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**I**<sup>F</sup> THE MULE COULD TALK, he might well sneer over his shoulder at the gun, "I hope you know—and won't forget—who started all this selfpropelled business!" Both the men and the mule in this picture are from Battery C of the 611th Field Artillery Battalion which is stationed at Fort Sill, Oklahoma. Readers will find some excellent pictures of all of our new self-propelled weapons, together with a chart showing their comparative characteristics, included in General Hibbs' article on page 407 of this issue.

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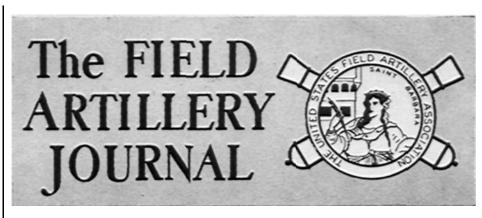
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#### VOL. 36

#### **JULY 1946**

NO. 7

- Cover: Proudly, the colors of the 456th Parachute Field Artillery Battalion of the 82nd Airborne Division march by in the Army Day Parade in Washington, D. C., on 6 April 1946. Picture by Sgt. Ric Bersin. Hq. AGF.
- Frontispiece: Self-propelled artillery, old and new.

#### EDITORIALS

Liberty on the Auction Block Career Building	
ARTICLES	
Fifth Wheel, by Col. Douglass P. Quandt, GSC Army Ground Forces Report Glorious Artillery Tradition, by Robert P. Patterson Observations of a Battery Commander, by Capt. John J. Norris, FA Report on the Field Artillery Conference, by Maj. Gen. Louis E. Hibbs These Childish Things, by Francis Chase, Jr. Postwar ROTC Policy. Perimeters in Paragraphs, by Col. Conrad H. Lanza, Rtd.	394 401 403 407 414 424
ARTILLERY NOTES	
Welcome to the Field Artillery VII Corps Artillery Battle Experiences Addresses Requested	425
OTHER FEATURES	
Boozers Beware Of More Than Passing Interest What's Your Artillery I.Q.? Letters to the Editor	405 413
BOOKS	440

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## **LIBERTY ON THE AUCTION BLOCK**

... Jellyfish nod "sold" at the lowest bid.

"W<sup>E</sup> HOLD these truths to be self-evident . . . that (all men) are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness." These words were written into the Declaration of Independence one hundred and seventy years ago this month. And a few years thereafter, the following words were set down in the Preamble to the Constitution of the United States: "We the people of the United States, in order . . . to secure the blessings of liberty to ourselves and our posterity . . ."

Cornerstone of the American way, and perhaps the most abused term in our language, what is liberty? Is it still cherished as something truly worthwhile? Childish sounding in a sense, these questions are anything but childish. The American people have been for some time, and still are, playing fast and free with their liberty—unaware, apparently, that this priceless *something* was won for them in the first instance by the spilling of much blood. *It can't happen here,* is their comforting creed.

#### **MEANING OF LIBERTY**

To understand liberty, we must define its meaning. No easy task, definition by indirection may prove useful. Thus, we shall strike for the meaning of liberty as we might for the meaning of another elusive term, "a healthy mind," by visualizing a mind unfettered by the ever-menacing diseases of hate, lust, jealousy, greed and intolerance. Eliminate these things from a man's mind and you have a "healthy mind." Similarly, eliminate the threats to liberty from our social order and liberty, itself, remains.

#### THREATS TO LIBERTY<sup>1</sup>

As old as social organization itself, the threats to liberty are twofold in number and always go hand in hand. They are: first, the abuse and denial, often by legalized chicanery, of the blessings of liberty by any number of irresponsible and self-purposed minority groups; and second, the so-called "deadly sin of sloth" of the jellyfish minority that all too often nods "sold" at the first bid when liberty is on the auction block. These wordy ideas need translation into something more concrete, lifted from the workaday world about us. The examples are legion. For brief analysis, let's have a critical look at the principals in a tussle of giants, so fresh in memory—the three-cornered slugging match between corporate management, organized labor and government. What a beating liberty takes! All parties scream its virtues and claim it for their own. And what of us jellyfish? Are our liberties involved? Good jellyfish, we don't seem to give a damn, if they are.

Corporate Giant. Few things, if any, have contributed more than the corporate idea to the amazing growth of our industrial power and our unparalleled standard of living. It's a great idea and it's here to stay. However, few things have produced more social problems than have sprung, directly or indirectly, from and as a result of this idea. Where is liberty, for example, when a detached and all-powerful and sometimes irresponsible corporate management group can choose, in closed session, to stop the wheels of productive process in a mill town thousands of miles distant? Where is liberty when such a group clamors for "liberty" from government or labor "dictatorship," in order to protect its own dictatorial power? And where are we jellyfish? We're right in there—muttering a bit, and paying the bill, and caring not a whit apparently if liberty, our liberty, be ravished.

Labor Unions. Hand in hand with the growth of the corporation, labor unionism has brought a greater real wage, greater productivity, and greater power to American workers than anywhere else in the world. It's a great idea and it's here to stay. But labor unionism has also brought terrific headaches to the workers themselves, to management, to government, and to us jellyfish. Where is liberty when a detached and all-powerful and sometimes irresponsible union leadership can order a strike that cripples the economy of the greatest nation on earth? Where is liberty if a small businessman is told by the union, "join up, pay your dues, conform-or else!" The "or else" means no deliveries, no merchandise, no business-economic death. Where is liberty if one of us jellyfish is picketed because we dare to paint our own window sills? Oh, we jellyfish are still right in there --muttering a bit, and paying the bill, and caring not a whit apparently if liberty, our liberty, be ravished.

<sup>&</sup>lt;sup>1</sup>Excluded from consideration here are the threats to liberty that stem from external sources. Present nowadays, as they always will be so long as the nation state system survives, the external threats to our liberty are more readily discernible, hence are *relatively* less menacingly insidious, than those springing from within our own society.

Government. Only the biggest fool among fools would deny the increasingly vital role of government in our complex society. More assuredly than either big business or big unionism, government is here to stay, and will become more important with each passing decade. But the crowning evil-"jellyfishism" at its slothful worst—is for a great and a free people to take the "government guaranteed" route to "free security" and pay for the passage in the coin of liberty. Such recklessness is exposed in its full irresponsibility when one recalls that our liberty was once wrung forcibly from government itself, by common men like ourselves. Modern history is strewn with tragic illustrations of the folly of over-dependence on the magic of government, however benevolent. We've tasted, all too deeply in recent times, of this intoxicant ourselves. This is the proven road to complete statism. There is no liberty in such statism, be it communism, fascism, or any new-fangled "ism" yet to come down the pike.

*Meaning of Liberty.* Having touched ever so lightly on a few, among many, of the towering threats to our liberty, we are now better armed to strike for the *meaning* of liberty. We, the American people, can "secure the blessings of liberty to ourselves and our posterity" only to the extent that we manifest the will and the capacity collectively to slough off the "deadly sin of sloth" and to carve out from our social order the festering sores which result from the self-purposed abuse of irresponsible minority groups, both within and without the many-layered structure of government. Then, and then only, will we find *liberty* under *law*.

#### THE SOLDIER'S PART

What place have such words and ideas as these in a soldier's journal? What is our interest in liberty, particularly right now when we have just finished destroying the greatest threat to our liberty in history—the Axis powers?

In a narrow sense, such ideas may lie outside the objects of our Association. And certainly there is no agency, either public or private, that will ever champion more militantly than this JOURNAL the magnificent record of American arms. But there is a broader sense, one that has a profound meaning to soldiers, and particularly to the Regular Officer. This turns about the off-forgotten fact that all of us were citizens *before* we became soldiers, and becoming soldiers in no way divorced us from the basic duties and responsibilities of citizenship. Regrettably, too many

soldiers are "jellyfish" citizens. Too lazy to vote what is far worse, many seek to build up a false creed, in illogical interpretation of one of the Army's oldest mottos—"keep the Army out of politics and politics out of the Army"—that the "professional" soldier should *not* vote, and should take pride in the fact that he does not vote. This type of reasoning is denounced as "jellyfishism" of the most irresponsible character. What is more, the expression *professional soldier* is branded as incompatible, in connotation, with our American way. Henceforth, these two words will never again appear side by side in any copy prepared for publication in this JOURNAL by the present editorial staff.<sup>2</sup> American soldiers are *citizen-soldiers*, and each one should mark well the order of the words.

Being citizen-soldiers, our stake in liberty is as great as our capacity for citizenship. How great is that? This JOURNAL has recently expressed some thoughts along these lines. ("The American Soldier as a Diplomat," March, 1946.) That editorial pointed out that the soldier's nomadic life tends to foster severance with "local" ties and associations, with both good and bad results. Good is the fact that, unlike the majority of our citizens, soldiers invariably approach any problem with a national outlook. Bad -very bad-is the fact that in growing apart from local ties some soldiers crawl into a shell of cloistered unconsciousness, ignoring the politico-economic realities of the society they serve. In this vacuum, they beat their chests in righteous virility, muttering . . . "dirty politics" . . . "there oughta be a law" . . . "they (the great THEY) oughta shoot the whole kaboodle" . . . unmindful that such empty phrases form the steps on which liberty treads to the auction block. This is "jellyfishism"liberty's mortal enemy.

And so, in July, 1946—one hundred and seventy years following the signing of our American charter of liberty—let every soldier search his soul. Does he know the meaning of liberty? Does he fight for it in peace as he does in war?

No question of law, or violence, or dirty politics, only the re-birth of the spirit can work a healing power. Only when individual man—be he soldier, sailor or candlestick maker—rediscovers his personal responsibility for the preservation of the "blessings of liberty" can our *great American experiment* in democratic freedom be restored to health.

 $<sup>^2\</sup>mathrm{It}$  should not be inferred that the Editor ever has or ever will seek to censor in any way the ideas advanced by contributors to THE FIELD ARTILLERY JOURNAL.

## FIFTH WHEEL

The story of an "extra" outfit in the 11th Airborne Division that paid off when the chips were down in combat.



#### By Col. Douglass P. Quandt, GSC.\*

THERE ARE FIVE BATTERIES in a parachute artillery battalion: a headquarters battery, three howitzer batteries of four 75 pack howitzers each, and the "extra" battery—the antiaircraftantitank battery.

I do not propose here to try to explain how such a battery came into being, or why it was included in a parachute artillery battalion. My sole purpose in writing this is to tell of how one AA-AT Battery — D Battery of the 457th Parachute Field Artillery Battalion of the 11th Airborne Division — shook off the stigma of being the "fifth wheel" and firmly established its own *raison d'etre* when the chips were down in combat.

Gliderless Gliders. During training, when the other batteries were making their battery jumps, the AT half of D Battery loaded and lashed their 37's in "mockups," since no gliders were available. As the training progressed to the "battalion jump" stage, the AT half of D Battery also took over the battalion guard, KP, and latrine orderly duties. In the combined training phase, there was no place for D Battery to go. The glider combat team had its own AT platoon and the "purist" parachute combat team snubbed D Battery as glider riders without gliders. Every glider that could be spared for the parachute combat team was utilized for badly needed transportation. The morale of the battery slowly declined. The men were

<sup>\*</sup>Chief of Staff, 11th Airborne Division. Col. Quandt commanded the 457th Prcht FA Bn for approximately 18 months. He left the battalion in July '44 to become G-3 of the Division. In November '45, Colonel Quandt was advanced to his present assignment as Division Chief of Staff.

jumpers, but they couldn't jump. And even if the antitank guns could jump, the AA-AT Bn would get the jobs.

Brighter Davs. The division commander generally used two or more of the 75mm howitzers as assault cannon with each regimental combat team. These guns accompanied the advance elements of the infantry and destroyed road blocks, machine gun nests, or other strong points delaying the advance. The job was an exciting one, even in maneuvers, and was eagerly sought by howitzer crews. The commanding general decided to obtain howitzers for D Battery, by hook or crook, and assign them the assault mission permanently, thus maintaining complete 12-gun artillery battalions. The artillery commander was ordered to train D Battery for this duty.

D Battery was delighted. They begged and "borrowed" howitzers for training. Their intensive training in 37mm direct laying (there had been nothing else to do for many months) stood them in good stead when they got their howitzers. In no time, four crackerjack howitzer crews were available. With the addition of ten feet of W110 wire stolen here and fifteen feet borrowed there, a salvaged telephone or two, and a couple of megaphones from Charlotte, North Carolina, enough communication equipment was rounded up to organize the crews into a battery. A battery jump was made. with all weapons accompanying the men to the ground. Morale soared. The men began to act as though they really had a purpose in life. They did well in battery service practice, and finally-oh great day-marched out with the rest of the battalion to service practice. It must be admitted that the personnel of other outfits occupied OP's in front of D Battery's gun position with some hesitancy. At the end of the practice, however, D Battery had earned a permanent place in the firing battalion. Shortly thereafter they were presented with four howitzers of their own, and soon departed for the Southwest Pacific.

**Doughboy's Delight.** There being no cannon company in an airborne division, D Battery became the substitute. At one time in New Guinea, no infantry battalion went on a mission without at least a section of D Battery attached.



Normal employment was to attach a platoon to each assault regiment.

In the training stage, infantry commanders usually placed the howitzers at the rear of the main body during the approach march. Then, when the head of the column became engaged, the gun was called forward. The difficulty of passing the howitzer through the column and through jungle growth, and the attention attracted by the piece as it occupied position, led to the decision to place the howitzer with the support of the advance guard. The wisdom of this decision was later confirmed many times in combat.

The battery had been trained to carry out its assault mission with or without prime movers, but without jeeps to tow the howitzers, it was extremely difficult to keep pace with the infantry. Only the AT half of the battery was assigned to assault duty; the remainder continued to man antiaircraft machine guns. It was decided that whenever prime movers could not be made available (as in a jump without gliders) the machine gun portion of the battery would abandon its armament and form relief crews for towing the howitzers by hand.

The constant and close association with the infantry in New Guinea had its advantages. The infantry grew accustomed to having the howitzers up front, and eventually accepted them so wholeheartedly as to volunteer free advice on the different methods of towing. Incidentally, after the first employment of the howitzers in combat, the infantry provided volunteer relief towing crews!

*Prime Movers Sink.* On the 31st of January 1945, the division made an

amphibious landing at Nasugbu (sixtyfive miles south of Manila) with the mission of proceeding rapidly inland and, if tactical conditions warranted, to attack Manila from the south and make contact with Sixth Army forces approaching the city from the north. Between the landing beaches and the high Tagaytay Ridge overlooking Manila, the Japanese had established a strong defensive position across the highway in the defile formed by Mount Carilao on the north and Mount Batulao on the South. The landing strength of the division was slightly over 6,000 men, including all the service troops necessary to establish, maintain, and operate a port. The strength of the Japanese south of Manila was around 50,000. To avoid being driven into the sea, it was imperative that the division advance to

Manila with all possible haste and establish some contact with friendly forces. This required the fastest possible penetration of the Batulao-Carilao position.

All four guns of D Battery were ordered to accompany the leading regiment (188th Infantry). Frankly, the joy the men felt at being given the mission was somewhat diminished when, during landing, they watched their prime movers sink out of sight below the gentle waves.

**Pay-Off.** The division commenced its march inland and upland (afoot) and shortly after midnight struck the first dug-in position. Jap machine guns enfiladed the route of advance and threw lead all over the place, while mortars dropped their hollow-cracking shells



The picture above shows a section of D Battery, 457th Prcht FA Bn, firing point blank at caves on hillside. The gun had been carried on foot, piece by piece, up a slick mountain trail. Below, a Filipino pack party brings ammunition up the side of a mountain near Lipa, Batanges, Luzon, P. I.



into our troops. Time after time the howitzers went into position in place and fired at machine gun nests, strong points, and caves. It would be unfair to the gloriously fighting men of the two infantry regiments and artillery battalions to give the impression that the assault cannon of D Battery blasted the hole in the Batulao-Carilao line through which the remainder of the division poured. Indeed, the rapid disruption of the Jap forces defending this line is attributable to so many factors beyond the scope of this account that I can only mention the artillery-infantry assault, supported closely by tactical aircraft, which played the largest part in the whole scheme. The direct fire of D Battery's unquestionably guns contributed to the success of the assault, and as a result of their work the battery was awarded the Presidential Citation for heroism.

After the breakthrough, and the vertical envelopment of the Jap position by the jump on Tagaytay Ridge, the division proceeded in calculated haste to Manila and occupied the now famous 65-mile-long, 100-yard-wide beachhead. Through surprise and rapid annihilation of outposts, penetration into Manila was effected to a position across the Paranaque River Bridge. Here the division came up against the Genko Line, a position of mutually supporting solid concrete and dirt pillboxes some 6,000 yards deep, and about 4 miles across. The guns of D Battery were again employed to shoot at the pillboxes, but, alas, these fortifications proved too thick and formidable for their 75mm ammunition. It was necessary for the infantry to assault each one in turn, and the guns were brought together and employed as a battery of the direct support battalion. By this time, the D Battery veterans passed easily from one role to another, either shooting from the hip in the front lines or methodically jerking the lanyard at the computer's command.

Another Boat Ride. D Battery was next removed from battalion control on the 23rd of February when the division raided the Los Banos Prison Camp to liberate some 2,100 allied internees. The story of the rescue has been told many times, but for those who haven't heard,

the operation went generally as follows. The camp was situated about 25 miles inside Jap territory, on the south shore of a body of shallow water called Laguna De Bay. We divided guerrilla estimates by ten and came up with the guess that about 8,000 Japs were within an hour's march from the camp. The division plan was to assemble during the night of the 22nd in the vicinity of a town called Calamba, and at seven on the morning of the 23rd, to launch a strong ground attack across the San Juan River. At the same time, a reinforced company would jump close to the camp and join the Division Ren Platoon at the camp (a position to which it was to infiltrate during the night), complete the job of knifing the Jap sentries, and organize the internees for rapid evacuation. At 0400 of that morning, an amphibious task force of one battalion of infantry (less the jumping company) and D Battery, mounted in amphibious tractors, entered the shallow waters of Laguna de Bay with all the quiet of a thousand subway trains. They steered a compass course (it was black as a coal mine after taps) for the beach opposite the camp. Well, you've heard the rest-how at 0700 a hundred and fifty paratroopers hit the silk, the amtracs hit the beach, and the first artillery concentration of the ground attack to the west echoed across the rice paddies. The Jap garrison died where it stood, some on guard and some taking calisthenics. All the internees were evacuated, with only one of them being wounded slightly. The resistance to the landing came from a lone hill overlooking the beach. D Battery descended from the amtracs, wheeled to the right, and plastered the hill until the last internee was loaded and had shoved off. It then gathered its guns, mounted its amtracs, and headed for the friendly shore. Rejoining its battalion, D Battery then moved with it to support the attack on Ternate.

By Hand to Peaks. Three months later, the division was preparing to attack and capture Mount Malepunyo, the last Jap stronghold in Southern Luzon. Meanwhile, since a company of tanks and a company of tank destroyers had been attached to the division, there was little need for employing the howitzers of D Battery in their assault role. However, the cave positions of General Fujisige's last holdout were on the peaks of the mountain massinaccessible even to carabao, let alone tanks or tank destroyers. Consequently, the commander of the regiment making the main effort requested assault guns.

D Battery took its howitzers as far as they could go on wheels, disassembled them and carried the parts to the tops of three peaks which had been taken by the infantry, and from which the infantry was to jump off in the final attack. There they assembled their weapons and trained them on the next objective: Mt. Mataasna Bundoc, a subordinate of Mt. Malepunyo. From the positions, the guns could hit three sides of the mountain. Range was short (about 200 yards at the most) and the firing was done across the canyon between the peaks. Three forward with SCR-609 observers. communication to the guns. accompanied the infantry. One of them was from Kentucky, an extraordinarily cool and brave youngster, who was long on courage and short on rhetoric. On one occasion when his battery commander, who was concerned about 2,400-foot uphill carry the of ammunition, cautioned him to "go easy on area targets," back came the radio reply straight from deepest Kentucky, "That warn't no area target. Hit war a Jap!"

Stigma Forgotten. As the doughboys climbed up the sides of the mountain, D Battery blasted the caves they pointed out above them. So close did they follow the bursts that fragments nicked their shoulders as they climbed. Malepunyo is past history, now. One combat photography unit obtained striking moving pictures of one assault gun, both from the gun position and from the infantry lines, and the pictures have since appeared in the news reels at home. We used to conduct liaison plane tours over the mountain peaks so that visiting dignitaries could view the hundreds of Jap bodies on the slopesmute testimony to the effectiveness of D Battery's last combat mission. Needless to remark, the appellation Fifth Wheel had long since been lost in a forgotten rice paddy along the road to victory.

## BOOZERS BEWARE

M UMEROUS American artillerymen who were stationed in the south of England undoubtedly visited Winchester and viewed with interest the "Boozer's Stone" which stands in front of the cathedral. Young Thomas Thetcher's violent death in 1764 from "drinking small beer when hot" may still be meaningful, to some artillerymen, in this midsummer of 1946!

#### IN MEMORY OF THOMAS THETCHER

a Grenadier in North Regt. of Hants Militia who died of a violent Fever contracted by drinking Small Beer when hot the 12 of May 1764 Aged 26 Years

In grateful remembrance of whose universal good will towards his Comrades, this Stone is placed here at their expense as a small testimony of their regard and concern

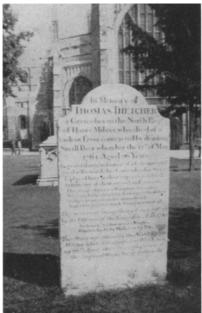
Here sleeps in peace a Hampshire Grenadier Who caught his death by drinking cold small Beer

Soldiers be wise from his untimely fall And when youre hot drink Strong or none at all.

This memorial being decayed was restored by the Officers of the Garrison A.D. 1782

An honest Soldier never is forgot Whether he die by Musket or by Pot

This Stone was placed by the North Hants Militia when disembodied at Winchester On 26th April 1902 in consequence of the original Stone being destroyed



## **ARMY GROUND FORCES**

### Report of Activities World War II

Extracts from a forty-eight page report by the Commanding General, Army Ground Forces, to the Chief of Staff covering the worldwide activities of Army Ground Forces from its organization in March 1942 to the surrender of Japan.

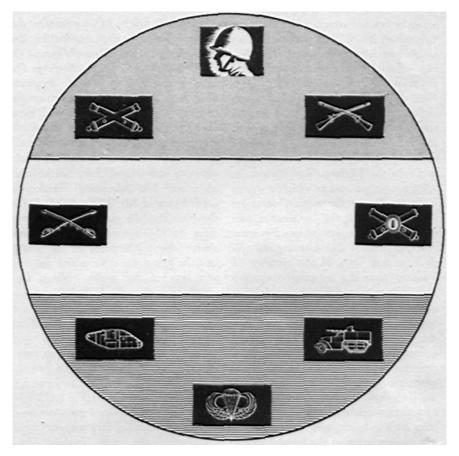
All figures in the report are preliminary and are subject to revision when final returns are completed.

#### IN THE AMERICAN TRADITION

THE prime achievement of Army Ground-Forces in World War II was the American soldier—created in greater numbers than ever before, and organized into fighting teams which carried the war across two oceans into the heart of the enemies' territory.

Army Ground Forces found him a civilian — a clerk, a mechanic, a student — and turned him out a better fighting man than the professional Nazi or fanatical Japanese.

The American ground soldier was the most elemental of modern warriors. He fought, not from battleships or airplanes, but hand to hand. Where he was, there was battle; and where he was, there was modern battle. The ground soldier of this war needed not only the personal courage, but also a high degree of skill to make him proficient in the use of complicated mechanisms and to fit himself into the interwoven ground-air-navy team. He took the ground and held it. He imposed his will upon the conquered. He was in the tradition of Bunker Hill and Yorktown, of the Alamo, of Shiloh and Gettysburg, of San Juan Hill, of Belleau Woods and the Argonne. Most



of the sweat and blood were his. His family shed most of the tears.

The American ground soldier was rushed to a maturity for which he had not planned or even dreamed. Yet, so strong were his native hardihood, his resourcefulness, his competitive spirit —and so skillfully were these American traits fostered and fashioned by Ground Force leaders — that he conquered, on the ground, face to face and weapon to weapon, those Axis warriors whose military upbringing had been foreseen and unhurried.

#### **BUILDING DIVISIONS**

When Army Ground Forces was formed early in the spring of 1942, two major factors had improved the country's military situation.

First was the repercussion from Pearl Harbor. The news of that sneak attack, reaching the army in its

barracks or in the homes of its families—reading the Sunday papers or listening to the radio-had made a fundamental difference. Next morning, even close order drill had a significant meaning. In the service schools, which by this time had been expanded tremendously. Monday morning had unprecedented classes an seriousness and intensity. Moreover, in the universities and colleges, ROTC students took increased interest in the instruction. Non-military undergraduates suddenly decided that military science might be a good course to take. The army had gone into uniform; civilian clothes were out for the duration.

Second, both men and officers had improved by the Spring of '42. The first draftees, who reached the line units later in 1941, were the cream of the nation's youth. Intelligent, strong, and eager—capable of learning anything they were the stuff from which a firstrate modern army could be made.

Yet, the future of the Allies looked bleak indeed. In Europe, the Nazi war machine had withstood the Soviet counter-offensive and the Russian winter along its main defense line, and once more menaced Moscow and the heart of the Soviet Union.

In the Pacific, the situation was equally critical. We had been thrown off Guam and Wake Island. The Philippines were lost, although a handful of gallant American and Filipino troops still held out in the foxholes of Bataan. The Japanese had chopped up the British in Malaya and had overwhelmed the Singapore bastion-in the words of Winston Churchill, "the greatest disaster to British arms which history records." Burma and the Netherlands East Indies had fallen to the veteran and wellequipped jungle fighters. India itself was threatened. The Japanese were nearing the high tide of their conquest in the Southwest Pacific.

Faced with these facts, the American high command effected a reorganization to better enable the Army to carry the war to the Axis. Out of this reorganization came Army Ground Forces, as such, on March 9, 1942.

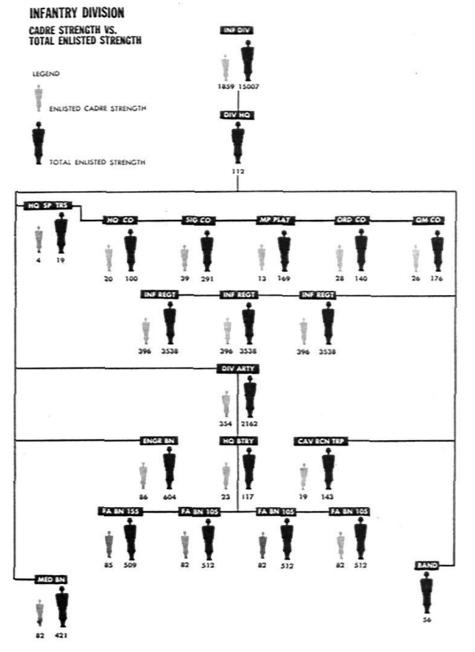
During the year 1942 the Army Ground Forces raised thirty-seven divisions, which, added to the thirty-six already in existence, made a total of seventy-three divisions. This year marked its greatest expansion. The ground army, in World War II, never exceeded a strength of eighty-nine divisions.

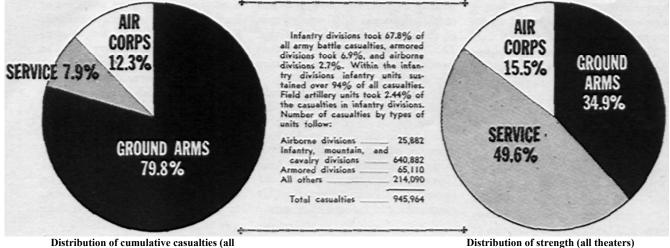
Into the infantry division of 15,000 men went as many varied skills as might be found in a civilian community of the same size. Transportation, equipment, and supply demanded the services of more than 1,500 men; communications, nearly an equal number; administration, 700; repair and maintenance of equipment, 450; preparation of food, 650; medical care, 600; and a variety of minor duties occupied some 1,600 men. All of them were trained for combat as well.

In order to pick up some 15,000 American civilians out of the Selective Service hat and have them ready for combat within one year, a precisiondesigned activation system was set up, building each division around a cadre of 172 officers and 1,190 enlisted men, all drawn from an already active unit. This cadre was selected two or three months prior to the division activation date and then given special training.

The prospective division commander and his two principal subordinates, designated by the War Department 98 days prior to the activation date, and other key infantry and artillery officers of the division-to-be, selected by Army Ground Forces, were brought to headquarters for a week of orientation. The commander and his staff then spent a month at the Command and General Staff School at Fort Leavenworth, Kansas. The assistant division commander went to the Infantry School at Fort Benning, Georgia, and the artillery commander went to the Artillery School at Fort Sill, Oklahoma. All other officers of the cadre simultaneously attended appropriate service schools.

The commander and the principal officers of his staff arrived at the division camp 37 days before the activation date. They were joined a week later by the remainder of the officer cadre





Distribution of cumulative casualties (all theaters) as of 31 July, 1945.

and the entire enlisted cadre. During the next few days the complement of 452 officers arrived from officer candidate schools, service schools, and officer replacement pools. On "D-day," the division was formally activated, with flags and music, and, during the next 15 days, the enlisted "filler" of 13,425 rookies came in from the reception centers. In the meantime, about 50 percent of the division's equipment had arrived and the stage was set for training.

The organization of the cadre, its preactivation training, the concentration of equipment and the actual welding of the division constituted a tremendous task. Only by the closest centralization of control and by complete cooperation of thousands of military persons was it possible to have the right things at the right place at the right time. Yet activation orders were accomplished without exception, and in August, 1943, the last division of World War II was formed.

#### **BUILDING SOLDIERS**

The American ground soldier could not have been successful in battle without superlative training. This was accomplished despite lack of time normally considered necessary to train competent troops. In an average training cycle of 12 months, men were fitted to fight Axis troops which had trained for more than a decade and fought for years.

