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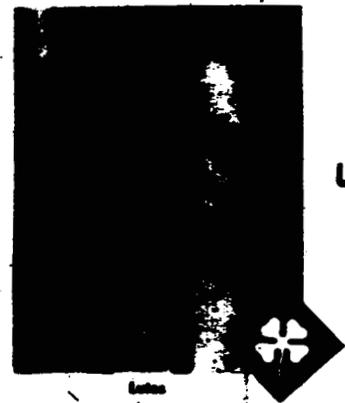
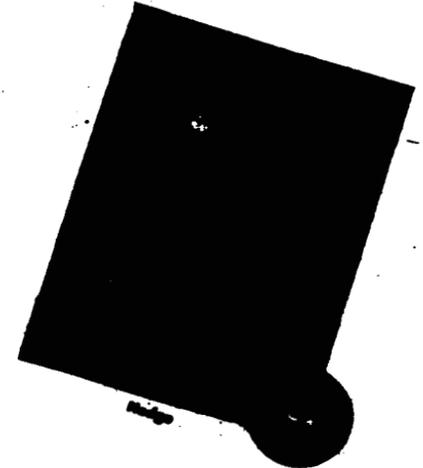
ARMOR



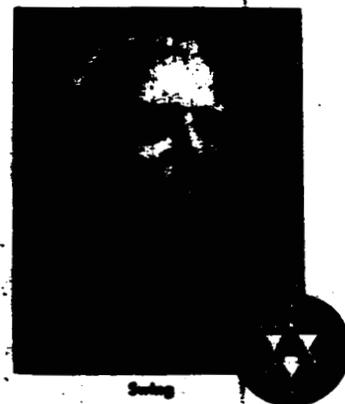
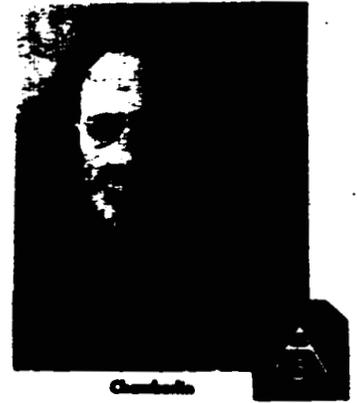
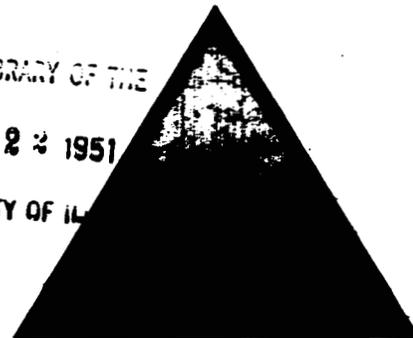
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MOBILITY IN THE FIELD ARMY

Many ingredients contribute to the mobility of so large an organization as the Field Army. Army Commanders, among the senior professionals in the U. S. Army, express themselves on the Sum & Substance of an important subject. (See page 18.)

SEPTEMBER-OCTOBER, 1951

*Two New Volumes of
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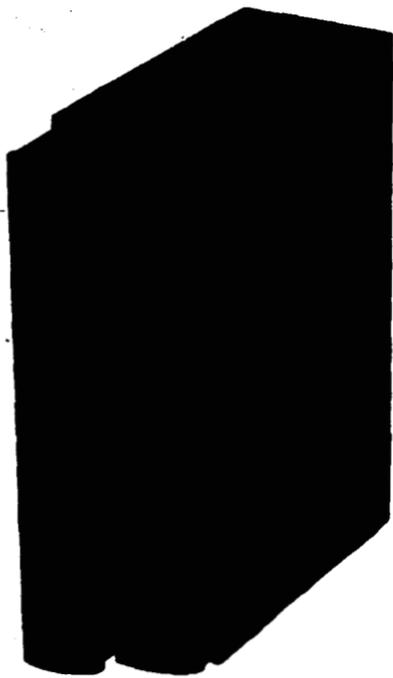
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FROM THE BOOK DEPARTMENT



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ARMOR

Continuation of THE CAVALRY JOURNAL

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M Sgt. Lesser B. Smith

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M Sgt. J. William Joseph

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Volume LX SEPTEMBER-OCTOBER, 1951

No. 5

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EPICS OF ESPIONAGE

by
BERNARD NEWMAN

Mr. Newman has selected historical cases of espionage for examination from a new angle. From Moses to Dr. Fuchs, the outstanding espionage cases of history are presented in dramatic form, foreshadowing the intense spy activity of two world wars. Avoiding the sentimental approach which disfigures most spy books, he examines the subject critically as an expert with great firsthand experience.

The most important part of the book deals with modern espionage. Who will not thrill to the amazing story of the spies who saved London by directing the R.A.F. to the great V.1 and V.2 base at Peenemunde? Or the American spy who could have lost the war for the Allies? In his final chapters, the author considers, from inside knowledge, the Canadian spy case, and those of Dr. Allan Nunn May, Alger Hiss and Dr. Fuchs. He shows how the character of espionage has completely changed, and is now closely linked with treason. The methods he suggests to counter the new technique will attract wide attention.

\$4.50

LETTERS to the EDITOR

Filling the Vacuum

Dear Sir:

I recently had occasion to browse through your magazine ARMOR. Needless to say, I considered much of the information good to know and decided to subscribe.

It would appear that your publication fills the gap created by the stress placed on tank-infantry training and the consolidation of the former infantry and artillery magazines into one. With all due respect elsewhere, I believe tank-infantry training has suffered. And you well know the problems of training the Medium Tank Company of a civilian component regiment.

