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AAA IN KOREA

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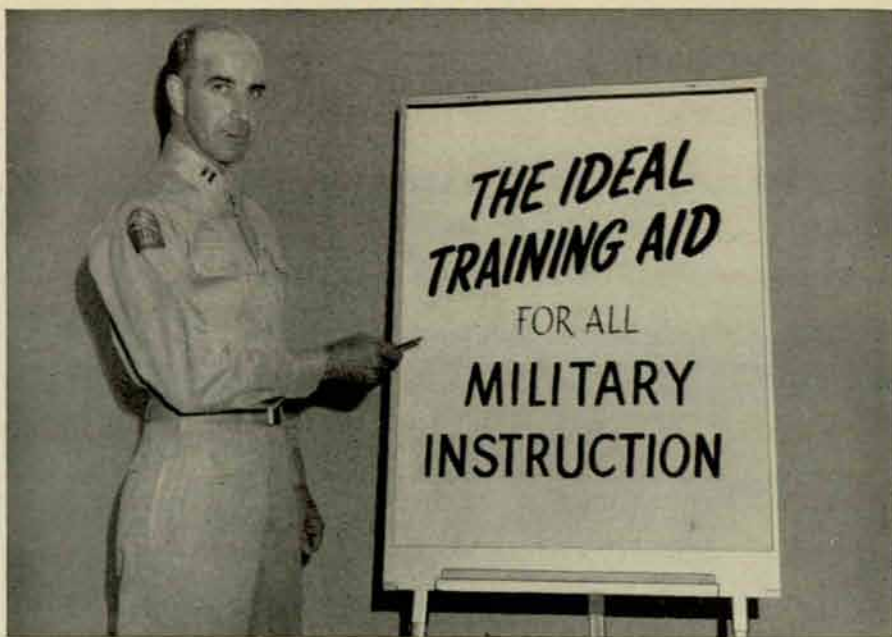
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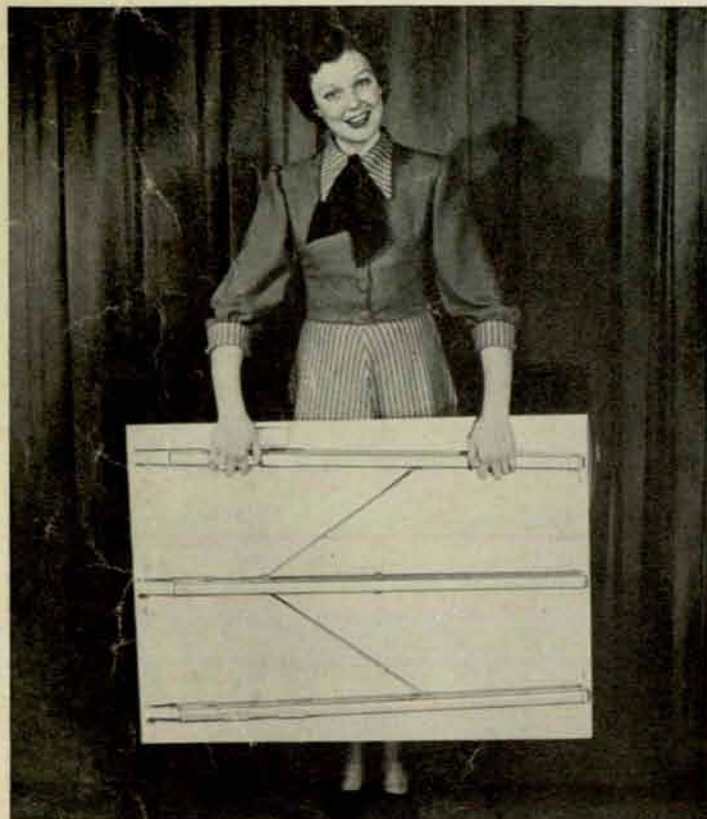
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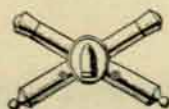
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AUTOMATIC ARTILLERY

By Major General

AUTOMATIC Artillery! The Red Koreans were the first to use that appellation for our antiaircraft. They had no kind feelings about it; their efforts were frustrated by its accuracy and rapid fire volume; so, they decried the devastating effects of both the "air and automatic artillery." With the same sense of values, but a different viewpoint, the Republic of Korea troops promptly adopted the same name. The U. S. Army forces concurred and proceeded to initiate the antiaircraft as a permanent member of the Infantry-Armor-Artillery team. Your antiaircraft troops are proud of their relationship with these Army forces who contributed so significantly toward stemming the power studded invasion and launching a lightning counteroffensive unsurpassed in history.

The antiaircraft artillery troops have exerted prodigious efforts in support of these brilliant achievements. When the final story is written of General MacArthur's magnificent triumph in that tiny peninsula, contiguous to the heart of the Communist orbit in the Far East, there will be a splendid chapter on the troops of a service which expected its enemy in the air but found him on the ground.

Doctrine prescribes that the **SECONDARY** mission of antiaircraft artillery is the close support of ground forces. In Korea it was demonstrated that there is no "primary" or "secondary" mission. There is **ONE** mission and that is to shoot at the enemy wherever and whenever he appears.

In 1940 Lieutenant Colonel Marquat returned to the States from a routine tour of duty in the Philippines. On that duty he had been actively engaged in training the Philippine Army. Before he had settled at his new station, General MacArthur had him recalled to the Far East. His record on Bataan and Corregidor, his escape to Australia, and his trek back again, still as one of the original members of the MacArthur staff, and also as commander of the far-flung 14th Antiaircraft Command, require no further illumination to our readers. In the occupation force he serves as General MacArthur's Chief of the Economic and Scientific Section. He



also serves as Antiaircraft Officer of the United Nations Force in Korea. Some day we shall celebrate his return to the U.S.A.

There have been reams and reams written under the title "Antiaircraft Artillery in Ground Defense Roles," predicated upon the basic assumptions of the authors. In most instances these treatises open with some reference to "in ground defense roles command rests with so-and-so." In Korea no one bothered about who was in command so long as the enemy effort was frustrated. The campaigns never will be recorded as classical examples of formal orders delineating command authority.

In the combat areas I found antiaircraft functioning smoothly as a component of the division artillery command setup and I found field artillery units functioning just as effectively under antiaircraft group headquarters. Perhaps in the field of academic research there will still remain areas of disagreement as to command functions in the UN action, but in the operational experience in Korea there was no doubt of the effectiveness of antiaircraft in ground support under any type of command control that existed during the respective situations.

The Antiaircraft School doctrines have proven sound fundamentally. Before Korea a predominant question was how "close" can you get in "close support"? Actually in terms of physical location, sometimes the antiaircraft was disposed in front of the mass of the forces, and sometimes in the rear. The main point is that the antiaircraft troops were always **WITH** the infantry, absorbing its shocks on the defensive and spearheading its advances on the offensive, participating in its infantry-air support actions, and integrating well in the newly developed Infantry-Armor-Artillery team.

IN visiting the antiaircraft troop units in Korea I was not able to observe personally the units in action because my presence there was at a time when the UN Forces were in the initial stages of the roll-up and all units were advancing so rapidly that it was difficult to be on the spot when something broke loose. Usually when I arrived at a command post or battery location I would be informed that the unit had received word of some enemy block somewhere far in advance and had started after it. In pursuing the advancing UN units it was normal to meet them on their way back with a "mission accomplished" smile on their faces.

But when I could finally pin down the outfits somewhere

ARTILLERY IN KOREA

William F. Marquat

I found out that the antiaircraft units had tested and proven their worth in every type of ground combat even remotely suggested in the school texts. In the bitter defensive warfare that characterized the early stages of the campaign as the UN Forces were driven back to the Pusan Perimeter, the guns and automatic weapons covered retirements, protected retreat across rivers, established perimeter defenses in delaying actions, participated in local counterattacks to release surrounded units—all with extreme valor and great effect. When our forces began to move northward and gain the momentum that carried them into North Korea and toward the Communist borders, the antiaircraft performed

with outstanding effect in road marches into enemy territory, river crossings, reduction of the potent enemy road blocks, destruction of strong points, interdiction of communication routes, counterbattery and advances through strongly held municipalities.

Although not employed in large-scale amphibious operations, U. S. Marine commanders who had directed their troops in the magnificent landing operations spoke of the efficacy of the use of antiaircraft artillery in ground support roles in amphibious warfare to supplement the ground-air teamwork in which the Naval units excel.

Now let me review the operations of some of the antiair-



A Lull in the Battle.



Left to right—Gen. Paec, CG 1st ROK Div., Col. Shea, CO 15th Reg. 1st ROK Div., Col. W. H. Hennig, CO 10th AAA Corps Div. Arty. 1st ROK Div. at Sinwon, Korea.

craft artillery gun organizations—all 90mm mobile mounts—in the Korean War. Colonel William H. Hennig, commanding the 10th AAA Group, had the 68th and 78th Gun Battalions in his command and later functioned as "Divarty" Headquarters for the ROK First Division, with the 9th Field Artillery Battalion (155mm howitzers) attached. The First ROK Division, as was characteristic of most of the South Korean indigenous units, had plenty of knowledge of the terrain but with only rifles, light automatic weapons and a few mortars, they had been unable to display any significant effectiveness. They needed trucks and artillery and when they got a few trucks and the troops of the 10th AAA Group, they started rolling. The ROK First Division troops became so convinced of the value of the fires of the 10th Group artillery, both 90mm guns and 155mm howitzers, that they would advance and overrun an area infested with enemy troops immediately after the artillery fire had lifted. In one instance the fire of a battery was suspended temporarily, but the ROK troops advanced without command as soon as fire ceased and overran the enemy anyhow. The opposition encountered was quickly wiped out merely because of their confidence in artillery support.

Here are some official records of operations of the 78th AAA Gun Battalion commanded by Lt. Col. Thomas W. Ackert during the period 14 to 30 September, 1950, in support of the First ROK Division.

"During this period 2,263 rounds were expended destroying many tanks, artillery pieces, ammunition dumps, mortars and miscellaneous enemy equipment.

"The group and battalions operated fire direction centers (FDC). Ground observers from the 1st ROK Division and an L5 observer, Major Sorenson, KMAC, 6th ROK Division, assisted greatly in the adjustment of fire. Ground observers transmitted corrections to 1st ROK Division Headquarters where they were translated and relayed to the group FDC. The group FDC in turn relayed the corrections to the battalion FDC. In one instance two batteries fired 180 rounds on a

troop concentration using both fuze quick and time fire. The following morning ROK ground troops overran the area and reported 203 dead and 334 North Koreans captured. One PW reported, "too much artillery shell." In another instance a total of 56 rounds were fired at 18,750 yards range at a battalion troop concentration. A patrol reported 250 casualties as a result of AAA fire.

"Three hundred fifty-eight rounds were fired on a troop concentration in the HOM-DONG area at the extreme range of the guns. It resulted in a complete rout of the enemy who retired leaving behind 150 killed, numerous wounded, and considerable military equipment. General Farrell and Major Sorenson highly praised the pinpointing of the 90mm fire. The ROK's and captured prisoners both referred to the antiaircraft as the 'Automatic Artillery.'"

The 10th AAA Group played a major role in the rapid advance of the 1st ROK Division, and General Paec, division commander, expressed extreme satisfaction with the support rendered by the group.

THE 68th AAA Gun Battalion (90mm), Lt. Col. Raymond C. Cheal, commanding, supported the 1st Cavalry Division (Inf), 24th Infantry Division, 27th British Brigade and the 2d Battalion, 7th Cavalry, all in the ground support role. During this period the battalion destroyed five artillery pieces, three tanks, inflicted 1,750 enemy casualties, dispersed 21 enemy formations and silenced nine enemy guns. The battalion materially assisted in the advance of the supported units and in their securing assigned objectives.

Much of the fire of the 90mm guns was at long range in order to clear the mask between the gun emplacements and the targets. The 155mm Howitzer units took care of the hostile elements on the reverse slopes within range. This was the pattern of the antiaircraft artillery ground fire throughout the campaign—not replacing other types of



Left to right—Maj. Kyle F. Davis and Lt. Col. Forrest L. Martz, 10th AAA Group with General Marquat.

artillery but supplementing it within the limitations of the antiaircraft weapons characteristics.

Captain W. F. Rawcliffe, liaison officer with the First ROK Division from the I Corps, U. S. Army, commanded by General Frank Milburn, acted as guide for visits to several units of the battalions, all of which were on the march when contacted in the vicinity of POUN and CHONGJU. Lt. Col. F. L. Martz, Major K. F. Davis and Major Zed Harris gave vivid accounts of the activities of the various units of the command. They described in detail the terrific slaughter of stubborn enemy defenders in the "Walled City" north of SINWON as a result of air attack with napalm bombs and artillery fire; and also how two artillery battalions assumed positions flanking a strongly defended hill holding up the First Cavalry advance and laid down a terrific barrage which permitted the ROK and Cavalry units to crack this resistance and move rapidly northward in pursuit of the fleeing enemy. All artillerymen in this group were enthusiastic about the effectiveness and accuracy of fire adjustment by the L-5 liaison plane personnel.

NOW for some reports on action by automatic weapons units:

In the X Corps area, commanded by General Edward M. Almond, the 50th AAA Automatic Weapons Battalion (SP), commanded by Lt. Col. Charles S. O'Malley, was moving forward with the Cavalry units to wipe out pockets of the enemy in the Seoul northern outskirts. They had not yet seen action. The 15th AAA AW Battalion (SP), in support of the Seventh Division, however, had experienced three days of intense activity with the 31st Infantry, commanded by Col. Richard P. Ovenshine in the ANGYANK-RI area. They accompanied tanks and infantry in attacks against road blocks and enemy pockets which were well supported by automatic weapons and light artillery. Lt. Col. Robert W. Hain, commanding the battalion, Capt. Ransom B. Cubbage, commanding Battery B, 1st Lt. Joseph J. Kubilus, Battery B executive, 2nd Lt. Thomas Holt and WOJG Raymond J. Hartsock all reported the three days of high pressure activity during which Battery B alone fired 125,000 rounds of caliber .50 ammunition and 2,400 rounds of 40mm ammunition.

The 40mm weapons were employed to good advantage to take out one strong position on top of a low hill overlooking the route of advance of our troops. The full track weapons were moved to an adjacent hill well located for the purpose and with sudden enfilading fire they caught the defensive crews and their weapons in emplacements and wiped out all eight of them. The 40mm fire was so intense and fast that the defenders of the hill were killed before they could flee from their weapons.

During the various types of action within this brief period the enemy launched a "banzai" or suicide charge at the advancing U. S. forces from a neighboring hill. A single M-16, quad caliber .50 machine gun mount broke up the charge, killed 100 by actual count and caused the remainder to flee in disorder, many being wounded.

It was found that antiaircraft automatic weapons units in support of tank advances are extremely effective. The

tactics generally employed in this type of action will be discussed later.

THE Second Infantry Division was the only U. S. unit that brought a full organic antiaircraft artillery battalion into combat with it. Three of the other divisions had only one AW battery each. In another case one AAA battalion was furnished from the theater but it had not trained with the supporting infantry. Major General Laurence B. Keiser, commanding the Second Division, and Brig. General Joseph S. Bradley, who commanded the famed "Task Force Bradley" during the early phases of the campaign, both praised the actions of the antiaircraft artillery liberally. Brig. Gen. Loyal M. Haynes, Division Artillery commander, and his executive, Col. W. R. Goodrich, had directed the training of the 82nd AAA AW Battalion (SP), commanded by Lt. Col. Walter Killilae, and were enthusiastic over the teamplay that had been developed. General Haynes has strong convictions about the employment of assigned antiaircraft artillery units under division artillery control rather than by permanent attachment to the infantry. The way he handles this control justifies his position. There are other commanders in the U. N. Korean Forces who feel that direct attachment to the infantry works better, but in no other case had there been opportunity for the organic AAA battalion to train for combat with its parent infantry division, which may, or may not, have a bearing on their opinions.

Colonel Paul L. Freeman, commanding the 23rd Infantry, which has made a glorious record, prefers the 40mm antiaircraft guns to the quad caliber .50 mounts for infantry close support and cites many instances of magnificent performance. Captain K. L. Boullion, commanding Battery B of the 82nd AAA AW Battalion (SP) has established a fine record in combat with his organization.

The Second Division claims to have used its organic antiaircraft artillery in practically every type of ground action. The division was in the thick of the fighting when our forces were retiring before superior armor and numbers of hostile troops, and it spearheaded the early advances when the roll-up began.

FROM official records a few of the many operations of the 82nd AAA AW Battalion (SP) under Lt. Col. Killilae follow.

"Task Force Bradley was assigned the mission of securing an airstrip at POHANG-DONG. It consisted of the 3d Battalion, 9th Infantry; Battery C, 15th FA Battalion; Tank Co., 9th Infantry; Co. A, 2d Engineer Battalion; and Battery A, 82nd AAA AW Battalion (SP).

"The Task Force left KYONG-SAN on August 10. Company K, comprising the advance party, was ambushed near ANGANG-NI. While Company K engaged the ambush the main body was able to push thru supported by the superior fire, delivered from the road, of its antiaircraft automatic weapons and the tanks.

"General Bradley directed Company I to return to ANGANG-NI to extract Company K which was pinned down. Company I also was pinned down about three miles from

Company K as it became apparent that the enemy was in considerable strength and had ample machine guns and mortars. The Task Force commander then directed Battery A of the 82nd AAA AW Battalion to send two M-16s to the rescue of the two companies. The crews had to shoot their way thru the enemy. The devastating fire of these two quad 50s, under the respective commands of Sgt. 1cl. R. E. Stone and Sgt. E. Owens, relieved pressure on the remnants of the two infantry companies permitting them to withdraw eventually—but with heavy losses. In the encounter with the enemy Pfc Compton, Pvt Aycoth, and Pvt Neely were wounded, and Pvt Whitmire was injured. All members of the gun crews were recommended for the Silver Star award by the Task Force commander.

"Shortly after its arrival in Korea the battalion was plunged into a perimeter defense situation. On August 21 the battalion CP was established in the vicinity of Ch'omak-tong in a narrow valley between a road and a low elongated hill forested with second-growth pine trees.

"At 0435 August 25 an undetermined number of guerrillas attacked the CP from two sides—the road and the hill. In the bivouac area were Battery A and Headquarters Battery. Explosions from grenades and light mortars occurred in the motor pool area. Small arms fire from rifles and machine guns streamed into the bivouac area for thirty minutes.

"There followed about forty minutes of intermittent firing by the enemy, during which time whistle signals were exchanged between guerrillas on the hill and those along the road. The enemy had become arrogant and confident of victory, taunting the Americans to come out and surrender.

"At about 0550 Battery A and Headquarters Battery let loose with weapons that had been moved into position under enemy fire. The tracers from the M-16s streamed into the road, paddies and hillside, creating an impressive, if eerie, pyrotechnic effect. When the firing ceased the guerrillas had fled, leaving many dead and wounded.

"On several occasions the battalion employed, with excellent results, indirect fire with the M-16s and M-19s on enemy concentrations. This method of fire was particularly effective at night after a registration during daylight hours.

"Indirect firing with the M-19 using fuze bursts at self-destruction point was employed against troop concentration areas and proved to be effective. This type of fire is possible only at the extreme range of the ammunition. Infantry observers reported 40mm indirect fire to be quite satisfactory. On one occasion the 23d Infantry reported that a fuel dump beyond a ridge was ignited by 40mm fire.

"Elements of the battalion, from single weapons to batteries, were used in close support missions with infantry, field artillery, armored, and engineer units. Specific missions included defensive and offensive fires against enemy personnel; neutralization and destruction of enemy machine guns, mortars, and light artillery; support of infantry elements from squad to battalion size on combat patrols; reinforcement of armored units; establishment and defense of friendly road blocks; attack of enemy road blocks; perimeter defense of division, division artillery, regiment and battalion CPs and defense of air strips."



Left to right—Capt. August Koenig, Capt. Thomas H. O'Day, Lt. Col. Troy A. Barker of the 76th AAA AW Bn. (SP), General Marquat, with Capt. Theodore P. Carter, 933d AAA AW Bn. and Capt. George H. Pallman, 76th AAA AW Bn. (SP).

IN order that there be no misunderstanding, it should be made a matter of record that antiaircraft troops in Korea have not been entirely divorced from air defense. The first hostile shots fired by U. S. Army troops in the Korean War came from the guns of "Detachment X" in defense of the Suwon airstrip on 29 June 1950. This was the day that General MacArthur first came to Korea with his staff to set up the blueprint for the United Nations Force participation. He landed on the Suwon strip. Four enemy Yak fighters attacked the strip with bombs and strafing. The four multiple caliber .50 machine gun mounts went into action and one plane was shot down and another crashed after having been hit. A night attack on the strip was driven off by antiaircraft fire.

"Detachment X" consisted of three officers and thirty-four enlisted men under command of Capt. Frank J. McCabe, all volunteers from the 507th AAA AW Battalion for early service in Korea.

The 76th AAA AW Battalion (SP) has been defending the "K" strips. It is commanded by Lt. Col. Charles L. Andrews with Lt. Col. Roy A. Barker (recently promoted) as executive. Captains William J. Sandercock, T. H. Day, A. Koenig, G. N. Tallman, all of the 76th Battalion, and Theodore P. Carter, commanding Battery A, 933rd AAA AW Battalion, were contacted with their units in air defense roles in critical areas. Their main difficulty was in displacing forward at the rate that the Fifth Air Force advanced as the North Koreans were being driven back.

Here are some interesting observations on matters of tactical employment.

In march formations the antiaircraft automatic weapons half tracks with the caliber .50 quad mounts and the twin 40mm mounts were recognized as assets from the early stages of the Korean combat. At first the tremendous firepower of the multiple caliber .50 units made the half tracks appear suitable for use as points in the advance guard forward of the tanks and infantry. These units are practically unarmored and became victims of land mines, automatic weapons and antitank weapons in road blocks.

VARIOUS combinations of AA-Armor-Infantry employ-



Prime mover of the 10th AAA Group.

ment were tried and the one which met the greatest popularity was to permit a tank to lead, followed by two AAA track or half track units and then a tank, accompanied by infantry. The tank in the lead can absorb counter-tank action, can take automatic weapons fire from ahead which the antiaircraft is not prepared to resist and, unless a track is cut, is better prepared to withstand road mines than any other vehicle. The vulnerability of the tank is from the side and rear where it carries lighter armor, so the hostile forces normally attempt to attack from these angles. When an enemy rocket unit opens fire it depends upon surprise and the time lag before it can be located to permit the crew to "zero in" on the tank and put it out of action.

In the system under discussion, as soon as it is discovered that bazooka fire is coming from a given general locality the antiaircraft automatic weapons sweep the area with tremendous fire volume and consistently disperse or destroy the hostile bazooka element. It is surprising how many actual records there are of antitank weapons being disabled and crews killed when the location had not been pinpointed by our troops. Also in this type of road formation a column may be halted by an obstacle in the road for the purpose of permitting banzai charges before the barrier can be removed. The multiple caliber .50 units are deadly against mass charges of this nature.

In reducing the enemy dug in on hills, the 40mm and caliber .50 weapons were superb. These weapons were able to keep an entire hilltop where the machine guns, light artillery and rockets were emplaced, under neutralization by their rapid bursts of tremendous firepower. Then the infantry advanced to take the hill while the enemy was under cover. On one occasion a twin 40mm unit was rushed to the top of a very conveniently located adjacent hill where it was able to place enfilading fire into six emplacements at such a rate that disabled weapons and dead personnel were found in all six dug-in areas when the infantry reached the hilltop. The latter experienced no opposing fire.

This situation was exceptional, of course, since the location of the adjacent hill area made the whole attack possible. It did suggest, however, the possibility of using the full track vehicles to rush a hill which was being neutralized by other automatic weapons units of the friendly forces. The mechanical unit can negotiate a normal slope at a rate much faster than infantry and once on top can use its fire power or run down the elements defending the hill while the

friendly infantry is advancing. The antiaircraft automatic weapons are helpless in such a hill climb if the enemy on top has automatic, antitank or rocket weapons since they cannot fire forward in sufficient depression to cover their own advance. They must be used with an automatic weapons barrage neutralizing the hill until the rush is under way. The half tracks cannot climb hills of this nature or move overland at a rate sufficient to keep up with the infantry. These factors suggest the mounting of the quad caliber .50 on full track vehicles and the redesign of antiaircraft automatic weapons mounts to permit firing forward at greater angles of depression. More armor protection for crews is a pressing need for this and all other occasions.

IN Korea the use of automatic weapons from the flanks of river crossing zones to neutralize the fire of defending automatic weapons proved most effective. The reverse was true in defending against river crossings by the enemy not equipped with the same type of automatic gunfire. In an advance across a river the tactical employment should envisage the rapid conveying of the automatic weapons units to the other side of a river to neutralize the defending hill masses and the reserve positions once friendly troops are across and moving on the defenses.

In the early stages of the defense of a position, the automatic weapons were used in the forward defense lines with the infantry. The high silhouette of these weapons and the fact that the enemy recognized their devastating fire power made them targets of hostile mortars and howitzers. The friendly infantry did not relish this type of employment of antiaircraft since it drew fire on the key defense areas and caused the infantry to evacuate. The most effective use of the automatic weapons in this type of action was found to be the emplacement of the weapons with protective sandbag revetments to the rear of the forward friendly elements and to employ overhead fire. It is necessary to move the weapons frequently, especially at night, since the enemy locates the gun sites and blasts them with howitzer or mortar fire by coordinate fire at night.



The full track personnel carriers, although scarce, proved valuable in transporting command and communications personnel in fire swept areas. They should carry better armor protection. In the case of a 90mm gun battery, the radio in these command track vehicles was used to control fire from ground spotters in forward positions and in addition could communicate the progress of the entire infantry and artillery action to the battalion headquarters located at the division CP, thereby keeping the division commander continuously informed concerning the ground action developments. This radio contact could be developed to include air spotting from liaison planes if the proper frequency radio sets can be installed. The assignment of fire missions by the infantry to the supporting antiaircraft artillery batteries via the radio channels proved most satisfactory.

It was considered that white phosphorus ammunition for 40mm weapons could be used to designate hostile ground targets to the attacking air and for anti-personnel fire as well.

COLONEL Killilae and his commanders found that when the enemy target is fixed it is frequently more effective to use only a single weapon of the multiple mount units. Where precision fire is demanded against a target that cannot move they merely cut out the excess firing elements and went to work with a base piece.