Our soldiers possessed certain physical and mental advantages heritages of the American past—but these very advantages complicated the training problems. To maintain their interest in training and to keep them mentally and physically absorbed, leaders had to invent new and improved training methods and bring the physical training aids to a stage of refinement never before approached. Obstacle courses were made to resemble the battlefield rather than the gymnasium. Entire villages were constructed, similar to those they would face in enemy theaters, to teach the troops house-tohouse fighting. On infiltration courses trainees crawled under actual machine gun fire, and were jarred by exploding blocks of TNT to accustom them to "every sight, sound, and sensation of battle" so that they would "act calmly, with sound judgment, regardless of noise, confusion, and surprise."

American ground army training was controlled in three ways bv Headquarters, Army Ground Forces. First, its training directives were circulated throughout the command. Second, the actual conduct of training was constantly inspected, all over the country, by the Commanding General and his staff. Third, a system of training tests, made up by Army Ground Forces, was administered to all units before their training phase was completed. Army Ground Forces thus exercised control and supervision through all phases of the training cycle.

This supervisory control was guided by certain basic principles, established early and held throughout the war, although altered constantly to meet changing conditions.

as of 31 July 1945.

1. That a unit should be trained as a unit rather than as a group of separate individuals. This for teamwork.

2. That the troop commander himself was responsible for training rather than the specialist who might actually conduct it. This to foster the idea of personal leadership.

3. Emphasis on general military proficiency. This to make the soldier first, the technician later.

4. Rigid performance tests on successive training phases. These to insure uniformity, early adjustment to exacting standards, and the earliest efficient completion of the training mission.

5. Free maneuvers of large units of the combined arms, with realistic umpiring, and under conditions as closely as possible approaching battle.

6. Realism. The use of more than 687,365 tons of live ammunition, and life-sized maneuver areas were concrete expressions of this fundamental requirement.

While American military doctrine was sound at the beginning of the war, it was necessary that it be kept constantly up-to-date. This was accomplished by maintaining a group of observers in every theater. They furnished written reports and returned to this country periodically to make personal reports to specific operating agencies. Frequently they visited the training schools to bring a breath of combat to domestic soldiers. As the war continued, a limited number of combatexperienced officers were brought back to occupy positions on the staff of Army Ground Forces and its subordinate elements. Some were assigned to the teaching staffs of the various service schools to pass on their combat knowhow to troops in training.

The Army Ground Forces schools, Infantry, Field Artillery, Antiaircraft, Armored, Coast Artillery, Cavalry, Parachute, and Tank Destroyer, trained or produced most of the officers who led the World War II ground soldier to his ten-front victory. The contributions of these schools, both in war and peace, were summarized by General of the Army Dwight D. Eisenhower when he said, "The stamp of Benning, Sill, Riley, and Leavenworth is on every American battle in Europe and Africa." The wartime expansion of these institutions -some of them built for the crisis, others going back nearly as far as U.S. military history-was almost incredible.

Individual daring and personal military skill, while just as important in the ground officer as in the officer who

was to fight in the air or on the sea, were yet secondary, in him, to the ability to direct the efforts of scores of enlisted men and the capacity to coordinate plans and actions amidst the hazards and uncertainties of immediate combat.

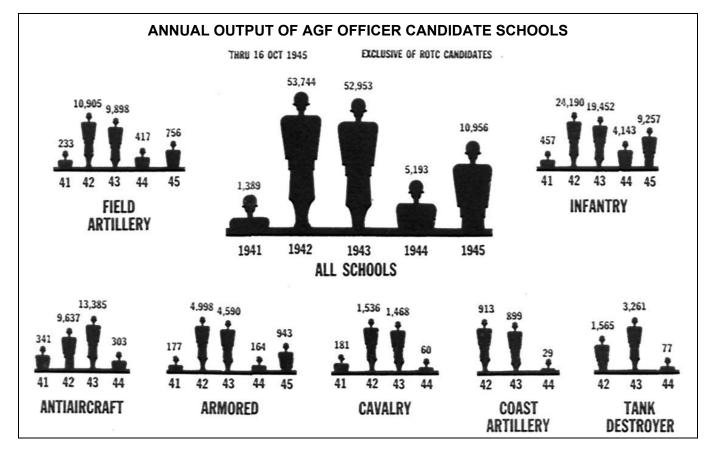
Leadership and a sense of responsibility were the two traits most wanted in a ground officer.

By the war's end approximately 123,000 men had been singled out from the normal allocation of Army Ground Forces inductees for that process of orientation and training which ended in officership.

In general, the hundreds of thousands of men received by Army Ground Forces came to it via reception centers, those processing installations set up by the War Department to accept a man from civilian life and start him on his way toward becoming a member of the ground fighting team. However, between his arrival at the reception center in civilian clothes and his emergence on the field of combat in battle dress, many administrative operations were necessary to move him through the various stages of training, which, when multiplied by the millions of men involved, constituted a tremendous task of administrative and personnel management. These behindthe-scene operations were much less obvious in the making of a soldier than were the training programs, the field maneuvers or even some of the off-duty activities.

As soon as the raw recruit arrived at the replacement training center, immediate action was taken to assign him into the training cycle according to his physical capacity, the skills he had possessed as a civilian, and the military need for his particular ability.

Some men from the reception centers had not progressed far enough in their education to be able to absorb the training they would have to receive. Special Training Units were established to school them further in the three "Rs" and slow the pace of training to that point where they could keep up. The leading part which Army Ground Forces took in the initial use of Special Training Units—in the later stages of mobilization the work of these units was taken over by the reception centers—was



in keeping with the constant conservation of manpower.

From the reception centers men were also allocated directly to the various units which were being constantly activated in accordance with the 90division army plan. This operation reached its height in 1942 and 1943 when the largest demands for direct assignment were made.

#### **SPECIALIZATION**

Specialized training was carried on as the necessity arose. When the Afrika Korps rumbled to the doors of Cairo, a training center was established in the California desert to teach American units that kind of warfare. When victory was won in Africa, the center was continued as the California-Arizona Maneuver Area, since it was ideal for the physical and mental conditioning of troops for combat and it was the only area in the United States where live ammunition could be used almost at will on large scale maneuvers.

Viewing the Alps and remembering Hannibal, Army Ground Forces established a mountain warfare training center at Camp Carson, Colorado. Noting the successful use of ski-shod soldiers on the northern Soviet front, ground army leaders set up a skiing center at Camp Hale, Colorado. With operations in Alaska a certainty and with the possibility of combat in the Arctic, it was thought advisable to create a cold weather training center at Camp McCoy, Wisconsin. Correctly foreseeing an amphibious war in the Pacific, Army Ground Forces first conducted training in landing operations at Carabelle. Florida, as its own activity. Later, this type of training was taken over by the Navy and a large, continuous program of amphibious instruction was conducted in the vicinity of San Diego, California. The mutual development of doctrine and understanding of this Amphibious Training Center contributed greatly to later Army-Navy successes in both theaters.

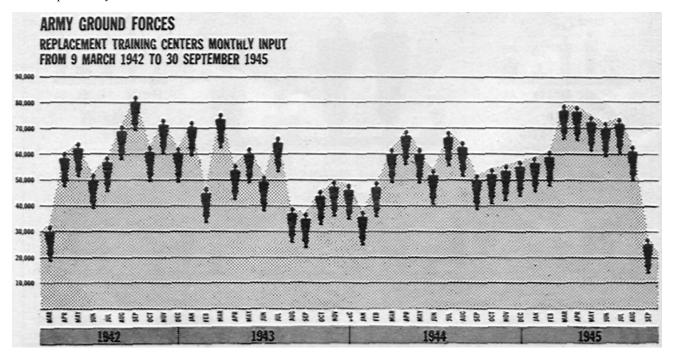
The importance of airborne fighters was recognized early. Formal training was begun at the Parachute School, Fort Benning, Georgia, in the Spring of 1941. Though organized originally to train a small number of officers and men in the technique of jumping from an airplane in flight, the expansion of the school was rapid and enormous. At the height of the airborne effort the parachute school graduated 1,250 students per week in jumping courses, in addition to graduating troops from demolition. the riggers, communications, and jump-master courses. As of September 1, 1945, 90,992 students graduated from the parachute jumping courses. During

their course of instruction they made 509,842 jumps.

In the American airborne division, parachute artillery and engineer units were provided to accompany the parachute infantry spearhead, and these same ground elements were a part of the spearhead's airborne reinforcements.

Jungle warfare in its early stages, when the extreme mobility of the farsweeping Japanese seemed their most striking characteristic, appeared to demand a very light-weight unit in which all impedimenta would be animal or man-packed. In answer, the so-called light division was created in the winter of 1942-43. Its main characteristic was flexibility, aimed toward adaptability to any terrain without necessity of change in the basic structure. Three light divisions were organized, with a strength of approximately 8,000 officers and men, but two were later converted to standard divisions and only one saw service as a special type unit. This was primarily because the Navy and the Amphibious Engineer Brigade furnished mobility in the Pacific, and the weight and equipment of standard divisions were found necessary to dislodge the Japanese from prepared positions.

During 1942, many "special type" units were developed to meet expanding



and varied battle conditions. Some of these were: amphibious tank battalions, amphibious tractor battalions, joint assault signal companies, an airborne army signal battalion, and rocket field artillery battalions.

#### DEVELOPMENT AND SUPPLY OF EQUIPMENT

The World War II equipment of the American ground soldier was, with very few exceptions, the best on any battlefield. This fact, known to him above anyone else, was a moral as well as material contribution to his battle success.

Development of materiel peculiar to the ground army was made the responsibility of Headquarters, Army Ground Forces, in March 1942. A special section was charged with the selection, development and service testing of all weapons, clothing, food, and miscellaneous materiel destined for use by the combat soldier. In this capacity, it developed, modified, accepted or rejected more than 10,450 items of equipment.

Observer boards were maintained, as already noted, in the European, Mediterranean, and Pacific Theaters, with the primary function of collecting information on battle training, organization, tactics, and replacements.

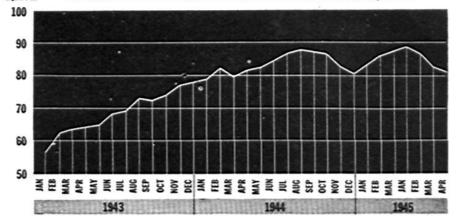
Some of the ground weapons that emerged as a result of this continual contact with the troops in battle were recoilless rifles, the automatic carbine, the flame thrower, and varied types of heavy and of self-propelled artillery. Greatly improved floating bridges, skid and towing devices, field jackets, and combat boots were a few of the allied products so developed.

The doughboy, in World War II, had several implements which gave him an especial advantage over the Nazi in the European campaign. One was the Garand semi-automatic rifle, which served equally well against the Japanese, and which was, unquestionably, the best infantry rifle ever made. It was developed prior to the war against a great deal of peacetime opposition. Even greater factors in the European conquest were the jeep and the  $2\frac{1}{2}$ -ton cargo truck which, between them, moved and supplied the ground army, whisking it from front to front with a facility amazing to Nazis who had no comparable equipment.

PERCENT

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STATUS OF EQUIPMENT IN UNITS ASSIGNED TO HQ AGF IN TRAINING IN U. S. Expressed by percentage based on 100 representative items of equipment



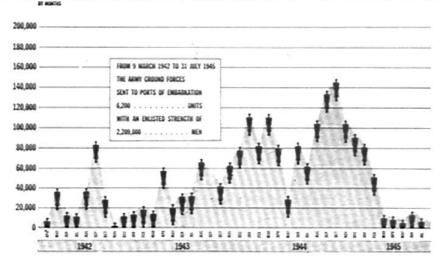
The extent to which development of materiel had progressed by 1945 is well illustrated by the "Sphinx Project." After the defeat of Germany, all emphasis swung to Japan and better weapons for crushing that country were immediately sought. The Sphinx Project, as the most ambitious of these seekings, was an airground test maneuver, conducted by Army Ground Forces at Camp Hood, Texas, over terrain which resembled large sections of Japan in topography, foliage, and geological content. The area assaulted, organized as a typical Japanese defensive position with provisions made for all the personnel and weapons of a reinforced Japanese infantry regiment, contained more than 3,000 prepared strongpoints and 35 large caves. More than 3,500 officers and men participated, with control personnel including troops of extensive combat experience in the Pacific. It was proven, among other things, that the new recoilless rifles, while very effective close-support weapons, were not the equal of tanks or self-propelled artillery in closing or destroying caves. The mechanized flame thrower was shown to be still essential. As a result of this project, a new training circular entitled "Reduction of Japanese Field Fortifications" was being prepared as Japan surrendered.

#### **OVERSEAS MOVEMENTS**

The final phase of training ground troops in the United States was bringing them to a state of complete combat readiness and delivering them to ports as required by theater commanders.

During World War II, Army Ground Forces put well over two million men, organized as units, aboard ships for overseas combat. There were three peak periods of shipment: the





month of September, 1942, when some 90,000 ground troops left United States ports to train in the United Kingdom as the first move toward the thenprojected 1943 invasion of Europe and North Africa; the months of January, February, and March of 1944, when the final build-up for the actual European invasion sent some 315,000 ground fighters abroad; and the August-October period of 1944 when the imminent ground invasion of Germany itself drew some 400,000 soldiers from the training areas of this country.

Early in the war, individual men to replace losses within overseas organizations were prepared for shipment at replacement training centers, and through the use of replacement depots operated by Army Service Forces.

In the latter part of 1944, the stalemate before the Siegfried Line, with its atrocious winter conditions, wore out men much more rapidly than the inadequate European port facilities had been supplying them. In some sectors our battle lines were thin. It was just at this moment that the Nazis threw their final punch in the Ardennes.

This temporary setback was a climax to an already strained reinforcement

problem. Seven divisions had been alerted back in the United States at least six months ahead of schedule, and tens of thousands of men had been drawn as overseas infantry replacements from their parent divisions in this country. One staff actually trained the equivalent of three divisions before it was finally sent overseas with its own men.

The Nazis' last blow in the Ardennes created such a crisis in the need for replacements, particularly enlisted men and junior officers of the infantry, that the Air Forces were called upon to help assemble men on the East Coast for shipment to Europe.

And, to meet the insatiable demands from abroad, it was necessary to call on the Air Forces for some of the men previously given them in the days of their great expansion. In addition, men were transferred from the Service Forces into the hard-pressed units of the ground troops.

#### **STRIKING FACTS**

During the war, Army Ground Forces Headquarters administered more than 4,194,000 men and 230,000 officers. The ground forces absorbed 81 percent of the American Army's battle losses. The infantry, which comprised only 20.5 percent of the total strength overseas, took 70 percent of the total casualties.

The ground army captured and disarmed 8,150,447 enemy troops.

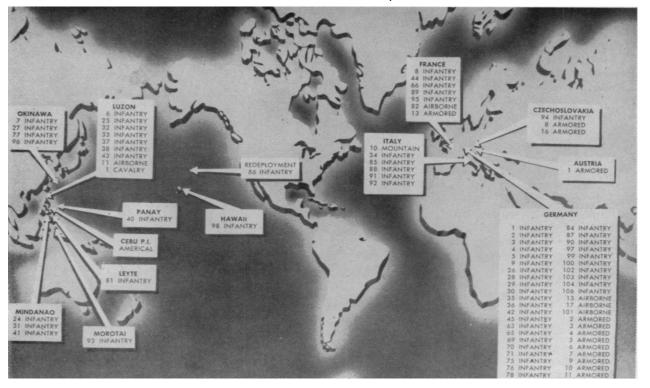
Ground soldiers made more than 40 major landings on hostile shores.

Of the 276 men thus far granted the nation's highest award, the Congressional Medal of Honor, 239 have been members of the Army Ground Forces, almost all of them from the infantry. Nearly half of them died in their heroic service. Of the some 3,700 Distinguished Service Crosses granted for World War II heroism, more than 80 percent went to ground army personnel.

In World War II Army Ground Forces raised 89 divisions and supporting troops, sent every one overseas and 88 into combat, and maintained them there at or near their stipulated strength—this, despite the fact that by January, 1945, 47 infantry regiments in 19 divisions had lost from 100% to 200% of their strength in battle casualties alone.

Over 2,453,000 men were processed through Replacement Training Centers from March 9, 1942, to July 31, 1945.

#### LOCATION OF U.S. DIVISIONS, JUNE 1945



#### GLORIOUS ARTILLERY TRADITION

Address by the Honorable Robert P. Patterson, Secretary of War, at the Field Artillery School Commencement, at Fort Sill, Oklahoma, May 30, 1946

**I**T IS A PRIVILEGE TO BE AT Fort Sill on Memorial Day, the day set aside by the nation in honor of those who have laid down their lives in their country's cause. To you soldiers this day has a personal message,—the recollection of fellow-soldiers who fell in combat in Europe, in Africa, or somewhere in the vast reaches of the Pacific. Three hundred and eight thousand Americans died in battle in World War Two, and of that total 240,000 were soldiers in the United States Army.

Never Found Wanting. In the war our artillerymen lived up to the glorious traditions of their arm, traditions that go back to the small command of Henry Knox in the Continental Army and the brass cannon of that day. The artillery was never found wanting. Counterbattery fire has always been their ordeal, but in this struggle they also faced the perils of air bombardment, airborne assault. infiltration and armored infantry Yet they delivered attack. unflinchingly the supporting fire so vital to the success of the infantry assault. The great tribute to the artillery comes from the foot soldiers, who like to tell how on such and such a day the fire passing overhead was so heavy and well directed that they walked into the enemy lines standing up.

*Valorous Observers.* As the war wore on, the teamwork between artillery and infantry reached a perfection never before attained. A great part of the credit must go to the artillery forward observers. They called the signals. Their heroism has become a tradition in the Army. No nobler case of courage has come out of the war than the record of the forward observer in the Philippines, who was adjusting the fire of his artillery

battalion on a large force of Japanese that was delivering a counterattack. His position was well in front, and his final message was, "Those last rounds were 25 yards in front of me. Come back 25 yards and fire for effect. I'll take American Beauty roses. Over." He died in the bursts, but so did the Japanese.

The Full Picture. The courage of the artillerymen, however bright, does not give the full picture of what was achieved. In addition to bravery, the factors that gave us our artillery superiority were sound doctrine, thorough training and powerful weapons. The doctrine developed here at Fort Sill, with emphasis on flexibility, control and concentration, stood the test of combat. The training, from the top down, left nothing to chance. The artillerymen always knew their jobs. The weapons and ammunition spoke with an authority never known in the Army in any previous war. The 105 howitzer, the self-propelled guns, the V-T fuze,these were outstanding examples in a line of weapons, ammunition and other materiel that gave our forces the best that American science and American industry could produce. There were times when we were concerned as to our ability to furnish enough ammunition, and it would have been better if we could have delivered more in the fall of 1944. Those were anxious days at the War Department. We were rushing shells by fast truck from Ohio to the ships at New York, and by fast ships across the Atlantic. We were also crowding the shell plants and the loading lines for all they could possibly deliver.

*Kill or Be Killed.* You know how it is overseas. The leaders who have the responsibility of planning future operations must have the assurance that there will be an abundance of ammunition, trucks, gasoline and all the other items that it takes to mount an offensive. It is the same down the line to the battery commander. If he is to do the business, he must see the shells coming in faster than they are being expended.

The requirements on artillery ammunition sent here by the overseas commanders were high, and properly so. An abundant supply is an indispensable element of victory. Wars are won, when we are obliged to fight a nation like the Germans or the Japanese, by killing more of the enemy than he can kill of us. To kill more of the enemy we must throw more steel at him than he can throw at us. Most of that steel is in the shape of artillery ammunition. The lesson to be borne in mind is that in our planning for war we must always make sure that we will be in a position to supply all calls for ammunition, enough and on time.

Merited Trust. The Army came out of the war with a glorious record. It did not let the country down. It never has, in any war in our history It serves the nation in days of peace also, with patriotism, faith and devotion. In time of emergency, and as late as last week, the country turns to the Army to stand between it and domestic calamity, and it does so with the sure knowledge that the Army can be depended on to do the job and then to return to its normal occupation of keeping our land safe from foreign enemies. The Army has never sought to encroach on the civilian authority, and it never will. It is and always will be an instrument of the national policy that is declared by our democratic system of government. It will do its duty, ever obedient to the call of the United States government. That is the tradition of American soldiers.



**ROBERT P. PATTERSON** The Secretary of War

#### WELCOME TO THE FIELD ARTILLERY

The following are the Field Artillerymen who were recently nominated by the President for appointment in the Regular Army. Permanent rank is shown first, with temporary rank in parenthesis. See "Career Building," page 420.

1st Lt. (Lt. Col.) N. D. Aboosh 1st Lt. (Capt.) H. D. Adams 1st Lt. (Maj.) John D. Adams 1st Lt. (Capt.) L. J. Aebischer 1st Lt. (Maj.) G. G. Ackroyd 1st Lt. (Capt.) John R. Agulia 1st Lt. (Capt.) F. F. Ahlgren Maj. (Lt. Col.) William M. Albergotti 1st Lt. (Maj.) A. W. Albrecht 1st Lt. (Capt.) John C. Allan 1st Lt. (Capt.) H. J. Allbee 1st Lt. (Maj.) W. S. Alldredge 1st Lt. (Col.) Ben E. Allen 1st Lt. (Capt.) Tyrus R. Ambron 1st Lt. (Capt.) A. C. Anderson Capt. (Col.) C. H. Anderson Capt. (Lt. Col.) D. P. Anderson 2nd Lt. (2nd Lt.) Douglas A. Armstrong 1st Lt. (Capt.) E. B. Armstrong 1st Lt. (Capt.) Jack P. Ancker 1st Lt. (Capt.) C. T. Anders 1st Lt. (1st Lt.) E. B. Andersen 1st Lt. (Maj.) G. L. Anderson 1st Lt. (Capt.) C. W. Andresen 1st Lt. (Maj.) H. F. Antrim 1st Lt. (Capt.) Irvine Appleton 1st Lt. (Lt. Col.) T. S. Arnold Capt. (Lt. Col.) Harry Auspitz 1st Lt. (Lt. Col.) J. T. Avery, Jr. 1st Lt. (Maj.) Clarence F. Ax 1st Lt. (1st Lt.) W. B. Aycock 2nd Lt. (1st Lt.) J. L. Aylor 1st Lt. (1st Lt.) Robert G. Babb Capt. (Capt.) C. S. Babcock Capt. (Lt. Col.) Harry T. Baker 1st Lt. (Maj.) Arthur C. Ball 1st Lt. (Lt. Col.) E. T. Barco, Jr. 1st Lt. (1st Lt.) N. H. Barnhart 1st Lt. (Maj.) W. S. Barrett 1st Lt. (Capt.) T. A. Barrow 1st Lt. (Capt.) C. C. Batson 2nd Lt. (Capt.) Haynes M. Baumgardner 1st Lt. (Maj.) E. Bautz, Jr. Capt. (Lt. Col.) George E. Baya Maj. (Maj.) Harry K. Bayless 1st Lt. (Capt.) H. E. Beaman Capt. (Lt. Col.) W. O. Beets Lt. (Maj.) Wilfred C. Becker Maj. (Lt. Col.) Hugh Belden Capt. (Lt. Col.) James K. Bell 1st Lt. (Capt.) Roy F. Benjamin Capt. (Lt. Col.) T. W. Bender 1st Lt. (Maj.) W. E. Bennett 1st Lt. (Maj.) V. W. Bennett 1st Lt. (Capt.) W. P. Berger 1st Lt. (Lt. Col.) J. S. Benson 1st Lt. (Lt. Col.) R. J. Bestor Capt. (Lt. Col.) T. F. Bienvenu

1st Lt. (Capt.) Alfred C. Bieri

1st Lt. (Capt.) C. P. Biggio 1st Lt. (Maj.) R. H. Bingham Capt. (Lt. Col.) H. E. Bisbort Maj. (Lt. Col.) J. H. F. Bittner 1st Lt. (Capt.) William W. Blackburn Capt. (Lt. Col.) J. S. Blair II 1st Lt. (Capt.) L. A. Blakely 1st Lt. (Lt. Col.) A. A. Blinn 1st Lt. (Col.) Jack S. Blocker 1st Lt. (Maj.) P. E. Blumensaadr 1st Lt. (Maj.) Carl E. Bobo, Jr. Capt. (Lt. Col.) Paul Bodbey 1st Lt. (Lt. Col.) C. Bogner Maj. (Lt. Col.) Joy R. Bogue 1st Lt. (Capt.) James O. Bolick 1st Lt. (Lt. Col.) J. H. Boling Maj. (Maj.) Lewis A. Bonifay 1st Lt. (Lt. Col.) Charles M. Bowling, Jr. 1st Lt. (Maj.) Beryl L. Boyce 1st Lt. (Capt.) K. Brabson Lt. (Capt.) Stuart F. Brady 2nd Lt. (1st Lt.) H. W. Brandenburg 1st Lt. (Maj.) D. L. Bristol 1st Lt. (Col.) W. P. Brooks 1st Lt. (Capt.) J. P. Brubaker 1st Lt. (Maj.) W. E. Brubaker 1st Lt. (Lt. Col.) Thomas R. Bruce, Jr. 1st Lt. (Maj.) Ray K. Bruch 2nd Lt. (1st Lt.) A. J. Brown 1st Lt. (Capt.) R. D. Brown 1st Lt. (Maj.) F. R. Brownyard 2nd Lt. (1st Lt.) David L. Bruns 1st Lt. (Capt.) W. R. Buelow Maj. (Lt. Col.) R. T. Bunker 1st Lt. (Lt. Col.) E. H. Burba 1st Lt. (Capt.) F. X. Burgasser Capt. (Maj.) Lyman D. Burkett 1st Lt. (Lt. Col.) Jean E. Bush Capt. (Lt. Col.) Robert B. Bush 1st Lt. (Lt. Col.) B. Butler, Jr. Capt. (Lt. Col.) J. H. Buys 1st Lt. (Capt.) J. B. Cagle, Jr. 1st Lt. (Capt.) Marlin W. Camp 1st Lt. (1st Lt.) R. J. Canfield 1st Lt. (Maj.) L. K. Cannon, Jr. Capt. (Maj.) James Cantey 1st Lt. (Maj.) B. D. Capshaw, Jr. 1st Lt. (Col.) R. P. Carlson 1st Lt. (1st Lt.) B. L. Carroll 1st Lt. (Capt.) Edward T. Casey 1st Lt. (Lt. Col.) G. C. Cassady Capt. (Maj.) H. H. Champlin Capt. (Maj.) R. T. Chapman 1st Lt. (Capt.) F. A. Chance, Jr. Maj. (Lt. Col.) J. A. Channon 1st Lt. (Maj.) L. B. Cheek, Jr. 1st Lt. (Maj.) Abb Chrieizberg 1st Lt. (Capt.) H. P. Garke

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(Continued on page 406)

## OBSERVATIONS OF A BATTERY COMMANDER

**I**COMMANDED A LIGHT ARtillery battalion of an Infantry Division which entered combat on the Western Front on the 4th of November, 1944. I joined this battery shortly after its activation and served as Assistant Executive, Executive, and Battery Commander. I had the opportunity of guiding the training of my organization and of watching the results of that training in combat. I now feel that I am prepared to make some observations, the veracity of which my experience has emphasized repeatedly. I shall discuss them under the headings of leadership, training, morale, discipline, standard, tactics - factors that determine success or failure in battle.

Leadership. Leadership in the American Army-especially at the level of the battery commander — is based on example. Leadership based on example is the only means to guarantee respect, without which leadership does not exist. Setting an example involves two things: first, the mental and physical ability to lead others; and secondly, the character and conscientious attention to duty which demands that the leader himself adhere strictly to the orders he issues.

The American soldier is intelligent. You cannot fool him. He demands two things of his officers: first, that they know their business; second, that they exact obedience to orders. This is the proper approach to genuine goodwill and loyalty. To seek popularity outright by relaxing orders for fear of offending is one of the worst mistakes an officer can make. Men quickly sense this weakness.

Leadership is a *fair and square policy*. Treat all men alike; do not relax orders or favor any individual or any group. To practice favoritism is to put

command on a personal basis. To do that is to lose the respect of all.

Nothing is quite so sobering or satisfying as the responsibility and privilege of commanding a battery of American soldiers. This young commander has learned quickly and well the immutable principles of leadership. Artillerymen, old and young, will benefit by reading his observations.

Captain Norris graduated from West Point in January, 1943. After finishing a battery officer's course at the Field Artillery School, he was assigned to Battery "C," 379th FA Bn, where he served as motor officer and battery executive officer before becoming battery commander in February, 1944. His battery entered combat in Holland with the 102nd Infantry Division on 4 November 1944, and was on the Elbe River on V-E Dav. He was awarded the Bronze Star Medal for meritorious service during the period he was in combat. Recorded originally merely as a matter of personal interest in preserving impressions while still fresh in his mind, Captain Norris' observations reflect throughout a strong and justifiable pride in his unit and in soldi-ring-the keys, as he so rightfully observes, to morale and discipline. Captain Norris is serving presently as S-2 of 1st Infantry Division Artillery in Germany.

Leadership is *diplomacy*. One must learn to give orders in a manner that does not offend but inspires, does not accentuate the element of rank but elicits cooperation. The American

#### By Captain John J. Norris, FA

soldier is a citizen of a free country who is giving the better years of his life to a duty demanded by his country. He wishes to sacrifice no more of his individuality and civil rights than are necessary. To be unnecessarily harsh and crude in giving orders is detrimental to the best interests of the purpose intended. This does not mean that a forceful manner is not required at times.

Leadership is *personal interest in your men*. Show them you are concerned in each one individually. It tends to relieve the feeling that is apt to grow among enlisted men that they are merely a group of underprivileged whom the officers enjoy ordering around.

Leadership is *psychology*. A commander must quickly sense the feelings of his men and readily grasp the remedy. He must pick up misunderstandings of orders, dissatisfaction with policies. He must single out the men who are discontented and work on them. Such men must be handled intelligently.