I mention these points because I am S-3 of a National Guard regiment. And we have just returned from our two weeks of summer camp. There, I detected a vacuum brought about by the Tank Company and infantry units training in widely separated areas. Both did well until the three-day problem; infantry lacked the aggressiveness needed for successful offensive operations with armor, and the armor seemed to forget infantry was around.

This indicates a general lack of understanding and practical application of the tank-infantry principles. A lack of understanding, I might add, from the top down to the private soldier.

Thus, in a roundabout way, I arrive at the point of telling you I think your articles and after-action reports on the use of armor are well appreciated.

MAJOR JAMES F. CLARK
425th Infantry
Michigan National Guard

Dearborn, Mich.

● *Korea has given tank-infantry teamwork a tremendous boost. Infantry and tank commanders have learned a lot, and the distribution of this battle-trained personnel throughout our training structure will be increasingly felt.*—Ed.

A Sharp Eye

Dear Sir:

Since I began receiving your very informative magazine, I have always been interested in the pictorial section on new weapons for Armor.

Your May-June issue has photographs and data about the new personnel carrier T18E2 in the pictorial section. The data gives one .50 cal. MG as the armament mounted on the carrier. However, I have gone over all the photographs of the T18E2 and I find that it mounts twin .50's instead of only one.



U.S. Army
T18 and experimental cupola.

Could you straighten this matter for me?

CADET RODOLFO M. PUNSALANG
Philippine Military Academy
Baguio, Philippines

● *Cadet Punsalang is either the sharpest eyed reader of ARMOR or the most conscientious in sitting down and writing a letter. The commander's cupola shown in the photos is the T122, which mounts two .50s. It was experimental on this vehicle only. Production models will be equipped with a modified cupola from the medium tank, mounting one .50.*—Ed.

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Advertising: ARMOR is the professional magazine of the United States Armor Association; a nonprofit, noncommercial educational publication. We DO NOT accept paid advertising. Such advertising as does appear in ARMOR is carefully selected by the Editor and concerns only those items which may be considered an adjunct to a professional career.

Manuscripts: All content of ARMOR is contributed without pay by those interested in furthering the professional qualification of members of the Armed Services. All manuscripts should be addressed to the Editorial Office, 1719 K Street, N.W., Washington 6, D. C.

Change of Address: All changes of address should be sent to the Editorial Office in time to arrive at least two weeks in advance of publication date of each issue, which is the 25th day of the odd months of the year: i.e., Jan. 25 for the Jan-Feb issue, Mar. 25 for the Mar-Apr issue, etc.

Notes: See bottom of contents page.

Junior Officer Training

Dear Sir:

Please accept my congratulations for the very fine presentation of excellent subject material found in the Sum and Substance pages of your May-June issue. Indeed, many words have expressed the thought of the lessons of Korea. How many, however, have been devoted to the importance of the junior officer?

Certainly no previous American campaign has increased the prestige of this tactical leader as has the Korean struggle. Battle success through tactics (employed largely by junior officers) is theoretically insured through sufficient training of these combined arms leaders. But has this training been adequate?

Recent combat experience in Korea and the perusal of the pages written by participants concerning the current campaign indicates our previous training has been inadequate in providing the junior officer theoretical background necessary to assume his vitally important role in warfare.

As professionals we cannot excuse inadequate mental and physical preparedness by recalling political history. Commanders must neglect neither their own training nor that of their subordinates.

CAPTAIN C. R. MCFADDEN
The Armored School

Fort Knox, Ky.

Leave It Alone

Dear Sir:

In reference to the column "What's In a Name," which appeared in the July-August issue:

The specialists in mobility and shock have always been cavalrymen, whether they were on horseback or in tanks. Why change their hereditary title?

The Infantry has many weapons not possessed by Napoleon's "enfants," yet that arm has not altered its traditional name nor discarded its time-honored insignia.

LT. COL. G. I. EPPERSON
Birmingham, Ala.

Mistaken Identity?

Dear Sir:

Reference your article "Catching the Enemy Off Guard," which appeared in the July-August issue; the author refers to Lt. Col. Welborn G. Dolvin of Task Force Dolvin as "a World War II paratrooper."

Unless there are two persons by the same name, I think you will find that Lt. Col. Dolvin, known as Tom by his associates, is a tanker from 'way back. He joined the 756 Tank Battalion at Fort Lewis, Washington, in World War II and remained with the unit through Africa, and on into Italy and the Battle



Dolvin (r) and Rogers one war ago.

of Cassino, as Executive Officer. He then took over command of the 191st Tank Battalion at Anzio, commanding it until the close of the war. His ability in the field of tank-infantry operations was recognized with his assignment as instructor in that subject at Fort Benning. As a former tank company commander in the 756th I am interested in setting the record straight on Tom Dolvin, a tanker from 'way back.

MAJOR DAVID LOES
137th Tank Battalion
Ohio National Guard
Ashabula, Ohio.

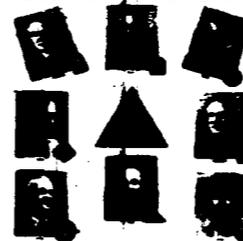
The United States and Turkey and Iran

By LEWIS V. THOMAS
and RICHARD N. FRYE

Portraits of two Near Eastern countries, the one a substantially stable bastion of western democracy, and the other politically underdeveloped and full of political explosive, appear in this one book. Mr. Thomas projects contemporary Turkey—her society, culture, economy, nationalist ideas—against the background of her history, recent and remote, with special attention to Turkish-American relations and to the course of United States policy in Turkey. Mr. Frye contrasts Persia's high level of culture with her lack of integration in political, social, and economic affairs; discusses her strategic importance; considers the long-term problems of United States-Iranian and Soviet-Iranian relations; and points to the necessity for a revision of American attitudes and policies toward Persia.