Where the enemy is not pinpointed, however, a quick sweep of the area within which he is known to be operating makes the hostile emplacement untenable and the ammunition, both caliber .50 and 40mm, has enough power to cut through brush and fragile revetments and reach its objective. This saturation fire is loudly praised by many infantry colonels who recognize the great superiority of automatic weapons fire in bursts at frequent intervals (made continuous by alternating bursts from various weapons) for the purpose of neutralizing a defensive fire unit or area. Seldom did hostile troops remain within a saturated area.

Close support air attack is a most effective means of destroying emplaced or masked weapons. However, emplacements hidden from the air prove devastating to advancing infantry and these guns can be sprayed by the automatic weapons as they appear even if the close support airplanes have left the scene. Also it may be too much to expect that friendly strafing planes will be available at all times and at all places immediately when required.

IT is not the intention of this article to cover all of the uses to which antiaircraft automatic weapons were put in the ground support role but merely to mention some of the most prominent types of employment and the development of new teamwork. The antiaircraft organizations must be warned against acceptance of many of the special situations in Korea as a general condition calling for radical changes in design, organization, or employment.

As a matter of fact the Korean incident has proven again the adequacy of the basic designs and procedure doctrines and these require the integration of minor adjustments only to fit conditions of this particular type of warfare. The Korean hills with their scrub vegetation are ideal for infantry defense purposes and are difficult to attack. Their acces-

sibility to air observation via liaison plane and the absence of heavy trees tend to make them most vulnerable to air attack. The ability of the North Koreans to infiltrate from the hills and to hand-carry equipment and supplies off the road introduces another special problem. This is different fighting from the swamp and tropical forest combat of World War II in the Pacific Area and from the rapid mass movement in the European Theater. The modern United States army must be able to fight in all environments and against all types of enemy, and overemphasis of any one tactical pattern is dangerous.

Warning also must be sounded to antiaircraft units against overloading their organizations. Transportation is scarce in large-scale amphibious movements and air transport, and oversized organizations are not accommodated in high priority. In Korea the logistical problems of keeping railroads operating, or restoring them after our air force has wiped them out while in the hands of the enemy proved serious. Road repair over long distances is not accomplished in a short period of time either. So the tendency to add to T/O & E equipment every item that might fit any special case must be avoided. The refinements should be held to the irreducible minimum consistent with efficient performance.

IN summary, I repeat that the Antiaircraft units in the United Nations Forces in Korea have covered themselves with glory and have performed their missions in accordance with the highest traditions of the Artillery. They have earned the confidence of the Infantry commanders and the Armored Force units with which they have served in ground support roles. For the second time in recent modern warfare the Antiaircraft in ground roles has been unequivocally accepted as a tremendous asset to the Infantry-Armor-Artillery team. The proven tactics should be integrated in all academic texts and used extensively in war games and tactical exercises. These matters should be taught not only in the Antiaircraft and Guided Missile School at Fort Bliss but at all basic and advanced tactical institutions. There should no longer be a need for indoctrination on the battlefield in principles of combined employment of Antiaircraft with Armor and Infantry in ground support roles.



In Action Near Pohang Dong.

GROUND DEFENSE OF THE ANTIAIRCRAFT BATTERY

By Captain Donald L. Ducey, Arty.

DURING World War II an Airborne Automatic Weapons Battery was flown in to protect a forward airfield against hostile air attack immediately upon its capture by our forces. By nightfall all of the emplacements had been dug in and a guard system established as local security against hostile ground action. However, during the night the enemy infiltrated through the defenses and massacred every man at two weapons positions. Whether the failure was due to faulty training, faulty planning, or faulty execution is immaterial here. It is to prevent such occurrences that we establish an effective, coordinated local security system for our AAA units operating wherever there is a possibility of enemy action. If, by chance, any of us have ever overlooked this necessity, the recent events in Korea should serve to refresh us adequately.

The type and complexity of the local security system will vary. If the unit is operating in the communication zone all that may be necessary is security against sabotage; whereas, in the combat zone adequate security against ground attack by an enemy force is required. The problem in the combat zone is discussed in this article.

A study of the employment of Infantry units engaged in a perimeter defense is pertinent. (Reference: F. M. 7-10) The basic doctrine of defense dictates the organization of a battle position to be held at all cost, and the use of a covering force to delay and disorganize the attacking enemy and deceive him as to the true location of the battle position. The subordinate elements need to understand the implications of holding a battle position at all costs. If one withdraws on its own initiative, the enemy may penetrate at that point and roll up the flanks and rear of the entire position.

The mission of the defense, whether it be manned by infantry or antiaircraft, is to *stop* the enemy by fire in front of the battle position, to *repel* his assault by close combat if he reaches it, and to *eject* him by counterattack if he succeeds in entering the battle position. This mission, together with the doctrine of defense, forms the basis for the principles of defensive combat which illustrate the key points in the establishment of a defense.

THE seven principles of defense and their application to a local defense by AA are:

Defense of Key Terrain. The best method of establishing a defense is to organize key points and cover the intervals between and approaches thereto by fire. The selection of these key points will be based on the commander's evaluation of the terrain.

Organization in Depth is essential if the integrity of the defense is to be maintained. Any position can be penetrated if the attacking force will pay the cost; however, if the defense has depth the penetration can be limited by the forces to the rear and a counterattack launched to eject the attacker from the position.

Mutual Support. Weapons and elements of a defensive position are located so that they will be mutually supporting across the front and from front to rear. Elements are so located that they can support the adjacent element on either flank by fire. Mutual support in depth is necessary so that if a penetration of the main battle position is made the attacker will immediately come under fire from units to the rear before he can reorganize.

All-Around Defense. A defensive position is organized to meet an attack from any direction; however, the extent of all-around defense depends on individual needs and local conditions. A unit operating independently would have greater need for all-around protection than a unit as part of a larger force.

Coordinated Fire Plan. To obtain the maximum effectiveness of its weapons each unit plans and coordinates its fires. Such planning insures complete coverage of the battle position and continuous fire on the attacking force; it provides for the opening of fires, signals for final protective fires, rates of fire, and fires to be delivered during times of poor visibility.

Coordinated Antitank Defense. The unit commander uses all means under his control to provide a defense against tank attack. This will include the placing of antitank weapons, minefields, and obstacles in the proper location to pro-

Captain Donald L. Ducey was commissioned in the CAC in 1942 and immediately went to the CBI theater with an airborne antiaircraft AW battery. There he organized, trained, and fought with a Chinese antiaircraft battalion and later fought with Chinese infantry. He was integrated into the Regular Army in 1946 and now serves as an instructor in the AA and GM Branch, The Artillery School.

tect the battle position against tank attack or combined tank infantry attacks. In some cases, the existence of avenues of approach will indicate the best location of these means for antitank defense.

Flexibility is the keynote of a successful defense. It is obtained through the preparation of supplementary positions, holding troops in reserve, and by being able to mass the fires of supporting weapons at the decisive point at the proper time. Supplementary positions are prepared so that elements may move to these positions if the need arises during the battle. The reserve forces may be used to limit a penetration, protect the flanks and rear of a unit, or to eject the enemy from the position by counterattack.

GROUND DEFENSE OF AAA UNITS

A FACTOR of importance to the commander is the weapons that are available to him. He should have a thorough knowledge of the capabilities and limitations of each one. Although the primary weapons in an AAA unit were designed to destroy hostile aircraft, they have many desirable characteristics for ground firing. The commander should employ them to obtain their maximum effectiveness in the accomplishment of his mission.

Let us now consider how these factors will apply to the different types of AAA units.

THE 90MM AAA GUN BATTERY

THIS discussion will be confined to the 90mm units. However, with a few modifications to this method, it will apply equally well to the 120mm units.

Weapons:

Carbine. The carbine is the principal individual weapon in the AAA gun battery. Although it is not as effective as the M1 rifle, it is capable of delivering a good volume of fire effectively up to 300 yards range. The launcher, grenade M-8, of which there are 10 in the Battery, is used with the carbine to fire the rifle grenade.

Rifle Grenade. Rifle grenades are more accurate than hand grenades and have a longer range. They are effective against lightly armored vehicles, emplacements and personnel.

Submachine Gun, caliber .45. There are 25 submachine guns authorized the AAA gun battery, primarily to vehicle drivers. The submachine gun is an effective short range weapon capable of providing a good volume of fire.

Caliber .50 Machine Gun M-2. Each battery is authorized 9 single barrel caliber .50 machine guns that can be mounted on vehicles or used with the M-63 AAA machine-gun mount. When used with the ground mount, this weapon is exceptionally well suited for ground defense of the unit.

Rocket Launcher 3.5-inch. The 3.5-inch rocket launcher is primarily an antitank weapon; however, it may also be used against crew-served weapons, pillbox embrasures, and personnel. The effective range of the 3.5-inch launcher

against stationary point targets is 400 yards and against moving targets, 200 yards. This weapon will penetrate approximately 11 inches of armor.

Multiple caliber .50 Machine Gun M-55. There are four multiple caliber .50 machine guns in each AAA gun battery. This weapon mounts four HB air cooled machine guns on a trailer mount. Although primarily used to provide protection for the battery against low flying aircraft, it is well suited for ground firing. Its capabilities include accuracy, large volume of fire and ability to fire area fire against personnel. The principal limitation of this weapon in a ground defense mission is its high silhouette which makes its location easily discernible to an enemy. The value of this weapon for ground firing was proven in World War II, and again just as convincingly in Korea.

90mm AAA Gun. Although the 90mm gun can contribute much to the ground defense of the unit, considerable difficulty may be encountered in incorporating it into the defense if it is in position for AAA firing. However, under normal conditions of terrain, this weapon can be sited so as to cover likely avenues of approach for armored vehicles and personnel and may be further used to destroy or neutralize enemy OP's that may be providing observation of our area.

Employment.

The normal disposition of an AAA gun battery in tactical position makes a perimeter defense of the battery a relatively simple problem if the principles illustrated previously are followed. The organization of the battery also lends itself to assignments or tasks for this problem.



The battery headquarters, less the battery maintenance section and vehicle drivers, consists of one officer and forty-two men. The range platoon, less vehicle drivers, consists of one officer and twenty-one men. Each 90mm gun section, less tractor driver, contains thirteen men. The battery motor pool consists of twenty-five men. The machine gun section of the gun platoon, less vehicle drivers, contains one officer and seventeen men.

Each of these elements is assigned a specific mission for ground defense of the battery. (See Fig. 1.) The range platoon and each of the 90mm gun sections is assigned a part of the perimeter to organize and defend. Two-man foxholes normally are dug five to 20 yards apart with 10 to 25 yards allotted to crew-served weapons located in the defense areas. These elements on the perimeter will also establish observation points and small outguards on likely avenues of approach and in terrain where observation cannot be obtained. In general, these outguards should not be over 400 yards from the perimeter and during periods of poor visibility or darkness may be drawn in closer to or inside the perimeter as necessary. When suitable observation cannot be obtained from the outguards posts, visiting patrols are sent between the post as indicated in Fig. 1, between outguard posts 1, 2 & 3.

THE battery commander will select sites around the perimeter for the M-55 multiple machine guns, the single barrel caliber .50 machine guns and rocket launchers. The M-55's are located to provide both antiaircraft fire and ground fire from the same positions. The single machine guns may be given the same mission as the M-55's or assigned only the ground firing role.

The machine guns are sited to provide interlocking sectors of fire and if possible interlocking final protective fires. (See Fig. 1.) Fields of fire may have to be cleared so that the weapon will be able to accomplish its assigned mission. Caution must be exercised when clearing fields of fire so that the location of the weapons position will not be disclosed to an approaching enemy.

The personnel of the machine-gun section of the gun platoon will man the M-55's both for antiaircraft defense and ground defense of the unit. Vehicle drivers from the battery motor section will man the nine single caliber .50 machine guns on the perimeter.

The rocket launchers are sited to cover the most probable avenues of approach of armored vehicles. These weapons will be manned by the element in whose defense area they are located.

The battery headquarters section will form the support element of the defense. They will be located so that they will have the maximum amount of cover and concealment; however, they must be able to be employed in any sector of the defense. The battery commander will prepare counterattack plans for this element so that they may be used in this manner as necessary without delay.

In addition to the weapons and personnel already mentioned, the battery commander has another means of strengthening his defense. This is done by the use of mines and obstacles. Antitank mines are placed along the probable routes of approach of armored vehicles, and antipersonnel

mines, barbed wire, and other obstacles placed as necessary to hinder the advance of ground troops attacking the battery position.

As the enemy approaches the battery position, the outguards give warning to the battery either through the communications net or by prearranged signal. They will also observe to determine the enemy strength, actions and routes of approach. They will then withdraw to the perimeter.

When the battery is alerted by the outguards all elements of the battery will immediately proceed to their designated defense areas or weapons. When the enemy comes within effective small-arms range of the perimeter, individuals and crew-served weapons on the perimeter open fire to inflict maximum casualties and to stop the attack before it reaches their positions.

If the enemy's attacking elements approach the area covered by planned final protective fires, machine guns shift their fires to final protective lines. The authority to order final protective fires is usually designated to the leaders of the elements assigned defense areas on the perimeter so that these fires may be delivered when they are needed. If the enemy assaults the position, he is met by fire, grenades, and close combat. Personnel and elements on the perimeter will not withdraw except on the verified order of the battery commander.

If the enemy succeeds in entering the perimeter, the battery commander will use his support element to eject him by counterattack. It must be remembered that the counterattack is the decisive element in defensive combat and that the proper and timely use of the counterattacking force is the commander's means of restoring the integrity of the battle positions.

THE AAA AUTOMATIC WEAPONS BATTERY (SP)

THE self propelled AW battery will be the basis for this discussion because it is the unit that will be used mostly in the combat zone. Again, as in the gun units, only slight modification will be necessary to apply these principles to towed AW units.

Weapons:

In addition to the carbine, rifle grenades, submachine gun caliber .45, caliber .50 machine gun M-2, and the rocket launcher 3.5-inch, which were described above and are also available to the AW battery commander, he has the following weapons available and suitable for ground defense.

Twin 40mm Gun M-19. This weapon is a dual 40mm automatic cannon mounted on a modified M-24 light tank chassis. These 40mm guns will fire together or independently and together have a rate of fire of 240 rounds per minute. It is an extremely accurate weapon for ground fire and can be used effectively to engage enemy emplacements, personnel and lightly armored vehicles. Being a highly mobile full tracked vehicle, little if any difficulty will be encountered when and if the weapon is required to move to an alternate or supplementary position during an attack by the enemy. There are eight of these weapons in each self propelled AW battery.

Multiple Caliber .50 Machine Gun M-16. This weapon has the same characteristics as the multiple caliber .50 machine gun M-55, authorized the 90mm AAA gun battery, except that it is a half-track vehicle. Being a self propelled weapon, it is more desirable for this mission than the M-55 because of the increased mobility. There are eight of these weapons in each self propelled battery.

Employment:

Planning the ground defense of an automatic weapons battery is a considerably more complex problem than was encountered with the AAA gun battery. Whereas the disposition of the gun battery lent itself to the establishment of a perimeter defense, the size of the area defended, distance between weapons and shortage of personnel to act as riflemen will cause difficulties in establishing a perimeter defense around an AW battery. However, if the antiaircraft defense is established with the thought in mind that the unit must defend itself against ground attack, the problem can be made much easier.

There are generally three conditions that might exist as far as ground action against our unit is concerned and these conditions will of course influence the decisions made in regard to the employment of the AW unit. These conditions are:

Employment where an attack by an enemy force is possible but not probable.

Employment where an attack by a small enemy force is probable.

Employment where an attack by a large enemy force is probable.

Under these conditions we would consider a small force to be of Platoon strength or less. With these factors in mind let us consider how we would dispose our weapons around a defended area.

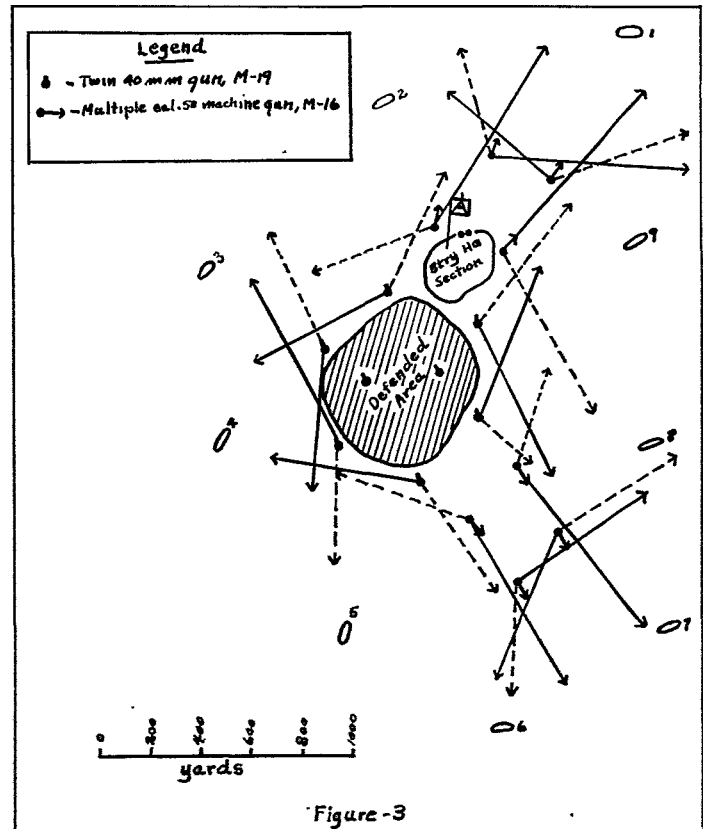
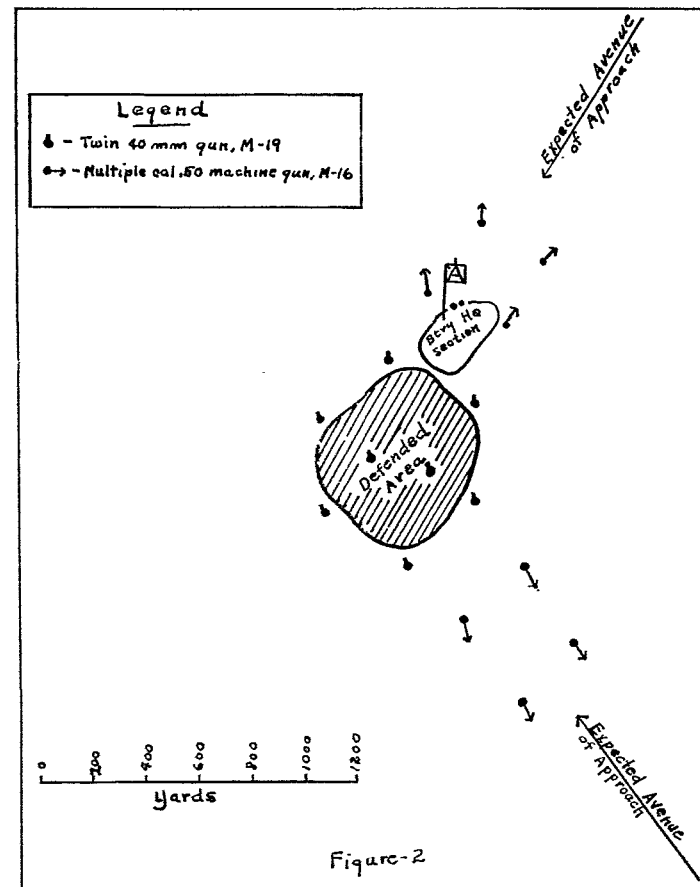
One method of placing a self propelled automatic weapons battery around a defended area is shown in Fig. 2. The M-19's are placed in and around the defended area and the M-16's are placed out from the objective, as indicated, along probable avenues of approach.

Fig. 3 shows the ground defense plan of the same defended area. All of the M-16's and M-19's on the perimeter are incorporated into the defense and assigned sectors of fire for ground defense. The sectors of fire are interlocking and final protective lines established wherever possible as indicated by the solid lines. Fields of fire are cleared as necessary to enable all weapons to have the proper coverage in their sectors.

Rocket launchers are located to cover the most dangerous avenues of approach for hostile armor. This is supplemented by the construction of obstacles and the laying of mine fields. Foxholes are dug between the weapons and personnel assigned to the foxholes in event of ground attack.

An outguard system is established in this defense similar to that established for the defense of the AAA gun battery. These outguards are established as required to provide proper warning of the approach of hostile ground forces. The distance from the perimeter and distance between outguard posts will depend on the terrain and observation from each position. Personnel to man the outguard posts will be provided from the weapons crews or from personnel from the battery headquarters section.

The Battery headquarters section consists of two officers and 47 men which compose the support element of the defense. They are used in the same manner as the support ele-



Legend

- - Twin 40 mm Gun - M-19
- - Multiple cal. 50 machine gun - M-16

Expected Avenue
of Approach

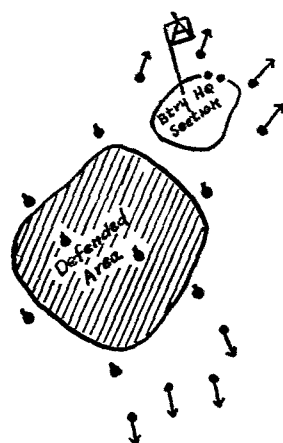


Figure - 4

Legend

- - Twin 40 mm Gun, M-19
- - Multiple cal. 50 machine gun, M-16

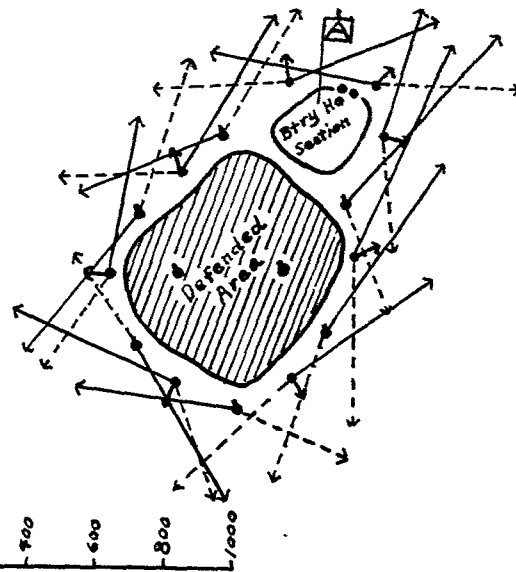


Figure - 5

ment in the ground defense plan in the AAA gun battery, to add depth to the defense, to limit a penetration, and as a counterattacking force.

The disposition of weapons and the ground defense plan shown in Figures 2 and 3 are sound and will provide a strong defense against both air and ground attack. However this disposition is recommended only where an attack by an enemy force is possible but not probable or during daylight hours when an attack by a small enemy force is probable. The ground defense pattern in this case is too loose to provide adequate strength against a strong attack, or at night against an attack by even a small force.

Figure 4 shows a method of locating the weapons of the battery around the defended area when an attack by a large force is probable. In this case the defense is more compact, providing better mutual support for the weapons in ground firing and at the same time disposing the weapons in accordance with current doctrine for defense against air attack. A fire plan would be made and outguards posted in this instance, the same as in Fig. 3.

When an attack by any sizable force is expected, it is recommended that weapons be pulled in around the perimeter at night as indicated in Fig. 5. With the present fire control system used on the weapons in our automatic weapons units, their value for firing on aircraft at night is questionable. The target must be seen to be engaged, and normally visibility is such that this is not possible.

Therefore, it would be reasonable to assume that the defense indicated in Fig. 5 would provide the maximum defensive strength against ground attack, and at the same time provide adequate defense against air attack if firing during the night is possible.

The rocket launchers would be sited along expected avenues of approach of Armor. Foxholes would be dug and occupied where necessary. As in normal defenses at night, outguards are pulled in toward the edge or inside of the perimeter.

CONDUCT OF THE DEFENSE

AS was stated in the conduct of the defense for the AAA gun battery, the outguards give warning to the defense and determine certain other information about the enemy. Then as the enemy approaches the battle positions on the perimeter they are engaged by personnel on crew-served weapons and by individuals in foxholes.

The principal difficulty in the conduct of this defense is the fact that the perimeter may be so large that personnel may not be able to occupy foxholes at the recommended interval of five to 20 yards. Care will have to be used in selecting positions for the M-19's and M-16's to insure that the maximum amount of terrain will be covered by these crew-served weapons and that the fields of fire are interlocking.

The remainder of the conduct of the defense is the same as was explained in that for the AAA gun battery.

This discussion covers only a few of the many different situations that may confront the battery commander in the field. However, any ground defense problem can be solved if the commander concerned will keep a few basic principles in mind. It should be remembered that ground defense is established by organizing key points and covering the intervals between and approaches thereto by fire; that the weapons employed in defense must be mutually supporting and that a coordinated fire plan must be made. The commander

needs to keep in mind that the counterattack is the decisive element in defensive combat and that he must have a force, however small, in support not only to use for counterattack but to add depth to the defense. Continuous improvement of the defenses is another important item of concern to the

commander. He must use common sense in locating the elements of his unit where they can accomplish their mission, inflicting the maximum number of casualties on the enemy and reducing his own casualties to a minimum. Above all, don't permit the battery to be surprised.



Combat Arms Inspectors



ASSISTANT INSPECTOR FOR ARTILLERY

Colonel James F. Howell, Jr., USMA 1924, is well known to our *Antiaircraft* readers. He served during World War II as an instructor in the C & GS School, with the AAATC, Camp Stewart, Georgia, and in the G-3 Section, Far East Command. More recently he has served in the Office of the Assistant Chief of Staff, G-3, in Washington.



INSPECTOR FOR ARTILLERY

Major General George D. Shea enlisted in the Army in 1915 and was commissioned in 1917. He has had wide experience in Field Artillery during World War I and between the Wars. In World War II he commanded the XIX Corps Artillery from Normandy to the Elbe.

General Mark W. Clark, Chief of the Army Field Forces, has appointed an Inspector for each of the Combat Arms. Each Inspector will have the primary function of determining by field inspections to what degree units and installations have accomplished their training missions and to what degree they are prepared for combat. They will also make

recommendations for necessary action to improve the effectiveness of their respective combat arms.

Major General John W. O'Daniel has been named Inspector of Infantry; Brigadier General Riley F. Ennis, Inspector of Armor, and Major General George D. Shea, Inspector of Artillery.

U. S. Antiaircraft Association

On November the 6th the Executive Council changed the name of the United States Coast Artillery Association to the United States Antiaircraft Association. This change was voted by the membership two years ago. The Council delayed action, however, at that time pending the Army reorganization legislation.

40th AAA Brigade Activities

By Colonel Morris C. Handwerk, Arty.

