

The FIELD ARTILLERY JOURNAL



MAY-JUNE 1947

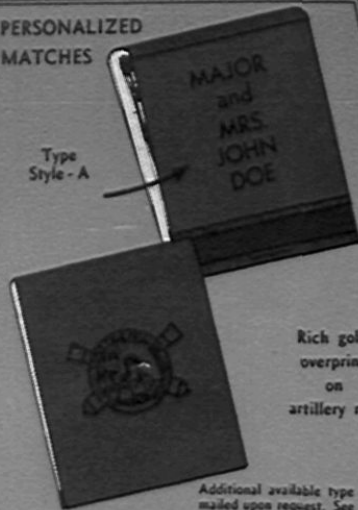


GERMANY TWO YEARS AFTER V-E DAY . . . page 154
By COLONEL W. S. NYE, FA

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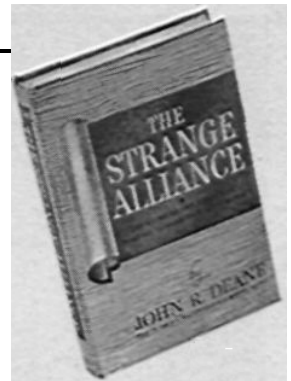
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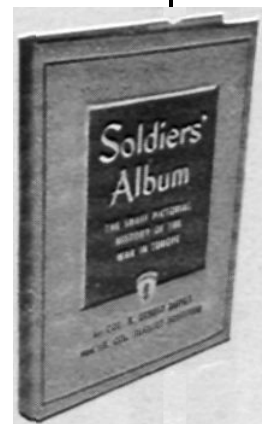
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NO. 3

- Cover: This wartime shot of then Pfc. Winfred C. Hayes of Marshalltown, Pennsylvania, is symbolic in this post-war period, two years later, as the United States grows into a now role in world affairs. The dog, Smokey, adopted the 795th Military Police Battalion and spent a good part of his time, as shown here, on guard at the entrance to Battalion Headquarters. Curiously, the girl seems to find the dog more interesting than the handsome soldier.
- Frontispiece: Does America Want UMT?

EDITORIAL

Keeping in Focus 176

ARTICLES

| | |
|--|------------|
| The Unit's the Thing, by Maj. Gen. Orlando Ward | 148 |
| Empire in Transition, by Col. Paul W. Caraway, Inf. | 150 |
| Germany Two Years After V-E Day, by Col. W. S. Nye, FA | 154 |
| Artillery Uses for the Board, Plotting, M-10, by Lt. Col. E. P. Foley, USMC | 160 |
| The New National Guard, by Maj. Gen. Butler B. Miltonberger | 166 |
| Assembly Line Instruction, by Col. Ralph R. Mace, FA | 168 |
| Flash!—Our Secret Weapon, by Maj. W. A. Solf | 170 |
| Some Survey SOPs Used in the ETO, by Capt. G. R. Bishop, FA-Res | 171 |
| Liaison Officer—The One-Armed Paper Hanger, by Capt. Henry P. Walker, FA | 173 |
| Russian Artillery—1941-1945, by Lt.-Col. H. G. de Watteville, CBE, late RA | 175 |
| Airborne Armies of the Future, by Maj. Gen. James M. Gavin | 178 |
| Perimeters in Paragraphs, by Col. Conrad H. Lanza, Rtd. | 184 |

ARTILLERY NOTES

| | |
|---|------------|
| Division Association Notices | 183 |
| What's Your Artillery IQ? | 183 |

OTHER FEATURES

| | |
|--|------------|
| Question and Answer | 159 |
| Of More Than Passing Interest | 167 |
| Books | 200 |
| Writing You're Reading | 207 |

The Field Artillery Journal is not a medium for the dissemination of War Department doctrine or administrative directives. Contributors alone are responsible for opinions expressed and conclusions reached in published articles. Consistent with the objects of our Association, however, The Field Artillery Journal seeks to provide a meeting ground for the free expression of artillery ideas in the changing present.

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The Unit's the Thing

By Maj. Gen. Orlando Ward, U.S.A.

Commanding General, 6th Infantry Division

.... Solutions to the training dilemma now confronting our commanders will be found only by drawing heavily upon their own resources of energy, enthusiasm and ingenuity

EVERY SEGMENT of our far-flung Army is continually faced with the necessity of training, at the same time meeting logical demands upon it for everything from "A to Izzard."

The training problem varies with the theater and within the theater. In some of the overseas commands, units are often charged with construction, with housekeeping, and with widely dispersed occupational duties—to say nothing of training for eventualities. Some areas are quiet politically while others are ripe with discord and discontent.

One thing is certain. We cannot count on all men consistently attending classes, and no unit will be carried through the training cycle without interruptions. This is painfully reminiscent of the circumstances that so plagued our Army during the pre-War years. If possible, however, the problem is even more difficult now than it was then — in the pre-War years we could at least count on having competent non-commissioned officers.

One other thing is certain. There are no rules and there are no rule books to which we can turn for guidance. Indeed, commanders will find solutions to the training dilemma now confronting them only by drawing heavily upon their own resources of energy, enthusiasm and ingenuity.

In this short article I make two suggestions that may be helpful. The first is merely the reaffirmation of a fundamental principle; a principle, however, that has been violated more often than not in the past. The second suggestion is one that we're finding very useful in the 6th Infantry Division, here in Korea.



MOSES' FATHER-IN-LAW knew whereof he spoke when he advised him to get the children of Israel organized into 500's, 100's, 50's and 10's and place able men over them. Yes, success in any army is dependent on the utilization of the regularly organized units under their own leaders, as such, under every conceivable condition.

We soldiers know these things. But we forget them. Just think how guard rosters and fatigue rosters are frequently handled. Ten strange men taken from miscellaneous units appear at fatigue call or guard mount: mission—to function under a strange non-commissioned officer! This is an utter lack of appreciation of the purpose of organization. The sooner we eliminate such details, the sooner we will build soundly on the better use of organization.

There is nothing new in the idea that *the unit's the thing*. I first observed it when I saw a chief of an artillery section step out and report,

"Sir, the section is in order." In those days the chief of section stood out in front of his section in formation, his pay was materially more than that of the private, and there were few cases when he requested to be relieved from his stripes on account of responsibilities placed upon him. He knew what his responsibilities were. He realized that he was responsible for the training of his men, for the efficiency of his gunner, the efficiency of his gun squad, the maintenance of his equipment, as well as for his transportation, his horses, his harness, his limbers and his caissons.

Officer and non-commissioned officer leaders must be charged, above all and at all times, with the responsibility for attaining a training objective for both their men and their units by a certain time. A system of instruction based on such a sense of responsibility on the part of the small unit leaders will solve almost any training problem. If they feel this responsibility, we will find them training while on patrol, training while on guard, catching up a few men who have fallen behind in instruction. We must develop in them a frame of mind, a sense of responsibility for their men's training, for their transportation, and for their equipment. Once we have attained this, the objective will be reached through the medium of regularly scheduled periods of instruction supplemented by the intelligent efforts of the non-commissioned officers, in spite of interruptions.

IF WE CHARGE the leaders with responsibility for training, we must obviously set up a system for instructing them. This can best be done by utilizing the experts, say in a battalion, to coach them as instructors.

In the current Army we can usually find some men who are familiar with one or more military skills. By utilizing these men in what might be termed a "committee system" they impart their expert knowledge to the instructors, namely the non-commissioned officers, who in turn instruct their men. The committee system used in so

many camps during the War for instruction had the fatal disadvantage of not developing and exercising the responsibility of leadership on the part of the appointed leaders. NCO's too often marched their squads to the instruction and took it with their men. Decentralized instruction by squad leaders has the advantage of demanding and developing leadership on the part of those giving instruction. It has the disadvantage of burdening those who are not too efficient with the almost insurmountable task of carrying out instruction in many subjects. This disadvantage can be eliminated by forethought and planning.

Obviously, with green NCO's and with a full training day ahead, it would be impractical for one squad or section leader thoroughly to prepare and give training in all of the subjects scheduled for a day's work. Let us assume there are five subjects to be covered. The battalion committee prepares well in advance overall and daily lesson plans on each subject. In order that each squad leader will not have to teach all subjects, the company commander decides that the squad leader will teach the squad subject "A," his assistant will teach subject "B," a prospective assistant will teach "C," the platoon sergeant will teach the entire platoon subject "D," and the lieutenant will teach subject "E." Prior to the day on which the subject is to be presented, a committee spokesman will coach the instructors in subject "A," another in subject "B," and another subject "C." In this way we build leadership in the battalion and at the same, through the committee system, we take advantage of the existing educational capabilities within the battalion in passing on knowledge to those who are to teach. It is evident that the combination of the committee system and the commander system will answer the situation. Note that as a rule instruction will be given to the small units by their leaders or prospective leaders. Large unwieldy classes are unproductive. Overall budgeting of time, lesson planning, and continuity are of course necessary on the part of all concerned.



EMPIRE IN TRANSITION

By

Col. Paul W. Caraway, Inf.

The author — a soldier, lawyer and scholar—is well qualified by experience to discuss the broad subject selected. After two years' experience in strategic and policy war planning in the WDGS, Colonel Caraway joined General Wedemeyer's headquarters in China, where he was made a general officer. He became an instructor at the National War College early this year, following six months of duty in England.



The world is witnessing a considerable reorientation of British effort—a reorientation that will have profound effects on the world in general and upon the United States and her Armed Forces in particular.

THE GREATEST MODERN Empire was built and sustained by the genius and energy of the British people. Started in the era of explorations in the 15th and 16th centuries, it reached its widest extent territorially and its peak in world influence during the last century. Much of the territorial expansion was as a result of chance and the requirement of accepting responsibilities inherent in victory in war; part was due to the requirements for markets for the new productivity arising from the industrial revolution and part to the necessity of linking and preserving the Empire after its creation.

This apparently haphazard growth tended to follow a simple basic design, one not always clearly seen by the generation wielding power, but present nevertheless. Whatever the genesis, it resulted in Britain's acquiring and maintaining control of the bulk of the raw materials (outside those in the Western Hemisphere), the key communications centers of the world (outside of the United States) as well as those areas of the world which were essential to her security.

Whether British rule during this period was good or bad cannot be weighed finally at this time. Personal opinions, prejudices and political expediency will so color the findings that their objectivity must be questioned. Nonetheless the fact that Britain did seize the reins and did rule is important, since it illustrates clearly the unchanging pattern of world power beneath the superficial fluctuations.

With due regard for the other stimulants to human accomplishment, it must be recognized that one of the basic motivating forces of man, as an individual and in his social groupings, is the desire for power. Right or wrong in the abstract, the power wielders manage to get what they want—or think they want—at least in a material sense. This will to power finds expression and, if successful, fulfillment among

individuals in their struggles to excel in politics, business, or the professions; among nations, in fighting for "a place in the sun." Normally the stresses of this ceaseless struggle are counterbalanced by other and opposing forces, thus maintaining a rather shaky equilibrium and allowing changes to take place in a slow and fairly orderly fashion. Accelerated and sometimes violent changes take place when a leader slackens his grip or falls, leaving a vacuous area which irresistibly attracts the individuals and societies able and willing to make the effort to seize power.

These struggles have become more intense as the complexity of civilization has increased and have drawn to themselves greater and greater portions of the energies of nations. Historically one need only look for examples in the chaos following the fall of Rome, the slow emergence of potential power groupings struggling to control resources and areas of the world, and in the series of efforts that grew more violent as they proceeded, by which Britain was successful in wresting the power from Spain, France and Portugal, and in maintaining herself in a paramount position for more than a hundred years. There is no reason to believe that this pattern will not be repeated in the present situation and that the irresistible circumstances will not force the United States to put its weight increasingly into the struggle to rule.

In an effort to alleviate the violence and waste attendant upon nations' efforts to dominate, it is planned that some form of world organization, presently the United Nations, substitute the joint action of several states for the dominant and often arbitrary rule of a single superpower. If successful, this plan would cushion somewhat the effects of the changes in the world power position, and if it attained maximum effectiveness substitute the international will of a world confederation for that of a

single state. The success of this plan for world organization will be dependent upon the timing and magnitude of the crises with which the United Nations must deal, and the ability of the member states to resist the efforts of the potential world leaders to draw them into their orbits as satellites.

The period of world-wide disturbance heralding a new struggle for power culminated in 1914 in war. The losses and economic maladjustment occasioned by the 1914-1918 war, as well as the widespread effects of America's return to isolationism and runaway economy started the crippling trend in the British Commonwealth.

The 1939-1945 war continued to pile difficulties upon Britain, resulting in a severe deterioration in her economic and power positions. Today some prophets of doom are freely predicting that the British Empire is crumbling and that senile Britain is unable longer to hold her world together. Such predictions may be premature, since John Bull possesses amazing reserves of strength, and a great capacity to recuperate from apparently fatal illnesses. However, there is no question but that the world is

witnessing a considerable reorientation of British effort, or that this reorientation will have profound effects on the world in general and upon the United States in particular. Its effects upon this country will in turn affect the Armed Forces of the United States and pose problems for solution of greater complexity and diversity than any they have faced previously. The solution may require a change of Armed Forces doctrines and training and in some instances may reshape the needs of the services for personnel to enable them successfully to fulfill their future missions.

The period of England's great power and influence was a period of enlightened imperialism. Britain's colonial policies and methods of administration of areas under her control generally showed the way to other nations. Britain's policies were ever changing and improving. The British credit the successful revolt of the American colonies with doing more to force a realization of the changing position of dependent peoples and areas than any other factor. The evolution of the Empire tended to ever greater freedom for the dependencies, resulting

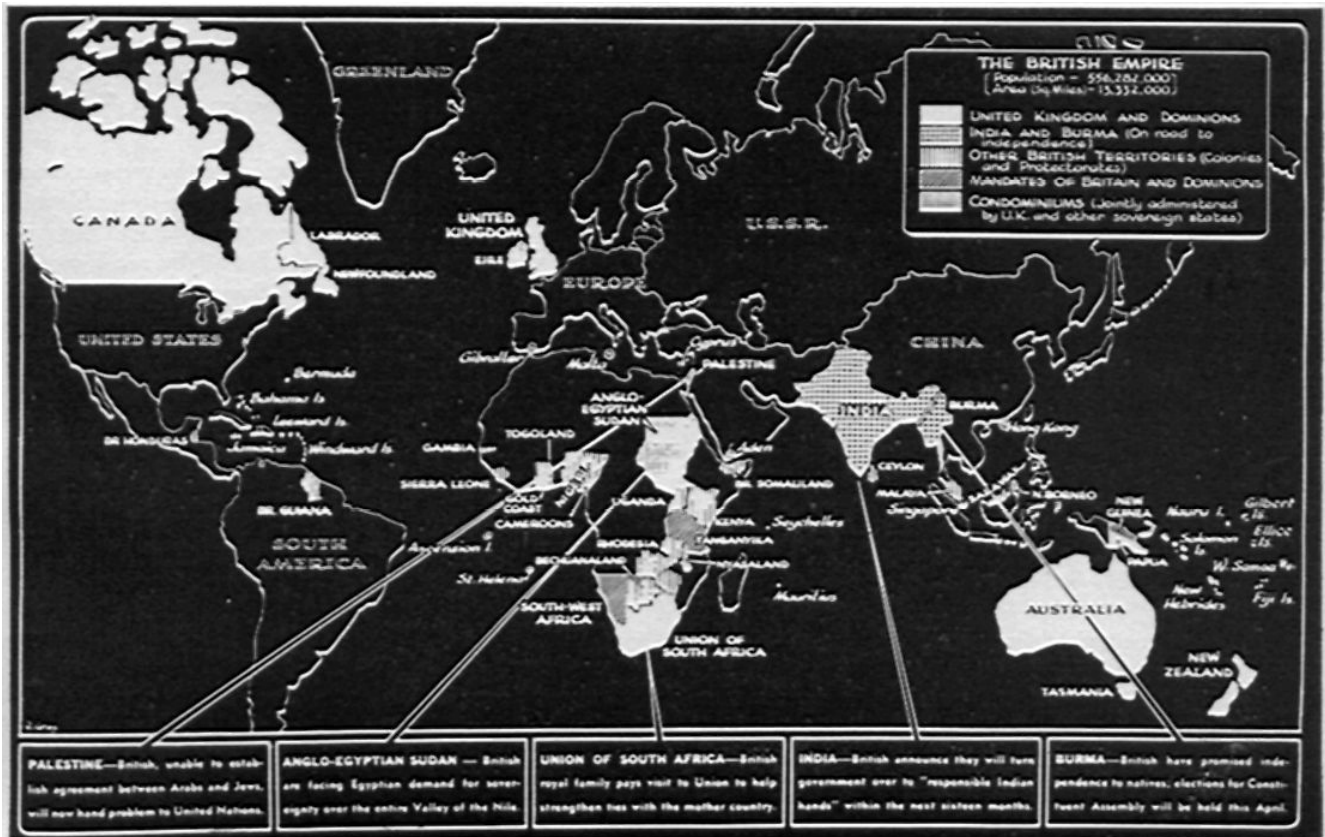
in the creation of the self-governing Dominions in the early 1930s and in the last two years steps leading to the relinquishment of all British control in India, Egypt, and Burma.

The Empire's influence has also been very persuasive in favor of the Rule of Law and the acceptance of responsibility for their actions among individuals and nations in contra-distinction of the law of the jungle, of every man for himself and only the strong may rule. This theory is basic in British governmental and legal systems and has widely influenced the political development of the English speaking world. However, this is but a sublimated form of the thesis that unless some one rules there can be no order, and presents yet again the question, who will be the ruler. This question today is still unanswered.

Lastly, the British Empire perfected the theory of the Balance of Power as a modern instrument of policy to keep the peace. This policy enabled the Empire to establish and maintain the Pax Britannica from the Congress of Vienna to the outbreak of the European War in 1914.

From the foregoing one should not

New York Times



make the mistake of assuming that Britain's rule has been one composed entirely of sweetness and light. In the past her leaders in some instances have been incredibly stupid, and at times have lagged far behind the more enlightened sentiment at home and abroad. Errors due to ruthless implementation of policy or to mistaken policies themselves are evident when one examines the British policies which precipitated the American War of Independence, the second struggle between the United States and Britain in 1812, her minor wars between 1850 and 1910, and the trouble in Ireland in the first quarter of the 20th Century.

Britain and the Empire have had an especially pronounced influence upon the United States. The fact that the original thirteen colonies were established and governed by Great Britain has caused the social, economic and governmental pattern of the United States to be based upon the Anglo-Saxon rather than Spanish or French models. This contributed greatly to the growth and stability within the borders of the Republic and among the diverse peoples who populate America.

The existence of British power during the period 1815-1914, particularly her naval power, together with her tacit (and sometimes open) support of the policies of the young United States protected the new nation in its formative period. This was a big factor in the phenomenally rapid expansion of the United States within the North American continent. It also enabled the United States to maintain its national integrity without supporting a large Army and Navy, as protection against aggression from without, during the periods of the greatest expansion westward and its earliest and most chaotic industrial development. Further, during the war between the Union and the Confederate States, Britain's ultimate official attitude helped to keep the struggle free from outside interference.

This benevolent attitude toward the United States on the part of the British Empire (albeit dictated by Britain's lively appreciation of her own best interests) together with America's favorable geographical position, have had several far reaching effects upon

American actions and viewpoints with respect to the international scene.

First, it has given America an unrealistic criterion for use in measuring its national security requirements, and strengthened its tendency to reduce defense forces to a dangerously low level during the intervals between wars.

Second, it has encouraged the continued existence and expansion of isolationist sentiment in the United States.

Third, the common origin of the two nations, with customs, governmental institutions and language at least apparently understandable to both peoples, together with the inherent freedom from fear of reprisal by either disputant, has resulted in the magnification of misunderstandings which under other conditions would have been of no importance.

It is true that common dangers pull the two nations together in war, but due to differing national objectives and mutual indifference they drift apart between wars, thus providing an inviting chink in the Allied armor as an encouragement to prospective aggressors. It has not yet become apparent to the majority of the American or British peoples that wars are bred during the so-called times of peace.

The foregoing paragraphs are not written to establish any case for American gratitude to Britain, but to show that our own self interest and the interests of the world have been well served by the British and their Empire over the years of its existence. Therefore, we cannot view lightly the effects upon America and upon the Armed Forces of the United States of a major reorientation of the British Empire or even of a material decrease in British power potential.

The present economic and political position of Britain and the Empire is resulting in Europe losing the strong leadership that hitherto has been furnished its free peoples. It leaves that area without a liberal country of sufficient stature to rally the democratic forces of the western continental nations and to show the way to a Western European rebirth, spiritual and physical.

Prior to 1939 Great Britain and the Commonwealth represented to Europe a stable economic and political entity.

Britain herself was one of the major creditor nations. Her governmental system, her demonstrated respect for the rights of man and her unquestioned leadership in the world, made her the rallying point for the fight against reaction and oppression. Further, the United Kingdom's position as the titular head of the Commonwealth, her long standing and well-understood foreign policies, her Navy's undisputed mastery of European waters, her own apparent military and technical power and her allies and friends on the Continent made her the very real leader of democratic Europe. Had she been stronger and had her continental allies and friends been other than militarily and politically bankrupt, it is possible that the course of European history after 1930 would have been different.

Today, however, Britain stands exhausted as a result of the effort required to win the all-important military victory in 1945. Her present position has revealed weaknesses in her economic and power positions which have caused a leaderless Europe, gravely in need of relief and rehabilitation, to turn to other sources. It is impossible to forecast accurately the final outcome of the present situation, but it can be foreseen that, as in the case of Greece, any vacuum created by Britain's present course of action will be filled without delay.

A continuation of the present course by Britain may result in the accelerated rise of new groupings, around two powers which are essentially non-European—the United States and the Union of Soviet Socialist Republics. While the ideologies of these two can furnish the focal point for the rallying of the two major schools of political philosophy existing today, the Totalitarian to the USSR and the Liberal to the United States, this reorientation of the power groups contains the seeds of world-wide disorder and conflict. The USSR is pushing out aggressively to extend her hegemony and her actual territory, while the United States is debating only how far to go and what political and economic risks it is willing to accept. With Britain relinquishing her commitments bit by bit, the vacuum created by her withdrawal will of necessity be filled

by one or the other of the two contenders for the mythical title of the world's leader. In so far as the United States is concerned this country must be prepared to accept an increased international participation, and an acceptance of the responsibility that goes with international leadership, or it must risk becoming a secondary force in the world, and be willing to sit back and allow the USSR to replace Britain in the international scene. As yet the overall United States leadership has given no clear evidence of the amount of responsibility it will accept, or of the portion of the costs in money and national energy exacted by world leadership it is willing to bear. It must be assumed that the forward surge of events will force some substantial acceptance by America, just as the leadership was thrust first upon the Romans, and latterly upon their successors, the British. The problem to be solved is not merely one in cost accounting, but it is one involving pride of place and the American philosophy of domestic and international relationships.

Postulated upon the above, the members of the Armed Forces of the United States must re-examine their position as citizens and as parts of the implementing force upon which the United States must depend.

As citizens of the United States they must accept the increased international responsibility, which means that they must view the world objectively, shutting their minds to personal prejudices and personal desires and accepting or rejecting a position purely upon the basis of the greatest good for the United States.

Conversely, the officials of the executive agencies of this country, and the American Congress act in accordance with the new responsibilities, and see that their statements and actions, which will bring about international reactions, have the backing of power—and this means military power in the last analysis—required to implement these actions. This does not

mean necessarily the maintenance of great armed forces, but it does mean that this government cannot afford to reduce the forces below minimum effectiveness.

All sections of the population in America, the military forces with the rest, must reassess present dogma relating to *imperialism, democracy* and the *American way of life*. The blind prejudice of great segments of the people against imperialism must be replaced by a reasoned position with respect to expansion, and to the acceptance of responsibilities in areas outside the Continent of North America. Today every commitment abroad to restore stability, whether economic or political, cannot be branded imperialistic *per se* but must be viewed in light of the emerging struggle for leadership. The people and government of America must accept or reject each case on the basis of a reasonable United States foreign policy, and on that basis alone.

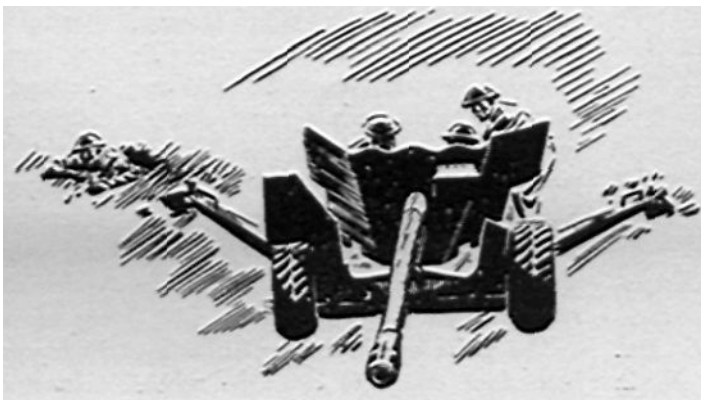
Democracy and the American way of life must also be under constant examination and review. Neither of these two forces is static, but they must by their very natures be dynamic and within the world pattern if they are to remain alive. The survival of America in the changing modern world requires this complete awareness of America's position, acceptance of the changes to our political and social theories inherent in present conditions, and a willingness to become active participants in affairs of the world, not mere spectators without responsibility who feel free to give gratuitous advice on all subjects from Palestine to Chinese Communists.

Circumstances within the British Empire may force America into an even greater extension of interest, responsibility and participation in those

areas where the Empire now has economic or military interests and commitments. What this could mean to the United States has been clearly forecast by the debate developed over the position of the United States with respect to Greece and Turkey. To the Armed Forces it means more frequent and longer tours of duty outside the United States and the assumption of greater responsibilities for the welfare and internal order in the areas where they are serving. These additional administrative responsibilities will require a greater understanding of world economics, politics (both national and international) and their interplay, and of the long range objectives of the United States. In addition, there must be a much wider understanding among the Armed Forces of the value and necessity for presenting a clear picture to the people at home of the problems inherent in the new situations and also for doing an outstanding professional job of explaining to the world the viewpoint and objectives of the United States, selling the American way of life, and maintaining abroad the prestige of the United States.

All members of the Armed Forces must continually broaden their education until they can understand and deal adequately with the psychological, geographic, political, economic and general administrative problems introduced by a widened and diversified participation in international affairs. This means that the narrower limits of superior professional attainments as a soldier are no longer sufficient.

In summing up, it can be said that the old standards of professional military education, leaving the knowledge of political matters severely outside its purview, are no longer applicable. The United States Army, Navy and Air Force personnel must in fact as well as theory be broadly educated, resourceful, jealous of honor, and their higher leaders thoroughly trained in the arts of negotiation and administration of foreign areas. They must, in fact, fit themselves to be worthy representatives of the United States, and leaders among the citizens of the modern world.



Germany— Two Years After V-E Day

By Colonel W. S. Nye, FA

A former JOURNAL Editor (1939-42) returns to its pages with an interesting report out of Germany, where he is now serving in the Historical Division of Theater Headquarters.

THE COUNTRY

A VETERAN returning to Germany two years after the end of the war will note only superficial changes in the aspect of the country. Woodland and field present the same orderly appearance though the Zonal program of cutting firewood is thinning out some of the forests. Along the autobahns the grass is not always neatly trimmed as formerly and in some places the woods are beginning to encroach on the embankments. Road surfaces are deteriorating owing to heavy military traffic and a lack of repair materials.

Most of the war-wrecked vehicles have disappeared from the roadsides, fox-holes are being filled, and the great litter of K-ration cartons has been cleaned up. Clusters of bomb craters are still visible around defiles, especially where there are uncultivated fields, though in the planted areas they have been smoothed over. Long lines of "kaput" locomotives and cars stand rusting on sidings and in railroad yards, or lie on their sides along the bank. Occasionally one may find a forgotten tank or field piece in an out of the way place. As late as the fall of 1946 unexploded panzerfausts and mortar shells were lying under the trees of the Wannsee district in Berlin; I even saw an undetonated booby trap in the rubble outside the Reichschancellory kitchen.

An intensified program for dismantling and leveling German fortifications was undertaken last year. But many large air raid shelters are still

in existence, and of course the smaller ones are as common as cyclone cellars in Oklahoma.

In the fall of 1945 the Germans removed most of their war dead from temporary battlefield graves and reinterred them in local cemeteries. Today the tourist sees only an occasional roadside grave with its helmet hung on a wooden cross at the head. Recently we drove from Frankfurt to Aschaffenburg where the XV Corps forced a crossing of the Main River during the last week of March, 1945. At a certain crossroad on the highway running west of the river I remembered that there had been a knocked-out German armored car with the driver lying dead beside it. It was somewhat of a surprise to find both the vehicle and the man still there two years later. The soldier had been buried, of course, and his grave is kept green by local country-women.

Some signs of fighting are still visible on the terrain hereabouts. Most evident, of course, are the results of the bombings; these will persist for years, perhaps for generations. Few German villages, except on the western frontier, sustained much damage from either air or ground attack. Where SS or Wehrmacht diehards made a stand, American tanks or artillery customarily battered the forward edges of a town. Some places were even flattened. But for the most part one does not see many signs of the war in a drive through the rural districts.

The cities are in ruins. Little has been done except to clear the rubble from the

streets and stack it neatly within the shells of the burned-out buildings. Many shop keepers in Berlin have erected new fronts to their establishments, using plywood or wall board. With artistic decoration this superficial restoration gives the impression that the city is coming back to life. It merely conceals, however, the real desolation in rear.

Public utilities are functioning after a fashion. Most cities have good water and ample sewage disposal. Some street lights are burning in Frankfurt and Berlin, but Munich is almost completely blacked out at night. Gas is never available in adequate amounts, and when some accident to the system or plant occurs, a whole urban area is apt to be without gas for days. One wonders what the Germans use for cooking fuel during such periods.

Railroads are in limited operations, satisfactory improvement being prevented by inadequate maintenance of rolling stock. The locomotives that survived the war are being used to the limit, but they are old and wearing out rapidly under the heavy load. The "Berliner," the Paris "Main Steiner," and the overnight trains from Frankfurt to Munich and Bremen carry a few sleepers though not as many as are needed. Many passengers have to ride in battered coaches, and few trains have diners. The Germans are still worse off. Their coaches are pitifully crowded, are unheated, have no water, and in most cars the window glass has not been replaced. Despite these unfavorable conditions the Germans are inveterate travelers; the trains and bahnhofs are always thronged.

In good weather many Germans journey along the highways. They trudge along with packs on their backs, or pull handcarts or ride bicycles. An increasing number are acquiring motor-bicycles and autos. In Bavaria there are an astonishingly large number of German trucks. Most of these cars use illuminating gas as fuel or employ charcoal burners to generate gas. The ox carts and other animal-drawn conveyances which our troops saw during the war are not so much in evidence along the highways, but may be found on the country roads.

THE PEOPLE

No marked change is apparent in the people. Nevertheless it is noticeable that there are no fat Germans. And no jolly ones, either. The Germans in the American Zone are not starving, in fact they look quite healthy. According to the records, however, the caloric value of their ration is often close to the danger line, and in some cities the nutritional surveys show that they are losing weight. Naturally, they cannot have lost weight consistently for two years or they all would be dead. The answer is, most Germans supplement their official ration either by homegrown vegetables or other products, or by purchases in the black market. But by our standards, the Germans are not well fed. They say they are hungry all the time. This accounts for their eagerness to accept employment with Americans; who give them at least one good meal a day. In order to fill their stomachs the Germans eat as many potatoes and as much bread as they can get. Their diet is not properly balanced, and often they cannot obtain all the components which their ration authorizes. In particular they are fat-starved. American soldiers have been amazed to see a German, like an Eskimo, gobble down a cracker or piece of bread spread with an inch-thick layer of lard. Such a sight is unusual, of course, for the Germans cannot normally procure such generous helpings of lard or margarine.

Germans remain fairly well clothed, considering the difficulty which they must experience in obtaining new garments. There are an increasing number of young men and children who are beginning to look like tramps, and indeed they probably are vagrants. Some discharged German soldiers are still wearing parts of their uniforms, not always dyed as they are supposed to be. Some are utilizing blankets or other ex-Wehrmacht textiles in the manufacture of overcoats or other garments. One popular "number" is a short jacket made from camouflage-pattern shelter tents. Some women, too, are wearing dresses or coats obviously tailored from blankets.

Women's hats are probably not of the latest pattern, but the Frauleins seem to

be clever at improvisation. Going bareheaded is becoming increasingly the style with both sexes, even in freezing weather. The men wear their hair so thick and long that they need scarcely any other covering except the earflaps and improvised bandages over their ears which they affect in the winter.