\$4.25

ARMOR



THE COVER

Eight U. S. Armies are operative at the present time. The first six of these are administrative in nature, each embracing a geographical section of the country. The seventh is a Field Army stationed in Western Germany, while the eighth is the fully operational Field Army in combat in Korea. ARMOR's cover features the eight Army Commanders, their photos accompanied by the respective Army insignia. Elsewhere in these pages are their absorbing views on the important subject of Mobility in the Field Army.

Our sense of history has been needling us. You've seen it evidenced in these pages in a number of ways, and will see it again. It couldn't be otherwise when we're sitting as secretary of the oldest of the Army branch associations, and holding down the editorial desk on the oldest of the branch magazines.

We have at our elbow the master file of this magazine, which delineates the history of our special field. It is a source of never failing interest, and at odd moments, which must be all too few, we poke into the sixty-six-year-old story of the Association and the sixty-three years of publication background on the magazine.

Inevitably we were prompted to look up the details on the familiar cavalryman, Old Bill. The research has gone on over a long period. It adds up to quite a story, a story in which one big question remains unanswered: "Where is Old Bill?"

Frederic Remington, the noted artist, contributed materially to the enduring historical record of our Western frontier. The United States Cavalry was a major subject of his pen and brush.

Mr. Remington was a life member of the Cavalry Association. As close as we're able to call it, this honorary membership was conferred in the mid-1890's.

In 1898, Remington visited the camp of the 3d Cavalry at Tampa, Florida, where the regiment was staging for the Santiago Campaign. The artist was a close friend of Captain Francis H. Hardie, who commanded Troop G of the 3d.

During the visit Remington's attention was attracted to one of Troop G's noncoms, Sergeant John Lannen. (These spellings appear in various accounts—Lannen, Lansen, and Lannon; Lannen originates with the report from the troop records, and is probably correct.) Lannen impressed Remington as the perfect type of cavalryman, a superb rider and an imposing figure. The artist made several rough sketches of him in front of Captain Hardie's tent.

Sergeant Lannen accompanied Troop G of the 3d Cavalry to Cuba, where he died of yellow fever shortly after the surrender of Santiago. At the time of his death he was on his final enlistment and was

expecting to retire.

From the rough sketches of Lannen made in Florida, Remington made two finished sketches, which he presented to the *Cavalry Journal*, probably in 1902. The drawings are reproduced on these pages.

The excellent sketch of a frontier cavalryman appeared on the front cover of the *Cavalry Journal*



in January of 1903. It was to hold this position for almost forty years, until July, 1942. The other sketch of the cavalryman riding away appeared on the back cover for a long period, and as a tailpiece inside the magazine.

Always a branch of great *esprit*, and highly conscious of history and tradition, the cavalry took the Remington masterpiece to its heart. Somewhere through the years Remington's cavalryman acquired the name "Old Bill." Today Old Bill stands on our title page, a trademark of mobility in war.

And once again we ask—Where is Old Bill? What we want to know is—Where are the originals of those two drawings?

Here are the findings to date . . .

The report of the annual meeting of the United States Cavalry Association for the year 1903 appeared in the *Cavalry Journal* of April, 1903. In the proceedings, Captain L. C. Scherer, Secretary-Treasurer and Editor, had this to say:

The masterpiece of a frontier cavalryman on the cover of the Journal and the disappearing rider on



the back are contributed to the Journal with the compliments of Mr. Frederic Remington, a life member of the U. S. Cavalry Association.

. . . and further along it was

Resolved, that the thanks of the U. S. Cavalry Association be tendered to Mr. Frederic Remington, a life member of the Association, for the splendid drawings presented to the Association for the cover pages of the Cavalry Journal.

After establishing these facts in our mind we drew a deep breath as we looked back over fifty years of editorship and wondered where to put the finger . . . and wondered why nothing had been done previously. We began to dig further . . .

A helpful little clue came up in the issue of January, 1911. The original set of engravings, made from the original drawings, had begun to show signs of wear. Editor Lt. Col. Ezra B. Fuller, in the 1911 issue, noted that "Some two years ago it became necessary to have a new plate made [of the large drawing], as the old one was becoming much worn. The original drawing was, and is still in the possession of a former editor of the Cavalry Journal and it was obtained from him for the purpose of making the fresh plate."

Well . . . !

The next step was merely that of checking the editorship for the period from 1903, when the drawings were first published, to 1909, approximate date of engraving of the second set of plates. Our predecessors were:

- Captain L. C. Scherer . . . 1902-1904
 - Captain M. F. Steele . . . 1904-1905
 - Captain Herbert A. White . 1905-1907
- succeeded by Lt. Col. Fuller.

A check indicated that only one of the four was still living. He is Matthew Forney Steele, familiar as the author of *American Campaigns*. Contacted at his home in South Dakota, Colonel Steele could give us no information other than the fact that the drawings were never in his possession.

It seems fairly logical to assume that Captain Scherer, editor during the period of presentation of the drawings, may have retained them in his possession.

Someone, somewhere—perhaps a relative or a friend—may know of the whereabouts of the Remington drawings. They are actually the property of the Association. They should repose in the archives of the Association, available to the greatest number of interested people. They might well be slated for later transfer to the Mounted Service Museum now under discussion.

We throw the mystery open to the field. How are you at sleuthing? If you have a clue let us hear from you.

The Editor



tankers get tougher!