THE 40th AAA Brigade was reactivated in Japan 11 April 1949. This brigade traces its history back to World War I when the Coast Artillery was first initiated into the Antiaircraft field. Reactivated again in World War II, the brigade saw active service in the Pacific until it was deactivated in 1946.

Thus far in this period of active service the brigade has been busily engaged in training units. The primary purpose of this training has been to develop antiaircraft combat troops. It should be added, however, that antiaircraft troops in this area require versatility. Long before 25 June the troops were encountering varied problems in occupational duties. The requirements of troops more recently in combat have been somewhat beyond anything we anticipated. Suffice it here to say that all troops require realistic training in basic infantry tactics.

In all training we have stressed the development of teamwork and of responsibility and strong leadership in the squad, section, platoon, and battery, as well as in higher echelons. The units have also striven to achieve physical and mental well-being in all individuals.

With sound training along these lines the units have demonstrated ability to meet new as well as familiar situations.

TRAINING PROGRAM

THE training program was broken into three specific phases:

- Individual training*
- Small unit training*
- Combat training*

The individual training in basic military subjects is essential for antiaircraft troops since so frequently small detachments are attached to other units where they are definitely on their own. Sound basic training pays off.

Small unit training develops and tests adequately trained cadres, teamwork, unity of action, and smooth operation. This phase has always been stressed in the artillery.

Combat training, with emphasis on field exercises and CPX's at battery, battalion, and group levels gave us a final knitting together of all training phases. These exercises served to test and sharpen earlier training. They were climaxed by alerts and field problems under brigade control.

Colonel Morris C. Handwerk served as a general officer during the war. He commanded AA Training Centers at Camp Edwards and Camp Hoan during the early part. In 1944 and 1945, he commanded the 53d AAA Brigade in Hawaii and through the Okinawa Campaign. He now commands the 40th AAA Brigade.

TESTS

AT the outset all battalions were inspected repeatedly by brigade staff teams. Each staff section made monthly checks using brigade prepared check lists for rapid tabulation. In conjunction therewith the Brigade Commander made unannounced spot inspections of the general conditions and status of training of the units.

Four types of testing procedures, following those established by the Department of the Army, were utilized with such modifications as were necessary to adapt them fully to brigade unit needs. These tests were intentionally slanted to provide rigid requirements in combat realism, rather than easily completed tests and lofty scores. After all, "battle is the pay-off!"

The military training proficiency tests and the basic technical tests were given in that order to test individual training. The advanced technical tests were given later to test small unit proficiency. Sampling procedure was used in all tests.

TARGET PRACTICE

AFTER these three tests and after numerous tactical field exercises the Firing Tests were conducted to indicate actual artillery firing proficiency. These tests were conducted under brigade supervision and accurate records were provided by the brigade records section. For the scoring of a firing practice 30% was based on the preparation and conduct of fire and 70% was based on the hits scored on the targets.

Interest was spurred by the award of brigade firing proficiency trophies based upon the shooting skill as shown by the target practice scores. Other trophies were awarded to outstanding batteries and battalions for general training



Colonel Handwerk presents brigade trophies.



Antiaircraft gun and crew at Katakai firing range.

efficiency as the program progressed. [For security reasons the achievements of the specific units are omitted. Ed.]

The brigade was fortunate in being able to establish a suitable firing over water range for all calibers of anti-aircraft artillery weapons. Located at Katakai, Honshu, Japan, on the eastern edge of the Chiba Peninsula on a suitable beach, near the fishing town of Katakai, this range will adequately handle two battalions without crowding. Thus far it has not been feasible to order more than one battalion to the range at one time.

The housing presently established at Katakai consists for the most part of quonsets and other transportable type buildings for the permanent detachment, and pyramidal tents for the firing units. The average stay of units on the firing range is about two weeks, during which drills in detection, tracking and firing occupy the entire stay of the unit.

Two brigade operated RCAT Detachments plus towed sleeve flag, and PQ planes operated by a tow target detachment, organized for brigade support, provided air targets.

SPECIAL TRAINING

AUGMENTATION of training was provided by LST movement of two battalions to the Katakai Firing Range. The opportunity to teach new officers and men who had not had the experience of loading, lashing, and unloading an LST by virtue of being World War II veterans, proved

an invaluable adjunct to the training program, for it came at a time which fitted well into the scheme of training; troops being then ready for firing practice. Also difficulty is experienced throughout Japan when dealing with AAA gun battalion movements in finding bridges which will support the necessary loads without excessive detouring. The obvious cardinal virtue of the whole operation was the training provided.

During the training program certain selected personnel were sent to the Air Transportability Training Center. Selections for this specialized training were made mainly from the Automatic Weapons units whose potentiality for use of such training was greater than that of other units. Lashing, loading, crating, and unloading practice in all types of transport aircraft was given under Air Force supervision which later proved invaluable to those of this command involved in the action in Korea. This training served to augment the regular training program to an invaluable extent.

SCHOOLS

Brigade level schools, centralized at the 40th AAA Brigade Training Center, opened 1 June 1950, featuring courses in critical specialties as well as standard courses in gun and AW training have done much to continue the high level of training sought for the brigade. The school was an outgrowth of the AW and gun schools formerly conducted at group level, enlarged and rounded out to meet current requirements. Instructors for this school originally came from Department of Army instruction teams sent from the AAA & GM School at Fort Bliss, Texas. This team, before settling down for operation of the group schools, toured the FEC, instructing units in "on the spot" training. The Brigade AAA Training Center fills an important need by training the radar, radio, director, and weapons specialists. The time required for a man to complete the courses, normally lasting five weeks, is well spent.

CONCLUSIONS

1. Great benefits are derived from tactical field exercises especially at battalion level where the entire unit spends 3 to 7 days in the field under combat conditions.
2. Moving to the firing range by LST gave priceless experience to officers and men who had never before ex-



A "dug-in" 40mm and crew on the alert during field exercise.

perienced loading and landing practices.

3. A minimum of three firing practices a year are necessary to provide combat readiness.

4. Air transportability training is invaluable to members of automatic weapons battalion personnel.

5. Enlisted career field examinations aid unit training by providing study inducements and library materials which tend to make men keep abreast with changing requirements.

6. Locally prepared military training proficiency tests, directly adaptable to AAA, proved invaluable in checking

training program progress, and often indicated omissions not previously noted by inspections.

7. Brigade level schools in AAA manned by Department of Army instruction teams are important in furthering training in specialty requirements of the lower units.

8. That continual emphasis must be placed on communications training—this is especially noted upon deployment of units.

9. Training trophies provided increased incentive and aid in building esprit de corps.

General Officers Promoted

THE Department of the Army has recently announced the following promotions:

To Major General:

Brigadier General Paul W. Rutledge

To Brigadier General:

Colonel Claire H. Armstrong

Colonel James G. Devine

Colonel Raleigh R. Hendrix

* * *

Major General Paul W. Rutledge

In January 1942, Colonel Rutledge hurriedly organized a task force and moved it to Christmas Island where he established an important air base. The following October he returned to the States, took command of the 45th AAA Brigade, and was promoted to the grade of Brigadier General. He commanded that Brigade in North Africa, at Salerno, and in the defense of Naples.

In July 1944, with his brigade reinforced by one tank battalion and one antitank battalion, he organized Task Force 45 and moved on short notice into the front lines to relieve the 34th Infantry Division in the sector opposite the German 16th SS Division. Task Force 45 captured Pisa, Viareggio, Forte-di-Marmi, and Pietro Santa and continued that mission till General Rutledge left it in December to return to the States.

Following a brief tour with the U.S. Strategic Air Forces in the Pacific, he went to Panama in 1946 where he commanded AAA troops. Returning to Fort Bliss in 1948 he took command of the 34th AAA Brigade.

He now has the Eastern Army Antiaircraft Command with station at Stewart Air Force Base, Newburgh, New York.

* * *

Brigadier General Claire H. Armstrong

Brigadier General Claire H. Armstrong graduated from the Military Academy in 1917. He was promoted to Brigadier General in 1943 and assigned command of the 50th AAA Brigade. He commanded that brigade in the United Kingdom, France, Germany, and at Antwerp. In October, 1944, he organized and commanded the allied antiaircraft defenses of Antwerp against the V-1 flying bombs. His effective defenses accounted for the destruction of more than 2,000 buzz bombs. At the close of the war, he reverted to the grade of Colonel and served a short term with the Headquarters, AFF. Since December 1946 he has served as the Military Attaché in Brussels, Belgium.

His new assignment places him in command of Camp Stewart, Georgia.

* * *

Brigadier General James G. Devine

Brigadier General James G. Devine was commissioned in the CAC National Guard in 1915. He was commissioned in the Regular Army in 1920. He was appointed a Brigadier General in 1943 and took command of the 43d AAA Brigade in the defenses of Philadelphia. He later commanded the 37th AAA Brigade in the defenses of Los Angeles and the 4th AA Command in San Francisco. He reverted to grade of Colonel in 1946. Following a tour of duty in the Far East, he has recently served on the general staff with the Headquarters, Sixth Army.

His new assignment is with the Far East Command.

* * *

Brigadier General Raleigh R. Hendrix

Brigadier General Raleigh R. Hendrix served in 1942 and 1943 with the Headquarters ETO on the British-American Planning Staff. In 1943 he was promoted to the grade of Brigadier General and assigned to command of the 71st AAA Brigade, which he commanded through the Tunisia, Sicily, and Italian campaigns. In 1946 he reverted to the grade of Colonel and joined the staff of the Headquarters, AFF. Since 1948 he has served in the Department of the Army General Staff in the Office of the AC/S, G-4.

He is assigned to command the 34th AAA Brigade, Fort Wadsworth, New York.

The Armored Division

By Colonel Hamilton H. Howze

"Activité, activité, vitesse!"

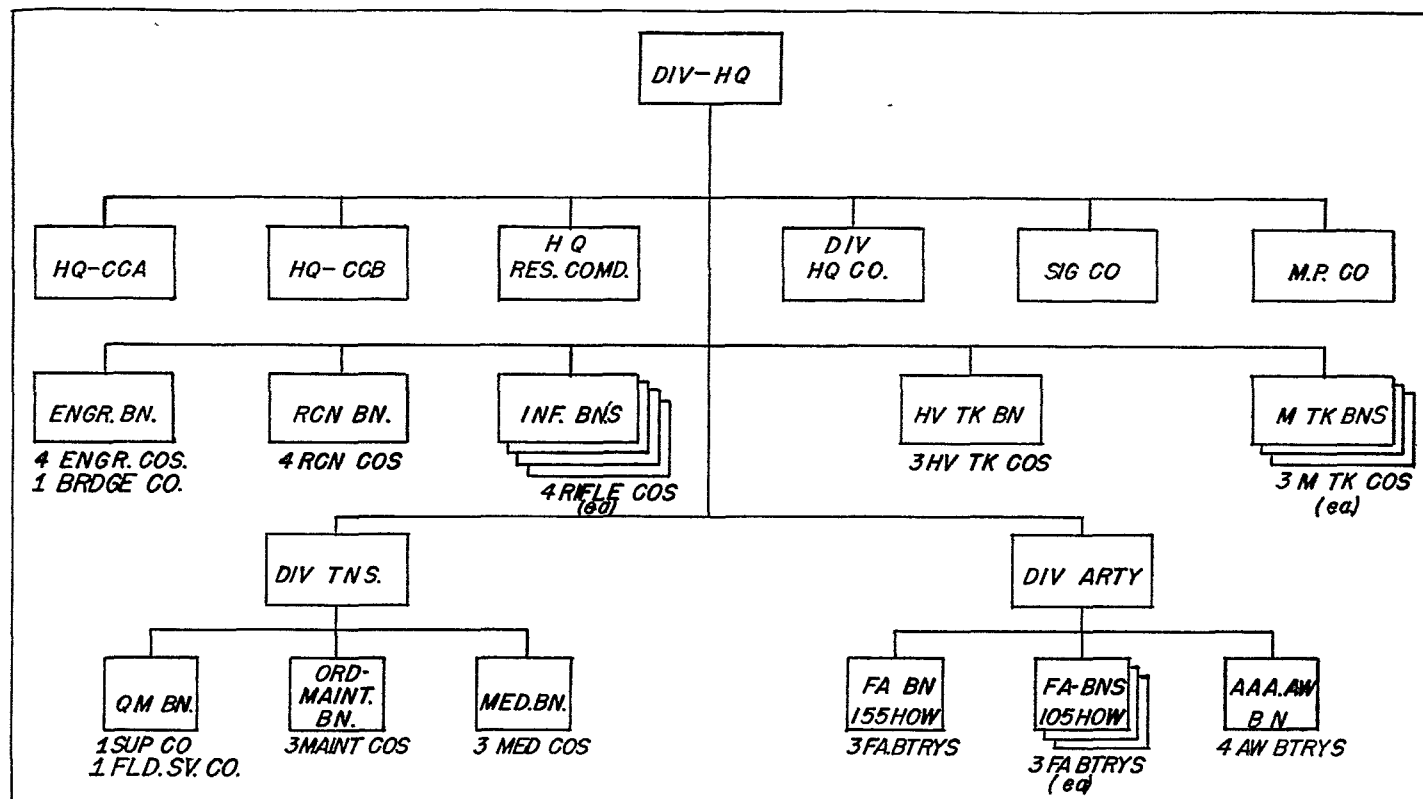


Figure 1.

FOLLOWING World War II, in which the armored divisions were employed with such conspicuous success, studies were instituted to arrive at a new and better divisional organization. This organization was formulated at the Armored Conference in May of 1946, and subsequently approved with minor modification by the Department of the Army.

The principal results of the reorganization were to increase, actually and proportionately, the infantry; to add a medium artillery battalion; to make organic the automatic weapons AAA battalion; and to rearrange the distribution of tanks.

Details of the organization may be found in T/O & E 17N. For the purpose of this article, Figure 1 shows the main elements of the division. For simplicity the figure omits the headquarters and service companies and medical

detachments throughout, and the band and the replacement company in the division trains. The chart shows a very strong division—not quite 16,000 officers and men.

It has 252 medium tanks, 58 lights, and 63 heavies—all of the heavies in the heavy tank battalion. The infantry battalions do not have the four 75mm recoilless rifles of the standard infantry battalion, and they have 15% less rifles; however, each battalion does have two light tanks to offset that shortage.

The chart and the above remarks are enough to enable me to proceed to discuss the battle employment of the Armored Division. By such a discussion the principles underlying the organization will be made clear.

COMBAT COMMANDS

THE Armored Division is unique in that the principal subordinate headquarters have no regularly assigned troops. Headquarters Combat Command "A," Combat Command "B," and the Reserve Command are assigned responsibilities and troops on order of the division commander, who may vary those assignments to suit any given situation. It should

Colonel Hamilton H. Howze, Armor, commanded a combat command of the 1st Armored Division in World War II and is now on duty with the Army General Staff. He is a 1930 graduate of the Military Academy.

be obvious however that the commander must take many factors into account, in this regard. This built-in, organic flexibility must not be overemphasized, and frequently a less-than-theoretically-perfect distribution of forces must be accepted. As in every organization in combat, certain units of the armored division become familiar with the methods and personalities of other units, and are very anxious to keep up the satisfactory relationship.

Other factors which govern the commander as he determines the distribution of forces will become apparent if we examine two hypothetical examples of tactical employment.

ENVELOPMENT

ASSUME (See Figure 2) that the commanding general decides that the division shall advance North from the bottom part of the chart to positions from which it will launch a coordinated attack (scheme of maneuver as indicated) on the enemy position. For this plan he will need a strong containing force for the holding attack, great shock and mobility for his enveloping force, and a balanced, mobile reserve.

He will logically decide then to group his forces as in Figure 3. CC"B," to execute the holding attack, will have two of the four infantry battalions, but also a medium tank battalion. The CG CC"B," in his plans for the operation, will be apt to marry up his tank and infantry units on the

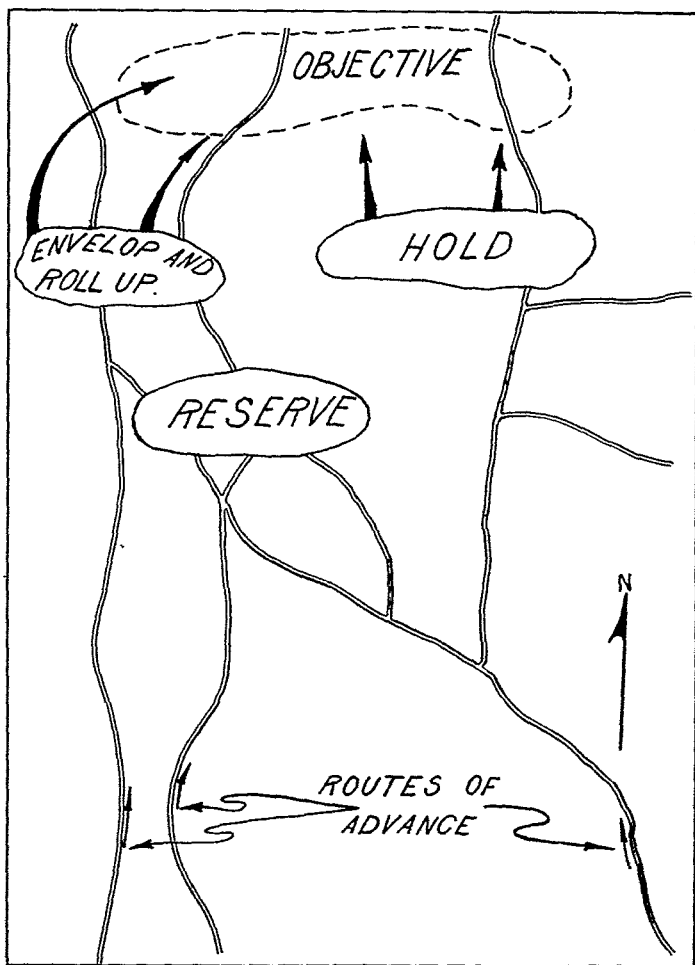


Figure 2.

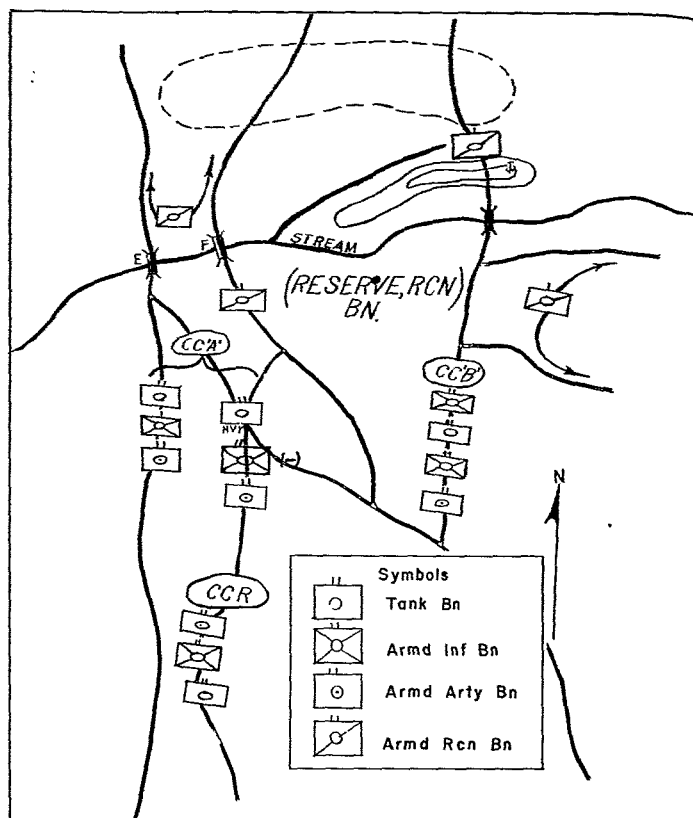


Figure 3.

platoon level, to provide the maximum of detailed coordination among small units in the execution of a deliberate attack. This small unit coordination is not an easy matter to accomplish, it may be added: it requires much practice, and a good understanding by each part of the team as to how the other part works. It is necessary to devote special attention, also, to the platoon leaders' communications.

CC"A" should march on two roads. Two tank battalions, one medium and one heavy, are assigned to it, and a single armored infantry battalion. In his battle plans, this combat commander may well elect to combine the heavy tank battalion with the bulk of his infantry to break into the enemy position, after which the medium battalion and the remaining infantry will be committed to exploit the effect of the initial blow and roll back the flank.

The Reserve Command, containing an equal proportion of tanks and infantry, is available to undertake any sort of mission. In the case at hand the division commander will hope to be able to use his reserve to exploit the success he achieves with CC"A." This is in accordance with the basic principle, especially applicable to armored combat, that one should always seek to reinforce success rather than to bolster weakness.

Note that two artillery battalions are marching with the columns of CC"A," one with CC"B," and one with the Reserve Command—the last probably at the head of its column. This distribution is primarily for convenience in getting the battalions over the roads and into positions, and does not represent attachment to the combat commands. The artillery battalions will in all probability fire under the coordinating direction of Headquarters, Division Artillery. CC"A," launching the main effort, will no doubt receive the fire support of two battalions, and CC"B" that of one battalion.

The fourth battalion marching with the Reserve Command will perhaps be the 155's and will reinforce the fires of the direct support battalions—it will *not* be held in reserve, for that would be a silly waste of firepower. It is well to remember that artillery need not normally be kept uncommitted for the sake of bringing its power to bear at the critical point. Unlike the other arms, it can bring about a concentration of its force merely by shifting its fire.

The usual custom of keeping central control of the artillery is disregarded, of course, when the combat commands are dispatched on such widely separated missions as to make direct attachment a more logical arrangement.

In its approach march to assembly areas the division is screened by the reconnaissance battalion. Missions shown in Figure 3 are typical: one company covers both of the roads in front of CC“A,” one covers the front of CC“B,” a third may be assigned to protect a flank of the division (in this case the right flank, considered dangerous); a fourth company is held in reconnaissance battalion reserve. This last is very important, for all sorts of eventualities may require additional force readily available to the battalion commander. Furthermore, reconnaissance is a tiring business requiring periodic relief and rest in the course of a long advance or pursuit.

Needless to say, terrain features strongly influence the employment of the reconnaissance elements. Important crossroads and road junctions, the bridges at E and F, and the ridge at J, are all critical points specifically designated to be seized pending the arrival of the main columns. Even after closing in the assembly areas (Figure 2), the combat commands continue to be screened by reconnaissance elements until the attack is launched.

The anti-aircraft AW batteries, not shown on the chart, are distributed among the combat commands and the division trains according to need. Some platoons may be displaced forward behind the reconnaissance to set up shop at defiles, such as bridges, to protect the main columns as they pass through those defiles, and of course, to protect the bridge structures themselves. On the road, AW fire units are scattered through the column, with particular regard for the safety of the infantry. Once the main battle starts, the firing batteries of the artillery become favorite air targets, and accordingly make strong appeal for ack-ack protection.

The unit and division trains of the armored division are very large, due primarily to the high consumption of fuel and of heavy caliber ammunition. In addition to the demands for road space, these trains pose problems of anti-aircraft protection. If the division is operating within established Corps and Army areas the division trains may benefit by the services of the ack-ack battalions assigned for the protection of the established lines of supply. On the other hand, should the division be dispatched on a separate, distant mission, AAA protection of its trains is apt to be a matter sufficiently pressing to make the commander ask for the attachment of additional batteries.

The Armored Engineer Battalion is likewise distributed according to need, which is in turn determined by terrain and the operations plan. It is generally best to have the work of the engineers coordinated by the battalion commander, who is also the division engineer. While some of his companies render engineer support direct to the combat

commands (performing the functions of bridge building, obstacle crossing, mine clearance, and other such tasks), the battalion commander will want to hold out at least one company to maintain the roads in the areas behind the combat forces, and perhaps something else in reserve. It is well to remember that the bridge company is not, in itself, capable of building a bridge: it transports the bridge and furnishes certain specialized machinery and skilled technicians, but the main labor must come from the ordinary engineer companies or, when the occasion demands, from line units.

PENETRATION

AS a second example (See Figure 4) assume that the commanding general requires a force to penetrate a prepared hostile position by means of a deliberate attack, another force to exploit that penetration, and of course a reserve. For this action he may distribute his means as indicated in Figure 5, giving CC“A” a strong proportion of infantry and the heavy tanks, supporting that attack with all of the artillery under the direction of the “div arty” commander, and charging CC“B” with the exploitation mission. He must give CC“B” the wherewithal to do its job; note that CC“B” has attached to it the major part of the reconnaissance battalion, which will be useful to guard the flanks of the tank-infantry columns and perhaps to take the lead of the columns in case the action turns into a pursuit. CC“B” may be expected to pick up one or two of the artillery battalions, for direct support, as it passes through CC“A.” The Reserve Command is so constituted as to be useful either to aid CC“A” in effecting initial penetration, or to

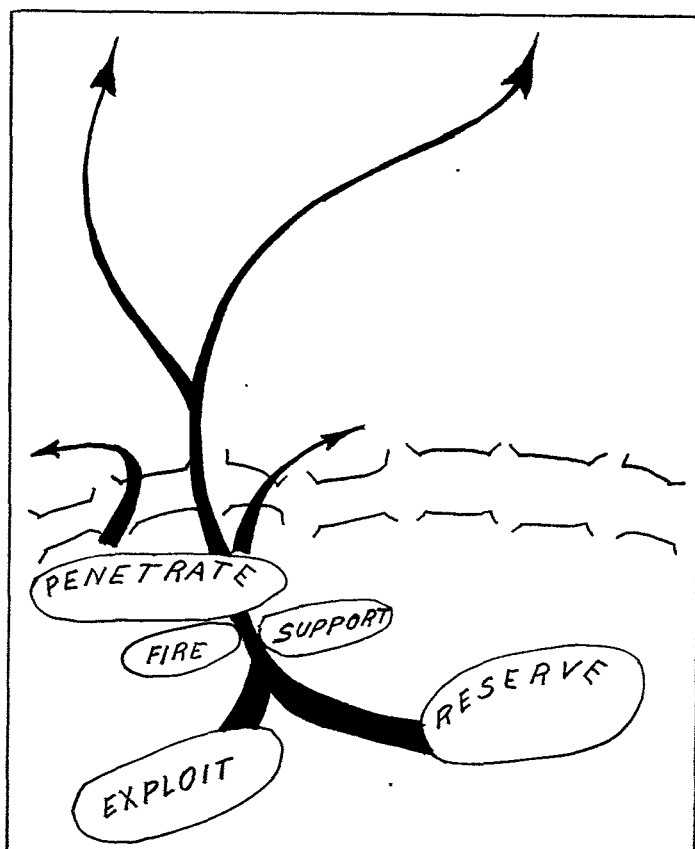


Figure 4.