Besides obtaining sufficient to eat, the Germans have two other main preoccupations—fuel and shelter. It was known by July 1945 that there would be no further coal, coke, or gas for space heating. This fuel shortage has not greatly bothered the village folk because the peasants have always used wood for fuel in their *Kachel ofens* (stoves made of Dutch tile); they are able to drive wagons to the nearby woods and supply themselves just as they always have done. The city folk are cold. In Berlin, which contains vast wooded areas, the people have cut down trees and chopped them up as fuel. Every second shade tree along some of the streets in the Zehlendorf district was utilized in this manner, and Grünewald and other forests were greatly denuded; the Tiergarten, already in bad shape as a battleground, was further reduced to a treeless waste. Old persons and others physically unable to cut and haul their own wood have suffered the most, for they get no assistance from the German authorities. The past winter, terribly severe and prolonged, has caused quite a few deaths by freezing in Berlin. In other cities such as Frankfurt the masses are no better off, perhaps worse because the wooded areas within these cities are not so extensive as in Berlin. Although the zone-wide cutting program has saved many persons, others have become desperate from continued cold. Some men, ordinarily honest, finally resort to stealing fuel. From that it is easy to slip into housebreaking and robbery. Crimes of this type are on the increase.

There has been a serious housing shortage in Germany since before the war, and of course it is now greatly aggravated by the destruction of cities, influx of expellees and displaced persons, and the requisitioning of dwellings by the occupation forces. The inhabitants are crowded together in every available house and apartment in

every village and city. Temporary shanties and former slave lagers are utilized where available; in the cities, cellars, air raid shelters, and bunkers also continue to provide living space of a sort.

ECONOMY

Germany today is not a going concern. Though progress has been made in certain fields where Military Government has relaxed controls or extended aid, trade and industry generally have not revived and show no immediate symptom of attaining more than thirty per cent of the 1936 level. This is not because the Americans are deliberately retarding recovery or that their policy is to prevent Germany from becoming self-sustaining. Quite the contrary. In the modern, industrialized state, where everything is inter-related, war or other cataclysm will upset the fine economic balance and bring disaster. That is what has happened to Germany; England and the United States have caught horrifying

Thanks to helping hands, an arriving Army wife is properly greeted, even before alighting from the train.





Although they are not starving, it is noticeable that there are no fat Germans, and the caloric value of their ration is often close to the danger line. Here, a German farmer works his fields.

glimpses of its possibilities, too, during their strikes and coal shortages.

Wherever one turns, he will find lack of coal to be at the bottom of every German failure to effect economic recovery. As an illustration, in Munich there is a serious housing shortage. To build more houses, the city must import skilled construction workers. Since there is no place for them to live, none can be brought in. Temporary shelter could be erected if nails, roofing, cement, and certain other critical materials could be obtained, but that is impossible because there is no coal to furnish power for the plants which manufacture these articles. It is a vicious circle.

Military Government has made optimistic forecasts as to the beneficial results that will obtain from the economic union between the U. S. and British Zones. But again, this is slow in being realized because the unusually severe winter, freezing the waterways, has prevented coal from being hauled from the Ruhr.

Agricultural experts maintain that the soil of Germany, particularly that of the U. S. Zone, is incapable of producing sufficient food for the population. I am not sufficiently well informed to argue with them on that score. But even if foodstuffs could be grown in chemical tanks, as the U. S. Navy did on certain coral atolls during the war, the necessary chemicals could not be produced until coal and other resources are made available. Even now agricultural output is not up to standard because lack of coal

has prevented manufacture of enough fertilizer.

GARRISON LIFE

Troops. American forces who at the end of the war had squatted comfortably in the best private homes, apartments, hotels and other public buildings, are now mostly in re-conditioned barracks. This is more satisfactory to the commanders, who find that it enhances control and discipline, but the men are not as well pleased as when they were revelling in the luxury of private suites with maid service. The barracks are ex-German kasernes similar to permanent buildings on Army posts in the United States. There are some differences, notably in that the Germans fed by battalion or other large unit, and did most of their cooking in huge steam kettles and deep-fat friers. Since our units prefer to mess by company, additional kitchens and dining rooms have had to be installed, usually in the basements. In most cases a good job has been done. Messes are well organized and attractive. The actual cooking is generally performed by American soldiers, though many German helpers, kitchen police, and waitresses are employed. German equipment, where available, supplements the standard Army gasoline field ranges. Dining rooms often contain small tables and chairs instead of long tables and benches. Table linen is frequently in evidence, together with vases of flowers, murals on the walls, and other

decorations. Some units have provided attractive uniforms for the waitresses. The general trend is to get away from the idea of a mess hall, and make it more of a dining room.

The average squad rooms differ little from those in the United States, except that there is more German equipment such as wooden wall lockers and sometimes even wooden bunks. Quartermaster post, camp, and station equipment, however, is becoming increasingly available.

The soldiers have few if any duties in connection with police of grounds and buildings. Nearly all of this is done by German janitors and charwomen, which is desirable for prestige purposes and also because it releases more men for purely military duty. Motor pools, too, are full of German mechanics and drivers. More general-purpose vehicles are now driven by Germans than by U. S. soldiers. The German is not always a good driver, despite his fixed opinion that he is "prima." He is not as experienced as the average American, his reactions are a bit slow, and he is apt to have all the foolhardiness of the tyro. Officers who have become expert back-seat drivers through years of riding with GI chauffeurs should ride with a German if they want a really exhilarating experience. On the highway the German driver is a menace who must be watched carefully at all times. He habitually makes left-hand turns from right-hand lanes, and he will attempt to plunge through when the way is by no means clear. German pedestrians, astoundingly incautious and lethargic, are in continual peril from military vehicles operated by members of their own race who apparently are willing to run them down without mercy.

Some units have fixed up fancy auxiliary installations. One of the field artillery battalions of the 78th Division, now inactivated, had a complete steam laundry fully staffed by Germans. A certain signal battalion has its own dispensary, hospital wing, and dental clinic, all fitted with scrounged equipment, and very fine too. But the most strenuous competition is in building the clubs. All large units, and many small ones, have night clubs. The ornateness and "class" displayed in some of these establishments

is amazing to one who is fresh from the States where a much less extravagant scale of entertainment is the rule. In Germany, clubs rather than day rooms have received the attention of the unit commanders. Recreation halls have features such as excellent German orchestras, snack bars, photo studios, galleries where a man can get his likeness done in oil or watercolor for a nominal sum, game rooms, and classes in arts, handicrafts, and in foreign languages. Formerly there were also clubs and recreation centers run by the Red Cross and the Special Services. The Red Cross is now out of this business, mostly; and in general there has been a wholesome reduction in the number of clubs. For a time it had reached the stage where the average Joe needed some night duty on guard to give him a little relief from the strenuous seven nights per week of club life.

Soldiers in Germany are also exposed to many other recreational features such as athletics and sports of all kinds. Depending on the location of the military community, some of these are of a type which would not be economically possible in the United States. For example, in Berlin there is a large lake called Wannsee where in season the soldier may go boating, free, in almost any craft from a kyack to a racing sloop. In the summer this beautiful body of water is white with sails. In other areas the winter sports are unsurpassed. This is particularly true in southern Germany,

but ski runs and winter lodges are also to be found near Frankfurt and other communities.

In some cities there are cultural advantages such as opera, fine orchestras and vocalists, art exhibits, ballets, and theatricals. These activities are low in cost, if not free, and are available the year around.

Americans with the occupation forces also have unrivalled opportunities to see Europe, England and Scandinavia. Special Services and the American Express Company operate tours which are not expensive; or the individual may arrange trips to suit himself. Rail transportation leaves much to be desired in the way of comfort and speed, but few people mind a brief period of discomfort when they know that excellent hotel accommodations are available at the end of the journey.

Officers. Living conditions for officers and their families are generally excellent, though they vary somewhat with the different military communities. It is unsafe to generalize concerning quarters. Junior officers in Frankfurt and in some other large cities are normally in apartments, the senior officers in separate homes. Nearly all the quarters are comfortable, some are magnificent. Plumbing, heating and other utilities are not always in the best state of repair owing to lack of parts, but the Engineers work hard at keeping them in operation. There aren't enough quarters for everyone who wishes to bring

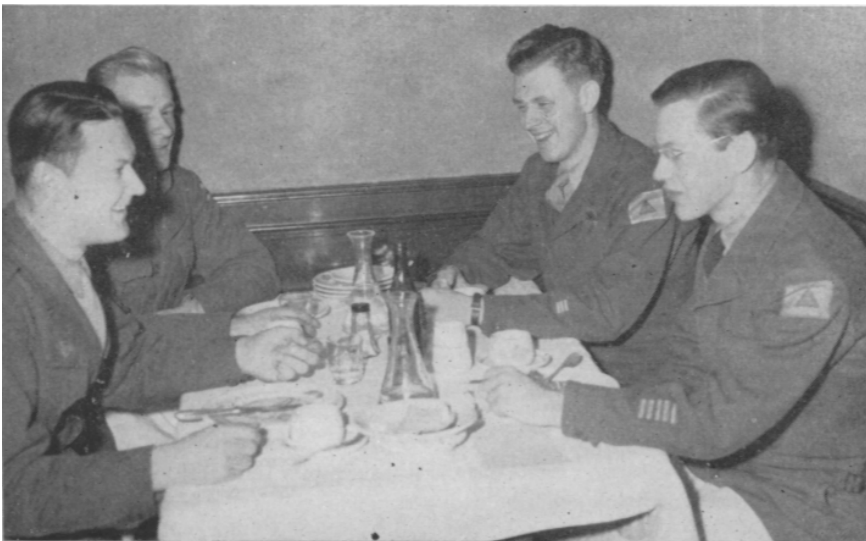


Actual cooking is usually performed by Americans, though many German helpers and waitresses are employed.

his family to Europe, so there is still a control on the flow of dependents to the Theater.

As advice to an officer who expects to come to Germany with dependents, I should say that he ought to leave most of his household belongings in the United States. He could profitably bring some linen, kitchen utensils, perhaps some flat silver, all his clothing (except civilian) — don't forget cotton uniforms if you expect to return to the U. S. in the summer—and equipment for such sports as golf, tennis, hunting, and fishing. As to bedding, only OD issue blankets can be drawn. Sheets and pillow cases must be purchased from the clothing store, and they are rationed. I recommend that some good bedding be brought along. Also your own beds, springs, and mattresses unless you like hard beds. The German beds are a little larger than single beds, not quite as big as a three-quarters size. Some are perfectly enormous double beds. All are as hard as rocks. For pillows the Europeans place a hard wedge under the head of the mattress, then add something that resembles an undergrown feather quilt. I haven't found anyone who can tell me how to use the larger feather quilt which is the sole bedding provided on a typical German bed, winter or summer. It is too short to cover your shoulders and feet simultaneously. Perhaps one is supposed to get down inside it as in a sleeping bag.

The camera enthusiast should bring his own darkroom equipment or arrange to have it sent. Some contact paper, small size, can be purchased. No flash bulbs, no chemicals. Do not count on buying a Leica unless you can guarantee to win one of the PX lotteries. Your



Messes are well organized and attractive. The general trend is to get away from the idea of a mess hall, and make it more of a dining room.

mathematical chances of this are quite good if you can arrange to stay here for 175 years. You can get inexpensive cameras readily from the PX, and Speed Graphics are fairly plentiful too.

It is impossible to predict whether your quarters will be furnished with 110, 220, or some other voltage of AC electric power, but you are safe in expecting that it will be something closely approximating one of those voltages. German light cord plugs are different from those of American manufacture, and the English plugs do not fit either. It is well to bring a few light bulbs, both 110 and 220. You can trade for the correct ones.

I cannot advise the army wife specifically as to window curtains and draperies. It is better not to bring any; or if you must, bring only the material and have it tailored here. The German windows are not the same size and shape as those in the U. S., and the fixtures are different.

Laundry soap, scouring powder, and floor wax are short here.

Excellent schools have been established for children up through high school ages. Teachers have been brought over from the U. S., the best that could be hired.

Automobiles are tremendously popular. It is well to bring your own, for the supply from the Army Exchange Service will not catch up with the demand for a long time if ever. The PX is operating garages and service stations. Spare parts are coming in slowly, but at present there are some shortages.

Hunting and fishing in Germany are excellent, because the game conservation measures practiced for so many years have kept the fields, woods, and streams well stocked. Game consists of deer (several varieties), wild boar, hare and rabbits, pheasants, partridge, ducks, and chamois. The best fishing is for a speckled trout called *Forellen*. Major George Godfrey, a veteran angler from Eugene, Oregon, tells me that he has never encountered as fine fly fishing as he has enjoyed in Bavaria.

Now for a very controversial subject—servants. My family insists that I am talking from ignorance when I try to discuss this, but here goes with a few weasel - worded generalizations.

Servants can be obtained in almost any desired number in Germany. There are available, even, professional servants who are simply superb. There are others who are inept, stubborn, and dishonest. Your best bet is to obtain servants through the recommendation of someone in whom you have confidence. Honesty is a more important attribute than skill or industry, for some families here have been greatly upset by pilferage on the part of servants or other Germans having access to their quarters. Others have been happy in the possession of cheerful, honest, industrious, and skilled housekeepers and cooks. A word as to the latter. No matter how experienced as a cook or a chef, the German either cannot or will not prepare some of the favorite American dishes. For Southerners, I should add that the German cook is convinced that hot bread is lethal. Similarly for warm cake or other pastry.

Favorable living conditions are not the sole reason for the high morale among Americans in Germany and for their disinclination to return to the States. The average individual here is convinced that conditions at home are appalling. He hears so much about strikes, the high cost of living, nonavailability of servants and commodities, the housing shortage, general unrest and dissatisfaction, that he really does not wish to return. Whether he is correct in these views, I am not prepared to say, but that is the prevailing attitude. You rarely hear of an individual rejoicing that his tour of foreign service is about to expire.

MILITARY PROBLEMS

Professional problems are about the same in Germany as elsewhere, I expect. The biggest headache for commanders of all echelons is that they are, to use a trite expression, trying to do a man's job with a boy. In a year and a half the occupational troop basis has shrunk from two field armies, to one, to a division. And the end is not in sight. With all this reduction, the mission has remained essentially the same. Commanders are forever reorganizing their units, rebuilding new and smaller ones out of the fragments remaining from the previous drastic reduction in

the OTB. They never finish this task before a new cut is imposed. No one who comprehends the over-all mission will argue that a big occupational force is now needed to keep Germany subdued, or that national policy would support such a program even if advisable. Nevertheless the task of the occupational forces in support of military government is so important and so difficult, especially for a small force, that only trained units should be provided.

There is the crux of the problem. How can trained units be built from recruits who only remain for eight months or a year in the Theater, and who cannot be given training here because the security load is too great?

The mission of the occupational forces—other than the service elements—is security. While some military police and members of the constabulary have fairly romantic roles, the task of the ordinary soldier is a steady, unrelenting dose of interior guard duty. Little training other than orientation and a small amount of weapons instruction can be given. Orientation has been overemphasized, perhaps because of the insistence of some journalists that the American soldier "doesn't know what he is over here for." The unit commanders and the men themselves know that the making of political policy and the conduct of international relations are not within their province. What the enlisted man needs to know is how to be a good soldier. The other things will then take care of themselves.

Lack of training anywhere is always reflected by poor morale and discipline. Military commanders have known that for three thousand years. The Army cannot be held responsible for the faulty background or lack of character building which is evident in some individuals who are inducted into the service. If these men behave poorly in their own communities they will act in a still more reprehensible manner when they are far far away and not under the eyes of home-town folk upon whose good opinion their life-long reputation depends. In a military organization this home reputation must be replaced by the opinion of the other men in the unit who should resent any actions which bring discredit upon it.

Combat - experienced commanders know that unit esprit is the one thing that will make an individual acquit himself honorably under dangerous and difficult circumstances. Yet we are throwing away this most precious heritage of the profession of arms by rotating individuals on foreign service.

We should rotate units.

Perhaps there are insurmountable obstacles, of which I am unaware, to the adoption of a policy of unit rotation on foreign service. If so, it is a pity, for that would at once solve the gravest problems of the occupational forces. It would result in bringing abroad only trained, qualified units — units who could maintain, for the short period in which they would be on this duty, all the cohesiveness and esprit needed for the mission.

Other advantages would accrue. Valuable training in moving units long distances by air lift or water would be available to both higher command and staff and to units. The supposed global nature of future warfare points up the necessity for frequent exercises of this sort.

It might even be less expensive in the long run. Units coming overseas for what could be considered as an extended maneuver would not have the tendency to "dig in" as deeply as permanent overseas garrisons. Recreational and supply facilities need not be so elaborate. The numerous persons now engaged exclusively in moving and maintaining dependents could largely be dispensed with, for fewer dependents would need to be sent over, and these only as transients.

But even if it cost more, unit rotation would win over the present system because it would assure the Theater commander that he have in his force only selected units made up of individuals who know their job and would stay out of trouble. The size of the occupational force or its composition could be varied at will by sending fewer units or units of other types, without disrupting the over-all service set-up. The services could even be reduced numerically, because major resupply could be avoided by rotating units before necessity for much replacement of individual equipment were needed.

QUESTION AND ANSWER

The following is extracted from a "question and answer" discussion which followed Mr. Arthur Bryant's lecture "A Historian's View of the War" to the Royal United Service Institution on 22 January 1947, in London, and as published in the February issue of the R.U.S.I. Journal.

Both the question and the answer are equally applicable—yes, perhaps even more so—to Americans as to the British.

Question: How are we going to enlighten the new generation about war—the history of war, and, more particularly, how to avoid war? Most of us here have been brought up to think of war, to study war and to train for war; but the vast mass of our fellow-countrymen do not regard it as part of their ordinary education. Am I not right in thinking that the scholastic profession as a whole is rather shy of the whole subject, and that the average person is not taught very much about the results of wars, how wars have come about, and how they have been fought and won or lost? Is there hope of more being done for the education of the rising generation in the years immediately before us in a subject which so vitally concerns our national security and prosperity?

Answer: I suppose one of the major factors in the extraordinary attitude of the British public in the period between the last two wars was that very long period of peace which we enjoyed because of our own past wisdom and our own past naval and military victories. Between 1689 and 1815 we were at war for more than half of the total period of 126 years and waged nine European wars. Between 1815 and 1914, with the brief interlude of the Crimean War, we had no continental war at all. Though after Waterloo we certainly did reduce our armed forces to a very low level, in the "twenties," "thirties" and "forties" of the last Century we were not as a people unaware of the greatness of our military tradition. We were, indeed, very proud of it. But in the 1920's and in the 1930's we did not appear to be so at all. I suppose because the interlude of the war of 1914-18 did not really bring home the reality of the connection between our liberties and of all that we most valued, and our success in war.

This last war has given us that realization. It has gone a long way to make people wiser. Whether they will continue wise is another matter. A great deal depends on how history is taught and written. One of the gravest charges that can be brought against my profession is that historians in the latter part of the XIXth Century ceased to take the trouble to make history readable and interesting to the ordinary reader. They painstakingly collected and published historical facts for one another's benefit. But if written history does not enlighten and instruct non-professional readers, at least those who sway our destinies—and that today is the ordinary man—I really cannot see the point of writing it at all.

Artillery Uses for the Board, Plotting, M-10

By Lt. Col. Ernest P. Foley,* USMC



Although designed for use by mortar and machine gun units, the Plotting Board M-10 has many potential artillery uses. The board has been tested extensively in the Marine Corps and, in view of its potential uses, has recently been authorized for issue to and use by Marine Corps Field Artillery units.

SIMPLE AND DURABLE IN construction, the board, plotting, M-10, consists of a rotatable disk of transparent plastic material (prepared to receive pencil marks) pivoted on a flat opaque base of similar material. Figure 1 shows the complete board to approximately three tenths scale. A carrying case of water-proofed canvas is provided and allows the board to be carried on the belt.

The circumference of the disk (see Figure 2) is graduated in mils with each ten mils marked by a line and each one hundred mils numbered. Three sets of peripheral scales are marked in concentric circles on the disk. The outer scale, in black, runs clockwise from 0 to 6400 mils. The middle scale, *in red*, with its 0 on the same graduation as the 0 of the outer scale, runs in a counter clockwise direction from 0 to 3200 mils. The inner scale, in black, with its 0 on the same graduation as the 3200 mils mark of the outer scale, runs from 0 to 3200 in a clockwise direction. A black line drawn from the 0 mark to the 3200 mil mark of the inner scale and passing through the center of the disk is called the *center line*. On either side and at the ends of the center line are

small red plus and minus marks.

The base (see Figure 3) has a circular area (slightly smaller in diameter than the disk) which is marked in red into a rectangular grid whose axes intersect at the center of the grid. The vertical axis of the grid is called the *index line*. The center of the grid is the origin for two linear scales marked on the grid for convenience in use, although *any value may be assigned which will best suit the problem at hand*. Along one axis which passes through the center of the grid, a scale is marked which assigns a value of 50 units to each small grid square and each 100 units is marked. A scale marked to the left of the first assigns a value of 100 units to each small grid square with each 500 units marked. The zero grid line for each scale is the horizontal axis of the grid. To the right of the center of the grid are marked the letters OP which means observation post in the original plan of use of the plotting board and is used as such in some artillery computations. At the upper end of the index line and on the edge of the base is a vernier scale. The center line of the vernier is an extension of the index line and is called the *index mark*. The vernier scale is used to assist the user in interpolating between graduations on the disk scales when the board is assembled. Along the straight edges of the base are various useful scales. The

reverse side of the base may be used as a scratch pad for hasty computations. The disk and base are assembled together by a single rivet which is loose enough to allow the disk to be rotated on the base about the rivet.

STANDING AND SPECIAL CORRECTIONS

The battery executive officer will find the plotting board extremely useful as a position correction grid in determining standing corrections for a dispersed battery position. Likewise, the computer in the fire-direction center may use it to compute special corrections for all types of prearranged fires. It is suggested that, for greater accuracy, the largest linear grid scale possible be used when computing corrections. When working with a battery with a regular sheaf 100 yards in width and a battery front 100 yards or less in width, for instance, a scale such that each grid interval equals two yards will be found convenient.

Standing corrections are computed by the battery executive officer to compensate for dispersion in width, depth, and altitude of the pieces. Corrections are computed for registration points and applied to all targets within transfer limits. These corrections are made so that the bursts of the base point will be equally spaced in the width of a

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regular sheaf and the line of bursts will be perpendicular to the line of fire. The range and direction to the registration point from the base piece of the battery and the altitude of the registration point are given to the executive officer by the fire-direction center or the battery fire chart. Corrections for difference in altitude are made in the same manner as outlined in Field Manual 6-40 by use of the mil relation.

When computing position corrections, the location of the pieces must be plotted to scale on the disk. The center of the disk represents the plotted position of the base piece, the center line of the disk represents the base line and the index line represents the line of fire to the target for which standing corrections are to be computed. A polar plot is the quickest manner of making the plot of the position area. The data, measured by the executive officer at the battery position, is recorded in the form of a polar plot sketch with the base piece as the origin. After the base piece has been laid on the base point, the sight of this piece is used to measure clockwise angles from the base line to the sights of the other piece and each other piece is measured and recorded. A typical position area sketch is shown in Figure 4. With this data, a scaled plot may be made on the plotting board. Plot the base piece at the center of the disk. To plot each of the other pieces, place the value corresponding to the clockwise angle from the base line for that piece on the outer disk scale over the index mark and, to a suitable scale, plot the distance from the base piece to the piece in question along the index line toward the index mark.

To determine standing corrections for the base point, place the zero mark on the outer disk scale over the index mark. The base line and line of fire will be in coincidence since in this case the base line is also the line of fire. On the disk, over the grid line passing through the center of the disk and perpendicular to the line of fire, plot, to the same scale used in plotting the battery position area, the location of each burst as it should be spaced for a regular sheaf, keeping in mind a pictorial representation of the relative position of the bursts and the line of fire. The burst

for the base piece is plotted at the center of the disk. The displacement in range and width between the plotted positions of each piece and the corresponding burst is measured in yards to the same scale used in plotting. The difference in range is measured on a grid line parallel to the line of fire and the difference in width on a grid line perpendicular to the line of fire. The difference in width, in yards, is converted to a standing correction in mils using the mil relation and the base piece - base point range. The difference in range, in yards, is converted to mils in elevation by dividing the difference in range by the yards per mil factor, taken from the firing table at the base piece - base point range, for the charge used.

Each range correction must have an algebraic sign to indicate whether the resulting elevation correction is added or subtracted from the elevation for the base piece. The sign of the correction will be plus if, in determining the magnitude of the correction by scaling from the plotting board, the range measurement from the plotted position of the piece to the plotted position of the burst was made *toward* the target. The sign is minus if the measurement from the plotted position of the piece to the plotted position of the burst was made *away* from the target.

Standing corrections for a new target are computed in a similar manner. However, the line of fire is separated from the base line by the angular change, measured at the base piece, between the base point and the new target. The angular change is read on the outer disk scale and is equal to the clockwise angle between the base line and the line of fire to the new target. The center line represents the line of fire to the base point; the index line, the line of fire to the new target. The position area plot is made in the same manner as used in plotting standing corrections for the base point. The burst plot is made on a line through the center of the disk perpendicular to the line of fire to the new target and the differences in range and width are determined and converted to standing corrections as for the base point.

A problem will illustrate the procedure to be used to determine

standing corrections for a four-piece, 105mm howitzer battery which has occupied a position sketched in Figure 4. It is required to determine standing corrections for a base point, 5000 yards from the base piece using charge four.

Plot the location of the pieces, with the center of the disk as number two piece, using a linear scale such that one grid interval equals two yards. The position area plot is indicated, to scale, on

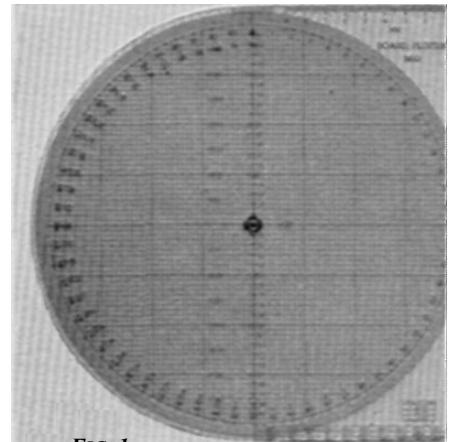


FIG. 1

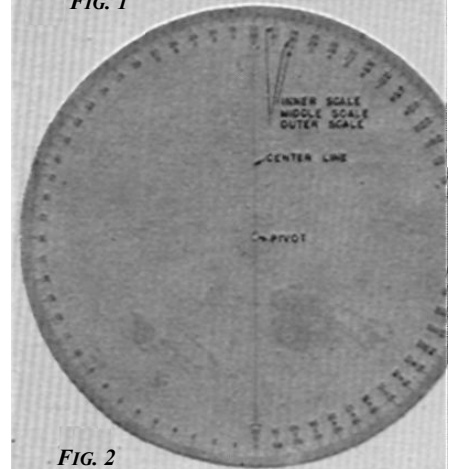


FIG. 2

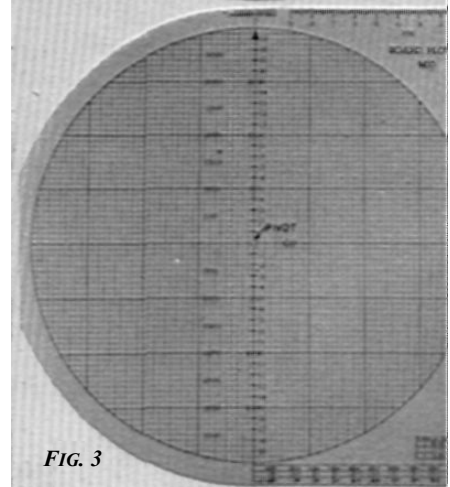


FIG. 3

the plotting board disk in Figure 5 by the small black tick marks. Next rotate the disk so as to place the zero on the outer disk scale over the index mark and plot the location of the bursts for a regular sheaf on the grid line passing through the center of the disk perpendicular to the line of fire. The burst for number two piece or the base piece is plotted at the center of the disk. For a 100-yard regular sheaf, there will be $33\frac{1}{3}$ yards between bursts. Therefore, number one burst is plotted $33\frac{1}{3}$ yards to the right of the center of the disk, number three piece $33\frac{1}{3}$ yards to the left and number four $66\frac{2}{3}$ yards to the left of number two piece. The burst locations are indicated by small tick marks plotted on the disk in Figure 5.

Determine the differences in width for each piece and convert to deflection standing corrections.

No. one = $rt\ 17\ yds \div 5 = rt\ 3\ mils.$

No. three = $left\ 19\ yds \div 5 = left\ 4\ mils.$

No. four = $left\ 17\ yds \div 5 = left\ 3\ mils.$

Determine the differences in range and convert to elevation standing correction. From the range table the yards per mil factor for charge four at a range of 5000 yards is 8 yards per mil.

No. one = $+16\ yards \div 8 = +2\ mils.$

No. three = $-24\ yards \div 8 = -3\ mils.$

No. four = $+18\ yards \div 8 = +2\ mils.$

Another problem will illustrate the procedure when standing corrections are determined for some point other than the base point.

A four-piece 105mm howitzer battery has occupied a position of which the position area sketch is shown in Figure 4. It is required to determine standing corrections for check point one, which is 400 mils left of the base point and at a range of 4000 yards from the base piece. Charge four will be used.

Plot the location of the pieces as described for the previous illustrative example to scale using the center of the disk as number two piece. Use a scale such that one grid interval equals two yards. The plot of the pieces are as shown in Figure 6.

Since check point one is 400 mils to the left of the base point, the clockwise angle from the base line to the line of fire to the new target is 6000 mils. Rotate the disk so that 60 on the outer disk scale will be over the index mark,

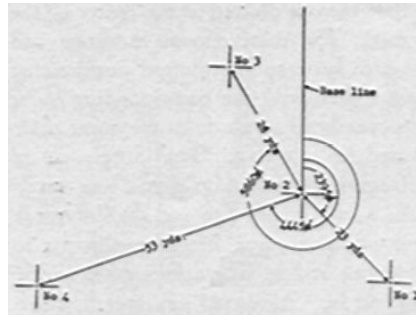


Fig. 4. Plot of piece positions.

and now the index line represents the line of fire from the base piece to check point one. On the grid line passing through the base piece and perpendicular to the line of fire to check point one (index line) plot the location of the bursts as they should appear in a regular sheaf. The burst locations are indicated by tick marks in Figure 6.

Determine the differences in width for each piece and correct to deflection standing corrections.

No. one = $rt\ 22\ yds \div 4 = rt\ 6\ mils.$

No. three = $left\ 28\ yds \div 4 = left\ 7\ mils.$

No. four = $left\ 14\ yds \div 4 = left\ 4\ mils.$

Determine the differences in range and convert to elevation standing corrections. From the range table the yards per mil factor for charge four at a range of 4000 yards is 10 yards per mil.

Number one = $+21 \div 10 = +2\ mils.$

Number three = $-28 \div 10 = -3\ mils.$

Number four = $-3 \div 10 = 0\ mils.$

Special corrections are usually computed at the fire-direction center or at the battery fire chart for targets such as barrages and preparations which require more accurate data than can be obtained by standing corrections. Special corrections are computed for each separate target or barrage. It is particularly useful in determining data for barrages which are oblique to the line of fire or close to friendly elements. Data for rolling barrages may be computed rapidly and simply by considering each line as a standing barrage and computing the data for each line as outlined in the following paragraphs.

The general plan used in computing special corrections is the same as for standing corrections. The positions of the pieces in the battery are plotted in

the same manner as described for standing corrections. However, instead of being plotted on a line perpendicular to the line of fire, the positions of the bursts in the sheaf are plotted on a line, which may or may not be perpendicular to the barrage line, through the center of the board as shown in Figure 7. To determine the angle at which to draw the barrage line with respect to the base line it is necessary only to know the clockwise angle between the base line and the line of fire and the clockwise angle between the line of fire and the barrage line. Determine the sum of these two angles, subtract 6400 if the sum is greater than 6400, and place the angle corresponding to this sum on the outer disk scale over the index mark. Draw a line coincident to the index line; this line will represent the barrage line on the plotting board. The pattern of bursts is plotted along this line, the number two burst is plotted at the center of the disk. The angle corresponding to the clockwise angle between the base line and the line of fire to the target is placed on the outer disk scale over the index mark and the difference in range and width determined in a similar manner as for standing corrections. An example will assist in understanding this use of the plotting board.

A four-piece 105mm howitzer battery has occupied a position (Figure 4) and it is required to determine special corrections for a normal barrage. The position of the burst of number two piece in the barrage is to be 500 mils right of the base point at a range of 4500 yards. The other pieces of the battery are to be corrected so that the bursts are properly spaced for an open sheaf along a line which makes a clockwise angle from the line of fire of 1130 mils.