Leadership is *orientation*. Much of the unpleasantness of a distasteful order vanishes if the man understands the reason behind the order. Take pains to have your men understand your policies, prepare them in advance for orders you anticipate. Get them in the receptive frame of mind. Thorough understanding through orientation produces gratifying results.

Leadership is *versatility*. You must be the driving force when there is unpleasant work to be done, the "heel" that enforces the standards of discipline in garrison, the inspiration in battle, the priest to rend your men in sorrow. Each of these requires that you develop a wide understanding of life and the psychology that governs the soldier's thought and emotion.

Leadership is *enthusiasm, energy, initiative*. A commander must have these qualities to inspire those beneath him.

Leadership is *good judgment*. Daily there are decisions to be made that require good sound judgment. On the battlefield a commander is frequently called upon to make up his mind quickly, but equally there are decisions involving policies and principles that demand more thought. An error in picking your leaders weakens your organization and calls for future unpleasantness.

Lastly, leadership is *the ability to "get along" with your associates*. Many officers have forced the Army to deny them the best use of their abilities because of their lack of effort to work with other members of a team. Teamwork, cooperation, and coordination are essential to success in combat.

Training. It is my firm belief that the standard of success of a unit against the enemy is a direct function of the quality of training in the zone of the interior. True, it is frequently necessary to eliminate dead wood, to relieve officers and noncommissioned officers who lack the mental alertness, the physical stamina. moral courage, the aggressiveness that leads to success in battle. But among the men you have trained will spring the vigorous, fresh leadership which has been awaiting its chance.

In many ways the commander's greatest test comes in the training period. In spite of all, men will not understand the full reason behind orders given. Obviously, it is not the popular thing to correct a man for not wearing his steel helmet when there are no shells about. But the firmer and more determined a commander carries out his training mission the more he contributes to later combat success, particularly in the saving of lives lost. This does not mean that time should be spent unnecessarily, but it does mean that the time taken should be utilized in intensive work. The commander must have the guts to do the right thing in the face of much opposition from those who are either shortsighted or less interested in their duty than he. Commanders who pushed training intelligently and relentlessly are deserving of greater credit than many received for outstanding service to our country.

*Morale*. Morale is a factor which is created by circumstance. Morale is highest when there is much activity. Morale in our unit was highest in combat on the swift advances from the Roer to the Rhine. The men were occupied; each felt that he was contributing directly to the final victory. But during periods of inactivity the soldier begins to think too much about his grievances and is inclined to become involved, hence require disciplinary action.

The first lesson towards maintaining high morale is the provision for keeping the men occupied. This may be done by various means, but must be done. Provide as much recreational activity and variety as possible. The second is to provide the men with all conveniences that the situation will allow. In combat this meant hot meals, lighting facilities, rest passes, and wholehearted cooperation by the officers in an effort to think of ways to make life more livable.

A point of morale arises when a unit breaks away from combat and is placed into rest areas. A commander must gradually break his men once again into the idea of garrison life and the high standards that go with it. The American soldier naturally dislikes many things that go with garrison living such as frequent inspections, police, close order drill. But each commander knows that those things are necessary in order to maintain the discipline, health, and general welfare of his unit. It is a challenge to a commander to use his tact, ingenuity, leadership, orientation, and diplomacy to get these things rolling with the minimum harassing of his men and sacrifice to their morale.

**Discipline.** A matter of first importance to a commander, it must be kept high at all times. A commander must always be on the alert to detect laxity in discipline. When the discipline becomes lax the unit is on the road down.

Discipline may be defined and is defined quite differently by different

individuals. I have heard battery commanders say, "We don't salute, yet we have the best discipline in the division." I have also heard enlisted men call officers by their first names, as a general policy, when in combat. Common danger certainly draws men closer together, but I do not believe this is the correct approach to good discipline. True, some officers do not need the Army Regulations and Courts-Martial Manual to establish their authority. This is ideal, but even under these conditions a commander makes a mistake to invite familiarity. It may work with one officer, but it does not work with all. Invariably some men will abuse the privilege; there is meaning in "familiarity the adage, breeds contempt." A commander who has the spontaneous respect of all his men can easily insist and obtain the essentials of military courtesy which always mark the disciplined unit.

In combat, then, discipline can be maintianed by military courtesy applied practically and sensibly, but applied—and sanitary living. Insist constantly on personal cleanliness, clean clothes, sanitary quarters, haircuts, wellkept materiel, neatness and orderliness everywhere to the very limit the situation will permit.

Like training in general, if discipline is well established in the zone of the interior, it will present no problem in combat. I seldom found it necessary to raise my voice overseas and used my battery punishment book only once.

The theory behind good discipline is to catch the little things. Never let them slip past you. If you do, you will soon have serious violations of orders on your hands, requiring unpleasant action that breeds bitterness and constitutes a detriment not only to the individual's record but also to your organization. Psychologically, a commander must know when to cease corrections to avoid harassing. He must always commend good work, be pleasant, and show interest in the men. But never let the discipline slip. Keep those hats on straight, clothes buttoned. It keeps the men in the habit of obeying orders and the officers in the habit of performing their duty. Make corrections right now, when you observe the need.

Strangely, perhaps, and most certainly, *good discipline* causes free men in uniform to fight willingly—with spirit, determination, initiative, and success.

**Standard.** This is the factor that separates the superior officer from the average and the successful unit from the mediocre. The higher the standard, the more successful the unit. And it is the commanding officer who sets that standard and maintains it. A unit is a measure of the man who commands it.

The unit commander must have the proper conception of a high standard in order to pass it on to his officers and men. It is of first importance, of course. that the officers-the leaders-be instilled with a high standard. Effort is made to accomplish this very important purpose at Officer Training Schools, but there is not sufficient time there to inculcate ideals in addition to putting across the technical military knowledge that must be acquired in a limited time. Therefore this responsibility of training junior officers devolves upon the commanding officer. Nothing is finer than for a young officer to have the right type of commander.

Units with high standards are easy to spot. It is generally true, moreover, that a unit whose standards are high one particular line along are universally high. And the level of success attained in combat reflects, almost universally, the standard attained in the training in the zone of interior. Demand the highest standards in police, appearance, discipline, sanitation, and training. Have a better outfit in every way than the next one down the line. To have a winning team is to have pride, high morale, and spirit. In war we must win; we cannot tie or lose. And it is high standards, more than anything else, that results in the pride, the spirit, and the determination that brings victory on the battlefield.

*Tactics and Miscellaneous.* The battery commander is seldom concerned with tactics. But here are some ideas that I have found worthwhile.

*Be aggressive*. This factor is vital to success. The commander must be aggressive himself and he must instill this spirit into each and every man and officer.

Plan ahead. Never go into any undertaking poorly prepared. As far as possible detailed reconnaissance and plans should be made to insure the coordination of all elements of one's command. Above all, do not take anything for granted. I repeat, do not take anything for granted. There is no substitute for personal checking. Ask questions. Find out for yourself if your men know what their business is and that orders are being carried out. Do not go about a job so hastily that it cannot be well planned and Incidentally, planning coordinated. ahead does not stifle initiative; it stimulates it.

Avoid hasty decisions. That is the quickest way to lose confidence and many lives. Always think out your decisions carefully. Careful thought prevents frequent changes in orders which are demoralizing and inspire a lack of confidence in the commander. Further, be cautious when the situation allows. This will help to build up the confidence of your men for aggressive action when caution—as it must sometimes—be cast aside.

*Pick the right men.* You will get the job done better and save lives. Do not send four men up with a forward observer if three will do.

Select positions carefully. It means the safety of your men as well as the accomplishment of the mission.

*Command Your Battery*. Don't let anybody run your battery for you or make decisions for you that you are in a position to make yourself. I firmly believe I would have lost fully one fourth of my battery had I allowed others to change my decisions.

The battery commander — the company commander—is the man to whom so much is owed. It is he who is charged with the execution of orders. He is the man who has supplied the driving force to Victory!



#### OF MORE THAN PASSING INTEREST

Happy Birthday. The Air Training School at Fort Sill was four years old on June 6th. The School received a certificate of merit for its outstanding safety record: one fatality in over 200,000 flying hours.

Auspicious (?) Birth. Ravaged by years of war and enemy occupation, its economy disrupted and capital in ruins, its treasury empty and people hungry these were the grim internal realities at the birth, on 4 July 46, of the new Philippine Republic. Long on the love of liberty but short on experience in selfgovernment, the problems confronting the Filipinos are the equal if not greater than the problems confronting the 13 American States 170 years ago. Certain to help them, the American people also wish the Filipinos strength and Godspeed in meeting the challenge of their future.

**AGF Board No. 4.** The CG, AGF, has announced the establishment, at Fort Bliss, Texas, of the Antiaircraft and Guided Missile Center, and Army Ground Forces Board No. 4. Major General John L. Homer will be in command.

PermanentGenerals.Congratulations to former artillerymen:Generals Jacob L. Devers and Thomas T.Handy, recently confirmed as permanentMajor Generals, USA; LieutenantRaymond S. McLain (President of ourAssociation), recently confirmed as apermanent Brigadier General, USA.

At Long Last. According to official communications published in the May-June, 1946, issue of the Cavalry Journal, the President-approved Simpson Board recommendation to merge the Cavalry and Armored Force into a single Armored Cavalry arm confirms, in principle, the recommendation made by the Chief of Cavalry over six years ago. Outstanding lesson for soldiers today, quoted in the above-mentioned correpondence from a report of the Chief of Infantry in opposition to the establishment of a separate Armored Corps: The fallacy of shaping organization on the basis of weapons, rather than adapting weapons to the mission, is a constantly recurring one.

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1st Lt. (Capt.) John R. Guthrie Capt. (Lt. Col.) W. A. Hadfi Capt. (Lt. Col.) B. E. Hagen 1st Lt. (1st Lt.) N. R. Haley 1st Lt. (Maj.) J. B. Hallums 2nd Lt. (2nd Lt.) Luther P. Hampton, Jr. 1st Lt. (Capt.) C. W. Hanchev Capt. (Lt. Col.) James D. Hand 1st Lt. (Maj.) Robert D. Hand 1st Lt. (1st Lt.) G. E. Handley 1st Lt. (Maj.) R. W. Hannah Lt. (1st Lt.) R. H. Hansen Capt. (Lt. Col.) W. B. Hardin 1st Lt. (Maj.) John E. Harding Capt. (Lt. Col.) W. Hardman Capt. (Col.) D. B. Harriott 1st Lt. (Lt. Col.) F. A. Harris 1st Lt. (Lt. Col.) J. H. Harrison Capt. (Maj.) W. E. Harrison 1st Lt. (Capt.) John M. Hart 1st Lt. (Maj.) L. G. Haskell 1st Lt. (Capt.) G. D. Haskins 1st Lt. (Lt. Col.) M. G. Hatch 1st Lt. (Maj.) T. F. Hayes Capt. (Lt. Col.) J. R. Hector Capt. (Maj.) L. A. Hedges Capt. (Lt. Col.) Hans W. Helm Capt. (Lt. Col.) G. J. Helms 1st Lt. (1st Lt.) K. R. Helms 1st Lt. (Capt.) John Hendricks Lt. (Capt.) J. T. Hennessey Capt. (Lt. Col.) C. W. Henry 1st Lt. (Capt.) John F. Henry 1st Lt. (Capt.) Philip B. Henshaw, Jr. 1st Lt. (Capt.) I. C. Hensor, Jr. 1st Lt. (Capt.) C. R. Hiatt 1st Lt. (Maj.) M. D. Hickman 1st Lt. (Lt. Col.) P. S. Hicks 1st Lt. (Lt. Col.) J. F. P. Hill Capt. (Lt. Col.) A. E. Hintz 2nd Lt. (1st Lt.) R. C. Hixon 1st Lt. (Capt.) A. P. Hobrecht 1st Lt. (Lt. Col.) Donald E. Hoffmeister 1st Lt. (Maj.) Julian L. Hogan 2nd Lt. (1st Lt.) W. C. Hoge 1st Lt. (Capt.) E. J. Holmes Capt. (Col.) R. H. Holmes, Jr. Capt. (Col.) J. W. Holsinger 1st Lt. (Lt. Col.) Walter G. Hopkins 1st Lt. (Capt.) B. S. Hopper Capt. (Lt. Col.) C. E. Howard Maj. (Lt. Col.) L. M. Howel Capt. (Lt. Col.) John T. Hoyne Capt. (Lt. Col.) C. G. Hubbard 1st Lt. (Capt.) T. W. Huck 1st Lt. (Lt. Col.) J. S. Hughes 1st Lt. (Lt. Col. W. M. Hughes Maj. (Lt. Col.) L. B. Humphrey Capt. (Lt. Col.) R. C. Humphrey Capt. (Lt. Col.) G. M. Hunt 1st Lt. (Capt.) Paul E. Hunt 1st Lt. (Capt.) John B. Hunter Capt. (Lt. Col.) R. E. Huneycutt Capt. (Capt.) C. W. Hutchins

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2d Lt. (1st Lt.) E. B. Ledford 1st Lt. (Lt. Col.) E. M. Lee 1st Lt. (1st Lt.) O. W. Lee, Jr. 1st Lt. (Maj.) R. Leffers, Jr. 1st Lt. (Lt. Col.) R. C. Leib Capt. (Lt. Col.) H. E. Liebe Capt. (Col.) David C. Lewis 2nd Lt. (1st Lt.) R. B. Lewis 1st Lt. (Maj.) Grady F. Lilly 1st Lt. (Capt.) M. L. Lindmark 1st Lt. (Capt.) R. E. Lipscomb 1st Lt. (Maj.) Norval M. Locke Capt. (Lt. Col.) A. R. Lolli 1st Lt. (Maj.) James W. Love 2nd Lt. (1st Lt.) Walter C. Lowry, Jr. 1st Lt. (1st Lt.) Lee R. Lucas 1st Lt. (Capt.) W. J. Lueck 1st Lt. (Maj.) John W. Lundberg, Jr. 1st Lt. (Lt. Col.) C. J. Lutz 1st Lt. (1st Lt.) James W. Lyle 1st Lt. (Lt. Col.) John R. Magnusson 2nd Lt. (1st Lt.) Nelson A. Mahone, Jr. 1st Lt. (Maj.) R. C. Maling 1st Lt. (Capt.) J. P. Mallett Capt. (Lt. Col.) Thomas R. Malone, Jr. 1st Lt. (Lt. Col.) J. D. Marinelli 1st Lt. (Capt.) R. G. Marriott 1st Lt. (Maj.) R. J. Mattell 1st Lt. (Maj.) Allen C. Martin Capt. (Lt. Col.) G. W. Mason 1st Lt. (Maj.) C. H. Matchette 2nd Lt. (1st Lt.) Stanley R. Mathews, Jr. 2nd Lt. (Capt.) W. P. Mattox Capt. (Maj.) Henry H. Mauz 1st Lt. (Maj.) Rocco F. Meconi 1st Lt. (Capt.) D. I. Medley Capt. (Lt. Col.) C. H. Meek 1st Lt. (Capt.) Walter E. Mchlinger 1st Lt. (Capt.) Arthur C. Meier 1st Lt. (Capt.) F. C. Melton, Jr. 1st Lt. (Capt.) R. H. Mengel II 1st Lt. (Capt.) J. H. Merriam Maj. (Lt. Col.) C. E. Merritt 2nd Lt. (1st Lt.) K. D. Mertel 1st Lt. (Capt.) A. C. Metcalfe 1st Lt. (Maj.) G. F. Meyer, Jr. Maj. (Lt. Col.) E. L. Mickelson Capt. (Lt. Col.) Emery D. Middleton 1st Lt. (Maj.) A. W. Milberg 1st Lt. (Maj.) James E. Miller 1st Lt. (Maj.) Josiah B. Miller 1st Lt. (1st Lt.) R. B. Miller 2nd Lt. (2nd Lt.) R. D. Miller 1st Lt. (Lt. Col.) S. T. Miller 1st Lt. (Capt.) F. G. Millhouse 1st Lt. (Lt. Col.) F. B. Mills 1st Lt. (Lt. Col.) E. M. Minion 1st Lt. (Capt.) R. T. Minson 1st Lt. (Maj.) G. L. Mitcham 1st Lt. (Capt.) A. F. Mitchell 1st Lt. (Capt.) M. C. Monroe

Capt. (Lt. Col.) R. H. Moore

1st Lt. (Maj.) Robert E. Moore 1st Lt. (Capt.) W. E. Moore Maj. (Lt. Col.) F. E. Morawetz 1st Lt. (Maj.) A. W. Morey, Jr. 1st Lt. (1st Lt.) L. S. Morgan Capt. (Lt. Col.) R. Morgan 1st Lt. (Capt.) V. R. Moss Capt. (Lt. Col.) M. E. Munson 1st Lt. (Capt.) W. F. Murphy 1st Lt. (Maj.) C. F. Murray, Jr. 2d Lt. (1st Lt.) G. R. Meyers 2nd Lt. (1st Lt.) T. R. MacKechnie 1st Lt. (Capt.) L. P. MacQueen Capt. (Maj.) W. T. McAninch 1st Lt. (1st Lt.) R. B. McBride Maj. (Lt. Col.) W. D. McCahan Maj. (Lt. Col.) G. McClure 2nd Lt. (1st Lt.) J. H. McClurk 1st Lt. (Maj.) J. H. McCord Capt. (Col.) W. A. McCormack 1st Lt. (Capt.) John D. McCormick 1st Lt. (Capt.) L. P. McCuller 1st Lt. (Capt.) M. E. McDaniel Maj. (Lt. Col.) H. McDonald Capt. (Maj.) A. T. McElroy Capt. (Maj.) A. W. McElroy 1st Lt. (Capt.) N. D. McGinnis Maj. (Lt. Col.) D. McGrayne 1st Lt. (Maj.) W. G. McIntire 2nd Lt. (1st Lt.) J. V. McLain 1st Lt. (Capt.) Bill G. McLeod 1st Lt. (Lt. Col.) Wilson C. McNamara 2nd Lt. (1st Lt.) G. F. McSoley 1st Lt. (Capt.) William W. McWhinney 1st Lt. (Capt.) G. E. Nash, Jr. 1st Lt. (Capt.) William G. Nechanicky 1st Lt. (Lt. Col.) William H. Nelson, Jr. Maj. (Lt. Col.) H. D. Nichols Maj. (Col.) Stephen L. Nichols 1st Lt. (Capt.) M. C. O. Nolte 1st Lt. (Maj.) R. L. Norling 1st Lt. (Capt.) Allen H. Nottingham 1st Lt. (Capt.) Delmar L. Oaks 2nd Lt. (1st Lt.) J. V. O'Brien 1st Lt. (Maj.) W. H. O'Connell 2nd Lt. (2nd Lt.) C. D. O'Connor 1st Lt. (1st Lt.) J. F. O'Connor 1st Lt. (Capt.) W. M. Ogara Capt. (Maj.) J. D. Ogletree 1st Lt. (Capt.) Lewis O'Hara 2nd Lt. (2nd Lt.) J. D. O'Neal 1st Lt. (1st Lt.) John S. Oppenhimer 2d Lt. (1st Lt.) M. F. Ormond 1st Lt. (Lt. Col.) Levi G. Orr Maj. (Lt. Col.) H. G. Osborne Capt. (Maj.) Hugh P. Osborne 1st Lt. (Capt.) V. E. Osborne Maj. (Col.) Guy L. Pace Capt. (Maj.) Ralph L. Paddock, Jr. 1st Lt. (Capt.) W. D. Pardue

(Continued on page 429)

## REPORT ON THE FIELD ARTILLERY CONFERENCE

#### By Maj. Gen. Louis E. Hibbs, U.S.A.

IN A LETTER DATED 4 DEcember 1945 The Commanding General, Army Ground Forces, directed that a Field Artillery Conference be conducted at the Field Artillery School during the period 18-29 March 1946. This letter prescribed an agenda of forty-seven questions covering the future of development field artillery organization, equipment and technique for study and formulation of recommendations; each theater and army commander was requested to send a representative capable of expressing his commander's ideas and viewpoint. Pursuant to the provisions of this letter,

The Conference confirmed that most artillerymen favor self-propelled weapons for all but pack and airborne purposes. Included in this article are pictures of our new self-propelled weapons. (See comparative characteristics chart on the following page.) Below, the 155mm Gun, M2, on Motor Carriage M40 (T83).



hundred combat one and two experienced officers. including representatives of the War Department General Staff, Army Air Forces, Navy, Marine Corps, Headquarters Army Ground Forces, seven armies, and all components of Army Ground Forces. assembled at Fort Sill and studied controversial questions, arrived at conclusions. and submitted recommendations. It is believed that their efforts will aid greatly in the formulation of a progressive program for future development of the field artillery.

The conference group was organized into four committees: organization. equipment, technique, and new developments. Each committee was assigned specific questions on the agenda for study and formulation of recommendations. These recommendations were then presented to the conference group for discussion. Each member of the conference submitted his opinion by answering a questionnaire pertaining to each subject under discussion.

#### CHANCES RECOMMENDED

The following recommendations of the ninety-three voting members are of particular interest to field artillerymen and others interested in the Army of the future.

**Organization.** The conferees feel that there is a need for more medium battalions in the division artillery of both the infantry and the armored division.

Eighty-two officers recommend more medium battalions in infantry divisions. The majority favor one additional battalion.

Eighty-eight officers recommend either medium or heavy artillery (155mm gun SP) in armored divisions. The majority of officers believe that the



Commandant of the Field Artillery School from August, 1945, to June, 1946, which included the period of the Field Artillery Conference here discussed. General Hibbs has recently been assigned to duty overseas. His replacement as Commandant had not been announced as this issue went to press.

appropriate weapon is the 155mm howitzer SP.

The number of guns per battery caused much discussion. The consensus of opinion is that all light batteries should have six guns, and that medium and heavy batteries should undergo tests to determine the optimum number.

Th conference favors the consolidation of the antiaircraft, field, and seacoast artillery under one "artillery" arm.

The artillery division is a controversial subject. All officers agree that some change is necessary but feel that the flexibility of the present organization must not be affected. Fifty-seven officers favor the artillery division. Sixty-six think that the commander of this division should have the rank of major general.

The conference opinion is practically unanimous for the augmentation of the observation battalion to include a third battery, a radar platoon per battery, and a larger survey platoon. These changes would enable the observation battalion to cover the corps front more effectively, and to be capable of first order triangulation and traverse.

There is a wide divergence of opinion regarding the number of forward observers required except in the divisional light battalion for which eighty officers favor nine. The basis of this recommendation is one forward observer per rifle company. The general trend is toward an increase of the number of forward observers for all types of battalions.

The majority of the conference feel that there is no need for an artillery regimental organization in the infantry division unless the artillery is increased to more than eight battalions.

Radar countermortar organizations, organic both in the division artillery headquarters and in the light battalions of the division artillery, are recommended by ninety members.

*Equipment.* One hundred per cent self-propelled artillery is the ultimate goal in field artillery equipment except pack and airborne artillery, according to two-thirds of the conference group.

The retention of the 75mm pack, 105mm, 155mm, 8-in, 240mm howitzers, and the 155mm gun is desired by an overwhelming majority of the conference group. They favor the continued development of the 8-inch gun.

One half of the conference group favor the continued development of either the 240mm gun or 280mm howitzer. The continued development of either the 24-inch howitzer or 36-inch mortar is equally favored. The development of the 90mm dual purpose HV or 105mm gun is considered advisable by a slight majority.

Ammunition trains in heavy artillery battalions are favored by eighty-five officers.

Wheeled vehicles as prime movers for towed light artillery are desired by seventy-six officers.

Full track laying prime movers only for towed medium or heavy artillery are desired by eighty-eight officers.

An improved incendiary shell for all calibers is recommended by eighty officers.

*Technique.* The organization and technique desired for aerial photographic requirements was considered by the conferees.

At least seventy-five officers recommend that the army select photos at tactical command reconnaissance airfield, and print and distribute photos desired for artillery use; that equipment and personnel for taking, developing, processing, and printing photos be provided down to and including division artillery headquarters; that P I teams be added to army artillery sections, corps artillery headquarters, and division artillery headquarters.

The standardization of counterbattery technique and its inclusion in training literature is deemed necessary by eightythree officers.

Further development for night illumination and adjustment with searchlights and illuminating shells is recommended by ninety-two members.

#### **DEVELOPMENTS RECOMMENDED**

In considering what, if any, calibers of recoilless weapons should be developed, the entire conference group recommends the establishment of a continuous research program to eliminate or reduce the disadvantages of present recoilless weapons, to investigate the German experimental breech reaction chamber types, and to apply the recoilless principle in combination with the recoil. counterrecoil type carriage.

In the field of rockets and guided missiles all conferees desire that requirements be established and that extensive research be initiated.

Seventy-five officers recommend development of free rockets of extreme long range. A super heavy artillery missile is desired by eighty officers.

Eighty-two officers recommend a

#### COMPARATIVE CHARACTERISTICS OF

Item		105mm How M4 on Motor Carriage M37	M1 on Motor Carriage M41	155MM Gun, M2, on Motor Carriage M40 (T83)	on Motor Car-	240mm How M1, on Motor Carriage T92
Class		Standard	Standard	Standard	Standard	Limited Procurement
Equiva	lent Caliber	4.13 in	6.10 in	6.10 in	203.2mm	9.45 in
1Maxia (Yard	mum Range s)	12,205	16,355	25,715	18,510	25,255
	Model No.	M4	M1 M2 <sup>2</sup>	M2 M4 <sup>2</sup>	M2 M4 <sup>2</sup>	M1 M2 <sup>2</sup>
*	-E Calibers	22.5	23.0	45.0	25.0	34.0
Barrel Assembly	Overall (inches)	101.4	149.2	277.37	202.5	331.0
	Maximum Pressure (lbs/sq in)	30,000	32,000	40,000	33,000	36,000
-	<sup>3</sup> Breech block and firing mechanism	HSW CP M13	IS PH CP M17	IS PH CP M17	IS PH CP M17	IS PH CP M17
	Model No. and Type		M6 Hydro-Pneu Variable	M21 Hydro-Pneu Variable	M23 Hydro-Pneu Variable	M8 Hydro-Pneu Constant
Hembl	Number of Cylinders		3	3	3	3
Recoil Assembly	Length of Recoil (in)		41-60	33-65	36-60	60
Reco	Recoil Liquid (Pints)		48	120	120	98
	Gas Pressure (at 70° F)		1500	1820	2000	1400
	S Min Max	-178	89			0
	Mils)	+800	+978	+978	+924	+1155
	Handwheel		200	13.1	13	10
	g Type	Pedestal	Pintle	Pintle	Pintle	Pintle
	Max (Mils) Mils/Turn	800	653	640	504	426
Carriage	E Mils/Turn Handwheel			10	10	8
	Trast					
	Equalizing Mech					
	Equilibrator	Spring	Spring	Pneu	Pneu	Hydro-Pneu
	Brake Actuation	Vehicular	Vehicular	Vehicular	Vehicular	Vehicular
	E Type & Size	e Track	Track	Track	Track	Track

guided missile with a range up to 40,000 yards.

A majority of conferees recommend that present fire direction equipment be improved and a mechanical data computer developed.

To improve accuracy, the conferees recommend that a new technique be developed or the present technique of calibration be improved to increase the effectiveness of artillery fires.

Further development in propellants, fuzes, and explosives is desired to include possible application of atomic energy, reduction of probable errors, and improvements of present types.

*Priority for Developments.* A study to

NEW SELF-PROPELLED WEAPONS

		105mm How. M4 on Motor Carriage M37	M1 on Motor Carriage M41 (T64E1)	M2 on Motor Carriage M40 (T83)	on Motor Car- riage M43 (T89)	240mm How M1 on Motor Carriage T92
ment	<sup>4</sup> Telescope	M76G P-M12A2	P-M12A6	M69F P-M12 E-M16A1F	M69G P-M12 E-M16A1G	P-12 E- E-M16A1E1
iquipt	Tel Mount	T95 T96	M25	M75 M71	M75 M71	M30 T152
	Instr. Light	M33 M19 M18	M34	M33 M19 M12	M33 M19 M12	M22 M35
	Rn or Elev Quad	T14		M1 (Quad Mount)	M1 (Quad Mount)	M1
	Firing Position	39,500	43,000	83,000	83,000	127,000
ght	Travel Position	39,500	43,000	83,000	83,000	127,000
Pou	Barrel & Breech	0.324	3825	9595	10,240	25,100
zw Maint Dimensions Weights (Travel (Pounds) Position)	At Lunette					
2	Length (inches)	216	240	360	288	384
Fravel Sition	Width (inches) Height	112	112.5	124	124	133
Por	Height (inches)	98	98	130	130	125
	The second secon		85	.85	.85	5
	ate of 05/Min		2	1	1	1 ·
Prime 1	Mover	On Chassis of Tank Light, M24	On Chassis of of Light Tank M24	On Cassis of Tank Medium M4, with Horizontal Volute Springs	On Chassis of Tank Medium M4, with Horizontal Volute Springs	On Chassis of Tank Heavy M26 Modified
ipal	SNL	C-63 G-238	C-39 G-236	D-24 G-232	D-29 G-232	D-31

<sup>1</sup>Ranges listed are maximum obtainable from gun or howitzer. Range for self propelled or tank weapons is that which can be reached with vehicle on level terrain. Effective maximum ranges can be obtained by comparison of probable errors.

6-87

9-350

9.747

6-87

9-335

9.747

9.341

6-82

9-744

"Higher model number of howitzer or gun assembly is that with the M17 firing lock, continuous pull type.

<sup>3</sup>Sliding wedge breechblock (SW), vertical sliding wedge breechblock (VSW), horizontal sliding wedge breechblock (HSW), interrupted screw breechblock (IS), continuous pull firing mechanism (CP), solenoid and percussion hammer (SPH), percussion hammer firing mechanism (PH).

<sup>4</sup>Telescopes: Panoramic (P), elbow (E).

6-76

9-324

Principal Reference

FM

TM

determine the desired priority for the accomplishment of recommendations of covering changes in organization or development of new equipment was conducted by a special committee and the conference group. A table included in the report of the recommendations in order of decreasing urgency as determined by the conference shows the priority ratings. Sixteen projects in receiving the highest ten priority ratings are listed below.