Far out in the California desert

our tankers are ranging over a huge chunk

of unprepossessing real estate

in advanced unit training under rugged conditions

Fire and maneuver are the watchwords

at the new Armored Combat Training Area in the Mojave Desert

U.S. Army Photos

ARMOR—September-October, 1951

6

IT was hot that August day. Almost too hot to sit in, a Patton tank and stalk an unseen enemy. But these men were tankers and they knew that what they were confronting would get a lot tougher.

There wasn't a sound in the valley except for the deep-muffled "thump, thump" of other tanks firing their 90mm guns on distant flanks. Now and then it was possible to distinguish the hoarse chatter of a .30 caliber machine gun.

As the number one tank in the platoon rounded a slight rise, its maneuver was covered by the other M-46's in the platoon. It took position in defilade to cover the advance.

Cautiously the second tank approached an open space. Suddenly the tank commander shouted:

"GUNNER. SHOT. TANK—ONE FIVE HUNDRED. (Identified) FIRE! . . ."

"ON THE WAY." WHOOMP!
 (seconds later) WHOOMP!
 "CEASE FIRE."

This might have been any valley, on any battle front, except for the apparent absence of trees and green vegetation. Yet the tenseness that accompanies combat was not evident among the tankers. Why?

The explanation is simple. This was not just any valley, this was a particular valley—the Garlic Springs firing range at the new Armored Combat Training Area, Camp Irwin, California.

When the Army conceived the idea for the new armored training area, it had in mind a training program which could thoroughly teach tankers to perform their primary function—to fire and maneuver. All other training there would be secondary.

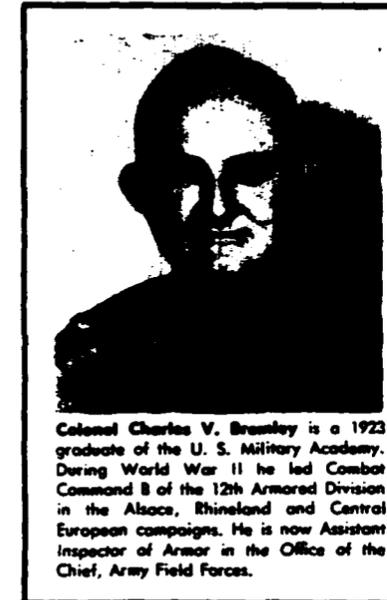
As a result, tank crews at Camp Irwin are trained under simulated combat conditions using the latest combat tactics and techniques, including those learned in Korean fighting. This comprehensive five-week training is integrated into company and battalion combat firing problems designed to prepare both men and units as skilled fighting teams capable of meeting any combat situation on any field of battle.

Special emphasis has been placed on gunnery, tactical training, combat firing exercises and maintenance of newly developed tanks and other ar-

ARMOR—September-October, 1951

by COLONEL C. V. BROMLEY

mored equipment. As heavier tanks and more powerful guns are developed by the Army, the Armored Combat Training Area will adapt training to meet such needs.



Colonel Charles V. Bromley is a 1923 graduate of the U. S. Military Academy. During World War II he led Combat Command B of the 12th Armored Division in the Alsace, Rhineland and Central European campaigns. He is now Assistant Inspector of Armor in the Office of the Chief, Army Field Forces.

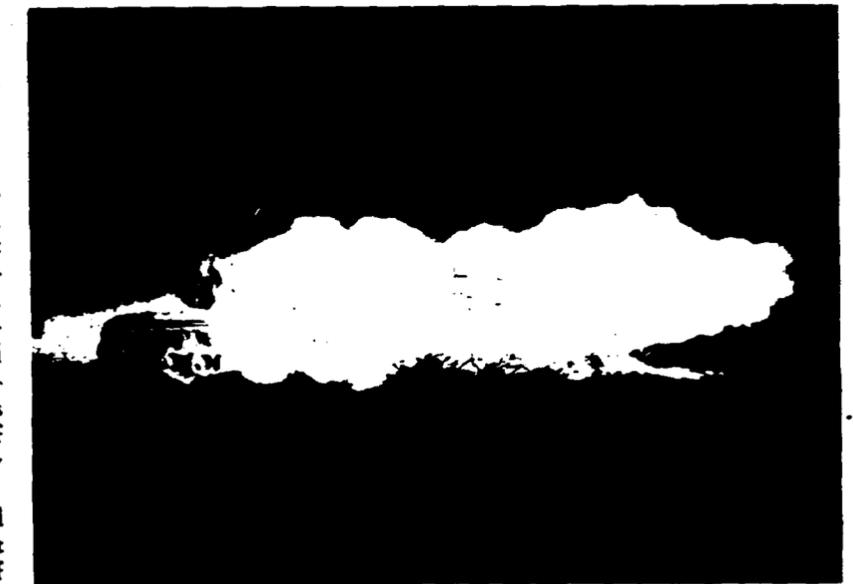
Training is given all tank units, except those in an armored division, who have completed their basic and advanced individual training phases. So flexible is the program that the group commander supervising unit training may modify it to conform to

the training level previously attained by units. Throughout all training, the tank-infantry concept is carried through by utilizing available personnel.

As prescribed by the Office, Chief of Army Field Forces, headed by General Mark W. Clark, one-third of all training is conducted at night, stressing individual and unit night discipline.