Using a scale such that each grid interval represents two yards, plot the positions of the pieces on the plotting board as described previously. Next draw the line on the disk which represents the line of bursts on the ground. To do this, take the sum of the clockwise angle between the base line and the line of fire from number two piece to the position of the burst of number two piece in the barrage and the clockwise angle between the line of fire from

the number two piece to the number two burst in the barrage and line of bursts, that is, 1630 mils (500 mils and 1130 mils). Rotate the disk until the reading of 16.30 on the outer disk scale is over the index mark, and draw a line coincident with the index line. While the disk remains in this position, plot the positions of the burst along this line, keeping in mind a pictorial representation of the bursts and using the same scale used in plotting the battery position. The plotted burst positions are indicated in Figure 7. Rotate the disk so that the reading on the outer disk scale over the index mark corresponds to the value of the clockwise angle (500 mils) between base line and line of fire from the number two piece to the number two burst in the barrage. (See Figure 7.) Determine the difference in width for each piece along lines perpendicular to the line of fire and convert to deflection special corrections.

- No. one = $rt\ 8\ yds \div 4.5 = rt\ 2\ mils.$
- No. three = $left\ 3\ yds \div 4.5 = left\ 1\ mil.$
- No. four = $left\ 22\ yds \div 4.5 = left\ 5\ mils.$

Determine differences in range along lines parallel to the line of fire and convert to elevation special corrections. From the firing table, the yards per mil factor is 14 yards per mil for charge 5.

- No. one + 22 yards $\div 14 = +2\ mils.$
- No. three - 27 yards $\div 14 = -2\ mils.$
- No. four + 11 yards $\div 14 = +1\ mil.$

Fig. 5. Standing corrections for base point.

DETERMINING INITIAL DATA FOR OBSERVED FIRES

The M-10 plotting board is very useful to the artillery observer in determining initial data and factors for observed fires. If the observer has no data except the general direction of fire and a safe range he can obtain all necessary data from one round which he can observe.

First he must orient his aiming circle or other azimuth measuring device so that he can observe the azimuth of the line between his observation post and a round fired into the target area. Then he should command the fire-direction center to fire a round into the target area in a place where he can observe the round. The fire-direction center must inform the observer of the azimuth and range at which the round was fired. When the observer identifies the round he should determine the azimuth and range from the observation post to the burst. If the observer has difficulty locating the round a round of smoke might be used. The observer then takes his plotting board, rotates the disk and places the azimuth reading, observation post to burst, on the outer disk scale over the index mark and, to a convenient scale, plots the observation post - burst range along the index line from the center of the board toward the index mark. Mark the point R. Next rotate the disk until the azimuth on which the piece

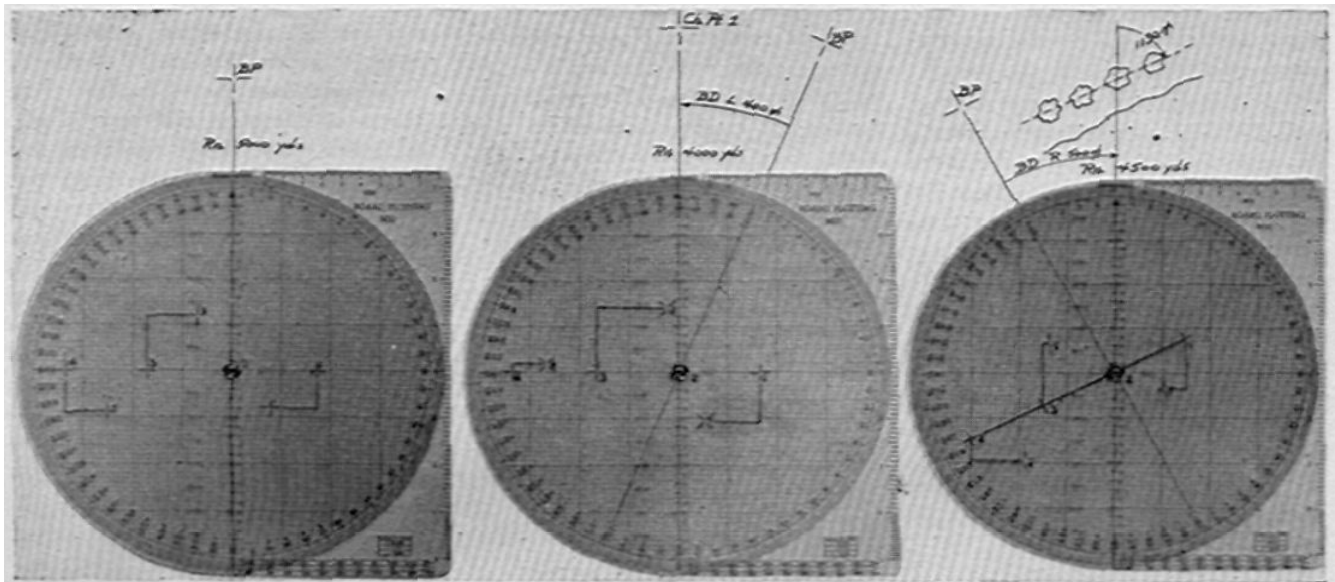
Fig. 6. Standing corrections for target 400 mils left of base point.

was laid is on the outer disk scale over the index mark. Through point R draw a line parallel to the index line. Along this line starting at point R, using the same scale used in plotting the point R, measure away from the index mark a distance equal to the range at which the piece was fired and mark point G.

To determine initial data to any other point P in the target area measure the azimuth and range of the line between observation post and target. Plot point P in a manner similar to which point R was plotted. Rotate the disk until a line between points P and G is parallel to the index line. The reading on the outer disk scale over the index mark is the azimuth (compass) on which the piece should be laid and the range may be determined from the distance between points P and G using the scale used in plotting point P. A proper fire command to the fire-direction center would include the command MARK COMPASS (so much), RANGE (so many yards).

If the observer is in a situation in which a point X is identifiable on the ground to the observer and also on the firing chart to the fire-direction center, the observer measures the azimuth of the observation post-target line and determines the observation post - target range. The fire-direction center determines the azimuth of the gun-target line and measures the gun-target range and

Fig. 7. Special corrections.



gives this data to the observer.

The observer then uses his board to make a pictorial representation of positions of the battery, point X, and observation post. First rotate the disk until the azimuth, observation post-point X, is on the outer disk scale over the index mark, then measure the observation post-point X range along the index line from the center of the board toward the index mark, and plot point X. Next rotate the disk until the azimuth battery-point X, as determined at the fire-direction center, is on the outer disk scale over the index mark. Through the plotted point X draw a line parallel to the index line and along this line from point X and away from the index mark measure to the same scale used in plotting point X the range battery to point X as determined by the fire-direction center.

Having plotted the battery, proceed to determine initial data for any point P in the same manner as described in the previous example.

The S factor used in conduct of fire may be determined easily and accurately. The S (yards) is equal to 100 tangent target offset (mils). The target offset for point P is equal to the difference between the azimuth of the line point G-point and the line observation post OP-point. If point G is to the left of the observation post, the azimuth observation post-point P is subtracted from the azimuth point G-point P. If point G is to the right of the observation post, the azimuth point G-point P is subtracted from the azimuth observation post-point P.

On the plotting board rotate the disk until the value of the target offset on the outer disk scale is over the index mark. Along the index line measure 100 units from the center of the board toward the index mark and mark the point. From this point erect a perpendicular to the index line and extend the perpendicular until it intersects the center line of the disk. Measure, to the same scale used to determine the 100 units, the length of the perpendicular, and read the value S in yards. Figure 8 shows the manner of determining the value of S for a target offset of 600 mils.

After firing, a target may be replotted on the board and all plots kept for future reference, in effect an observed fire chart. The adjusted compass and range at the piece must be determined. The value of the adjusted compass is placed on the outer disk scale over the index mark. A line is drawn through point G parallel to the index line and along this line from point G toward the index mark the adjusted range is plotted to the same scale as in plotting point G and the location of the new target determined.

In another case, the observer has determined the azimuth and range from the observation post to the battery and to the target. It is required to determine an approximate azimuth and range on which the battery must be laid.

The center of the disk represents the position of the observer and the outer disk scale represents the values of azimuths. Plot first the location of the battery by placing the value of the azimuth observation post to the battery on the outer disk scale over the index mark, then to a convenient scale measure the range, observation post to battery, starting from the center of the board and working along the index line toward the index mark. Next plot the target location in a similar manner, placing the observation post-target azimuth on the outer disk scale over the index mark and plot the target along the index line, to the same scale as used when plotting the battery, from the center of the board a distance equal to the observation post-target range. Draw a line between the two plotted points and rotate the disk until this line is parallel to the index line with the point representing the target nearer to the index mark. The azimuth, battery to target, may now be read on the outer disk scale over the index mark. The range, battery to target, may be measured, to the plotting scale, on the straight line between the plotted locations of target and battery.

Example: Given the following data:

| | |
|------------------------|------------|
| Azimuth: | |
| OP to battery | 1400 mils |
| OP to base point | 3100 mils |
| Range: | |
| OP to battery | 1600 yards |
| OP to base point | 2900 yards |

Rotate the disk of the plotting board until the graduation 14, on the outer

disk scale, is over the index mark. Using a plotting scale such that each grid interval is equal to 100 yards start at the center of the board and measure 1600 yards along the index line toward the index mark, plot a point and mark with the letter G. Next rotate the disk until the graduation 31, on the outer disk scale, is over the index mark. Using the same plotting scale, measure 2900 yards along the index line from the center of the board toward the index mark and plot a point which will be marked BP. Draw a straight line between plotted points G and BP. Rotate the disk until this line is parallel to the index line and the point BP is nearer the index mark than point G. Determine the reading on the outer disk scale over the index mark; it is 35.9 or 3590 mils, and is equal to the azimuth battery to base point. Measure the distance between the plotted points G and BP; it is 3500 yards, the battery-base point range. See Figure 9.

After adjustment on the base point it may be found that the azimuth and range determined may not be the same as the battery adjusted data for the base point. The observer may replot either the base point location or the battery location depending upon which he considers most accurately located. If, for example, he had only a general idea of the location of the battery but he had measured the data with which he plotted the base point then he would consider replotting the battery position. On the plotting board erase everything except the plot of the base point (point BP). Rotate the disk until the value of the adjusted compass (azimuth) of the battery on the outer disk scale is over the index mark. From the point BP draw a line parallel to the index line away from the index mark. Along this line, plot to the same plotting scale used in plotting the base point, the adjusted range battery to base point and plot the new location of the battery. Mark the point G.

Example. Assume that in the previous example the adjusted azimuth was 3500 mils and the adjusted range was 1800 yards. Required a replot of the battery. See Figure 10.

First erase all but point BP of the foregoing example, then rotate the disk

and place the 35 graduation on the outer disk scale over the index mark. From point BP draw a line parallel to the index line away from the index mark. Along the line, starting at the point BP, measure 1800 yards using a scale such that each grid interval equals 100 yards, and plot the point G which is the replotted battery position. The azimuth, observation post to battery, may be checked by rotating the disk until the point G is over the index line and between the center of the board and the index mark. It is 1190 mils and the range observation post to battery may be scaled and found to be 1450 yards.

A target may be replotted in a similar manner.

USE IN MASED ARTILLERY FIRES

The follow-the-spot system of obtaining data for reinforcing units in an adjust mission has limitations which may be overcome by use of the plotting board. The use of the plotting board will allow this method to be used regardless of the angle between the gun-target line of the batteries. It may be used within battalions but is particularly applicable to reinforcing units which may be greatly separated.

If the scheme is used within a single battalion, the battalion fire chart will show the plotted positions of the batteries. A unit with a mission of reinforcement should, in addition to a plot of the positions of its own batteries, also plot the position of the adjusting battery of units which it may be called upon to support. When the reinforcing unit is given a mission, the reinforcing unit will be given the observer's initial data and subsequent corrections directly and the reinforcing unit will make the necessary measurements and correct the data for its own batteries.

This plan leaves the adjusting unit free to do its own work, the only requirement being that it pass on to the reinforcing unit all commands from the observer. The reinforcing unit will be ready to fire as soon as the adjusting unit.

The plotting board is used in the fire-direction center by the computers of the non-adjusting batteries. The horizontal control operator must plot on the firing chart the initial location of the target, using data from the observer's target designation, and measure, at the plotted

target location, the clockwise angle between the gun target lines of the adjusting battery and each non-adjusting battery and report these angles to the respective computer of each non-adjusting battery. The computer then sets his plotting board so that the zero on the outer disk scale is over the index mark. Using the center of the board as a reference point, the computers of the non-adjusting batteries plot the observer's correction to a convenient scale on the disk. The plot of deflection correction is made to the right or left of the index line, on the horizontal axis of the grid, as commanded. The range correction is plotted on a grid line parallel to the index line. The plot is made from the horizontal axis of the grid toward the index mark if the range correction is ADD and from the horizontal axis of the grid away from the index mark if the correction is DROP. After the plot has been made, the disk is rotated so as to place the measured clockwise angle between gun-target lines of the adjusting battery and the battery for which the data is being computed over the index mark. The computer scales the corrections from the reference point (center of the board) to the new location of the target in a manner similar to that used in plotting the target and uses these corrections as commands for the non-adjusting battery. If the new location plots to the right (left) of the index line the proper command will be RIGHT (LEFT). If the new location plots between the horizontal axis of the grid and the index mark, the proper command is ADD, if on the side of the horizontal axis away from the index mark the proper command to the battery is DROP. Before plotting the next correction the computer erases the previous plot and rotates the disk so that zero on the outer disk scale is over the index mark. The center of the board is always used as the reference point for the new plot.

It must be recognized that this is not the end-all solution to fast accurate massing of fires. In any adjustment the angle between the gun-target lines of the adjusting and reinforcing unit changes from round to round and the change is not compensated in the latter method. However, the amount by which the angle will change from the value at the initial plot depends on many factors, principal among which are the initial range and angle between gun-target lines and the

amount of the corrections. In most practical situations the change of angle will not exceed 100 mils yielding less than 100 yards' error.

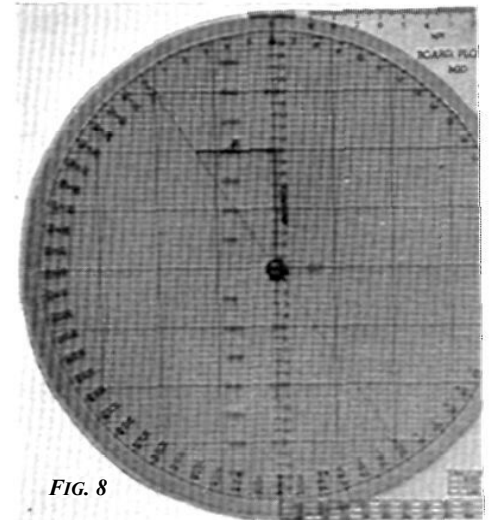


FIG. 8

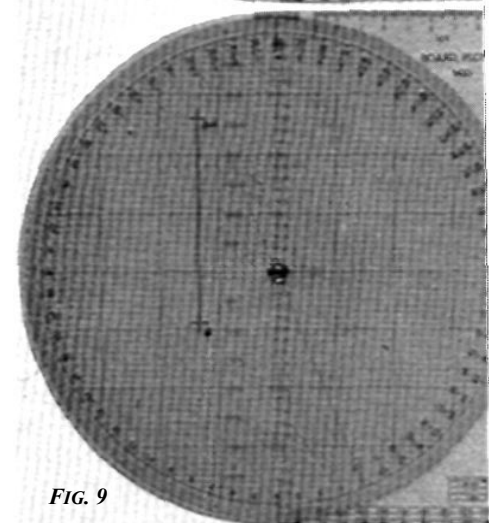


FIG. 9

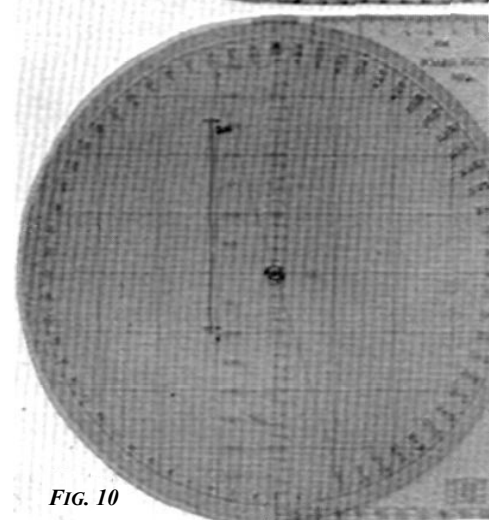


FIG. 10



The New National Guard

By Major General
Butler B. Miltonberger

Chief, National Guard Bureau,
War Department Special Staff

The National Guard Bureau is convinced that, as the American people become increasingly aware of the need, adequate funds will be made available to provide an M-Day National Guard force ready to take its place beside the Regular Army.

Maj. Gen. B. B. Miltonberger



OF ALL THE COSTLY LESSONS learned in World War II, the one foremost in the minds of our military leaders is that preparedness is the surest and most economical way to keep the peace.

This philosophy of security found popular expression in the Army Week slogan: "A Strong America is a Peaceful America." And it is finding concrete realization in a new National Guard which will be larger, better trained and more adequately equipped than at any time in its previous history.

Planning for the new National Guard began before the War's end. Those charged with the duty of shaping a post-war military establishment which would insure adequate protection for the democratic way of life foresaw early the need of a strong, citizen component capable of taking its place beside the Regular Army.

General Marshall, in his final report on the winning of the war, took occasion to say: "Of the citizen-Army, the National Guard is in the first category of importance. It must be healthy and strong, ready to take its place in the first line of defense in the first weeks of an emergency and not dependent upon a year or more of training before it can be conditioned to take the field against a trained enemy."

The primary mission of the new National Guard is to provide an M-Day Force immediately available to defend critical areas of the United States against land, seaborne or airborne invasion. It will be able to participate by units in all types of operations, including the offensive, either in the United States or overseas. And it will be capable of immediate expansion.

These new responsibilities are over and above the inherent responsibilities of the National Guards of the several states which, by law and tradition, are under the peace-time command of the Governors. As such, they also provide the states with local security strength as well as provide relief and protect life and property in times of disaster.

In order to meet these responsibilities, the National Guard will be expanded to a troop basis of 682,000 men, almost three times its pre-war strength.

Where there were 18 infantry

divisions called into Federal service in 1940 and 1941, there will be 25 infantry divisions, two armored divisions and 21 regimental combat teams available for any emergency.

There were 29 observation squadrons in the pre-war National Guard, but the greatly expanded air arm will have 84 tactical squadrons supported by a radar and communications net of 12 aircraft control and warning groups which will provide not only sentinel service but also control of aircraft once they have left the ground to be employed against an enemy.

National Guard participation in Coast Artillery Harbor Defense and non-divisional artillery has been completely revised. Six corps artillery headquarters, to be commanded by brigadier generals, have been allotted to states having a large proportion of artillery. A total of 51 battalions, other than those assigned to Divisions, are included in the troop basis.

Only nine group headquarters with battalions and separate batteries, remain of the old harbor defense, and emphasis has been placed on the antiaircraft artillery. There are 123 antiaircraft battalions assigned to the several states, and 14 brigade headquarters, each under the command of a brigadier general, have been assigned to each state having two or more of the 43 group headquarters.

The adjutants general of the several states have had to start from scratch in this ambitious program, since all prewar enlistments had expired while members of the National Guard were in Federal service during World War II. And their efforts have met with outstanding success.

Federal recognition is accorded to those units having 10 percent enlisted strength and 25 percent officer strength and is maintained only if that strength is built up to 80 percent enlisted strength and 100 percent officer strength within two years.

As of April 1947, 1,958 air and ground units had been granted Federal recognition of the 6,363 in the entire troop basis.

Oklahoma, home of the 45th "Thunderbird" Division, has received Federal recognition for all of its 107 ground

units. Wyoming has duplicated its effort for its 16 allotted ground units and four air units. Alabama has had all of its 99 ground units inspected, and 100 percent Federal recognition is expected shortly.

More than 75,000 officers and men were on the rolls 1 May 1947 according to report from the adjutant general, a tremendous showing when it is realized that the enlistment program has been in operation less than a year. Enlistments for the first two weeks of April were approximately 8,500. This is more than double the record of any previous two-week period, which indicates an even greater surge in strength in the immediate future.

| CORPS ARTILLERY | | | |
|--|-----------------|-----------|-------------|
| New York | II Corps | North | XXXIX Corps |
| Michigan | VIII Corps | Texas | XLI Corps |
| Pennsylvania | X Corps | Utah | XLIII Corps |
| <p>States having two or more FA groups are allotted a corps artillery headquarters, and states having two or more FA battalions are allotted group headquarters. There are 17 FA groups and 51 FA battalions planned for the post-war National Guard. Each state allotted a corps artillery headquarters also is allotted a held artillery observation battalion.</p> | | | |
| AAA BRIGADES | | | |
| California | 112th AAA Brig. | 114th AAA | Brig |
| Connecticut | | 105d AAA | Brig |
| Delaware | | 261st AAA | Brig |
| Georgia | | 108th AAA | Brig |
| Illinois | | 109th AAA | Brig |
| Massachusetts | | 104th AAA | Brig |
| Michigan | | 110th AAA | Brig |
| New Mexico | | 111th AAA | Brig |
| New York, | 102d AAA Brig. | 105th AAA | Brig |
| Pennsylvania | | 51st AAA | Brig |
| Virginia | | 107th AAA | Brig |
| Washington | | 115th AAA | Brig |
| <p>States having two or more AAA groups are allotted a brigade headquarters, and states having two or more AAA battalions are allotted a group headquarters. There are 43 AAA groups and 123 AAA battalions planned for the post-war National Guard.</p> <p>There are nine Coast Artillery (Harbor Defense) group headquarters planned for the post-war National Guard which will, on authority of the states concerned, supervise the activities of 68 CAC batteries.</p> | | | |

As in the past, National Guard training is carried on under the supervision of Regular Army officers. The National Guard Bureau arranged a conference for Senior Air and Ground Instructors in April, the first such conference ever held, and the results were more than gratifying. Representatives of the National Guard, War Department, Army Ground Forces and Army Air Forces also attended, and pledges of cooperation were the direct outgrowth of the discussion of mutual problems.

One of the greatest problems of the pre-war National Guard, the supply of first line equipment, is well on the way to oblivion. Equipment is supplied to a unit as quickly as possible after Federal recognition, and supplies are now being

forwarded in quantity. Recently there were 601 freight car loads en route to California at one time.

The day of the wooden guns and tanks is gone. The National Guard Bureau plans to supply all state units with Garand rifles and carbines in place of the old Springfield, and armor of several categories, including medium and heavy tanks, will be standard equipment.

Other equipment to be supplied the National Guard includes artillery up to 155 millimeter guns; fire control and detection equipment, including radar; bazooka weapons and transportation and construction equipment such as trucks, jeeps and bulldozers.

The air arm of the National Guard will fly the same places as the Army Air Forces, P-80 jet propelled Shooting Stars, P-47 Thunderbolts and P-51 Mustangs for the fighter squadrons and A-26 Invaders for the light bombardment squadrons.

This year, for the first time since 1940 when the first troops were called into Federal service, the National Guard will go to camp for summer field training. This is in accord with General Eisenhower's desire that the National Guard begin at once to prepare to take its place as an effective member of the M-Day security team.

Definite plans have not been completed for the summer training of air units of the National Guard. These units must have almost 100 percent strength in order to gain any real benefit from such training, and survey teams from the numbered Air Forces at present are inspecting federally recognized air units to determine the feasibility of such training. This program also is subject to the availability of funds, the major problem faced in rebuilding the National Guard.

Budgetary cuts temporarily have curtailed the air program, and the availability of funds to pay, train and equip the men in the National Guard is a continuing problem. However, as the people in this nation become increasingly aware of the need for a strong National Guard, I am confident that funds will be made available and our ultimate goal of an M-Day force ready to take its place beside the Regular Army in any emergency will not be jeopardized.



OF MORE THAN PASSING INTEREST

Happy Birthday! The Women's Army Corps was 5 years old on 14 May '47.

Grave Decision. No distinction as to rank or race will be made hereafter in the location of graves and burial facilities in new sections of national cemeteries.

Demotions. The WD has announced that 640 colonels will be demoted on 1 July '47, and according to a new formula for Regulars—namely, date of rank on the permanent promotion list.

Appreciation. A delegation from blast-stricken Texas City recently visited the Chief of Staff and expressed their "heartfelt appreciation for the marvelous job the Army did in (their) behalf."

Congratulations: to Oklahoma, the first state to receive Federal recognition of all allotted NG ground units; and also to the following FA colonels, selected to attend the 1947-48 course at the Industrial College of the Armed Forces—Samuel L. Davis, William J. Eyerly, James W. Holsinger, and Bertran A. Holtzworth.

ORC Commissions. The WD has announced that officers on active duty are now authorized to receive commissions in the ORC while remaining on active Federal service in their AUS rank.

Through Fog and Snow. Early in April two L-5 liaison planes from Task Force Frigid flew 3083 miles from Ladd Field, Alaska, to Crissy Field, Calif. — one of the longest flights on record for this type of aircraft.

Task Force "Furnace," appropriately named special AGF unit now being assembled at Ft. Knox, will conduct exhaustive tests of new experimental equipment this summer in the desert near Yuma, Arizona, where temperatures exceed 125 degrees.

New Efficiency Reports. Most people can do a better job reporting facts about, rather than passing judgment on, their fellow men—this is the psychological basis of the new officers' efficiency report, to be effective 1 July.

Assembly Line Instruction

By Col. Ralph R. Mace, FA

IN THE FALL OF 1941 WHEN the new frequency modulated radio equipment was issued to Field Artillery there appeared an urgent and immediate need for trained radio repairmen. The time was very short in which to train radio repairmen and the training had to be both thorough and practical. Graduates of such a course had to be capable of going direct from the school to combat units and performing maintenance and repair of radio equipment without supervision and without a long warm-up period.

The Department of Communication, Field Artillery School, recognized that the normal conference and group instruction methods would not accomplish the required result in the limited time available. Some method had to be devised to increase the efficiency of instruction beyond any previously used methods and further to provide continuous practical application by every student. Under the old group instruction methods it was possible for only one student of a group of six or eight to get practical work on a piece of equipment at one time. The remainder of the group could

only observe. In view of the short time available a method of instruction now had to be found whereby all eight students could receive practical instruction all of the time. After much preliminary thought and investigation, a

The author, who is the Director of the Department of Communication at The Artillery School, made the following interesting observations in a letter accompanying this article: "I am convinced that the "assembly line" method of instruction is the finest yet devised for a subject such as communication. Prior to its initiation, students were frequently bored, indifferent and sleepy, and when a break in instruction came they quickly rushed outside to get a breath of air, have a smoke, and wake up. The reverse was the case when we got the "assembly line" going. Every student was engrossed in his work; he was awake, interested, and had no desire whatever to leave it. As a matter of fact, we had to force students to leave the rooms during breaks in instruction." — Editor.

member of the department advanced the proposition of forming an assembly line in which the student advanced from one practical exercise to another as he progressed through the course. Such a system appeared to have all the desirable features required but would be most exhaustive in equipment and in preliminary construction of assembly line positions.

Necessity, always the mother of invention, came to the fore and instructors appeared at all hours of the day and night with new ideas for this assembly line and new thoughts on how this plan might be developed into a sound, practical reality. Starting first with a mass of unrelated ideas, the plan developed rapidly into a well coordinated, progressive, efficient method of instruction.

THE PLAN

The general method was a reversed industrial assembly line. Instead of equipment moving on an assembly line past individuals, each of whom performed an individual job, this plan called for the student to move down an assembly line of fixed equipment, performing



Figure 1. General view of the laboratory assembly line. Enlisted Radio Repair Course. Note demonstrator boards.

one task at each position on the line. Each step presented an idea and was intended to teach the student that idea or that principle thoroughly and practically at that position. Instructors were provided on the line (similar to supervisors or foremen on an industrial assembly line) on a basis of one instructor per five steps.

The student worked with his hands at each position and proved theories or principles which he had read in his manuals the previous night. He performed certain prescribed procedures; when he did so, there was a certain reaction, visibly or by sound. He was not required to accept any theory as being true—he proved to himself that it was true.

The student worked with the equipment with which he would work in the field so that from the very beginning of the course he was using his hands in actually doing the things he would be required to do when he left the school.

Since the student was personally involved in performing work with his hands and could see the results of his own efforts, his interest was high and there was no opportunity for him to become bored or to lose interest in what he was doing.

SOLVING PROBLEMS

Aside from the apparent extravagance in equipment, the new "Assembly Line" system had the following disadvantages:

In order to place the students one at a time on a progressive assembly line, it was necessary to provide a pool of some sort wherein the students could be given varying amounts of instruction while awaiting their turn to enter the progressive assembly line. This problem was solved in the early Radio Repair Course by the formation of a construction pool. All incoming students were placed in this construction pool and were taught the use of hand tools, soldering and wiring of simple circuits. The work was so arranged that the student could stop work in the construction pool at any time and enter the assembly line. In other words, in a course of fifty students, number one would go completely through the line before doing any construction work while number fifty would do all of his construction work before starting the

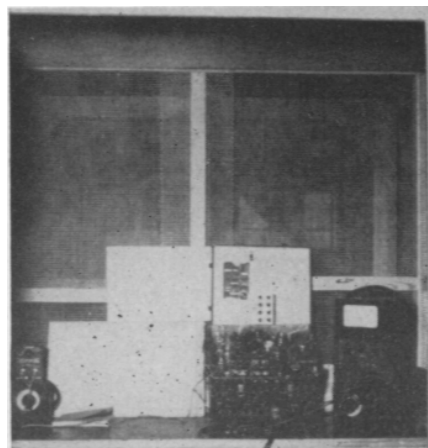


Figure 2. Tuning, aligning and trouble shooting pool. The wire cages form effective electrostatic shields.

line. Men in the middle of the class would do part of their construction work before starting the line and finish construction after having completed the assembly line.

During the winter of 1943 the scope of the Radio Repair Course was changed to include a nine weeks' course of Radio Fundamentals before taking the regular five weeks' practical repair course. Due to necessity, this course had to be separated geographically from the five weeks' course by several miles, which meant that a new pool had to be devised if our assembly line method of

Figure 3. Interior view of one of the electrostatic shield cages.



instruction was to be continued. This problem was solved by forming a pool consisting of the mechanical steps involved in presetting and aligning field artillery radios. The student could be taught these procedures successfully without knowing the theory of operation and hence the subject was suitable for pool operation. The fundamentals of radio were arranged in a logical, progressive manner and taught on the assembly line by the use of dynamic demonstrator boards. Part of this line as actually set up is shown in Figure 1, as well as the demonstrator boards which were developed and built by the Department. Step sheets for each board were carefully worked out to guide the student in his practical work on the board and to stress the important points to be learned at each position. Figure 2 illustrates a part of the tuning and aligning pool steps described above. Interference was successfully eliminated by the use of the wire cages, which form effective electro - static shields. Figure 3 shows the interior of one of the cages.

Another difficulty to be overcome was the proper scheduling of conferences. Experience taught us that in order to obtain best results it was advisable to have conferences for small groups interspersed along the line at logical points, where a group of related subjects could be discussed with students *before* they reached these subjects on the line. At the same time it was found that better instruction was obtained if students were scheduled on the line in pairs; i.e., each step worked jointly by two students instead of one. The optimum solution to conference scheduling was arrived at by scheduling breaks in the line after approximately every ten students. In other words, the first ten students would occupy five steps on the line, then there would be a break of at least one step before the next pair of students were placed on the line. In this way small group conferences could be scheduled at logical points without stopping the line for everyone.

RESULTS IMPRESSIVE

The results obtained by this new method of instruction were most impressive. For example, in the old conference type of instruction, students averaged between 75-80 per cent on the

practical examination of ability to preset channels on field artillery radios. Under the new system grades on this subject jumped to a 95-100 per cent average. This marked difference was due entirely to the fact that of every hour spent on the subject each student had thirty minutes available where he could practice tuning with his own hands and thirty minutes where he could watch another student tune the set. On the other hand, under the conference type of instruction with as few as five students to the group, he had only a maximum of twelve minutes available each hour to use his own hands and for the rest of the period he was one of four students watching the fifth perform. Similar results were obtained in almost all other phases of radio repair instruction. The student graduated from the course with far more practical know-how than he had under previous instruction, and he was intimately acquainted with the location of parts, circuits and sources of trouble of all field artillery radios.