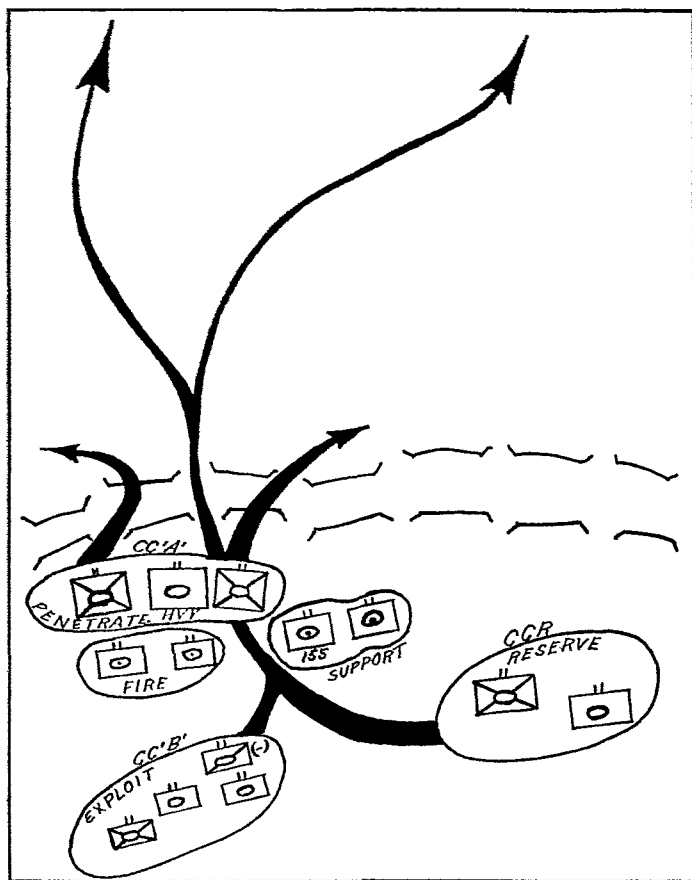


Figure 5.

add further impetus to CC"B's" effort of exploitation.

In this operation the automatic weapons batteries will have to furnish protection for any or all of the following: assembly areas, division trains, defiles, artillery firing positions, and the exploiting columns and their trains.

The engineers will doubtless have a mine clearing mission for CC"A," and a road maintenance mission in the rear areas; engineer elements must also be dispatched with the exploiting columns to meet obstacle crossing problems as they occur.

OTHER MISSIONS

THE Armored Division can also execute missions other than those of attack and exploitation.

Some few officers have developed a curious idea that armor cannot defend. This conception is exploded as soon as one contemplates the division's four infantry battalions, backed up by the terrible firepower of the tanks and supported by the four battalions of artillery. Against enemy armor the division will probably do better in defense than an infantry division; against enemy infantry, the armored division cannot hold so long a sector, but otherwise will acquit itself as well. Naturally, it should be understood that by committing an armored division to a defensive sector the senior commander is partially immobilizing his most powerful striking force. Even so, the defensive mission must sometimes be assigned, and the armored formations must be prepared to accept it.

The armored division is particularly valuable in the role of mobile reserve, combining as it does flexibility, mobility,

and shock. It is effective in delaying action, as the Germans repeatedly demonstrated in the last war. As part of a larger force in attack it will frequently be assigned the enveloping mission.

In an assault landing on a hostile shore the armored division as such will probably be landed after the infantry has established a beachhead, although some of its units may participate in the initial action. Deserving special mention are devices which permit standard type tanks to swim ashore under their own power; these were used, with varying success, on the Normandy beaches. The amphibious tank battalions, equipped with true amphibians, are part of the branch called Armor but are not integral in the armored division.

In the defense of a river line an armored division can defend a large sector if it does not try to hold a watertight line, but utilizes its speed and power to clean up enemy bridgeheads as soon as they are established. In a river crossing an armored division is effective indeed, granting suitable terrain. By its mobility it can concentrate quickly at the crossing point, gaining thereby a desirable factor of surprise; its infantry is as capable as any other infantry in establishing a bridgehead; its engineers are strong and specially equipped; and once its tanks are across the river they are capable of expanding the bridgehead very quickly.

In our present state of development the armored division is not air transportable, and it will be some time before this comes about. It is inevitable, nevertheless. In the future, it will be necessary first for the airborne infantry to expand their airhead to include a permanent type airfield, whereupon the armored division may be landed, perhaps on D plus 1 or D plus 2. This implies air supply—a logistic nightmare at the present time, but not a permanent impossibility.

PERTINENT POINTS ON ARMOR

MAINTENANCE of tanks requires time. Armored officers have made this point ad nauseam, sometimes to the irritation of the infantry, but it remains a fact. A tank is a vastly complicated machine, susceptible to many irregularities and troubles and, unfortunately, for it to retain its proper battle effectiveness all the gadgets must work. Hence tank units cannot remain for long periods in uninterrupted combat. They must be relieved and removed from the range of enemy guns more frequently than the long-suffering infantry.

Reconnaissance. Tanks sometimes gain their greatest success through the single factor of good preliminary reconnaissance. In addition to forestalling delays by discovering obstacles, man-made and natural, to forward movement, reconnaissance will frequently open up avenues of advance previously believed unsuitable. On some occasions in the last war the study of aerial photographs alone permitted tanks of my own command to strike the enemy where he thought tanks could not go.

Reserve. Previously mentioned was the basic principle that maximum pressure should be exerted at that point where success is most apt to be forthcoming—provided, of course, that success there will have serious and destructive effect on the battle capacity of the enemy. It follows then that it is vitally important to hold out an effective reserve,

to be thrown in at a propitious moment to augment initial success. As von Clausewitz says, this reserve is the primary means available to the commander to influence the outcome of the action. He must therefore be careful not to commit it too early, to commit it wisely, and above all to commit it boldly.

Mass. Next it is well to understand that the strength of the tank stems not from its ability to absorb punishment, for that is limited; its true power lies in its ability to move and its ability to kill. From this comes the requirement for the massing of tanks. Tanks advancing against a determined enemy will suffer considerable losses; so, to reap real benefit from the tank effort there must be enough available to take the necessary loss and yet retain momentum and power. Once complete penetration is gained, tanks will rampage, and a hasty enemy withdrawal from the whole surrounding area is inevitable. Hence it is foolish indeed to fritter away tank strength by a proportionate allotment of tanks and infantry along the whole length of the attacking battle line.

Concealment. In addition to massing tanks, it will serve the commander well to keep his tanks covered as long as possible. Except in very rough terrain, the enemy commander will have great difficulty in assuring that the whole length of his defensive line will be strong enough to withstand a determined attack by a quantity of tanks—in fact, it is well-nigh impossible. The attacker will therefore gain

very great benefit by making the point of his tank thrust a surprise. In the last war, in our division, we went to extraordinary lengths of tactical deception to gain this advantage.

Initiative, once gained by the armored division, must be maintained. The enemy will never fail to react strongly to tank attack. That very reaction is a reflection of his great concern; he cannot permit more than very local success for fear of general conflagration. In his uneasiness he is apt to base his decisions on inaccurate or incomplete information and thereby commit errors of timing and direction. In this general atmosphere of confusion lies a source of great opportunity for the boldly directed armored division to strike with skill and violence and to exploit fully the mistakes and weaknesses of the enemy.

Audacity is the most important of all characteristics desirable in the armored commander. He has terrific destructive power, capable of application with speed and concentration. He cannot afford to dissipate this capability by indecision. Indeed to destroy the enemy he must be willing to assume great risks as respects the security of his columns. As General Patton said, he cannot take counsel of his fears. The flanks of long armored penetrations may be securely guarded by the pressure of the spearheads; this pressure, if adequate, will keep the enemy constantly off-balance. The division commander must sustain his spirit, sometimes, by this fact alone.

EDITORIAL

TREATMENT OF POW

THE 1949 Geneva Convention on the Treatment of POW prescribes that the armed forces be instructed in its provisions. Accordingly, we prevailed upon Brigadier General Joseph V. Dillon, the best authority on the subject, to write the article published in this issue. It covers the main provisions of interest to the troops and provides an excellent basis for such instruction. Every soldier should know the international rules on this subject.

Instruction on the rules alone, however, might be misleading. Under the most favorable circumstances a POW camp can hardly be anticipated as a happy rest cure from the turmoils of war.

Winston Churchill epitomized the subject after his experience as a POW during the Boer War in South Africa. We quote:

A PRISONER OF WAR

It is a melancholy state. You are in the power of the enemy. You owe your life to his humanity, your daily bread to his compassion. You must obey his orders, await his pleasure, possess your soul in patience. The

*days are very long; hours crawl by like paralytic centipedes. Moreover, the whole atmosphere of prison is odious. Companions quarrel about trifles and get the least possible enjoyment from each others' society. You feel a constant humiliation in being fenced in by railings and wire, watched by armed guards and webbed about with a tangle of regulations and restrictions.**

To facilitate sound indoctrination and instruction on this angle for the men under arms, we have made arrangements to offer *The Hard Way Home* by Colonel William C. Braly, at a bargain price. Colonel Braly's book on his prison life under the Japs is not just a story of atrocities. There are some, and throughout there is the continual story of hunger, disease, and hardship; the remarkable point is that the author and others were able to maintain their morale and sense of humor. Between the lines there are some valuable pointers on how to survive. It is not must reading. Just get it, and you will read it through; so will your men, and so will your family.

*From *A Roving Commission*, Winston S. Churchill, Chas. Scribner's Sons, 1939, N. Y., quoted in *Reader's Digest* for July, 1940.

A Lock Of Hair For The General

By Jerome Kearful

NUMEROUS writers and commentators on military history and tactics are in agreement in naming Nathan Bedford Forrest, General of Confederate Cavalry, as one of the most brilliant commanders in the records of American leadership. Yet the sternest rigors of campaigning never destroyed the flair for sentiment and romance that, perhaps, gave General Forrest the balance necessary for a great commander. On one occasion, he paused long enough in his headlong pursuit of a body of Federal raiders to beg a lock of hair from the sixteen-year-old miss who guided his troops to the ford across a stream!

It happened in the early months of 1863. On April 10 of that year, a Union force, "designed for special secret service," left Nashville, intending to sweep through Northern Alabama and into Georgia, cutting railroads and destroying Confederate supplies. Colonel Abel C. Streight, who commanded the Union force, planned the operation on the pattern of the cavalry raids already made familiar by Forrest.

Streight planned to slip southwards into Alabama behind the covering operations of another Union force to the north, then turn due east across Alabama and Georgia. Colonel Streight's Raiders reached the town of Moulton, Alabama, without molestation.

While the Federal force was at Moulton, a Confederate scout brought information of their movements to General Forrest, who was in action some thirty miles northward. After a night spent in readying men and horses for long, hard riding, Forrest began the pursuit of Colonel Streight's 2,000 raiders. Before the pursuit ended, with the surrender of Streight near Rome, Georgia, General Nathan Bedford Forrest had won a lock of hair from Emma Sanson, the girl guide who led the Confederates to the ford over Black Creek!

Forrest, with fewer men than there were in Streight's command, rode all day and night of April twenty-ninth and into the morning of the thirtieth, when contact with the Federals was made. Thereupon began the series of delaying actions by Streight that lasted until the end on May 3. Time after time, the Raiders held off their pursuers by setting out rear guard ambushers, by blocking the road at narrow passes with heavy timbers and debris, and by burning bridges behind them.

As Streight's Raiders fled eastward across Northern Alabama with Forrest in hot pursuit, the two contenders fought skirmishes at Sand Mountain, Day's Gap, Hog Mountain, Blountsville, and Black Warrior River. Since it was not Colonel Streight's mission to engage in a general battle with Forrest, but rather to attempt to elude him so as to continue on the planned destruction of railroads and supplies in Northern Georgia, none of these engagements was a prolonged attempt to hold his position. Actually, the affair between Streight and

Forrest was practically a running fight across the entire state of Alabama. Long before the final act in the drama took place just short of Rome, men and horses were in such a state of exhaustion that they could scarcely stand.

Four miles before reaching Gadsden, Streight got his command safely over Black Creek on an old wooden bridge. When the Federal troops had crossed, and with Forrest almost in sight, it was set afire. The bridge was a mass of flames as the Confederates pounded up. Black Creek was deep and apparently, unfordable. Colonel Streight's men, after firing a few rounds across the stream, prepared to continue on their way, exulting in their belief that, at last, they would be free from unrelenting pursuit.

It might well have been so, and Streight's Raiders might have been able to fulfill their original mission, had it not been for Emma Sanson. Emma and her younger sister lived with their mother, the Widow Sanson, in a nearby farmhouse. When Forrest saw that the bridge was impassable, he rode to the Sanson place for information.

According to the records of the incident, General Forrest asked Emma if she knew of a ford over which he would be able to lead his troops. Emma volunteered to act as guide. Despite the fears of her mother that it would cause "talk," she rode behind Forrest to a point 200 yards upstream, where the Sanson cows sometimes crossed. Here they dismounted. Sharpshooters of the Union rear guard fired on them, the bullets passing through Emma's skirts. The sixteen-year-old girl unflinchingly held her ground until she had carefully pointed out the landmarks of the ford to Forrest.

After advising the widow and her two daughters to seek cover in the rear, Forrest brought up his troops and began the crossing of Black Creek. Emma's directions were found to be exactly right, and the chase of Colonel Streight was on again!

Before leaving to continue the pursuit, General Forrest had left a note of thanks at the Sanson house. Riding to rejoin his command across the ford, he met Mrs. Sanson and her daughters returning to their home. Forrest told them of the note that he had left. He asked that they see that a Confederate soldier, killed in action nearby, be buried. Then, with that strange touch of romance and chivalry that never left him, even in the heat of battle, he begged of the brave Emma Sanson a lock of hair that he might carry with him! He received it.

After that, the pursuit went on until, caught between the improvised defenses of Rome and the relentless pursuit of the seemingly tireless Forrest, Colonel Streight surrendered his entire command. That night, Forrest was the idol of the people of Rome. But his thoughts turned back to the dauntless girl who had given him the lock of hair that he carried!

Election of Officers

Members are urged to use the Association ballot on page 56, and vote. The Nominating Committee has selected a slate. If you like it, support it, because their election is not necessarily assured. This is not a steam-roller affair. Two years ago an interested group elected their own candidate. That interest was fine for the Association, and it also gave the Association an outstanding Council member.

VOTE!

Development of AW Fire Control

By Lieutenant Colonel Virgil M. Kimm, Artillery

I TAKE issue with Major Frank D. Pryor and his article, "The Case of the AW Director," in the July-August issue of the JOURNAL.

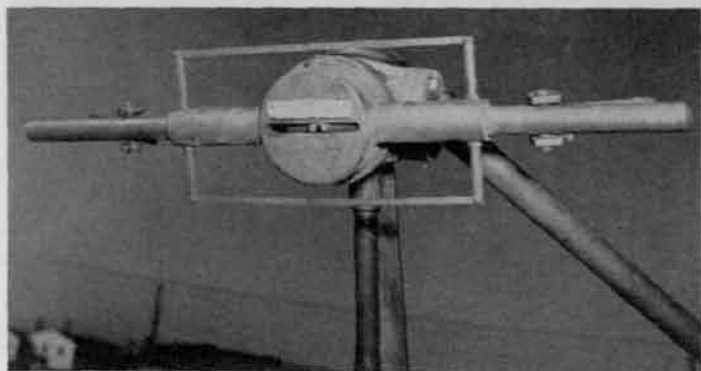
In my opinion, the principal development of AW fire control during World War II was the emergence of on-carriage fire control as a result of battle experience in Europe where the British Stiffkey Stick proved itself. The only real test of any weapon is in battle. If the British and American antiaircraft troops, who were under continual attacks by the formidable German Air Force, chose the Stiffkey Stick over the AW director, I believe their choice should be regarded fully.

The British were the first to do away with the AW director. The best fire control available was too vital to Britain to change for any reason other than on performance. The AW director (The Kerson Director) was a British invention. Various British officers told me of the difficulty of getting the War Office to accept the Stiffkey Stick. When a British AAA unit, using the Stiffkey Stick, shot down a German plane it had to explain by endorsement why the director was not used. It was finally the battle performance of the Stiffkey Stick that brought about the change.

Of the American forces, it was only the First Army that entirely eliminated the director. The First Army, having had some seven months experience in England prior to the D-Day landing in France, through results of our firings at British firing camps, became convinced of the efficiency of the on-carriage Stiffkey Stick. Units in forward areas, other than First Army units, were required to set up the director for use even though equipped with the Stiffkey Stick as most of them were. My own battalion had both the director and Stiffkey Stick, but the gun crews used mostly the Stiffkey Stick, although the director was always available. Here is the real test of a fire-control system. What does the man being shot at use?

Elimination of the AW director was caused by many factors, the principal ones being: Comparative accuracy; slowness in getting into action or changing targets; excessive manpower requirements; limited field of fire; inefficient tactical setup; and logistical problems.

It is quite clear that the AW director with the range finder is the most accurate position finding and predicting



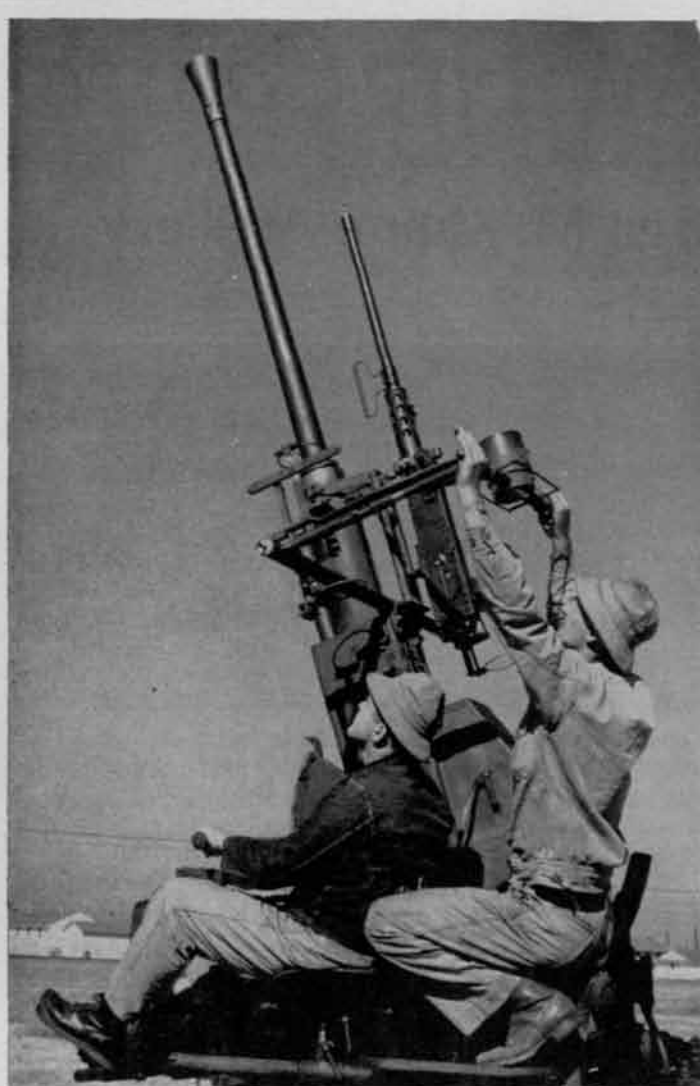
The Stiffkey Stick, early model. Note levers at ends of arm for setting in leads. Note parallel bars, upper and lower, for following the course of the target.

device available. However, the device is of no value unless the accurate data produced can be transmitted to the firing piece, and in time to be used. It is on these two counts that the director fails.

The basic requirement for the transmission of the director's accuracy to the gun is that both gun and director be level and boresighted accurately. This is a condition that does not prevail more than 10% of the time unless the gun and director are installed in elaborate and solid emplacements. It does not take much of an error in these elements to pull the accuracy of the gun-director combination well below that of the on-carriage fire control. In contrast to the inherent weakness of the director in producing timely accurate fire, was the performance of on-carriage fire control during the Normandy operation. GAF losses on the first day of the Normandy landings were some 100 to 150 planes, and some 75 to 100 planes on the second day. After a loss of some 50 planes on the third day, the GAF became convinced of the efficiency of our AAA fire and thereafter kept out of its way. On-carriage sights played a major role in producing these results. My own battalion, using the Stiffkey Stick, operating with the 89th Division on a drive into the heart of Germany, shot down some 26 planes, including one jet fighter.

THE time required for the director to pick up a target, get the gun into synchronism, and smooth out the data for accurate firing is frequently so great that an AW target may be there and gone before the gun is ready to fire. On one occasion, in October 1944, during a relatively quiet period, I had opportunity to conduct a test of the relative pickup speeds of the director as against the Stiffkey Stick. Arrangements were made with an Air Force unit to have a fighter squadron simulate an attack on one of our tactical positions. In the initial assault, the directors, being ready,

Lt. Colonel Virgil M. Kimm graduated from the Military Academy in 1927. During World War II he commanded the 550th AAA AW Battalion in the defense of London, in the Normandy Invasion, and on into the heart of Germany with the 89th Division. He is now on duty with the AA & GM Branch, The Artillery School. This article represents the author's views. Our columns are open to further discussion.



This shows the general location of the device on the gun.

functioned well with the "enemy" at long range, but with the continuation of the "attack" at close quarters and from all directions, the director operated guns were able to get into "action" on a target only about 10% of the time, whereas, under the same situation the guns using the Stiffkey Stick got into "action" about 90% of the time.

WHILE the director is ideal for extreme-range crossing courses, very few such courses are encountered in combat. It must be borne in mind that in combat many planes may attack a position. Targets may have to be changed several times. A typical example was the action at Avranches, France, on 7-8 August 1944. The entire Third Army had to pass through Avranches essentially on one road. The GAF made determined attacks against the two bridges leading into Avranches. The longest action on the night of 7-8 August started during the waning daylight hours and continued for about 7 hours. German aircraft would make a bomb run, wheel, and then return for another run. This involved changing targets many times. A reference to Third Army AAA statistics shows that in the Avranches area on 7-8 August 1944, there were 144 German attacks carried out by 414 aircraft. The director is too slow in close-in actions involving changing targets.

Manpower requirements for the director are excessive. Attempts have been made to solve the problem by the use of early warning systems. However, early warning systems will not solve the problem except in remote rear areas where it is easy to differentiate friend from foe, or on islands where great expanses of water make the approach of aircraft easy to detect. Such a condition existed in England where the very elaborate British early warning system enabled even AW to take advantage of it. However, the situation on the Continent was different. There, without the elaborateness of the British installations, all that any early warning system could do was tell that there were aircraft in the air that might become targets.

When in contact with enemy forces on land the amount of air activity would generally be so great that the crews would be kept in a constant state of alarm, which would not be solving the problem. With the speed of today's aircraft, I would not, ahead of the Army rear boundary, accept any standard of alertness for AW other than constant readiness to fire. Using the Stiffkey Stick, one can get by with a constant manning crew of three men, although four are preferable. Generally speaking, the elimination of the director did not and will not cut down the size of existing manning tables. What the elimination of the director did do was to permit constant manning of AW weapons without increases of personnel. As an example of how constant manning pays off, I cite the case of the last plane my battalion shot down, a German jet fighter downed east of Zwickau, Germany. This particular plane was a stray plane that approached the firing unit position from the rear. It was pure accident that he came into the range of one of our firing units. No warning system of any kind, unless extremely elaborate, could have alerted a gun and director crew in time to have picked up this plane and shot it down. It would take a very elaborate early warning system, and more personnel than would be required for continual manning of the guns, to be sufficiently effective to justify not constantly manning AW weapons.

ONE of the earliest recognized defects of off-carriage fire control was the dead area created by the director. I had one clear-cut case in France where a German plane got away from one of my gun sections because the director was in the way. The attempted solution was to cover the dead area with a machine gun. However, this lone single-barreled machine gun proved ineffective. Experience soon showed that the most effective AAA machine gun was our power turret with four guns. With the advent of this weapon, new considerations arose. The quad machine gun was too good to waste defending the dead area caused by the director. It did not take us long in Europe to discover that by relying on the Stiffkey Stick and by breaking off the machine gun from the job of covering the director dead area, we could easily add eight more firing units to each battery. Our method of operation was generally to place the 40mm guns far out and the machine guns close in, for the machine gun with its power turret and on-carriage sight was more flexible and maneuverable for close-in work than the guns. A particular example of how this policy paid off was the air field at Metz on New Year's day, 1945. The

close-in machine guns accounted for some 13 planes.

The elimination of the director brings a welcome relief from the extra labor and tonnage involved. But it is not in the field of the using units that logistical considerations become most important. It is in the shipment of the director and allied equipment from the Zone of the Interior to the theatres of war that logistical considerations become really important. We cannot afford to devote tonnage to an item that cannot produce better comparative results than the director.

While the on-carriage sights have solved the problems posed by daylight firing problems, no device of any kind has as yet solved the problem of night firing. At air-strip No. 1 on Omaha Beach, we tried laying traps for the Germans. The trap consisted of a 268 radar and searchlight. The idea was to locate the enemy by radar, suddenly turn the searchlight on, and then shoot him down. It didn't work. The German pilots reacted too quickly. In complete darkness, the situation is hopeless. Any firing is generally a waste of ammunition. In moonlight, sometimes shadowy forms can be seen. At Avranches, night attacks were preceded by the dropping of flares that lighted up the area like daylight. The flares, are, of course, very blinding. However, under certain conditions where a gun has the right location, sometimes a low flying plane can be picked up. Under these conditions open sights give some hope of tracking, whereas with optical sights the situation is nearly impossible.

With existing equipment, the most practical method in night situations is a ring of local outposts, so that by determining accurately the direction from which the enemy plane is making his bomb run, a barrage can be set up. This system has the defect of requiring telephone lines and considerable manpower. At Avranches, by the use of barrage fire, and picking up what targets we could, we attained sufficient efficiency to keep the Germans from knocking out the two vital bridges. The Germans reacted to our efforts

by direct attacks upon some of our gun positions, particularly the ones that annoyed them most.

A GREAT many American AAA officers who fought only in the Pacific have had no experience with any fire-control device other than the director and the forward area sight, and in comparing off-carriage with on-carriage sights, must base their conclusion on the merits of the director as against the Weiss Sight, our current standard on-carriage sight. The Weiss Sight, which did not get into production until towards the end of the war, has been adopted because of its target range performance. Most AAA officers who have dealt with the Stiffkey Stick prefer it to the Weiss Sight because of certain fundamental differences. In brief, the Stiffkey Stick is a simple rugged instrument, non-optical, with a two-foot arm, instead of a four-inch needle, to control the course setting. The target is more easily followed with the Stiffkey Stick than the Weiss Sight. In addition to the Stiffkey Stick, there is an American sight of the Stiffkey Stick type available.