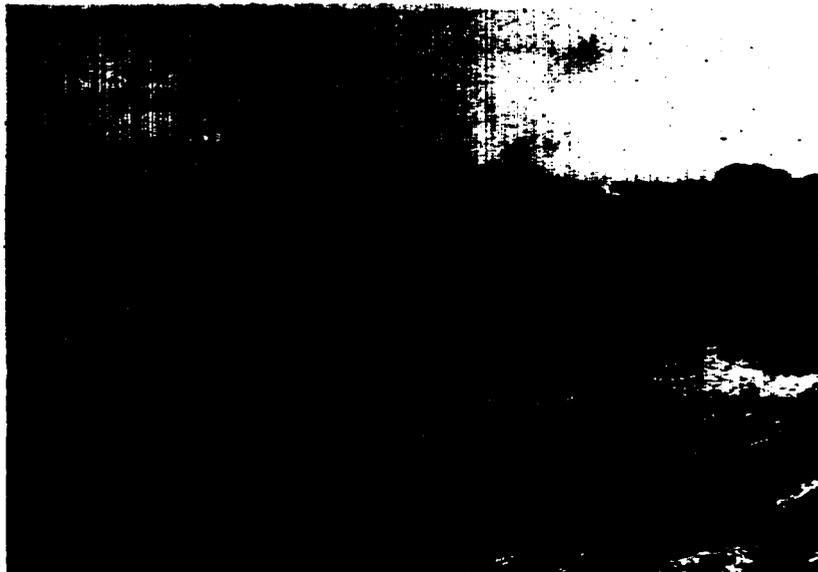
The new training site maintains "resident" tank equipment for use by student troops. This allows tank units to train in the maneuver area without necessitating transporting unit equipment from their home stations. Therefore a tremendous saving in both valuable training time and expense is accomplished, since only troops and bare essentials of equipment are brought to Camp Irwin.

Located 37 miles from Barstow in the Mojave Desert, Camp Irwin borders on the edge of California's Death Valley. It is, the Army believes, the answer to the tanker's need for an unrestricted firing range and maneuvering area. Actually the only restrictions as to fire and movement are those imposed by nature. Thus, direct fire weapons can be fired in most any direction, without fear of ricochets as nearby mountains form the backstops and the parapets. In all instances, the length of the range exceeds the maximum range of the main armament of the Patton Tank and the new T-43.



One-third of all training at the Armored Combat Training Area is at night.

7



A Patton tank blasts from a defiladed position during one of the range problems.

The camp is 2300 feet above sea level and has an annual rainfall of about one inch. Its temperature varies from a low of 28 degrees in winter to a high of 139 degrees in summer. However, neither the heat nor cold is felt too much because of the extremely low humidity.

Realizing the value of the Mojave Desert as a potential training site, the Army in 1861 explored the area, investigating its possible use for training a camel corps. However, it wasn't until 1940 that a camp was formally organized there, although for several years before this area had been used by National Guard and reserve units as a training area. In 1941 the War Department established the Mojave Anti-Aircraft Range, known as "MAAR," at Camp Irwin. In honor of Major Gen. George Leroy Irwin, battle commander of the 57th Field Artillery Brigade in World War I, the camp was renamed "Camp Irwin" in 1942. It was inactivated in 1948 and reactivated in May 1951 under the command of Colonel Maurice E. Kaiser, of Stockton, California.

Whenever some people think of the desert, they immediately visualize a flat expanse of hot sand. Although this may be true for certain sections of Camp Irwin it does not completely describe the terrain features of the entire Armored Combat Training Area. The country abounds in rugged terrain. It is hot, it is dusty, and there is not, perhaps, a single shade tree on the entire 1000-square-mile post, except

for scattered Joshua trees. However, it may be pointed out that the Army did not pick this area as a vacation spot or a place for rest and relaxation. Instead it was selected simply because it was the largest military reservation available and suitable for tank firing and maneuvering without the acquisition of additional land.

The idea for the organization of the new armored training area cannot be credited to any one individual or group. Instead it came as a result of increased emphasis on tank training brought on by the type of fighting in Korea, which stressed the tank-infantry-artillery concept of battle. The actual establishment was accomplished by OCAFF and the Department of the Army.

Before the Irwin training area was opened in July this year, the 90mm gun mounted on the Patton tank had to be fired in narrow "alley" ranges, with extremely strict safety regulations enforced at all times. Nowhere was it possible to fire and maneuver properly without limitations. The Armored Combat Training Area definitely alleviates this situation.

Regimental tank companies of the 43rd "Winged Victory" Infantry Division were the first units to undergo training. They were also the first to attempt the two-phase concept of training as conducted at Camp Irwin for all tactical firing and maneuvering problems.

This two-phase problem begins with an orientation on the situation,

similar to actual combat. For the first objective, tanks are driven by instructors using students as assistant drivers. The gun crew and tank commanders are students but there is one instructor with each tank who points out the objectives and the proper firing positions and alternates. After completion of the first phase, a critique is held and errors are brought out. Then the students take over for the second phase.

For the second phase, the final objective is given in the orientation and the students perform all the operations of the tank. The cadre instructor merely acts as a safety officer in regulating the direction of fire. He may, in some instances, point out specific targets but the student takes command from then on.

This two-phase training is important. First of all, it creates initiative on the part of each crew member by giving him a chance to be instructed in a tactical problem, and then being tested in a second phase. That is, he is guided by hand through the problems first and then given a free hand to run the second phase as he sees fit. In addition the tank and platoon commanders and leaders are able to grasp the situations and then apply the instruction immediately to a somewhat similar problem using their own judgment. As one M-46 student driver said: "For the first time I've been able to understand the problems of the entire crew in running a tactical problem. Heretofore, these problems were explained to me in training manuals and by instructors but I think it takes firsthand experience to really grasp what a tank crew is up against in a combat situation."