The assembly line method of instruction proved to be so popular and at the same time so efficient that the Department applied the method to other communication courses. Early in 1943, both Officers' and Enlisted Communication Courses were revised and the assembly line method of instruction included where applicable. Figure 4 shows one board used on the Enlisted Communication Course Assembly Line to teach Ohm's Law.

As a result of experience gained over

a period of four years, many improvements to the line have been added from time to time. In the plans for the 1946-47 Radio Repairman's Course a new idea for the pool is being used which is worthy of note. In this course students receive conference instruction as a group for the first week where they are given instruction in basic mathematics and in electrical fundamentals. At the end of this period an examination is given to determine the order in which students are to enter the line. The highest students enter the line first. Students waiting to enter the line are given a review of the material covered during the first week. In this manner, in a class of thirty students, the student who made the lowest mark on the examination receives approximately three days' review before he enters the line, whereas the highest student will finish the line early and be given a chance for individual specialization in any of a number of radio subjects. Breaks in the line with conferences to small groups are also scheduled as described above.

It is universally recognized that practical experience is by far the best teacher, and we in the Department of Communication feel that the "Assembly Line" method of instruction as described herein realizes that idea. We know that it produces results in the teaching of communication subjects, and we are reasonably certain that it could be made to produce equally effective results in the reaching of many other subjects.

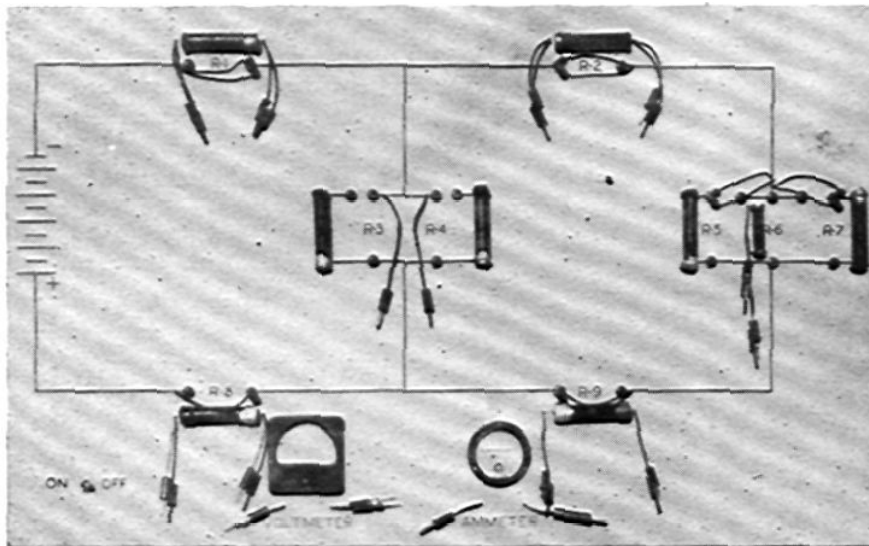


Figure 4. Close-up of one of the demonstrator boards. This one is used to teach Ohm's Law.

Flash . . .

Our Secret Weapon

By Major Waldemar A. Solf, JAG*

ALTHOUGH flash observers rendered invaluable service to the VIII Corps Artillery in the European Theater in registrations, adjusting fire, reporting movement, and locating other targets, their effectiveness in the performance of their primary mission, namely the location of hostile artillery by flash, was always a source of disappointment.

The failure to locate large numbers of enemy artillery pieces by flash can be attributed to expert use of flash defilade by the Germans, and to an ingenious salt increment issued with German powder, known as the "Salz-Vorlage," which effectively eliminated flash, and which had a definitely predictable ballistics effect as indicated by German firing tables.

Early in March 1945, the VIII Corps captured a Wachtmeister of a German Field Artillery Observation Battalion, who got tired of the war and just sat on his sound base while the rest of the battalion displaced to the rear in some haste. He was a sound expert, and the VIII Corps Artillery interrogators obtained some very valuable information on sound from him. We got the impression that German sound was very efficient, but that those no account bums in the Arko's Headquarters never would authorize fire on the targets located by sound.

After he had been milked dry on sound, the interrogators switched the conversation to flash.

"Ach, dot has always been a source of deep disappointment to us!" said the Wachtmeister.

"But why? Surely German flash observers should have no difficulty locating our artillery. There is nothing diminutive about our flash!"

"Dat's just it—you Americans put something in your powder vot makes such an enormous flash dot it lights up der whole sky—und der poor flash observer can't find der center of it at all."

*Then an artilleryman, the author was Assistant S-2 in the VIII Corps Artillery in Europe.—Ed.

Some Survey SOPs Used in the ETO

By Capt. G. R. Bishop, FA-Res.

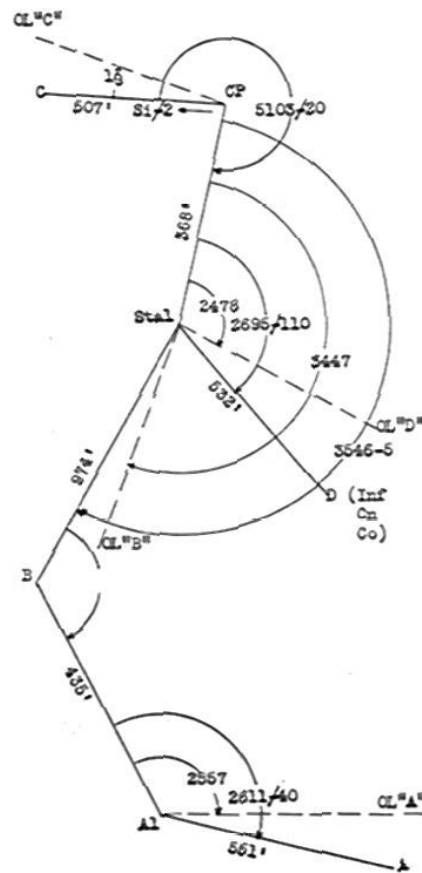
EXPERIENCE AS ASSISTANT S-2 of a light artillery battalion of the 80th Infantry Division proved that the techniques taught at the Field Artillery School and the application afforded by the AGF tests were sound preparation for the exigencies of actual warfare. It is only natural, however, that continued operation under combat conditions should lead to new methods of solving the problems of survey where the aim is always to obtain the most accurate solution in the shortest time.

By and large survey for organic light battalions in the European Theater was limited to the position area. Only in the exceptional situation where a single position was occupied for some length of time or in preparation for a large scale attack were observation posts located by survey. Even then an AS base with target area control was not undertaken. This was largely due to the adequate supply of accurate maps (often corrected from the most recent photo reconnaissance) which afforded maximum efficiency in the handling of ground and air observed fires and permitted unobserved concentration a certain assurance of success after registration.

BATTERY PLACE MARKS

As always the speed and efficiency of the crew depended largely upon the SOPs established, for in survey—as in no other artillery techniques—can the whole be held up for the lack of a single detail. Experience soon taught us to send a member of the survey crew with each BC as he went to select his position. By always sending the same man to the same battery we knew who to look for when we desired information on a certain unit. This survey man carried with him two poles one of which had a flag on top. As soon as the BC selected the position of his

base piece the plain pole was set in as a marker; the pole with flag was then set up as the battery place mark. Meanwhile, the survey officer and survey sergeant watched the development of the reconnaissance and selected the initial point often starting the actual field work before all BC's had decided upon the final howitzer locations. As members of the crew returned to the central location survey progressed and field work was completed in minimum time. There was no doubt as to which pole marked the base piece and which the place mark. Initial questions on methods of survey for reaching distant positions could be



referred to the individual whose duty it had been to make the reconnaissance of the particular battery area.

SURVEY NOTES

A few SOPs in the matter of keeping notes made computation much faster. All A₃ directions were written on the line to which they referred and with an arrow beneath showing the direction of the A₃. Si was written as a + or - value immediately after the horizontal angle which preceded it. Thus direction of the Si was shown and the recorder was forced to use a + or - sign. Orienting lines were always recorded as broken lines to distinguish from the lines of actual survey. Stations to more than one battery were numbered serially, but stations going to a single battery were labeled A-1 or C-3 to give greater clarity in computers discussion. Figure 1, for example, shows the notes that were used in a survey at Holzhausen, just south of Kassel.

INITIAL A₃

At first we tried to establish initial A₃ by comparison of the needle and measured map readings. Aside from taking time this method proved practically impossible, for seldom could the two readings be expected to agree within five miles. We decided to take initial A₃ direction by reading the A₃ from, let us say, CP (chosen point) to Sta 1 with one aiming circle, and then by reading the A₃ Sta 1 to CP with the other, being careful to use a log of the survey which was a minimum of 100 yards length and free from magnetic attraction. By this rapid method with frequent change of the declination constant from marginal map data we got excellent results in BP registrations and were able to transfer and mass fires successfully.

GUNNER'S HELP

At times one or more batteries or a registering piece got into position before the field work was complete. Where the survey required carrying a traverse through a base piece already in position, the problem of measuring the horizontal angle vertex at the piece was solved by having the gunner himself

measure the angle for us. Survey is for the purpose of locating the howitzer which will fire as accurately as the panoramic sight will permit. There can be no objection then to measuring an angle of the survey with this instrument. It is best to let the gunner do the actual measuring, for he knows better than anyone else how to read his sight and level his bubbles. Moreover it is very annoying to him to have other people, including the survey officer, playing with his instrument. It is not necessary to explain to him what you are doing—merely stand off as a battery executive and command, "Gunner Number 2, AP this range pole, measure the deflection." When he has done that, show him the range pole of the next leg of the traverse and repeat the command. From these deflections the horizontal (vertex at the piece) is computed while the vertical angles can be had from the aiming circle set ups at the two stations before and behind the piece.

T/O & E

Number in Crew. There are any number of solutions to the simplest survey but the aim is always to select the fastest and surest—that which involves least work. The old T/O limits the survey party to five enlisted men (S/Sgt., Tec 4, Tec 5, and two Pfc's) plus a machine gunner and two drivers. In theory the latter are to be available as extra rod and tape men. Experience showed, however, that in a fast moving situation where speed is most essential one driver and usually both are driving the survey officer on reconnaissance, picking up members of the section to save valuable time, or carrying first coordinates back to FDC. The machine gunner was left at his post as a matter of local security in the fast developing situation, where the artillery was not infrequently the first element to clear an area, and further to maintain at least one arm against hostile air attack. The survey officer's MG is usually the only MG taken forward on reconnaissance parties. Further danger lies in the fact that the survey crew is usually left alone in the new area prior to occupation in force by the battalion. A

minimum of two aiming circles should be used simultaneously, two men must tape and two more must compute. Accordingly the survey officer must take on the work of the sixth man. Thus burdened, he is not available for his primary job which should be to work ahead of the crew and plan the survey as it progresses, issuing fragmentary orders, gathering and recording data, putting in range poles, and doing the dozen odd jobs which slow down the individual instrument operator or tapeman. It is suggested, therefore, that a sixth man in grade of Tec 5 should be added to this section. Firing batteries cannot spare this man as the demand of forward observer crews already calls too heavily upon the detail section. The survey officer will then be free to direct the work of the S/Sgt. chief of section and Tec 5 instrument operators (in this capacity, the chief of section is best able to aid in planning the survey), the Tec 4 and additional Tec 5 as computers, and the two Pfc's as tapemen. As field work is completed, all help the computers, but it is felt that this additional man is essential to the ideal working combination.

Metric Tapes. All maps in the ETO were scaled in metric units; hence survey computers had to work out coordinates in meters. Distance was taped by the standard U. S. tape

graduated in feet. The taped distance was usually divided by 3 and then multiplied by .9144. Slide rule conversion was not considered sufficiently accurate. To reduce the chance of error and simplify our process we soon learned to multiply linear distance in feet $\times .305$ (.9144/3) which gave us meters in one computation. Had we been equipped with metric tapes all this conversion would have been avoided and much time saved. Since coordinate squares, range deflection fans, and other items of topographical equipment were graduated in meters, it seems reasonable that metric tapes could be provided with little trouble.

Aiming Circles. Experience taught that one item of T/E allowance should be increased. The old T/E provides for eight aiming circles per battalion—two per firing battery and two for the headquarters battery survey section. Eight is the absolute minimum upon which the battalion can function efficiently. The survey section always uses two, and each firing battery must have one at the firing position and one available for the BC to take on reconnaissance. We found that we had at least one in ordnance at all times. Nor was this due to a lack of careful handling. Needles inevitably go bad under continued use and the rugged weather conditions of a twenty-four hour combat day. Ordnance frequently kept these aiming circles from one to two weeks by reason of distances or work involved. We further found that in the survey section there were times when a third aiming circle could be used to measure a vertex angle or take an Si that had been forgotten. The transit and BC scope are clumsy and slow for this sort of work. While in England, the survey section was authorized a third aiming circle, and during combat we acquired several more. Eleven were not too many for the battalion. When one goes bad, a replacement must be immediately at hand. It is therefore suggested that the T/E for the headquarters survey section in combat be increased to four aiming circles, thus permitting an extra instrument for the survey section and a spare for the battalion.

JOURNALS FOR THE YEAR 1944

**Our stockage of Journals
for the year 1944 being
exhausted, the return by
members of 1944 issues, no
longer required by them,
will be appreciated.**

LIAISON OFFICER—

The One-Armed Paperhanger

By Capt. Henry P. Walker, FA

ACCORDING TO OUR DOC-trine, "an artillery commander uses liaison officers to establish and maintain liaison with designated supported units or with artillery units whose fires his unit is to enforce. A liaison officer is the *personal representative* of his commander with the commander of the supported or reinforced unit." Note the italics.

During 13 months of combat, I was carried as battalion liaison officer of a corps artillery 155mm howitzer battalion. For something like 11 months of that time I was away "liaising," but *never* as the representative of my battalion commander. During this time I represented the commanding officers of the three different groups and of one corps. Each change required some readjustment to the SOP of each new headquarters and earning the confidence of the new commander and his staff.

The difficulty of establishing myself as a competent liaison officer was well shown when my battalion was placed under a new group in support of the 91st Infantry Division. With the old group, for whom I had worked for six months or more, all calls for fire were answered without question in the knowledge that I knew the capabilities and limitations of my group. Under the new headquarters, no matter how urgent the call for fire, how little time was left to organize the details of a TOT, I was held up with an endless stream of questions dealing with minute details having nothing to do with the delivery of the desired shells at the designated time and place. Only a direct appeal to the commander cleared the wires of the curiosity of the staff.

How is the average liaison officer chosen? FM 101-5 points out that the maximum effectiveness of liaison missions will be secured if the officer

selected has the confidence of his commander, is favorably known (either personally or by reputation) by the commander and staff of the unit to which sent, has a sound and comprehensive knowledge of tactics, possesses tact, and has had experience or training as a liaison officer. Nice words, these, but from my experience and observation, more often than not he is a newly joined officer of unknown capabilities or one that the unit commander feels he cannot trust or use right with his own outfit. The usual defense for assigning the least useful officer to the liaison job is that he can do the unit less harm there than elsewhere. Which may be very true. On the other hand when a group is composed, as mine was at one time, of one battalion of 155mm howitzers, one battalion of 8" howitzers, one battalion of 155mm guns, one battalion of 90mm guns, and one battery consisting of two 240mm howitzers and one 8" gun, correctly planned supporting fires will not be forthcoming unless the liaison officer has a fair knowledge of all artillery weapons—that is, their range, traverse, general trajectory, accuracy, etc.

The liaison officer must be quite a diplomat to live with the headquarters of a strange organization—and be always underfoot, as he must be—and to keep his own commander fully acquainted with the situation and all plans. I got into some hot water one time trying to sell to a new division artillery a plan of harassing fires that I had picked up from another and which seemed to me to be most effective. Yes, it's easy to overdo one's selling efforts. And, obviously, if the liaison officer goes to an allied headquarters of different nationality, his "diplomacy index" must be very high indeed. Not only are there language difficulties but

also different ideas of a liaison officer's duties, strange habits and customs which may trip up the unwary and entirely ruin his value to his commanding officer. I saw one lieutenant behave with such poor grace at a French officers' mess that I could hardly blame the S-2 and S-3 for giving him as little information as possible and *never* volunteering any.

Every artilleryman knows pretty well the duties of an S-3, a battery commander, or a motor officer but where can one go to get the low-down on liaison? Our training manuals are highly generalized; and small blame, too, for liaison is anything any higher commander desires to order. The garden variety liaison jobs are, of course, the liaison officers who go from the direct support battalion to the combat team infantry regiment, from corps artillery to the supported division artillery, and laterally between division and corps artillery headquarters. But as often as not, liaison officers' jobs are not the garden variety. I ran into some weird ones myself. I was sent out at one time to establish liaison between a corps artillery group and a GHQ tank battalion, both of which were supporting a French division. My mission was to check Air OP reports of enemy tanks with this particular battalion, since the customary route via division headquarters was too slow and uncertain and was resulting in a lot of lost targets. On another occasion I was sent out to represent our corps counterbattery officer with a British mobile counterbattery section. How can you classify that sort of liaison? The liaison to be maintained at any time is a subject of division, corps and army SOP both written and unwritten and also is one of the many things that vary with the well-known situation.

Where does the liaison officer come from, once we get above the combat team level? Not from the headquarters of the commanding officer whose personal representative he is to be—because corps artillery and group headquarters don't have any. The fact is that he usually comes from one of the battalions of the artillery group or corps he is to represent. Here we have an officer from one organization spending most of his life away from home, working for some other organization. Where does he get his section and his supplies, and where does his primary loyalty belong?

Luckily, I was never disowned by both my battalion and higher headquarters at the same time! But on several occasions I was referred from one to the other as a source of maps, grease pencils or whatever my immediate needs may have been. Nor was it all a matter of thumbtacks and rations; during the time I was an active liaison officer, our TO/E showed one liaison officer, with no personnel, no transportation, and no communications—nothing but the clothes he stood up in and one day's K rations. When I sallied forth to combat, I had a jeep and driver normally assigned to the message center, an SCR-284 and two operators borrowed from the radio section, two EE-8's and a half mile of outpost wire picked up from the wire section. To the foregoing, add three days' rations, a can of water, a can of gasoline, four bed rolls, four field bags and assorted odds and ends. It's small wonder that I often wondered whether we'd make it over the first Italian hill we came to. After three or four months, group headquarters borrowed a quarter-ton trailer for me from Army Ordnance—and, at once, the various sections that my men came from insisted that from now on we carry our own barracks bags. Even so, the situation was greatly improved. We could even add an SCR-610 so that I could talk direct to our Air OP, often my only means of communicating with headquarters the other side of the mountain.

Naturally there were no ratings for my men, since they were out galavanting around the countryside and not at home taking their shift on the radio or the mail run. I lost two of my good men; the jeep

driver was sent to radio school, and my one and only T/4 was pulled back to ride herd on the SCR-193. But fortunately my usual crew was excellent. Certainly, the only thing that kept my jeep—a veteran of Africa, Sicily, and two Italian winters—on the road was the everlasting tinkering of the driver, who was just a kid that probably learned his mechanics on a Model "T." More serious tinkering was done, wherever I might be at the moment, by mechanics of a dozen different outfits—Americans, Britishers, French, Arabs. The T/4 was an excellent radio man who could operate anything that came his way, could keep it operating and, I suspect, alter a 284 so that commercial broadcasts could be picked up when we were lucky enough to have telephonic communication and didn't need the radio. Besides being competent with the radio, the T/5 was a minor wizard with the frying pans who managed to bolster up and eke out our "K" rations on numerous occasions. Luckily all of them liked to rattle around, going new places and seeing new sights. They looked on life at the battalion as being rather dull—rear-echelon stuff, in fact.

One should not beef, as I have done here, unless he has some constructive ideas. I have two in mind: first, put the liaison officers on the staff of the commander that they will be working for—that is, group and corps artillery commanders; and second, give them the personnel and equipment essential to performing the mission.

My idea of an adequate, yet modest, liaison section is as follows:

Liaison sergeant—in charge of detail and capable of relieving the liaison officer. All headquarters have sufficient personnel to work out some system of relief shifts, but, during a crucial period, a lone liaison officer may be on duty long hours for days on end.

Chief radio operator and *two radio operators* (T/4). On one occasion I had to suspend operation of a 193 (borrowed from corps artillery) for 24 hours because I had only one operator.

Driver (mechanic), to drive the ¼-ton truck and to be responsible for keeping both vehicles on the road month after month without benefit of battery or battalion motor section.

SCR-193 radio, or equivalent. Liaison from corps artillery to corps artillery will usually require a radio of this range. In mountainous country radios of the 600 series are sadly limited in range. At one time in the North Apennines my messages had to be relayed twice, even in the 193 net.

SCR-608—for short range communication, because of its greater security and the ability to talk to the Air OP.

Two EE-8 telephones, and ½ mile of outpost wire. Many times, for the sake of better reception, the radio had to be spotted at some distance from the CP. At other times the immediate vicinity of the CP was not a healthy place for a radio set with operator in a thin skinned vehicle.

One-quarter-Ton Trailer—for bedrolls, rations, and other equipment normally towed by ¼ jeep but capable of going with the radio ¾-ton if the jeep is absent when an unexpected move is made.

Three-quarter-Ton 4×4 Truck—for mounting both radios and providing readily blacked out working space for radio operators and, if necessary, for the liaison officer.

One-quarter-Ton 4×4 Truck—transportation for the liaison officer, messenger service, and ration supply and mail runs. Jeep should be equipped with PL unit to mount 608 in case of breakdown of radio truck.

In addition to adequate map boards, lists of weapons that may be included in a field artillery group showing maximum range and limits of traverse, and other items of general information that were *not* furnished liaison officers, he should have a suitable log book so that in the rush of an attack he can keep track of messages sent, check on items sent out without having to bother the staff, and keep all data on all numbered concentrations.

In conclusion, let me enter one plea for the liaison officer. If he is as important to the picture above the combat team level as wartime experience would tend to show, *pick him more carefully, give him the equipment he needs* to do his job and do it well, *give him the personnel he needs* to man that equipment, and finally *give him moral support in his work*.

Russian Artillery— 1941-1945

By Lt.-Col. H. G. de Watteville, C.B.E., late R.A.

Republished by courtesy of *The Journal of the Royal Artillery*

THE SCARCITY of information concerning the organization and work of the Russian artillery during the recent German-Soviet War is to be regretted since much that occurred during this conflict must prove of high interest to all gunners.

For the previous two centuries the Artillery Service had been the pride of the Russian Army. Its complete failure in the war of 1914-17 had come as a shock to Russian soldiers. It could, however, be mainly attributed to the faulty system of supplying both material and ammunition to the troops not only during but long before that war; it could not discredit the human material. Still, after the Bolshevik Revolution of 1917 no effectual steps appear to have been taken to restore the Russian artillery to its pristine pre-eminence until, in 1937, as a result of the political crisis that convulsed the Red Army, General Nikolai Voronov was appointed head of the Artillery Service.¹ This forceful character, then 38 years of age, forthwith set about re-educating the Russian gunners in the traditions of which they had once been justly proud. His belief in the cannon as the main element of strength of the Red Army was profound; his energy was unbounded.

CONFLICT OF DOCTRINE

By 1939 Marshal Voroshilov, then Commissar for Defense, could report to the Supreme Soviet that the fire-power of the Russian artillery had been trebled. This statement was not far from the truth, though its further implications appear to have escaped all military critics at the time. This circumstance arose from the fact that the Germans in their frenzied haste to re-arm and to create a "new model" army had neglected

their artillery arm. The doctrine had been evolved that artillery had lost much of its significance, so German military authorities devoted themselves wholeheartedly to the development of their "flying cannon"—the dive-bombers, to work with large, fast-moving, tank formations, while they pinned their faith to the trench-mortar as the supporting weapon of infantry. But Voronov, whilst increasing the actual number of cannon to be manned by his gunners, had also made every effort to improve their mobility; and this fact was incorrectly appraised abroad — at least by German critics. The probability that such was the misreading of facts gains greatly from the known course of the German offensives during 1939, 1940 and 1941, when no serious attempt seems ever to have been made by them to reduce any strong place or work of defense by means of artillery fire. Their theory of war depended so greatly on the superior rapidity of movement of their armies that they assumed that there would be no time for siege operations. Now this policy was certainly applicable to conditions prevalent in Western Europe—particularly in view of the limits of the Maginot Line—as well as to Poland in the dry season. But

The following note accompanied this article when it was published in *The Journal of the Royal Artillery*, and is repeated. —Editor.

The statements made below have all been derived from sources of information to be found in the British or Neutral Press or from "The Soviet War News." No statement or assumption of any kind has been obtained from any official source whatsoever.

when applied to a projected invasion of Russia, any strategy based on such a theory must encounter at least two formidable obstacles — first distances, secondly, paucity and poor quality of communications. In addition, climate demanded the attainment of success before the arrival of winter. Finally, the Germans were surprised by the staunchness of the Russian troops. Consequently it may be asked whether the *Wehrmacht* of 1941, however splendidly armed and equipped it might be for rapid shock movement, was intrinsically a perfect and complete instrument of war? The idea formerly expressed that tanks might suffer from the limitations experienced by the "heavy" cavalry of the XVIIIth century would seem to gain credence as the outcome of this war. Anyhow, the *Wehrmacht* in 1941 was certainly lacking in artillery power. On the other hand, every Russian theory of war has always been affected by the inevitable slowness of any plan of mobilization evolved by a Russian General Staff for their army. Further, by their inclination to what may be termed an "Asiatic" strategy — one resulting from the vastness of the distances and space at issue; by a predilection to think and to work in vast masses, Russians and Germans may be said to have proceeded in contrary directions.

Meanwhile, Marshal Voronov¹ had proved true to type. In conjunction with General Viktor Tikonov, during the Soviet-Japanese "small war" of 1938 in Manchuria² he evolved methods of artillery fire which were a prelude to the developments of 1942-43. These experiments were continued in Finland during early 1940 when Voronov broke through the Mannerheim Line by means of massed fire. So in the end both future belligerents had evolved, by starting from somewhat similar reasoning, a somewhat dissimilar doctrine. The Germans

(Continued on page 195)

¹Nikolai Nikolaievich Voronov was born at Leningrad, the son of a secondary school teacher. At the age of 18, he distinguished himself as a private in the Bolshevik Civil War. He then became a regular soldier, passed through the Leningrad Artillery School, the Artillery High School and the Military Academy. He is a fair-haired man with blue eyes, of huge stature and massive in proportion. His memory and laughter are described as prodigious.

²Far too little attention was ever paid to this episode.

THE FIELD ARTILLERY JOURNAL

KEEPING IN FOCUS

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 militia forces by a closer bond; all of which objects are worthy and contribute to the good of our country.

The



UNITED STATES FIELD ARTILLERY ASSOCIATION

Organized June 7, 1910

Honorary President

HARRY S. TRUMAN

President of the United States

LIEUTENANT GENERAL RAYMOND S. McLAIN, President
MAJOR GENERAL CLIFT ANDRUS, Vice-President
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MINDFUL OF THE OBJECTS OF OUR ASSOCIATION, it was shocking to pick up the May 1947 issue of *The Reserve Officer*, the official mouthpiece of the Reserve Officers Association, and read the unsigned editorial "Does the War Department Want the Reserve?" This editorial led off with the flat assertion that the long standing War Department attitude toward the Reserve Component could be summarized by the expression "we just don't give a damn," moved on through a six-pointed bill of particulars alleging not only gross failure but also a continuing lack of good will on the part of the War Department, and concluded that "a spirit of responsible citizenship" moved the Reserve Officers Association "to air a situation that is redolent with national danger." The entire overtone of the editorial, as well as

the specific wording in spots, displayed an intemperance and a bitterness not often written into the pages of responsible publications.

Being unsigned, one would presume that the editorial expressed the official views of the Reserve Officers Association. However, I am convinced that, fortunately, this cannot be the case. It is quite inconsistent, in tone and idea content, with the well-reasoned report of the President of the Reserve Officers Association, Brig. Gen. Donald B. Adams, that preceded the editorial by one page in the same issue.

Far from being an act of "responsible citizenship," I feel that the publication by *The Reserve Officer* of this editorial was a disservice to the common cause we are all seeking to advance.

MERITS AND METHOD

The question propounded in the editorial — *does the War Department want the Reserve?*—is so completely out-of-phase with the pronouncements of every responsible agency and individual in our government as to be unworthy of any comment. Nor shall I dwell on the merits of the six charges leveled at the War Department, other than to state promptly and with candor that personal inquiry into these matters has led me to the conclusion that, in the over-all, they do not add up to a convincing case.

But whatever the merits of the case, they are overshadowed completely by the method selected to stimulate corrective action—assuming, that is, that corrective action is indicated. Any tangible benefits that may, conceivably, result from such angry words will most certainly be counterbalanced many times by the resentful distrust and misunderstanding implanted far and wide in the minds of Reserve officers.

A CLOSER BOND

Our Association and JOURNAL are devoted, among other worthy objects, to the promotion of "understanding between the regular and militia forces by a closer bond." It is particularly regrettable, therefore, to note the bitterness of feeling toward the War Department

and the Regular Army that apparently clouds the mind that framed the editorial, "Does the War Department Want the Reserve?"

I, for one, refuse to believe that such bitterness of feeling pervades the minds of other than a thin slice of our Reserve officers, or is reciprocated by other than a thin slice of our Regular officers. That it exists to a degree—and in some instances with due cause—cannot be denied. In other words, I agree whole-heartedly with General Adams' observation in his report in the May issue of *The Reserve Officer*, to which I have already referred, that "in the past both the regular and civilian components have been at fault."

One of the very best discussions that I have seen of the things that are wrong with the relationship between the Regular Army and the Organized Reserves is included in the article, "We *Must* Get Together," which was written by a Reserve officer under a *nom de plume* and was published in the May issue of *The Infantry Journal*. This article merits reading by Regulars and Reserves alike.

THE BROADER VIEW

It is sometimes helpful, and may be in this instance, to take a broader view—to lift our thinking above and beyond the specifics of the case at hand—to scan in perspective the whole canvas, of which the War Department-Organized Reserves relationship and the Regular Army-Civilian Component relationship are but two of many parts.

In so doing, I am struck by the fact that *identical* charges—i.e., War Department failure and a lack of good will, in this case toward the National Guard—were made only a few months ago by the leadership of the National Guard Association. Strange business for the National Guard and the Organized Reserves—the two solid props on which the War Department leans for support—both to charge the War Department with ill will and failure. Something, somewhere, is out of focus.

The lunatic fringe, of course, will croak at once that we Regulars are all brass-headed Blimps, and that's that PERIOD.

Unfortunately, the problem is not quite that simple, and, dangerous though it be to pose as an "answer man," I suggest that we soldiers (all of us in all components) must constantly check the focus of our mental attitudes. They may not be in line with current evolutions.

I find myself drawn to the view that, splendid though it may have been in its specific details, much of the planning for our post-war Military Establishment was done in a "super-plush" state of mind—an understandable mental carry-over from the war years when body shortage and dollar shortage were seldom critical.

This is not a charge that the War Department planners were out of focus or extravagant in their estimate of the proper size and shape of the peacetime Regular Army, National Guard and Organized Reserves. I am, however, focusing attention on the impelling fact that in our democracy *dollars appropriated by the Congress* dominate the shape and way of things Military in peacetime.

What was in focus in the planning stage may prove to be out of focus as our people react, through the Congress, to the staggering dollar burden that the realities of the ever-changing international situation seem destined to force upon them. Quoting again from General Adams' report: "Only when the three major forces are able to formulate a concrete plan, keyed in and implemented in respect to a specific international plan, will the composition of the several components of the Army, Navy and Air be obvious to all."

We soldiers (and, again, I mean all of us in all components) must keep our minds in proper focus—particularly in view of the likelihood of a dollar (appropriations) shortage and the possibility of a body shortage (UMT legislation, now hanging in the balance)—to adjust ourselves in an orderly and mutually supporting manner to *something considerably less than the optimum* in our post-war Military Establishment.

I am preaching realism, not pessimism or defeatism. The honeymoon is definitely over, and national security—the common goal of our combined efforts—will be the loser, if we waste an ounce of energy in eccentric bickering. Otherwise, as was said in an earlier editorial in this JOURNAL, we may be answerable one day to the question: Why *did* the United States have a left-over Army?


Colonel, Field Artillery

Airborne Armies of the Future

A digest, as prepared by the staff of the *Marine Corps Gazette*, of two articles published originally in the *Infantry Journal*, and reprinted with permission.

By Maj. Gen. James M. Gavin, USA

THE FUTURE OF OUR ARMED forces is in the air. All the fighting men and everything they need to fight with in the future and live on as they fight must be capable of movement by air.

To my mind, we professional soldiers are traditionally laggard in facing and adopting changes, especially radical changes that upset proven methods and the ways in which we have been doing things for years past.

