the number of human beings which the land must support. Though the book is authoritative, drawing from a wide range of sources in addition to personal experience, 50 per cent could be discounted and a grave degree of crisis would remain.

technology Our age of and specialization has been exceptionally efficient in camouflaging man's complete economic dependence on the interlocking natural forces of the earth. We have wasted the land and destroyed its natural balance of laws; the credit spree is about over and already some bills have been collected. According to Vogt they must all be paid soon—either in long, hard repair work (for which time is quickly passing) or in catastrophe. Most of us may be excused for not having seen the picture as a whole before, though most have noted with some degree of concern our rivers turned into channels of silt and sewage, our wildlife decimated, forests cut away and grasslands overgrazed or unwisely plowed so that invaluable, irreplaceable soil blows away or washes down through flood-stricken valleys to the

Pages of striking, illustrative quotes could be taken almost at random from Vogt's book: on population vs. capacity of land, "Puerto Rico is driving straight down the Chinese and Indian road at a speed that is Asiatic. . . . The sum total of our activities [there] has resulted in an appalling increase of misery for more people every year." Or, in quoting from another soil expert, "It takes nature from 300 to 1,000 years or more to bring back a single inch of topsoil and we sometimes lose that much . . . as the result of a single rain." Further, on erosion, "During the past hundred years the Potomac River has carried more than half a billion tons of soil past Washington!" . . . "Though during the hundred years the federal government has spent about \$17,000,000 digging out the port of Baltimore, the depth of water under its Hanover Street Bridge fell from seventeen feet to six inches by 1924." . . . "At least a portion of the topsoil from 25% of Iowa's total crop-land has been washed away."

On the western hemisphere: "The United States, still going into the red in terms of its natural resources, is spending in the neighborhood of a billion dollars a year on conservation. Latin America, with a large population and after hundreds of years of destruction, is spending less than 1% of this amount."

On Asia: "In the sixteenth century, it is estimated, India had less than 100,000,000 inhabitants—a quarter of what she has today. At the time of Perry's interference, Japan had 26,000,000 inhabitants; in 1800 Russia totaled only about 39,00,000. . . . In China it is estimated that 100,000,000 people have starved to death during the past century."

On Africa: "... The Dying Land... it can teach us much... the headwaters of the Nile, on which the entire economy of Egypt depends, are threatened by deforestation and siltation near their sources... Despite the fact that [Africa]... comprises 2.7 billion more acres than South America, it is estimated to have only 20,000,000 more acres suitable for agriculture. And its 1946 population was more than 70 per cent greater."

(Continued on page 248)

BOOKS IN COLUMN

By Major N. L. Drummond, FA

In Ape and Essence (Harper — \$2.50) Aldous Huxley takes up the cudgels of fiction where William Vogt's scientific Road to Survival ended its slashing attack on what the stupidity and inhumanity of man is doing to man. Between the two of them, most literates should be made to think—perhaps even enough to do something about avoiding catastrophe. In the early '30's Huxley's New World presented a Brave delightfully savage vision of what modern regimentation and technology could do to human beings; that book was somewhat outmoded by the newest scientific marvel, atomic energy, so the author now turns a literary movie camera on the post-atomic world focusing on a small portion of what little was left after the rival nationalists and ideologists of the mid-twentieth century clashed with guided missiles, atomic radiation, and freely applied clouds of ingenious disease germs.

From New Zealand, which Huxley is probably too optimistic in having spared from the debacle, intrepid explorers of the next century sail to California to learn if radiation is still present and what else may be left. They find, at some cost, a few thousand survivors painfully, attempting community life among the millions of skeletons and shattered ruins of what had been Los Angeles. Logically enough, complete catastrophe, years of animal-like isolation, and several generations of radiation-induced deformities have hardly improved the original stock. In desperation a working facsimile of organized society has been adopted, with remarkable though reasonable extensions and reversions of our own political, religious and social structures. (In what proportions they represent extension or reversion must depend on the viewpoint of the reader. His conjectures will at least not be dull.) Modern boy meets 21st century girl in a highly intensified action and they finally work out a courageous, optimistic solution.