1. Improvement of the VT fuze to contain a controllable arming time or the development of a device designed to arm the fuze only on the descending branch of the trajectory, and to contain a superquick impact element. 2. Continued development of electronic devices for object location and identification.

3. An increase in the number of forward observers in the light battalions of infantry and armored divisions.

4. Improvement of propellants to render them smokeless, flashless, free from noxious fumes, and more uniform in ballistic characteristics within lots.

5. Initiation of fundamental research to improve the flight characteristics of projectiles.

6. a. Development of an integrated system of radios for all arms.

b. Inclusion of PI teams in the Table of Organization and Equipment of corps artillery headquarters batteries.

7. Inclusion of radar countermortar organizations.

8. a. Development of guided missiles, providing for a long range of 150 miles.

b. Increase of liaison officers in the light artillery battalions of the infantry divisions.

9. a. Increase of forward observers in the light artillery battalions, non-divisional.

b. Inclusion of PI teams in the Table of Organization and equipment of army artillery sections.

c. Fundamental research in development of recoilless weapons.

10. a. Manufacture of propellants of more uniform ballistic characteristics with a view to decreasing the number of lots.

b. Inclusion of a long range radar platoon in each battery of observation battalions.

c. Increase of pilot observers in air sections.

#### SPECIAL QUESTIONNAIRE

Certain questions not included in the conference agenda but of interest to Army Ground Forces were incorporated in a special questionnaire for the conference group.

This special questionnaire augmented by certain questions on the agenda was presented to a group of junior officers with combat experience. The purpose was to provide a basis of comparison between the junior officers and the conference group. This junior group consisted of eighteen majors, fifty-one THE FIELD ARTILLERY JOURNAL

Junior Officers

liaison officers. They felt that the light

battalions of the infantry and airborne

divisions should have a total of four;

the light armored battalions should

have a total of three: medium divisional

battalions should have one; non-

divisional battalions should have one

each regardless of caliber; headquarters

of divisional artillery should have two;

headquarters of the group should have

one; and corps artillery headquarters

Conference

should have five.

captains, twenty-nine first lieutenants on duty at the Field Artillery School. Both the junior officers and the conference group were instructed as follows: "If you feel that you are not qualified to answer any part of any question, mark it No Answer. This instruction accounts for the large number of No Answers and increases the value of the questionnaire.

The following chart compares the answers of the two groups to certain of the questions:

#### Questions

2	Vac	No	N/A	Vac	No	N/A
Based on the expenditure of a given number of rounds, is	Tes	NO	IV/A	Tes	NO	IV/A
massed fire better than slow fire on located enemy						
battery positions?	74	6	13	61	16	21
Are we overstressing forward observer methods?	12	68	11	5	85	8
Are we overstressing lateral methods?	16	62	13	42	40	16
In order to reduce the number of cases in which the						
forward or air observer fails to place the center of						
impact of fire on his target, should the FDC prevent						
the FO or AO from going into fire for effect when a						
bracket has not been obtained?	35	38	19	28	56	16
Eighteen members of the conference made remarks to						
the effect that due consideration must be given to the						
experience of and the confidence in the observer involved.						
Should we place more emphasis on employment of roving	69	11	12	50	20	20
guns? Assuming that other instructional material such as the	09	11	12	30	20	28
old Field Artillery Red Book will not be available, do you						
consider the present War Department literature adequate as						
follows:						
a. As a reference manual?	62	11	18	81	11	6
b. For training purposes, such as ROTC, extension						
courses, service schools, etc?	31	38	22	57	29	12

Both the conferees and the junior officers agree that training literature is deficient, in certain matters, mainly: typical examples and illustrative problems; corps artillery and counterbattery technique; intelligence (S-2) training; technical subjects such as supply and maintenance; employment of observation battalions.

The conferees and the junior officers also agree that firing tables should be improved by: larger print, loose leaf binding, waterproof paper; the inclusion of more information concerning the trajectory.

Sixty-two junior officers favor the establishment of an artillery division organization to be commanded by a major general, possibly to replace the present group or non-divisional artillery in the corps; twenty-four are against it.

#### ADDITIONAL RECOMMENDATIONS

A summary of the recommendations and opinions of the conference group on questions not already covered above follows:

**Organization.** The conferees agreed that more personnel are needed in the air OP sections in all echelons and recommended the addition of one officer per plane who will be trained as a pilotobserver.

Conference opinion was practically unanimous in recommending additional

The question of establishing a Target Information Center was considered but the conferees' opinion was unanimous in opposition to this proposal.

In considering the question of maintenance and supply for army ground force air sections, the conferees agreed that using units be responsible for first echelon maintenance: that headquarters of groups, division and higher be artillery, division responsible for second echelon maintenance and supply; and that corps and army headquarters be responsible

for planning and coordination for maintenance and supply operations.

The question of AAA AW units was considered and conferees agreed that at least a battalion should be organic in the division artillery if the three artillery arms are merged and organic in the division if not merged. The conferees recommended no organic AAA AW unit in present nondivisional artillery but agreed that if a new corps artillery organization is established then AAA AW units should be organic thereto.

The conference felt that tank destroyer units as such should be discontinued as an arm and that their mission should become the responsibility of the armored arm. Conferees recommended that an organic T/O antitank officer be provided in the division, corps and army as special staff officer.

With regard to rocket organization the conferees agreed that they should be organized as battalions; in peacetime be provided on the basis of one per corps; and in wartime should be designated as WD reserve artillery, should be assigned to theaters as circumstances require, and reattached down to division artillery for specific missions and then revert to corps artillery command upon completion of the mission.

Equipment. The question arose as to the advisability of having an armored vehicle for forward observers and conferees unanimously agreed that no special armored vehicle be developed for this purpose and that the forward observer habitually be equipped with the same transportation and protection as the supported unit.

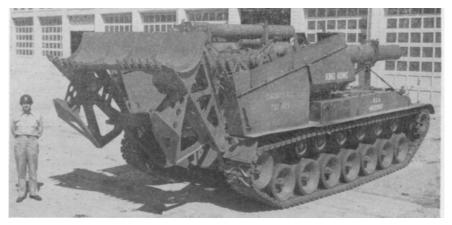
On the assumption that all artillery will not be self-propelled, the conference discussed the preference for wheeled or prime-movers for towed tracked artillery. They agreed that all towed 105mm howitzers have wheeled vehicles as prime movers; that all other towed artillery have full track laying vehicles as prime movers; that armored utility vehicles with splinter-proof armor on light and medium chassis be developed for personnel carriers, executive officer command posts, etc.; that all towed or self-propelled artillery, except 105mm howitzer, have at least one

full track laying ammunition vehicle per battery; that wheeled wreckers (ten ton or comparable) be issued on the basis of one per battalion; that wrecker equipment be developed for each standard tractor chassis, and such full track wreckers be issued on the basis of one (appropriate type) per truck-drawn battalion and one per self-propelled firing battery; that a small track laying vehicle, general utility in nature, four man or one thousand pound capacity, be developed for wire laying, reconnaissance, etc. (weasel type); that a special high speed bulldozer be developed, having controllable tilt and angle and utilizing components of standard tanks and tractors to maximum extent possible. Basis of issue to be four per battalion.

The conference agreed that special ammunition vehicles and trailers were in general unsatisfactory and has recommended that general purpose wheeled cargo vessels and trailers be used. It was further recommended that in self-propelled batteries, self-propelled full track vehicles. capable of transporting ammunition and/or personnel be used; that in truck-drawn battalions the ammunition carriers be one hundred percent wheeled; that in tractordrawn battalions the ammunition carriers be two-thirds wheeled and one-third full track; and that in self-propelled battalions the ammunition carriers be two-thirds wheeled and one-third full track.

The conferees unanimously agreed that page type, lightweight teletype equipment, capable of operation over radio nets or superimposed on field wire telephone circuits, be provided to all field artillery units down to and including battalions. They agreed, however, that the present teletype equipment is not desired by the field artillery.

The question of standardization in shells and fuzes was considered and the conferees almost unanimously agreed that the types of ammunition for any particular weapon be designed to provide identical ballistic characteristics, so far as can be accomplished without sacrificing the effectiveness of any individual type of projectile; that types of shells for a particular weapon be reduced by standardizing base-ejection and/or forward-ejection shell for use as the basic projectile. For special ammunition types such as illuminating, screening smoke,

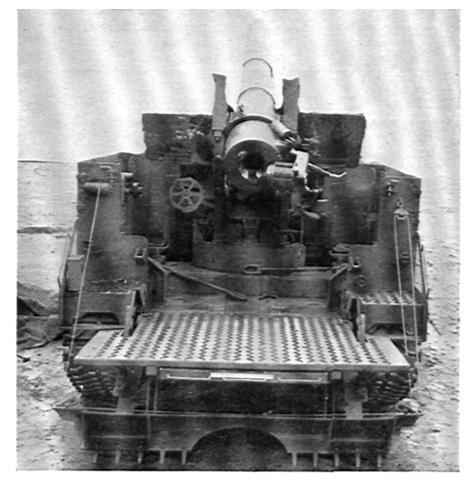


240mm How, Ml, on Motor Carriage T92. The officer standing by the weapon gives a clear indication of the size of this "King Kong."

gas, etc., that surface finish of both shells and fuzes be standardized; that rotating bands be standardized both as to alloy and method of application; that the difference in weight between individual projectiles of a given type be further reduced as much as possible without appreciably increasing the difficulties of manufacture; that all point detonating fuzes be of standard finish, contour, and weight, and interchangeable for all artillery projectiles; that propellant powder be made flashless and smokeless; and that variation between muzzle velocities of various powder lots be reduced.

In attempting to get better all-around radio sets for the artillery, the conference has recommended that a restudy

8-in How, M2, on Motor Carriage M43 (T89)



of the FM frequency allocations to the different elements of the Ground Forces be undertaken with a view to maximum benefit to the combined arms; that effort be made to develop a set with wide frequency coverage and having a 15mile (pack) to 25-mile (vehicle mounted) range, remote control integral with the set, easily and quickly installed, rapid channel selection throughout frequency coverage and having facilities to insure secret transmission. For the forward observer the conferees have recommended a pack set having a range dependable under combat conditions of ten miles; a maximum weight of 25 pounds; selection of all channels assigned to the field artillery; capable of vehicular mounting; a small hand-driven power unit, man packed by one man; and having facilities for secrecy of transmission.

*Technique.* The conferees unanimously agreed that there is no need for further development in ricochet fire but that the method still should be taught in the schools and used in practice.

With regard to the unit of fire the conference has recommended that this term be an arbitrary unit of measure serving as a brevity code for ammunition requirements from a tactical point of



105mm How, M4, on Motor Carriage M37

view and that when once established it be unchangeable and applicable to all theaters and commands.

The conference has recommended a standard doctrine for planning artillery fires when units including corps and armies are involved and that this plan be incorporated in all appropriate field manuals and service regulations.

The question of naval gunfire support

155mm How, MI, on Motor Carriage M41 (T64EI)



came up and the conferees recommended that the artillery officer of each appropriate echelon be responsible for coordinating the plans for the employment of naval gunfire with other supporting weapons in his zone of action; that the technique of adjusting ground and naval gunfire by forward observers and air observers in all services be uniform; that present JASCO be discontinued; that calls for fire during an amphibious operation be direct to designated ships until fire direction center is established ashore, when they would be cleared through this agency; that the use of naval liaison officers will follow the rules applicable for the use of artillery liaison officers of reinforcing artillery units; and that field artillery personnel and selected personnel of other arms be trained in the employment of naval gunfire on ground targets at appropriate schools and training centers.

For use of high-performance aircraft by artillery, the conference has recommended that communications be improved between this type plane and ground agencies and that the term "Arty/R" be adopted as meaning the adjustment of field artillery fire by high-performance aircraft, other present operating procedures to remain as they now are.

The conferees agreed that no special defensive measure should be taken against VT type fuzes but that more emphasis should be placed on the use of overhead cover, concealment, camouflage,

dispersion and the use of cave-type shelters and spider type foxholes in lieu of slit trenches. It was also recommended that experiments be conducted to determine satisfactory modifications of weapons to provide gun shields for towed and overhead cover for self-propelled weapons.

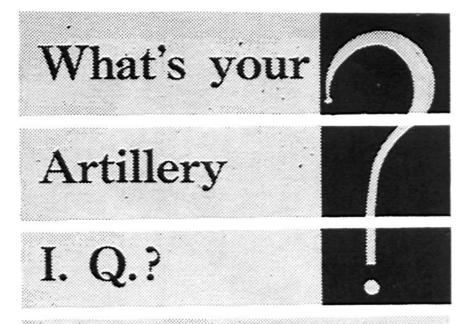
The conference has recommended continued development in the use of gridded photos and has also recommended that necessary personnel and equipment be incorporated in field artillery units' tables of organization and equipment for processing obliques taken by organic means.

The question arose as to the advisability of the Fire Direction Center assuming the direction of fire of infantry heavy weapons. The conference agreed that the functions of the Fire Direction Center should not be expanded to include the direction of fire of weapons of the infantry regiment, and further recommended that infantry personnel be trained to mass their own fires and that means should be provided to the infantry regimental commander to mass organic and supporting weapons.

The conferees agreed that field artillery should broaden its concept of support fire to include short range destruction fire, both indirect and direct by medium and heavy calibers and place the necessary additional emphasis on the technique, organization and equipment for the performance of the mission within the limitations that neither the division artillery nor Corps artillery normally be employed on assault fire missions.

#### **CONFERENCE EVALUATION**

It is the unanimous opinion of the participants that the conference improved their professional knowledge and broadened their concept of the tactical employment of field artillery. A minor percentage only of the participants consider that the conference failed to provide clear cut unbiased recommendations and that the experience of the officers attending was of insufficient variety. All feel that conferences should similar be conducted annually or biennially and that the results should be disseminated to battalion level.



#### TURN PAGE UP-SIDE DOWN FOR ANSWERS!

- 1. Your guns are on your right. The angle T is 300 mils. You measure the compass at the OP to the target to be 1600 mils. The compass from the guns to the target is: (a) 1600 mils; (b) 1900 mils; (c) 1300 mils; (4) 300 mils.
- 2. One fork is equal to: (a) 1 probable error; (b) 4 probable errors; (c) 2 probable errors; (d) 8 probable errors.
- 3. The measured map range from the gun to the base point is 5000 yards. The range corresponding to the adjusted elevation on the base point is 4750 yards. The K from the registration is: (a) —53 yards per 1000; (b) +50 yards per 1000; (c) +53 yards per 1000; (d) —50 yards per 1000.
- 4. Transfers of fire based upon corrections from registration are known as: (a) Metro-transfers; (b) VE-Transfers; (c) K-transfers; (d) Survey-transfers.
- 5. The map shift from the base point to a check point is Loft 364. The adjusted deflection on the check point is Base Deflection Left 356. The deflection correction for the check point is: (a) Left 362; (b) Right 8; (c) Left 8; (d) Right 356.
- 6. An oblique photograph which shows a portion of the sky is known as a: (a) Pin point; (b) High oblique; (c) Mosaic; (d) Low oblique.
- 7. The site from the guns to the target is -15 mils. The elevation to fire on the target is 365 mils. The quadrant elevation to hit the target is: (a) 380 mils; (b) 350 mils; (c) 365 mils; (d) 285 mils.
- 2. The adjusted date to the check point: R100, adjusted elevation 280; the metro corrected data: R95, elevation 270. What is the sign of the VE and the deflection correction change: (a) Minus, R5; (b) Minus L5; (c) Plus, R5; (d) Plus, L5.
- 9. In bracket fire using time shell the height of burst is adjusted by *changes* in (a) Site; (b) Time of burning; (c) Range; (d) Elevation.
- 10. The caliber .50 Machine Gun M2, HB, has a cyclic rate (fastest possible) of fire of: (a) 250 rounds per minute; (b) 450 rounds per minute; (c) 650 rounds per minute.
- 11. The maximum ordinate of the 8-inch gun firing at maximum range (35,490 yards) is approximately: (a) 10,000 feet; (b) 20,000 feet; (c) 30,000 feet; (d) 40,000 feet.
- 12. The 75-mm rifle, recoilless, M20, complete with sights, but without mount, weighs approximately: (a) 50 lbs.; (b) 100 lbs.; (c) 200 lbs.; (d) 400 lbs.
- One weapon, now obsolete, used rollers instead of slides to support the recoilling parts. It was the: (a) 75mm Gun M1897 (Fr.); (b) 75mm Gun M1916 (American); (c) 75mm Gun M2A2; (d) 155mm Howitzer M1918.
- 14. The recoil mecanisms used in our modern Field Artillery cannon were perfected (present day mechanisms have only minor modifications) in the year: (a) 1867; (b) 1910; (c) 1897; (d) 1921.
- 15. Prime cord is also known as: (a) Quick fuze; (b) Underwater cable; (c) Cordite; (d) Detonating cord.
- 16. The 8-inch gun and the 240mm howitzer have the following type equilibrators: (a) Puenmatic; (b) Hydro-pneumatic; (c) Open spring type; (d) Enclosed spring type.
- 17. A desirable probable error in range for an artillery weapon should fall within: (a) 1/16 of 1% of range; (b) % of 1% of range; (c) ¼ of 1% of range; (d) ½ of 1% of range.
- 18. The automatic pistol, caliber .45, M1811A1, is: (a) Gas operated; (b) Blowback operated; (c) Recoil operated.
- 19. The recoil mechanism of the 105mm howitzer mounted on the M37 motor carirage (M37 replaced M7 as standard self-propelled) is: (a) Hydro-spring; (b) Hydro-pneumatic; (c) Hydro-pneumatic variable.
- 20. The unit ground pressure (p.s.i.) of the 240mm self-propelled as compared to the 240mm towed weapon is: (a) One half that of towed weapon; (b) Approximately same as the towed weapon; (c) Twice that of the towed weapon.

ANSWERS: 1. (c); 2. (b); 3. (d); 4. (c); 5. (d); 6. (b); 7. (b); 8. (a); 9. (a); 10. (b); 11. (d); 12. (b); 13. (a); 14. (c); 15. (d); 16. (b); 17. (c); 18. (c); 19. (a); 20. (a).

## **THESE CHILDISH THINGS**

#### By Francis Chase, Jr.

#### **Republished by courtesy of THE MILITARY ENGINEER**

THEIR job is an infinitesimally tiny one. They work with minute tweezers, pin-point chisels, scalpels so small that the naked eye can barely see them, and only the most patientlytrained fingers—working under magnifying glass—are able effectively to wield them.

But the magnitude of the part which they took in prosecuting the war is only now becoming apparent as the veil of security lifts. On June 16, 1944, only ten days after the Normandy invasion began, General Eisenhower enthusiastically wrote of them: ". . . (they) have made a most important contribution to the success of this operation." In fact, the hands which wield these Rumpelstiltskin tools have been mixed up in almost every major operation of the war—on land, sea, and in the air.

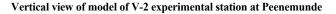
At first glance, the work of the Model Making Detachment, U. S. Army Engineers, seems child's play. When General Bradley first saw the perfect scale, 8-foot model of an LST, which took sixteen men six weeks to build, he laughingly called it a "toy of war." But it was to prove a mighty midget. During the marshalling period for invasion, every unit was up to its ears in its own peculiar loading problem growing out of the fact that each unit had different automotive equipment which prevented standardization of the loading procedures. But it was possible for each troop commander to work out his problems with this LST model, together with model jeeps, command cars, trucks, tanks, and artillery pieces all built to the same scale, well in advance. When the moment for embarkation arrived, loading sequence and storage was predetermined and the embarkation was speedily and efficiently executed.

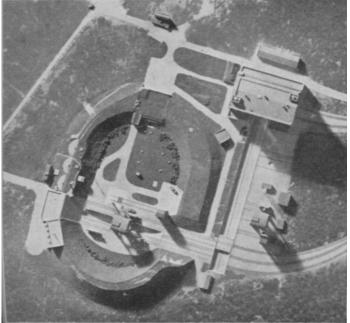
#### PLOESTI

This was a comparatively simple mission for the Engineer Model Makers. The all-out raid on the Ploesti oil refineries by the Eighth and Ninth Air Forces on August 1, 1943, was something else again. Under ordinary circumstances, the fullest aerial reconnaissance would have preceded a bombing mission of such importance. And over such heavily-defended terrain, pilots would have been thoroughly briefed from aerial photographs and intelligence.

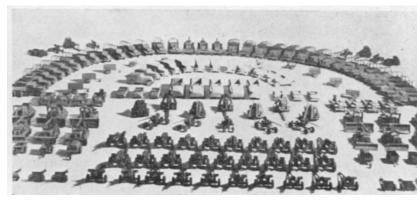
But ordinary circumstances did not obtain. These installations, vital to the German war effort, would be defended with everything Jerry had. Thus its success depended upon complete surprise, a factor which eliminated the possibility of the usual reconnaissance sorties which would have aroused suspicion and put the enemy on their guard. Under these special circumstances, the Model Makers were called upon to construct a complete, accurately-scaled model of the city of Ploesti: its approaches, and orientation points including the seven refineries with their sixty specific pin-point targets.

Source material was scanty. There was one small town plan, an aerial view of one refinery which included an oblique view of part of the city, a scattered





Equipment models used for landing studies of LST



assortment of photographs made by British tourists before the war, picture postcards, and tourist folders, all collected at the Admiralty Library and at Oxford. From the aerial view (then two vears old) the heights of buildings and structures had to be estimated from the shadows. There was one additional item of extreme value. This was a photograph of storage tanks, which were a prime target, taken from a tower in Ploesti by a British Intelligence Agent and smuggled back to London. Supplementing the visual material were interviews with British civilians who had visited or worked in the refineries and oil fields there before the war and with a British Army Officer, then stationed in Washington, who had managed one of the refineries before the British were forced to withdraw their nationals from Rumania. This officer was flown from Washington to Henley to provide what information he possessed.

From the date the order was placed, a week was allowed for completion of the master model and two copies. The two copies were essential because the flights were taking off from two separate fields, one in Benghasi, the other at Cyrenaica. By flying the models to the airfields, the deadline was successfully met and, in pre-flight briefings, the five flights which later left Ploesti's oil installations a blazing ruin were led in onto their targets from this miniature model of the city.

#### PATTERN MAKERS ARCHITECTURAL

Early in the war, the British came to understand the importance of models in briefing troops for action in peculiar or unfamiliar terrain. The RAF was the first branch of the service to make use of models in briefing for bombing raids, a section known as Pattern Makers Architectural having been set up shortly after the fall of France in 1940. In the spring of 1942, when Lord Mountbatten took over command of the Commandos from Admiral Keyes, he decided to experiment with work of the Pattern Makers in planning and briefing for Commando raids. One of the earliest models prepared for this use was that of the whale oil storage facilities near Trondheim, Norway, raided by the Commandos in their early days. But it

was the raid on Bruneval which completely sold the model idea to the British High Command.

eclectic. In an rambling old farmhouse near Bruneval, in the Pas de Calais area, the Germans had set up a huge radar installation. Dieppe was not far in the future and destruction of the radar station was a prerequisite of that raid's success. But the installation at Bruneval presented peculiar and almost insurmountable difficulties. In the first place, it was a highly guarded installation because of its very nature: secondly, two German regiments were bivouacked in the same area, adding to the potentialities for failure in event of an alarm or mis-step; and, lastly, to reach the farmhouse it was necessary to ascend a steep, single-file pathway up an almost sheer cliff.

If a raid on Bruneval were to have any chance for success, the troops making the raid would have to be given the most detailed layout of the farmhouse and the area surrounding it. The area surrounding it was no great problem except for the RAF pilots who flew photographic sorties over the flaksheltered area at dangerously low heights. From their photographs and maps of the area available, the Pattern Makers would be able adequately to reconstruct the landscape to scale. But the interior of the house was more difficult. Everyone who had ever visited in the Pas de Calais area and who could be located by the War Ministry was interviewed. The exterior of the house, as seen from photographs, was shown them and-from the placement of windows, doors, et cetera-an effort was made to reconstruct the farmhouse's interior on the basis of what visitors to Calais had seen in other, similar houses there. From this model, when complete, the Commandos raided the installation, killed the entire personnel of the radar station, destroyed the equipment, and returned to England without evoking an alarm from the two regiments bivouacked nearby.

The most amazing part of this highly successful raid was that, when the farmhouse was reached and the Commandos entered it, they found that only one doorway in the meticulously built model failed to correspond to the actual interior arrangement of the real house. All other details were exactly as the Pattern Makers had depicted them!

It was shortly after this, in the spring of 1942, that General Brehon B. Somervell, visiting England to ascertain requirements for a proposed European Campaign, then under preparation. visited Lord Mountbatten, heard of the remarkable achievements of the Pattern Makers and listened to Mountbatten's complaint that the severe shortage of personnel equipped to carry on such work was handicapping operations. General Somervell promised that American personnel would be sent to England to aid the RAF for the time being and to serve as a nucleus around which a similar unit could be built in the United States Army.

The spring was spent in combing the Army for commercial artists, portrait and landscape painters, sculptors, topographers, topographical draftsmen, cartographers, photo interpreters, cabinet makers, sheet metal workers — all needed in model making—or for men



Applying trees and hedges with a compressed extrusion gun

Making plaster buildings for model of Belgian coast



who could be trained to do these highly specialized tasks. On July 12, 1942, the first detachment of twenty-one American soldiers arrived in England, were sent immediately to the RAF Intelligence Training Unit and Photo Interpretation Section, housed in the home of Lord Harcourt at Nuneham-Courtenay, where the Pattern Makers were located.

Training with the RAF Pattern Makers, so closely linked to the pilots making raids that errors brought derisive taunts, was excellent for the untrained Americans. They early learned that inaccuracies in research, execution, and precise modelling were paid for in blood. And they were duly impressed with the critical, painstaking effort that went into preparation of the models for the Dieppe Raid, soon to be launched. One of their first jobs (solely for practice because the results could be easily checked) was the construction of a model of the town of Newbury entirely from aerial photographs. In back of the town is an old fort with a sloping ramp, so gradual that the 20-foot differential between one end and the other is barely perceptible. This was a super-critical test of the ability of the Americans to calculate exact heights of structures from shadows alone, and the results were so accurate that they were immediately set to work on actual models of the landing beaches in North Africa for the impending campaign. In all, the Americans built some fifty models of the towns and beaches where American troops would operate in North Africa in scales of 1:2,500, 1:5,000, 1:10,000, and 1:50,000. The models, and their copies were used first by the highest headquarters in planning the overall operation, then by Army, Corps, and

Division in planning their local tactics. Photographs of the models, both vertical and oblique, were distributed down to the smallest units so that they were perfectly familiar with the areas in which they would land long before arriving off the African coast.

#### THE MODEL MAKERS

When the models were ready for North Africa, the Model Makers (for by now they had been formed into a detachment of their own, working in conjunction with the RAF Pattern Makers) were put to work on models of the Normandy beaches for an invasion which was still almost two years distant. Off and on between emergency priority jobs, the Normandy invasion models were to consume many long and wearisome hours. Models were prepared, and then corrected as new sorties flown revealed new fortifications and modifications of the old, and revised to include the placement of new underwater and beach obstacles as Jerry became more and more anxious about growing Allied strength in the United Kingdom. In all, the Model Makers built 398 different models for use in the invasion.

As the work of the Model Makers became known throughout the Army and demands increased from field commanders and the Eighth Air Force upon their product, new men were sought out and rushed to England. They came from the studios of Hollywood, from commercial model-making shops such as that of Norman Bel Geddes, from every walk of American life. One sculptor was flown from the Aleutians to Henley-on-Thames, where Model Makers were now housed in the Phyllis Court Club, one of the most famous rowing clubs in England. They worked on matters of the greatest secrecy; each man was carefuly screened, his background searched. Barbed wire surrounded the club, they worked under a security guard which admitted no one to the grounds—no matter who without a pass from the Air Ministry.

The detachment was commanded by Maj. Harrison P. Reed, a former instructor in architecture at Cornell. In its ranks were such people as Tech. Sgt. William H. Dennerlein, of Bayside, New Jersey, from the studio of Norman Bel Geddes. There was a quiet, curly-haired potter who, from his own shop in Fullerton, California, designed and executed pottery sold in leading shops throughout the United States. This was Staff Sgt. Myrton N. Perkiss. There was Tech. Sgt. Robert H. Plimpton, top-flight cartographer, who had worked on the 65-foot relief map of the United States which Babson Institute prepared for its economic studies. There was T/3 Richard B. Rush, slow-talking woodcarver from Glen Ellyn, Illinois, whose wooden caricatures of famous people bring huge prices in the United States. Every man is a specialist, every man has some definite contribution to make to the organization or he has no place in it. Converting a few maps, aerial photographs, and picture postcards into accurate working models of towns to be assaulted or installations to be bombed-accurate enough to depend and plan upon-is no job for the unskilled and the careless.

#### **SPECIAL PROJECTS IN 1943**

Work on the Normandy beaches was halted while models of landing points and objectives in Sicily, Italy, were prepared. And after that, there were still other interruptions. That year, 1943,



resources of the combined British-American Air Forces were severely limited and the tremendous, all-out air raids which would be started toward the end of the year were impossible in the summer and early fall. The policy of the Air Forces, then, was to strike at highpriority production projects in Germany to effect the heaviest damage to enemy production with our limited means. A top priority was given the ball bearing plant at Schweinfurt, and the Model Makers were called upon to build a complete, detailed scale model of that city which was used in briefing pilots on the first raid and those which followed from time to time as repairs were made to the plant. Their source material was the usual town plans, maps, photographs, aerial photographs, and reports of intelligence agents and underground informants.

And then came the *Tirpitz* job. Shuttling back and forth between three Norwegian fjords — Trondheim, Bogen, and Alten — the German battleship *Tirpitz* avoided the Admiralty greyhounds assigned to hunt her down in the misty, storm-swept seas, thus immobilizing a large part of the British Navy at a time when it was badly needed to escort convoys across the sub-infested Atlantic.