I refer to the Pecca Sight, invented by Colonel Peter Pecca. The only real difference between the two sights is that the Stiffkey Stick changes leads at 50 mil clicks, whereas leads on the Pecca Sight change gradually.

If we could equip the director with radar, so that AW could fire effectively at night, then we would be justified in keeping the director despite its many defects.

AAA combat experience in Europe indicates that the ideal fire control for automatic weapons should possess the following basic characteristics: (1) Accuracy must be capable of being certainly transmitted to the firing piece; (2) data transmission must be in time for data to be used; and (3) device must be capable of tracking unseen targets. Until such time as the instrument makers win by integrating radar into AW fire control, it appears that the Stiffkey Stick is the most practical and efficient sight.



14th AA Command History

We have a letter from Major General William F. Marquat advising that they have now completed the history of the 14th AA Command and are ready to proceed with the publication.

This history will present in six interesting chapters the over-all story of the antiaircraft in General MacArthur's Command throughout World War II. It includes an annex with brief histories of the units assigned to the 14th AA Command together with rosters of the unit officers.

Through various means they have been able to arrange to publish this history in attractive form at a cost of \$3.50 per copy. However, they plan to print only the number required to meet the orders received.

If you desire a copy, send your check for \$3.50 by air mail direct to:

Major General W. F. Marquat
ESS, GHQ, SCAP
APO 500, c/o Postmaster,
San Francisco, California.

General Marquat will be happy to receive your order, but he needs to get it by 1 January 1951. If you served in the 14th AA Command, indicate to what unit you were assigned.

ORIENTATION BY BACKSIGHTING

By Captain Peter B. Genero, Arty.

BACKSIGHTING, PERFORMED CORRECTLY, IS THE MOST ACCURATE AND PRACTICAL METHOD OF ORIENTING A GUN BATTERY

THIS may sound radical to most AA Officers, but there are still a number of World War II ex-gun battery commanders who will vouch for it. The field manuals and the AA school still teach that the known datum point method is the best; celestial orientation, second; and that backsighting is to be used only as a last resort.

Proponents of the known datum point method at Fort Bliss emplace their guns in a desert and sight at a point approximately 43,000 yards distant. A brigade commander during the past war was one of the foremost exponents of this method. In fact, he ordered me to cut a swath through the jungles for two thousand yards, to enable each piece of equipment to be oriented on a distant point. Even after

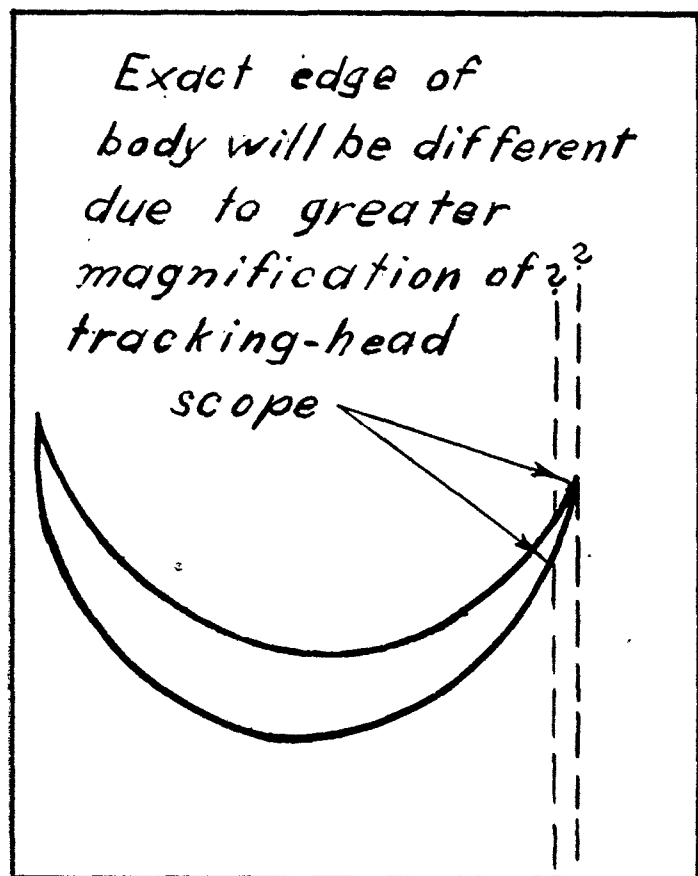


Figure 1—Moon.

Captain Peter B. Genero served in the southwest Pacific and the Philippines during World War II and was commissioned in the Regular Army in January 1948. He is presently attending the Ordnance School at Aberdeen, Maryland.

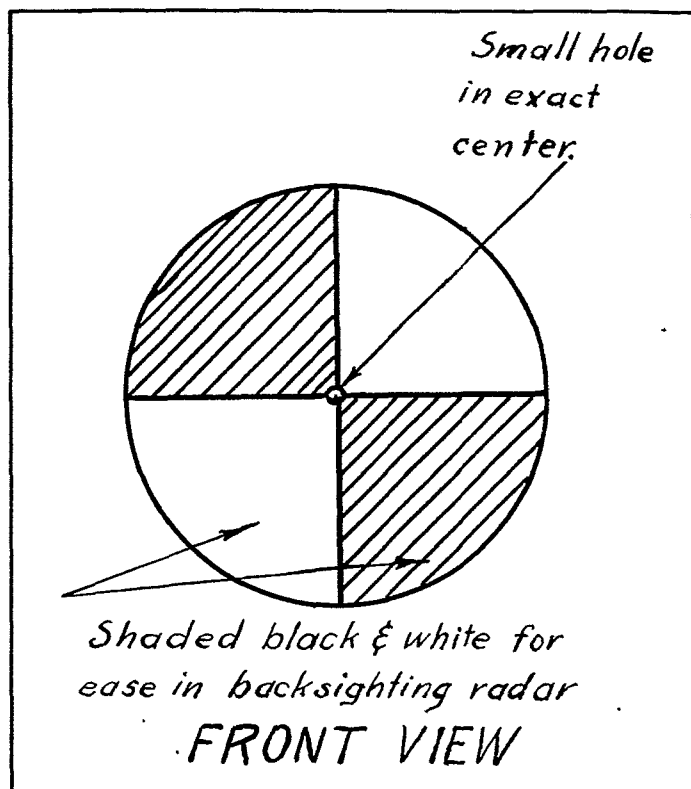


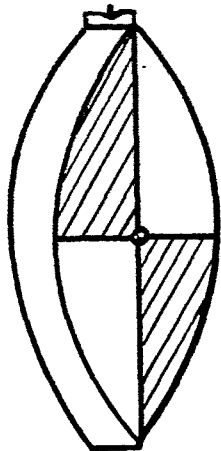
Figure 2—Orienting shield.

such heroic efforts, the method is still not foolproof. The frequent changes made on the azimuth indicator regulator are evidence that mistakes are common. There are five different persons orienting five different pieces of equipment—one on each gun and one at the tracking head. This affords opportunity for errors to creep into the system, particularly since the danger of eye parallax is ever present. The weather must be clear enough to see the point and it must be illuminated at night (useless in blackout), and parallax to the point for each piece must be figured.

The celestial method is the poorest of all. It is extremely difficult to tell the exact instant the star reaches the cross hairs on the gun. Sighting on the wrong star is always a possibility, and it happens too. Hours are wasted waiting for a clear spot in the sky.

The tracking head scope magnifies, while there is no magnification in a gun tube. This leads to error when the moon is not full. (See figure 1.) I used the celestial method for two years and seldom were the four guns oriented without having to correct settings on azimuth indicator regulators.

*$\frac{1}{2}$ " lip which fits over
end of telescope.*



SIDE VIEW

Figure 3—Orienting shield.

IT is common belief that in backsighting there is an inherent three mil error. That is true if it is done as outlined in the manual.

However, there is a far more accurate method which should be publicized. It requires first of all a bore sighting disc or shield for the tracking head azimuth scope in order to eliminate eye parallax. There is such an item of issue. However, most batteries construct one from an empty beer can by cutting off the good end of the can, with a lip of about one-half inch, as shown in Figure 3. Fortunately, it fits snugly over the tracker scope. A hole about one-tenth inch in diameter is punched accurately in the exact geometrical center. The outer surface is then marked and painted as indicated in Figures 2 and 3.

Having oriented the tracking head, the firing pin of the breechblock is removed and the vertical hair is placed on the gun muzzle. The gun is turned toward the tracking head. The tracker then gives all commands necessary to align the pin point of light from the firing pin hole with the vertical hair on the gun muzzle. One person orients the entire battery. The reading for each gun is checked by traversing it in first from the left and read; then from the right and read. In each case the gun is brought up to the orienting point and not beyond it. If it is traversed too far, back up and repeat the process. Normally this check will show a lag in the gear train of less than a half mil. Use the mean of the left and right readings. There is no parallax to figure for the gun. The exact back azimuth of the tracking head, plus or minus calibration corrections, is set directly on the indicator regulator.

Obviously, backsighting requires a clear line of sight from each gun to the tracker scope. However, this is easy to arrange if anticipated when the battery position is

being organized. Otherwise, it may be necessary to cut a slit through a gun pit, or remove any other obstruction. Even so this beats clearing 2,000 yards of jungle. The method can be used under all conditions.

Its beauty is most readily appreciated when in blackout. The procedure is the same, except that no gun cross hairs are required. A flashlight is held against the breechblock shining through the firing pin hole. The azimuth tracker then causes the gun to move so that he obtains the following picture:

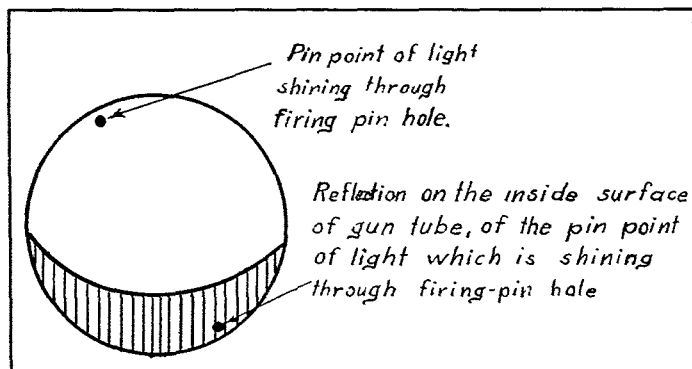


Figure 4—Gun tube.

When the pin point of light from the firing pin hole is aligned vertically with its reflection on the inner side of the tube and the vertical cross hair of the tracking head scope is centered, the two pieces of equipment are pointed exactly at each other in azimuth.

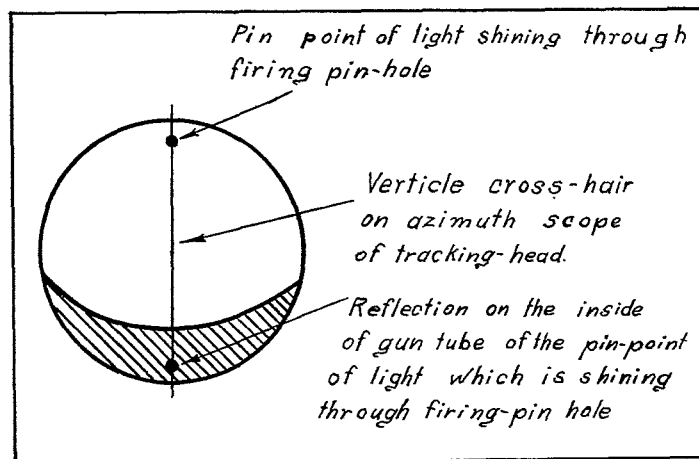


Figure 5—Gun tube.

Using the backsighting method of orientation, the author once oriented a battery daily for three months and never had to change an azimuth reading a single mil. When another method which can insure such accuracy under all conditions is found, it will be equally acceptable.

THE radar should also be oriented with the tracking head by backsighting. The procedure is the same as outlined in appropriate publications except that an additional shield must be made for the radar scope. It is necessary to make doubly sure that both scopes are pointed directly at each other when the reading is made.

UNIFORM CODE OF MILITARY JUSTICE

By Colonel Frederick Bernays Wiener, JAGD, USAR

Reviewed by Colonel Thomas H. King, JAGD, USAFR

AS of May 31, 1951, the new Uniform Code of Military Justice will go into effect for the Army, Navy and Air Force, recodifying all previous concepts of military law.

Colonel Wiener's book clarifies the points involved in the change. It is conveniently divided into three sections. The first section gives a brief discussion of the Uniform Code of Military Justice. It intelligently points out the background for appointments of courts-martial, the jurisdiction of courts-martial, the new concept of company punishment and trial by summary courts, and the basis for the membership of courts-martial.

It shows the requirements in easy form regarding the personnel of the prosecution and defense; it covers the pre-trial procedure, trial procedure, gives the explanation for taking the "law officer" off of the court as a voting member, explains the appellate review, and explains why there has been established a civilian court of military appeals. It is very well done and is not phrased in technical language. It is brief and to the point.

Typical of the author's treatment of the book's first section is the following extract from the paragraph on "Company Punishment and Trial by Summary Courts":

"Perhaps the most difficult problem of unification which the drafters of the new Code faced was that of reconciling the Army-Air Force and the Navy Systems of company, or, as it is now termed, 'nonjudicial' punishment (UCMJ, article 15).

"AW 104 gave an accused an absolute option to elect trial by court-martial in lieu of accepting company punishment. True, that option was rarely exercised, but its presence was sensed both by commanders and by persons subject to AW 104. In the Navy, on the other hand, no such option existed; a sailor could not escape punishment at mast and elect to be tried by a deck court of one officer; and the reason was this: The former was administered by the captain of the ship, while the usual deck court was the executive officer. Therefore it just didn't make sense for a member of the crew to avoid the captain in order to be tried by the exec.

"UCMJ, article 15(b), accordingly provides that each Secretary of a Department may by regulation make provision as to 'the applicability of this article to an accused who demands trial by court-martial.' The precise terms of these regulations must await the new Manual, but it is probably safe to predict that each service will continue its traditional practices.

"Similar limitations may be placed by departmental regulations 'with respect to the kind and amount of punishment authorized.' The statutory maxima for nonjudicial punishment will be these (UCMJ, article 15 (a)):

"On officers and warrant officers, withholding of privileges not to exceed two weeks; or restriction to specified

limits, with or without suspension from duty, not to exceed two weeks; or, if imposed by an officer with GCM jurisdiction, forfeiture of not more than one-half pay for one month. All are in addition to or in lieu of reprimand or admonition. The first two double the present one-week limit; the forfeiture of pay cuts the present three months to one, but does not limit the rank of the offender who may be so punished. (Offhand, however, it may well be doubted whether any general officer will ever lose pay under UCMJ, article 15.)"

OF interest to all students of military law is the paragraph discussing "Why Was The Law Officer Taken Off The Court?":

"From the point of view of the Army (and Air Force) officer with military justice experience, line officer and judge advocate alike, the most valuable innovation introduced in 1920 was the law member of the GCM, and the most valuable change effected in 1948 was the requirement that the law member be present at all times and that he must in fact be a trained lawyer. To all such personnel, the most dubious features of the Uniform Code are the provisions which take the law officer off the court, just when, in fact, he can be most helpful. These provisions they definitely regard as a retrograde step. (It is otherwise in the Navy; the Navy never had a law member before; the provisions of the Uniform Code represent a definite and (no doubt) long overdue advance in the Navy system.)

"The House and Senate Committees justified the Code provisions in substantially identical terms:

'In view of the fact that the law officer is empowered to make final rulings on all interlocutory questions of law, except on a motion to dismiss and a motion relating to the accused's sanity, and under this bill will instruct the court upon the presumption of innocence, burden of proof, and elements of the offense, it is not considered desirable that the law officer should have the voting privileges of a member of the court. This is consistent with the practice in civil courts where the judge does not retire and deliberate with the jury.'

"A more revealing light was cast on the real motivation for the change by the Chairman of the Committee which the late Secretary Forrestal appointed to draft the new law. This gentleman testified (House Hearings, pp. 607-608):

'... the fundamental notion was that the law officer ought to be as near like a civilian judge as it was possible under the circumstances. ... We felt that whatever influence that judge exercised should be on the record. ... The law member, when he retires with the court, may make any kind of statement to them. And it has been

stated—I would not say on how good authority—that frequently when he went back there why he said, “Of course the law is this way but you fellows don’t have to follow it.” . . .

‘Now the law officer may become sort of a professional jurymen, if they kept reappointing the same person, and as you probably know the professional jurymen are the convicting jurymen usually.

‘If you kept getting the same jurymen all the time the number of convictions is very, very much greater than if you get a new jury.’

“Extended comment on the foregoing testimony is doubtless unnecessary. But it may not be amiss to remark that these excerpts illustrate the curious dualism that runs through all of the postwar criticisms of the court-martial system and much of the postwar legislation on the subject: A mixture of a desire to protect the innocent—the urge to do justice—and of a desire to make it difficult to convict the guilty—the urge to prevent justice.”

The author’s “Conclusion” of the First Section is devoted to a brief commentary on some of the changes:

“A good many other changes have been made, but they are not of general interest; the major changes, and a good many of the minor ones, have been duly noted above.

“On the whole, the new Code is a good job. Most of its provisions represent desirable innovations. The four most doubtful changes are (1) the absolute right to object to trial by summary court-martial, which is bound to hamper disciplinary administration at the level of the more minor and hence most frequent infractions; (2) the mandatory requirement that both trial and defense counsel for GCM must be lawyers at all times, which may be fully as impracticable in time of peace as it is desirable in time of war; (3) taking the law officer off the court, which is a change made without a real background of experience and on a doubtful analogy; and (4) the civilian Court of Military Appeals—as to which all concerned, in the service and out, will have to hold their breaths. Given qualified personnel with vision and breadth of understanding, it might work.”

THE second section is a complete text of the Uniform Code of Military Justice showing the comparative text of the present Articles of War and related legislation together with a commentary (including excerpts from the Senate and House reports on the bill). This phase of the work will bring line officers up to date and give them a more complete understanding of the meaning of the changes. While the Manual will be indispensable, it will not contain the explanations behind the changes as does Colonel Wiener in his presentation of the various articles. This second section contains not only the punitive articles and procedural articles but also contains many miscellaneous provisions with reference to courts of inquiry, the authority to administer oaths as notary, redress of injuries to property, complaints of wrongs, delegations by the President, and provisions for the explanation of the articles to personnel.

Section Three of the book contains two cross reference tables: (a) The Articles of War to related articles in the

Uniform Code of Military Justice and other sections of the act; and (b) the articles of the Uniform Code of Military Justice and other sections of the act to the Articles of War. In other words, if an officer familiar with the present Articles of War wants to know what is in the new Code, cross-reference table (a) furnishes the ideal system to find it. If you have a problem under the new Code and you wish to locate it in the old Articles, cross-reference table (b) will do this.

Colonel Wiener is the author of the *Practical Manual of Court-Martial Law*, 1940; *Military Justice for the Field Soldier*, 1943; and the *New Articles of War*, 1948. This new publication is more than a book for judge advocates—it is a book for the line officer as well. The new Code is unique in many respects and this book will unfold to one who procures it a light on the law that will not otherwise be obtainable.

The Uniform Code of Military Justice, by Colonel Frederick Bernays Wiener, JAGD USAR, 275 pp., price \$3.50.

THE HARD WAY HOME

By Colonel William C. Braly (Ret.)

The surrender on Corregidor. Three years as a POW in Luzon, Formosa, Japan, and Manchuria. A realistic and gripping story of how the strongest of prisoners from Corregidor and Bataan kept up their morale to survive. But alas! Two-thirds of the 20,000 American prisoners perished under the shoddy treatment and atrocities. A background of sound indoctrination.

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←

Douglas B-26 "Invaders" were familiar in the combat areas of World War II. With a ceiling of over 25,000 feet at more than 350 miles per hour, it carries a bomb load of 5,000 pounds or a load of rockets to increase the fire power of its caliber .50 machine guns. One of its peacetime uses is towing sleeve targets for antiaircraft artillery practice.

Treatment of Prisoners of War

Geneva Convention of 1949

By Brigadier General Joseph V. Dillon, USAF

The 1949 Convention has been agreed upon for good purpose and with the hope of wide compliance. It prescribes that the armed forces and the entire population be well instructed in its provisions. In fairness to the soldier, reference should also be made to the actual experiences of American prisoners in past wars and in the current struggle in Korea. The American soldier should understand well that there is no justification for surrender so long as he can continue resistance and thereby serve his country.—Ed.

ON August 12, 1949, a revision of the Geneva Convention of 1929 relative to the treatment of prisoners of war was completed. This Convention was formally signed by the United States and sixty other nations on December 8, 1949. It now awaits ratification by the various signatory nations.

The 1929 Convention was an elaboration of the principles enunciated in the Hague Regulations of 1899 and 1907. It was a long stride taken in the effort to ameliorate the rigors and horrors of war. However, it was still a very imperfect instrument. One of its fundamental faults was its adoption of national standards rather than absolutes. Illustrative of this fault is Article 11 of the 1929 Convention which provided:

"The food ration of prisoners of war shall be equal in quantity and quality to that of troops at base camps."

Perhaps the ration of the United States troops may not be particularly palatable to the Oriental soldier, but at least he could live on it. Whereas the Occidental soldier could not exist healthily on dried fish and rice. Article 26 of the 1949 Convention provides:

"The basic daily food rations shall be sufficient in

Brigadier General Joseph V. Dillon is the Air Provost Marshal. BS, USMA 1920; LLB and LLM, Georgetown; served in Coast Artillery from 1920 to 1934, then detailed with JAG. He was the Provost Marshal General in Africa and ETO. In 1945 in conjunction with Max Huber, President of the Red Cross International Committee, General Dillon was instrumental in initiating the Geneva and Stockholm Conferences which led to the Geneva Convention, 1949 on the Treatment of POW. He attended all of the conferences as a representative of the United States.

quantity, quality and variety to keep prisoners of war in good health and to prevent loss of weight or the development of nutritional deficiencies. Account shall also be taken of the habitual diet of the prisoners.

"The Detaining Power shall supply prisoners of war who work, with such additional rations as are necessary for the labour on which they are employed.

"Sufficient drinking water shall be supplied to prisoners of war. The use of tobacco shall be permitted.

"Prisoners of war shall, as far as possible, be associated with the preparation of their meals; they may be employed for that purpose in the kitchens. Furthermore, they shall be given the means of preparing, themselves, the additional food in their possession.

"Adequate premises shall be provided for messing.

"Collective disciplinary measures affecting food are prohibited."

The revision of 1949 fairly well succeeds in:

- a. A better arrangement of the articles.
- b. Elimination of known ambiguities.
- c. More fully spelling out matters which were left to the humane discretion of the signatories in 1929.
- d. Establishing absolute standards, where possible, as substitutes for national standards.

Article 127 of the 1949 text prescribes wide dissemination of the provisions of the Convention and "in particular to include the study thereof . . . so that the principles thereof may become known to all their armed forces and to the entire population." Much abuse under the 1929 Convention grew out of ignorance on the part of prisoners of war as well as those persons of the Detaining Power who were concerned with the administration of their affairs.

The more important provisions, especially those entailing individual consequence, will be highlighted here.

PRISONERS OF WAR

ARTICLE 4 defines prisoners of war in detail. It includes all those previously included and introduces several other categories of persons who are entitled to be treated as prisoners of war. Among them are those "who accompany the armed forces without actually being members thereof, such as civilian military aircraft crews, war correspondents, supply contractors, members of labour units or of services responsible for the welfare of the armed forces. . . ." Also included are members of crews of the merchant marine and of civil aircraft.



Geneva Diplomatic Conference. The Legal Subcommittee of the Prisoner of War Committee. General Dillon, President.

Article 5 of the Convention prescribes the duration of the obligation of the Detaining Power:

"The present Convention shall apply to the persons referred to in Article 4 from the time they fall into the power of the enemy and until their final release and repatriation."

Article 7 provides:

"Prisoners of war may in no circumstances renounce in part or in entirety the rights secured to them by the present Convention . . ."

RESPONSIBILITY FOR THE TREATMENT OF PRISONERS

ARTICLE 12 reiterates the doctrine of national responsibility and at the same time recognizes individual responsibility for treatment accorded prisoners of war. A more important provision of Article 12 is that:

"... Prisoners of war may only be transferred by the Detaining Power to a Power which is a party to the Convention and after the Detaining Power has satisfied itself of the willingness and ability of such transferee Power to apply the Convention. When prisoners of war are transferred under such circumstances, responsibility for the application of the Convention rests on the Power accepting them while they are in its custody.

"Nevertheless, if that Power fails to carry out the provisions of the Convention in any important respect, the Power by whom the prisoners of war were transferred shall, upon being notified by the Protecting Power, take effective measures to correct the situation or shall request the return of the prisoners of war. Such requests must be complied with."

This article gave rise to long debate. It represents a prac-

tical compromise. Russia and the satellites deposited a reservation against freeing the original Detaining Power from responsibility.

HUMANE TREATMENT OF PRISONERS

The principle enunciated in Article 3 of the 1929 text, to wit:

"Prisoners of war have the right to have their person and their honor respected. Women shall be treated with all the regard due to their sex.

"Prisoners retain their full civil status," has been substantially broadened by Article 13:

"Prisoners of war must at all times be humanely treated. Any unlawful act or omission by the Detaining Power causing death or seriously endangering the health of a prisoner of war in its custody is prohibited, and will be regarded as a serious breach of the present Convention. In particular, no prisoner of war may be subjected to physical mutilation or to medical or scientific experiments of any kind which are not justified by the medical, dental or hospital treatment of the prisoner concerned and carried out in his interest.

"Likewise, prisoners of war must at all times be protected, particularly against acts of violence or intimidation and against insults and public curiosity.

"Measures of reprisal against prisoners of war are prohibited."

IDENTIFICATION OF PRISONERS

IN World War II, prisoners of war were many times evacuated from beachheads before they had been administratively processed and indeed, before nominal rolls were

completed. Had any of the vessels upon which these prisoners were evacuated been sunk or lost, no record would be available to identify those so lost. Article 17 provides:

"Each Party to a conflict is required to furnish the persons under its jurisdiction who are liable to become prisoners of war, with an identity card showing the owner's surname, first names, rank, army, regimental, personal or serial number or equivalent information, and date of birth. The identity card may, furthermore, bear the signature or the fingerprints, or both, of the owner, and may bear, as well, any other information the Party to the conflict may wish to add concerning persons belonging to its armed forces. As far as possible the card shall measure 6.5 x 10cm. and shall be issued in duplicate. The identity card shall be shown by the prisoner of war upon demand, but may in no case be taken away from him. . . ."