Illustrative of this, the Garlic

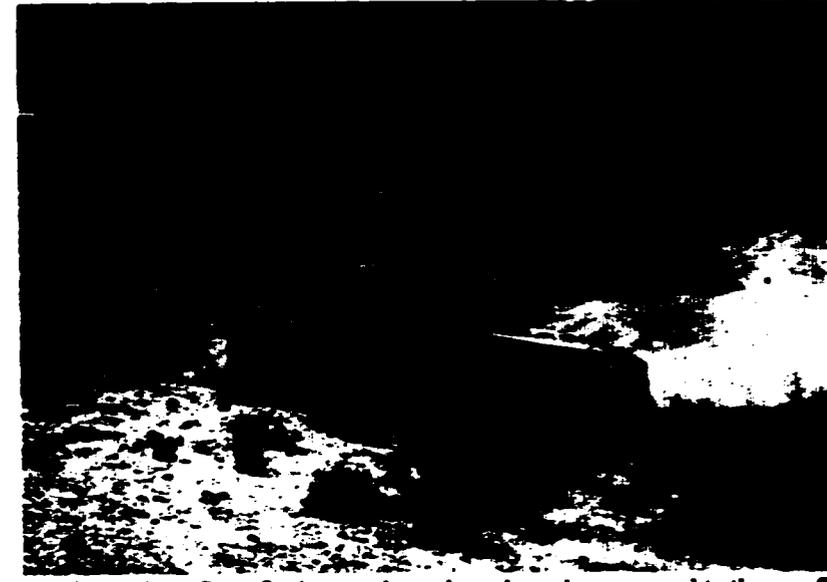


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Springs combat reaction course has been designed to spark the student's initiative and provoke his thought on a situation which might well arise in combat on any terrain.

An orientation of the problem reveals that (for instance) two Patton tanks will proceed down a wide valley and take a hill occupied by infantry several thousand yards away. The tanks move out in column and as they approach the range area they disperse and advance in normal order, taking advantage of available cover and concealment. Taking position in turret defilade, the tank commander is informed by the instructor that a mobile gun is in position two thousand yards away to the left front. The student commander picks a better position and moves the tank into hull defilade firing position, on advice of the instructor. Student gunners then choose their ammunition and if their choice is wrong they are corrected by the instructor. From then on the particular firing problem is in the hands of the students as they sight and fire the gun. This first phase is repeated in several instances, at the end of which a critique and orientation for the second phase is held. In the second part, the instructor serves as safety officer only and merely points out the targets in the event the student tank commander misses them in his observation.

Another illustration is the Bicycle Lake night problem. In this problem, a tank platoon is engaged in a retrograde movement. The tanks mass their fire on an objective to cover a flank. As one section of the platoon moves out, the other continues to fire at a simulated overwhelming enemy force. When the first section has taken



Rough terrain at Camp Irwin puts the tankers through paces equal to the payoff.

a new position, the second withdraws and fire is massed again. This comparatively simple maneuver requires the utmost coordination between tanks. The instructors guide the student crews by hand in the first phase but in the second, the students have full responsibility and instructors act as safety officers.

One of the most interesting problems is the tank versus tank situation. In this action, utilizing M-4 tanks, crews and vehicles are pitted against each other using live .30 caliber ammunition. Usually two or three tanks take defensive positions and are attacked by an equal number of offensive tanks. The tanks are completely buttoned up. As the defensive tanks take position in hull defilade, the offensive tanks move out. Using maximum cover and concealment, they attempt to fire and maneuver and knock out the defensive element. Ten hits on either an offensive or defensive tank constitute a knocked-out vehicle. Thus far, there have been no casualties suffered among students or instructors.

One impressed soldier gave his thought on this particular problem. "It gives us (the defense) a chance to fire at maneuvering tanks and at the same time receive returning fire. What this means to me is simply, get the other guy before he gets you."

Another, an instructor and veteran of Korean fighting, said: "This (problem) really teaches the crews to keep on their toes in maneuvering and

picking primary and secondary positions. It teaches accuracy of fire so essential to tankers and toughens them to combat principles they may be called upon to use in either offensive or defensive war."

The largest tactical problem run is the battalion in offense. As a climax to battalion training, the two-and-a-half day problem is led by the trainee battalion commander. It begins as instructors give the commander an orientation of the problems and the objectives he is to take. The battalion then goes into bivouac and proceeds with the problem. Acting as umpires, as in maneuvers, are the instructor personnel. The entire problem, involving sixty-eight tanks, is completed before any suggestions or corrections are made. As in platoon and company problems, infantry is used in support of the tanks throughout the entire two and a half days.

Camp Irwin has nine tank firing ranges. There are six tactical problem ranges, two gunnery ranges, and a special range devoted solely to firing tanks massed in defilade position. In addition there are two antiaircraft artillery ranges which are used by National Guard and Reserve units in summer training only.

Here is a breakdown of the types of ranges:

1. Tank gunnery—HE adjustment (miniature range), sub-caliber shot and sub-caliber manipulation exercise (1000 inch range).
2. Moving target—sub-caliber mov-

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ing target exercise, service ammunition show group and HE shot and 30 caliber adjustment firing.

3. West Range AAA—120mm and 90mm AAA fire at radio-controlled aircraft.

4. Black Rock—advanced ground tactical problem using M-46 with 90mm and .30 caliber machine gun.

5. Tank versus tank with tracer ammunition.

6. AAA automatic weapons—50 caliber and 40mm weapons.

7. Drywell Area—tactical problem, tank platoon in the attack and organization for defense.

8. Bicycle Lake—tactical problem, platoon in delaying action.

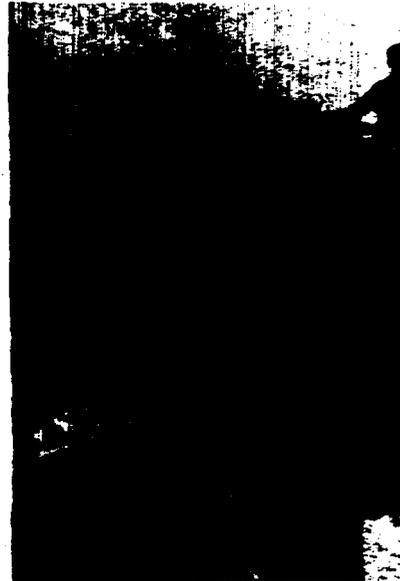
9. Garlic Springs—combat reaction tactical problem.