Huxley's pungent, polished satire is as readable and effective as before, but this

work is more of a rapid once-over—although not lightly where he does hit. There seems, too, a strong sense that this haste came not from desire for quick royalties but from his compulsion to get out a red flag while there was still time. He succeeds, like Swift and the other great English satirists, in blending humor, bitter shock, and narrative appeal into a tasty but intestine-griping dosage.

•

For highly enjoyable late summer reading-or perhaps even hunched over in a blizzard—the bill can be filled by Robert Lewis Taylor's Doctor, Lawyer, Merchant, Chief (Doubleday-\$3.00). Its 22 short stories and sketches range from the fire chief of New York City to a war chief (W.W.II) of the Solomon Islands, with a remarkable set of way stations. They vary pleasantly in proportions of hilarity, fantasy, pungency and serious interest, but are almost monotonously uniform in high quality. Most appeared previously in the New Yorker; I enjoyed these as much a second time and envy the reader making his first acquaintance.

•

In a delayed report on *The Time Is Noon* by Hiram Hayden, it seems necessary to state only that 561 pages is lamentably long for an uninspired treatment of a confused, weak-willed set of young people during the hectic '20's. There are some good sensitive bits scattered through it, but unless you are a glutton for searching the neuroses of unimportant people the time is not for you to spend here.

•

In the midst of the jetsam which crowds the recent flood crest of our amazingly popular historical novel form, *Bright Feather* by Robert Wilder (Putnam—\$3.00) stands out like an island of haven. Instead of a nostalgic

costume romance or highly spiced slashing of swords, sex and breathless tales of daring for the modern-day escapist. Wilder has done a sound, entertaining and powerful story of the Seminole wars during Florida's frontier days. The central figure is young Clay Hammond grandson of a despotic plantation owner, who in boyhood grows to prefer Indian ways to those of his grandfather and becomes blood-brother to Osceola, soon destined to unite and lead the Seminole tribes in revolt against encroaching whites. After broadening his frontier knowledge in the rollicking life of St. Augustine, Clay is engulfed in the chaos of deception, fire and blood which sears the whole interior of Florida. Because of his background he is persuaded to serve as scout for the sadly unacclimated regular troops in repeated clashes with his childhood friends, although the sickening vista of white exploitation causes him to waver. Violent years end in an uneasy truce, as Clay prepares to build back his slain grandfather's holdings and the weary but still unconquered remnants of Seminoles fall back to the Everglades fastnesses to carry on their fight. Wilder seems to have built his story on sound sources and the noblest figures of the book emerge as redskinned.

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THE STILWELL PAPERS

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* * * *

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(Continued from page 246)

Yet Vogt is no mere Jeremiah. He points out the proven methods by which conservation services have done much in the past in spite of inadequate facilities and opposition from selfish interests, who are even now maneuvering in Congress to grab and exploit the last protected sectors of our national economy. The means for repair are at hand, mainly in soilconservation methods. reforestation. protected parks, and controlled grazing, to replenish the land, and birth control to stop the ever-increasing demands on it. But time is short; everyone who works or votes must see the need and insist on action. Apathy and greed will pave the way to pressure by hungry millions, then perhaps desperate use of atomic weapons. rather than the way of his Road to —N. L. D. Survival.

LOST ILLUSION. By Freda Utley. Fireside Press. 288 pages, \$3.00. By Richard Gordon McCloskey

Freda Utley's life story as a communist who learned the rigors of totalitarian life during her six years in Russia contains much acutely disillusioned good sense. However, one point should be born in mind by any reader who thinks that totalitarian is any inefficiency reason underestimating the power and the resources of the Soviet Union. A foreigner reading isolated accounts of "boondoggling" during depression years and the fantastic red tape of rationing during the war years would immediately conclude that this country was decadent and ripe for a change. Mrs. Utley tends to draw that kind of picture of Russia, and a wishful reader can easily interpret that as an indication of weakeness. That would be an extremely dangerous thing to do.