To guide the Royal Navy in its efforts to nail the *Tirpitz* in one or other of the three fiords where it sought shelter, the Model Makers were asked to make exact replicas to a large scale (6 inches to a mile) of each of these fjords, complete to the mountainous approaches from the landward side and the harbor approaches from the sea, with their inevitable submarine nets. These were built, turned over to the Royal Navy, studied by the Admiralty and, shortly afterwards, British midget submarines sneaked into Alten Fjord, crippled the Tirpitz so that movement was impossible. From that day on, the doom of the Tirpitz was sealed. Whenever it seemed that hardworking German naval personnel had healed the wounds of the stricken ship, the Fleet Air Arm, still using the model for briefing and operating from aircraft carriers, would attack anew and open fresh wounds. Despite this, however, the Germans succeeded in towing the Tirpitz to Tromso, where finally the RAF, in a Removing a pressing in synthetic rubber from a master model. This pressing, cured under infra-red lamps (visible above), can be folded or rolled into a small package without damage. Such models can be made cheaply and in quantity and should have wide application in the post-war world.

massed raid with 12,000-pound blockbusters, finished the job forever.

The Royal Navy was so impressed by the work of the Model Makers and their use in operations that, at the instance of Comdr. A. R. MacDougal. Royal Navy. a request was made by the Admiralty for assignment of an officer and noncommissioned officer from the United States Engineer Model Makers to serve as instructors to selected Fleet personnel in the making of simple models, a request which was complied with by the Americans who, in their turn, had received their initial instruction from the RAF Pattern Makers.

One of the most serious blows struck German war industry was landed against the vital Ruhr area on the night of May 16-17, 1943. Destruction or damage of the Ruhr River dams would cripple industry by limiting hydro-electric power, the generation of steam power, and the flow of river traffic on the Ruhr, waterflow being controlled from the vast reservoirs behind the dams. A dam is a difficult bombing target, especially when water is backed up against it. But a bombing method had been worked out which had reasonable prospects of success if the bombardiers were thoroughly familiar with their targets.

Again the Model Makers were called upon to deliver, in a short period of time, exact models of the Sorpe, Mohne, and Eder dams. The result of the raid, flown by the Royal Air Force from England, was destruction of two of the dams, and serious damage to the Eder, largest dam in Europe. The long-range result was that German industry suffered a blow from which it never completely recovered and the war was immeasurably shortened by the action. Krupp, himself, when captured, credited the failure of German industry to a lack of water essential to the manufacture of steam. He particularly noted the effect of the destruction of the Ruhr dams in hastening German collapse.

#### **V-BOMB OPERATIONS**

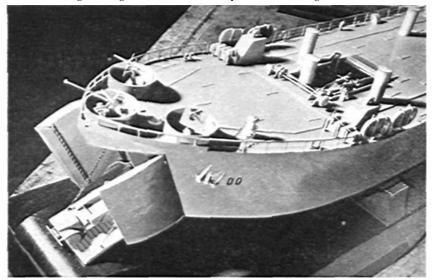
But perhaps the most important contribution of the Model Makers came in their work on the V-Bomb gadgets. More than a year before the first V-Bomb landed on London, air sorties had revealed feverish construction at various sites on the French coast, particularly in the Pas de Calais area. Further sorties showed that even more activity was visible at Peenemunde, on the Baltic coast of Germany near Stettin. Peenemunde was an island in Stettiner Haven, a large lake. The island had been constantly enlarged by filling in water surrounding it and was known to be the site of experimental work for the German Army and of a huge electrolytic hydrogen peroxide plant.

From the nature of the construction huge concrete ramps and towers, seemingly for control — Allied intelligence was not long in arriving at the conclusion that experimental work for self-propelled rockets was being forwarded here. Forward was the precise word, for production had reached a stage approaching practicality, else the coastal construction would not yet have started.





Putting finishing touches on a model map of the Nazi stronghold in Bavaria.



Eight-foot scale model of an LST. All of the moving parts in the model (scale ¼ inch to 1 foot) are operational.



Pilots of the Fleet Air Arm, Royal Navy, being briefed from a model of Alten Fjord for their raid on the *Tirpitz*.

With this conclusion, the best brains of Intelligence were set to work on solving the problem of (a) the particular type of mechanism to be launched from these sites and (b) counter-measures to be taken against them.

At almost the moment of this discovery, the Model Makers were put to work on the job of reconstructing the area at Peenemunde with all the details of the construction to be gleaned from aerial photographs. This work was under the direction of First Lieutenant Howard E. Bahr, Operations Officer of the Model Makers and a former architect with the Corning Glass Company. Air sorties were cleverly flown. Photoreconnaissance planes were mixed in with huge bomber flights headed for Berlin and, passing over Peenemunde, photographed the area regularly the while top-flight Nazi scientists were lulled into a sense of security by the seeming lack of attention of the enemy.

As sorties were flown and new construction became apparent, the changes and additions were added to the model by the Model Makers. When it reached a state of near-completion, ballistics experts, ordnance people, air force technicians came to Henley. studied the model, strove to untangle the mystery of the impending threat. By April 1944, by study of the model, the experts had arrived at the conclusion that a rocket, very similar to what the V-2 turned out to be when a sample was captured, was being built and prepared for launching there. The photographs and model also showed a small rail ramp running up near the huge concrete structure. This was taken to be a rail upon which small cars for construction purposes were operated.

Then one day, approximately ten months before the first robot bomb was used against England, new photographs were brought in by the RAF and a WAAF photograph interpretation expert, Flight Officer Constance Babington-Smith, noticed an airplane on the rail. Under an enlarging glass, it had certain peculiarities. For example, there was no propeller on the plane and its wings were comparatively short. The plane on the rail was also constructed in the model and it took less than a week for experts to figure out that a robot plane, jet-propelled, was being readied by the Nazis. At the same time, similar rail ramps began to spring up all over the Pas de Calais area, to the great concern of Allied Commanders.

It was now clear what was happening. The Nazis were planning a mass attack by robots upon the United Kingdom, by now bristling with military installations as the springboard of invasion was being prepared. Such an assault would, if successful, set back the invasion for years, perhaps prevent it entirely. The decision was taken immediately to launch air attacks upon each of these sites. Only Peenemunde left room for doubt. There were some who felt that it - the spawning place for such evil devices-should be bombed as a first priority, especially since top-flight Nazi scientists working on the robot bombs were known to be quartered there. Others felt that it should be spared until all possible knowledge about the newlydeveloped weapons had been acquired.

A compromise was reached. The Allied air forces roared over the Channel to swarm down upon the hundreds of launching sites on the Pas de Calais area, damaging them so that the swarm of robots which might have descended upon our Island base was delayed until after June 6, 1944, when it was too late. Even when the robot attacks commenced later in June, they were so enfeebled by our continuous air attacks that they had no serious effect upon the course of the war.

At Peenemunde, on August 17, 1943,

1:1,000-scale relief model of Illange, a fort in the Metz fortifications.

our heavy bombers seemingly en route to Berlin, suddenly turned in the air, made quick bomb-runs over the Baltic island, hitting the peroxide factory, living quarters, and other areas of the unsuspecting installation and killing, it was learned later, more than 1,500 technicians. Among these were Maj. Wolfgang Chamier-Gen. von Clisezenski, director of research on the V-weapons; General Ernst Udet, founder of the Luftwaffe; and General Jeschonnek, Chief of Staff of that Service.

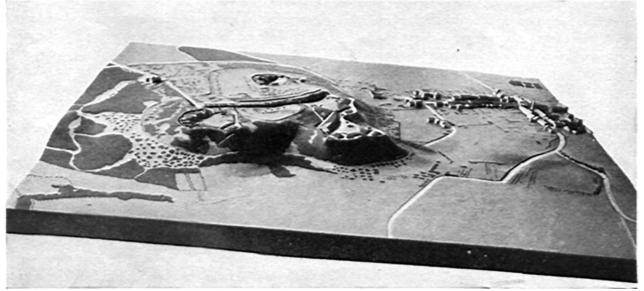
But no bombs landed on the experimental site itself. It was not until in November 1944 that this site was destroyed, and by then, the Model Makers had so completely reconstructed it that full-size models of the V-2 could be built for study in England.

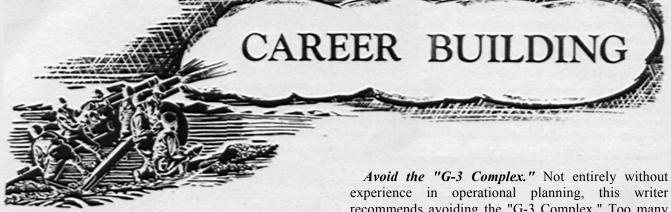
High Allied officials were quick to pay tribute to the work of the Model Makers in reconstructing the area, launching sites, and V-2's spotted there. "If," one high official said, "we had not had such models to study, the attack might have been upon us before we knew what had hit."

#### INVASION

With the invasion actually launched, the Model Makers went to the Continent in August, moving on to Paris after the fall of the city. Operational demands for terrain models were now at a high tide. General Patton's Third Army, particularly, made heavy demands upon the group. At Metz, for example, there was a hurry-up order for exact models of the forts in that area to be used by assault troops. Through Engineer Intelligence — of which the Model Makers are a branch — two Frenchmen. M. E. Tonneller, a mining engineer, and Maj. R. Nicholas, of the French Army, were located. Both of these men had worked on the construction of the Forts Aisne, Yael, Marne, Illange, and Koenigsmacher, and were able to provide details which permitted a true reproduction and complete of strongpoints which would have been much more costly if blindly assaulted.

To meet the increasing demands upon Model Makers by the Field Commanders, separate teams comprising an officer and eighteen men were trained, organized, and sent to the theater for each Army. These teams were able to provide simple models quickly for use in campaigns; but for the precise and highly accurate models required for the headquarters intricate jobs, detachment was relied upon. Its last big European job was a huge-scale model of Germany to be used by the Occupation forces. In covering areas so large, the surface of the model is globular to conform to the earth's curvature. They are accurate to the most minute detail and are made up in panels so that any part of the area can be used separately. Supply lines and patrols will be maintained by Occupation forces on the basis of information derived from this model.





**O** VER 9,000 WARTIME OFFICERS HAVE recently been nominated for commission in the Regular Army. The United States Field Artillery Association is proud to take this opportunity to extend greetings and congratulations to each and every one of them.\*

Soldiering is second to no other profession in honorableness and public trust. Our new Regular officers will find, moreover, that they have entered upon a career that offers a continuing stimulant to ever-greater opportunities for broadened service to our Nation. Equally important, their chosen career offers a way of life rich in happiness among their fellow officers and their families.

The unusual occasion of the entry of so large a new group of officers into the Regular Establishment is appropriate for brief discussion of certain aspects of career building in soldiering.

**Obvious Fundamentals.** Reams have been written, and more reams will be written, on the obvious fundamentals connoted by the term, officer and gentleman. Leadership, stability, aggressiveness, integrity, courage, determination, unselfishness, justness-all these, and a hundred other attributes, spring at once to mind. That our new officers are well endowed, as a group, with these great essentials is a foregone conclusion. Most of them have shown their worth in combat, the most infallible filter in our business. For this reason, and with no intent to deemphasize the over-riding importance of these obvious fundamentals in soldiering, this editorial moves on rapidly to certain of the less often discussed aspects of the soldier's career. It takes the form of a series of suggestions that may prove helpful.

\*See page 402 for list of Field Artillery Officers.

recommends avoiding the "G-3 Complex." Too many officers tend to fancy themselves great tacticians and even greater strategists. Worse, our pre-war officer corps tended to elevate the S-3 and the G-3 function to a touch-me-not level, out of all proportion to its relative importance. Think back on World War II, in the over-all. Relatively speaking, was where, when and how to fight our Army, or any part of it, our major headache? The answer is "No." Relatively few Regular officers worked in the S-3 and G-3 business. And relatively few Regular officers were either mentally prepared or adequately trained to handle the less-Napoleon-like but equally if not more difficult functions of personnel, supply, public relations, intelligence, and military government. "Doubting Thomases" to the thought here expressed will do well to reflect on the greatly expanded and broadened civilian schooling program planned for the post-war period. The emphasis is not on the where-when-andhow-to-fight-our-Army function.

*Efficiency Rating.* What is success? Too many officers measure it too rigidly by the numbers set opposite their names on their efficiency records and the number of stars they may or may not wear some day. If these be the measure, most of us had better quit, before our "failure" is recorded. Fact is, the average numerical efficiency rating of our corps of Regular officers is so high as to border on the valueless as a guide.

The measure of our success as soldiers is the same as for any other human being—it is the *degree to which we develop our potential*. Our inner conscience, alone, is competent to judge. It is our most severe taskmaster.

We'd never have been commissioned if we lacked the necessary minimum of potential. The failures among us—and don't think we lack them—are the officers who have the capacity but lack the guts to be tops. An early learning of this lesson will save many an officer many a disappointment.

Articulateness. This column recently carried a review of Ralph Ingersoll's much-discussed book, "Top Secret." Disagreeing vigorously with the overall conclusions of this book, nonetheless this writer emphasized that there is much to be learned from it. Truer and more challenging words were never written than Ralph Ingersoll's statement, "The American Regular Army Officer is not as well trained in parliamentary procedure or presentation as his British counterpart." This is a heavy indictment, and we are guilty as charged. We are an inarticulate group in an articulate society. There's a whale of a job ahead of us if we are to overcome this grave disability. The freshening influence of 9,000 new officers can help a lot. Wrong is the idea that effective speaking and writing are the attributes of a God-chosen few. Man has yet to speak or write or play the piano at birth. These things are learned by hard work.

Staff vs Line vs Specialization. Somewhere amongst and between the ideas expressed by these three words *staff, line* and *specialization*—lies that nebulous something known as a "balanced career." That such a phrase is nebulous is evident when one seeks to define it. To demonstrate by coining one, a "balanced" career is one that prepares an officer adequately to discharge the heavy duties and responsibilities that lie in store for him, either as a staff officer, commander, or in some specialized work. Back we are, at once, to the three words themselves—staff, line, and specialization.



## THE FIELD ARTILLERY JOURNAL

PUBLISHED MONTHLY 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.

Of more than passing interest is the establishment, on the War Department level, of an agency which will seek to provide career guidance, particularly as regards attendance at the proper service school at the proper time. Routine under the branch chiefs in prewar days, this is still a good idea. Let no one suppose, however, that any War Department agency either can or should ever try to turn out a formula for a "balanced career." It can't be done. Our careers unfold, as they should, as our experience expands. More often than not—and it may be just as well—the shape of our careers is determined less by design than by the accident of time and place and personality. If there be any absolutes at all, it is that *good officers do a good job at any job they're given*.

So, this is the advice: Don't worry about your career. It lies straight ahead. Kick around a bit, if you can, particularly as between line and staff, but don't forget that you're an artilleryman. *There is no permanent general staff corps in our Army!* Develop an intellectual hobby, among other hobbies, and preferably one that will stand you in good (and perhaps financial) stead when that retirement rolls around.

**Tradition.** Finally, General Blakeley's splendid words, which appeared in the May issue of this JOURNAL, should be burned indelibly into the consciousness of every American soldier: *Battles are won by young men who have pride in their units and in themselves*. Our Regular officers will have richer careers and, if war comes again, do better in battle, if they never forget the stimulating potency of tradition to soldiers and soldiering.

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.

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 LOUIS E. HIBBS, Vice-President COLONEL DEVERE ARMSTRONG, Secretary-Editor and Treasurer **EXECUTIVE COUNCIL** Lt. Gen. Raymond S. McLain Brig. Gen. Edward S. Off Mai. Gen. Lewis B. Hershey Colonel Jess Larson Maj. Gen. Frank E. Lowe Colonel Malcolm R. Cox Brig. Gen. Harold R. Barker Lt. Col. Robert B. Neely Lieutenant Colonel F. Gorham Brigham, Jr.



#### Joint-mindedness

Dear Editor:

I agree with you that joint-mindedness cannot be legislated into existence. It can be acquired only by a determination on the part of all hands that it will be acquired. This requires, first and foremost-leadership. Then, adequate provision for the close association of the officers of each service with those of the other services. This can be effected through the exchange of officers for duty at service schools, and in the field, attendance at joint schools, and duty on joint staffs and other joint organizations. I feel that cooperation within the armed forces is so important that I always tell naval officers who ask my advice to seek duty where they may become intimately acquainted with officers of the other services.

I do not fully agree that the merger controversy has caused a set-back in joint-mindedness. Barring the warped and acrimonious features, I think that open discussion has brought about an understanding of the various service viewpoints, and that there has been a determined effort to reconcile conflicting opinions. Although this has not been successful, the effect on jointmindedness has been good.

CAPTAIN C. J. MOORE, U. S. Navy Washington, D. C.

#### Others Also Read

#### Dear Editor:

As I have now been appointed to a Brigade command in the UK, I would be much obliged if THE FIELD ARTILLERY JOURNAL could be addressed to me there. I wish to add that I find your JOURNAL of the greatest interest, and my copy is also always read by my staff and other officers of my Brigade. BRIGADIER L. K. LOCKHART, CBE, MC. Hq. 30th A.A. Brigade

Newcastle-on-Tyne

#### Unit Histories Dear Editor:

It is the ultimate aim of the Field Artillery School library to secure publications and original documents relating to all aspects of artillery operations in World War II. We are particularly anxious to acquire copies of unit histories. The cooperation of THE FIELD ARTILLERY JOURNAL in our effort will be most appreciated.

MORRIS SWETT, Librarian The Field Artillery School Fort Sill, Okla.

Dear Editor:

In response to your request for histories of combat units, I enclose herewith one copy of "Combat Calendar," a diary type of history of the 698th Field Artillery Battalion.

The battalion was an inactive component of the Regular Army until 1 June, 1941, when it was organized as the Second Battalion, 79th Field Artillery Regiment, a Regular Army Unit equipped with the 240-mm Howitzer. It was reorganized as a Field Artillery Battalion, the 698th, on 23 February, 1943, and was one of the first two 240mm howitzer battalions to go overseas, in December 1943.

The battalion entered combat at Cassino, Italy, has the distinction of furnishing two 240-mm howitzers and two 8-inch guns for the Anzio Beachhead (the only ones there), and helped crack the Gothic Line north of Florence. In November, 1944, it joined the Seventh Army in France and fought with it through the Vosges Mountains and across the Rhine River, and came to rest near Munich.

MAJOR W. R. VIVIAN, FA-Res. Nitro, West Virginia

-Repeated again is the request that artillery units, which have not already done so, forward copies of unit histories to the Field Artillery Association. Full cooperation by units in the effort of the FAS library to acquire material, including unit histories, of historical value to the Field Artillery is encouraged.—ED.

#### Concurs

#### Dear Editor:

Just a line to extend my appreciation for the *Top Secret* editorial in the May issue. I thought Ingersoll's treatment of General Marshall and General Eisenhower despicable and his treatment of Montgomery almost as bad. As I have had the privilege of knowing all three of these gentlemen, as well as General Bradley, whom I admire greatly, I want you to know that I concur wholeheartedly in the sentiments expressed in your editorial.

MAJ. GEN. MILTON A. RECKORD Annapolis, Md.

#### Disagrees

Dear Editor:

The charge of arrogance and intolerance which Lt. Lawrence Johnson brings against West Pointers is not justified in my observation, nor do I believe that reserve officers generally will agree with his strictures on the USMA. During twenty-nine years as a reserve officer, including two years in a regular army regiment (12th FA) in the first World War, many summer camps, the Field Artillery School, the Army War College, and more than four years' service in this war, I have been closely associated with many graduates of the Academy. I have yet to know a single officer to whom Lt. Johnson's criticisms apply. He has drawn unwarranted conclusions from insufficient data.

Congratulations, incidentally, on the discovery of that prince of story-tellers, Colonel R. E. Anderson.

MAJOR ROY STOCKTON, FA Jefferson Barracks, Mo.

## Compounding an Error

#### **Dear Editor:**

I think a lot of us ex-FOs and Liaison Os would like to see more articles about the work and problems of those categories of FA officers. A very large percentage of articles in the past have dealt exclusively with the battery itself. But that is compounding the error in FA training, where very great emphasis is given to the work of the firing battery, to FDC, to survey, and to other functions whose work in combat is almost identical to that in garrison; while the unfortunate FO and LnO goes into combat with practically no realistic training behind him. And yet the battery and battalion is worthless unless he is efficient.

In training most FOs and LnOs work almost exclusively with their own battalion, in highly artificial service practices and RSOPs. At best the LnO may hang around an Infantry CP, where nobody is much interested in him since there isn't any artillery being actually fired anvwav and the Infantry commander is mostly interested in making a good showing in moving his troops around. But in combat the FO and LnO find themselves in effect Infantry staff officers with very little to do with their own battalion except keeping communications in. In a fight they find themselves just another Infantryman, except that they have the firepower of a battalion or more under their control, so that they must be exceptionally good Infantrymen.

For these reasons, I think the experience and lessons of these harassed people should be given a bigger play. Incidentally, it should make a lot better and more interesting reading and give the JOURNAL a wider general popularity.

CAPT. R. E. REORDAN, FA Hq. USAMGIK, APO 235

-Agreed. It is hoped that more ex-FOs and LnOs will sharpen their pencils.— ED.

#### Great Day!

Dear Editor:

The great day has arrived! Heading back for God's country today, so please send my JOURNALS hereafter to my Chicago address. Thanking you in advance, I remain as ever a constant and well-satisfied reader of your excellent publication.

LT. JOSEPH L. SZCZEPANSKI, FA 8th FA Bn, APO 25

#### V-E Day's Birthday

#### Dear Editor:

I am sure that I speak for all the American "gunners" who participated in the struggle up the boot of Italy—the "forgotten front," as you put it—when I say that we appreciate the little poem on Cassino which appeared in the May issue of the JOURNAL.

Many of us who were at Cassino and other parts of Italy swapped rations many times with the British and have a warm feeling generally for the gunners from the Empire. We liked the idea of your noting V-E Day's first birthday by publishing a poem by one of them.

LT. COL. C. V. CLIFTON, FA Washington, D. C.

#### When the Bottle's Low

Dear Editor:

Don't recall reading a book so full of misinformation, twisted facts and sheer fiction as *Top Secret*. Ingersoll's clever, however—make no mistake on that.

I also got quite a chuckle out of Lt. Johnson's letter about West Pointers. I recall that was always a good subject in the early hours of the morning, after sex had been thoroughly talked over and the bottle was getting low. I sometimes took one side of the argument and sometimes the other. Truth is I have lots of good friends who came out of the Academy and offhand I can't think of a single scoundrel. You should have told Lt. Johnson that even civilian colleges are unable to make silk purses out of sows' ears . . . though I suspect the Academy can come closer to producing a reasonable facsimile than most others. However, I'm just as willing to take the other side of the argument any time, just for the fun of it.

Don't get tangled up in this "Caste System" business that's hitting so many publications these days. I never saw anything wrong with the system we've got when properly interpreted . . . and no system will be satisfactory if the personnel involved is inadequately trained. LT. COL. JOHN WILSON, JR., FA-Res. Union, Maine.

#### Won't Work ... Should Be

Dear Editor:

I especially approve of the editorial in the May issue against sovietizing of officer and enlisted personnel. The Russians tried it, and it just won't work.

On the other hand, I have doubts about the Artillery being merely a *supporting* arm, if supporting is used in the ordinary sense. I favor considering the Infantry and Artillery as being mutually supporting to each other and as being co-equal, and think this should be stressed.

I fully agree that the Field Artillery and the Coast Artillery should be merged. This will require an Act of Congress and probably will not occur this year. When it does come about, there certainly should be a Chief for the combined Artillery.

COL. CONRAD H. LANZA, Rtd. Manchester, N. H.

#### **Best Efforts Essential**

Dear Editor:

On behalf of myself and others presently stationed in the "salt mines" of occupational areas, there are a few ideas which I should like to pass on to you.

Six months' occupation duty with the XXIV Corps in Korea has brought home to me very forcefully the difficulty and importance of the work we are doing. If World War III is to be avoided, or even postponed, we must succeed in these occupations, which are the logical and indispensable completion of our victories in combat. Unfortunately, there are people here—even high ranking officers-who disagree and think that we are wasting our time. For myself, although I want to go home, like everyone else, I feel that the occupation calls for the Army's best effort.

Consequently, I feel that as a supplement to the JOURNAL'S excellent articles on operational problems, it would be a good thing to have some on occupational problems. I have always admired Colonel Lanza's articles very much, for example, and would certainly enjoy something comparable by him on the kind of thing I am speaking of. It seems to me that the American newspapers are reporting occupational matters much less satisfactorily than they did combat operations, possibly because they are now without the convenient communique, which gave the correspondents the "big picture" while they went out and dug up the more exciting stories.

LT. HAROLD C. HINTON, FA Hq, XXIV Corps, APO 235

-Many American soldiers are now on occupation duty and many more leave each week for this duty. Articles reflecting their experiences are welcome.—ED.

# **POSTWAR ROTC POLICY**

THE WAR DEPARTMENT has announced approval of a postwar policy concerning the Reserve Officers' Training Corps which makes provision for military training in two divisions the *Junior* ROTC at approximately the secondary school educational level, and the *Senior* ROTC at the junior college and college level.

The program is the result of a threemonths' study by the War Department, during which time a number of civilian educators and military authorities were consulted. Among recommendations adopted was one granting increased emoluments to Senior ROTC students to make the training more attractive.

The mission of the Junior ROTC will be to lay the foundation of intelligent citizenship and to give the student basic military training which will be of benefit to himself and the Military Service if he should become a member thereof. The Senior ROTC will carry the mission into the production of junior officers who have qualities and attributes essential to their continued development as officers of the Army of the United States.

Junior ROTC instruction will be given in military school units of high school level and above, which do not grant college degrees, and at regular civilian high schools, and may be given at certain essentially military institutes which do not confer college degrees but are designated as a separate category by the Secretary of War. The course will consist of three hours of formal instruction per week for three academic years of 32 weeks each. Students satisfactorily completing the course will be credited with the completion of the first year of the Senior ROTC.

The Senior ROTC program, mostly conducted at the college level, will consist of two parts, known as the *elementary* course and the *advanced* course, the latter including a summer camp.

The elementary course will be a minimum of three hours per week for two academic years of 32 weeks each. It will be given at military institutes

which offer college courses but do not grant college degrees, junior colleges, and civilian and military colleges and universities.

Whereas the Junior ROTC and the elementary course of the Senior ROTC will provide only general military training, the advanced Senior ROTC will be of a specialized branch type, designed to qualify selected students for reserve commissions in the several branches of the service, such as the Infantry, Field Artillery, and others. At present, there are no Air Force ROTC units, establishment of which will require legislative action. Summer camps will also be of a specialized branch type.

The advanced course will consist of a minimum of five hours of formal instruction per week for two academic years of 32 weeks each. The summer camp period will be of eight weeks' duration instead of the present six, if legislation permitting the extension is enacted. The advanced course will be conducted only at civilian and military colleges and universities offering fouryear courses or longer leading to a degree.

Land Grant colleges which have required military training may continue this requirement with the War Department encouraging and assisting. However, all students will not necessarily be formally enrolled in the ROTC and eligible for its proposed emoluments unless they meet prescribed requirements. The War Department will seek passage of enabling grant legislation to emoluments to students in the elementary course of the Senior ROTC of 66 cents per day plus uniforms, and to increase the emoluments to students in the advanced course to 66 cents plus \$1.25 per day. The advanced students would be required to buy their own uniforms. Institutions desiring to provide a distinctive type of uniform or individually tailored uniforms for the Junior ROTC or the elementary Senior course may draw commutation in lieu of issuance of Government uniforms in an amount set by the Quartermaster.

Students at ROTC summer camps will be furnished the necessary field-type uniforms.

Minimum requirements for a reserve commission will include the successful completion of four years' education at the college level and the successful completion of the Senior ROTC course. The student also must have reached the age of 21 before he is granted a commission. For a commission as a First Lieutenant in a professional branch, such as the Medical Corps, the candidate must have received his professional degree.

In case a student is specializing in a technical or scientific field, such as engineering or chemistry, at an institution which does not have that ROTC branch, he may be sent to a summer camp of the appropriate branch, such as the Corps of Engineers or Chemical Warfare Service camp, and obtain his commission in that branch within quota limitations.

The War Department also plans to negotiate with schools maintaining ROTC units to obtain academic credit for such training on the same basis as for non-military subjects where such an agreement does not now exist.

Quotas for the Senior ROTC will be allotted annually by the War Department, and separate contracts will be executed by students admitted to the elementary and advanced Senior ROTC courses. No contracts will be executed for the Junior ROTC.

Military instruction at each institution will be under the direction of the Professor of Military Science and Tactics appointed by the War Department. He will be assisted by other officers and noncommissioned officers of the Army. If authorized by legislation, the War Department will also negotiate with the individual institutions for the services of civilian instructors in the teaching of certain academic subjects related to the military.

The new program will go into effect with the start of the fall term of 1946 insofar as existing laws and appropriations will permit. The present interim ROTC program will be absorbed into the new program.

## **VII Corps Artillery Battle Experiences**

#### Group and Battalion S-2s' Conference

The following VII Corps Artillery units, including a total of 24 group and battalion S-2's, were represented:

Hq Btry, VII Corps Arty Hq Btry, 142d FA Gp Hq Btry, 188th FA Gp Hg Btry, 224th FA Gp 13th FA Obsn Bn 18th FA Bn (105 H SP) 87th FA Bn (105 H SP) 183d FA Bn (155 H) 188th FA Bn (155 H) 195th FA Bn (8" H) 660th FA Bn (8" H) 802nd FA Bn (105 H) 951st FA Bn (155 H) 957th FA Bn (155 H) 981st FA Bn (155 G) 980th FA Bn (155 G) 991st FA Bn (155 G SP)

## *Organization and Equipment.* Group S-2's proposed no changes.

Battalion S-2's pointed out the following needs: one additional man for intelligence sergeant (T/4), who should be a draftsman and typist; a second liaison section for armored field artillery battalions; an additional  $\frac{1}{4}$ -ton trailer for maps.