10. Platoon mass and defilade firing.

11. Rock Pile—tactical aggressive problem.

Now under construction on the post is a "figure eight" moving-target range which when completed will surpass any similar range built in the past, according to the combat-experienced Colonel Kaiser, who is in charge of all training there. The moving-target range will consist of a standard gauge railway track set in defilade. A small car will tow the target on a level outer edge. On the inner edge of the "eight," the track will be laid in defilade so that when the target is towed over it, it will have a bobbing-disappearing effect, giving the appearance of a maneuvering tank. The target can be fired upon at distances from 800 to 1800 yards.

Training at the Armored Combat



Col. Maurice Kaiser, C.O. at the new Armored Training Area, discusses some problems with Major Beatwright, S-3

Training Area is a part of the accelerated and intensified training program initiated by the current critical international situation.

In a public address last fall, General Clark struck the keynote to our present training program when he said: "There is an ever-present need for a realistic, rugged training program in our Army. Now, more than ever before, we face the challenge of being militarily prepared for our role as a member of the national defense team. To successfully accomplish our mission, we have intensified the training of our soldiers." The general added: "The objective of this intensification program is to prepare each soldier

and unit to meet a ruthless and savage enemy who adheres to no established rules of land warfare, to instill in our soldier the spirit of the offensive, and to win over this vicious foe on the battlefield, despite any and all odds."

Armor training is geared to a new high. It has not yet reached the peak of World War II but it is making new advances in its respective field which are unsurpassed by any other branch. The Army plans to use the Armored Combat Training Area to train all tank and armored cavalry units, with the exception of armored divisions. It is planned that these units will run through the five-week course at least once a year to keep them in a state of combat readiness. This training adequately meets our present needs. Should the Army be expanded further, it will be necessary to expand the scope of training on a similar basis to conform with the needs.

The accelerated armored training at Camp Irwin is capably meeting training requirements and policies as set forth by General Clark. For the first time it gives students an opportunity to fire and maneuver Patton tanks, and train with other armored equipment, on varied terrain. It is generally accepted by both instructor and trainee tankers at Camp Irwin to be a tough grind. But this is the specific purpose of such training: to make tankers tougher and ready them for the rigors of combat through first-hand experience in tactical problems and other training under conditions as near to actual combat as possible.

As a result of such training—tankers DO get tougher.



The 132d Tank Regiment of the Ariete, a wall of armor across the Friulan plain.

The ARIETE: Italy's Armored Brigade

by LIEUTENANT COLONEL R. GUERCIO

Italy's recovery and enthusiasm have made her a bright spot in the Western picture. With a full armored brigade in operation and another shaping up, she has been building strength into her forces within peace treaty limitations of a 200,000 man army and 200 tanks. These restrictions have been eased by the Western Big Three, paving the way for a responsible role in the NATO

ITALY'S Ariete Brigade was the first armored unit to be reorganized after the war as a part of the new Italian Army.

Although subject to future revision, at the present time the Ariete is composed of one tank regiment, an armored infantry regiment (*Bersagliere*), one regiment of artillery, one squadron of light armored cavalry, one company of combat engineers, one communications company, and staff units.

The weapons of the Brigade are substantially those of the Allies during the last war. Substitution of more modern weapons will depend for the most part upon MDAP aid.

The concept of basing the structure of the Italian Armed Forces along primarily defensive lines has not been affected by the introduction of large armored units into land forces. Italy has learned the lesson of the recent war—that the success of modern defensive operation is based not on a static established line, which can be penetrated or smashed by modern methods of warfare, but on the concentration of resistance in positions which are particularly important from the strategic aspect and for the movement of armored and motorized units. This explains the emphasis which the Italians are placing on their armored units—an interest which naturally

Lt. Col. R. Guercio is a member of the Italian Army General Staff.

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THROUGH THE BOOK DEPARTMENT



A tank battalion of the 132d Tank Regiment, one of the Ariete's components.



Mobile support in the form of self-propelled artillery, another top ingredient.



The brigade's reconnaissance squadron would act as the eyes and ears out ahead.

must be correlated with the availability of weapons and a relatively modest military budget.

The training of the Ariete Brigade is greatly facilitated by its location. In Italy, an enemy attack using armored masses, coming from the East, could be developed only on the Friulan plain, which is cut transversally by a series of water obstacles such as the Tagliamento, the Livenza and the Piave Rivers, and whose frontal width is not over forty kilometers. The Ariete Brigade has its headquarters in this plain behind the advance fluvial lines, and all exercises take place on terrain which, in case of war, would be the real theater of operations.

Personnel know every detail of the zone, and are fully trained to act according to possible developments of a future battle. Between the strong pivots of support of the infantry divisions which are solidly deployed for the defense of vital zones, and the natural and artificial obstacles, the Ariete Brigade would be in a position to maneuver with freedom to combat enemy attempts at penetration.

General Eisenhower and Congressional representatives have expressed satisfaction on the state of training of the Brigade and its components.

The weapons and the training of a unit are not the whole story of its fighting efficiency. For a complete judgment the morale of the personnel must be considered.

In Latin countries, the morale factor plays a very great part. Tradition and the history of the unit contribute much to *esprit de corps*.