Mrs. Utley became a radical between the wars, and her soap-box speeches were so effective that she was invited to Moscow and joined the Communist party. She married a Russian and for six vears lived in Moscow as any Russian woman might, struggling for shelter and for food while working at the Comintern and as a textile specialist. Gradually disillusionment came, but she remained silent because she feared the Secret Police. Finally, when her husband was arrested without explanation and condemned

concentration camp without trial, she left Russia with her son, and decided to tell the whole story.

Lost Illusion is a moving document, written with honesty and fairness. The lesson it teaches is plain and unvarnished.

OUR UNKNOWN EX-PRESIDENT— HERBERT HOOVER. By Eugene Lyons. Doubleday. 337 pages, index, bibliography. \$2.95.

By Richard Cordon McCloskey

Herbert Hoover has probably been more ridiculed, scorned, castigated, and maligned than any American in the Twentieth Century. How many of the accusations hurled against him were valid is something that political scientists—and politicians—will be debating as long as there is a Republican and a Democratic Party in existence. Eugene Lyons has constituted himself an advocate, and he works mightily to set the record—as he sees it—straight for all time.

Lyons points out that our thirty-first President was made the scapegoat for a world depression, the whipping boy of a nation. He believes that time and events have tended to reverse the verdict of partisan malice and that Hoover is being restored to popular esteem. The emphasis of his book is on the personal rather than the political side of Hoover's multi-faceted career, but he does present considerable material bolstering his belief that Hoover certainly did take vigorous action to meet the challenge of the great depression.

The picture he draws of Hoover is of the village blacksmith's son, orphaned as a child, whose life is "an authentically American success story"; the Hoover who started as a laborer in the mine pits and rose to be an eminent mining engineer; whose Quaker conscience led him to devote a great part of his life to the service of his fellow men. Lyons leans heavily on anecdote in his attempt to humanize the publicly cold and solemn Hoover.

There will, of course, be violent exception taken to this book by ardent Rooseveltians; and possibly even some of Hoover's intimates may be a little embarrassed at the frequently excessive praise. The book, however, had to be written, and it should be read, with a little caution, by anyone interested in the Republican Party.

Un-American Americanism

WASHINGTON WITCH HUNT. By Bert Andrews. Random House. \$2.50. 218 pages.

By Allan Otten

The distinguished chief of the New York Herald Tribune's Washington bureau has now expanded and put into book form the series of stories that won him the 1947 Pulitzer Prize and other top newspaper awards. They have lost none of their timeliness nor importance. Their message is simple and vital: eternal vigilance is still the price of liberty, and of late our vigilance has been quite a bit less than eternal.

This country is in the grip of anti-Communist hysteria, says Mr. Andrews, who certainly cannot be accused of leftist leanings himself. Nowhere is this hysteria more evident than Washington. It is evident there in the story of Mr. Blank, discharged from the State Department as a "potential security risk" without ever being informed of the charges against him; in the case of the ten Hollywood employees cited for contempt by the House Committee on Un-American Activities; by the smear campaign against Dr. Edward U. Condon, director of the Bureau of Standards.

Now whatever our opinions of Communists may be, continues this eminent correspondent, we cannot allow this hysteria to spread, we cannot allow the cases of the Blanks and Condons to be multiplied indefinitely, for that way lies the loss of our own civil liberties. Unless we insist that everyone—even our obvious enemies—be allowed our traditional judicial safeguards, then, he declares, the same tactics of star chamber proceedings, guilt association, and smear campaigns based on innuendo and unproven charges will be used against him, against you, against everyone. And American democracy will have been lost by those who didn't have enough faith in democratic methods.

Those who read Mr. Andrews' stories when they appeared in the Tribune can well have their memory—and indignation—refreshed by reading "Washington Witch Hunt." And those who never read the stories owe it to themselves, their children, and their children's children to do so now.

Persuade or Perish

By WALLACE CARROLL

In every human conflict there is a deeper level where minds are the targets and words the weapons. It was on this plane of "psychological war" that Wallace Carroll lived and worked for three tense years in London and Washington; it is on this plane that we are today striving with Russia. We must take time to explain our motives; we must persuade in the cold war lest we perish in another struggle.

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