Equipment which was *never used:* range finder (M9A1); plane table with tripod and accessories; alidade (ES 41-1-2); and altimeter (surveying, 6,000 ft., 10 ft. division).

**Command Post Operation.** Group S-2's disagreed on the best organization of the Group S-2 section for combat. One group headquarters kept S-2 and S-3 sections separated; two group headquarters combined the S-2 and S-3 sections. All three needed all S-2 personnel authorized by T/O.

All battalions combined the S-2 and S-3 sections for operations.

All groups and battalions gave the S-2 section such additional tasks as temporary liaison officer, trial judge advocate, special service officer, and information and education officer. All S-2's carried on these duties without extra personnel.

*Communications.* Normal corps artillery communications were adequate for S-2 purposes.

**Observation.** In corps artillery, the personnel available to act as observers were usually busy either as air observers. or as forward (front line) observers. Ground OP's on high hills, in towers, etc., were in the main organized and manned by the observation battalion; such OP's were organized by battalion S-2's only for occasional specific tasks and were by no means habitual. Group OP's were very uncommon.

This is the third and last of three articles enumerating the lessons learned by the VII Corps Artillery, which was commanded by Brig. Gen. Williston P. Palmer, and which probably had the most diversified combat experience (from D-Day on the Normandy beaches to the Elbe River) of any corps on the Continent. These lessons are the product of a series of conferences held in Germany between 23 May and 6 June 1945, when battle experiences were still fresh in mind. In general, the conferees were the captains and lieutenants who had done the actual fighting.

Ground OP's were manned by the survey section, the S-2, or by personnel from lettered batteries. Equipment used at OP's included field glasses (in preference to the BC scope), the M49 telescope, aiming circle, and M2 compass. Radio was the primary means of communication. The 1/25,000 map was the most satisfactory for ground observers.

Air OP's worked very closely with group S-2 sections. Each air observer reported to his own S-2 after each mission if at all practicable; battalion S-2's reported results to group S-2's.

*Maps and Photos.* Maps were very accurate and highly satisfactory. The 1/50,000 was the best all-around situation and road map for both battalion and group. The 1/25,000 was used by battalions for survey and

observation, and by one battalion as a firing chart. 1/100,000 and 1/250,000 maps were used for the general situation, and in fast-moving situations as road maps. Special maps such as fortification and defense overprints, and town maps, were of great value in the organized German defensive areas. "Terrain study" maps were only of general interest. The maps could have been improved by a systematic and consistent color scheme. On the 1/25,000 map there was too much contour detail, the printing was often blurred, and prominent features such as churches and schools were not distinct. The 1/50,000 was a far better job in these respects than the 1/25,000, which should be raised to its quality. The supply of maps was adequate.

With 1/25,000 maps available, there was no need for a gridded photomap. Observers used oblique photographs for orientation in conjunction with the 1/25,000 map. Ungridded obliques were preferred to gridded obliques.

Intelligence and Information. Most of the information obtained by corps artillery battalion and group S-2's was useful at higher which headquarters came from Air OP's. Most of the information desired by the battalion and group S-2's for their own use came: (1) from corps artillery FDC, by telephone to group; (2) from inspection of the situation map at corps artillery FDC; (3) from corps G-3 situation reports and corps G-2 periodic reports; and (4) from liaison sections with supported units.

The Corps artillery S-2 was the only level at which artillery intelligence came in constantly from many sources and could be studied carefully. FA groups, division artilleries, corps G-2, adjacent corps artilleries, army artillery, the observation battalion, and corps artillery air section were prolific and dependable sources.

*Security Control.* All S-2's supervised and checked upon censorship, the handling of classified documents, and other security matters. Battalion S-2's checked the effectiveness of camouflage by periodic flights over their battalion areas, but they were not made responsible for camouflage training.

*Survey*. In all units, either the S-2 or Ass't S-2 always accompanied the group or battalion commander on reconnaissance. This enabled the survey personnel to start their survey immediately. Since accurate maps were always available, only position area surveys were required. Direction was established always by orienting line.

#### Group, Battalion, and Battery Motor Officers' Conference

The following VII Corps Artillery units, including a total of 56 group, battalion and battery Motor Officers, were represented:

Hq Btry, VII Corps Arty Hq Btry, 152d F9 Gp Hq Btry, 188th FA Gp Hq Btry, 224th FA Gp 13th FA Obsn Bn 18th FA Bn (105 H) 87th AFA Bn (105 H SP) 183d FA Bn (155 H) 188th FA Bn (155 H) 195th FA Bn (8" H) 660ht FA Bn (8" H) 802d F ABn (105 H) 951st FA Bn (155 H) 957th FA Bn (155 H) 980th FA Bn (155 G) 981st FA Bn (155 G) 991st FA Bn (155 G SP)

#### ORDNANCE SERVICE AND SUPPLY

Critical items were issued by allocation of the corps ordnance officer. A representative of the unit had to visit the corps ordnance office for a written authorization before getting the item at the ordnance service company. This took valuable time unnecessarily; the whole business could have been done by telephone.

Motor officers felt that ordnance automotive contact parties maintained insufficient contact. They should maintain contact with units as vigorously as the artillery section of the ordnance did; and they should carry small parts and do minor jobs on the spot in the field. To get quick service, most units found it necessary to send their own mechanics to ordnance shops to help do the work. Normally the ordnance shops were located much too far to the rear. When a battalion became quite distant, it was able to get better results by putting the battalion S-4 halfway between the battalion area and the ordnance shops.

#### DRIVERS

Motor officers are convinced that each vehicle must be assigned a driver who has no other job. Radio operators and other technicians assigned also to drive a vehicle invariably neglect vehicle maintenance. A radio operator can act as assistant driver in a forward observer's party satisfactorily. Most mechanical failures in combat came from vehicles with no assigned driver. The majority thought it would be well to have such personnel as radio operators and gun mechanics assigned as alternate drivers.

The present Driver's Award is not given sufficient prestige. It should be awarded only for excellent performance. Drivers wearing this medal should have definite privileges. One battalion reported that its drivers received such special privileges as not doing guard and being excused from extra work, with excellent results.

Battery commanders and other battery officers showed too little inerest in drivers and vehicle maintenance. All officers must feel responsible for the upkeep of vehicles. The present system of driver's maintenance is very complete and thorough but other maintenance personnel must have the full support of battery officers in order to get drivers to perform it properly.

(Note by the Commanding General, VII Corps Artillery: These difficulties evidently were surmounted. I personally read all spotcheck reports on corps artillery vehicles. Maintenance was uniformly extremely good.)

#### **MECHANICS**

The mechanics are very well trained for the work they are required to do. Many were civilian mechanics, others were well schooled. More training was needed on the M-5 tractor. It was agreed that more 3rd echelon repair should be taught to 2nd echelon mechanics so emergency 3rd echelon repairs could be taken care of.

#### 2ND ECHELON EQUIPMENT

The present type box voltage tester is too complicated and requires too much training to be 2nd echelon equipment. It should be left in ordnance shops.

The following items were never used and should be removed from 2nd echelon sets: Echelon set No. 4 (block and tackle set w/300 ft. rope), Holmes anchor set, oil drain pan, safety can, 5 gallon.

The wheelbarrow air compressor should be replaced by a larger compressor. It starts hard, the motor runs too fast, and it is too small for the job required of it.

All agreed that a gear puller should be added to the 2nd echelon set. It is needed for many jobs.

Battalion maintenance should have equipment with which to reline brakes. This equipment would have saved many brake drums in the campaign.

#### VEHICLES

*Truck,*  $\frac{1}{4}$  *Ton,*  $4 \times 4$ . Although an excellent vehicle, the following improvements were suggested:

1. Spot weld the hinge on the hood to make a closed hinge and prevent hood vibration. Place packing around the fenders so the hood will rest on rubber.

2. Use a more solid and larger grease fitting on the spring shackle. It wears out or is broken off too quickly.

3. Hand brake is inadequate. The cable stretches, collects dirt and foreign matter, and thereafter is useless. The brake itself overheats and warps. A brake similar to that of the Dodge or GMC should be substituted.

4. Spring clips proved inadequate during crosscountry operation and on cobblestone roads; somewhat heavier spring clips were recommended, so designed that they may be tightened. In VII Corps Artilery, a <sup>1</sup>/<sub>2</sub>-inch spotweld on the clip on the top spring leaf was applied to keep the clip in position.

5. The airplane type shock absorber is inadequate. Little service can be done on it, the fluid runs out, and the ends break off, causing the spring to take all the load and shock. Recommended: a shock absorber similar to that on a  $\frac{3}{4}$ -ton Dodge.

6. The body is weak and sometimes cracks around the sill next to the driver

and on the opposite side. A strip of metal welded at these 2 points solved the problem. Recommended: similar reinforcement at the factory.

7. A good muffler is most important for forward observer parties. Placing muffler behind the skid plate assured its good condition because it was higher from the ground and less likely to drag.

**<sup>3</sup>/<sub>4</sub>-Ton WC and C/R Vehicles.** The carburetors used on the <sup>3</sup>/<sub>4</sub>-ton WC and C/R should be standardized. The Zenith carburetor requires less attention and readjustment than the others encountered.

The present  $\frac{3}{4}$ -ton weapons carrier is too small for battalion wire trucks and for battery wire and maintenance trucks. It is recommended that these should be replaced by  $1\frac{1}{2}$ -ton trucks. (NOTE: Communication officers insist the  $\frac{3}{4}$ -ton is essential for wire-laying because  $1\frac{1}{2}$ -ton truck is too roadbound.)

 $2\frac{1}{2}$ -Ton GMC. A more suitable seal at the constant-velocity joints would prevent an excessive amount of water from getting into the seal.

The amount of brake trouble was tremendous. With brake lining such a critical item, something must be done to prevent another experience with wornout brake linings and drums such as occurred after the very muddy Hurtgen Forest operations in November and December 1944. Recommended: brake drums similar to those on the Dodge, to prevent so much mud getting in the drum and wearing out the brake lining and getting the drum out of round.

Spark plugs gave much trouble on this vehicle. They do not seem to be of the proper heat range. Some conferees felt that high octane gasoline was a partial cause. Setting the spark gap at .033 instead of .025 helped prevent cracking and chipping. This was not the complete remedy, but no other suggestions were made.

7<sup>1</sup>/<sub>2</sub>-*Ton Mack.* This vehicle is tiring to drive because road shocks are transmitted through the steering wheel. Recommended: a higher steering ratio.

The brake diaphragms should be placed above the axle.

*M-5 Tractor.* The battery boils over and ruins the wiring. Recommended:

moving the battery away from the engine.

The starting motor is too light. The starting motor should be equipped with a solenoid switch.

The bumpers are much too light to be of any value; heavier bumpers, made of steel, are needed.

The clutch gives trouble; it has to be drained daily during combat operations. The clutch failed frequently because of its light construction. It hampered operations enough to merit redesign.

Chevron - type rubber tracks are needed.

A guard should be placed over the air brake connections to prevent fouling.

#### HEARTFELT GRIEVANCES

When a vehicle has travelled 10,000 or 12,000 mlies, it should be turned in to the ordnance for 5th echelon repair, after which it should be used only in the Communication Zone.

Vehicles should be issued to combat units by vehicle number in order to prevent rear-area units from diverting new vehicles and sending old vehicles up to combat units.

The Parts corporal in medium battalions should be a T/3.

Light battalions do not need a 4-ton wrecker and could better use a GMC.

#### Group and Battalion Communication Officers' Conference

The following VII Corps Artillery units, including a total of 20 group and battalion communication officers, were represented:

Hq Btry, VII Corps Arty Hq Btry, 142d FA Gp Hq Btry, 188th FA Gp 195th FA Bn (8" H) 660th FA Bn (8" H) 802nd FA Bn (105 H) Hq Btry, 224th FA Gp 13th FA Obsn Bn 18th FA Bn (105 H) 87th AFA Bn (105 H SP) 183rd FA Bn (155 H) 188th FA Bn (155 H) 951st FA Bn (155 H) 957th FA Bn (155 H) 980th FA Bn (155 G) 981st FA Bn (155 G)

Of 12 battalions represented, 7 battalions used direct metallic circuits from the FDC to the firing batteries and the higher headquarters; simplexed circuits were used by 5 battalions. Most communication officers hold that simplex is only 75% efficient because of cross-talk, compared to metallic circuits. Simplex circuits were used by group FDC's, both to higher and lower FDC's, and were found satisfactory, although crosstalk was a handicap.

Groups usually laid one line to each battalion and simplexed it. If two lines were laid, the battalion usually laid the second. Battalions generally had two lines to each firing battery. The battalion laid the trunk line and the battery laid a direct line to the battery FDC. Batteries always laid lateral lines, from right to left.

Medium and heavy battalions laid OP lines (when they had OP's) unless the distance was extremely long or the situation so fast moving as to make wire impracticable. Light battalions rarely laid wire to OP's. When light battalions laid wire to their forward observers, the battery furnishing the forward observers laid to the switchboard of the supported infantry battalion and the forward observers ran a line to the same switchboard.

Forward switching centrals were rarely used by any of these battalions. They were sometimes installed during a displacement or to reach several forward observers.

Prior reconnaissance of wire routes is very important. A map reconnaissance will indicate the most promising routes, but some physical reconnaissance—however hasty — was always made. Wire crews usually went to the far end of the line and lay back to their own switchboard. This was a form of reconnaissance, in itself.

After two weeks of combat all communication officers learned to install lines carefully the first time, even though it sacrificed speed. Wire was almost invariably laid along the roads. Tanks try to spare wire beside the road, but crosscountry lines are not seen by tanks. Cross-country lines are also very difficult to service at night. As a general practice, lines are laid on the ground initially, with overheads wherever traffic may cut them; then as time permits many units go back and get all their wire overhead on trees, hedges, houses, telephone poles, etc. In extreme cold, frozen lines on the ground are easily broken and also become buried in the snow. Some units used test stations when personnel were available on lone lines and found it a good practice.

Wire was *never* buried across roads, as taught at home. In the first place, a great many wires cross at the same spot, and there would be constant reopening of the trench. In the second place, fast traffic uncovers such a trench at once. *Overhead* always.

Tagging of lines is a "must." In many units, tags are punched, scalloped, or painted for quick identification, but the name of the unit must always be printed on the tag also. With dozens of lines going down one road, symbolic marking is insufficient.

Opinion was divided on the value of loading coils.

#### RADIO

Radio communications were efficient, in all battalions, at least 80% of the time. The 87th Armored Field Artillery Battalion found radio 100% efficient in fire control; and found 2 channels sufficient for fire direction, although a few times a third channel would have been useful.

Fire control radios were remoted and operated from the FDC. A loudspeaker was always available in the FDC.

SCR-608 sets were operated 24 hours a day in all battalions when forward observers were out; otherwise, only during daylight. If wire failed during the night, the SCR-608's were immediately switched on.

The SCR-193 ("Corps Arty Comdr's Net") was in operation 24 hours a day. Its only steady traffic was metro messages; in effect it was an emergency net. Battalion communication officers felt that they got little value from the operators they had to keep on this net and suggested using it for fire missions. The corps artillery communication officer pointed out that this net has often been turned over to a group or an armored groupment for fire direction. (NOTE: The same occurred discussion in the S-3 conference. Air observers and pilots recommended that all warnings of enemy

aircraft received by any FDC be broadcast by that unit on the SCR-193 net for relay to all Air OP's. Air observers and pilots recommended that whenever Pozit fuze is to be fired, the standard VII Corps Arty warning message "POZIT, LEFT ZONE, 1235 to 1305," be broadcast on the SCR-193 net for relay to Air OP's.)

Only a few officers are proficient voice radio operators. Forward observers, air observers, and S-3's are usually highly proficient, but many other officers cannot use a radio as they would a telephone. Some communication officers thought this was a good thing and some thought it was bad.

Expedients used to maintain radio communications: Sets moved around to find a workable spot; Antennaes lengthened; Relay stations, including relay by airplane; Frequencies redistributed to eliminate interference.

Link sign procedure was successful. CW was used only when voice reception was poor.

#### **HEADQUARTERS INSTALLATIONS**

The Message Center was generally in a spot convenient both to incoming personnel and to the FDC, as many administrative messages come by phone to the FDC. Agents were used as messengers between FDC and batteries and sometimes were the only means of communication (wire cut up by friendly tanks, etc.)

*The Fire Direction Center* was the focal point of the group and battalion communications. Communication officers agreed that the group and battalion S-3's knew the capabilities of wire and radio communications and fully exploited them. All groups used a

*Item* Climbers, LCG and Belts LC 23 Gas generator w/193 to use w/12-volt battery Lance Poles, P02 Repeater, EE89c Reel Unit, RL26a SCR-608 SCR-284 Semaphore Flags Switchboard, BD91 B TG5's Wire, W110B

Wire, W130

switchboard and 2 additional telephones in the fire direction center, 4 battalions used a switchboard in the fire direction center, 8 battalions did not. The 4 battalions employing the switchboard claimed more flexible communications were possible, while the 8 battalions not using the board stated they thought it a duplication of communications.

#### GENERAL

Most of the group and battalion communication officers want to retain their present dual duties as headquarters battery commander and communication officer. They feel that the communication officer should be battery commander because his wire, radio, and message center sections contain most of the headquarters battery.

It was recommended that radio technicians be more highly trained in special schools outside of the units. Every battalion should have at least one highly trained radio repairman. He should be qualified for his rating by the same standards that are required for artillery airplane mechanics and assigned to the battalion in the same manner.

Complaints were registered that the corps signal battalion failed to give satisfactory maintenance and repair on faulty radio equipment.

The M-209 Converter was used only by Hq VII Corps Artillery and was reported to be too slow. Slidex was satisfactory between headquarters but proved to be too slow for rapid transmission of coordinates. A map coordinate code is needed to augment slidex.

Recommended changes in T/O: Wire corporals in lettered batteries should be rated sergeants or Tec 4's.

Recommended changes in T/E:

*Basis of Issue* 2 sets per wire truck 1 per SCR-193

Not desired in the Artillery 2 per Bn, 4 per Gp, 8 per Corps Arty 2 ea Gp 1 per Ln Off and Btry CO Not desired in the Artillery Not desired in the Artillery 1 per Bn Not desired in the Artillery 100% increase for Corps Arty, Gp, and Bns Not desired in the Artillery

#### WELCOME TO THE FIELD ARTILLERY (Cont'd)

1st Lt. (Capt.) H. E. Parker 1st Lt. (Capt.) Lester L. Parker 1st Lt. (Lt. Col.) Robert M. Parker. Jr. Maj. (Lt. Col.) S. I. Parsell Maj. (Col.) Emil Pasolli, Jr. 1st Lt. (Capt.) Melvin J. Pasta 1st Lt. (Maj.) R. L. Patriquin 1st Lt. (Maj.) D. H. Patterson 2nd Lt. (1st Lt.) E. C. Patterson 1st Lt. (Capt.) W. G. Patterson 1st Lt. (Col.) Charles J. Payne 1st Lt. (Capt.) D. D. Peairs 1st Lt. (Capt.) R. L. V. Pearson Capt. (Lt. Col.) W. D. Perez Maj. (Maj.) W. W. Perham 1st Lt. (Maj.) Tony F. Perpich 1st Lt. (Maj.) Gustav W. Peters Capt. (Lt. Col.) A. J. Peterson Capt. (Lt. Col.) H. C. Petros 1st Lt. (Capt.) J. M. Pfeffer 1st Lt. (Lt. Col.) A. D. Pickard 1st Lt. (Lt. Col.) G. T. Pillsbury 1st Lt. (Capt.) W. C. Pittman Capt. (Lt. Col.) F. L. Plahte Capt. (Lt. Col.) E. R. Powell 1st Lt. (Capt.) Vernon F. Pressentin Capt. (Maj.) Milton H. Price Capt. (Maj.) W. C. Pritchard 1st Lt. (Maj.) J. J. Prusaitis 1st Lt. (Maj.) C. H. Purkitt 1st Lt. (Capt.) O. A. Pynes, Jr. 1st Lt. (Capt.) Edward G. Raff 1st Lt. (Maj.) M. L. Raines Capt. (Col.) W. R. Rainford 1st Lt. (1st Lt.) A. J. Ramsel 1st Lt. (Capt.) J. D. Ramsey 1st Lt. (Capt.) Heinz P. Rand 1st Lt. (Maj.) B. J. Randall, Jr. 1st Lt. (Capt.) Stanley C. Raub 1st Lt. (Maj.) Jeff G. Ray Capt. (Lt. Col.) C. B. Reed Maj. (Maj.) Herman H. Reed 1st Lt. (Capt.) John P. Reed 1st Lt. (Capt.) James B. Rees 2nd Lt. (1st Lt.) A. R. Reeves Capt. (Maj.) George W. Reitz Capt. (Maj.) W. R. Reitzell 1st Lt. (Capt.) C. E. Remick 1st Lt. (Capt.) A. V. Reyes 1st Lt. (1st Lt.) Chester A. Richardson 1st Lt. (1st Lt.) Donald H. Richardson Maj. (Maj.) E. H. Richardson 1st Lt. (Capt.) John R. Riddle 2nd Lt. (1st Lt.) W. P. Riddling 1st Lt. (1st Lt.) B. F. Robertson 1st Lt. (Lt. Col.) L. G. Robinson, Jr 1st Lt. (Capt.) L. N. Rodgers 2nd Lt. (1st Lt.) W. A. Roemer 2nd Lt. (1st Lt.) Allen D. Rooke, Jr. 1st Lt. (Maj.) David N. Roper Capt. (Capt.) Franz H. Ross Capt. (Maj.) Fred L. Ross 1st Lt. (Capt.) J. R. Ross, Jr.

1st Lt. (Maj.) Samuel R. Ross Maj. (Lt. Col.) L. O. Rostenberg Maj. (Col.) Andrew W. Roth 1st Lt. (Lt. Col.) W. J. Rozamus 2nd Lt. (1st Lt.) Earl L. Russell, Jr. Capt. (Lt. Col.) Eber D. Russell 1st Lt. (1st Lt.) J. V. Ryan, Jr. 1st Lt. (Maj.) Phillip W. Ryan 1st Lt. (Lt. Col.) R. N. Salada 1st Lt. (Lt. Col.) D. L. Salleer 1st Lt. (1st Lt.) Max D. Salter 1st Lt. (Capt.) G. Sammet, Jr. 1st Lt. (Maj.) Bertil B. Sandell 1st Lt. (Capt.) F. A. Sandholm 1st Lt. (Maj.) John D. Sapp 1st Lt. (1st Lt.) A. J. Scannon 1st Lt. (Capt.) H. E. Scherer 1st Lt. (Capt.) F. W. Scheurlein Capt. (Lt. Col.) R. W. Schmelz 1st Lt. (Capt.) E. W. Schmid 1st Lt. (Capt.) H. U. Schmidt 2d Lt. (1st Lt.) W. A. Schmidt 1st Lt. (Capt.) G. A. Schnebl Capt. (Col.) Morris Schonholz 2nd Lt. (1st Lt.) Fred B. Schoomaker 1st Lt. (1st Lt.) R. B. Schoos 1st Lt. (Capt.) H. G. Schulte Capt. (Lt. Col.) L. J. Schultheis 1st Lt. (1st Lt.) J. M. Schwalje Capt. (Maj.) Paul T. Scott 1st Lt. (Maj.) W. B. Scudder 1st Lt. (Lt. Col.) E. T. Seaburn 1st Lt. (Capt.) H. H. Seale 1st Lt. (Maj.) S. M. Seaton 1st Lt. (Capt.) Robert B. Seeley Capt. (Lt. Col.) Henry C. Settle 1st Lt. (1st Lt.) L. N. Shaffer 1st Lt. (1st Lt.) A. L. Shaima 1st Lt. (Capt.) J. G. Shanahan Capt. (Maj.) L. C. Shannon 1st Lt. (Maj.) D. C. Shapard Capt. (Lt. Col.) C. N. Shaver 1st Lt. (Maj.) Clayton A. Shaw 1st Lt. (Capt.) Eugene A. Shaw 1st Lt. (Lt. Col.) Gerald D. Shepherd 1st Lt. (Capt.) F. P. Sheridan 1st Lt. (Capt.) Robert E. Shipp 1st Lt. (Capt.) A. H. Shookus 1st Lt. (1st Lt.) Davis S. Short 2nd Lt. (2nd Lt.) M. E. Sicklesteel, 3rd 1st Lt. (Maj.) Winant Sidle 1st Lt. (Maj.) Wilson Sifford 1st Lt. (Maj.) H. M. Simon Maj. (Col.) Edward D. Sirois Maj. (Col.) Frank H. Skelly 1st Lt. (Capt.) Edward L. Smith 1st Lt. (Lt. Col.) E. N. Smith 2nd Lt. (1st Lt.) Glen W. Smith, Jr. 1st Lt. (Maj.) H. R. Smith, Jr. 2nd Lt. (1st Lt.) James C. Smith 1st Lt. (Maj.) M. D. Smith Capt. (Lt. Col.) R. D. Smith 1st Lt. (1st Lt.) Robert F. Smith 1st Lt. (Capt.) W. A. Smith

Maj. (Lt. Col.) C. M. Snow Capt. (Lt. Col.) P. T. Snowden 1st Lt. (Capt.) George A. Sold 1st Lt. (Lt. Col.) L. E. Sommers 1st Lt. (Maj.) C. R. Sparra 1st Lt. (Maj.) J. T. Specht, Jr. 1st Lt. (Capt.) Andrew Spencer Capt. (Lt. Col.) Gage H. Spies Maj. (Lt. Col.) Leslie Spinks 1st Lt. (Capt.) W. B. Stabler 1st Lt. (Maj.) Laddie L. Stahl 1st Lt. (Capt.) D. H. Starbuck Maj. (Lt. Col.) C. R. Stark 1st Lt. (Capt.) Kenneth B. Stark 1st Lt. (Maj.) R. L. Steinbacher 1st Lt. (Capt.) D. W. Stevenson 2nd Lt. (1st Lt.) John A. Stewart, Jr. 1st Lt. (Maj.) Neil G. Stewart 1st Lt. (Maj.) Lee R. Stickler 1st Lt. (Maj.) F. E. St. John, Jr. Capt. (Col.) Justin W. Stoll 1st Lt. (Capt.) Loren F. Stone 1st Lt. (Maj.) Joseph E. Stopp 1st Lt. (Lt. Col.) W. J. Stover 1st Lt. (Maj.) Lavere H. Strom 2nd Lt. (1st Lt.) W. D. Stuart Capt. (Lt. Col.) G. T. Stump 1st Lt. (Capt.) N. R. Sumner 1st Lt. (Lt. Col.) E. E. Surdyk Capt. (Maj.) J. F. Sutherland Capt. (Col.) Earl Sutton 1st Lt. (Lt. Col.) D. C. Sweger 1st Lt. (Maj.) J. L. Sweeney 1st Lt. (Lt. Col.) J. E. Swenson 1st Lt. (Capt.) W. P. Tallon, Jr. 1st Lt. (Lt. Col.) W. E. Tardy Maj. (Col.) James E. Tarrant 1st Lt. (Capt.) D. W. Taylor Capt. (Lt. Col.) T. H. Taylor 1st Lt. (Capt.) B. L. Tauber 1st Lt. (Lt. Col.) Augustus T. Terry, Jr. 1st Lt. (Maj.) H. R. Teubner 1st Lt. (1st Lt.) C. C. Thebaud Capt. (Maj.) Edward F. Thelen Capt. (Lt. Col.) W. N. Thomas 1st Lt. (Capt.) D. E. Thomson 1st Lt. (Capt.) J. B. Thompson Maj. (Col.) J. L. Thompson, Jr. 1st Lt. (Maj.) N. O. Thompson 1st Lt. (1st Lt.) A. L. Thornton Capt. (Lt. Col.) R. F. Thweatt 1st Lt. (Maj.) Roland V. Tiede 1st Lt. (Lt. Col.) Bill R. Tilley 1st Lt. (Capt.) N. W. Tobey 1st Lt. (Capt.) Ralph L. Todd 2nd Lt. (1st Lt.) Alan R. Toffler 1st Lt. (Capt.) Robert J. Tolly 1st Lt. (Capt.) M. S. Torgersen Capt. (Maj.) Claire E. Towne 1st Lt. (Capt.) Charles D. Trail 2nd Lt. (Capt.) J. L. Treadwell 1st Lt. (Maj.) Isaac W. Tuckert Maj. (Col.) Sumner P. Tufts 1st Lt. (Maj.) Bill J. Tutin 1st Lt. (Maj.) S. A. Ucherek 1st Lt. (Maj.) James F. Unger Capt. (Col.) Donovan H. Vance Capt. (Lt. Col.) J. F. Varian

1st Lt. (Capt.) Richard W. Van Home 1st Lt. (Maj.) Louis D. Van De Velde 1st Lt. (Lt. Col.) Jay D. Vanderpool 1st Lt. (Maj.) John F. Vogel 1st Lt. (1st Lt.) A. E. Vognild 2nd Lt. (2nd Lt.) Bruegge J. VonDer, Jr. Capt. (Lt. Col.) Howard E. VonKaenel 1st Lt. (Maj.) W. R. Vivian 1st Lt. (Maj.) Jack K. Walker 1st Lt. (Capt.) E. C. Walter 1st Lt. (Maj.) J. W. B. Walters Maj. (Lt. Col.) Ivan G. Walz 1st Lt. (Capt.) G. E. Warner 1st Lt. (Maj.) W. B. Warner 1st Lt. (Maj.) Sam F. Warren Capt. (Lt. Col.) I. B. Washburn 1st Lt. (Capt.) James H. Waters 1st Lt. (Capt.) G. W. Watkins 1st Lt. (Maj.) R. R. Watson 1st Lt. (Maj.) David W. Way 1st Lt. (Capt.) Robert M. Webb Capt. (Lt. Col.) James F. Wells 1st Lt. (Lt. Col.) C. E. Welsh 1st Lt. (Maj.) E. Wendel, Jr. 1st Lt. (Lt. Col.) Bland West 1st Lt. (Capt.) R. M. Westmoreland 1st Lt. (1st Lt.) T. E. Wesson 1st Lt. (Capt.) S. H. Whezler 1st Lt. (Lt. Col.) B. D. White Maj. (Maj.) Edmund D. White 1st Lt. (Maj.) Fred F. White Capt. (Maj.) E. L. Whitman 1st Lt. (Capt.) M. R. Whitwort 1st Lt. (Capt.) T. C. Whitworth, Jr. 2nd Lt. (1st Lt.) W. H. Wilbanks, Jr. 1st Lt. (Capt.) H. R. Wiley 1st Lt. (1st Lt.) W. W. Wikan Capt. (Maj.) J. D. Wilcox 1st Lt. (1st Lt.) John F. Wilhelmy, Jr 1st Lt. (Maj.) R. E. Williams 1st Lt. (Capt.) K. R. Wipff 1st Lt. (Maj.) E. A. Wilson 1st Lt. (Maj.) F. L. Wilson 1st Lt. (Capt.) H. G. Wilson Capt. (Lt. Col.) L. G. Witmer Capt. (Lt. Col.) John M. Woestenburg 1st Lt. (Lt. Col.) M. W. Wood 1st Lt. (Lt. Col.) Robert L. Woodward 1st Lt. (Capt.) George B. Woodworth 1st Lt. (Maj.) Ralph Wright 1st Lt. (1st Lt.) R. J. Wright 1st Lt. (Capt.) J. R. Kakshe 2nd Lt. (2nd Lt.) Erik F. Yde 1st Lt. (Maj.) Harry L. Yerby Maj. (Col.) Clyde G. Young 2nd Lt. (1st Lt.) R. M. Young 1st Lt. (1st Lt.) D. G. Younger Capt. (Lt. Col.) N. P. Zink







### By Col. Conrad H. Lanza, FA, Ret.

### REALITIES BEHIND THE POWER STRUGGLE

#### **BASIC CONDITIONS**

THERE have gradually arisen conflicting desires and mutual suspicions between Russia and the Western Powers, led by the United States and the British Empire. Efforts in successive conferences of the Foreign Ministers of the three Powers have failed to settle differences. Rather divergencies of opinions have increased.