The duplicates of each identity card may be collected prior to evacuation and they constitute a basis for a nominal roll. The provision that the identity card "may in no case be taken away from him" does not preclude the taking of the duplicate. The intent of the provision is that the prisoner of war shall at no time be without means of identification.

SHELTERS AGAINST BOMBARDMENT

Article 23 is one of the few instances where national or local standards of protection were used as a basis of protection for prisoners:

". . . Prisoners of war shall have shelters against air bombardment and other hazards of war, to the same extent as the local civilian population. . . ."

FOOD, MEDICAL CARE AND RELIGIOUS RIGHTS

Article 26 concerning food rations was discussed above.

The provisions concerning hygiene and medical attention, Articles 29-32, provide now that at least monthly medical inspections of prisoners of war shall be held and these must include the checking and recording of the weight of each prisoner of war as well as "periodic mass miniature radiography for the early detection of tuberculosis."

Articles 34-37 stress the right of prisoners of war to "enjoy complete latitude in the exercise of their religious duties, including attendance at the service of their faith, . . ." and the right of "Chaplains who fall into the hands of the enemy Power and who remain or are retained with a view to assisting Prisoners of War, shall be allowed to minister to them and to exercise freely their ministry amongst prisoners of war of the same religion, in accordance with their religious conscience."

RESPONSIBILITY FOR CAMP STAFF INDOCTRINATION

Article 39 requires that each prisoner of war camp commander shall ensure that the provisions of the Convention are known to the camp staff and the guard, and the camp commander, under the direction of his government, is held responsible for their application.

TRANSFERS AND EVACUATION OF PRISONERS

Inter-camp transfers of prisoners of war have been more expansively treated. The memory of the horrors of the

Death March of Bataan and other fearful transfers were still green in the minds of the representatives at the Conference, and there was a grim determination to outlaw any such catastrophes in the future. Article 46 prescribes:

"The Detaining Power, when deciding upon the transfer of prisoners of war, shall take into account the interests of the prisoners themselves, more especially so as not to increase the difficulty of their repatriation.

"The transfer of prisoners of war shall always be effected humanely and in conditions not less favourable than those under which the forces of the Detaining Power are transferred. Account shall always be taken of the climatic conditions to which the prisoners of war are accustomed and the conditions of transfer shall in no case be prejudicial to their health.

"The Detaining Power shall supply prisoners of war during transfer with sufficient food and drinking water to keep them in good health, likewise with the necessary clothing, shelter and medical attention. The Detaining Power shall take adequate precautions especially in case of transport by sea or by air, to ensure their safety during transfer, and shall draw up a complete list of all transferred prisoners before their departure."

LABOUR OF PRISONERS OF WAR

PERHAPS no section of the Convention gave rise to more debate and expressions of differences of views than that dealing with "Labour of Prisoners of War." Article 31 of the 1929 text was the basis of most of the confusion. It provided:

"Labor furnished by prisoners of war shall have no direct relation with war operations. It is especially prohibited to use prisoners for manufacturing and transporting arms or munitions of any kind, or for transporting material intended for combatant units. . . ."

Its related article, which prohibited use of prisoners of war at unhealthful or dangerous work, proved almost as troublesome. Many nations felt that work which might otherwise be dangerous (such as mine removal) was not prohibited under the article if the prisoner of war was thoroughly trained and properly equipped for the work.

The Conference, after long and arduous debate, adopted Article 50 which provides:

"Besides work connected with camp administration, installation or maintenance, prisoners of war may be compelled to do only such work as is included in the following classes:

"(a) Agriculture;

"(b) Industries connected with the production or the extraction of raw materials, and manufacturing industries, with the exception of metallurgical, machinery and chemical industries; public works and building operations which have no military character or purpose;

"(c) Transport and handling of stores which are not military in character or purpose;

"(d) Commercial business, arts and crafts;

"(e) Domestic service;

"(f) Public utility services having no military character or purpose.

"Should the above provisions be infringed, prisoners of war shall be allowed to exercise their right of complaint, in conformity with Article 78."

In Article 52, the removal of mines or similar devices has been defined as dangerous labor and it was therein provided also that "unless he be a volunteer, no prisoner of war may be employed on labor which is of an unhealthy or dangerous nature." Article 55 provides:

"The fitness of prisoners of war for work shall be periodically verified by medical examinations at least once a month. The examinations shall have particular regard to the nature of the work which prisoners of war are required to do.

"If any prisoner of war considers himself incapable of working, he shall be permitted to appear before the medical authorities of his camp. Physicians or surgeons may recommend that the prisoners who are, in their opinion, unfit for work, be exempted therefrom."

FINANCIAL RESOURCES OF PRISONERS

IN World War II the provisions of the 1929 Convention proved to be utterly impractical. After failing to come to any agreement on the subject with any of our enemies, the United States fixed a gratuity of three dollars a month for each prisoner of war. This was paid in commodities at post exchange prices in the theaters of operation and in post exchange scrip in the zone of interior. The United States fixed a rate of eighty cents a day for labor which was credited to the accounts of the prisoners. These rates were communicated to the enemy governments through the Protecting Powers. Upon repatriation of the prisoners they were given certificates of credit which were cashable in designated banks in their home countries. Neither France nor Great Britain followed our system but used their discretion (not quite as generously as did the United States) in the matter. Our defeated enemies had no means of doing for our soldiers held as prisoners by them what we had done for theirs at repatriation, for the simple reason that their monetary systems collapsed with their governments.

Illustration of the minute detail resorted to in the 1949 Convention is gleaned from Article 60 which fixes a monthly advance of pay as follows:

"The Detaining Power shall grant all prisoners of war a monthly advance of pay, the amount of which shall be fixed by conversion, into the currency of the said Power, of the following amounts:

Category I: Prisoners ranking below sergeants: eight Swiss francs.

Category II: Sergeants and other non-commissioned officers, or prisoners of equivalent rank: twelve Swiss francs.

Category III: Warrant officers and commissioned officers below the rank of major or prisoners of equivalent rank: fifty Swiss francs.

Category IV: Majors, lieutenant-colonels, colonels or prisoners of equivalent rank: sixty Swiss francs.

Category V: General officers or prisoners of war of equivalent rank: seventy-five Swiss francs.

"However, the Parties to the conflict concerned may by special agreement modify the amount of advances of pay due to prisoners of the preceding categories.

"Furthermore, if the amounts indicated in the first paragraph above would be unduly high compared with the pay of the Detaining Power's armed forces or would, for any reason, seriously embarrass the Detaining Power, then, pending the conclusion of a special agreement with the Power on which the prisoners depend to vary the amounts indicated above, the Detaining Power:

(a) shall continue to credit the accounts of the prisoners with the amounts indicated in the first paragraph above;

(b) may temporarily limit the amount made available from these advances of pay to prisoners of war for their own use, to sums which are reasonable, but which, for Category I, shall never be inferior to the amount that the Detaining Power gives to the members of its own armed forces.

"The reasons for any limitations will be given without delay to the Protecting Power."

And Article 66 dealing with termination of captivity:

"On the termination of captivity, through the release of a prisoner of war or his repatriation, the Detaining Power shall give him a statement, signed by an authorized officer of that Power, showing the credit balance then due to him. The Detaining Power shall also send through the Protecting Power to the government upon which the prisoner of war depends, lists giving all appropriate particulars of all prisoners of war whose captivity has been terminated by repatriation, release, escape, death or any other means, and showing the amount of their credit balances. Such lists shall be certified on each sheet by an authorized representative of the Detaining Power.

"Any of the above provisions of this Article may be varied by mutual agreement between any two Parties to the conflict.

"The Power on which the prisoner of war depends shall be responsible for settling with him any credit balance due him from the Detaining Power on the termination of his captivity."

Article 68 sets up a right of claim for injury or losses, an important matter not treated in the old Convention. It is therein provided:

"Any claim by a prisoner of war for compensation in respect of any injury or other disability arising out of work shall be referred to the Power on which he depends, through the Protecting Power. In accordance with Article 54, the Detaining Power will, in all cases, provide the prisoner of war concerned with a statement showing the nature of the injury or disability, the circumstances in which it arose and particulars of medical or hospital treatment given for it. . . ."

IN 1943, thousands of Italian prisoners held by the United States in North Africa since April of that year were not in communication with their families across the Mediterranean by Christmas of that year. The situation was so sorrowful that The Pope, through his representative in North Africa, offered to operate for Italian prisoners an EFM (Emergency Family Message) similar to that in use for our own forces. The offer was accepted and the system operated between The White Fathers Seminary in Algeria and the Vatican. This was in operation by Christmas and brought a great deal of relief to thousands of prisoners and their families.

Article 71, 1949 Convention provides:

"Prisoners of war shall be allowed to send and receive letters and cards. If the Detaining Power deems it necessary to limit the number of letters and cards sent by each prisoner of war, the said number shall not be less than two letters and four cards monthly, exclusive of the capture cards provided for in Article 70, and conforming as closely as possible to the models annexed to the present Convention. Further limitations may be imposed only if the Protecting Power is satisfied that it would be in the interests of the prisoners of war concerned to do so owing to difficulties of translation caused by the Detaining Power's inability to find sufficient qualified linguists to carry out the necessary censorship. If limitations must be placed on the correspondence addressed to prisoners of war, they may be ordered only by the Power on which the prisoners depend, possibly at the request of the Detaining Power. Such letters and cards must be conveyed by the most rapid method at the disposal of the Detaining Power; they may not be delayed or retained for disciplinary reasons.

"Prisoners of war who have been without news for a long period, or who are unable to receive news from their next of kin or to give them news by the ordinary postal route, as well as those who are at a great distance from their homes, shall be permitted to send telegrams, the fees being charged against the prisoner of war's accounts with the Detaining Power or paid in the currency at their disposal. They shall likewise benefit by this measure in cases of urgency.

"As a general rule, the correspondence of prisoners of war shall be written in their native language. The Parties to the conflict may allow correspondence in other languages.

"Sacks containing prisoner of war mail must be securely sealed and labelled so as clearly to indicate their contents, and must be addressed to offices of destination."

All parties to the Convention (belligerent or neutral) through whose country prisoner of war mail or relief shipments pass must provide free transport (Article 74) and should "military operations prevent the Powers concerned from fulfilling their obligations, . . . the Protecting Powers concerned, the International Committee of the Red Cross or any other organization duly approved by the Parties to the conflict may undertake to ensure the conveyance of such shipments by suitable means. . . . For this purpose the High Contracting Parties shall endeavor to supply them

with such transport and to allow its circulation, especially by granting the necessary safe-conducts." (Art. 75.)

PRISONERS' REPRESENTATIVE

It was found during World War II that German prisoners of war were generally well briefed in their rights as prisoners of war. Accordingly, the relations between them and the authorities administering their affairs were on a high level. They were insistent upon being accorded every important right granted by the Convention. Advantage was always taken of the right of complaint established by Article 42 of the 1929 text for any real or supposed wrong. The section of the old Convention dealing with the subject proved to be quite adequate. The rights and duties of the "prisoners' representatives" were outlined in more detail in the revised text, and the title which varied in the various camps as camp leader, camp spokesman, etc., was finally fixed in the new text as Prisoners' Representative. An important innovation is the stipulation that "Prisoners' representatives shall not be held responsible, simply by reason of their duties, for any offenses committed by prisoners of war." (Art. 80.)

PENAL AND DISCIPLINARY SANCTIONS

Article 81 adopted the fundamental principles laid down in the 1929 text whereby a "prisoner of war shall be subject to the laws, regulations and orders in force in the armed forces of the Detaining Power; the Detaining Power shall be justified in taking judicial or disciplinary measures in respect of any offense committed by a prisoner of war against such laws, regulations or orders. However, no proceedings or punishments contrary to the provisions of this Chapter shall be allowed." Article 83 provides that "the Detaining Power shall ensure that the competent authorities exercise the greatest leniency and adopt, wherever possible, disciplinary rather than judicial measures." The former has a limit about equal to our Summary Court while the latter's limit is that of our General Court.

TREATMENT OF WAR CRIMINALS

ARTICLE 85 which provides: "Prisoners of War prosecuted under the laws of the Detaining Power for acts committed prior to capture shall retain, even if convicted, the benefits of the present Convention," caused an irreparable cleavage between Russia and her satellites on the one hand and the remainder of the nations represented at the conference. The United States position was that the essential guarantees of a fair trial should be provided all prisoners of war including war criminals, and conventionally prescribed treatment should even be applicable after conviction. The United States delegation made it clear that it intended to punish all war criminals, but that it favored one judicial system for all prisoners of war, whether their alleged offense was committed before or after capture. And also, that the conditions of execution of sentences as a minimum should conform to that prescribed in Article 108 regardless of the nature of the crime or when it was committed. Article 108 provides:

"Sentences pronounced on prisoners of war after a conviction has become duly enforceable, shall be served in

the same establishments and under the same conditions as in the case of members of the armed forces of the Detaining Power. These conditions shall in all cases conform to the requirements of health and humanity.

"A woman prisoner of war on whom such a sentence has been pronounced shall be confined in separate quarters and shall be under the supervision of women.

"In any case, prisoners of war sentenced to a penalty depriving them of their liberty shall retain the benefit of the provisions of Articles 78 and 126 of the present Convention. Furthermore, they shall be entitled to receive and despatch correspondence, to receive at least one relief parcel monthly, to take regular exercise in the open air, to have the medical care required by their state of health, and the spiritual assistance they may desire. Penalties to which they may be subjected shall be in accordance with the provisions of Article 87, third paragraph."

While this article adopts the standard accorded troops of the Detaining Power, the standard must meet the requirements of health and humanity. Without Article 85, nations would be left to their own discretion as to the treatment of a war crimes suspect, and this at a time when feeling runs high against such suspects. The United States refused to permit even inhuman conduct to be met with inhuman treatment. It averred that Article 85 substituted certainty for uncertainty and a humane standard in lieu of barbarism. The entire conference, with the exception of Russia and her satellites, agreed with the United States and adopted Article 85. The reservation taken by Russia and her satellites appears on superficial examination to be quite innocuous, but on studied analysis reveals a high degree of casuistry; it leaves the power of sentencing without limitation and the treatment after conviction in the realm of uncertainty. It provides:

"The Union of Soviet Socialist Republics does not consider itself bound by the obligation, which follows from Article 85, to extend the application of the Convention to prisoners of war who have been convicted under the law of the Detaining Power, in accordance with the principles of the Nuremberg trial, for war crimes and crimes against humanity, it being understood that persons convicted of such crimes must be subject to the conditions obtaining in the country in question for those who undergo their punishment."

ESCAPE

WHILE it was provided in the 1929 text that prisoners of war who escape and who are recaptured, shall not be liable to any punishment in respect of their escape, it was difficult to determine what constituted a completed or successful escape. The next text resolves the difficulty in Article 91:

"The escape of a prisoner of war shall be deemed to have succeeded when:

- (1) he has joined the armed forces of the Power on which he depends, or those of an allied Power;
- (2) he has left the territory under the control of the

Detaining Power, or of an ally of the said Power;

- (3) he has joined a ship flying the flag of the Power on which he depends, or of an allied Power, in the territorial waters of the Detaining Power, the said ship not being under the control of the last named Power.

"Prisoners of war who have made good their escape in the sense of this Article and who are recaptured, shall not be liable to any punishment in respect of their previous escape."

Full realization is accorded the fact that it is a prisoner's duty to his own country to effect an escape if possible. Acts committed solely in furtherance of escape are to be dealt with lightly. For instance, the maximum punishment for the theft of an automobile, taken only to further the escape, would be confinement for thirty days, for that is the maximum disciplinary punishment. And Article 93 provides:

"Escape or attempt to escape, even if it is a repeated offence, shall not be deemed an aggravating circumstance if the prisoner of war is subjected to trial by judicial proceedings in respect of an offense committed during his escape or attempt to escape.

"In conformity with the principle stated in Article 83, offences committed by prisoners of war with the sole intention of facilitating their escape and which do not entail any violence against life or limb, such as offences against public property, theft without intention of self-enrichment, the drawing up or use of false papers, or the wearing of civilian clothing, shall occasion disciplinary punishment only.

"Prisoners of war who aid or abet an escape or an attempt to escape shall be liable on this count to disciplinary punishment only."

DISCIPLINARY PUNISHMENT

SLIGHTLY infractious conduct is handled in practically the same manner as conduct punishable under the 104th Article of War in the 1949 Manual for Courts-Martial. A limited enumeration of disciplinary punishments is found in Article 89 and the procedure for handling such cases is defined in detail in Article 96 as follows:

"Acts which constitute offences against discipline shall be investigated immediately.

"Without prejudice to the competence of courts and superior military authorities, disciplinary punishment may be ordered only by an officer having disciplinary powers in his capacity as camp commander, or by a responsible officer who replaces him or to whom he has delegated his disciplinary powers.

"In no case may such powers be delegated to a prisoner of war or be exercised by a prisoner of war.

"Before any disciplinary award is pronounced, the accused shall be given precise information regarding the offences of which he is accused, and given an opportunity of explaining his conduct and of defending himself. He shall be permitted, in particular, to call witnesses and to have recourse, if necessary, to the services of a qualified

interpreter. The decision shall be announced to the accused prisoner of war and to the prisoner's representative.

"A record of disciplinary punishments shall be maintained by the camp commander and shall be open to inspection by representatives of the Protecting Power."

JUDICIAL PROCEEDINGS

THE first article under judicial proceedings gives to prisoners of war three of the most important of our Constitutional guarantees, namely, no *ex post facto* trial or sentencing; no involuntary confessions; the right of defense and the assistance of qualified counsel. (Art. 99.)

When the death penalty is pronounced on a prisoner of war, the sentence shall not be executed before the expiration of a period of at least six months from the date the Protecting Power is notified. (Art. 102.) Pre-trial confinement may in no case exceed three months and the period spent in pre-trial confinement must be deducted from any sentence of imprisonment passed upon him and taken into account in fixing any other penalty. (Art. 103.)

Before judicial proceedings can take place against a prisoner of war, evidence must be submitted to the court that at least three weeks prior thereto the Protecting Power had received notice of trial. (Art. 104.)

Article 105 details the time allowed to secure counsel for defense and the minimum time of two weeks allowed counsel to prepare the defense.

TERMINATION OF CAPTIVITY

1. *During Hostilities.*

Article 110 prescribes the conditions under which sick and wounded prisoners of war may be repatriated direct, accommodated in a neutral country and the conditions which prisoners of war accommodated in a neutral country must fulfill in order to permit their repatriation.

"If no special agreements are concluded between the Parties to the conflict concerned, to determine the cases of disablement or sickness entailing direct repatriation or accommodation in a neutral country, such cases shall be settled in accordance with the principles laid down in the Model Agreement concerning direct repatriation and accommodation in neutral countries of wounded and sick prisoners of war and in the Regulations concerning Mixed Medical Commissions annexed to the present Convention." (Art. 110.)

"Upon the outbreak of hostilities, Mixed Medical Commissions shall be appointed to examine sick and wounded prisoners of war and to make all appropriate decisions regarding them. The appointment, duties and functioning of these Commissions shall be in conformity with the provisions of the Regulations annexed to the present Convention." (Art. 110.)

The wounds or sickness need not be the result of combat to make one eligible for repatriation. Prisoners of war who meet with accidents shall, unless the injury is self-inflicted,

have the benefit of the provisions of this Convention as regards repatriation or accommodation in a neutral country. (Art. 114.) It is also prescribed that "no repatriated person may be employed on active military service." (Art. 117.)

2. *At the Close of Hostilities.*

The principle of release and repatriation without delay after the cessation of active hostilities is again asserted in Article 118. At the time of signing of the present Convention, some signatories still held German and Japanese prisoners. It was fairly well agreed that under the terms of the new article, retention of prisoners for so long a period would be clearly violative of the Convention.

3. *Execution of the Convention.*

"Representatives or delegates of the Protecting Powers shall have permission to go to all places where prisoners of war may be, particularly to places of internment, imprisonment and labour, and shall have access to all premises occupied by prisoners of war; they shall be allowed to go to the places of departure, passage and arrival of prisoners who are being transferred. They shall be able to interview the prisoners, and in particular, the prisoners' representatives, without witnesses, either personally or through an interpreter." (Art. 126.)

THE real teeth of enforcement of the Convention, supplementing the usual sanctions of International Law, i. e., condemnation of world public opinion and fear of reprisal, is found in Articles 129 and 130 wherein it is prescribed that the signatory nations shall undertake to enact any legislation necessary to provide effective penal sanctions for persons committing, or ordering to be committed, any grave breaches involving any of the following acts, if committed against persons or property protected by the Convention: wilful killing, torture or inhuman treatment, including biological experiments, wilfully causing great suffering or serious injury to body or health, compelling a prisoner of war to serve in the forces of the hostile Power, or wilfully depriving a prisoner of war of the rights of fair and regular trial prescribed in this Convention.

Normally, International Law has only sought to regulate the conduct of nations in their relations with one another. In the past decade, and particularly since the cessation of hostilities in World War II, there has been a growing tendency, in international relationships, to insure the extension of penal sanctions to individual conduct. This tendency was in evidence at the Geneva Convention of 1949.

One of the great Lord Chief Justices of England in the eighteenth century is reputed to have said with respect to Common Law Pleading that it is better to err on the side of pleonasm than on that of exiguity. It may be said that this doctrine, if such it be, imbued the drafters of the present Convention, for they certainly sought to expressly cover as much as possible and leave as little as possible to imagination or discretion.

LEARN TO FLY

By Brigadier General Francis P. Hardaway, U.S.A., Ret.

The liaison plane was firmly established as an essential item of military equipment in World War II. The grasshopper pilot, operating from easily established fields, performed all sorts of tactical and utility chores, and also demonstrated an amazing dexterity in avoiding destruction by enemy ground fire or by the conventional fighters of that era.

Again the success of the grasshoppers is being proved in Korea, where they are used to spot artillery fire, keep scattered units in contact with each other, lay wire, point out targets for the fighter bombers, and to serve as an air jeep for senior commanders and junior staff officers.

We note that Cessna Aircraft Company has a contract for a new type, the L-19 A, a single engine, high wing, tandem seating, two place liaison plane. It has all-metal construction, with a steel spring landing gear which minimizes ground loop tendencies and makes rough field operation possible. Its Continental Model E-190 engine gives 213 horsepower for short take-offs.

We also note that designers are developing a bantam Grasshopper Destroyer!

AS a result of my own experience, I feel quite strongly that ground officers should get to feeling at home in the air so that they can make maximum use of the liaison plane and that the best way to do so is to fly a light plane. I used to dislike flying for myself. I made trips in a plane at long intervals either for indoctrination, reconnaissance, or to get from one place to another and I got very little satisfaction or enjoyment out of them. At the Fort Benning maneuvers in 1940, as an umpire, I made a reconnaissance flight of the maneuver area but after several steep turns, I became a little air sick and got practically nothing out of the reconnaissance. Then in Louisiana, I passed up the reconnaissance flight and tried to do it by motor transportation, which wasn't very satisfactory due to the big area and short time.

It wasn't until 1944, with units spread out from San Diego to Los Angeles, in the Mohave Desert and in Central California, that I was forced to fly regularly, whether I liked it or not. Later, in Panama, my hours in the air increased.

Gradually, I became convinced of the value of the plane to the ground officer, for use in reconnaissance, observation,

and as rapid transportation. Moreover, I had come to like flying. I took flight instruction, shortly after World War II ended, at Paetilla Point airport in the Republic of Panama, and soloed there. It was quite a pleasure to find that it did not require a superman to learn to fly a light plane; in fact most students solo in from eight to ten hours, and find no difficulty in going on from there and completing the requirements for a private pilot's license. After retiring, I completed my course in the United States, obtained a private pilot's license in 1948 and continue to fly as a hobby several times a month.

My only regret is that I did not learn to fly much sooner, when it would have been of great help to me in the performance of many of my duties during my active career.

There are probably still many officers in the Army today who pass up opportunities or fail to make full use of liaison planes just because they are squeamish about flying. That is why I think experience in the air, especially gained in learning how to fly a light plane, should be as widespread as possible among all Army officers, as well as selected warrant officers and noncommissioned officers.

In the old days we rode the horse. We learned our equitation at government expense; and they weren't very solicitous about our personal desires either. Now the airplane is much more important to army activity than was the horse. Along with the expansion of Air Power, the Army now has its own Aviation; and that will expand, too, tremendously.

WHY not set up a project to teach a large group of officers and other key personnel to fly a light plane of the liaison type? If this were done, an officer who had progressed up to a point of qualifying for a private pilot's license as issued by the Civil Aeronautics Authority would have the following advantages over the nonflying ground officer.

a. He would be at home in a light plane so that he could give his entire attention to his mission.

b. He would be familiar with the appearance of the terrain from different altitudes and be able to identify natural features, works of man, and moving objects.

c. He could help either in navigating or piloting the plane.

d. If his pilot were disabled, as might happen in war, he could take over—possibly save both lives.

e. He would know without further study or briefing:

(1) Air speeds of liaison planes.

(2) Size of landing strips required for take-off or landing of such planes.

Brigadier General Francis P. Hardaway was commissioned a second lieutenant in the Coast Artillery Corps in 1909. He retired in 1948. During World War II he organized and commanded the AAA Replacement Center, Camp Callan, California from 1940 to 1943. He commanded the 37th AAA Brigade in the AAA defenses of Southern California from 1943 to 1944. From 1945 to 1947 he commanded the Panama Coast Artillery Command initially, and later the Pacific Section, Panama Canal Department.

(3) *Type of weather such planes can fly in; have knowledge of cloud formations and wind direction that precede an approaching front, and thus know in what direction a flight could be made.*

(4) *Type of instruments required in the plane and qualifications required of the pilot for instrument flying in an overcast.*

f. *He would be better able to cooperate with the Air Force in air defense, close ground support, and in airborne operations.*

How can the project be started? Perhaps it would be too expensive to detach the training personnel from their units and send them to Air Force basic schools for such training. However, the task could be accomplished by utilizing existing civilian aviation schools. These schools are scattered throughout the forty-eight states and the District of Columbia, and are also located in the vicinity of some of our foreign garrisons. Most of them are approved by the Veterans Administration or other Federal or State agency.