The latitude and power we shall be able to employ in conducting a possible future war can be accurately measured in terms of the future development of our arms, transportation, and equipment. To begin with, I am assuming that there will be a definite need for troops to fight upon the ground. Despite the opinions of advocates of victory solely through air power, I believe that any bombing or guided missile attack will need a human follow-up force to exploit the disorganization and chaos that future bomb and missile attacks will cause. The particularly lucrative targets for attacking airborne troops will be launching sites for guided missiles, sources of strategic materials used in making atomic bombs and warheads, military fabrication plants where bombs and warheads are made, politically sensitive areas either before or after bomb or missile attack, airfields and takeoff areas for enemy airborne troops, and terrain of particular tactical value such as groups of airfields about which an airhead may be developed.

In view of the traditionally non-aggressive role of our country in international affairs I think it can be assumed the foregoing targets would be targets for the airborne troops of the enemy. Of course, if adequate ground forces are within striking distance we can

make the counterattack with or without airborne assistance. But if the strategic and tactical dispersion of our forces is as it should be, troops could be marshalled effectively in our own territory against a major enemy force only by the employment of airplanes.

The first problem in the employment of airborne units is that of transferring from a high-speed airplane to the ground, in the shortest time possible, men and means in condition and quantity to fight successfully.

THE PARACHUTE

At the end of World War II the parachute in use by airborne units was suitable for individual troopers with hand weapons, and food and ammunition for several days' fighting. Dropped from the same plane in

Paratrooper about to jump with 30-pound radar set used as a ground beacon for troop carrier planes on dropping area.



equipment containers were the supporting mortars, heavy machine guns, recoilless rifles, bazookas, 75mm howitzers, etc., necessary to engage on even terms anything from a foot soldier to a heavy tank.

Individual troopers could be on the ground ready to fight in less than one minute from the time they left the plane, and a well trained airborne battalion could begin a coordinated fight in about twenty minutes after it landed.

Present-day troop carrier aircraft fly from 100 to 120 miles per hour during jumps and spread their loads of 36 to 44 jumpers and their equipment over a distance of 800 to 1,000 yards. The unit dropped is usually a platoon. The distribution over such a distance creates a problem for the platoon leader which at once becomes a very serious one if the landing is immediately opposed in strength. The solution may be in designing aircraft with multiple exits.

GLIDERS

Nowadays most airborne commanders look upon the parachute as the vehicle for the assault infantry and the glider as the vehicle for heavy guns, radios, and so on, that can be brought only with their use.

Three critical characteristics of gliders determine suitability for military use — their weight carrying capacity, their interior and door dimensions, and their landing speed. The most successful gliders of World War II were the USCG-4 and the British Horsa. The CG-4 could carry up to 3,750 pounds. The British Horsa could carry up to 6,700 pounds.

The present glider development program is directed toward improving conventional type gliders with the lessons in mind that were learned from the war. Under present conditions of ground combat the backbone of the defense of an airhead is its antitank defense. Consequently the greatest contribution gliders can make to airborne tactics is to bring to the battlefield antitank defensive means, anti-personnel artillery, reconnaissance and security vehicles,

and airfield construction engineers, in that order of priority. With this in mind gliders are being developed which will carry four and eight tons.

TRANSPORT PLANES

Air transports for military purposes fall into two classes; strategic airplanes of the Strato-cruiser and Constitution types, and tactical airplanes of the C-47 and C-46 types. The larger planes are now being produced and flown by civil aviation.

There is a distinct parallel between the military uses of aircraft and seacraft. Larger ocean-going vessels have lent themselves well to the strategic movement of troops. Tactical vessels, however, had to be manufactured for a particular combat use. For some years we tried to adapt ordinary seacraft to amphibious operations, work for which they were never designed. We seem to be doing the same thing in aircraft today. Commercial airplanes have fought our tactical battles so far despite their limitations. But the future of airborne operations requires the development of tactical aircraft embodying certain combat essentials. It is imperative that we make steady progress in such planes if we are to maintain any effective airborne forces.

CRITICAL FACTORS IN AIRBORNE OPERATIONS

Experience has shown that there are several factors which are critical when we are endeavoring to apply the means of conducting airborne warfare. These are the number of aircraft required, the number of airfields required for takeoff, the air space that we must dominate, and the range of our aircraft.

The range of aircraft has always determined where we could go, and to some extent what we could do. Range varies inversely with the pay load. It now appears that the range of troop carrier tactical aircraft will approach 2,000 miles by 1947 or 1948. This could be the maximum range increase for tactical aircraft if the development of air power should follow in form the development of sea power. The larger strategic aircraft will ultimately become global planes of great carrying capacity and high speed, whereas tactical planes will be designed, armed, and built for the specific mission of airborne combat in close proximity with the enemy.



British paratroopers assemble folding motorcycles ("Wellbikes"). Light and speedy (40-45 mph), they drive on rough terrain, getting 180 miles per gallon of gasoline.

AIRBORNE ATTACK

Any airborne force with an offensive mission must perform the following tactical steps. First it must land in hostile territory where it must establish itself firmly, securing itself against surprise and directly aimed ground fire. Next it must reinforce and resupply itself. Finally, it must move in the planned direction the force necessary to accomplish its specified mission. These steps constitute the establishment of an airhead just as amphibious means in a similar manner establish a beachhead.

The old saw that a chain is no stronger than its weakest link applies to airborne as to all other military organizations. Clearly, if the subordinate units do not have the means, ability, and skill to fight well the airhead will be short-lived. Small-unit training emphasizes the following which are considered characteristically airborne:

Speed and a rapid initiation of combat immediately upon landing.

Retention of the initiative by all individuals and units from the moment of landing until the objective is seized or the mission accomplished.

Recognition of isolation as a normal battlefield condition.

Readiness of all units to attack or defend in any direction at any time.

Improvisation of weapons and means, and the use of enemy weapons and defensive works to our own advantage.

Extended intervals and distances in the defense with a "screening and counterattack" type of defense.

Tough, trained, properly equipped troops, imbued with courage and confidence in themselves, given sensible leadership can accomplish any of the airborne missions I have outlined.

We have barely begun to solve the problems of airborne transport and equipment. When we do solve these problems we will be able to make a more intelligent approach to the problems of arms and organization of airborne units.

ANTIAIRBORNE DEFENSE

The basis of any effective antiairborne defense is knowledge of enemy airborne troops and their equipment and capabilities. Well-illustrated and well-written publications describing the enemy airborne troops in detail must be distributed to all troops and civilians in likely operational areas.

The defending commander must analyze his sector to determine the likely airborne targets and probable landing areas. On the basis of this evaluation he makes his first passive defensive measures.

Thoroughness in preparation for a good passive defense may be a substitute for troops in the first critical minute following the hostile landings.

On the combined basis of the enemy's capabilities and probable behavior and the extent of passive defense measures, the defending commander then prepares a plan for the active defense of his

by attacking, impeding and blocking the invading airborne troops.

These garrisons must be backed by larger mobile anti-airborne forces especially trained and equipped for the role they are to fill. Armored units are particularly valuable against airborne troops. Once the hostile forces land the defending forces handle them in the following sequence: locate, isolate, surround, and destroy.

The theory followed by some anti-airborne defensive commanders in World War II of always attacking every airborne landing at once with all means available is not sound. The main force may attack later but initially in most cases the reconnaissance or security force should make every man and weapon count in locating and determining the weight of the attacking force. The attacking force can then be handled as the next higher commander considers appropriate to the accomplishment of his mission.

Finally, all plans must be kept up to date. Rapid strides are being made in the development of airborne equipment and the capabilities of airborne units are improving monthly. Hence to be of any value plans must be revised and rehearsed frequently.

ORGANIZATION AND EQUIPMENT

A military organization must be functional. The principle underlying the creation of any organization, combat or service, is that its composition and structure be suitable for the specific type of work for which it is created.

The tactical situations encountered in airborne and anti-airborne operations are so many that it would be impracticable to create a special unit for the solution of each. The solution to most of them lies in the direct application of the modern weapons with which combat organizations are now equipped. But as the magnitude of the tactical situations increases, there is a consequent increase in the size of the units involved and it soon becomes apparent that the structure of the units has a direct bearing on their ability to solve their tactical problems successfully. In the infantry, artillery, and engineer battalion, where there is little need for any different organization than those units have in the division, the

smallest combat unit organized, armed and equipped to fight on its own, we find the first direct effects of structural organization. Let us look into the background of the present combat infantry division, its composition, and structure, to see the reasons for that structure. And with this as our basis, let us then determine the requirements of our combat divisions of the future.

WORLD WAR II TRIANGULAR DIVISION

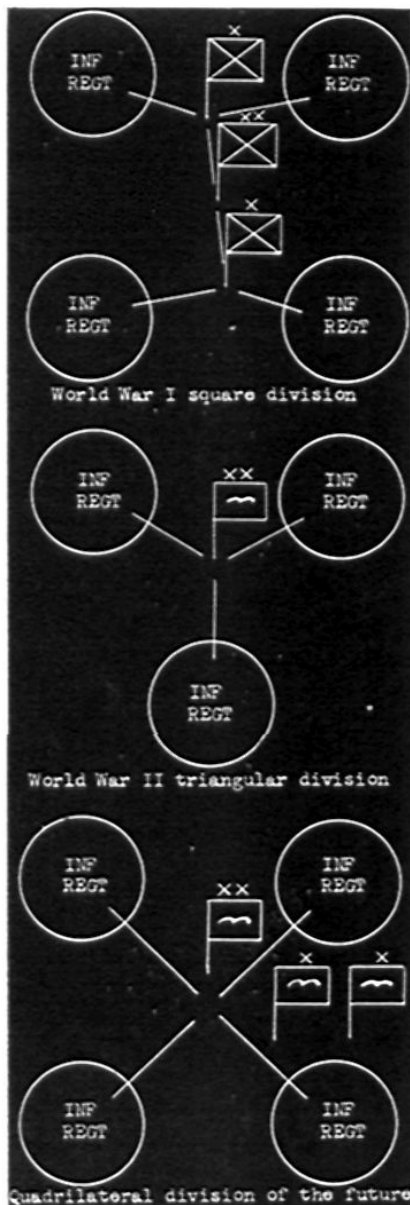
The triangular division of World War II (see cut) was well suited for the time and equipment of that war. Light, with 14,000 men, it was highly mobile. For a war that often had to be fought at high speed, and with definite direction, it served its purpose well. In some situations however the triangular division began to show deficiencies that we should now recognize and appreciate.

The triangular organization was designed so that two of its parts could be put against the known enemy and the third held in reserve. But if the direction of the enemy is not known and cannot be foreseen, the triangular organization is unsuitable and inadequate to meet the requirements of a 360-degree defense.

QUADRILATERAL DIVISION OF THE FUTURE

The division of the future—and this division must be airborne or adaptable to air transport—must be thoroughly flexible. It must be readily able to fight in any direction in a defense, and to ward off blows from any direction while attacking. A quadrilateral division (see cut) is designed with these prerequisites in mind.

Each of its four infantry regiments is directly under command of the division commander. There are two combat commands, similar to those of our armored divisions during World War II, provided to control and make use of any forces assigned to them by the division commander for and during combat. He can place any two regiments under each combat command which means that he can fight in any direction. He can as readily place more than two under a single combat command if the situation seems to require it.



sector. Troops must be posted at critical objectives. These troops constitute the reconnaissance and security screen. They give the earliest warnings of the location and weight of the attack. They cover the arrival of larger defense forces

The artillery of the quadrilateral division would be trained and fought under the direction of the commanding general of the divisional artillery. It consists of four light battalions and one medium general support battalion.

The four-way division provides both flexibility in its ability to fight in any direction in the defense as well as depth with corresponding security in the attack. The division must, however, be kept light and mobile. The infantry regiments should not exceed 2,400 infantrymen. There is definite need for a lighter weight semi-automatic weapon than the M-1 rifle, and for rockets, recoilless artillery, and weapons of the bazooka and *panzerfaust* type to replace the present heavy-type weapons. It is also imperative that radios be built with greater range and lighter weight for airborne use. With the dispersion that airborne units are sure to have in the future dependable communications are of the utmost importance.

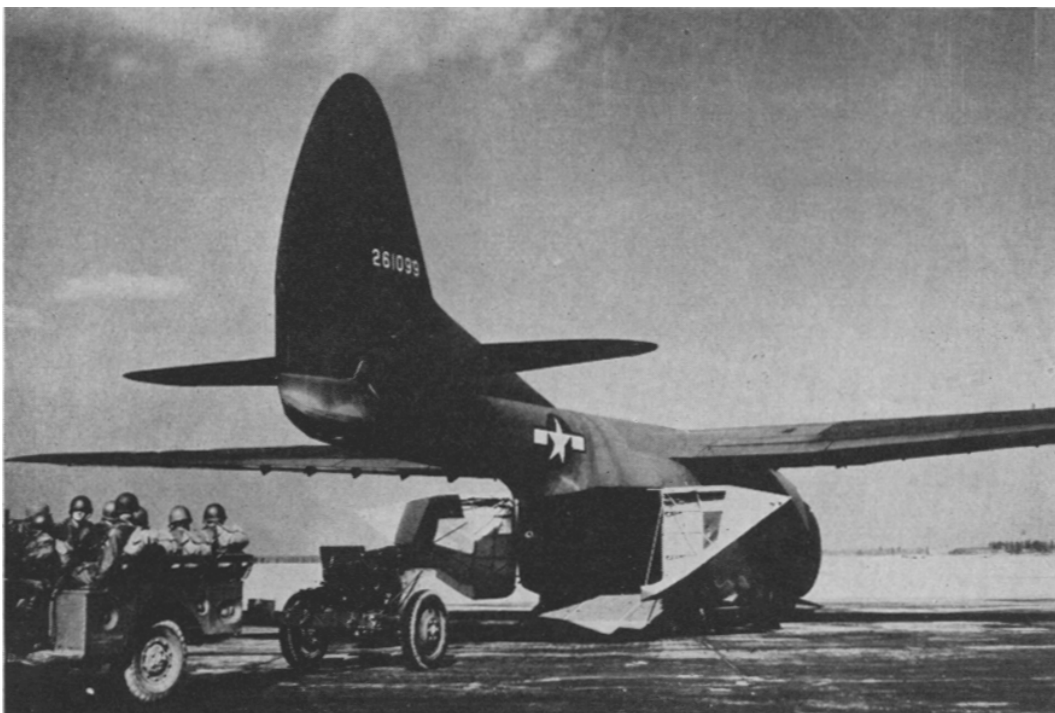
The division must be kept a fighting division. Such outfits as mobile showers, laundry units, refrigeration units, and the like do not belong with an assault division. These can be attached when needed and when combat conditions permit. Rations must be light and in concentrated form. And certainly as far as the assault divisions are concerned airborne divisions must learn to make the utmost use of all captured enemy supplies. At the same time any large-scale airborne invasion must be supported by a well prepared supply plan and implemented by service units and equipment adequate to permit the invading army or armies to exist indefinitely by air in the heart of hostile territory.

AIRPORT FOR SERVICE ELEMENTS

Large-scale airborne forces, if they are to succeed, must unquestionably be supported by adequate service forces. In order for a large airborne force to exist as a combat entity it is necessary that it capture and construct a major airport suitable for the reception of heavy air transport within a few weeks of the initial landings. Wherever possible the initial airborne attack should be made with this important item in mind, exactly as the necessity for a major seaport must be considered in preparing plans for an amphibious invasion. Once the initial landings are made, there should be at

If the combat divisions accomplish their initial missions and properly organized and equipped service units are by then available to back them up, in a short time the airborne army should be well established and prepared to make a full exploitation of his presence in enemy territory.

In the final analysis an airborne invasion will succeed or fail depending upon the adequacy of the supply program supporting it. The army that solves these problems will be the army that wins. Such an army should be able to move to any area on the globe on



Although this CG-10 disgorges nine men, a weapons carrier, and a 105mm howitzer, future gliders and transport planes must be capable of carrying greater loads.

least one airfield suitable for handling air transports of the troop-carrier type (five to ten tons payload) per division.

In ground combat a division is assigned whenever possible at least one good road for a main supply road. In the same manner an airborne division should be assigned an airfield or an airfield site. Engineers, trained and equipped in airfield construction, should be among the first to land.

As the airhead expands and additional service troops begin to arrive and become established, airborne combat divisions must be freed of service unit functions.

short notice, and what is more important, fight to a winning decision when it gets there.

THE USE OF AIRBORNE TROOPS IN THE FUTURE

The nation or group of nations that controls the air will control the peace. This means being able to transport airborne troops to any spot on the globe. It means being able to deliver these troops, trained and equipped and capable of imposing their will on any potential or actual belligerent.

The development of air power and the improvement in the capabilities of

aircraft establish clearly their global character. Guided missiles, which should properly be considered air-power, will soon be spanning the globe. Combat designed troop-carrier aircraft must be developed and produced to fit into their niche in the air-power and aircraft picture. When this is accomplished trained troop-carrier-airborne teams will be capable of striking a decisive blow from any point to any point on earth.

The use, or threatened use, of atomic weapons has had one immediate effect on our nation's strategic and tactical thinking — the realization that dispersion must govern all operations in the future. Never again may troops concentrate as they have in the past.

ALL-PURPOSE AIRBORNE UNITS

Airborne troops of the future will have to be capable of performing every type of ground operation now known. Attacking armies will concentrate in flight from dispersed airfields. They will be preceded by a missile barrage against

hostile airbases, troops, and missile bases, and they will close on their objectives in accordance with a planned schedule. Ground control will be accomplished through improved communications. When the strength within an airhead permits, a vigorous offense will be undertaken to exploit the landings and make possible the accomplishment of the airborne mission. Thus the fight will be carried to the enemy in his own territory and a decision gained. No war can be won otherwise.

At the present time, and as far as we can see into the future, the accuracy of missiles will be directly related to their range. There will be a premium therefore on denying any hostile power access to bases from which it could launch accurately guided missiles against American industries. It is likely that the launching equipment will be air transportable, hence it is entirely possible that bases could be established and a missile attack launched against our vital production system before we could

do much about it. If this happened we too could employ missiles but a more certain method would be to attack and destroy the enemy's launching sites with our own airborne troops. What was Pearl Harbor in 1941 followed in six months by an amphibious effort at Midway will, in the future, be a missile barrage followed in six minutes or six hours by an airborne attack. To even begin to cope with such a tactical situation, adequate, trained, and properly equipped, troop-carrier and airborne forces must be available.

PROVIDING PROTECTION AGAINST AIRBORNE ATTACK

The essentials of our national security are our industries and factories, our armed forces, and our airfields. These can be given limited protection from modern weapons through dispersion, and, in the case of the factories, earthen protection by being placed well underground. These measures, however, will not protect them from airborne attack or accurate missile attack. Protection from these can only be accomplished by denying an actual or potential enemy the airbase or missile sites he would want to use.

Through the use of airborne troops our means of defense can be concentrated at the decisive time and place to provide us with the necessary margin of power for security.

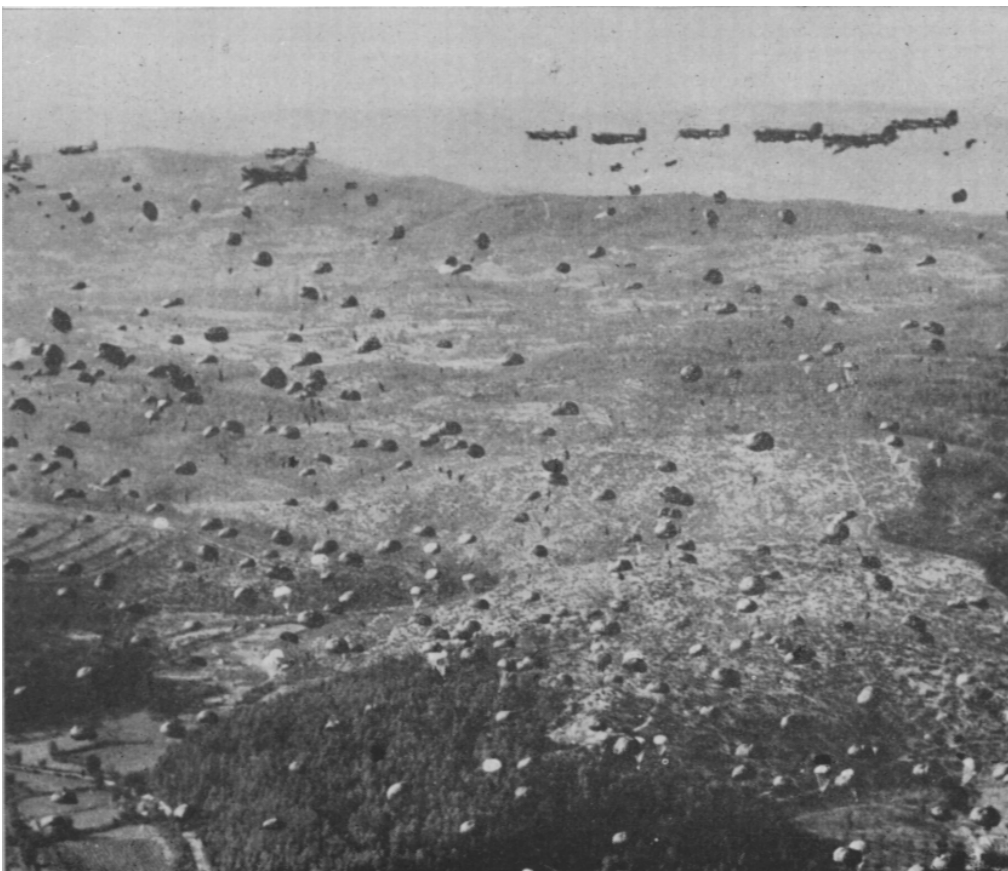
BEST HOPE FOR THE FUTURE

The nation that in the future has the best trained and equipped airborne forces has the best chance of survival. Indeed, more than this, only by having such security forces can any nation survive. For as long as these means of waging modern war are available to us they are available to aggressor nations. And modern airborne forces of aggressor nations cannot be fought successfully with the weapons that fought past wars. Not if they are to be engaged at parity and beaten.

Airborne troops are our best national security and the world's most promising hope for international security.

The knowledge of the existence of a well trained airborne army, capable of moving anywhere on the globe on short notice, available to an international security body such as the United Nations, is our best guarantee of lasting peace. And the nation or nations that control the air will control the peace.

Part of "Operation Uppercut," C-47s of the 12th USAAF Troop Carrier Air Division drop paratroopers and supplies over the French coast between Nice and Marseilles.



DIVISION ASSOCIATION NOTICES

Although space cannot normally be made available in the JOURNAL for notices that do not pertain to artillery activities, it is a pleasure to publish the following at the request of the organizations concerned.—EDITOR.

Third Armored Division Association

Former members of the Third Armored Division, known as the Spearhead Division of the First Army, are organizing a Division Association, a national organization of the men and officers who served with the Division after December 7, 1941. A temporary organization has been set up, with Brigadier General Doyle O. Hickey, former Division commander, as acting president. Application blanks for membership in the Association may be obtained by writing to: The Secretary, Third Armored Division Association, Room 203, Building 134, Fort Monroe, Virginia.

Seventh Infantry Division Association

The Seventh Infantry Division Association has been formed and incorporated under the laws of California as a non-profit corporation. The National Chapter is located in San Francisco, and it is desired to get branch chapters established and chartered in as many places as possible and as soon as possible. To form a branch chapter, it is necessary for ten bona fide ex-members of the Division to sign an application blank, which will be mailed to interested groups upon request. Address correspondence to: The Seventh Infantry Division Association, c/o Colonel L. J. Stewart, Presidio of San Francisco, California.

33rd Division War Veterans Association

The annual reunion of the 33rd Division War Veterans Association will be held at the Morrison Hotel, Chicago, Illinois, on 21 June 1947.

Any former member of the 33rd Division who is not receiving his copy of the 33rd Division War Veteran is requested to write the Secretary, George D. Radcliffe, Room 508, Morrison Hotel, Chicago.

71st Division Society

Major General W. G. Wyman has written to the former members of the 71st Infantry Division to seek their support in organizing a 71st Division Society, to have a civilian headquarters, to publish periodically a Red Circle News, and to stimulate each year some sort of reunion. Former members of the Division who consider this effort worthwhile are urged to send \$5.00 to the Secretary, 71st Division Society, Fort Montoe, Virginia, together with their views and recommendations. Those members of the Division who did not receive a copy of the 71st Division History should write to: Colonel O. S. Rolfe, Hq, 16th Infantry Regiment, APO 541, c/o Postmaster, NYC.

What's your

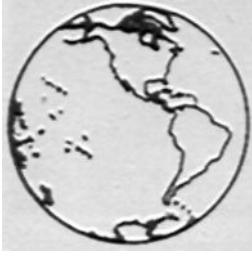
Artillery

I. Q.?

TURN PAGE UP-SIDE DOWN FOR ANSWERS!

1. The two items of a metro message that should be corrected for the difference in altitude between the battery and the MDP are: (a) wind velocity and density; (b) density and air temperature; (c) air temperature and wind direction; (d) line number and wind velocity.
2. A high oblique is: (a) an oblique taken from a high altitude; (b) an oblique on which the horizon appears.
3. The *origin* is the center of the breach of the piece. (a) Yes; (b) No.
4. The coordinates of Pt A are (861.732-1267.834). The coordinates of Pt. B are (864.755-1267.834). The distance from A to B is: (a) 3000 yds; (b) 3077; (c) 3023; (d) 3050.
5. In the above question what is the direction from Pt A to Pt B: (a) East; (b) West; (c) North; (d) South.
6. In radial line restitution distortion caused by relief and tilt is eliminated: (a) Yes; (b) No.
7. In one hour of prolonged fire, a 105mm How may fire: (a) 150 rounds; (b) 100 rounds; (c) 50 rounds; (d) 40 rounds.
8. One mil at 1000 yards more nearly subtends: (a) 1 yard; (b) 1.02 yards; (c) .98 yards.
9. The muzzle velocity of a 105mm How. Charge VII, is: (a) 1235 f/s; (b) 1550 f/s; (c) 1720 f/s; (d) 1830 f/s.
10. The maximum range of the 105mm How M2 is approximately (a) 8000 yds; (b) 10,500 yds; (c) 12,200 yds; (d) 13,320 yds.
11. The declination constant is the clockwise angle from Y-north to the magnetic north of the instrument: (a) Yes; (b) No.
12. Your guns are on your left. The angle T is 600 mils. Your deflection is within 1/2 S of being correct. You observe a burst on the OT line beyond your target. You should sense this round as: (a) over deflection doubtful; (b) over deflection over; (c) over deflection short; (d) doubtful deflection over.
13. The adjusted quadrant elevation for the base point is 435 mils. The true site is +7 mils. The adjusted elevation is: (a) 435 mils; (b) 442 mils; (c) 428 mils.
14. The chart range to the base point is 5830 yards. The range corresponding to the adjusted elevation is 6010 yards. The K is equal to: (a) -31 yds/1000; (b) +50 yds/1000; (c) +31 yds/1000; (d) -50 yds/1000.
15. The recorder of the Bn FDC is the: (a) HCO; (b) VCO; (c) Computer; (d) S-3.
16. The metro range for elevation 289 is 4920 yards. The registration range for elevation 289 is 4850 yards. The yards per one foot second velocity error are 7.1. The velocity error or VE is: (a) +10 f/s; (b) -10 f/s; (c) +70 f/s; (d) -70 f/s.

ANSWERS: 1. (b); 2. (b); 3. (b); 4. (c); 5. (a); 6. (a); 7. (b); 8. (c); 9. (b); 10. (c); 11. (a); 12. (b); 13. (c); 14. (c); 15. (c); 16. (b).



PERIMETERS in PARAGRAPHS



By Col. Conrad H. Lanza, Ret.

THE MOSCOW CONFERENCE*

(Prepared by a widely-known military scholar and writer, PERIMETERS IN PARAGRAPHS is a recurring feature dealing with the military, political and economic realities of 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.—Editor.)

IN MID-MARCH THE FOREIGN Ministers of the United States, Great Britain, France and Russia met at Moscow. Their mission was to draft treaties of peace with Germany and Austria. Following the method initiated after World War I, the defeated nations were not negotiators. They must accept whatever the victors impose.

China is one of the Big Five Powers but is not one of the Big Four, and was not invited to Moscow. Neither were the small states (either enemy or friendly) allowed a voice in the Conference. That was visible proof that the Big Four could and would give positive and unified direction to world political developments—that is, *if* they could agree among themselves.

The Conference openly discussed divergent points of view on certain important subjects. It did not openly consider equally important factors which weighed heavily in the present world unrest. Those factors were neither overlooked nor forgotten. They were the silent factors which controlled those others which were publicly discussed.

OPENING SITUATION

The Conference convened just after President Truman made his speech to

*This account was written prior to General Marshall's return. See opposite page.—Ed.

Congress on 12 March asking for an appropriation to restrain Communism in Greece and Turkey. Actually, the President did not mention Russia by name, but it was clear to all that he had reference to Russia when he stated that "the peoples of a number of countries of the world have recently had totalitarian regimes forced upon them against their will" and that "we must take immediate and resolute action." Subsequent debates in Congress indicated that that was understood and accepted by the American people.

Although the Russian reaction to the President's speech has not been expressed as yet by an authoritative official, some indication thereof may be drawn from Marshal Tito's address to the Yugoslav Parliament on 31 March, when he stated among other things:

"From the West we always are hearing about the atomic bomb and threats of war. We see now that England, America and some other countries are engaging themselves in Greece, China, Indonesia and other places, where they are suppressing the peoples' liberty and democratic rights. We see American imperialism openly threatening with war countries that will not submit to its financial and imperialistic dictatorship."

He specifically charged that the United States and Britain had established a base in Greece that imperilled peace in the Balkans and in the entire world.

Thus, it is logical to assume that the Moscow Conference opened with Russia believing that the Anglo-Saxon Powers had combined in a hostile action against her, and suggestions which later came from those Powers were undoubtedly

regarded with the suspicion of having been presented to strengthen their own military position. Feeling that her own military situation needed considerable improving, Russia sought means to better it, regardless of whether the Western Powers liked it or not.

These powerful undercurrents at the Moscow Conference overshadowed the specifics of what might happen to Germany and Austria.

DEVELOPMENTS

At the very beginning of the Conference, Russia presented its version of peace with Germany. If accepted it would have materially improved Russia's military position. It provided for a central German administration, a boost in German industry of approximately 45%, annulment of the economic fusion between the American and British zones in Germany, and control of Germany to provide goods to Russia out of proposed current production to the value of ten billions of dollars, to be charged as reparations and not paid for.

Such a large reparation account meant that German industry would have to work mostly to aid Russian production—a circumstance that would greatly strengthen Russia's military position. Germany is not self supporting for food in the American and British zones. There it would be impossible to feed the people out of German funds if its manufactures went free to Russia. Since they would have to continue the present arrangement of paying for needed German food, the United States and Great

Extracts from Secretary Marshall's radio Address to the American People on 28 April 1947

THE MOSCOW CONFERENCE of Foreign Ministers dealt with the very heart of the peace for which we are struggling. It dealt with the vital center of Europe—Germany and Austria—an area of large and skilled population, of great resources and industrial plants, an area which has twice in recent times brought the world to the brink of disaster. In the Moscow negotiations all the disagreements which were so evident during the conferences regarding the Italian and Balkan treaties came into sharp focus and remained in effect until solved.

There was a reasonable possibility, we had hoped a probability, of completing in Moscow a peace treaty for Austria and a four-power pact to bind together our four governments to guarantee the demilitarization of Germany. As for the German peace treaty and related but more current German problems, we had hoped to reach agreement on a directive for the guidance of our deputies in their work preparatory to the next conference.

Agreement was made impossible at Moscow because, in our view, the Soviet Union insisted upon proposals which would have established in Germany a centralized government, adapted to the seizure of absolute control of a country which would be doomed economically through inadequate area and excessive population, and would be mortgaged to turn over a large part of its production as reparations, principally to the Soviet Union. In another form, the same mortgage upon Austria was claimed by the Soviet delegation.

Such a plan, in the opinion of the United States delegation, not only involved indefinite American subsidy, but could result only in a deteriorating economic life in Germany and Europe and the inevitable emergence of dictatorship and strife.

HOWEVER, despite the disagreements referred to and the difficulties encountered, possibly greater progress toward final settlement was made than is realized.

The critical differences were for the first time brought into the light and now stand clearly defined so that future negotiations can start with a knowledge of exactly what the issues are that must be settled. The deputies now understand the precise views of each government on the various issues discussed. With that they can possibly resolve some differences and surely can further clarify the problems by a studied presentation of the state of agreement and disagreement. That is the best that can be hoped for in the next few months. It marks some progress, however painfully slow. These issues are matters of vast importance to the lives of the people of Europe and to the future course of world history. We must not compromise on great principles in order to achieve agreement for agreement's sake. Also, we must sincerely try to understand the point of view of those with whom we differ.