Deplorable in itself, this situation might not necessarily lead eventually to war, or even fear of war, were it not for certain basic conditions new to this age. These conditions are twofold: the new nature of war and the lack of confidence in treaties.

*New Nature of War.* Although not so named, world wars started in 1523. The circumstance was a coalition of the then Powers against one of their number, the Emperor Charles V, who had made himself ruler of Germany, Spain and the Low Countries, and had acquired considerable territory in Italy. Too strong, he was judged a menace by the other Powers.

For three centuries thereafter, there was a stream of World Wars, all for the same reason—one of the Powers became too strong, and the others united against the threat. There being no Powers elsewhere, the major campaigns were all fought in Europe, although the American colonies and the United States became involved in both the wars against Frederick the Great of Prussia and the Napoleonic Wars. Even the Philippines saw fighting. However, despite their local importance, the campaigns outside of Europe had no influence on the main event. At the conclusion of each of these wars there were rectifications of frontiers and of colonies, but the great Powers retained their national integrity. Thus, after the fall of Napoleon France remained intact as a nation but lost certain of her ill-gotten acquisitions. As between France and Germany, Alsace-Lorrain was the prize of whichever side won the latest war, and the same principle applied elsewhere.

World War I was settled in part on a new principle. The great empire of Austria-Hungary was completely destroyed. Nothing like that had been seen before. What is more, it succeeded; that empire has never been restored. Apparently the victors of World War II have advanced a step further. They have decreed the destruction of Germany and Japan, two major Powers, by: (1) perpetual prohibition of bearing arms, (2) materially reducing their territories, (3) forcible removal of their populations from areas long held by them to the restricted areas of the new state, (4) the dismantling of their industries, thereby reducing their ability to earn a living, (5) the employment of millions of men of the defeated nations in slave labor for the benefit of the victors, and (6) forcing new laws on the vanguished.

To be defeated in a major war may mean virtual annihilation as a nation. This being the case, no nation wishes to reduce armaments for fear that it might be caught unprepared. After World War I, there was an earnest attempt to disarm. This is not proposed today.

*Lack of Confidence.* Lack of confidence is a primary cause of world unrest. There is a general and mutual suspicion between Powers. Why?

Because World War II saw a wide of previous disregard customs. agreements and treaties such as had never before happened. No Power now trusts another. Their pledged words and signatures have been broken too often. World War II started, for example, with an expressed desire-initiated by President Roosevelt-not to bomb undefended towns. No one now pays any attention to such a rule, and populated cities are freely bombed regardless of the presence of women and children. This practice has resulted in an appalling loss of life and property. Moreover, the removal of populations, the seizure of private industries (called reparations), slave labor, and the imposition of new laws without the consent of the people are all in violation of the Hague Conventions to which the United States and other powers are signatories. It seems probable that in the future anything will be valid in war, including unlimited use of the atomic bomb and of other new weapons. This change in the conduct of war brought death, destruction, famine and suffering to millions not in the war area. It bids fair hereafter to wipe out entire communities.

#### QUEST FOR SECURITY

In view of the new character of war and the general lack of confidence in formal agreements among nations, the victors in World War II seem doubly anxious to guarantee their security by extending their military bases. Thus, the United States is asking for permanent bases in Iceland and the Azores in the Atlantic, and at Manus Island, among other places, in the Pacific. Being a Maritime Power, the United States is limiting its bases to islands. The British would like to do the same, but their far-flung empire necessitates some continental bases. As far as possible they are in locations not easily reached overland by a prospective enemy.

Russia is not a Maritime Power. It can spread out its advance bases only by overland movements. For this she is well situated, holding a central position with regard to Europe on the west, the Near East and India on the south, and China and Japan on the east. As her interior communications are extended, the strategical central position of Russia is bound to improve.

From Russia's viewpoint, the advance of the United States towards Iceland and the Azores in the Atlantic, and the construction of bases in the Pacific at Okinawa, Japan, and in the Aleutians, constitute a threat that these bases may be utilized later for offensive operations against her. To Americans these measures are merely taken for home defense, to prevent installations from which atomic bombs or great rockets might be directed against our shores.

Similarly Russian advances into west Europe, the Balkans, Iran and Manchuria are ominous signs to Americans. To Russians, however, they appear as logical defensive measures essential to their own security.

Eventually, the extension outwards of *bases essential to security* is certain

S EXPLAINED PREVIOUSLY in **H**"Perimeters," Russia is not prepared for a major war at this time, and will avoid forcing the Western Powers too far. Russia lacks both the maritime and air strength essential to transoceanic military operations. The Western Powers enjoy such a capability, plus great industrial power. Well aware of these realities, Russia has withdrawn troops from both Iran Manchuria under Britishand American pressure. She has not abandoned her policy towards those two countries. The application of the policy has changed.

to result in conflicts as the bases approach one another.

#### FAMINE—STRATEGIC FACTOR

*Famine* is a major factor in the strategical situation. Wide areas in Europe, India and China either have famine or are on the verge of famine. The presence of famine has always been a source of discontent and danger. Starving people know no law and will ally themselves with any Power offering help.

By 1942 Germany had succeeded in arranging the European economy so as to provide food for virtually all peoples. This was possible since all of the great food producing regions of Europe-the Ukraine, east Germany, Poland, Romania and Hungary-were under German rule. All food was pooled. Germany took the lion's share but sufficient was allowed the other peoples to maintain life and productivity. Because the ration was less than in predays, however, there war was dissatisfaction in occupied countries.

Capitalizing on this dissatisfaction, the Western Powers invited the occupied states to rise against their masters, under the implied promise that food conditions would be improved. The Western Powers were sincere, but they did not foresee the post-war situation. Excepting Denmark, whose food production is minor in a world market, all European countries which normally produced a surplus of food fell into the Russian zone and with one exception, mentioned below, all that

RUSSIA

*Application of Policy.* Instead of a military occupation by Russian troops, local forces sympathetic to Russia have taken charge both in Iran and in Manchuria. Russia arms and directs these troops, through silent channels, and expects both countries to "fall" into the Soviet Union, in due course. This policy minimizes the risk of colliding, too soon, with the Western Powers.

To further her aims, Russia has organized a new section of the General Staff. Its mission is to eradicate anti-Communist sentiments in occupied, or near-occupied, areas. Usual methods are to cause anti-Communist leaders to food has been for Russia and her satellite states. Western Europe was left with a marked deficiency. Notwithstanding the best of good will, the fact remains that the Western Powers have not been able to provide as much food as the Germans did.

The one Russian exception has been the delivery of a substantial quantity of grain to France. Russia has refused to pool her excess food with the UNRRA which represents the Western Powers. Her selection of France as her sole beneficiary appears to have been based on political and military reasons — to induce France to ally herself with Russia. With this end in view, Russian grain arriving in France is unloaded with considerable propaganda, display of colors, appropriate signs, bands, etc. Grain and other food from the United States arriving in the same port at the same time was unloaded and distributed without publicity.

Russia has refused to disclose her food situation. She has been, and is, receiving large quantities of UNRRA food supplies ostensibly for White Russia, Poland and the Balkans. France is to pay for the grain received from Russia. Meanwhile, France is negotiating a loan in the United States which, among other things, will provide money to pay Russia. Thus, it seems that the United States replaces, in kind, the food exported by Russia, and at the same time will pay for the food sent by Russia to France. This strange situation does not alter the ugly fact that famine is present.

disappear. Sometimes this is secret; at other times they are accused of being Fascists, whereupon they may be liquidated openly. The new General Staff section can be expected to profit by past experiences within Russia and elsewhere, and to develop improved technique with more rapid results.

In his recent May Day speech, Marshal Stalin reiterated the intention to improve the armed forces by the development of military culture and military skill, based on the experiences of war, and the progress of military science and technique. Not only are Russia's forces being maintained in large and efficient units but also measures have been taken to reinforce them by the forces of satellite nations. To date, best progress in this direction appears to have been made in Yugoslavia, Bulgaria, Poland and Romania. These states might provide 70-75 divisions, ready and willing to fight for Russia in the not too distant future. In addition, Iran and Manchuria have Communist forces friendly to Russia which should not be overlooked in estimating Russian strength.

For the present, Russia's major objective is to complete her new industrial program which is expected to place her in a position of equality with the Western Powers. From the few details which have become known about the first of three Five-Year Plans, immense heavy industries are to be constructed. These will be widely distributed, mostly in the Ural Mountains and in Siberia—far removed from western Europe. Western Russia is to be predominantly agricultural with light industries.

*Communism vs. Nationalism.* In the days of Lenin, it was believed that Communism would spread spontaneously throughout the world, and that all nations would rush to join one single Soviet Union. Time has

demonstrated that this idea was wrong, and in recent years Russian policy has veered away from pure Communism to Nationalism, whenever the interest of Russia predominated. Marshal Stalin has returned, in fact, to the ancient policies of the Tsars—that is, to make Russia the greatest Power in the World. Comparing Russia's status at the end of World War I with that following World War II, it is clear that extraordinary advances have been made toward that objective.

Present Difficulties. The departure from pure Communism to Nationalism, with Communism as a side line, has begun to arouse differences within the Communist parties. All are no longer willing to accept Moscow's decisions. Thus, Moscow has been unable to settle the rival claims of Poland and Czechoslovakia to Teschen. Communist strength in occupied Germany, Austria and Hungary has declined. There is considerable disorder in Poland, where the Underground is active and is murdering Russians, members of the Secret Police, and Communists. Large armed units operate from bases in the extensive forests, in spite of the employment of considerable military forces to suppress them. Displaced Ukrainians, sent to Russia where they did not want to go, have returned armed and have raided and burned down a reported 200 villages formerly occupied by them, and turned over to Poles. Some of these raiders reached clear across Poland and came in contact with Czechoslovak border guards.

Poles assigned to take German farms, whose owners were forcibly evacuated, are hesitant about occupying or improving their newly acquired properties. They foresee a new war, and feel that if they lose it they will in turn become refugees before returning Germans. They would prefer to remain in Poland proper.

Ultimate Intentions. According to German reports, the eventual intent is to organize a German Soviet which would be an ally of Russia in case of war. A great deal will have to be done to accomplish this, but a beginning has been made. Communists control the government and manage the industries and collective farms. With the new section of the General Staff eliminating anti-Communists, the latter are either disappearing or going underground. Forced to live with the Russian occupation, the Germans may join with Russia as the lesser of the undesirable alternatives confronting them.

### THE BALKANS AND THE MIDDLE EAST

#### **GENERAL SITUATION**

Indications are that strong Russian forces in the Balkans have no immediate hostile intentions. They are in readiness, however, and available for any eventuality.

At the Paris Conference during May, Russia offered to withdraw her advance forces from Bulgaria, provided the Western Powers withdrew from Italy. This move coupled with the strong mass of troops in Yugoslavia indicates that Russia's objective may be directed initially towards Trieste, which is deemed more propitious at the moment than Istanbul. It is realized that an attack in this latter direction would arouse opposition by the Western Powers, and the idea has been postponed. In view of that decision, Romania has been authorized to reset the gauge of her main railroad lines from the wide Russian gauge to standard gauge. It is expected that this will be completed by 1 September.

*Albania*. This small state is ruled by a dictator, Enver Hoxha, who is well disposed toward Russia and hostile to the Western Powers. He is a violent atheist, and is endeavoring to eradicate both the Catholic and Moslem religions.

An Albanian Army of about 2 divisions is being organized. The training indicates that the ultimate intention is a war with Greece. The claim is made that territory on the Greek side of the boundary is really old Albanian soil, and in any case is absolutely necessary for the safety of Albania. Greece has a counter claim that territory on the north side of the boundary is really Greek, and is absolutely necessary for her safety. An excuse for a war exists any time after the training of troops has been completed. Negotiations have been started with Bulgaria with a view to joint action with Albania, for Bulgaria has a claim against Greece that is similar to Albania's. Greece, incidentally, also has a claim against Bulgaria. Greece is backed by the British, and Albania and Bulgaria expect Russian backing.

*Greece.* In view of the Albanian situation, Greece is organizing an army of 7 divisions. This is enough to take care of Albania, unless that country is supported externally. But 7 divisions are not enough to take care of Bulgaria, which can place some 14 divisions in the field. The Greek divisions are British equipped and trained, and are prepared to act in conjunction with British forces.

*Yugoslavia.* According to reports, General Mihailovitch has been subjected to the special type of Russian torture, a detailed description of which lies outside the dictates of journalistic decency. Following torture, the victim is expected to plead guilty in open court, with the understanding that he will be killed later, but painlessly. Otherwise the torture is renewed until he expires.

The United States on 30 March last asked authority to have American officers testify for General Mihailovitch, who for long was the Allied representative in Yugoslavia, and performed many worthy deeds. This request was refused flatly on 4 April. A new request submitted on 7 May had not been answered so far as known, as this article closes.

General Mihailovitch's 2 divisions have suffered materially since his capture but some forces are still carrying on, resisting the Tito government from bases in the mountains. A third force has appeared in opposition, and has commenced operations in Croatia. Croatia is solidly Catholic, and is opposed to the Orthodox Serbs and the atheist Communists. The new organization calls itself "The Blue Devils."

#### PALESTINE AND THE ARAB STATES

On 1 May, an Anglo-American Commission of Inquiry submitted a report on Palestine recommending the erection of a Jewish state in Palestine and the immediate admission of 100,000 European Jews to Palestine. Various administrative matters were also treated of, and a description of the mutual hostility of Arabs and Jews to each other was fully described.

Palestine is about the size of Vermont, and has a population of 1,765,000 according to the 1944 census. Jews number 554,000; the remainder are practically all Arabs. Arabs and Jews detest one another although this was not the case until the immigration of Jews into Palestine. Prior to World War I the two races got along well together.

On 30 April, President Truman approved that part of the report relating to the immediate admission of 100,000 Jews. In fact, he had himself already proposed this.

The Arab Higher Committee representing seven Arab states submitted a protest to Great Britain on 2 May. It objected to the recommendations of the Commission of Inquiry on the ground that it was based on American and British policy, was a violation of the right of selfdetermination, and was contrary to the Atlantic Charter. It announced that pending action by the United States and Great Britain, the Arab States would organize their forces for a national struggle.

Great Britain thereupon announced that the necessary forces to cover the entry of 100,000 Jews into Palestine would be provided only if the United States furnished its share of the troops involved. To date the United States has not accepted this proposition. On 10 May, the Arab States submitted a protest to our State Department in line with the one previously delivered to the British. On 20 May, the United States and Great Britain agreed to postpone action pending further hearings to be held in Palestine commencing 20 June.

Obviously, the Arab States have neither the numbers nor the industrial strength necessary to wage war against the United States and Great Britain. Nevertheless, they have an unusually high military nuisance value since they extend over a vast territory, which is largely desert and where military operations would be difficult in that guerrilla warfare might be maintained for a very long time. The location of the Arabs is such that interruption to the Suez Canal would probably result, as well as the destruction of extensive oil plants, lines and wells in Iraq and Iran, which are owned by Americans and British. Loss of valuable trade with all of the Arab States would almost certainly result.

There is a possibility, moreover, that war with the Arab States might extend to other Moslem countries and require further extensive military operations. The Arab States have advised Russia of the situation, with a strong hint that Russia's aid would be welcome. As far as known, Russia has not replied to the Arabs but its representatives have been on the ground investigating.

#### IRAN

**Russian Withdrawal.** Azerbaijan has been occupied by a Russian force estimated as a corps, with the main body in the triangular area Khoi-Mehabad-Mianeh. By an agreement between Russia and Iran announced in a communique on 4 April, it was stated that Russia would withdraw its forces from Iran territory by 8 May, subject to certain conditions. The conditions were the granting to Russia of an oil concession throughout all of northern Iran, together with a promise by Iran to make a "peaceful arrangement in a benevolent spirit" with Azerbaijan. The latter provision appears to prevent Iran from using force to reassert its former authority in Azerbaipan.

The Russians withdrew northward across the frontier, completing the movement without incident on 9 May. They left behind an Azerbaijan corps of 2 divisions, which took over the former Russian position including all the road blocks which were immediately garrisoned and maintained. This has prevented outside observers from entering Azerbaijan, except as specially authorized.

The Azerbaijan troops have been training since the end of November, 1945. They are smartly dressed in Russian uniforms, and have Russian equipment. Insignia are native Azerbaijan. It is obvious that Russia raised this force. It is presumed that Russian ammunition and supplies will be furnished if necessary. Azerbaijan has better road and railroad connections with Russia than with Iran; and Caspian Sea connections are almost entirely in Russian hands. Russia can move troops into Azerbaijan faster than Iran could.

The result is that whereas there has been a technical evacuation by Russia, Azerbaijan remains under Russian influence. Of equal or more importance, Russia secured an oil concession.

Azerbaijan and Its Negotiations. The Azerbaijan leader is Jafar Pishevari, who was trained in Russia and appears to be a Russian stooge. His methods of governing follow the Soviet pattern — he is replacing former officials with his own followers who are armed and have authority to seize all property alleged to belong to Fascists. The property is then divided into small farms and allotted to former tenants. This leads the small man to believe that his new government is democratic. What usually happens is that after a certain period the new system fails to work. It

is then taken over by Communist agents, and managed by the government in the name of the collective citizens. However, this stage has not yet been reached in Azerbaijan.

According to reports by American correspondents the greater part of the professional men and skilled workers in other words the more intelligent class have already been liquidated. Some fled. These have been proclaimed as Fascists, and their property has been confiscated. In a short time, socialization of the land and industrial plants will have been accomplished.

Iran is governed by another Premier, Ahmad Ghavam. He is under the influence of the Russian ambassador at Tehran (I. V. Sadchikov) and a Russian stooge within his Cabinet (Prince Firouz), who holds the position of Propaganda Minister. Premier Ghavam seems to be sincerely desirous of maintaining Iran as an independent state. With that idea in view, he proposed a settlement of the differences with Azerbaijan on 22 April. His program was that Azerbaijan should elect its own government officials, less a governor. The latter would be appointed by Iran on recommendation of Azerbaijan. All officials in Azerbaijan would comply with orders from Tehran.

*Military Operations.* Due to Iran having signed an agreement with Russia

#### **INDO-CHINA**

The Chinese withdrawal in the north has not been entirely completed. Chinese and French are not on good terms, and minor fighting has occurred between their respective forces. In the south, armed Annamite bands have withdrawn into Thailand and minor fighting has also occurred there. The new native Viet Nam government is consolidating. France has agreed to sign a treaty with them, which will provide for complete evacuation of French troops from Indo-China at the rate of 20% per year.

#### **NETHERLANDS EAST INDIES**

The British forces in Java are withdrawing and are being replaced by Dutch troops. The latter are confined to Batavia, Buitenzorg, Bandoeng, to settle her differences with Azerbaijan peacefully, no military operations could be authorized without giving Russia an excuse to intervene.

Iran has an army estimated as about 4 divisions, poorly equipped. As the country is inefficiently administered, about 3 divisions are required to prevent insurrections. This leaves only about one division available along the Azerbaijan line of road blocks, a distance of about 175 miles. This is entirely too small to overcome the Russian trained Azerbaijan troops of around twice their strength and much better equipped. "Unofficial" attacks have been made, with no progress reported.

Russia, Oil, and Iran. According to the Petroleum Press Service, best American authority, the Russian production of oil in 1945 was 25,000,000 tons, which was less than pre-war figures by 5,000,000 tons, and is 10,000,000 tons under Russia's estimated needs as stated in the current 5-Year Plan. Russia desires more oil fields, and intends to exploit fields seized in Poland, Romania and Sakhalin. More is needed, and north Iran appears to be really desired for its possible oil production. To date there is no production in north Iran, including Azerbaijan, but geological conditions are favorable.

The major Russian oil fields are just north of Azerbaijan. They are within 500

### SOUTHEAST ASIA

Semarang and Soerabaja. Javanese control and administer the remainder of the island. Some progress has been made in evacuating Japanese troops. Only minor fighting has occurred. No fighting has been reported from Sumatra. In this island the Japanese control large areas, their troops being fully armed, with Japanese currency and administration in force.

The negotiations between Holland and the Javanese representatives have not made progress. The Javanese wish to sign a treaty with the Dutch, which the latter decline to do, as that would be a recognition of independence. The Dutch have offered to sign an agreement acknowledging the right of the Javanese to local government, subject to Dutch control. The Javanese have declined to agree to this. miles of the British air fields in Iraq, and within the same distance of air fields in north Iran.

From a strategical point of view it is important to Russia to prevent foreign air fields anywhere in Iran, and to secure as much of that country as possible without precipitating a major war to gain it. The voluntary withdrawal of American and British troops from central and south Iran has partially accomplished the Russian objective. British influence is still strong in both Iraq and Turkey, however, which are both within easy bombing range of the great Russian oil fields.

General Conclusions. Russia does not wish a separation of Azerbaijan from Iran because if that occurred, any advance from Azerbaijan into Iran might well be construed as an aggression and lead to complications. By controlling Azerbaijan and at the same time recognizing Iran as the parent state, a way is left open for Azerbaijan to attack Iran at a later propitious occasion. This would be only a civil war, and it might not even be necessary for Russia to intervene. The government of Iran is admittedly corrupt and incompetent, and there is ample grounds for a revolution. Watch should be kept for a Russian dominated Iran, as an extension to an already Russian dominated Azerbaijan.

Sumatra has indicated its desire to join in a single native state with Java.

#### COMMENTS

The British, French and Dutch have made progress in reestablishing their authority in southeast Asia.

The British have working governments going in Burma and Malaya, as have the French in Indo-China. The latter is under a 5-Year Plan, while the British in their territory have no limit under the new administrations, which concede more local laws to the natives.

The Dutch wish to duplicate the French plan, but probably for a minimum of a 10-year period.

The inhabitants of Southeast Asia claim that under the Atlantic Charter

1946

independence was promised them and that they want it. They consider that they are as fully developed culturally as the Chinese and as fully competent to have their own governments as

North China (Communist) is at war with Central and South China (Kuomintang). The United States is backing the Kuomintang by furnishing military supplies, training detachments and advice. The United States is not at war with the Communists and would prefer to see the Kuomintang make a peaceful settlement with the Communists, thus uniting China into a single state which in time might really become a Power.

Russia is not openly backing the Communists. The Russians just departed from Manchuria in such manner that the Communists, and not the Kuomintang, occupied their abandoned positions. The Communist troops who entered Manchuria with little modern military equipment, were able to find large supplies of weapons and munitions with which to reequip their divisions. The Russians had nothing to do with issuing this. The Communists just found it although the country as a whole had been stripped by Russia of almost everything having a military value.

According American to correspondents Russian training detachments in uniform were noted among the Communist troops who attacked and seized Changchun. The Communist C-in-C during early May was reported as in Moscow, for what reason is not known. The little evidence available indicates that Russia is indirectly backing the Communists pending a rearrangement of Russian forces in the Far East. Russia has taken no hostile action against the Kuomintang.

#### **OPERATIONS IN MANCHURIA**

The Kuomintang has had 6 armies occupying a thin band along the railroad from Shanhaikwan through Mukden to Szepinghai — about 340 miles with a total strength of some 300,000 men. The commander, General China, which is not only recognized as independent but is rated as one of the Five Big Powers.

Southeast Asia is at least as capable of self government as China or the

## CHINA

Tu Mingling, has had the mission of occupying all of Manchuria.

The Communists occupy about 70% of Manchuria. The population of that area is estimated as 26 million, out of a total of 38 million. A part of Manchuria appears to have decided to join Mongolia, and to have been occupied by pro-Russian Mongolian troops. No details as to this are yet available. The Communist political commander is General Peng Chen.

The Communists have organized local governments in 8 out of 9 provinces. The first of these was established at Kirin on 26 December, 1945, and all are working. The CP of the Communist GHQ has been at Meihokow, which is approximately halfway between Changchun and Kirin.

The Communists have 3 armies. No reliable report of their strength is available, but they probably do not exceed 40,000 men each. The claimed strength is 100,000 each or more.

The Communist Northeast Army which captured Changchun after a short campaign ending on 18 April has been visited by Americans. Two divisions were observed. They were well uniformed and had excellent discipline. special attention being given to saluting. Infantry uses Japanese arms with a few American rifles captured from the Kuomintang. The divisions have some artillery and armor. The infantry mortars have devised a new projectile. This is a pole with gasoline soaked rags at the end. This is shot through windows in street and house battles, and is stated to have been effective, as the burning rags can not be readily detached from the pole. Transportation is mostly animal drawn.

On 19 April the Kuomintang had three active fronts. The 1st Army, which is American trained and equipped and previously served in Burma under General Stilwell, was held up at Szepinghai by the Communist Northeast Army. Kuomintang railhead Philippines. The point is that China is a Power in name only. In practice it is subject to white domination, without whose aid it would probably fall into anarchy.

was at Kaiyuan, 45 miles to the rear. The immediate objective was Changchun, 65 miles up the railroad.

The 6th Kuomintang Army was about 100 miles southwest from Mukden held up by hostile forces near Kaiping. The objective of this army was Dairen.

A third army—probably the 52nd was 35 miles southeast of Mukden and was held up in the coal and iron mining district near Penki.

The 5th and 13th Armies were covering the line of communications to Shanhaikwan, while the recently joined 71st Army was in reserve.

By 30 April, the last Russian troops were reported to have left Manchuria, less Port Arthur and Dairen, which were being supplied by water transportation from Vladivostok and Chinnampo in Korea. These Russians were independent of railroad communications which were interrupted due to the Chinese Civil War.

The Kuomintang commander, General Tu, commenced a new operation, on 10 May, to clear the line of advance through Szepingtai. The 71st Army was brought forward, together with part of the 6th Army. This gave a force of 7 divisions. An artillery preparation was started, which fired initially at the rate of 800 rounds per hour.

On 11 May, the 5th and 13th Armies captured Yingkow, which had been held by a detached Communist force. Yingkow was desired as a beachhead for supplies which came by sea from central China. It was found that the Communists had thoroughly so destroyed the port that it was useless. As the Kuomintang does not have the means to undertake port reconstruction. appears that the Communists it accomplished their mission of denying the use of this port to the Kuomintang.

By 12 May, the Kuomintang forces in bitter fighting had entered Szepingtai by a direct frontal attack. At the same time a part of the 1st Army started an enveloping movement around the Communist east flank. This met prompt resistance, but nevertheless made progress.

The Communists attacked the railroad just north of Shankhaikwan on the 14th with one division. This succeeded in cutting the railroad, but General Tu did not allow himself to be diverted from his mission, and continued his attacks around Szepingtai.

By evening of the 15th, Szepingtai had been nearly cleared of Communists in very stiff fighting. The 52nd Army cleared Penki on the same day and advanced 10 miles beyond towards Antung. Next day, the attack on Szepingtai was pushed. As this account closes, General Tu had nearly accomplished the capture of Szepingtai.

Minor operations were initiated by the Communists on 10 May to relieve the situation brought about by General Tu's armies. Attacks were made against several places along the Peiping and Tientsin Railroad. These Communist attacks had not made any material progress as this account closed.

Iceland was occupied by British troops soon after the German seizure of Norway, and under the same excuse to prevent an enemy from getting there first. The British occupation was supplemented by American troops in July, 1941.

The history of this occupation is not vet exactly known. The first American troops destined for Iceland were reported loading on transports at New York on 24 June. A request from the Iceland Government for these troops was delivered only on 1 July. The wording of the Iceland letter indicates that it was not entirely voluntary, and not its own, proposition. Regarding the proposed American occupation it stated: "in view of the present state of affairs, this measure is in accordance with the interest of Iceland." It then agreed to the occupation subject to six conditions, the first of which was: "the United States promises to withdraw all military forces . . . on conclusion of the present war."

#### **OPERATIONS IN CENTRAL CHINA**

Since the truce between the Kuomintang and the Communists of 10 January last, there had been fighting in central China until May. Shortly after the 1st of May, the Communist movements were reported. As the truce had provided that troops should be frozen at their stations, the Kuomintang assumed that the Communists were about to attack. This is doubtful, since the Kuomintang Intelligence reports estimated the Communist strength as not over 60,000, as against 300,000 Kuomintang troops in this theater. A truce team, headed by an American general officer, rushed to stop a conflict.