INITIALLY officers could be permitted, on a voluntary basis, to submit their applications for flight training. After appropriate examinations, the Department of the Army could then select the authorized number of applicants to take flight training at government expense at an approved civilian school of their own choice, located near their stations, with the understanding that they would take the training after duty hours or when on leave. Ground school classes would probably be held at night anyway. The applicant should be required to complete the course for a private pilot's license within one year from the date of starting. This would require 40 to 50 hours of instruction in the air; ground school classes would be in addition thereto and run concurrently. The cost to the Government would run about \$500.00 per individual. The Army officer would pay for any further flying he might do for his own pleasure, and to improve his skill, but he should be permitted to fly government owned liaison planes when available, without cost to himself.

This plan should be enlarged eventually to teach the majority of officers of the combat arms, and a smaller percentage of warrant officers and noncommissioned officers of the combat arms to fly a light plane.



Army To Organize Transport Companies Equipped With Helicopters

Transport companies equipped with helicopters designed for Army combat operations and logistical support are being organized for use in corps, divisions and smaller tactical units.

Each company will be equipped with 23 helicopters. Two of the aircraft will be used for command and reconnaissance purposes. The other helicopters will be of the light cargo type for transport of men, equipment and supplies.

The helicopter's vertical ascent and descent capabilities,

ability to hover and land or take off without prepared landing areas will meet situations which would not permit the use of conventional aircraft.

Helicopter-equipped companies will facilitate special types of operations which may be required for arctic, amphibious, mountain and jungle warfare where movement of vehicles on the ground can be extremely difficult. The use of these aircraft will afford greater mobility behind our front lines in the combat zone. The Army stated that it visualized their employment somewhat as "flying jeeps."

AAA Does Its Part In South Korea

By Lieutenant Colonel J. D. Stevens, G.S.C.



M-55 Ack Ack Gun Crews Break Up Road Blocks.

COMMITTED to combat under the same adverse conditions as the other arms in Korea, the AAA in that theater possessed an adaptability to varied roles, showed an ability to absorb tactical lessons, provided a sorely needed source of fire power, and demonstrated a willingness to tackle any job assigned, which evoked generally universal commendation from commanders in Korea for a job well done.

To veterans of Europe and the Pacific in World War II, the news of the devastatingly effective fire power of AAA AW in support of infantry and the high rate of fire and accuracy of AAA 90mm, supplementing FA fire, will come as no surprise. In Korea, this belief in the value of AAA was reaffirmed among those who had previously experienced it, and the worth of AAA was firmly established in the convictions of those who had not hitherto witnessed its performance.

The virtual absence of enemy air attacks in the Pusan beachhead, far from rendering AAA unimportant, permitted its extensive employment in the alternate surface mission, completely vindicating the tactical doctrine enunciated in Section IV, Department of the Army Training Circular No. 13, 1949.

In fact, this absence of enemy air was fortuitous in permitting commanders to employ AAA on the mission dictated by consideration of the greatest threat to the command under the circumstances in the Pusan beachhead, Air Forces maintained only a skeleton AA defense of its airfields using a battery of AAA AW (SP). Air Force then released AAA gun units, originally allocated to it by the theater for coordinated air defense, to Army for use in the alternate surface role as Field Artillery during the breakout to the north.

The versatility of AAA permitted the application of this surface role employment and its extension in a variety of assignments, and the performance of AAA in executing such

missions brought forth statements from both infantry and artillery commanders that they desired all the AAA they could get. Competition for use of AAA AW (SP) units was particularly keen among divisional infantry and field artillery units, and the premium on corps artillery enhanced the importance of AAA 90mm units as Field Artillery.

As an example of the flexibility which was achieved to bring the fire power of AAA guns to bear, and which all AAA gun unit commanders should increasingly strive to develop in their units, an AAA group headquarters was detached from Air Force Control, attached to Army, further attached to corps and given an AAA 90mm battalion and 155mm Howitzer FA battalion. With these battalions, it was in effect made the division artillery of a ROK division. Improvising necessary survey and communications with the help of FA units in adjacent divisions, this composite group initially participated in the attacks on the walled city of Kusan, to the north of the famous "bowling alley." In this mission it participated in the breakout from the Pusan beachhead and was, when I last heard of it, moving north with the ROK Division which it supported.

THE rate of fire of the divisional AAA AW (SP) units and particularly the M-16s and M-19s made them dear to the hearts of their comrades in the divisions. When fire power was at a premium against mass attacks along established lines or against sorties by large bands of infiltrators, the AW units mowed the enemy down. In one particular sector on the Naktong front, the AW units were tied in directly with the final protective line of the infantry regiments. There they annihilated wave after wave of the advancing enemy until in some cases, with ammunition exhausted, they were overrun; though their losses were heavy, they took pride in contributing to the traditions of a fighting division in maintaining vital positions. In other actions, this same AAA AW Battalion (SP) contributed to the fact that in this division no FA batteries were overrun. This, in a campaign where the enemy constantly strove to nullify our punch by overrunning FA units.

In the divisions, the AW units were employed on patrols in which tanks were used, on patrols where tanks were not available, on relief missions to evacuate cut-off infantry patrols, as our own road blocks, against enemy road blocks, to provide rear guards of convoys on MSR's, to provide close-in protection for FA units, to furnish CP protection (for any headquarters which could obtain AW AAA that was not required in higher priority elsewhere), for protection of liaison airstrips against enemy infiltration sorties, and for close-support roles directly with infantry units. Knocked out M-15s, M-16s, M-19s and M-39s gave mute testimony of their efforts on the defense, in all sectors; the presence of

South Korean replacements alongside crewmen on other AAA equipment moving forward, when the offensive to the north began, was evidence that antiaircraft artillerymen shared in the Army's ability to utilize new resources and in their universal will to carry on.

WITH the other soldiers in Korea, antiaircraft artillerymen had to relearn the lessons of physical toughness and competence with individual weapons so necessary for personal survival. They quickly came to grasp the principles of security for crew-served weapons which demand a sharing of the watch, small arms protection, and a close tie-in with other elements in a perimeter defense. They learned how to

apply the tremendous fire power of AAA effectively in ground tactics with other arms, the necessity for complete mastery of their matériel, and the need for teamwork in its operation. This familiarity with their matériel and the teamwork developed in ground firing will have equally valuable application when used against aircraft attacks.

They learned the lessons of adaptability, flexibility, improvisation, and developed a versatility which should be a continuing asset to AAA. They learned that utility against the most dangerous threat to the command is the quality which the commander will prize most highly, and is the quality which will insure their proportionate contribution to the over-all effort of the command.

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We Live and Learn

By Lieutenant Colonel Russell M. Nelson, Arty.

THE action in Korea is underlining a lesson taught us in the war in the Pacific—that the front lines in any operation are not necessarily continuous, that infiltration and guerrilla tactics must be expected and planned for by all elements in the combat zone. It follows that, if these elements are to continue to exist and function, a defense against this type of action must be planned and put into operation.

The defense against these tactics does not pose a new problem requiring a new solution. The Indian Wars in this country are classic examples of infiltration and guerrilla tactics. Our problem is to insure the adequate training of individuals and units in countermeasures for this type of action. Recognizing the problem, Headquarters Army Field Forces recently issued a directive that all programs of instruction in officer courses at the service schools would include “—thorough psychological, physical and combat training of each individual of a unit and of all units, especially of rear area service and administrative elements, to prepare them to anticipate possible isolation and attack by infiltrating units and to give training in the offensive-defensive measures necessary to combat this type of warfare—”

Light antiaircraft, with its fire power, flexibility, mobility and general availability, has demonstrated with great emphasis in Korea that it is a tremendous asset to the ground defense in providing some of the countermeasures to the infiltration and guerrilla attacks.

The combat experience of the AAA AW (SP) Battalion somewhere in Korea is a prime example. This battalion is organic to an infantry division and had the mission of defending the division air strip and the division artillery. Since the only enemy air activity was an occasional strafing attack, the fire units were engaged principally in ground defense. The enemy's tactics were to infiltrate by units ranging up to company size and attempt to destroy artillery and cut the supply lines.

In one attack on an artillery position the M-16 crew assigned to the position opened up at about 700 yards range and turned back the first attack. This gave the FA Battery time to emplace their 105's in new positions to fire point-blank into the ranks of the enemy on the next wave, breaking up that attack.

On another occasion the light antiaircraft held off the initial assault until the 105's could deploy in defensive positions. The assault finally came to a stop 50 yards short of the objective except for one M-16 which was temporarily overrun. By actual count there were 97 enemy dead surrounding the position, a major portion of which were attributed to the light antiaircraft section.

Both of these engagements were small local actions. But to the men who participated they were of major importance. These attacks were a positive threat to the very existence of the unit. They highlight two basic facts. First, all elements, whether in the front lines or the rear areas, must be prepared to meet infiltration and guerrilla attacks. Second, the fire power, flexibility, and mobility of the light antiaircraft, when properly employed, can quickly and efficiently combat these attacks.

Lt. Col. Russell M. Nelson is the Assistant Coordinator of Instruction in the Antiaircraft and Guided Missiles School, Fort Bliss, Texas.

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Self Propelled AAA In Indirect Fire Missions

By Lieutenant Colonel Walter Killilae, Arty.



Left to right—General Marquat and Lt. Col. Walter Killilae, 82d AAA AW Bn. (SP).

DURING defensive operations east of the Nakdong River in Korea, Battery B of the 82d AAA AW Battalion (SP) was a part of the 23d Regimental Combat Team of the 2d Infantry Division. In early September the unit was called upon to devise a method of firing indirect night fire missions with their M16's and M19's.

A temporary shortage of 105mm artillery ammunition made it necessary for the RCT commander to call upon Battery B to bring indirect interdiction fire upon known or suspected enemy positions. While the results were difficult to assess accurately, the missions were fired successfully.

Captain Kenneth L. Boullion, with First Lieutenants Clyde T. Hathaway and James C. Wilson of Battery B, developed the procedures and conducted the fire that resulted in the destruction of at least one enemy ammunition dump and inflicted numerous casualties upon the North Koreans.

It was successfully shown that plunging fire reaches into foxholes and denies areas to the enemy. The ammunition expended was considered worth while as the problem of delivering indirect fire in ground support missions with AAA weapons was partially solved. Such detrimental factors as the high silhouette and the "fire drawing" proclivities of the AAA weapons were neutralized in this type of firing.

THE procedure as developed for indirect fire with the M16's was:

- (1) Orient a map of the area and locate the weapon and target on the map.
- (2) Determine the azimuth of the gun-target line on the map. Using the back azimuth one man positions himself and sighting with a compass in front of and facing the weapon on line with the gun-target. When the gunner's sight and the compass are in line, the weapon is laid in direction.
- (3) From the map determine the horizontal range and the altitudes of the weapon and target. Compute the difference in altitudes. To determine elevation to be set on the weapon, enter the firing tables (FT 0.50 AA-T-1, Machine Cal. 0.50 Browning M2) using as factors the range and altitude difference. Use Part 2, Table IV a, for target above gun or Part 2, Table IV b, for target below gun. Set this elevation on the mount with gunner's quadrant placed on the cover of one of the machine guns.
- (4) To determine whether fire can be delivered on a target and clear an intervening mask, reference is made to Table III or Part 2, Table V, FT 0.50 AA-T-1. If the elevation required to hit the target is greater than that to the top of the mask, firing may be conducted. Details covering safety factors to be added when firing over friendly troops also may be found in the firing tables.
- (5) Use procedure set forth in FM 6-135 at OP to make corrections.

Procedure for indirect fire with M19's was:

- (1) Set up an OP as near the gun-target line as possible. Conduct registration fire during daylight. Make adjustments in accordance with established FA principles using quadrant elevation and azimuth read from gunner's quadrant and lensatic compass.
- (2) Improvise luminous aiming stakes, and place same 15 to 20 yards from weapons in direction of target as determined from registration.
- (3) During fire operate an OP. Observer makes corrections in range based on bursts, and corrections in azimuth based on tracer and on bursts. Use procedure set forth in FM 6-135, employing either infantry, FA or AAA personnel at OP.



Tropic Lightning Division Antiaircraft

By Lieutenant Lowell H. Beilsmith, Artillery

BATTERY A, 25th AAA AW Battalion (SP), commanded by Captain Leonard M. Pederson, is an integral part of Major General William B. Kean's 25th Infantry "Tropic Lightning" Division. Our primary mission has been the ground support and defense of field artillery batteries. The self-propelled antiaircraft has also been used for close support of infantry, elimination of road blocks and for the ground and air defense of the Division organic light aviation section.

During the early stages of the Korean campaign in the Yongdok area on our first day of action, the battery had a platoon supporting and defending the 159th FA Battalion. This platoon was successfully used to strafe a Korean village in a softening up action for ROK troops under the command of Colonel (Tiger) Kim. The half-tracks were also used at night to patrol the roads, keeping them open, seeking and engaging the enemy, who had infiltrated through our lines and were exacting their toll by small arms and mortar fire.

During one of our road patrols we assisted Company A 65th Combat Engineers. They were engaged in a small arms fight with superior enemy forces. We engaged the enemy with the M-16 quad .50 half track mounts and thus provided fire cover which enabled them to collect their equipment and withdraw. As the fight progressed, we received small arms, automatic weapons and mortar fire. The following morning, Lt. Col. Teeters, commanding First Battalion, 35th Infantry Regiment, contacted us. Lt. William Carney with his M-39 command vehicle and two half-tracks (M-16's) led an infantry patrol to a village where the North Koreans were reported to be organizing. We used our tracks in dry river beds for our approach because the roads were much too narrow to permit fire and maneuver. We were able to deliver direct fire support before the infantry jumped off.

The next night, two of our sections were ordered to protect and hold at all costs a bridge which the enemy had charged with 1,500 pounds of demolitions. An enemy attack was launched toward this bridge, but was broken by the combined efforts of the ROK ground troops and fighters of the U. S. Air Force. The enemy withdrew to an orchard approximately 1,000 yards from our positions to reorganize. A ROK Major then requested that one of our tracks strafe the orchard area. We complied by delivering a heavy concentration of machine gun fire and approximately 160 rounds of 37mm tree bursts. A lieutenant and a driver from the Engineers estimated 60 dead North Koreans after our mission was completed. Our last action in this area was close support of ROK ground troops. The North Koreans launched an all-out attack at approximately 0330 hours.

Our tracks helped stem this attack, firing at ranges of 500 to 600 yards, inflicting heavy enemy losses. We were harassed by mortar and artillery fire. The tracks drew fire but those injured were generally ground troops.

Then came the withdrawal to Sangju where the firing platoons and Battery Headquarters joined. The Battery then withdrew to Masan where Battery Headquarters and one platoon set up an air and ground defense of the Division Air Section. The other platoon moved out to provide ground defense for the F. A. During our defense of the Division Air Section at Masan, we received some air attacks; however, we were under complete blackout and did not return the enemy fire.

While with the F. A. Batteries (one section per battery), our tracks performed frequent ground support missions. We pinned the enemy down, generally in defense, occasionally in support of both field artillery and infantry. We inflicted a great number of casualties on small and large groups of the enemy, especially when they made assaults upon the relatively vulnerable field artillery positions. We often killed Koreans within 20 yards of our tracks. We found a great need for outposts to protect our tracks from surprise. In one instance, an alert rifleman, on outpost during dark hours, saved an M-15 from surprise by three North Koreans dressed in civilian clothes. They were carrying new burp guns. We believe in 24 hour guards on the tracks and outposts at least a few yards from the tracks, even if only a lone rifleman!

DURING the "Tropic Lightning's" push from Masan to Kunsan still under the command of Major General William B. Kean, our sections supported Task Force Dolvin! The Task Force consisted of three serials. We had an M-16 at the head of and an M-15 at the rear of each serial. We maintained radio communications for the column. Complete blackout was observed. During the push our tracks were used to return sniper fire, and on occasion to destroy enemy OP's and outposts.

Sergeant First Class Charles G. Hoke, formerly with another AAA AW SP battery in the 24th Division, said they were used primarily to cover withdrawals by giving fire support. On another occasion a SP platoon (M15A1's and M16's) reenforced a platoon of engineers to guard the left flank of the 34th Infantry Regiment during a strategic withdrawal. This was done by placing demolition charges at key bridges. One half track was left at each bridge. When the enemy forced contact they were engaged in a fire fight until it was time to withdraw. The bridge would then be blown, the engineers would pile on and a hasty retreat was

made to the next bridge where the same procedure was followed. Each step back increased the fire power by one more track. During the North Korean crossing of the Kum River, three tracks were used to reenforce the 19th Infantry Regiment. The half-tracks were moved to vantage points on line with our infantry under cover of darkness. During the night small groups of enemy forded the river and at dawn the main enemy attack was launched, and the enemy crossed en masse while guerrillas fired from our rear and from the hills above and behind the main enemy attack.

THE AAA was successfully used to cut down, pin down and hold back the enemy advance. There was no lack of targets, but the pitifully small number of tracks was unable to cover all approaches. In their fields of fire they stopped the enemy completely but found they drew artillery and mortar fire as if by magnetic force. The main difficulty, other than lack of numbers, was found to be our inability to keep sufficient ammunition on hand to continue a fire fight for any length of time. The section leaders' and squad leaders' compartments were filled with loose ammunition and other improvised expedients were used, but even this was not adequate. This fire fight was maintained from 0400 hours until 2100 hours. By 0900 hours two tracks were put out of commission by A T Guns and mortar fire. About 1800 hours that same day, while trying to withdraw, the last remaining track met a road block. The crew attempted to eliminate the road block. During this direct fire the third track was destroyed by A T fire. This and other similar action caused over 50% casualties among the AAA crews and earned them their nickname of which they are very proud, "The Automatic Infantry."

We feel that some of our main weaknesses are our:

- a. Inability to carry sufficient ammunition to maintain a fire fight.
- b. High silhouette.
- c. Pitiful lack of numbers; each division needs at least a battalion of SP AAA.
- d. M15A1's in lieu of M-19's.

We have also learned by our mistakes, some of which were:

a. When supporting field artillery units they must assist us in providing an outside, perimeter or outpost guard to prevent our tracks from being overrun, especially at night. Once, and only once, we failed in this; next, in came a grenade; and out of commission went the turret with one man killed and several wounded. Five men cannot maintain adequate ground security over an extended period of time and still maintain the combat efficiency of which the 25th Division Artillery is so proud. We have had 50 ROK soldiers assigned to us to assist in maintaining our local security, which is a big help in spite of the language barrier.

b. When performing a surface primary mission it is still necessary to maintain a high standard of ability to recognize aircraft. During the early stages of combat we nearly shot down one of our own planes.

This Korean Campaign is not exactly what we were looking for, but one feature we have come to like: we don't have to look for employment. These down to earth, fighting commanders like our weapons; they put us right on the team and scrap to keep us there permanently.

In parting, we of the famous "Tropic Lightning" Division are proud to be serving under Major General William B. Kean, and Brigadier General George B. Barth, of the 25th Infantry Division Artillery.



51st AAA Brigade Moves To Camp Stewart

NATIONAL Guard AAA units of the 51st AAA Brigade have moved from Camp Gordon to Camp Stewart, Georgia. The reopening of Camp Stewart as an AAA training center in September, recalled the World War II era, when scores of newly activated AAA units were trained for combat at Stewart.

Brigadier General Charles C. Curtis of Allentown, Pennsylvania, has added to his command the 224th AAA Group, Va. with the following AAA Battalions:

- 172nd AAA Operations Detachment, Georgia.
- 101st AAA Gun Battalion, Georgia.
- 250th AAA Gun Battalion, Georgia.
- 710th AAA Gun Battalion, Virginia.
- 713th AAA Gun Battalion, South Carolina.

These units are in addition to those previously listed in the September-October issue of the JOURNAL, when the Brigade was at Camp Gordon.

GUERRILLA*

By Colonel Samuel B. Griffith, II, USMC

PART II SYNOPSIS

Although he was impatient with his generals during the Peninsular War because they could not suppress guerrilla activities, Napoleon never bothered to understand partisan warfare—a mistake that caused him to let a great victory at Moscow in 1812 turn into a painful and humiliating retreat. Finally, Lawrence of Arabia wrote down a workable doctrine for guerrilla warfare and tested its efficacy against the Turks with remarkable success.

* * *

GUERRILLAS are invariably men who enlist of their own free will. They are not drafted, conscripted, levied, or called up. They join. And just as a guerrilla fighter joins, so may he separate, though it is most unlikely that he will. The average conscripted soldier fights for one reason—because he has to: the guerrilla fights because he wills to. He is a man apart; the psychology of a drafted man with nothing to spur him on but the ardent desire to “get it over with” is not the psychology of the guerrilla who drinks from deeper and clearer springs.

Mao Tze Tung, who is a well-educated and well-read man, elaborated on Lenin's ideas for the conduct of guerrilla operations. The battle history of the Chinese Communist guerrillas proves that Mao's ideas were sound. He realized that effective guerrilla operations could only be conducted in a spacious country with relatively poor communications. He was as quick as Lawrence to see that there must be identification of the guerrilla effort with a “cause,” that it must be identified with objectives acceptable to the people as a whole.

The Japanese generals in North China suffered in precisely the same manner as had Napoleon's marshals in Spain and Russia. They could get no information; they were in a perpetual fog. At guerrilla headquarters on the other hand there was constantly available the very latest enemy order of battle for the whole of North China. Japanese convoys were mined and shot up, their punitive columns ambushed and decimated, their messengers captured, their supply trains derailed and isolated posts attacked, bombed out, and burned. Thousands of miles of telephone and telegraph wire was cut down and buried in fields and the poles were carried off, chopped up and burned for firewood. Headquarters were dynamited and paymasters robbed. The Chinese guerrillas never prevented strong Japanese columns from marching anywhere they wished nor did they prevent the invader from occupying major cities. They did harass him so vigorously that in desperation he took desperate measures. Among these were murdering hostages, torturing captured guerrillas, destroying towns, and issuing proclamations to the effect that all those who were not positively pro-

Japanese were *ipso facto* communists and would, upon capture, be executed. But in spite of all this, Japanese forces of less than regimental strength did not dare to move in the daytime. No Japanese ever moved at night; nothing, including trains and motor trucks, moved at night.

Mao writes that guerrilla warfare must be based in the people. This as has been pointed out is the controlling fact and it must be recognized as such. The people are the water; the guerrillas the fish. As long as the water is maintained at the right political and economic temperature the fish can swim about effectively, flourish and reproduce.

Mao did not contribute anything particularly original to guerrilla strategy or tactics but he has the distinction of being, after Lawrence (whom it appears he had not read) the first to formulate doctrine and to express it clearly and to the point.

“When we discuss the terms front and rear,” he says, “it must be remembered that while guerrillas do have bases their primary field of activity is in the enemy's rear areas. They themselves have no rear. . . . As to the matter of military responsibilities: those of the guerrillas are to exterminate small forces of the enemy; to harass and weaken large forces; to attack enemy lines of communication; to establish bases capable of supporting independent operations in the enemy's rear; to force the enemy to disperse his strength, and to coordinate all those activities with those of the regular armies on distant battle fronts.”

Mao does not believe that guerrilla warfare can of itself be decisive:

“The concept that guerrilla warfare is an end in itself and that guerrilla activities should be divorced from those of the regular forces is incorrect.”

But he does say that the opposite point of view is equally faulty and equally dangerous, and that those who condemn guerrilla activities on the grounds that warfare has no other aspects than the purely orthodox have failed to appreciate the relationship that should exist between guerrillas and the regular forces:

“We believe it can be stated this way: ‘Guerrilla operations during the anti-Japanese war may for a certain time and temporarily become its paramount feature, particularly insofar as the enemy's rear is concerned. However, if we view the war as a whole there can be no doubt that the regular forces are of primary importance because it is they alone who are capable of producing the decision. Guerrilla warfare assists them in producing this favorable decision. Orthodox forces may under certain conditions operate as guerrillas, and the latter may under certain conditions develop to the status of the former. Both guerrilla forces and regular forces have their respective development and their proper combinations.’”

It is impossible to improve upon Mao's summation of guerrilla tactical doctrine:

*Reprinted with permission of Marine Corps Gazette.

"The movements of guerrilla troops must be secret and of supernatural rapidity; the enemy must be taken unawares and the action entered speedily. There can be no procrastination in the execution of plans; no assumption of a passive defense. . . . The basic method is the attack in a violent and deceptive form. It is profitable only to launch and push an attack with maximum speed."

Mao's theories and doctrines of guerrilla war stood up well and regardless of the judgments that history, or his own people may eventually register against him, it must be acknowledged that his contribution to the philosophy of guerrilla action has been profound and will be lasting.

In 1940-41 the German armies invaded the Ukraine and the Baltic provinces of the USSR. The people welcomed the Germans as deliverers and came to them bringing bread and salt, traditional symbols of hospitality. The German reply to this simple gesture was torture, hanging and shooting. Even Goebbels recognized that in this policy of the Gestapo a major and irreparable error had been made! But the Fuehrer, with a stupidity that exceeded that of Napoleon, had publicly decreed that the Russians were to be made the slaves of the greater Reich. And the Russian people began to fight, perhaps not because they did not fear the satraps in Moscow, but because they feared the more transportation and enslavement, or extermination. And they aided the Red armies to drive the Germans from the soil of Russia. The general extent of partisan aid to the Russian armies is a matter of historical record; without it the Red armies could not have achieved the rapid successes they did when they went over to the general offensive after Stalin-grad. The familiar pattern of guerrilla action was repeated on a vast scale, and the Germans had no solution of either a political or military nature, for the disaster that engulfed them.

In the records of our own wars we may find further examples of the fundamental concepts that must be applied if there is to be success in partisan operations. Three of the greatest leaders in the history of guerrilla warfare were Americans: Francis Marion, the "Swamp Fox," John S. Mosby, Col., C.S.A., and Brig. Gen. John Hunt Morgan, C.S.A. While one cannot be sure that T. E. Lawrence had studied their operations there is some reason to believe that he was not entirely unacquainted with Mosby's theories and exploits, for Lawrence, like Col. Mosby, was a student of history and an avid reader, and was familiar with the Virginia campaigns of the American Civil War through Henderson's standard work on Jackson.

Marion's guerrilla activities in South Carolina soon began to tell heavily on the British and most seriously inconvenienced Cornwallis, whose plans were continually disrupted by them. [It was this British general (who later surrendered at Yorktown) who gave Marion his *nom de guerre*, "The Swamp Fox," by which he is remembered by generations of Americans.] His tactics were those which all successful guerrilla leaders who followed him were to apply. Operating with the greatest speed from inaccessible bases which he changed frequently, he struck his blows in rapid succession at isolated garrisons, convoys, and trains. His information was always timely and accurate, for the people supported him.