(Generalissimo Stalin told me) that these were only the first skirmishes and brushes of reconnaissance forces on this question. Differences had occurred in the past on other questions, and as a rule, after people had exhausted themselves in dispute, they then recognized the necessity of compromise. It was possible that no great success would be achieved at this session, but he thought that compromises were possible on all the main questions.

I sincerely hope that the Generalissimo is correct in the view he expressed and that it implies a greater spirit of cooperation by the Soviet delegation in future conferences. But we cannot ignore the factor of time involved here. The recovery of Europe has been far slower than had been expected. Disintegrating forces are becoming evident. The patient is sinking while the doctors deliberate. So I believe that action cannot await compromise through exhaustion.

The American attitude in the present conduct of foreign affairs was clearly indicated in the strong and successful leadership displayed in the Senate during the period of this conference. The fact that there was such evident unity of purpose in Washington was of incalculable assistance to me in Moscow. The state of the world today and the position of the United States make mandatory, in my opinion, a unity of action on the part of the American people.

Britain rejected this proposal.

The United States and Great Britain agreed to a central German administration. France objected to that. She wants several German states, wants to be the one Power in western Europe, and wants no other state to approach her in size or strength. In furtherance of this objective, France demanded annexation of the Saar territory. She wished for a substantial part of the coal produced in the Ruhr and a limitation of the quantity of coal which Germany could keep and use. As stated, France desires weak German states with none of them able to rival her either militarily or economically.

The United States next proposed reconsideration of the eastern German boundary so as to return to Germany certain lands now occupied by Poland, a Russian satellite state. Considering that this would materially affect her military situation by moving her frontier eastward, Russia refused to discuss the subject.

The United States and Great Britain agreed to give the Saar to France. Russia objected, seeing this as a move to secure the allegiance of France to the Anglo-Saxon Powers. She countered with a demand that one-quarter of the coal production of the Ruhr be sent to Russia and charged as reparations. The United States and Great Britain disapproved of this, and granted nothing to Russia. They made an agreement with France, however, to give her a substantial amount of the Ruhr coal. This satisfied France for the time, but did not help matters with Russia.

No progress being made as to a peace treaty with Germany, the Conference took up a peace treaty with Austria. The same reparation difficulty arose in this case. If Russia's demands for reparations were agreed to, Austria would be working for years to improve the Russian military potential, with the Anglo-Saxon Powers paying the bill.

A new complication arose from a demand, sponsored by Russia, for the cession of a substantial part of the Austrian province of Carinthia to Yugoslavia. If the cession were made it would place Yugoslavia in a position to sever the direct line of communications between Vienna and Italy. Militarily, this could be a matter of major

strategical importance. The United States and Great Britain promptly stated their disapproval.

The Moscow Conference closed without agreeing on any peace treaty. No Power had conceded anything of importance.

To understand the military situation at the end of the Conference it is necessary to review conditions in Russia, and the viewpoints of the Western Powers.

THE WESTERN POWERS

The so-called Western Powers include France and the Anglo-Saxon nations. According to statements by their representatives and their press, the Communist peril is believed to be grave. In fact, western Europe, including France, fears Communist Russia to a greater degree than Germany was feared in 1939. In that year western Europe believed itself strong enough to win a war against Germany and entered the war, believing that victory would be theirs within a relatively short time.

In 1947 no nation in western Europe—nor, in fact, all combined—believed it could survive another conflict. There is a feeling of hopelessness, a feeling that war would be completely disastrous—that is, unless the United States and the British Empire guarantee to come to the aid of western Europe.

Consequently, for western Europe the "Truman Doctrine" announced on 12 March, that from now on the United States would aid nations to keep Communism from being forced upon them, is a wonderful event. It gives them courage. They need it. Morale in western Europe has been low. Even in France, the strongest state of them all, the people have been disheartened. They have seen no way to restore a satisfactory standard of life, no way to maintain a stable government, and no way to avoid eventual absorption into the Communist system.

If morale has been low in France, it is lower in Italy and lowest in Germany and Austria. There are 165 millions of intelligent peoples in those countries. They are nations which used to trade with America to the profit of our citizens and theirs. They have in their time been Powers with the ability to

maintain large military forces. Should they fall into the Communist sphere and become forced to contribute to its aggressive ideas, the danger to the two Americas would be great indeed.

Perhaps that danger may pass.

RUSSIA

Internal conditions are bad in Russia. Reviewing the first year's progress of the current 5-Year Plan, a government statement on 1 March claims that the program was "in the main" completed but not in an efficient way.

Crops in 1946 were on a famine basis in the west, and about average in the east. (No figures have been published.) Industrial production was 50% less than in 1940. The doubtful explanation offered was the lack of coal.

There has been an increase in workers of over 3 millions. Where did they come from? Some 750,000 were transferred from desk jobs to the field. Although not known definitely, the balance appears to be explained by reductions in the military forces. All women and children drafted for industry during the war remain drafted. The total number of workers must be much above what it was in 1940. Yet production is down over 50%.

Numerous reports indicate that dissatisfaction is increasing. In March the Supreme Soviet (equivalent to Parliament) openly criticized Ministers, of which some belong to the Politbureau. This is the first time as far as is known that the Russian Government has been the subject of disparaging statements from subordinates.

With the lack of food, housing and consumer goods, and the drafting of workers into industries, there has arisen a 5th Column in Russia. It is reported to be very much larger than Communist 5th Columns in the Anglo-Saxon states. The difference, however, is that whereas the latter are organized and accept orders as to the Party Line from Moscow, the 5th Column in Russia is unorganized—that is, up to now. It is a great potential danger.

The members of the Politbureau know all about conditions in Russia. They have failed to find a solution to

their difficulties, and they know it. There is no reliable information as to the intentions of the Politbureau except as determinable from decisions announced.

Avoidance of a major war is an absolute necessity. There is insufficient production and a lack of food. Hence, there is no assurance that the Russian people would fight again for the Government. No attempt has been made in recent months to expand Russian held territory. Necessarily, such moves must be held in abeyance until better times are at hand. Primarily, these are dependent upon the next harvest. Should this suffice to feed Russia, the Politbureau may weather the storm. If the harvest fails, as it did last year, no one knows what will happen. The Politbureau is worried. Its greatest fear is a major war.

To meet that possibility two steps have been taken. The first is in interior economy. A great redistribution of workers has been made to increase production in the essential industries. Workers pay is computed strictly on a basis of results attained, with large premiums for over-standard production and severe cuts for below-standard. Likewise, farm labor has been transferred from a day labor basis to a basis figured on production.

The second step is to improve the military service which is being maintained in a high condition of discipline. Special attention is given to new weapons, including long range rockets. The old German V-1 and V-2 rockets are in production, according to news reports, and also an improved V-3. The new rocket is stated to have an effective range of 600 miles. It is also reported, but not confirmed, that Germans in Russian employ are working on new models of V-weapons to have a range of 3,000 miles. Also unconfirmed are reports that Russia has an atomic bomb plant in the vicinity of Lake Baikal, and has produced experimental bombs. It is certain that Russia has at its disposal several sources of uranium.

Occupied territories are required to furnish labor, which is paid for, and supplies as dictated by Russian economic necessities. The demands at the Moscow Conference for enormous

reparations from Germany and Austria were not motivated entirely for purposes of punishment. Russia really needs a tremendous amount of all kinds of goods and food to surmount its present critical economic crisis.

Should Russia abandon atheistic Communism and withdraw former statements, as to a necessity to spread that creed throughout the world, an era of peace might appear to a very upset World. The new stand of the United States against Communism may well be a beginning to that objective.

THE UNITED NATIONS

As the Moscow Conference closed the Military Staff Committee of the Security Council announced that the United Nations Military Police would be limited in missions and in organization to handle disputes among small and medium Powers. It would not undertake to punish a Big Power. If united, the Big Powers may enforce the law, since they are themselves above the law. That may seem to be a peculiar doctrine, but it has apparently been envisaged from the very birth of the United Nations.

It commenced in August 1941 at the Atlantic Conference between President Roosevelt and Prime Minister Churchill. Mr. Sumner Welles, at that time Assistant Secretary of State, was present at this Conference and has since written a book, *Where Are We Heading*, wherein he recounts a conversation with Mr. Roosevelt. The latter stated that after World War II the United States and the British Empire would be the sole surviving Big Powers and would have to police the World. He agreed that other Powers, consisting of the American states and the then occupied countries, would form an Assembly where they could make complaints known and submit recommendations. Decisions, however, would rest with the Big Two.

For reasons not yet known China was admitted as a Big Power during 1942. After the victory at Stalingrad Russia became a partner to form the Big Four. France was not admitted until after World War II was over.

The Big Five dominates the Security Council, since each of them has a vote

by which action on any matter may be prevented. This situation results in small and medium Powers seeking a friend among the Big Five. If they have that they are absolutely protected against any United Nations Military Police. In return they will aid the protecting Power in case of war. The protecting Power furnishes funds, arms and equipment and necessary leadership. This, in its essentials, is the present world military situation.

Small and medium Powers are in the process of aligning themselves with one of the Big Five. Last winter at the Paris Conference certain minor states always voted with Russia, other invariably voted with the Anglo-Saxon nations. Both protectors are aiding their loyal supporters—that is, aligning allies—by grants of funds and war equipment. This is an unprecedented peacetime role for the United States.

As these lines are written, the United States is far ahead of Russia both in armaments and allies. France and China are uncommitted. France is divided at home but has a majority favorable to the United States and Great Britain. Her political tendency at the moment is to ally herself in that direction. Russia is seeking to prevent this through the French Communist Party and 5th Column, with doubtful prospects of success. China is not a Power except in name. It has a veto in the Security Council which is a valuable right. It may later become a Power and may in that case join any combination of nations.

Although none want it and may, therefore, be able to avoid it, the Big Five are well aware of the possibility of another World War. The results of losing a war being so frightful, no chances of that happening are being risked. Armaments and allies will be maintained.

The United Nations may keep order among small and medium Powers, provided any of these are foolish enough to antagonize all of the Big Five at the same time. Any thought of the United Nations resolving the problems left over from the Moscow Conference, however, is another matter.

GREECE, TURKEY AND THE UNITED STATES

THE UNITED STATES

For the first time in its history, the United States has intervened to maintain the *status quo* in Greece and Turkey. More than a hundred years ago the United States had indeed expressed its views as to the independence of Greece, but it had never before undertaken any positive action to interfere in either Greece or Turkey.

It was a momentous event when President Truman announced in 12 March that hereafter the policy of the American Government was to be:

" . . . to help free people to maintain their free institutions and their national integrity against aggressive movements that seek to impose upon them totalitarian regimes. This is no more than a frank recognition that totalitarian regimes imposed on free peoples, by direct or indirect aggression, undermine the foundations of international peace and hence the security of the United States."

Specifically the President charged that the very existence of the Greek Government was threatened by Communist armed terrorists, and explained that the United States was the only democratic state in a position to give needed assistance. Turkey had also asked aid to maintain its integrity as an independent nation, which the President considered essential to the preservation of order in the Middle East.

To enable the necessary aid to be given, the President asked the Congress for an appropriation of \$400,000,000. As these lines were written it appeared likely that this sum would be appropriated.

This action commits the United States to active support of the existing situation in the Eastern Mediterranean. The active aid of the British Empire is assured. By this action Greece and Turkey, at their own wish and after careful consideration, pass into the Anglo-Saxon circle, instead of risking the fate of political absorption into the Communist world.

By inference the new American policy is open to expansion, should other states be confronted with similar

situations. What this may lead to, no man can tell. It is a most serious matter for the United States, and the debates in Congress indicate that this is fully understood and is accepted by the nation's representatives.

GREECE

In previous issues of this Journal, a description has been given of the activities of Communists in Greece. Communist guerrillas have possession of substantial areas and are seeking to overthrow the Greek Government by force. According to the elections of 1946, which were observed and judged fair by 692 American officials, 85% of the people of Greece are opposed to the Communists. The latter, however, refused to be bound by the elections and took up arms against their government.

Two movements have appeared among these guerrillas. The Greeks among them wish to install a Communist government, regardless of whether or not this reflects the will of the majority of the Greek citizens. The non-Greek guerrillas, who are citizens of other Balkan states, wish to detach northern Greece, unite it with those parts of Bulgaria and Yugoslavia which are predominantly inhabited by Macedonians, and form an entirely new state to be called Macedonia, and to be associated into a Greater Yugoslavia.

Training camps for Greek guerrillas have been in operation in both Yugoslavia and Bulgaria, where it is reported that arms and equipment are issued. The Yugoslav and Bulgar Governments claim that these are unofficial labor camps, where all are free to come and go. These governments have not adopted the Macedonia movement publicly, but individual members of the two governments have expressed their sympathy therewith.

It appears that the ultimate aim, as previously explained in this column, is to have a Balkan Soviet state which in due course will join Russia. Initially, it is to consist of Yugoslavia, Bulgaria, Albania and the proposed new Macedonia which would include a

substantial part of Greece. Should this plan succeed, Greece, having lost its north provinces, would almost certainly be unable to maintain its independence. This is why Greece called for help.

According to British reports large numbers of Russian "settlers" are moving into Bulgaria, where they are at once admitted to Bulgar citizenship. The total number planned is stated to be 200,000, of which one-half are distributed throughout the country and the other half concentrated near the Black Sea. It is presumed that at the next election these "settlers" will vote as instructed from Moscow. It should not be overlooked, moreover, that famine conditions exist in some parts of Russia and that the transfer of substantial numbers of Russians to occupied territories is economically convenient. Greece considers it a menace.

Winter operations were of a minor character, but on 25 February the Greek General Staff completed plans for a campaign against the guerrillas, to be launched by 60,000 troops about 15 March. The guerrillas were estimated to total about 15,000, operating in numerous bands in Epirus, Thessaly and Macedonia.

The Government offensive failed to open until April 9, on which date the 60,000 troops were claimed to have jumped off in a round up of guerrillas. The main force advanced northwest from the line Karditsa—Larisa, and a second force went west from Kozane. The mission was to encircle the main Communist force. Nothing like this happened. There was very little resistance, as the Communists just disappeared. At this writing it appears that part of them withdrew to a training camp in Albania, where the Greek forces cannot follow. Another detachment passed through the Greek line and started sabotage operations in the rear areas. Still other Communists seem to have hidden their weapons for another occasion and disguised themselves as farmers *ad interim*. The Greek Air Force (reported as 4 fighters and 4 reconnaissance planes) failed to discover any enemy.

It seems doubtful to this writer that the Greek forces in the field numbered 60,000. The country is rugged, covered with forests, and largely devoid of roads. It would seem very difficult to find space to deploy 60,000 men in such territory. Neither the Germans nor the British had anything like 60,000 men in line during the operations in this territory in 1941. Greece may have 60,000 troops, but probably not over one quarter of that number can be used at any one time in round ups.

TURKEY

The problem in Turkey is entirely different from that in Greece. The Turkish Army is mobilized on a war

footing, and has been since 1939; there is no civil war; and Turkey is prepared to defend herself with two armies, one on the eastern Armenian frontier and one covering the Istanbul Straits. And there is a GHQ reserve, ready to join either force. But the Turks lack armor and air forces, and their artillery is deficient.

The sole possible enemy is Russia, and Turkey has feared a possible attack, since Russia made repeated demands during 1946 for admission of her forces to garrison the Istanbul Straits, while at the same time making demands for a revision of the Armenian frontier.

In addition to deficiencies in certain kinds of troops and equipment, Turkey

is handicapped by a much smaller population than Russia. Thus, although she might be able to hold the restricted fronts for a time, she could not withstand an ultimate Russian advance. Lacking naval and air forces her 700 mile Black Sea coastline is vulnerable to invasion by airborne or amphibious forces. Only reserve forces would be available to meet such a contingency. As roads and railroads in Asiatic Turkey are few and poor, troops once committed to an area cannot readily be withdrawn to another sector. In view of this unfavorable strategic situation, Turkey desires assurance that British and/or American forces will come to her aid in case of need.

CHINA

GENERAL SITUATION

No material change has taken place. The civil war between the Kuomintang or Nationalist Party and the Communist Party is continuing. There is an absence of evidence that there is any sincere desire to end the war, which is devastating large areas and causing general economic ruin. Both sides conduct military operations and both sides avoid major engagements. Consequently, the main armies are never defeated. If either side wins a battle it fails to pursue energetically. This explains why the civil war has already lasted over 20 years.

According to their own returns, the Kuomintang has 4,900,000 troops which include a reported 300 combat divisions. Of these, 22 divisions are stated to be trained, equipped and organized by the United States on the usual triangular formation. Several other divisions are partially equipped. The Kuomintang occupies most of China south of the Yang-Tze River and the large cities and some areas north of that river. Estimated population is around 400,000,000.

The strength of the Communist Armies is unknown, but is believed to be not over 500,000 men. They occupy the country outside of the main cities north of the Yang-Tze, and most of

Manchuria. Estimated population of this area is 100,000,000.

The Communists rule by force, their government being based on Marx and Lenin principles. They are ruthless in dealing with opponents, liquidating them without mercy and with great barbarity. Provided there is no opposition, however, the laws are administered fairly, and taxation is equitably distributed. Communist armies are maintained by conscription, it being impracticable to find enough volunteers. Armies are not as well equipped as those of the Kuomintang. There is virtually no armor, little artillery, and only a few transport planes. This inferiority is the Communist justification for avoiding major battles.

The Communist High Command is dominated by Mao Tse-tung who occupies a position similar to that of Stalin in Russia. Just as at Moscow, there is a Politbureau, which decides on important policies. The C-in-C is Chu Teh. General executive is Chou En-lai. Since 1936 all these persons have had their GHQ at Yen-an, a small town in north central Shensi.

Communist troops are widely scattered and are organized regionally rather than tactically. Base unit is a battalion, seldom exceeding 400 fighting men. Liaison is good, being

maintained by telephone and radio. Consequently battalions can be concentrated on short notice into large units. Since they have neither armor, trucks nor artillery and subsist off supplies seized locally, they are quite mobile as infantry, marching qualities being excellent.

The strategy of the Communist GHQ is not to defend fixed lines, strong points or cities. Its troops attack outlying or isolated Kuomintang garrisons when a superior force can be concentrated for that purpose. The Communists pay special attention to blocking all lines of communication, particularly railroads which are essential for the supply of Kuomintang troops. This forces the enemy to disperse in order to guard a vast number of critical points, and results in some of them being subject to Communist raids. The objective is to wear down the enemy by attrition, thereby forcing him eventually to come to terms. This strategical policy has not varied in 20 years of continuous warfare. It was used against the Kuomintang and also against the Japanese. Against neither was it ever successful.

The Communists have established a training center at Kiamusze, in northeast Manchuria. A certain amount of Japanese armor and artillery is available. Although this area is close to the

Siberian border, there is no evidence that Russia is either providing training assistance or furnishing military supplies.

Trade between Communist Manchuria and Russian Siberia has been established. The Russians have supplied a certain amount of railroad rolling stock and aid in operating the railroads, as they are entitled to do under the 1945 Treaty which granted Russia a 50% interest in Manchuria railroads. Exports to Russia are mostly food, which is greatly in demand in that country where famine exists in places. About 6,000 tons of food products move daily, equally divided between the Irkutsk area and the Maritime Province. In return, Russia ships oil, tobacco, coal and manufactured articles into Manchuria.

Three detachments of Japanese troops, who have not yet surrendered, are reported to be in Manchuria. These detachments are each about a division in strength, are supplied with arms and ammunition, have women and children with them, and have established farms sufficient to raise their own food. All are on the defensive, and only one combat has been reported. The Communists attacked the Japanese at Kiamusze but were defeated. Since then the Japanese have not been interfered with. These Japanese include men from organizations raised in Manchuria. They are of Japanese nationality but born in Manchuria. They are acclimated and know the country and methods of life of Manchuria. Many have never seen Japan.

MILITARY OPERATIONS

Manchuria. Russian troops occupy Dairen. The United States had asked by letter that Russia turn over Dairen to Kuomintang China. By its letter of 7 March, Russia advised Kuomintang China that she was ready to turn over Dairen, provided that only civil officials or detachments were sent there. It was further specified that such Chinese would not be allowed to come by sea, but must come overland.

The land route to Dairen is blocked by a Communist force and the Kuomintang has feared to attack this force for fear of complications. Besides, it seems improbable that a

purely civil administration could hold Dairen with Communist forces just outside the city. Consequently nothing has been done. As far as known there are no Communist troops within Dairen, but there is a complete Communist civil government functioning.

Early in February, the Communists brought into line along the Sungari River about 2 divisions trained at Kaimusze. The Kuomintang held the railroad from the Sungari River bridge inclusive southward to Tientsin. At the Sungari bridge head was their 1st Army (really a corps) of 3 divisions including the 50th which had been trained by General Stilwell in Burma. After some preliminary feints, the Communists attacked on the 23rd, on the south side of the Sungari, against the right and left rear of the bridge head. The Sungari River was frozen at this date and was not an obstacle for infantry.

The Communist attack reached the railroad which was interrupted and patrols reached the vicinity of Changchun, cutting all lines of communication, except to the south. The attacking forces then withdrew. Among other prisoners taken were two American officers on duty as observers at Changchun. Presumably these officers were in the field when taken. They had just been released as this report was written.

Kuomintang troops attacked northwards from the Sungari bridge head on 8 March. They did not get very far. On the 14th, the Communists again attacked as before and again reached the vicinity of Changchun. They withdrew on the 17th.

On 5 April, a Communist battalion attacked an American ammunition dump east of Tientsin at night. This was garrisoned by US Marines who lost 5 killed and 16 wounded but held on to the dump. The Communists made good their retreat.

General result of the two months of campaign—no change.

Shantung. At the beginning of the period a Kuomintang army was astride the Pukow and Tientsin RR headed north on a line through Tenghsien. Its mission was to relieve a detached force which was besieged in Tsinan and

connect with friendly troops in Shantung.

The right of the Kuomintang army was at Lini, which had been taken on 15 February. Three divisions were sent northeast to establish connection with the friendly troops supposed to be in Shantung. The divisions marched separately and not within mutual supporting distance. This gave the Communist commander, General Chen Yi (trained in France) an opportunity. He defeated each of the 3 divisions separately between 20 and 23 February. It seems probable that these divisions surrendered without fighting as no report of fighting can be found. Main result of this victory was that the Communists captured a large amount of American arms and equipment.

Following up this success the Communists attacked the Kuomintang troops in Shantung. These promptly retired toward Tsingtao, which has an American garrison and is reasonably safe from Communist attack. This movement was away from the army coming north along the Tientsin & Pukow RR. Faced with this situation, General Wang, commanding the main Kuomintang forces, decided to advance and relieve Tsinan. By mid-April the advance had gone half way—a 25 mile advance in 2 months.

The garrison in Tsinan was ordered to strike northward—away from the relieving column—while other troops at Tientsin were directed to strike south toward Tsinan. The latter force contained armored elements. They decided to load the tanks on railroad cars and in this manner started south. The unlucky train ran into a Communist road block, where the train was ditched and the tanks spilled out. This was considered sufficient reason for discontinuing the operation for the time being.

This front has 200,000 Kuomintang troops, or 12 divisions, according to their own statements. There is no front. Troops remain mostly in barracks in towns during the day. They issue out—with care—at night. Communists who are invisible by day do the same. The latter, operating in small detachments, establish mine fields on roads, destroy culverts and bridges, interrupt telephone lines, etc. It requires most

of the next day for Kuomintang labor troops to repair the damage. Occasionally troops march forward by day for some other town, and rather rarely some fighting takes place. Otherwise, fighting is limited to night patrol encounters.

Shansi and Shensi. The Peiping & Hankow RR runs through Shansi. There is no through traffic, since the Communists always hold some section. When they are chased out, they go elsewhere and block another section. The Japanese did operate this railroad regularly for through traffic, but the Kuomintang has not been able to duplicate that performance.

In mid-February, the Kuomintang was operating around Paoting removing a Communist road block. Being much inferior, the Communists avoided an engagement and went westward to the Wu Tai Mountains, which are 4,000 to 10,000 feet high. As usual the Kuomintang failed to pursue vigorously, but contented themselves with the occupation and repair of the railroad.

Satisfied with this accomplishment, the Kuomintang now decided to undertake the capture of the Communist capital of Yen-an as well as the Communist troops stationed there. The plan was to advance simultaneously from Ichun (about 110 miles south of Yen-an) from Ningsia (220 air miles to the northwest but 290 by road) and from Kalgan (about 500 miles to the northeast). Provided the movements of the advancing columns had been properly timed and co-ordinated, the plan was not bad, particularly in view of the overwhelming Kuomintang strength.

Through underground channels the Communists learned all about this plan. They decided to stick to their general strategy of not defending places, but to maintain their army in the field by withdrawing. The Yen-an CP was a system of caves and immune to bombing. The Kuomintang Air Force did do some bombing but it was harmless. Evacuation of Yen-an stated before the Kuomintang troops moved.

Properly, the Kalgan force should have moved first since it was the furthest away. However it was the Ningsia force, claimed to be 8 divisions, which moved first on 21 February. It made 20 miles that day. If that speed had been maintained it would have

arrived at Yen-an about 7 March. However it wasn't maintained. For on 7 March, the advance guard of 1 division was at Kingyang where it failed to drive the Communists away from a road block they had established 100 miles west of Yen-an. On this day the south column started north from Ichun, meeting no resistance other than patrols and weak delaying detachments.

Having now evacuated their CP, the Communists now withdrew their main forces both from the south and west of Yen-an, and retired northeastwardly to join their troops who had withdrawn from the Paoting sector. The Kuomintang entered Yen-an unopposed on 19 March, and united the columns from Ningsia and Ichun, claimed to together number 200,000 men. The North column from Kalgan had for unknown reasons not moved. Consequently the Communists met no opposition in going northeast. And as usual the Kuomintang having captured a city proceeded to hold it and did not pursue the enemy. In fact they lost contact.

On 23 March the Kuomintang north column finally started from Kalgan. On the 27th it reported that it had blocked the road leading from Yen-an through Yuyu in compliance with orders from Kuomintang GHQ, which had assumed that the Yen-an Communists would retreat through Yuyu into Manchuria.

The Communists did nothing of the kind. After uniting their forces in the Wu Tai Mountains at the end of March, General Chu Teh advanced eastwards, and on 8 April appeared in considerable force against the Kuomintang held RR Junction at Shihkiachwang. The Kuomintang commander withdrew all troops into that town, allowing the Communists to occupy the Peiping & Hankow RR to the north and south. New road blocks were established which were just as effective in stopping traffic as the one previously lost near Paoting.

Miscellaneous. Reports from south China indicate that a new Communist force has appeared in Kwangtung and is operating close to Canton. Still another is in Hainan. These movements do not appear to be closely connected with the north China Communists, but to be rather uprisings of local Chinese in protest to the corruption and

misgovernment of local Kuomintang officials.

The United States has evacuated about 5,000 Marines from north China, and is in the process of reducing its forces in China to a total of around 6,500 by 30 June.

COMMENTS

The Chinese method of warfare is not likely to lead to a decision in the Civil War. Both sides have had the same leaders for 20 years. Neither has ever changed his strategy. The Kuomintang continues to attack cities rather than the enemy; the Communists attack lines of communications rather than hostile forces. Each side claims that in time it expects the other side will be worn out and will yield. In this kind of war armies remain forever undefeated, as they avoid meeting each other.

A possible solution is that the expense of maintaining the huge Kuomintang armies of nearly five million men will cause the economic collapse of the National Government. To avoid that possibility a loan from the United States is desired. This has been refused, and this action may force the Kuomintang to do something to end the war. This is not certain, but it is certain that the economic condition of China is going from bad to worse. The American position is to continue to recognize the Kuomintang as the lawful government, but to withhold direct support during the Civil War.

The United States has withdrawn its liaison detachment with the Communists. Its CP at Yen-an was closed on 8 March, and is not to be reopened there or elsewhere. This liaison has been maintained for some three years in the hopes — now abandoned — that something might be done to reconcile the Communists and the Kuomintang. This withdrawal by the United States has resulted in the Communists becoming hostile in spirit against the United States and their turning towards Russia for sympathy and support. The attack against American Marines near Tientsin has been accompanied by many anti-American articles in the Communist press. So far the Russian reaction has not become apparent.

SOUTHEAST ASIA

GENERAL SITUATION

British, French and Dutch have made concessions to the natives, all of whom desire complete independence. The British have made the greatest progress in offering the desired independence, and have done so without offering armed resistance to the native movements. Confronted with this situation, the native races in India, Burma and Malaya are seeking to establish their own governments. They do not find this as easy as they had believed, and have voluntarily postponed declaring independence. Contrary to the situation in former French and Dutch territory, the natives in British territories bear no ill will towards their former masters. They admit that the British treated them fairly and did much for their countries. These peoples are very likely to express a preference for independence but within the British Empire.

MALAYA

The independence question is complicated by the fact that the Malays desire their own government, now mostly administered by Mohamedan Sultans. This is opposed by the Chinese who, in some parts, exceed the Malays in numbers and desire a more important voice in local government. The Malays consider this unfair, since it means ousting them from control of their own native country. They suggest that the Chinese go home if they don't like the Malay government. That solution does not appeal to the Chinese, and the British are endeavoring to arrange a peaceful solution in which the great base at Singapore will be excluded from any new state and remain an Imperial District.

INDO-CHINA

A strong French censorship prohibits reports of military operations. Consequently, precise information is not available. The revolution continues, however, with the Indo-Chinese very hostile to the French, the natives claiming that the French have mistreated them in many ways. France

is willing to grant some local independence, but demands that the military forces, foreign relations and customs be left under her control. The natives have declined to agree to this.

The war has spread to Cambodia. The area which Siam has been forced to return to French control is within Cambodia, but is inhabited largely by Thais who did not want to be returned to Cambodia and French control. These people are now in part in revolt. It is unorganized, but is sufficient to interfere with French occupation. All French have to travel in convoys which are frequently attacked.

Cambodia has a population of about 3,000,000. According to the French official report there is only one school in the entire country. Of the pupils only 60 are natives. As a result 92% of the natives are reported as illiterate. This lack of education is one of the complaints charged against the French. The exports from Cambodia are down about 80% due to war conditions, with consequent poor economic results.

Heavy fighting has taken place in Tonkin. The Red Cross reports show that the Viet Nam, in arms against the French, have POW camps. So it seems that they have captured French military personnel. Red Cross states the POWs are properly treated as required by the Hague Conventions. As many as 2,000 French wounded are reported to have arrived in France.

France raised a corps of 7,500 Cochinese Partisans under French officers to fight the Viet Nam in Tonkin and Annam. This force was equipped with American infantry weapons, presumably Lease-Lend supply. According to French Foreign Legion reports, the Partisans have not been successful. They have deserted in large numbers to the Viet Nam taking the American weapons and ammunition with them.

A French amphibious force of about a regiment is reported operating between Hanoi and Haiphong.

On 5 March France relieved her C-in-C in Indo-China, General LeClerc, who is well known to Americans since he served in the North African and

West German campaigns. The Governor General or High Commissioner, Georges T. d'Argenlieu, was relieved at the same time. The Viet Nam had made it known that the removal of those two officers was an absolute requirement to discussion of peace. It is to be presumed that some offer to negotiate will be made in the near future if it has not already been done.

The Viet Nam maintains, curiously, a liaison office in Paris and an Intelligence office in Bangkok. Both issue much propaganda, the French Government allowing the Paris office full freedom of operation. Their estimate of the situation as of 9 March was that France was too weak militarily and economically to conduct a war in Indo-China, and incapable of furnishing proper military support in case of another World War. Consequently the Viet Nam wishes to sever political relations with France completely. There is no objection to close economic connections. According to a report in the French Parliament on 18 March by the Finance Minister the war in Indo-China costs France in American money \$800,000 a day—a heavy burden for a state with a highly unbalanced budget.

NETHERLANDS INDIES

On 25 March, Dutch representatives having finally been authorized by the Dutch Government, signed an Agreement with the representatives of Indonesia recognizing the latter as an independent state under the same monarch as Holland. Indonesia consists of Java, Sumatra and Madoera. No arrangement has been made for evacuation of Dutch troops holding the main ports, or for administrative and economic matters. The provisional capital of Indonesia is Jogjakarta, which is the military headquarters but the new Indonesian flag has been raised in Batavia, still held by the Dutch.

There appears to be a sincere effort to prevent future warfare between the Dutch and the Indonesians. This is not easy since the Dutch are heartily disliked and liaison with them is none too good.