The Communists appear to have withdrawn. By mid-May, however, they were reported concentrated along the north side of the Yangtze River north of Nanking. This was a threat to Nanking, since the Kuomintang had sent its best troops to Manchuria and was relatively weak in Central China.

#### THE POLITICAL SITUATION

The capital of Kuomintang China was closed at Chungking on 1 May and reopened on the same date at Nanking,

### ICELAND

President Roosevelt accepted the six conditions on the same day the Iceland letter was delivered. The haste with which the reply was sent and the troops then despatched indicates that the United States particularly desired to have a base in Iceland, and had everything lined up for action.

The war having ended, the United States requested Iceland to agree to a permanent American base in their country. On 6 November, 1945, Iceland declined. It reiterated this view in April of this year. The United States thereupon announced that it would abide by its promise to withdraw effective upon the conclusion of peace treaties.

It has been charged in the American press that Iceland's action was due to several speeches by American statesmen disapproving of the government's request for a permanent base. It seems more likely that the unofficial views of distinguished from where it had been removed some eight years earlier.

The Kuomintang is dominated by Generalissimo Chiang Kai-shek, who is practically a dictator. He was much surprised by the unexpected Communist strength in Manchuria, and found it advisable to postpone an intended meeting of the National Assembly scheduled for May.

The U. S. Ambassador, General George C. Marshall, has been working to smother the Civil War. It is a peculiar Chinese characteristic that both warring parties have adjacent CPs. Hence, the Communists moved from Chungking to Nanking simultaneously with the Kuomintang. The leaders of the two hostile parties are personally on good terms, and invite one another to cocktail or tea parties. There has been no difficulty and no time lost in American efforts to get both sides to meet. The main result so far is talk. Nothing important has been accomplished to settle the outstanding difference between the two political parties, and there is no immediate prospect for a cessation of hostilities.

Americans had little to do with the question.

Iceland has a coalition government with a Premier and six Ministers, two of whom are Communists. The Communists have 10 members out of 52 in Parliament. The Communist Ministers are strongly opposed to an American base in Iceland. An Iceland mission was officially in Moscow during April, ostensibly to negotiate a trade treaty. Moscow has expressed disapproval of an American base in Iceland through its Foreign Minister and press. The available evidence indicates that Russian opposition has much more to do with the opposition to the American request than the irresponsible statements by certain Americans

The Iceland coalition government does not feel that it can override one of its constituent parties. A new election is due on 30 June, which may alter the composition of the government.

## Addresses Requested

The correct address of Association members whose names appear on this list is unknown. Consequently, they are not now receiving the JOURNALS to which they are entitled. A postcard from YOU giving the correct address of one or more of these members will be a real service both to your Association and also to the

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#### **CBI "Top Secret"**

WRATH IN BURMA—The uncensored Story of General Stilwell and International Maneuvers in the Far East. By Fred Eldridge. 320 pages; illustrated. Doubleday and Co. \$3.00.

By Lt. Col. T. N. Dupuy, G.S.C.\*

When General Stilwell departed for the Far East in 1942, charged by President Roosevelt with the mission of keeping China in the war, he took an exnewspaperman named Fred Eldridge with him as his Public Relations Officer. In *Wrath in Burma* Eldridge gives his

version of the dramatic story of the next two and a half years until Stilwell's sudden recall in 1944.

It is in his study of the character of "the Boss" that Eldridge's readable book is at its best. General Stilwell is the hero, and naturally this fabulous personality, which dominated Southern and Eastern Asia at the height of the war, pervades the book. Few people have neutral feelings about Stilwell. Those who, like Eldridge, saw him under fire, talked to him informally, experienced his leadership in combat, observed his masterful handling of Chinese officers and men, revere "Uncle Joe." Eldridge's sympathetic but accurate portrayal is such, however, that one can readily see how those who disagreed with "Vinegar Joe," or opposed him, or suffered his biting sarcasm without an opportunity to really know the man, might easily hate him.

Artillerymen will be interested to read Eldridge's observation that the American trained Chinese artillery units were among the very best of the Chinese forces in Burma. American artillerymen, as well as Chinese, can be proud of the superiority of Chinese artillery over that of the Jap in Burma.

Other items of interest in the book are: the tale of the famous march out of

Burma in 1942, which is refreshingly different from Jack Belden's Retreat with Stilwell, in that Eldridge doesn't use the first person singular; the difficulties of Admiral Mountbatten, who fully expected to lead an amphibious attack on Singapore, only to find himself involved in a dull land-lubbers' war in the heart of Asia's densest jungle; the story of the glory and disintegration of Merrill's Marauders; the properly high evaluation of General Sultan as deputy commander of the CBI and later as commander of the India-Burma Theater; the description of the confused chain of Allied command whereby Stilwell found himself legally subordinate to himself; and the amusing incidents at Kandy when Stilwell was Acting Supreme Allied Commander in Mountbatten's absence.

At times Eldridge makes an effort to be very objective in his discussion of the national and human traits which were displayed by the polyglot participants in the great Burma dramas. Unfortunately this objectivity is fleeting, and gives the impression of being a sugarcoated afterthought to the bitter, sweeping criticisms with which the book abounds. While in many respects the detached role of the Americans in the CBI was such as to facilitate a "holier-than-thou" attitude, it is evident that Eldridge does not appreciate that his damning generalizations against Chinese and British are based on a relative handful of unpleasant incidents and glaring human weaknesses which, however true and however galling, were not uniquely Chinese or British. Most unfortunate is the fact that in his carping and criticism, he unconsciously gives unjustified ammunition to the enemies of Stilwell.

Those familiar with the 1943-44 North Burma campaign will find factual errors, particularly in the description of movements of various Chinese units in the Hukawng Valley. Some may even suspect that the "jungle public relations officer" was not always in the jungle. It is surprising that Eldridge, who was connected with Chih Hui Pu (pronounced djerh way boo) for over two years, labored under the misapprehension that mean these words "Chinese Expeditionary Force" when actually they stand for "General Headquarters."

There likewise appear to be some errors in his discussion of the Japanese attack on Imphal. Fred, like many of us, was indignant when the beleaguered

<sup>\*</sup>Lt. Col. Dupuy saw and did a lot in Burma. Attached as an artillery liaison officer to the Chinese 38th Division in November 1943, Colonel Dupuy took the first American trained and equipped Chinese artillery into Burma. Shortly thereafter he was given tactical command of a composite Chinese "Corps Artillery Group" which supported the Chinese 38th and 22nd Divisions until the capture of Kamsing and Mogaung. This Group later supported the British 36th Division for a period of five months, involving operations during the height of the 1944 monsoon under incredibly difficult movement and logistical circumstances. Lt. Col. Dupuy also served as a staff officer in the Namkham-Burma Road and Namtu-Lashio operations and was awarded the DSO by the British for his distinguished services ---Editor

British stated that they had expected the attack and chose to let the Japs wear themselves out in the mountainous jungle in order to meet them on favorable ground of British choosing. "British propaganda," we said, bitterly, and wondered what we would do when the supply line was cut. Surprisingly, however, it was not propaganda. While the plan may well be criticized, and much of the execution of it was poor, and while many a British officer is bitter about some of the generals who were knighted for their part in the battle, still it was the plan and three Jap Divisions were destroyed.

Eldridge's treatment of the Chindits is also misleading. While there is no reason to doubt Eldridge's specific criticisms of General Lentaigne in his dealings with Stilwell, it is not fair to suggest that the hit-and-run tactics of the Chindits were a Lentaigne improvisation which compromised more daring actions envisaged by the colorful Wingate. On the contrary, "hit and run" was Wingate's watchword, was the basis of his organization of the inefficient "columns," and was adhered to faithfully by Lentaigne after Wingate's death. While the negligible military value of the Chindits is admitted even by the British, Eldridge gives an unfair picture of their gameness. They maintained themselves for over six months in the middle of Jap held territory (the first three and a half months of which were spent in permanent, well-defined but isolated positions under almost constant attack) and suffered very heavy casualties. Many Americans have reason to be critical of the leadership, morale, fighting abilities and aimless wanderings of the Chindits, but those who knew them well admit their gallantry. The Chindit operation should rightfully take its place beside the Charge of the Light Brigade, Corrunna, Gallipoli, Dunquerque and Arnheim as one of those typically British, stupid, and *magnificent* failures. Certainly it is not fair to intimate cowardice, as Eldridge does, in their evacuation of "Blackpool," after three months of terrific Jap pressure; or to suggest that the initial failure of the Chinese and Americans at Myitkyina was because one of these hapless Chindit bands did

not prevent the Japs from moving troops in their own rear areas. Even the uninitiated reader may wonder at the statement on page 269 that the Chindits disobeyed orders to attack Mogaung, while on page 285 there is a reluctant admission that they did participate in the capture of that town.

While it is possible to find fault with parts of the book, it is nonetheless diverting. A good reporter, Eldridge writes accurately when he writes about Stilwell, whom he knew so intimately, or describes incidents which he either saw or participated in. While he still writes entertainingly, his accuracy lessens when he strays afield into matters with which he is not so familiar, when he tries to evaluate contradictory facts, and when he attempts to analyze international politics. Truly, reporters do not make good historians.

#### A Buddy Lost

LAST CHAPTER. By Ernie Pyle. 143 pp. Illustrated. Henry Holt Co. \$2.50.

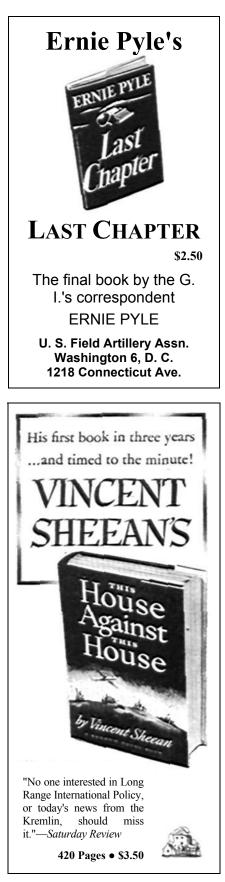
The Jap bullet that took Ernie Pyle's life on Ie Shima cost America—and particularly her fighting men—a great friend and even greater reporter. There would have been no voice raised in dissent had the wording of the memorial sign on the spot where Ernie Pyle was killed—*At This Spot the 77th Infantry Division Lost a Buddy*—*Ernie Pyle*—been broadened to include the whole American public.

To date, no other writer has been able to approach Pyle's free and easy, yet pungent, words that came straight from his heart, and which were written in the foxholes where the fighting was being done. The only improvement on his written accounts of the war might be to have heard him reminisce in person.

Returning home from Europe in 1945, Ernie Pyle rested briefly, and then took off for new experiences and new hardships and self-sacrifice on the Pacific battlefronts. He went first to the Mariannas and spent some time at the B-29 base there, living with the boys who were dropping the bombs on the Japanese homeland. He then boarded an aircraft carrier for the invasion of Okinawa, where he went ashore with the Marines and covered considerable miles with them before he was killed.

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#### THE FIELD ARTILLERY JOURNAL



Cut short of completion by his untimely death, *Last Chapter* is not a long book, but it has the punch of human interest and honesty of writing that had become Pyle's trademark. Assuredly, it will join his other books on the list of the really fine reporting jobs to come out of this war. R. F. C.

#### **Airview of World Affairs**

THIS HOUSE AGAINST THIS HOUSE. By Vincent Sheean. Random House. 420 pages. \$3.50.

#### By Allen Otten

After several volumes that can only be described as mediocre, Vincent Sheean approaches again the heights he achieved in *Personal History*. Here we have an example of the very best in foreign correspondence — brilliant descriptions of people and events, illuminated by the author's insight and background and in turn illuminating the pattern of world history. Here Sheean tells, as few men can tell it, not only what is happening but why it happens and why it matters.

After a review of the reasons for the failure of the Treaty of Versailles, the book describes many of the fronts of World War II—North Africa, Sicily, Italy, China, India, and the last few months in Europe—and concludes with the San Francisco Conference.

Throughout, the writing is superb, and apparent asides, such as those on the Laterza publishing house in Bari or the mistaken bombing of a small Sicilian town, are worked in beautifully to point up the main theme. The sections on India and Europe are a little sketchy; there is an annoying tendency to heroworship men like Uncle Joe Cannon, Phil Cochran, and Dick Carmichael; and by and large it's an air-corps view of the war. But the author admits this, and he gives such a wonderful picture of life at a tactical air command headquarters or bomber base that one can only wish that Jimmy Sheean had been able to be with all services at all times.

The book's title is from Shakespeare's *Richard II* — "O if you raise this house against this house, it will the wofullest division prove that ever fell upon this cursed earth"—and indicates Sheean's belief that the U. S. and Russia must each adapt itself to the other if the world is not to be destroyed. If his belief that

this adjustment will actually take place seems overly optimistic today, that does not in any way invalidate his thesis that the alternative is destruction. Rather it proves that we do not have enough Sheeans or enough books like this one to rouse us to our obligations.

#### **OSS in Siam**

INTO SIAM, UNDERGROUND KINGDOM. By Nicol Smith and Blake Clark. 304 pp.; index; illustrated. The Bobbs-Merrill Co. \$3.50.

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

During the war it was rather easy to understand that much information came out of continental Europe. We were familiar with the geography and people of that region, and hence could visualize traffic by sea, air, and radio.

In Asia, however, the situation was quite different. Burma, Indo-China, the Chinese provinces — these were but strange names. Geology and geography, people and climate—such matters were unknown. Mountains and jungles were there, we vaguely recalled, but the region was so unmapped and so little visited that only a few exotic bits of stray misinformation stuck in our minds.

A few people, however, knew the area fairly well. Some were missionaries, others travelers and explorers in the Far East (such as Nicol Smith). Many of these were drawn into our intelligence services, chiefly into OSS.

At the Thai Legation in Washington Smith joined twenty-one young Thai patriots who had just completed intensive OSS training, chiefly in radio work and demolitions. All had been studying at our leading universities when war broke out, having won competitive scholarships which attested to their mental caliber.

Lt. Col. (then Lt.) Smith was given a half million dollars by the Thais, who wanted to pay their own way in the liberation of their homeland. He was asked to take charge of the group, equip them, take them into China, and infiltrate them into Thailand (or Siam, if you prefer that term). Object: establishment of an intelligence network and liaison with the underground the Thais were certain must have been organized.

#### BOOK REVIEWS

This is the story of that adventure. Results, while woefully slow in developing, were phenomenal; first radio contact from Bangkok to China came from a station set up in the police station; later the headquarters of the Thais' "FBI" were used! With the sudden end of the war much of the work proved to have been done in vain-but all war is wasteful, and many preparations must be started far in advance of the operations themselves. Had Mountbatten's forces invaded Siam in November, 1945, according to plan, the work of the intelligence groups would have saved countless lives and limbs.

During the period covered by this book Blake Clark was at the OSS desk in Washington which handled Col. Smith's messages. Collaboration of the two in writing this book is therefore especially fitting.

#### You Too Can Play

WINNING GOLF. By Byron Nelson. 190 pp.; illustrated with 85 photographs of different golf stances and methods of execution. A. S. Barnes and Company. \$2.50.

#### By Lt. Col. Bertram H. White. FA-Res

Everyone, who has followed the game of golf either on the fairways or in the newspapers, knows of Byron Nelson. To many he seems to appear as a mechanical golfer or one who never makes a mistake . . . this is an exaggeration, but it is the general consensus that Nelson is as perfect as a golfer can ever become. Throughout the last several years the golf public has wondered how Mr. Nelson played so magnificently. They can cease to wonder now because it is all down in his book *Winning Golf.* 

At the suggestion of Mr. Otis Dypwick, Byron Nelson has put into his own words, accompanied by 85 photographs, his technique in playing golf. If you are a par-shooter this book will help and encourage you. If you are a dubber or an average player you should read *Winning Golf* and keep it close at hand for frequent reference. It will certainly improve your game. I know because I tried it before writing this review.

Mr. Nelson explains how to play every shot in such a way that you can go out and actually execute his technique.

### The amazing story of O.S.S. operations in Thailand



BY Nicol Smith AND Blake Clark

A Lieutenant Colonel in O. S. S., Nicol Smith, author of "Burma Road", was called into the Thai Legation in Washington and entrusted with half-a-million dollars, the lives of twentyone young Thai patriots – and a fantastically dangerous mission. Here is the tale of how that mission was accomplished; one of the war's most carefully guarded secrets, a rare combination of espionage, high adventure, mystery and state intrigue. Illustrated. \$3.50

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#### Bantam Battlewagons

DEATH WAS OUR ESCORT. By Lt. Comdr. Ernest G. Vetter, USNR. Prentice-Hall, Inc. \$3.00.

#### By Major James V. Shea, AC

Death Was Our Escort presents almost positive proof that the everyday life of a PT boat crewman in the Pacific area was definitely lived on a day-to-day basis. PT boats and their crews were fighting the Japanese Navy in southern New Guinea when most other naval plans were on drawing boards or being discussed in strategic councils. The difficulties besetting young naval reserve officers in setting up bases and securing essential material indicates that problems some think are peculiar to the army are not necessarily reserved to any major force.

The sharply-etched picture of the enemy, and the lands in which he fought with no holds barred, will bring to the reader the unforgettable memories they lived through or emphasize the hardships many endured without the advantage of publicity.

The story of speedy mahogany-hulled PT boats travelling by night in uncharted waters searching out Japanese personnel barges, supply ships or submarines is depicted in thrilling terms and makes one pause and consider the safety of the foxhole. The naval battle of Guadalcanal, the attacks on a large Japanese submarine, the PT boat action in the Bismarck Sea and the escape from Japanese lines are tales of heroic courage that all too often are accepted as routine duty.

Ably portrayed are the feelings of the battle weary American toward the Japanese soldier or sailor who generally carried on with the firm conviction that death for the Emperor was the only honorable end of warfare. The character sketch of the PT crew indicates that regardless of the locale or the service, Americans tend to be adaptable to all conditions. Description of the fourteenday jaunt through Jap infested jungles after the loss of the PT boat reaches a realistic height that is not surpassed by any adventure books yet written about man and the jungle—assisted by the Japs.

Former American residents of New Guinea will gain a new perspective from the chapters devoted to the natives and their mores.

This is a story of war as fighting men live it and fighting men will enjoy it. Strongly recommended for those who are willing to forget the job well done and who are urging we now give up our hard won possessions in the name of world fellowship.

#### Luftwaffe Story

#### THE GERMAN AIR FORCE. By Asher Lee. 310 pages; illustrated. Harper & Brothers. \$3.50.

#### By John R. Cuneo

A compact over-all description of the German air force from its secret beginnings prior to 1933 until its final defeat in 1945 has been written by the British Air Ministry's expert on the Luftwaffe. It is an excellent summary whose lack of bias—either about the Germans or air power—will pleasantly surprise American readers accustomed to the usual bluster and nonsense of air literature.

The views expressed are those of the intelligence during the war and are not based on the records captured after the war. However, at this point they seem reliable and certainly Wing Commander Lee's conclusions were highly regarded during the war when he worked not only with the RAF but also with the American and Soviet air forces. It is indeed unusual to find such a good study so close to the conclusion of a war.

The propaganda section of the German Air Ministry has probably turned over in its figurative or actual grave at the poor reproductions of photographs in the book. It was always proud of its striking and clear shots. Furthermore the absence of an index in a study of this type is inexplicable.

However, the book is by far the best available description of the German air force of World War II and it can be recommended to both professional and lay readers.

#### **REPRINT REVIEW**

#### By Richard Cordon McCloskey

The two biggest curses of quarter books, narrow inside margins (gutter margins, publishers call them) and the infuriating habit they have of scattering loose pages when you open them wide, will soon be curedaccording to the reprint publishers. The books are designed to be held together with plastic glue, which is elastic enough to let you open the book wide and uncover a generous margin, all the while holding the pages in tightly. Unfortunately, plastic glue is as hard to get as a new car, and until the supply eases up, you may still open a quarter book and think you're shuffling a deck of cards instead of reading-but it won't last long. \* \* \*

I suppose the chief advantage of reprints is that they bring you cheap copies of books vou've wanted but can't afford new or can't find second hand; and bring to your attention books you might have wanted but may never have heard of when they were originally published. This last isn't so surprising when you realize that about 10,000 titles are published each year. All the book clubs combined distribute less than 100 titles a year, and any major book review column reviews around 2,500 books a year-mostly novels-so it is easy not even to hear about a book you want. If it is a good book it will probably sooner or later pop up somewhere in a reprint, giving you a second crack at it. \* \*

I was delighted this month to pick up in a quarter Pocketbook edition Carl Crow's 400 Million Customers-one of the funniest and yet wisest books about China ever written. If Special Services had reprinted this book as a Pocket Guide to China. life in the CBI theater would have been much easier on the Yank. The drawings by Sapojnikoff are wonderful. Incidentally, speaking of Pocketbooks, if any of you want to get rich quick in the next war, duplicate See Here, Private Hargrove. This is the all-time Pocketbook best seller, with more than 2,000,000 copies to its credit.

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Three of the most rousing books on the American Revolution-all by Howard Fastare now, praise be, all available at a quarter. Conceived in Liberty (Penguin, \$.25) is a novel of Valley Forge. I can't remember any better account of this revolutionary tribute to American army leadership. The Unvanquished (Penguin, \$.25) is the story of the disastrous first eight months of the Revolution. Continual defeat had crushed Washington's army and prompted wholesale desertions. He retreated desperately through New York and New Jersey to escape the pursuing British and evade the indifferent Jersey collaborators. The story ends on Christmas Night, 1776, with the brilliant crossing of the Delaware, which gained the first notable American victory. The third book by Fast, Citizen Tom Paine (Bantam, \$.25) sets aright the garbled history of the genius whom Theodore Roosevelt with no justification at all called a "dirty little atheist." Paine was a one-man Morale Division and Psychological Warfare Division rolled into one. It is almost impossible to overestimate his influence in winning the Revolution. The book gives a thrilling, and sometimes frightening, picture of the American Revolutionary Army and the war, and recreates excellently the impact Paine had on both. Fast, in his historical writings, steers beautifully between the debunking historians who type Washington as a vainglorious and dull Virginia planter, and the adulatory historians who believe everything Parsons Weems ever wrote about him. His characters are made of blood, meat and bones, and they live and act as their contemporaries saw them. These three books are first-rate reading, and will tell you more about the Revolution, without your knowing you're being educated, than you ever learned in school or read in military histories. \* \*

Dodd and Mead and Co. issue a reprint series they call "Great Illustrated Classics" at \$2.50 each. Released in April was Bulwer-Lytton's The Last Days of Pompeii, one of the books that most of us read sooner or later, and enjoy, illustrated with photographs of Pompeiian ruins and reconstructions. The rest of the series presents Dickens, Scott, Thackeray, Dumas and other standard writers in well illustrated and designed books.

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The Great Mouthpiece by Gene Fowler (Bantam, \$.25) is the amazing story of William J. Fallon, the super-smart criminal lawyer who handled some of New York's most notorious trials. Gene Fowler unquestionably enjoyed writing about Fallon, and the book reflects his own enthusiasm for the subject.

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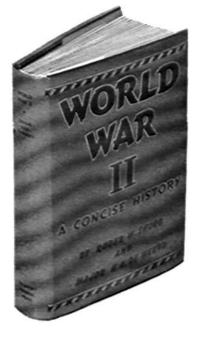
Two fine novels that are related in style but not in subject matter are Thunder on the Left by Christopher Morley and Orlando by Virginia Woolf (Penguin, \$.25). Morley's book is ostensibly a thriller about a weekend in an old house by the sea. Interwoven in this somewhat commonplace story is another story that is pure fantasy, about a child who projects himself into the lives of the people about him and influences their future. Sound screwy? Well, read it, and judge for yourself. Virginia Woolf's Orlando is difficult reading, but well rewarding.

If you're a western fan, one of the top western writers of them all, E. B. Mann (until recently editor of The American Rifleman), has two stories in the "Triangle Books" series at \$.49 each: Comanche Kid and Thirsty Range.

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- THE VOYAGE OF DOCTOR DOOLITTLE. Story and pictures by Hugh Lefting. \$2.50 This book was awarded the John Newberry Medal for "The most distinguished contribution to Children's literature in 1922," and has maintained its place at the top of the list since then.
- THE ROOSTER CROWS by Maud and Miska

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   Winner of the Caldcott Medal for 1946, given to "the most distinguished American picture book for children," this is truly a treasure chest of American rhymes and jingles—as timeless and gay as its enchanting pictures.
- ARTIE AND THE PRINCESS. Story and pictures by Marjorie Torrey \$2.00 A cute story of the doings of a green-scaled dragon who learns to fly and "smoke and fume" as any proper dragon should.

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Like these frisky colts, our children are kicking up their holiday heels, but unlike colts they need more than green pastures for a busy, gay vacation. Why not widen their horizons through the magic world of good books? This month we've covered the field to lay stress on *Things to Do*, *Make and Play*. Happy Hunting!



### THEM IN!

As children's ability and taste in reading differ, good book lists act as safe guide-posts for parents who have lost touch with this field. Among many excellent choices, Miss Anne Eaton's "Treasure for the Taking" contains a fine basic list which could supplement her "Reading with Children" (Viking, \$2.50 each). Relatives might take note and profit, too, if expecting junior guests.—S. L. A.

## Things To Make, Play, and Do

TEN LITTLE PETS COME HOME. By Gladys Oakes; illustrated by Violet Lamont. The World Publishing Co. 50 cents.

Die-cut color pictures of ten tiny pets which may be pushed out and strung up, add interest to a cute story. (primary)

ABC BLACKBOARD BOOK. Pictures by Vana Earle. Capitol Publishing Co. \$1.25.

Aspirants for school will enjoy doing "home work" with their own blackboard bound into a gay giant alphabet book with cardboard pages. Two pieces of chalk are tucked tidily away between the covers. (primary)

#### LET'S PLAY. Drawn by Nerman, compiled by Edward Ernest. Garden City Publications. \$1.00.



sense А of spontaneity and freshness of approach marks these jokes, magic mazes, nursery rhymes and simple handicraft. Clear bright pictures will arouse interest to keep small fry busily content. (primary)

TOWELINA. By Penina Kishore; drawings by Roberts Paflin. Greenberg Publishers. \$1.25.

What little girl wouldn't adore a doll she'd made herself with clothespins, yarn, towel and wash cloth? Extra-special is a story to fit this cuddly baby. (primary)

AN OPEN DOOR TO CHEMISTRY. By John L. Horning and George C. McGinnis. Appleton-Century. \$2.00. "Black Magic" made safe and simple in a fascinating introduction to chemistry. (12-up)

AMERICAN BOY'S OMNIBUS. By Stanley Pashko. A Junior Literary Guild Selection. Greenberg. \$2.50.

Every day's a gay day working with hobbies—including crafts, codes, coin tricks, chemicals, camping—plus 50 full pages of illustrations. C'mon, fellas!

FUN FOR A RAINY DAY. Edited by Michael Estrin. Knickerbocker Publishing Co. \$1.00.

Girl and Boy Scouts can outshine their friends demonstrating these shadow pictures, soap carvings and magic feats. Its cardboard cover should survive until the last puzzle is solved and the hardest knot is mastered. (8-up)

#### TERRY AND BUNKY PLAY FOOTBALL. By Dick Fishel and Red Smith; drawings by L. D. Warren. G. P. Putnam's Sons. \$1.50.

Even Mamas more at home in a hot-house atmosphere and small sisters pushed to the sidelines will amaze backyard scrubs after a few peeks through these pages. And we shudder to think how well-thumbed it will be by hopeful gridiron heroes. Like the author's *Terry and Bunky Play Baseball*, a wellillustrated story complements an excellent rule book of do's and dont's. (6-10)

#### DO IT YOURSELF — for boys and girls from The Book of Knowledge. The Grolier Society, Inc. \$2,50.

Four hundred drawings, photographs and easily followed diagrams of every imaginable hobby and pastime — taken from The Book of Knowledge, which is praise enough for the most discerning. (all ages)

ANIMALS FOR YOU TO MAKE. Written and illustrated by Phillip L. Martin. J. B. Lippincott Company. \$2.00.

Budding carpenters rush for their benches to follow these instructions and full-size patterns on how to make salable toys from plywood. (10-up)

SUN, MOON AND STARS. By W. T. Skilling and Robert S. Richardson. Whittlesey House. \$1.25.

Beginners searching the mysterious heavens will be helped by numerous charts, diagrams, and new photographs in this simple astronomy. (12-up)

#### CAPPY DICK'S PASTIME BOOK. Greenberg Publishers. \$2.00.

Want to make a wishbone cowboy, a nutshell dime bank, a hiker's leaf press, a paper doll apartment? Easy sketches show you these and many other clever ideas for games, costumes and gifts. (6-14)



#### **Tried and True**

THE BOOK OF COWBOYS. Holling C. Holling; illustrated by H. C. and Lucille Holling. The Platt and Munk Co., Inc. \$1.50.

Like Mr. Holling's superb *Paddle-to-the-Sea* and his latest story, *Tree in the Trail*, this book augments his reputation as an outstanding author-artist. Excellent sketches liven each page, clarifying the "whys" behind the customs and dress of the ranchmen, explained in pungent cowboy expressions. Peter's and Barbara's experiences on their first trip out west will set many hearts racing along The Texas Trail. (8-12)



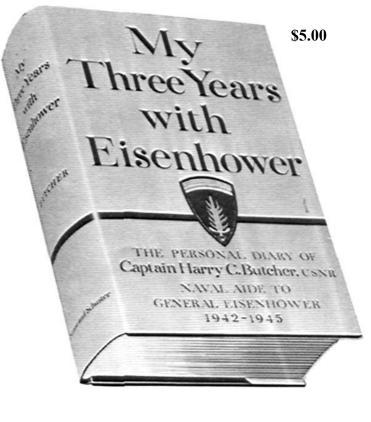
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