The British, unable to cope with Marion, branded him a

criminal, and complained bitterly that he fought neither "like a gentleman" nor "a Christian," a charge similar to those which orthodox soldiers when stung by tactics they cannot successfully counter are wont to apply in all lands and in all wars to such ubiquitous, intangible, and deadly antagonists as Francis Marion.

A cause? He had it, and because it was the cause of the people they supported him, fed him, protected him, and supplied him with information. Perfect intelligence, speed, surprise, and the ability to suit his measures to his means, and to extract maximum return from his combinations were the distinguishing characteristics of his operations. They produced upon the British the moral and physical effects he sought and contributed heavily to the final victory in the South and to that of our country. This was appreciated at the time, for Marion was highly honored in the young nation and the rank of brigadier general was bestowed upon him.

John Mosby, a graduate of the University of Virginia, a lawyer and a student of history, began his career in the American Civil War as a soldier in a cavalry company that in the spring of 1861 was assigned to the First Virginia Cavalry under the command of Col. J. E. B. Stuart. In the course of the first year Mosby proved himself to be a man of more than ordinary judgment and intelligence and a scout of courage and initiative. Stuart kept his eye on the ex-lawyer and he was soon commissioned.

Finally, Mosby prevailed upon Stuart to give him 15 men to carry out raids on Union communications, "to threaten and harass the enemy."

He began the career that may well be taken as the model for all partisan commanders in January, 1863, and immediately began to produce results.

"An English officer, Colonel Percy Wyndham, a soldier of fortune who had been with Garibaldi in Italy, commanded the cavalry brigade and was in charge of the outposts. He was familiar with the old rules of the schools, but he soon learned that they were out of date, and his experience in war had not taught him how to counteract the forays and surprises that kept his men in the saddle all the time. The loss of sleep is irritating to anybody, and in his vexation at being struck by and striking at an invisible foe, he sent me a message calling me a horse thief. I did not deny it, but retorted that all the horses I had stolen had riders, and that the riders had sabres, carbines and pistols."

Mosby decided to capture both Wyndham and Brig. Gen. Stoughton, whose troops were supposed to control the guerrilla situation in that part of the country. In a daring night raid into the General's headquarters he snatched the Brigadier and two of his staff out of a peaceful sleep and made off with a large number of prisoners and almost a hundred horses. This incursion so aroused the Government that Lincoln sent Maj. Gen. Stahel to Virginia charged with the mission of putting a stop to Mosby's activities. Needless to say, he was unsuccessful.

By the late summer of 1863 Mosby's 15 men had grown to five companies, well mounted (on captured horses), well armed (with Federal carbines and revolvers) and well equipped with saddles, blankets, knapsacks and binoculars (furnished by the Quartermaster, USA). Mosby was thus able to extend the scope of his operations. On the 30th of

May the partisan, now a major, had the pleasure of derauling and destroying his first train and routing the train guard.

It was Mosby's idea that his own activities should directly contribute to Lee's operations in Virginia. He wrote that partisans should always work in cooperation with, but independent of, an army, and he operated so that Union commanders were required to subtract resources of time, men, and energy from the potential they might have employed against Lee. His operations in the summer of 1863 are typified by this report to J. E. B. Stuart, made in July of that year:

"I sent you in charge of Sergeant Beattie one hundred and forty-one prisoners that we captured from the enemy during their march through this country. I also sent off forty-five several days ago. Included in the number, one Major, one Captain and two Lieutenants. I also captured one hundred and twenty-five horses and mules, twelve wagons (only three of which I was able to destroy), fifty sets of fine harness, arms, etc., etc."

Throughout the winter of 1863-64 Mosby kept harassing the Yankees in Northern Virginia. In Washington Gen. Heintzelman, who commanded that city and who was responsible for the security of the President and the government, was in a constant state of anxiety for his charges, and had the plank flooring removed from the Chain Bridge every night to prevent a partisan incursion.

On the 7th of August, 1864, Sheridan was named as the commander of the newly created "Middle Department," was given a strong force of all arms and directed by Grant to destroy Jubal Early, to cut Lee's communications to the southwest, and to dispose of Mosby. The partisan, with a battalion of six companies, was the man who prevented the Union General from carrying out the first two of these missions as speedily as Grant would have wished. Sheridan never did accomplish the third.

"The main object of my campaign was to vex and embarrass Sheridan, and if possible to prevent his advance into the interior of the State. But my exclusive attention was not given to Sheridan for alarm was kept up continuously by threatening Washington and occasionally crossing the Potomac. We lived on the country where we operated and drew nothing from Richmond except the gray jackets my men wore. We were mounted, armed and equipped entirely off the enemy, but, as we captured a great deal more than we could use, the surplus was sent to Lee's army."

The Union commanders during the fall of 1864 found the country "alive with rebel guerrillas," and no force seemed adequate to put a stop to Mosby's depredations. He was literally everywhere and nowhere; located here one day, 35 to 50 miles away the next, moving about with great rapidity and causing his enemies to spend their time and waste their strength "in pursuit of a Jack-o'-Lantern." In his memoirs Sheridan wrote that although he had a force of approximately 94,000 to Early's 20,000, the disparity was actually nowhere near as great as it seemed, for his excess of 74,000 was cancelled by the incidental demands of protecting his supply trains and lines of communication and preventing raids into Maryland and Pennsylvania! By the Union commander's own admission, Mosby was immobilizing 70,000 troops urgently needed to crush Early, outflank Lee, and thus to conclude the war!

No courier could get through with urgent military despatches without an escort of 500 men; a convoy of supplies needed several thousand. But Mosby was not intimidated by numbers. He continued to capture couriers, to ambush convoys, to derail trains, to tear up track, and to prevent resumption of the rail service he had interrupted. Finally Custer, one of Sheridan's subordinates, in desperation, made the mistake of executing seven of Mosby's men. Mosby, after much reflection, replied in kind and sent a letter to Gen. Sheridan which closed with this paragraph:

"Hereafter, any prisoners falling into my hands will be treated with the kindness due to their condition, unless some new act of barbarity shall compel me, reluctantly, to adopt a line of policy repugnant to humanity."

Thereafter, no more of Mosby's captured troopers were murdered.

It may be argued that John Hunt Morgan was not a partisan leader, and in the strict interpretation of that word perhaps he was not. He did not base in occupied territory as Marion and Mosby did and his cavalry was during most of the war considered a part of the cavalry of the army commanded first by Johnston and later by both Beauregard and Bragg. The independent command for which Morgan always yearned came to him only when the war was almost over and circumstances prevented him from doing what he might have done earlier if he had been allowed a free hand.

Morgan considered himself a "raider" and the South regarded him as the Francis Marion of the Confederacy. In the North he was variously labelled a partisan, a guerrilla, a horse thief, a robber, and a murderer by newspaper editors and the public at large in whose lexicon these terms seemed to be synonymous.

As is usually the case in partisan warfare, the psychological effects of Morgan's operations, which were to inspire the entire South and to agitate the "loyal" public in Kentucky and in the northern states that border the Ohio River, were probably of equal importance with their military effects. Morgan's raids, each one of which bore the unmistakable stamp of his brilliant military personality, buoyed up Southern hopes and provided an impetus both to recruiting and to the cooperation and support that the Southern people extended to the war effort.

The general pattern of Morgan's operations was similar to that of Mosby in Virginia. He seemed to be everywhere at one and the same time.

In the spring of 1862, with Beauregard's encouragement, Morgan created such a furore behind the Union lines in Tennessee that Andrew Johnson, the military governor of that State, was seriously upset.

"Such raids as Morgan's, he pointed out, were undermining the Federal successes in larger engagements and inspiring the people to greater resistance."

The complaints of the Governor and of Union generals that more troops were needed to keep Morgan in check were dismissed rather cavalierly in Washington, where the Assistant Secretary of War stated that "all such 'guerrillas' as John Morgan should be shot without challenge as enemies of mankind." To this, one of the Federal generals replied, pointing out that Morgan's guerrillas first had to be caught—a detail the Assistant Secretary had overlooked.

On July 4th, 1862, Morgan led 880 officers and men out

of Knoxville and took the road to Sparta in middle Tennessee. His command, "a nondescript body of soldiers, some were in uniforms and some in jeans, some armed with rifles, some with shotguns and some only with clubs. Lack of arms was no great concern, for Morgan had promised all should be equipped with rifles and pistols from Federal garrisons in Kentucky." And they were.

A march of over 100 miles across the rugged Cumberland lands behind him, Morgan turned north at Sparta on the 7th and headed for Tompkinsville, Kentucky, some 70 miles from Sparta and a few miles north of the Tennessee line. At daybreak on the 9th, he struck, subdued the Federal garrison, took 400 prisoners, and destroyed stores valued at half a million. In the afternoon he dropped over to Glasgow, about 30 miles to the west, attacked the small force there, and destroyed more supplies. Shaping his course to the northeast, Morgan moved rapidly to Lebanon, some 75 miles from Glasgow. En route he stopped off long enough to tap into the telegraph circuits, find out the disposition of Federal forces, and send off a few false messages.

At dawn on the 11th, Morgan was in front of Lebanon, which he assaulted and captured with the usual quota of prisoners and supplies. Morgan's men were now well equipped, and the Quartermaster property for which the citizens of Lebanon had no use was burned.

Four days later the raider was in the Bluegrass at Lawrenceburg, only 15 miles from the State Capital and 200 miles inside the Union lines. Here those of his men not already well mounted "pressed" some of the horses for which the district was as famous then as it is now.

Morgan stopped long enough en route to Georgetown to scoop up a small Federal garrison at Midway, and again to tap in on the telegraph circuit for information of enemy movements. He sent a number of messages calculated to set the Federals off on false scents and then made his way to Georgetown, where he based for two days, recruiting and sending out parties to burn bridges and harass the Federals. By this time, as may well be imagined, the entire Bluegrass was frantic and panic spread to Cincinnati. Not much help was forthcoming from the quarter as Morgan's raiding parties operating out of Georgetown had burned all the bridges south of the Ohio between Cincinnati and Lexington. Seeking to confuse the enemy still further, Morgan rode to Cynthiana, only about 30 miles south of the Ohio River and 65 miles from Cincinnati. The raiders had covered over 400 miles since leaving Knoxville. At Cynthiana he had quite a fight, drove the garrison out, inflicted 90 casualties, and took 400 prisoners.

On the morning of July 19th, Morgan passed through Paris, 16 miles south of Cynthiana, and by midnight had reached Richmond. In 39 hours his command had covered more than 80 miles, fought a pitched battle, and had suffered 37 casualties, of whom but eight were killed in action! From Richmond he rode almost due south for the Kentucky line and Sparta. He had left Tennessee with 900 men. He returned with 1,200. He had killed and wounded hundreds of Federals, captured and paroled a thousand, destroyed several million dollars' worth of stores, torn up scores of miles of track and burned a dozen bridges. He suffered less than 100 casualties.

Morgan spent mid-August profitably in the vicinity of

Gallatin in north-central Tennessee. After entering Gallatin and surprising the entire Federal garrison which he took as prisoners, Morgan and Ellsworth, his telegraph operator, proceeded to the telegraph office. Here Ellsworth immediately began despatching trains, and ordered one of Gen. Buell's supply trains from Kentucky to proceed at once to Gallatin. When it steamed in it was captured, thoroughly looted, and burned. The railroad was then torn up and a tunnel so completely wrecked that it was impassable for weeks, which greatly incommoded Gen. Buell.

An analysis of the hostilities in which guerrilla action has been a major factor reveals at least three important constants. The first of these is that in an ideological war partisan activities are usual and general. They have occurred in all such wars, and they must be anticipated. The second is that the problem of nationwide guerrilla war is not amenable to a solution purely military in character. Finally, partisans can play a major role, if not the major one, in an ideological struggle. The combatant who in the future neglects these lessons of history does so at his own peril.

Modern arms and techniques have greatly increased the capabilities of partisans, but will make no radical changes in methods of operation. These continue to be (as they have always been) to spread consternation in the rear of the enemy, to mystify and deceive him, to strike at unexpected times in unexpected places and by every other means to damage him physically and morally, and to unbalance him psychologically. Guerrillas do not, cannot and should not stand and fight. They strike at times and places of their own choosing, planning their blows only after careful analysis of all available information of the enemy. Guerrillas never grope in the dark; they leave that to the orthodox opponent.

Light aircraft, including helicopters, will be particularly valuable for supply of guerrilla forces. Powerful explosives, shaped charges, and light rocket-firing weapons make it possible for small groups to attack and destroy heavy installations, such as structures of steel and reinforced concrete, that their predecessors were unable to cope with. Propaganda facilities which have been greatly improved by such things as light mobile presses make it easier than it has previously been for partisans to stage full dress propaganda offensives among the people.

Partisan operations are capable of redressing an unbalanced situation in respect to available military manpower. Ten thousand partisans organized into a number of columns can easily tie up 10, 20, or 30 times their own number of regular troops. Radio makes possible concerted partisan effort in widely separated areas. It also insures close strategic and tactical coordination between conventional and partisan forces and provides a means for the uninterrupted flow of information.

Antipartisan operations embrace political, economic, and psychological measures, as well as those of a military nature. Indeed, the latter are of the least significance. The basis of partisan operations is in the people, or at least in a proportion of them. It becomes the first task then to win away important segments of this support, a task which requires correct policies in the three fields named. These policies will also make it possible to recruit one's own partisans, who should constitute the major part of the antipartisan forces.

Partisans must be beaten at their own game. This means

that mobile columns must be the primary military agency. These columns should be equipped with the lightest weapons consonant with delivery of maximum fire effect. The 81mm mortar and the light machine gun would probably be the heaviest organizational weapons carried. Light radios of varying ranges and characteristics will of course be essential.

These columns cannot be dependent upon supply trains; supply, replacement, and evacuation must be carried out by aircraft so that the columns need not be tied to a base. All equipment must be transportable by light aircraft and helicopters in order that an entire column may be moved from place to place within its operating area with the greatest possible rapidity. Two or three antipartisan "flying columns" of several hundred men each would thus, even if operating in an area of one hundred miles square, never be out of mutually supporting distance.

Antipartisan columns cannot be transferred from one area to another and be expected to operate effectively until some time has elapsed after they have entered a new area. They must learn an area of operations so that they know it as well as do the partisans themselves. Accurate maps are the first requirement and air photos provide means for rapid and accurate map-making.

Too much centralization of control over operations of antipartisan columns must be avoided. There will be times when coordination of their efforts will be both desirable and necessary, but this should be a flexible procedure. Operational rigidity can result only in disaster.

Passive measures have never proven satisfactory. Cordon and blockhouse systems require an expenditure of time, men, materials, and money that is not consonant with the military return. The dispersion of troops with resultant immobilization of large numbers of men is to be avoided. In certain limited areas the use of such a system may be indicated. Again, the policies of flexibility and mobility must not be violated.

The measures adopted by a commander charged with the suppression of partisan activities in a given district must be consistent with the end in view—pacification. The destruction of towns, barns and dwellings, the devastation of crops, the seizure of innocent people as hostages, all these are of no avail. They have been tried and found wanting. They do not produce results but serve only to inflame the countryside and to produce more guerrillas. The policy of judgment of guilt because of association is likewise erroneous and will boomerang. Never in the history of partisan warfare has such a policy had any effect other than to cause more determined resistance.

Captured partisans are entitled under generally recognized "laws of war" to receive the same consideration that

is accorded other prisoners. If a commander summarily executes them, which Napoleon's generals in Spain, the Germans in Russia, Custer in Virginia, and the Japanese in China did, he must prepare for repayment in kind—he will deserve it, and will receive it, with interest compounded, for the partisans may be expected to have under their control more of his men than he will of theirs. A commander's policy in this regard should be to win over captured partisans. This has been done in the past, and can be done in the future.

The experiences that the armed forces of this country have had in combating guerrillas have been inconsequential and cannot be considered valid if applied to other than relatively small nations with undeveloped technologies and in which only the most primitive form of guerrilla action is possible. The Philippines, Nicaragua, San Domingo, and Haiti all fall into this category. Each of these areas was almost totally undeveloped; each was isolated with relative ease; in none were guerrillas properly equipped, organized or led. And yet the campaigns in each of them assumed considerable proportions, and absorbed a great deal more military energy than would have been necessary had there been a sound operational concept. No such concept was evident in Nicaragua for example, where a few hundred poorly equipped "Sandinistas" made monkeys out of thousands of Marines and native troops for six years. There were isolated instances of success, which occurred when local commanders applied political, economic, and psychological weapons to the problem, or when they made themselves more mobile than the guerrillas. However, no district in Northern Nicaragua was "pacified" by military means alone.

It is abundantly clear that the problem posed by guerrilla operations on a vast scale is not susceptible to a military solution that is completely divorced from political reality. But given a reasonable political basis, military operations can be productive if they are properly planned and executed by ingenious and imaginative leaders. In planning them, commanders of tomorrow must turn to the past for illumination of the problem. An abundant literature both official and unofficial undoubtedly exists on the subject of partisan activities in World War II. This awaits careful study and analysis, the results of which should be made available without further delay.

Recognition that a major problem exists must precede any such undertaking; there is no evidence that guerrilla action in a major war of the future has received such recognition. But to bring a future war to a successful conclusion requires more than mere recognition of the problem posed by partisan activities such as those that seem certain to occur. It requires serious study of all available historical experience, and the formulation therefrom of realistic and flexible doctrine.

Fort Bliss Publications

Three new publications of the AAA & GM Branch of The Artillery School have been added to the list now available for distribution to authorized personnel. All three are restricted.

ST 44-2-1 "Employment of the AAA Automatic Weapons Battalion."

ST 44-4-4 "Heavy AA Gunnery."

ST 44-4-2 "Basic Tactical Principles for the Employment of Medium and Heavy Antiaircraft Artillery Guns."

These may be procured from the Book Store, Fort Bliss, Texas.

Drewry's Bluff: A Turning Point

By Major John B. B. Trussell, Jr., Arty.

AT the beginning of the Civil War, Southern optimism rocketed after the early success at Bull Run; but less than a year later the people had lapsed into despair. Failure had followed failure in the west. In the east, Federal command was held by one of the brightest stars among the Union generals, George B. McClellan. A good organizer and magnetic leader, he had withstood political and popular pressure for a premature offensive, taking time to train and regroup into a disciplined and competent army the raw levies whose behavior had given "Bull Run" a double meaning.

Richmond was the Federal general's objective. The fall of the Confederate capital would have psychological significance, but equally important was the fact that it was one of the major munitions centers of a country which had all too few.

Bringing ambitious plans when he assumed command, McClellan decided not to attack from the north, as his predecessor had done, but to make his approach from the east, up the broad peninsula formed by the James and York rivers. This would give him secure flanks and (by use of naval forces) increased mobility. Based on Fortress Monroe, his was the greatest amphibious force in history until the invasion of Sicily in 1943.

Confronting him was the Confederate force under General Joseph E. Johnston, who immediately initiated a course of retreats to better lines. Tied to the defense of the city, his position was a difficult one. He was badly outnumbered and outgunned, and McClellan had the initiative.

JOHNSTON'S first withdrawal left the Norfolk Navy Yard a prey to the Yankees. Aside from the loss of a valuable shipyard, this meant that the *Merrimac*, which in early March had brought terror to the North until fought to a draw by the *Monitor*, had to be scuttled. Her twenty-three-foot draft was too great for her to proceed up the James, and with Norfolk gone she had no port to put back into. There was nothing to bar the river route to Richmond.

Recognizing and grasping his advantage with a quickness which was to prove anything but characteristic, McClellan sent a naval flotilla of five vessels upriver under Commodore John Rodgers. The Secretary of the Navy's orders were "to shell the city to surrender." Panic spread in Richmond and gloom in Johnston's headquarters, for these orders were

known there too—in those naïve days one could buy the New York papers in Richmond almost as soon as they appeared on Broadway, and nothing was secret from the press. News that the flotilla included ironclads, one of them the dreaded *Monitor*, added to the prevailing despair. President Davis sent his wife and children off to North Carolina for safety and the government archives were packed for removal. Efforts were made to arm and organize clerks and businessmen for the city's defense.

Seven miles down the James, where the river is only a mile wide, there rises on the south bank a 200-foot cliff called Drewry's Bluff. There, feverish if belated action was taking place. Obstructions were put into the channel; such of it as was left clear was narrow and tortuous, and led directly below the crest of Drewry's Bluff, where cannon (including a few rifled guns) were accumulated, to be emplaced so as to bear upon the river. Opposite, on the north bank, rifle pits were dug and occupied by volunteers.

On May 9, 1862, when Johnston had withdrawn to the Chickahominy, almost in Richmond's suburbs, only three guns had been mounted on Drewry's Bluff. But during the succeeding few days all the energy at the command of a desperate people fighting for their independence had been put into the work. President Davis rode down twice to observe what progress was being made.

There was a heavy rain on the night of the 14th; early next morning the citizens were wakened by the sound of gunfire, muffled by the clouds which still hung low.

Down the river, Commodore Rodgers' three wooden ships, restricted in maneuver by the obstructions in the channel, dropped downstream out of range. Their hulls could not withstand the Confederate fire. Of the two ironclads, the *Monitor* could not elevate her gun to bear on the fort. The guns of Drewry's Bluff, however, bore directly on the decks of the ships, though the shells bounced harmlessly off the *Monitor's* iron hide.

THE engagement soon developed into a match between the fort and Commodore Rodgers' flagship, the ironclad *Galena*, which gallantly came in to a range of six hundred yards. She was taken under the fire not only of Drewry's Bluff but also of the C.S.S. *Patrick Henry*, one of whose eight-inch rounds passed through her from stem to stern. Altogether, she was holed thirteen times. Her crew sustained more than thirty casualties. After an engagement of almost four hours she was forced to withdraw downstream, and with her receded all hopes of taking Richmond by water.

The little action at Drewry's Bluff was unimportant in

Major John B. B. Trussell, Jr., served during World War II as the Flak Analysis Officer of the 67th Fighter Wing of the Eighth Air Force in the ETO. After the war he served as a member of the Okayama Military Government Team in Japan. He is presently studying at Columbia University.

terms of numbers involved, but it had a far-reaching significance. It conditioned Federal planning for the remainder of the war. Richmond, to be taken, would have to be taken by land—and between the Union forces and the Confederate capital there stood the Army of Northern Virginia. In the campaign which followed and in the bloody Seven

Days Battles, McClellan, and indeed the entire Union, learned of Robert E. Lee, the new Confederate leader. McClellan withdrew and shipped his army back to the Potomac; Lincoln looked for a new general; and two years elapsed before the Union Army could approach Richmond again.

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fense organizations. 456 pages. Price, \$3.00.—*The Military Engineer.*

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By DR. HUGH M. COLE

An official publication of the Office of the Chief of Military History, Department of the Army, THE LORRAINE CAMPAIGN is a story of the operations of General George S. Patton's Third Army in the fall of 1944 against the German forces defending the territory between the Moselle River and the Siegfried Line. 657 pages with 67 photos and 51 maps, carefully documented from official sources. Price \$10.00.

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News and Comment

General Lemnitzer Receives Truman Commendation

President Truman on November 13th commended Major General Lyman Lemnitzer for his work as director of the Office of Military Assistance. The general left that post to take command of an airborne division.

The commendation, a "job well done," was extended at the White House in a private interview. General Lemnitzer then left for Fort Benning, Ga., to attend an airborne school before taking up his new command, the identity of which has not been announced.

General Lemnitzer has been Vice-President of The Anti-aircraft Association for the past three years.

—Associated Press

1 1 1

Ground Defense of the AAA Battery

With genuine pride we present Captain Donald L. Ducey's article, "The Ground Defense of the AAA Battery." Since June we have persisted in our efforts for the article, and now we feel well rewarded. Antiaircraft commanders can well study this article as a sound text for basic training.

We like the common sense used in the organization of the battery for the infantry defense. It does not disrupt the normal antiaircraft organization.

We like the spirit evinced in Captain Ducey's statement of the mission of the defense: "to stop the enemy by fire in front of the battle position, to repel his assault by close combat if he reaches it, and to eject him by counterattack if he succeeds in entering the battle position."

We would add that occasions have arisen in the past when the battery commander had to organize an offensive force to go out and destroy the enemy. The men get fed up quickly on being subjected to any guerrilla fire.

No doubt, many of our readers will test such training in field exercises. There you can use aggressor troops, blank ammunition, and other aids to inject realism and keen interest. If you develop good outlines for tactical exercises, or other points of training value, we are interested in publishing such matter.

1 1 1

Korea

We are fortunate to feature in this issue the Antiaircraft activities in Korea. The troops everywhere will note with keen interest the lead article by General Marquat. We have omitted some good articles just to avoid repetition. However, we urge our war correspondents in Korea to continue sending stories and photographs of the experiences there in combating both the Reds and the weather. Your experiences and findings make a textbook for the troops in training.

BALLOT

UNITED STATES ANTI-AIRCRAFT ASSOCIATION

The President and three members of the Executive Council are to be elected on this ballot, to replace officers whose terms of office expire December 31, 1950.

Please record your vote by making an "X" in the appropriate square or indicate your choice by writing the name of your candidate. Ballots received with signatures, but with no individual votes recorded, will be considered proxies for the President of the Association.

Each candidate was considered in connection with the geographic location of his residence. The Constitution of the Association requires that at least five members of the Council reside in the Washington area, and that at least three of them be on active duty, in order to facilitate the transaction of business.

Ballots received after December 31, 1950, cannot be counted.

Use the ballot below or prepare one to indicate clearly your vote. Mail to the ANTI-AIRCRAFT JOURNAL, 631 Pennsylvania Avenue, N.W., Washington 4, D. C.

FOR PRESIDENT (1951-1952)

☐ Lieutenant General LeRoy Lutes,
Commanding General, Fourth Army.

☐ _____

FOR MEMBERS OF THE EXECUTIVE COUNCIL

From National Guard (One Member)

☐ Brigadier General Charles G. Sage,
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☐ _____

From Organized Reserve (One Member)

☐ Colonel Thomas F. Mullaney, Jr.,
Commanding, 374th AA Group, ORC,
Chicago, Illinois.

☐ _____

From Regular Army (One Member)

☐ Colonel Pierre B. Denson,
Commanding, 35th AAA Brigade, Fort
Meade, Maryland.

☐ _____

Signature _____

Rank & Organization _____

Address _____

6-50

Membership Listing

The following changes of address have been received since publication of the September-October issue.

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Homer, John L., c/o Museum of Sc. & Industry, 57th & So. Lake Shore Dr., Chicago 37, Ill.

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McCroskey, S. L., Douglas Aircraft Co., Santa Monica, Calif.

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DA Special Orders Covering September 1 through October 31, 1950. Promotions and Demotions not included.

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