FORMOSA

A NEW TROUBLE AREA APPEARED at the end of February in Formosa.

This island was assigned to China at the end of the war, and about half a million Japanese have since been repatriated to their home land. As these Japanese included a large part of the business leadership in Formosa, this action lowered the economic conditions. After making allowance for this reduction of the population there was left about five millions of Chinese, who inhabit the western part of the island. These Chinese are industrious, and under Japanese rule (which had existed since 1895) were in general prosperous. There is no evidence that they wanted to be returned to Chinese jurisdiction.

The eastern part of the island is inhabited by the Formosans, who regard both the Chinese and the Japanese as intruders. The natives number approximately 200,000 and are divided into several tribes having different languages and customs. Their ethnology is uncertain, but they resemble Filipinos and have kindred languages. The nearest Filipino island is only 80 miles away, whereas the China coast at the nearest place is 90 miles off.

The Chinese and the Formosans never have been friendly. Prior to Japanese occupation they were two independent hostile bodies, both addicted to head hunting. Like the Igorrote tribe in the Philippines, the Formosans desired heads for religious rites. The Chinese took heads in retaliation, but, being of a degraded type, they also practiced cannibalism.

Japan established order by separating Formosa into two sectors, east and west, an requiring each faction to stay on its own side of the island. The Chinese raised rice, sugar and tea. The Formosans owned the camphor forests, the main source of wealth in foreign

trade. Business was good under the Japanese, although that rule was a strict rule.

In the latter part of 1945, Kuomintang China took over Formosa. It has held Formosa since then. According to observers, Chinese rule has been a misrule, with extensive graft, heavy and unequal taxes, and oppressive regulations. In February the China government sought to abolish considerable private trade including tobacco. In compliance with the new law, the police seized tobacco stocks, and in so doing killed a woman who was selling a tray of cigarettes and who objected to the seizure without compensation.

This incident started a revolt on 27 February. The report of the Chinese governor lists reasons for the revolt as including barring public offices either to the Formosans or to the Chinese natives of Formosa. All public officials are mainland Chinese. Another grievance is that the inhabitants of Formosa not only dislike the mainland Chinese but also object strenuously to the confiscation of private property to establish monopolies for mainland Chinese officials. Poor business, due to the withdrawal of the Japanese, was a contributing factor.

On 28 February mobs roamed generally, beat mainland Chinese, burnt their homes, seized the monopolistic stocks, killed Chinese police and generally defied the Chinese governor, Chen Yi. By 1 March the authority of the Chinese had been reduced to a few buildings which were besieged at the capital city, Taihoku. Chen Yi radioed to the mainland for 2 divisions of troops. To gain time for these to arrive, he negotiated with the inhabitants of Formosa. He agreed to an armistice, promised to reform his government so as to be representative of the island's peoples, promised compensation to

families of killed and wounded, agreed to alter the laws on monopolies which in fact are contrary to those in mainland Kuomintang China.

It was later explained that these promises were military ruses to gain time, and without real intent to carry out the things promised. Troops were sent from the mainland on 3 March, and arrived next morning at Keelung, 18 miles from Taihoku. From personal reconnaissance by this writer, the route from Keelung (Tansui on some maps) to Taihoku could be defended by inferior forces. However there was no defense. The local Formosan authority had not known of the expected arrival of the troops, and they arrived at Taihoku without opposition late on 4 March. They found a local committee of Formosans in charge who welcomed the soldiers.

As soon as Chen Yi felt he was strong enough, without warning his soldiers arrested and executed the provisional Formosan officials. Natives were shot on sight, and homes were entered and robbed. Other troops then proceeded to other cities and slaughtered many people who had had no particular connection with the uprising. Many thousands were reported confined to concentration camps under barbarous treatment. Many atrocities were committed. Ten days of this treatment squelched the revolt. By 13 March mainland Chinese were again in control.

Kuomintang China had drafted a number of men from Formosa into their mainland armies. Many deserted upon hearing of what had happened in their homeland. The Communist armies in Shantung report that about a thousand men from Formosa had joined them by the end of March.

News from Formosa is now censored, and the real situation is uncertain. It will be a possible source of trouble for some time.

MADAGASCAR

THE VIET NAM UPRISING IN Indo-China is having serious repercussions among other French colonies who desire independence.

Fighting has broken out in Madagascar. This island, which is

nearly 1000 miles long and 250 miles wide, has a native population of under four millions. During World War II the island was invaded (with American consent) by British troops, who conquered the French garrison.

Reason given for the invasion was to prevent Madagascar from falling into Japanese hands, either by direct attack or by alliance with the

French. It is now known that Japan never intended to attack that island and that the French never had any thought of surrendering their territory to anyone.

The British occupation, partly made with African troops, demonstrated to the natives that the white man was not invincible. They have become convinced that the French who reoccupied the island after the end of the war with Japan can be beaten, and they have been watching events in Indo-China with sympathy.

As early as the beginning of March, the French Government had received a report from the Governor of Madagascar stating that trouble was brewing. He stated that an independence movement had been

started, and that agitation was spreading.

First operations came at the end of March. Armed bands cut the main line of communications at Moramanga, an important railroad and road junction, between the capital city of Tananarive and the east coast. At the same time a mutiny occurred at Diégo-Suarez, where the mutineers seized the arsenal and with it a considerable quantity of munitions. The French High Command brought in reinforcements by air from Réunion Island, a naval base 450 miles east of Madagascar.

Up to 15 April numerous small engagements took place, with both French and natives on the offensive in different localities. Three native bodies are reported in the field. One is at the

north end of the island and has advanced south about 180 miles. The second main force is operating east of Tananarive, obviously seeking to keep the line of communications blocked to the coast. The third is in the southeast sector over a scattered 300 mile front from Ft. Dauphin (French) northward to Manakara. No hostilities have been reported along the west coast.

Madagascar troops have been incorporated within the French Army since World War I when a regiment was in line in France. There are at this date a considerable number of natives with military training, and familiar with France and the European customs and mode of life. As this account closes no military decision has been reached in Madagascar.



For Heroism and Service



DISTINGUISHED SERVICE CROSS (Posthumously)

First Lieutenant ERIC F. WOOD, Jr., 589th Field Artillery Battalion, from December 17, 1944, to January 22, 1945, displayed extraordinary heroism in action against the enemy in Belgium. His section cut off and completely surrounded, he refused to surrender, as enemy fire converged on him from all sides. In company with several other Americans in the area, he repeatedly initiated ambush attacks against enemy communications, supply columns and patrols, accounting for the deaths of scores of the foe. Valiantly, Lieutenant Wood continued his offensive actions until finally in a last fierce engagement with overwhelming forces he made the supreme sacrifice, where later his body was found surrounded by the bodies of seven of the enemy, mute testimony to the daring, the loyalty and intrepid gallantry of Lieutenant Wood in the service of his country.

LEGION OF MERIT Col. THOMAS W. McCAW.

SILVER STAR 1st Lt. FRED L. GAULT.

THE 6TH CAVALRY GROUP (Mechanized) (Reinforced), consisting of * * * BATTERY C, 253D ARMORED ARTILLERY BATTALION, is cited for extraordinary heroism and outstanding performance of duty in action from 9 to 13 January 1945 in the reduction of an enemy pocket in Belgium and Luxembourg, southeast of Bastogne. After having performed an exacting mission under difficult conditions for a period of nearly two weeks, the 6th Cavalry Group (Mechanized) (Reinforced) was committed the night of 8-9 January 1945 on a 5,000-yard front along the general line Villers - la - Bonne - Eau - Betlange-Farm Furhman with the mission of aggressive patrolling to follow up any enemy attempts to withdraw. When it became apparent on the morning of 9 January that the Germans had so organized the ground that it was impossible for the infantry on both flanks to advance, the 6th Cavalry Group attacked on its own initiative and over and above the requirements of its own mission, but in furtherance of the corps mission. In order to make this attack successful against a numerically superior and well-dug-in enemy, a special task force was constituted, composed of elements of the various components of the group. This task force

spearheaded the attack, and the 6th Cavalry Group, making full use of its mobility and fire power, captured the towns of Betlange and Harlange. At daylight, 10 January, the 6th Cavalry Group drove on. Taking finely calculated risks, all leaders made maximum use of mobility and fire power in relentlessly seeking out and destroying the enemy. Open flanks were ignored by small units in the interest of speed. This speed, plus the aggressive fighting spirit of all personnel, made possible the capture of the towns of Lutremange, Watrange, and Tarchamps, and the zone assigned to the 6th Cavalry Group was cleared quickly. Having completed its mission, and by doing so, making possible the advance of the units on its flanks, the 6th Cavalry Group, in furtherance of the corps plan, requested and was granted permission to advance far beyond its original objective. The group drove on and assisted in the capture of Sonlez. The outstanding action of the 6th Cavalry Group broke the back of the German resistance in the Harlange pocket, which had held up the corps advance for a period of 11 days. The determination and indomitable fighting spirit of these courageous officers and men exemplify the finest traditions of the military service.

RUSSIAN ARTILLERY— 1941 - 1945

(Continued from page 175)

had been influenced by the experiences gained during the Spanish Civil War where the power of artillery never predominated. The Red Army, on the other hand, had defeated first the Japanese and then the Finns largely by means of their batteries. Yet both parties had this much in common: each sought to find a "center of gravity" in the enemy's front against which there could be brought to bear an overwhelming volume of fighting power. But the German planned to obtain such a result by tank and dive-bomber—and he did obtain what he wanted in 1939-40—whilst the Russian relied more upon a slower development of fire-power and upon cannon. The opening phase of war in 1941 thus found two opposing theories of armament at grips.

VITAL RACE

It is not yet perfectly clear what actually took place during those early months of the war, but it is at least possible, and more than probable, that the Germans suddenly, and long before the close of the year, became aware that their army, designed and equipped for rapid offensive progress and relying upon massive attacks by tanks and dive-bombers, was deficient in artillery. Hence the frantic search throughout occupied European arsenals during the winter of 1941-42 for every type of cannon and howitzer that could be despatched to the East where the excellent and numerous German trench-mortars were being held at arm's length by the superior Russian cannon. The Russians, on their side, lacked trench-mortars. Consequently Voronov created a special supply branch for the production of these weapons and their ammunition. Nevertheless as fast as the Germans began to bring up batteries equipped with Finnish, Belgian, Hungarian, Dutch, French, Czech and Rumanian weapons, so the Russians became more and more hardly pressed to produce reinforcing units of medium and heavy guns to counter this new artillery. The result was—judging from indications appearing in the press—that there set in a species of competition or

race between the two belligerents in the matter of producing artillery materiel. The Russians in the end outstripped their rivals; but during the winter of 1941-42—in fact until the first Russian counteroffensive conducted around Stalingrad in the winter 1942-43—superiority in artillery power hung in the balance. It was during this year that the provision of war material to Russia by the Allies might be regarded as having proved of the greatest assistance to the Red Army. Even "a little" might at that time have signified "very much."

THE TRUE CRUX

Again, whatever the effect of Russian fire in the field may have been, it depended throughout the war very largely on a lavish supply of ammunition, which in turn depended on the vast numbers of the transport which the Russians managed to place in the hands of the artillery supply services. The arrival of lorries from the U.S.A. in 1942-43 may therefore have proved a distinct factor in the attainment of the later great Russian successes. The traversing of the vast spaces over which the war raged caused this question of ammunition supply to become the true crux of the whole Russian artillery problem. It was in this respect that Voronov's direction was so important. He never for one moment lost sight of the need for a lavish supply of ammunition, whilst never sacrificing the mobility either of guns or of artillery transport. Such were the twin foundations on which he evolved his fire tactics. Accordingly, ever stressing the value of massed fire, he planned and was able to produce with some speed and dexterity those great artillery concentrations which became perhaps a truly noteworthy feature of most Russian operations.

VORONOV'S TRIUMPH

The first occasion on which Voronov could bring any concentration of fire against the Germans was before Moscow at the end of 1941. But his resources were still so limited that these attempts could not achieve anything very considerable; they could only be regarded as puny efforts compared with what was to come in 1943 onwards. Nevertheless, during 1942, by

withdrawing one artillery regiment from every infantry division of the Red Army, Voronov managed to create a considerable mobile artillery reserve which in the theory of its application was not far removed from Senarmont's artillery reserve, as employed by Napoleon at Friedland and Wagram over 130 years earlier. The first occasion on which Voronov could employ this new artillery reserve was before Stalingrad whither he had been despatched as representative of the Supreme Soviet command. On November 19, 1942, the first great Soviet counteroffensive was launched to the north and south of Stalingrad; 5,000 pieces composing Voronov's reserve were sent into action almost at one stroke; on one single day they fired about 700,000 rounds. The next ten weeks of fighting proved the value of Voronov's theory, tactics and organization in a planned offensive. It still remained to be seen how his conclusion would conform to defensive action. When in July 1943 the Germans launched their final offensive effort against the huge Russian salient at Kurks, they attacked simultaneously from north and south with every tank and gun they could muster. The fighting and the casualties were, proportionately of course, perhaps the heaviest known in the war. In the end the Russian gunners defeated the German assaults—completely in the north of the salient, while they could admit of only a partial lack of success to the south, where they had to withdraw some thirty miles. Voronov's triumph was complete.

From that moment the Russian artillery swept all before it. Powerfully assisted by the new Russian Air Force, recreated by Stalin by the side of the squadrons existing in 1941, it went on from success to success. The new Russian aeroplanes came into action to assist the batteries just as fast as production began to falter in Germany. It became clear that German casualties in men and material could never recover from the terrific losses of 1941-1943. So the tilting of the balance continued rapidly. The most powerful German defenses were soon smashed at one blow: so during 1943-44 the greater German "hedgehogs" (field-fortresses) fell one by one. Right down to the end the Russian

guns continued to crush a German resistance that was weakening all the time.

ORGANIZATION AND TACTICS

Very little indeed can be gleaned from published sources concerning Russian artillery organization. Interesting sidelights, however, are thrown thereon in Stalin's Orders of the Day which, for a short time towards the end of 1943, gave the official designation of the artillery units which had distinguished themselves in action. Some of the names and numbers disclosed are:

Artillery Divisions—3rd, 11th, 13th, 16th, 17th.
Mortar Division—3rd.
Anti-Aircraft Artillery Division—8th.
Antitank Artillery Brigades—8th, 9th, 24th.
Cannon Artillery Brigade—33rd.
Mortar Brigade—12th.
Artillery Regiments—69th, 1157th.
Mortar Regiments—16th, 91st, 97th, 263rd, 292nd, 318th, 491st, 492nd, 493rd, 497th, 525th.
Howitzer Artillery Regiments—11th, 678th, 805th, 827th, 839th.
Antitank Artillery Regiments—4th, 115th, 163rd, 166th, 222nd, 312th, 316th, 317th, 493rd, 868th, 1000th, 1075th, 1642nd, 1644th, 1667th, 1669th.
Self-Propelled Artillery Regiment — 41st, 1543rd, 1694th, 1829th, 1831st, 1893rd.
Independent Artillery Reconnaissance Battalion—84th.
Independent Mortar Battalion—No number.

This fragmentary list may not seem of very great value; yet it substantiates several deductions to which various Orders of the Day and Press reports lend much color. As a general rule it would appear that the ever-increasing Artillery Regiments were raised and armed as required according to tactical needs. As all such units and formations were numbered consecutively on a general list, large or small blocks of like units were being inserted in sequence on the list without much reference to the nature of their neighboring units. The list also tends to show that towards the latter part of the war the Russians concentrated on the constitution of new antitank and self-propelled units: this is all probably fact and more than guesswork.

Deductions to be drawn from such sources concerning organization, if not tactics, are the following:

(1) There exists no doubt that the Russians organized and employed in

the field whole artillery divisions and even corps. These were used as independent formations for tactical purposes and were handled in the field in a manner approximating infantry divisions. This assumption is strengthened by the continued mention of artillery commanders of the highest ranks in Stalin's Orders of the Day even when the practice of naming the actual formations and units was not the custom.

(2) In all press reports the repeated reference to Russian artillery firing over open sights as though this were a very usual proceeding seems to point to a regular practice of thrusting forward the guns to point blank range.

(3) The mention of artillery units and sub-units playing a leading role in street fighting during the capture of fortified towns would show a very bold handling of the guns, and their close connection with infantry.

Over open sights. The employment of independent mobile artillery formations combined with the practice of firing over open sights appears to lie at the root of one of the most interesting developments of the war. Such a use of batteries and artillery formations for the mobile close support of the assault has been criticized by many authorities as being necessitated by the lack, which was experienced, of any highly developed system of communications, as well as by the absence of adequately trained personnel to man such a system in the Red Army. Russian artillery technique is said to have been not very highly developed. Hence the desire for the simplest methods.³ These are views which may be true, yet it is possibly to qualify them with the fact that this short-range use of guns seemed congenial to the Russian mind and that the Russians never shrank from hazarding losses in men and material which an Anglo-American commander would have hesitated to incur.⁴

To illustrate the procedure we might venture on a concrete example given in *The Soviet War News*. The expulsion of the Germans from the Crimea in the Spring of 1944 by the 4th Ukrainian Army Group and the Maritime Army exemplify Russian artillery tactics at a stage where their development was

fully advanced. In order to force the Perekop Isthmus and to cross the Sivash Lagoons to the east of this neck, simultaneously, needed the deployment of considerable artillery forces. But the terrain was so level, so devoid of cover and so constricted by water surfaces that the guns were compelled to occupy their first positions in full sight of the Germans. For some time, then, the Russians opened and maintained a steady fire at active targets from such positions, while heavy guns were kept back in reserve until needed for counterbattery duties. This preliminary bombardment lasted a few days. Surprise was impossible. But the actual more intense preparation leading to the attack lasted only two and a half hours and included two sham "lifts" with decoy infantry movements: on each occasion the fire of the guns was quickly brought back to the original range. There was no break in artillery and infantry attacks. Finally the lighter artillery regiments advanced with the infantry, special artillery officers accompanying the infantry units. In the succeeding movements of the Crimean campaign in hilly country, massed mortar fire to some extent replaced artillery support. Finally, during the last terrific assault on Sevastopol, when the Russian commanders committed their men to the most sanguinary attacks, artillery went on supporting these onslaughts over open sights. The accounts at least illustrated the theory of a Russian assault.

These characteristic Russian attacks were rendered possible because the Russian quantitative superiority in guns and ammunition was assured and growing from the end of 1942 onwards. During the Stalingrad campaign (1942-43) the Russian guns employed in such concentrations of fire are reported to have numbered one per 4 yards. One year later, during Vatutin's operations west

³This opinion might be illustrated by the tale told of British tanks landed at Archangel. It was discovered that the first batch of these machines had been stripped of their radio equipment before being sent forward; the radio sets were all piled in a shed at the docks. When the Russians were begged to return the sets to Britain where they were urgently needed, for very long no reply was received. It appeared that the recipients of the tanks were ashamed to admit that qualified personnel to use them would not be forthcoming.

⁴Remember the old saying, "Russia is a country where it doesn't hurt to die."

of Kiev, their number had risen to one to 3 yards. Finally in the spring of 1944, on the Karelian Isthmus, there were said to be assembled one gun per 2 yards. The Russians claim that these artillery masses have risen since World War I from 60-100 to 200-250 guns per kilometer. They declare that they have actually used as many as 350 pieces per kilometer. They could well afford casualties; they possessed ammunition galore; and they worked accordingly.

There can be no question that the policy paid. Here is a description, taken from *The Soviet War News*, of the artillery work during the Russian break through the Germano-Rumanian position at Jassy-Kishinev on August 20, 1944. The Russians assuredly there enjoyed a most definite artillery superiority: and their success was as complete as any realized during the whole war.

"At 9 a.m. several thousand guns and mortars began pounding the enemy trenches, with the object of inflicting heavy casualties. For the first quarter of an hour the guns fired at maximum speed. Then gradually they eased off. The batteries moved their fire to specific targets, previously charted. While the heavy batteries concentrated on reducing the more formidable targets, the light batteries moved out to open positions, firing point-blank at front-line pill-boxes and trenches. The long range divisional guns dealt with the enemy's artillery, staff H.Qs., communication junctions and assembly points for reserve. Mass raids by our aircraft added more weight to the punches of the artillery. During the second hour of the barrage, while the tanks and infantry were preparing to go into action, the artillery gave the enemy trenches another pounding, and the infantry went into the attack. When they had approached to within 150 and 200 yards of the bursts, the fire shifted deeper into the defenses. The further the infantry and tanks penetrated, the fiercer the barrage became. After the two hours' bombardment a wide gap was formed. The havoc was such that our units advanced eight miles in the first few hours, sustaining but slight casualties."

In this case the density of the Russian guns was about 225 guns per kilometer. The German defenses—six successive lines in depth—are said to have been overrun in 5½ hours: the speed of this Russian advance was undoubtedly remarkable; it seems almost incredible if judged by standards applicable to 1916.

With tanks and cavalry. In resisting tank attacks, again, the artillery and infantry worked in close contact. The Russian object was, primarily to break the tank assault by gunfire before it could reach the infantry of the defense. Should this process fail, or should it not seem feasible, they would attempt to lure the German tanks into what they termed a "fire-bag" — that is, to draw them on, then encircle and eventually destroy them by close range fire. For this purpose they always planned to keep an artillery reserve in hand. Artillery was declared by Voronov himself to be the chief weapon against the tank.

A word might be added as to the combination of artillery with cavalry, for the Russians made extensive use of their numerous Cossack divisions, particularly during the months of mud. No squadron acting independently would be left without any hope of artillery support. For this purpose the horse-drawn batteries would be decentralized while antitank guns were also added to all small forces. But the artillery divisional commander would always retain a mobile artillery reserve for instant and decisive use. In this connection self-propelled guns came much into fashion.

Use of SP. In order to ensure surprise the handling of the Russian guns might be considered to be bold in the extreme. To quote one instance: in December 1943, during Vatutin's attempts made with the 1st Ukrainian Group to regain the great Zhitomir main road to the west of Kiev, his batteries first began to conduct a normal creeping barrage. But time was urgent so the guns were suddenly pushed forward to point blank range when they rapidly smothered the enemy's positions. As might be expected it was owing to this audacity, so frequently possible on account of the Russian superiority in numbers and material, if not also owing to the decline in the German fire-power, that these forceful artillery tactics conducted to a

great extension in the use of the self-propelled gun. The speed, the head-on armor and the readiness for action which were developed in this type of weapon were found effective, and this circumstance led to a rapid increase in the numbers of SP units—as may be deduced from their numerical appearances in Stalin's Orders of the Day (see above); in fact the SP gun seems finally to have entered largely into the organization not only of the normal artillery division but also of the tank formation. The heavier types of SP weapons might be moved by rail to within 60 miles of their fighting destination which they might then reach in about three more hours. The guns fired, as a rule, over open sights and engaged visible targets.

When acting with tank formations the role of the SP artillery reserve was considered highly important since these weapons were intended to relieve the tanks of all tasks leading to a "direct" engagement. The object was to enable the tanks to recover their facility for maneuver or to carry out flank attacks. For such purposes the SP units would either go forward at speed to engage the enemy in front of the forward tanks, or they could hang back so as to prepare an ambush — all according to the nature of the terrain. For purposes of surprise to be obtained from ambush positions the Russians claim that this class of gun is unrivalled.

Seasonal relays? Again there is no reason for doubt that the Russian artillery, in common with the other arms, was organized into two distinct seasonal armies for summer and winter work respectively. The former was equipped as would be the case in any normal Western European army; but the latter was clothed in white; guns, tanks and transport were painted white; tracks on vehicles were made especially broad; ground clearance was increased; wheeled vehicles were supplied with skis in front—six wheelers would be fitted with some sort of tracks for the driving wheels and so forth. Most characteristic was the provision of air-screw propelled sleighs for cross-country work over snow. In between the two seasons "intermediate" formations could be introduced to cope with the mud and floods

of spring or of autumn. Such formations consisted largely of horsed Cossack divisions, still accompanied with horsed artillery.

Thus it was that in December 1941-January 1942 the Russians were really unable to profit from the chaos in which the failure of the assaults on Moscow, followed by a phenomenally cold winter, had plunged the Germans. The "winter" artillery was as yet inadequate and with difficulty could do no more than thrust back the encircling German wings and finally retake the all-important "hedgehog" of Mojaisk, this being the main German strongpoint opposite Moscow. But this failure of the artillery corrected itself in 1942-43, as fast as the weight of metal increased.

Too little information is available to say much more on the organization of the Red Army into such two seasonal relays. It is, of course, highly possible that the same infantry personnel, at any rate, could be clothed and equipped appropriately for either season: a good deal may have been accomplished in this respect. But there is nothing improbable in accepting as correct the assumption that the Russians maintained at least two cadres of troops equipped with some armament and transport that must have been radically dissimilar.

Three echelons? Lastly during the Russian advance to the R. Dnieper in the autumn of 1943 they are reported to have worked in three distinct echelons so as to maintain their pursuit, moving at full pressure. These three echelons were presumably organized so as to maintain a fighting front, supported at an interval of 20 (?) miles by the second echelon. The third echelon might almost be regarded as resting: how far and when it advanced is not at all clear. The interesting fact from the artillery point of view is that when the first echelon was relieved by the second echelon, it turned the whole of its guns and wagons over to the newcomers as they came up. The latter would bring up repaired weapons and a few replacements to make good the wastage in the front line equipment. Then the first echelon stood its ground until it had fallen back to third rank. Further it would seem as though all lesser repairs would be carried out by the second

echelon before coming up, but that wholesale replacement and major repairs would be carried out by or with the third echelon. How far this plan might have been literally enforced or universally applicable, even if practicable, was never revealed, but the course of events during 1943 and early 1944 makes some plan and method of work of this nature appear more than probable, although for the last campaign in White Russia (June 1944) it may have been abandoned in order to arrive at a heavier concentration of troops for the final assault on Berlin.⁵

MATERIEL

Super-long-range and extreme high velocity weapons were not favored by Soviet artillery designers. Neither did the Germans ever attempt to repeat their performance with the "Big Bertha" of 1918; its effects had come to be regarded as so microscopic as to be useless. The largest German ordnance named in press reports were the monster 24-inch (?) howitzers constructed for the bombardment of Leningrad city, and these constituted an outstanding exception. The Russians did not attempt to emulate this enormous piece. The maximum ranges at which the Russian artillery fired varied from 10 to 15 miles. Conversely the Russian designers did their utmost to obtain accuracy and fire-effect by adopting lower muzzle velocities and increasing the size and power of the bursting charge. The results of such a policy became clear when the Russians set about smashing the strongest German defenses round Leningrad and Vitebsk. At the same time, owing to Voronov's influence, the mobility of all ordnance to be used in the field remained of paramount importance.

The principal novelties evolved by the Russians during the war itself were in the nature of trench mortar and light-support weapons—the six-barrelled mortar, nicknamed "Stalin's barrel-organ," as well as others of 2-, 3- and 5-inch calibers. A certain 18 light cannon was declared by the American

expert, Walter Kerr, to be the lightest weapon of its power ever constructed. Finally there was introduced, at Voronov's direct instigation, a "rocket projectile" fired from a remarkable gun popularly known as "Katyusha." It is believed to have been laid and operated by electricity.⁶

Of the heavier types of Russian ordnance nothing worthy of notice has appeared in the press; neither have any illustrations been allowed to be published which throw much light thereon.

It appears that three main types of SP guns were built — a light gun for work in conjunction with infantry; medium and heavier ordnance for tasks of a self-evident nature. The heaviest SP gun was a six-inch piece of four tons' weight mounted on a special heavy tank chassis; it had head-on armor only. Lighter SP guns, it is possible, had light all-round and overhead armor, being little short of modified tanks.

The quality of the various Russian pieces is generally spoken of as being good: it was certainly at least adequate. In the earlier stages of the war, Russian ordnance captured by the Germans has been said by the latter to have been somewhat hurriedly finished, so much so that in certain cases they might even be hazardous to handle. But owing to the all-pervading mud of spring and autumn this very defect might permit of the weapons to continue working whereas the more accurately and highly finished German products would jam and become ineffective.

GENERAL CONCLUSIONS

In drawing any deductions, which may be applicable to artillery, from this German-Soviet war, it would be wise to bear in mind some of the general conditions which affected this stupendous struggle. Miscalculations as to the influence of such factors affected the German logistics of the war to such an extent that they may be said to be at the root of the German failure.

First, the scale of the area and the distance over which the operations ranged and the transports worked.

⁵These deductions are drawn from somewhat fragmentary indications: they might be found to be partly or even wholly based on erroneous premises. But on many grounds there is at present good reason to accept them.

⁶The only picture seen of this gun, called "Little Kate," shows it swathed in blankets: such was the desire for secrecy.

Second, the diversity of climate prevalent in western Russia which profoundly affected strategy and equipment. The intense cold of winter followed by a period of flood and mud that in its turn gave way to the dust and glare of a flaming summer: the latter then again sinking across another stage of waterlogged terrain into the bitter cold of winter. Further, to the north, on the Baltic shores the winter was far more severe and prolonged than in the south; and even in the south considerable variations in snow and ice conditions prevailed from the Volga to the Danube.

Third, the enormous man-power reserve possessed by the Soviet Union. The Union's peoples—seven only out of twenty-seven Soviet Republics can be said to be of really Russian stock—offered some 180,000,000 inhabitants to draw upon for troops as against some 80,000,000 of Germanic race. But owing to the higher birth-rate prevalent in Russia the annual contingents between 18 and 36 years of age from which first-line troops could be drawn might have almost doubled the actual number of men to be levied, that is the Red Army might nearly reckon on almost a four-fold superiority in manpower reserves.

Fourth, the immense and distant dispersion of Russian sources of raw materials and war factories which placed a great proportion of Russia's war industries out of reach of aerial, let alone ground attack. This Russian superiority over the Germans began to increase rapidly from early 1943 onwards: and this result was achieved without any special effort being made on the part of the Russian Air Forces, at a time when air defence was constituting an increasingly serious drain on the German air-war potential.

With such advantages in hand, not to mention the steady influx of Allied war material, already mentioned, and the all-important results achieved by the Allied Air Force, the Red Army could afford, from the time of the Stalingrad operations onwards at least, to indulge in far more venturesome tactics than the Germans, who soon began to feel the disadvantages of a withdrawal from their exposed positions deep in hostile territory.

Accordingly the Red Army's policy of employing artillery in large independent formations and of handling the guns

almost as though they were wholly mobile tactical units and formations becomes comprehensible, even if allowances be made for any obligatory recourse to the simplest methods of fire and of communications. Moreover with two differently equipped types of units—for summer and winter use—there always existed the possibility of finding a valuable reserve in case of accident. Again the large superiority of manpower enjoyed by the Red Army would permit of an advance in three distinct echelons from the latter part of 1943 until near the end.

Such a military policy might not work altogether as cleanly as outlined above, or as nicely as elaborated on paper; but it becomes exceedingly probable that it was applied as best might be, if the rate and extent of the various Soviet forward rushes made during the last eighteen months of the war be studied. Is it not possible that it was some failure in such a mode of advance that led to the dead stop before Warsaw, after the furious advance carried out through White Russia, in July 1944?—if indeed it did not there meet with outright failure. At any rate the gain in confidence obtained from these advantages was of immense value, and so the Russian armies were able to rely on the heaviest and speediest artillery preparation to be followed by the advance of numerous mixed columns of tanks, infantry and artillery and aircraft.

Here we find, in fact, a tendency towards a tactical fusion amongst the various arms and assuming a more intimate nature than had been, normally and in practice, envisaged before 1939. The fact that such Russian mixed forces do not appear to have exceeded—possibly—one division in strength (??), need occasion no surprise since the command and control of any such force might constitute a ticklish matter.

The reduction of the German "hedgehogs" was surely a demonstration that sheer artillery power, followed by the bold movements of the guns to keep in step with an infantry advance can be made highly lucrative. But such movement will be rendered possible only by the possession of great artillery superiority, this being of high mobility, and by a lavish expenditure of ammunition. So we return once more to the basic problems of the supply of ammunition and of fuel. In Russia it is said the transport army employed *behind the front* numbered 250,000, and that it included women. These figures would imply one transport worker for every 10 to 25 front-line combatants: the total of the lorries absorbed on the back areas must have been very high, particularly if the use of sleighs for winter work be also taken into account. It might well be that the success of the Russian guns depended on the work achieved by their transport.

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Great American

MARSHALL: CITIZEN SOLDIER. By William Frye. 397 pp. Illustrated. Bobbs - Merrill Company. \$3.75.

By Maj. Gen. H. W. Blakeley, USA. Ret.

As the author admits, this is a "limited study" of Gen. Marshall, but it is a good one as far as it goes. It is the story of his life only up to the end of his service as Chief of Staff. The whole period from Pearl Harbor to the day when he left Army service is condensed into about seventy-five pages which contain little that is not already known to readers of Mrs. Marshall's *Together*. The book, then, is mostly about Gen. Marshall's career before our entry into World War II. As such, it is a very satisfactory book written with considerable insight into service life. Only rarely does the author fall victim to the biographer's occupational disease of implying deep significance to his subject's normal conformity to the customs of his time and environment.

Army readers will enjoy Mr. Frye's comments on some of Gen. Marshall's contemporaries. These comments are often acute, but this reviewer will admit that he doesn't know what Mr. Frye means when he describes Gen. Patton as "carefully self-schooled."

The President has called Gen. Marshall the "greatest living American." Dr. Douglas Freeman has called him a man of "great intellect, sound judgment and magnificent character." Officers and men of the Regular Army may well take pride in the fact that this man is a professional soldier. They may also take measure of their responsibilities from two sentences in Mr. Frye's book: "It is true that in the military services the Chief Executive knows that he possesses the only group of able individuals who consistently and without question place duty before self. The military career is

the only one which not only permits devotion unswerved by politics or personal desire, but requires it."

World Peace in Balance

STRUGGLE FOR THE WORLD. By James Burnham. 248 pp. John Day Co. \$3.00.

By Col. John E. Coleman, FA-Res.

"World War III has begun. It started with a mutiny of Greek sailors in Alexandria harbor in April, 1944; they were led by the ELAS, military arm of the Greek Communist party. Another skirmish came in China just after Japan fell, when Communist armies of the Yen-an Government fought the Central Government's troops for possession of large parts of China."

With this startling and thought-provoking statement, James Burnham opens this book, which is bound to be widely attacked by Communists, fellow-travelers, and unthinking "goers-alongers." Mr. Burnham distinguishes these conflicts from the death-throes of World War II on the logical premise that they were fought between units which were backed by what had been at least nominal allies in the war just ending.

The author points out that Russia is prepared for further conflict. Her material resources may delay actual fighting, but both politically and spiritually she is well prepared. She is one of only two possible contestants in the world. The United States is the other. But America is far from prepared, at the moment, to oppose expansion of the Russian brand of totalitarianism. Our country is inclined toward a "Maginot complex," feeling comfortably self-satisfied behind the false illusion that with us in possession of the atomic bomb all's well with the world.

In the last five years or so our vacillating foreign policy, which has

really been one of appeasing Russia throughout, has given the Kremlin prizes in Germany, the Balkans, Korea, and China. This must be reversed if ultimate Red conquest of the entire world is to be prevented.

To Mr. Burnham this means the establishment of what he terms an American Empire in opposition to the Russian Empire. This does not mean establishment of a royal family or American ownership of large parts of the world. It does mean, though, an honest facing of the facts of the world, and calling things (and people) by their right names. It means making wide economic and political concessions to our friends throughout the world, and opposing other countries and groups even with force, if needed. It requires the suppression of all Reds and their sympathizers within the United States. And it would call for joint citizenship with the British Empire.

Mr. Burnham considers the possible drawbacks to such a plan, and finds them insignificant when compared with the alternative of world-wide Russian domination.

The worst thing about the book is the absolute correctness of Burnham's thesis. He is devastatingly right. Our future is in tremendous danger unless we act, act firmly, act promptly, act intelligently.

The United Nations is not prepared to guarantee the peace of the world. It is questionable if it ever will be—especially so long as Russia insists on using her veto even to the extent of preventing condemnation of her satellite Albania for planting floating mines in normal shipping lanes long after the end of the recent hostilities. Even the Baruch Plan for international inspection and control of the sources of atomic energy may not prove to be enough. Certainly nothing less will do.

Since Mr. Burnham's book was published we have had a stiffening of our foreign policy, and the beginning of control of Red forces within our country. These are splendid first steps, and logically in line with Mr. Burnham's recommendations. Now it is up to us to see that the job is completed, thoroughly.

Biggest Naval Battle

THE BATTLE FOR LEYTE GULF. By C. Vann Woodward. 235 pp. Appendix. Index. Macmillan Co. \$4.00.

The greatest naval battle of World War II was fought late in October 1944 when the Japanese Navy attempted to drive us from our foothold in the Philippines. As a matter of fact, when the combat tonnages are considered, the Battle for Leyte Gulf emerges as the largest sea action in all history! As such it will undoubtedly receive the careful attention of future naval historians. Mr. Woodward has done much of the basic spadework for them in this excellent, factual volume.

Combing existent records, both American and Japanese, Mr. Woodward has been at great pains to make *The Battle for Leyte Gulf* an objective report. Fortunately, this does not detract from the readability of his book. The facts do not require much coloring to make an exciting drama out of this ringing American naval victory.

On October 25, 1944, the Japanese launched an all-out, three-pronged attack aimed at our small beachhead on Leyte Island. They gambled everything on success, as practically every combatant ship in their navy participated in the attack. The American forces, under Admiral Halsey, advanced to meet this threat with inadequate intelligence as to enemy dispositions and strength. The resultant confusion kept the issue in doubt for some time. Matters were not improved by the erroneous reports of overconfident aviators who reported hits and kills when near-misses and slight damage were often the case. Without detracting one whit from the skill and bravery of Admiral Halsey's forces, this record indicates that the poor communication and organization

of the Japanese forces contributed mightily to the American victory.

The magnitude and importance of this battle were somewhat obscured at the time by the numerous other events taking place simultaneously. Mr. Woodward has presented the story in a manner that gives the engagement its just due. For historians there will be longer and more detailed volumes but for the interested reader here are 235 pages of authentic action that point up clearly the skill, courage and daring that made our Navy the greatest fighting fleet of all time. R. F. C.

Graphic Review of 1946

THE ASSOCIATED PRESS NEWS ANNUAL FOR 1946. By DeWitt Mackenzie. 528 pp. Illustrated. Indexed. Rinehart Co. \$5.00.

The early months of each year are devoted to the publication of many reference volumes recording the events of the preceding twelve months. These volumes are issued as addenda to existing encyclopedia or, in many cases, as a resume of the developments in a particular field for that period. To my knowledge, there is no other source that so vividly portrays the year's happenings as *The Associated Press News Annual*. Made up of the outstanding news stories and pictures of 1946, this book gives a truly graphic review of our life and times.

Nineteen hundred and forty-six was a historic news year that produced an amazing share of important stories. In addition to the world's post-war reconstruction, the economic, labor and political fronts were teeming cauldrons of double-trouble. Coupled with these are the never-ending tragedies, human interest stories and sports contests which fill in the background of life in this era. Combined in this book in story and picture, they make for a volume of lasting interest. In fact, I am not so sure that this summary won't be even more interesting ten years from now than it is today.

Unlike the conventional reference work, *The Associated Press News Annual* presents the great news of 1946 as a human narrative in a day-by-day history. Well-indexed and generously illustrated with outstanding photographs,

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R.F.C.

Sportsman's "Must"

HOW TO HUNT AMERICAN GAME.
By Robert E. Vale. 199 pp. Military
Service Publishing Co. \$4.00.

By Col. Morgan Wing, Jr., FA-Res.

This book certainly covers the field of sport as far as shooting American game is concerned. Every sportsman who enjoys shooting will not only pick up a few pointers from this book about his favorite specialty but also will find new sporting horizons opened to him.

The chapter on rabbit and hare hunting discusses the habits of the cottontail and the information can be put to good use to increase the bag. The same chapter mentions the varying hare. Here the author states that the "average beagle becomes discouraged when following one of these hares and that it takes a heavier type of hound to do effective work." I think this statement would be contrary to the experiences of most beaglers in the Northeastern states who run their beagles on these hares for four and five hours and then have a difficult time recovering their pack.

The chapter on quail hunting includes the sound advice "wait and fire," while the chapter on pheasants brings forth some interesting information concerning the introduction of the Reeves Pheasant in several states as an additional game bird. Likewise, how many know that the barnyard guinea fowl (semi-wild) is being planted by hunting clubs as an addition to the list of game birds?

Chapters are devoted to the grouse, wild turkey, ducks, geese, railbirds, woodcock and jacksnipe, doves, squirrels, 'coons and 'possums, deer, black bear. There is a valuable chapter on training the hunter including advice on how to avoid accidents, and this is followed by another on hunting dogs and methods of training them. Still another chapter discusses equipment, and the final chapters impart valuable advice and information on game refuges, reservations, game farms, restocking, and the future of hunting.

This very complete book is highly recommended as a "must" to all those

who harbor the urge to hunt. Though more game may be taken through the reading of this book, Mr. Vale continuously reiterates the all-important rule for sportsmen—*Be Conservation-minded* or no game will be left for anybody. "Conservation of wildlife is an issue that concerns all the people, not merely the sportsmen of the nation." As Seth Gordon, Secretary of the Pennsylvania Game Commission, says in his foreword, "we can have more and better shooting if every hunter does his share!" This spirit must be passed on to all sportsmen.

USMC in World War II

THE ISLAND WAR. By Major Frank Hough, USMCR, 413 pp. Illustrated.
J. P. Lippincott. \$5.00.

By Dan Herr

This is probably as definitive a history of the Marine Corps in World War II as most readers will want. Other histories are certain to follow, but when the historians wade in it's usually time for the average reader to walk out. Few books have been better designed to educate and to interest military readers. A veteran of both world wars, Frank Hough is an historical novelist of distinction and a good Marine. His is no book knowledge of war—he learned about fighting Japs in the Pacific. This first-hand knowledge was supplemented by months of research through official Marine Corps records.

The Island War is no "joe-blow" account of the Pacific battles, as Major Hough is willing to admit. He has limited himself to the history of the Corps and to Marine strategy and tactics in World War II. Individual names—even those of general officers—are omitted unless essential to the history. He has likewise eliminated needless repetition of only slight variations employed in several or all of the campaigns, preferring to emphasize the tactics and strategy characteristic of each campaign. As he explains in his introduction; "The jungle on Bougainville and Cape Gloucester smelled just like the jungle on Guadalcanal. Japanese blockhouses were knocked out by essentially the same methods employed on Tarawa and Roi-Namur. When you've seen one naval pre-landing bombardment,

you've seen them all. . . ." Other military writers could profit by observing how a good writer approaches military history.

Although Hough was on active duty while preparing *The Island War*, he seems to call the plays as he sees them. I found no evidence of whitewashing. Naturally, there's no muck raking either.

Army officers, traditionally ignorant of the function and activities of the Marine Corps, are advised to begin their education with this book. They will learn the Marine side of the Army-Marine controversies and they will learn the Marine contributions to strategy and tactics of World War II. Ground Officers will probably enjoy Major Hough's sharp words about the Army Air Force and "its particular theory of air power's function." The Army vs. Marine Corps controversy does not loom large in the book and it would be unfortunate if timid Army readers were scared off because of it. They will miss a history which should stand as a model of its kind and will deprive themselves of an important aid to their professional education.

Controversial Sinclair Lewis

KINGSBLOOD ROYAL. By Sinclair Lewis. 348 pp. Random House. \$3.00.

Books by Sinclair Lewis have become practically an annual event in American literature. If my tally is correct this is his 20th novel since 1914. Furthermore, the majority of them have been blessed with singular popularity and financial success. Although he saw fit to spurn the Pulitzer Prize, he accepted the Nobel Prize for Literature in 1930 and became the first American so honored. There is no doubt that *Kingsblood Royal* will be another link in the long chain of Lewis successes. It is being distributed by a major book club in June and with the signature of Sinclair Lewis, the book is assured of a top spot on the best-seller lists.

Mr. Lewis has often chosen controversial subject matter for the themes of his novels and has gained a reputation as a provocative writer. *Kingsblood Royal* will certainly strengthen this opinion. The book is

mainly concerned with one of our gravest social situations, to wit: the so-called Negro problem. It is quite evident that Mr. Lewis has strong feelings on this subject and it would be folly to doubt the power of his pen. I have no quarrel with his general opinions as expressed in this book but I do take exception to the shallow premise from which they are launched.

The author has again chosen his native Minnesota for the setting. His principal character, Neil Kingsblood, is a wounded war veteran who returns to take his place as a respected, upper middle-class family man. His work at the bank is progressing nicely when the book opens and he seems to be faced with a very happy and comfortable future. A search of his family tree is instituted on the suspicion of his father that they are direct descendants of royalty. However, to the surprise of all concerned, he discovers that his great, great grandfather was a Negro.

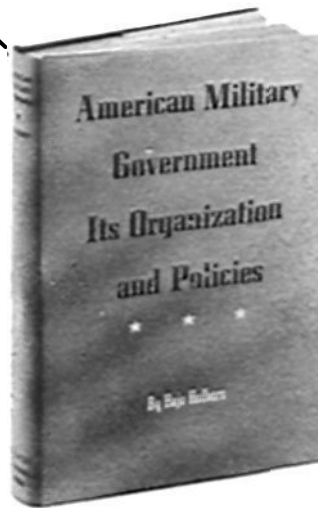
From this point forward, the character of Neil loses all semblance of plausibility. His dismay at such a discovery is readily understandable but even in fiction the hero is usually credited with more sense than to forfeit the happiness and security of his family by the unnecessary disclosure of such a discovery. Mr. Lewis would have you believe that this decision stemmed from a deep sense of honor but I choose to believe that it more likely resulted from a curious sort of mental unbalance. At any rate, the resultant confusion costs Neil his job, his savings and alienates most of his family and friends.

On the credit side, Mr. Lewis has done a remarkably illuminating job of pointing up the stupid bigotry of racial discrimination. Although it is doubtful that *Kingsblood Royal* will serve any useful purpose in furthering the understanding of the Negro's problems, it certainly reminds us again how dimly the torch of freedom burns for the Negro. I don't honestly believe that Mr. Lewis has attempted an analysis of racial problems; his is rather to ridicule and scorn those part-time Americans who believe that the Bill of Rights was written for a select few.

In reading the book, I gained the impression that it was written primarily to give voice to the author's feelings on

The story of a man who resigned from the white race.





AMERICAN MILITARY GOVERNMENT

*Its Organization
and Policies*

By
Hajo Holborn

The story of the growth of the American military government organization, and of the considerations that underlay the formation of its policies. Dr. Holborn thoroughly clarifies the often confused issues that still cluster around our administration of military government.

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the subject of racial relations. Throughout the book, there are many evidences of good characterizations and fine, powerful writing which I feel were wasted on the flimsy structure of the theme. I have read a number of other books by Mr. Lewis and have heretofore credited him with being a top-notch novelist. However, a novel is more than a series of well-written sentences. Its strength lies in the power of the theme around which the writing is developed. Therein lies the weakness of *Kingsblood Royal*.

R. F. C.

The Story Behind AMC

AMERICAN MILITARY GOVERNMENT — ITS ORGANIZATION AND POLICIES. By Hajo Holborn. 240 pages. Infantry Journal Press. \$3.50.

By Major Gerard B. Crook, C.S.C.*

This is a streamlined report on Military Government and Civil Affairs operations during the period between December 1941 and the end of 1946. Beginning with the War Department decision made in December 1941 to establish the school of Military Government at the University of Virginia, the book describes the evolution of the complicated machinery of interdepartmental committees which were created in Washington for the purpose of preparing the basic policy papers to be issued to theater commanders and Military Governors. The survey includes many important phases of Civil Affairs and Military Government operations in every country in which our forces operated under United States or combined British and American command. Into the framework of this Military Government history is woven the story of our foreign relations during the war years. The connection between Military Government policy and foreign policy is clearly demonstrated.

The facts are presented concisely and, as far as can be determined, accurately. The text is limited to 110 pages, the balance of the volume being devoted to an appendix which contains 116 pages of documents. No attempt is made to

*The author, who recently accepted a Regular Army commission in the JAG, served for approximately one year as Assistant Legal Officer in the G-5 Section of 6th Army Group. He is presently assigned to the Civil Affairs Division, WDSS.—ED.

depict Military Government in all its ramifications, and the details of day to day operations are rigorously excluded from the account.

The most valuable contribution which the book makes to the literature of Military Government is the light it throws on the Army as an instrument of national policy. In exercising its Civil Affairs and Military Government responsibilities, the Army had thrust upon it the duties of diplomat and colonial administrator. Our Military Governors were called upon to exercise supreme governmental authority, including all of the functions of the executive, legislative and judicial branches of government over populations numbering more than 150 millions of people. These activities in the form of Civil Affairs operations have affected less directly the lives and fortunes of an equal number in liberated areas. Because of the conditions resulting from total war, what had been a supporting service during the period of combat, after hostilities, became a primary interest for securing the peace.

The author credits most of the criticism which has been leveled at our occupation forces to the factors of redeployment and the delays which occurred in formulating Military Government policies. These delays are explained in terms of international politics and strategy. As Military Government is an instrument of foreign policy, its ultimate objectives could not be stated until the direction of that foreign policy was finally determined. While our statesmen labored to obtain international agreements which would permit the crystallization of our policy with respect to Germany, Japan, Austria and Italy, our G-5's and Military Government organizations had to act in support of the combat forces and carry on the administration of occupied areas. Therefore, it was necessary for them to proceed on an *ad hoc* basis, avoiding actions which might prejudice the final decision.

The chapters on Germany and Austria and that part of the chapter on the Far East which deals with Korea are particularly valuable at this time as background information. They clarify the underlying causes of our continuing friction with the USSR.

It is unfortunate that the author has

omitted any reference to the establishment of constitutional governments in the three Länder of the U. S. Zone in Germany as this achievement, which was completed in November and December of 1946, marks an important step in the accomplishment of our political mission in that country. Because of the book's impersonal treatment of the subject matter, the reader who is unfamiliar with Military Government may form the erroneous impression that our policies were developed entirely in Washington. A better perspective would have been obtained if attention had been given to the exchange of ideas between Washington and the field. The influence exerted on Military Government and foreign policy by our Military Governors should not be underestimated.

This volume should prove valuable to the officer who desires to acquaint himself with the missions and problems of our armies of occupation, and to the student who seeks an introduction to the subject or desires a handy reference work. Those who served in Military Government will find within its covers the answers to many questions which perplexed them in the past, and, perhaps, a greater understanding of what it was all about.

Studies in Europe

A ROOM ON THE ROUTE. By Godfrey Blunden. 327 pp. J. B. Lippincott Company. \$3.00.

DARIO. By Percy Winner. 175 pp. Harcourt, Brace & Company. \$2.50.

By K. S. Giniger

The pieces of Europe are being swept together and reassembled by the novelists as well as the statesmen and politicians. There is a difference, however. The men in the White House, the Kremlin and 10 Downing Street must stress the ties between the torn and broken pieces and attempt to put them together in serviceable fashion. The men of letters need not treat the pieces as anything more than the pieces of a jigsaw puzzle, which can be put together and then broken up again by the careless movement of a finger.

This need not necessarily condemn the achievement of Godfrey Blunden in his novel of wartime Russia, *A Room on*

the Route, or that of Percy Winner in his "fictitious reminiscence" of an Italian Fascist in the period from 1925 to 1945, *Dario*. Both Blunden and Winner are foreign correspondents of distinction; their intimate knowledge of Communist Russia and Fascist Italy, respectively, gives them a vast amount of background material on which to draw. Both men have done this and done it well; yet each of them, in his own way, has failed as a novelist.

The failure of *A Room on the Route* is a failure of characterization. As anti-Soviet propaganda, it is both successful and effective. Sketching the movements and relationships of a group of Soviet citizens and a foreign correspondent during some of the darkest days of the war, Blunden presents a powerful picture of life in a police state. The questioning of motives and the search of those in authority for motives beyond the obvious motives in order to fit the actions of individuals into a preconceived pattern of forces either for or against the state marks every chapter of the book. But the individuals thus motivated fail to live; they seem to remain only the stereotypes of a pattern in the *Grand Hotel* manner.

On the other hand, the failure of *Dario* is a failure of purpose. *Dario* is an archetype of the opportunist Fascist leader, patterned to some extent on Curzio Malaparte, whose *Kaputt* was recently published here. Aply developed and characterized, *Dario* is to some extent a hero and the reader is never quite sure whether or not Winner is for or against him. *Dario* sets a pattern for survival in modern Europe—despite his Fascist record he ends up working for Allied Military Government and eventually becomes the editor of a leading Italian Communist paper. His story is as much propaganda as the story of the Russians of *A Room on the Route*; but it is never quite clear as to what the propaganda is meant to accomplish.

Both *A Room on the Route* and *Dario* are impressive as reportage; neither book is particularly impressive as a novel. But *A Room on the Route* is successful propaganda and—if our side is the side of individual freedom and opposition to the control of thought and action by the state—it is propaganda on our side. As the issues

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of world politics become more clearly focused each day, so does the need for such propaganda grow. Blunden's Russia is a Russia we need to know about and *A Room on the Route* tells us a great deal about it.

Poland's Case

DEFEAT IN VICTORY. By Jan Ciecchanowski. 386 pp. Appendix. Doubleday & Co. \$3.50.

By Col. John E. Coleman, FA-Res.

Despite the publisher's statement to the contrary, the Polish Ambassador to the United States during the war years has written an effective piece of special-cause pleading. It could not be otherwise, and denying the fact does an injustice to the author, his background, and his people. Rarely does one find an entirely dispassionate, detached book—and when he does, it is apt to be dry as dust; that comment cannot be made of *Defeat in Victory*. Furthermore, it is only by examining a facet here and a facet there that the whole story of the tremendous war can be learned.

Essentially this is a detailed narrative of the war from the point of view of what remained of the Polish government, operating in exile, so that all events which it witnessed in Washington have a proper place. They are given straight-out, without fanfare but with a quiet dignity instead. Much of what Mr. Ciecchanowski has to say does not make "nice" reading. Despite high-sounding pronouncements by Allied leaders, political expediency too often governed their acts. Some of this horse-trading or bending-with-the-breeze is brought into the open here.

Events are not seen as just black or white, but shades of gray are recognized. Even so, the Polish representatives still are loathe to admit they were trapped by Gestapo trickery in the case of the Katyn massacre. This, you will recall, caused one of the greatest wedges to be driven into Polish-Russian relations during the war. Its effects are still felt. And this continuing, complete antipathy by "official" Poland to all things Russian is particularly unfortunate since without question it is based to a great extent upon erroneous beliefs.

From the entire book the reader gets a fair glimpse of power politics at work.

The pattern which emerges should be widely understood.

From the Fox-Hole

YANK—THE GI STORY OF THE WAR.

By the Staff of *Yank*, the Army Weekly.

318 pp. Illustrated. Duell, Sloan and

Pearce. \$5.00.

No member of the Armed Forces during the last war needs any introduction to *Yank*, the Army Weekly. Made available through Special Services to fighting men everywhere, there is no gainsaying its mighty contribution to the morale of our soldiers, sailors, and marines. *Yank* made the Sad Sack a national institution and its pin-up pictures papered the walls of U. S. billets everywhere. Perhaps its most powerful asset was its unique coverage of the war. The combat articles were written by GIs who joined the assault forces to get their stories. Of all the civilian war correspondents, Ernie Pyle came closest to capturing the realistic tone which marked the *Yank* stories.

Yank—the GI Story of the War is a chronological account of the war written by the men who formed the staff of the magazine. These stories cover every theater and important action and are well illustrated by Sgt. Howard Brodie's drawings and some excellent photographs. There are only two pages devoted to The Sad Sack and no pin-ups but the gravity of the story this book has to tell leaves little room for the frivolities and lighter side of the war which were so badly needed during the fighting days.

There have been so many books on the war since VJ day that we suffer from an over-use of laudatory adjectives. Most of them would be applicable to this book. Suffice to say, it is a powerfully written and moving account of the war written from the fox-hole level. *Yank* was not written for those who did not participate in that long ordeal. As a matter of fact, civilians might have considerable difficulty in understanding many of the points in the book. Mere words are not sufficient to describe the fear, bitterness and utter loneliness that were part and parcel of the soldier's daily life. No, there is too much written between the lines for this book to make much sense to anyone who wasn't there. R. F. C.

WRITING YOU'RE READING

By Major Robert F. Cocklin

One of the earlier spring novels made its entry with a bang, going to the top of the best-seller lists and creating considerable comment. I refer, of course, to Laura Z. Hobson's *Gentlemen's Agreement* (\$2.75). This novel is concerned with a writer who is given an assignment of writing a series of articles on anti-Semitism. Seeking a fresh approach for his articles, the writer poses as a Jew for some months. Mrs. Hobson's account of his experiences is both dramatic and disturbing. If you like novels that pack a wallop don't miss *Gentlemen's Agreement*.

It is always pleasant to discover a promising new author. I had this delightful experience when I read *The Side of the Angels* (\$3.00) by Robert McLaughlin. In this novel, Mr. McLaughlin traces the careers of two brothers of widely divergent natures. The story spans the last three years of the war and moves from the States, overseas, and back again. In addition to a highly entertaining theme, the characterizations and backgrounds are excellent. As a first novel, *The Side of the Angels* is outstanding and marks Mr. McLaughlin as a man who bears further reading.

Here is a first-hand report from our aeronautical expert: "Jean Potter's *The Flying North* (\$3.75) is a gem. It is an account of the bush pilots of Alaska written principally around a dozen men. Anyone who can enjoy well-told tales of adventure in the North will find a long evening's delight with this book—and that includes those who feel jaded at the mere mention of the word 'aviation.'"

Lanny Budd fans will welcome the news that the eighth book in that series has just come off the press. It's called *Presidential Mission* (\$3.50) and is authored, of course, by Upton Sinclair. The popularity of this series increases with each volume—a fact that is scarcely surprising, considering the masterful job of writing that Mr. Sinclair has done in them.

Timed for publication with the opening of the 1947 baseball season is *Strikeout Story* (\$2.75), the autobiography of Bob Feller. This very detailed account gives us a day by day report on Mr. Feller's progress from the cradle to the pitcher's mound. The luster of the Feller pitching performances is somewhat dulled, however, when reduced to mere verbiage.

The subject of sports autobiographies cannot be passed over without mentioning *My Life Story* (\$2.75) by Joe Louis. The Brown Bomber, with the assistance of a literary ghost or two, recounts his experiences in his rise to the heavyweight boxing championship of the world. Joe's story has a different appeal from Feller's in that the American public is particularly susceptible to those success stories heavily endowed with the "Horatio Alger" theme. It is heartwarming, indeed, to read the story of Joe Louis, a man who overcame so many difficulties in reaching and remaining so long at the top—a striking tribute to his race. *Strikeout Story* and *My Life Story* are both literary lightweights, but each will provide entertaining reading for the fans of these outstanding athletes.

For too long now, the Royal Canadian Mounted Police and Scotland Yard have had a corner on crime detection glory. *The Story of the FBI* (\$3.75) by the editors of LOOK magazine will do a lot to correct this situation. From an inauspicious beginning in 1908, our Federal Bureau of Investigation has risen to recognition as the world's leading criminal detection agency. The story of its development is as intriguing to read as the details of the many cases which it has solved. Not content with presenting a mere history of the organization, the authors have included illustrated examples of their methods and techniques. All crime-story lovers will enjoy those sections dealing with the solving of some of our most publicized crimes. The many fine pictures correlated with the text make this highly informative book as interesting to the youngsters as it is to the grown-ups.

The biggest spy thriller of today is the story behind the Soviet spy-ring which was recently uncovered in Canada. The details of this case are set forth in the newly published *The Soviet Spies* (\$1.00), written by Richard Hirsch, formerly a Lt. Col. in our Military Intelligence. Few fiction writers have approached the suspense and drama contained in this real-life cloak and dagger melodrama.

In an effort to acquaint the public with the Navy's part in the war, Capt. Walter Karig of the Navy Bureau of Public Relations was given the job of writing a series of detailed accounts of naval operations in World War II. Thus far, three volumes of this work have been published. All of them are excellently done and are written in a thoroughly readable manner. The third volume, entitled *Battle Report Vol. III; Pacific War—Middle Phase* (\$5.00) has just been published and covers the period from Coral Sea to the Battle of Midway. Well sprinkled with individual names and deeds, this series should rate as one of the top accounts of the naval war with those who served in and around the Navy.

*Praised throughout the
Service*

The ARMY WIFE

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By NANCY SHEA



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Outstanding Naval Strategist

MAHAN ON SEA POWER. By William E. Livezey. 334 pp. Bibliography. Index. University of Oklahoma Press. \$3.50.

By Richard Cordon McCloskey

To me, the most revealing fact in this excellent book is buried in a footnote on page 51. That fact is the incredibly low sales of Mahan's three most influential books. *The Influence of Sea Power Upon History* has been in print for 57 years and has sold only 29,000 copies (*Forever Amber* is heading for its second million). The book has been printed 41 times, which works out at about 700 copies a printing (150,000 is not an outsize printing for a first novel). *The Influence of Sea Power Upon the French Revolution and Empire* was published 55 years ago and has sold less than 12,000 copies in 17 printings. It has been out of print since 1943. *Sea Power in Its Relation to the War of 1812* was published 42 years ago and sold less than 6,000 copies before it went out of print in 1935.

Those figures, I think, are the sorriest comment ever made on the complete indifference by both civilians and the services to the part that military affairs play in our daily life. It is inconceivable that every graduate of the Naval Academy did not buy all three books, and certainly most graduates from the Military Academy should have considered them required reading. Probably more directly traceable world events are due to Mahan's books than those of any other military author, and yet his most important books sold less than 47,000 copies in 57 years. You draw your own moral from that—and then check to see how many you have in your library. Or haven't you got a military library—and I don't mean a couple of FM's and TM's, either.

Livezey's book is excellent (want to bet it doesn't sell 1500 copies?). There will probably be considerable disagreement with some of his interpretations and deductions. For example, he doesn't think too highly of Mahan as a pure historian and thinker, but despite some of his barbed comments, he never attacks Mahan's stature as the preeminent influence on naval strategy and maritime policy.

Mahan not only recorded and interpreted history through his works, but he shaped and created history. He was both a product and a spokesman of his era, an age of dynamic power politics in which France, Great Britain, Germany, Japan, the United States and Russia aggressively asserted their rights to increasingly important world roles.

As formulator of principles of naval strategy, Mahan had tremendous influence on the growth and use of naval forces. As an expansionist he called attention to the benefits of colonial empires. In the field of power politics he approved and planned the struggle for domination. Mackinder, Kjellen, Haushofer, Beukema and other "geopoliticians" have all drawn on Mahan's pioneering theories.

Livezey's critical evaluation of Mahan stresses his influence on the United States, though he by no means neglects his influence on foreign powers, particularly Britain and Germany. Mahan's primary concern, however, was indoctrinating his fellow countrymen with the importance of his seapower gospel: predominance in the Caribbean, American-controlled bases on both sides of Panama, the acquisition of Pacific bases, an all-powerful navy, and the justification of imperialism.

Mahan's interpretation of the fundamental and persisting factors behind world power is still important today, and Mahanism continues to have the utmost significance.

Talking Mule

FRANCIS. By David Stern. 216 pp. Farrar, Straus & Co. \$2.50.

By Maj. Gen. R. E. D. Hoyle, Rtd.

A particularly interesting and imaginative story that might have been written by Baron Munchausen if he had been in Burma during the past unpleasantness. The author has a fine sense of humor and an understanding of standard operating procedure in our Army, particularly as it may affect the life of a second lieutenant. Any Army man will get many a chuckle from reading this fiction concerning the life of an Army mule of vile appearance but great intelligence, including the ability to talk, and unless the tale ends on its

one sad note, the ability to fly at a claimed flying speed of 25 mph as well.

This is one story about World War II events that is all laughs and the ludicrous association of an eager, upstanding junior officer, who graduated from the OCS, and Francis, a GI flea-bitten Army mule of long military service, great stubbornness, and unheard of qualifications that nearly put the commanding general in the hospital for "observation."

The book has fitting illustrations by Garrett Price, who knows his mules from experiences on a Wyoming ranch.

Economic Chaos Ahead?

THIS COMING CRISIS. By Fritz Sternberg. 280 pp. John Day Co. \$3.50.

By Allen L. Otten

"Marxist revisionist" is probably the best two-word description of the argument of this German-American economist. He feels that if things go on as they have, the U. S. and the world at large will soon go through a crisis even more severe than that of 1929. This is because expanding capitalism demands new markets, and these are no longer available. His solution for the U. S.: a powerful progressive movement favoring increasing state economic control, support of socialist movements abroad, a limited armaments program, and an end of U. S. imperialism.

His conclusion: this will not take place, and nothing will be done in the U. S. to avert the coming crisis. Instead, reactionary monopoly capitalist interests will take over, create a "wehrwirtschaft" to solve our economic problems, launch an imperialistic-reactionary foreign policy, and make another war inevitable, leading to an "epoch of historyless barbarism."

Mr. Sternberg does not draw a pretty picture, but it is an arresting one, and though there are many questions that can be raised as to his conclusions, his book deserves considerable analysis and discussion.

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