The Ariete participated in some of the heaviest fighting in North Africa during the last war. Although linked to an unfortunate endeavor, it acquitted itself with honor on the battlefields of Cyrenaica, Egypt and Tunisia. Its record is one of inspiration for its new members.

The banners of the three basic units of the Brigade (tank, armored infantry and artillery) have been decorated with the Gold Medal, the highest Italian honor for military valor.

The 132d Tank Regiment is heir to the tradition of the Italian tank corps. Organized after the First World War, it has a short history, yet it has received many honors in participation in various campaigns on several fronts and in different theaters of operation.



General Eisenhower, Supreme Commander, Allied Powers Europe, reviews the Ariete, an element of his NATO force.

The tank units have a great attraction for Italian soldiers, and they draw the best individuals.

The officers and noncommissioned officers of the tank regiment are, for the most part, veterans of the long campaign in North Africa, and their combat experience contributes substantially to the standard of efficiency of the unit.

The *Bersaglieri*, represented in the Brigade by the 8th Regiment, are also special troops. The *Bersaglieri* were organized in 1836 as a part of the Piedmontese Army, composed of carefully selected men and designed for risky assault assignments. The physical qualifications, their gymnastic training, the spirit developed in them, the long, fast step, their uniform characterized by the wide-brimmed hat with the flowing plume, all captured the imagination and enthusiasm of those identified with the unit. General Eisenhower wrote of them "I can recall few instances in a lifelong military career when I was so impressed by the physical fitness and the enthusiasm of a regiment."

In their century of existence the *Bersagliere* has undergone a progressive transformation, being adapted to

developments in the methods of warfare; however, the ardent spirit has always obtained. The light troops of the 19th Century became assault troops in the First World War, then fast patrol troops, and finally the infantry of the mobile armored units.

On his recent visit to the Ottawa conference and to Washington, Italy's Premier Alcide De Gasperi pressed for and received from the Western Big 3 an easing of peace treaty limitations imposed on Italy's armed forces.

The artillery regiment of the Ariete has all semi-mobile weapons. It has inherited the spirit of the famous horse-drawn batteries which were accustomed to fighting from advanced positions and to maneuver audaciously in full action. Armored artillery has enhanced the combat qualities of this branch. The umbrella type of fire support has been adopted.

The cavalry is represented in the Ariete by a squadron of light armored vehicles which are used particularly in tactical reconnaissance missions.

This squadron is a descendant of the Novara Regiment, organized in 1828, and which participated in all the wars fought by Italy.

Around this central organization as described above are woven the engineer and signal and service elements, all of them reflecting *esprit*.

The moral, material and training efficiency of the Ariete Armored Brigade is an outstanding example of the seriousness with which the Italian Army has been reconstructed in the postwar period. The Army has worked quietly and with little publicity, bearing always in mind these principal objectives: the reconstruction of the spirit; the modernization of professional training; and the reorganization of units along modern lines. The results obtained have been a source of wonder among outside observers.

Another armored brigade, to be known as the Centauro, is scheduled for organization and will be equipped with more modern weapons.

The Ariete is tangible evidence of the ability of the Italian Army to handle the tasks assigned to it under the Atlantic Pact—tasks which coincide with the direct defense of the homeland.

*Improper utilization and minor organizational problems
are no grounds for eliminating*

The Infantry Regiment's Tank Company

by CAPTAIN ROBERT E. DRAKE

THERE has been much discussion recently on the subject of Armor in the infantry division. The divisional tank battalion seems to meet with general approval, but the regimental tank company has been an item of contention.

Some debaters favor the retention of the present organization with minor changes. Others are for the elimination of the three regimental tank companies, with substitution of an additional tank battalion at division level.

As a tankier, I can't agree with the idea of eliminating the regimental tank company. Too many advantages

to the infantry regiment would be forfeited.

I believe that much of the feeling against the regimental tank company stems from a lack of complete knowledge and cooperation in its use. Equipment is no more effective than the manner in which it is utilized. Utilization of the tank company is controlled by the infantry regimental commander, and requires close cooperation with the tank company commander, with the latter acting as a regimental staff armor advisor. The fact that a tank company is misused by an infantry commander does not reflect a need for reorganization of

units, but rather a need for more Armor training for infantry commanders and, therefore, increased confidence in tank unit commanders. Cooperation is the keynote for the fielding of a successful team. Only when full cooperation is attained will the capabilities of the regimental tank company be fully exploited and the value of the unit recognized.

What are the capabilities of the company and how have they been borne out in Korea?

The current organization of an infantry regiment provides the infantry commander with armor under his direct command. It supplies him with

long range antitank capabilities. It gives him armor advice on his staff. All of these are constantly and immediately available.

This constant availability precludes situations where the infantry regiment might find itself completely stripped of armor, and hence of its primary antitank measures. Since enemy armored attacks will be launched to take advantage of surprise and weakness, there would normally not be time to call for a tank company from a divisional tank battalion. A regimental company, integral with regimental plans and operations, would be on the scene.

In the expansion of the successful Inchon landing, my regiment encountered stiff resistance from an enemy force well situated in a mountainous stronghold south of Suwon. Initially, due to the nature of terrain and the fact that most enemy armor seemed to be opposing the Eighth Army advance to the south, armor opposition to the regiment was not considered a serious threat. Nonetheless, a tank company was employed with the regiment. On the second night in the area, the enemy attacked at midnight, down a winding, mountainous road, with five tanks. Four of these were knocked out by tank fire.

Regardless of its antitank mission and numerous secondary capabilities, the regimental tank company will be employed primarily in the role of infantry support. The mere presence of armor does much to eliminate the fear of a potential enemy tank attack and the team feeling encourages the foot soldier. For, in spite of the highly advertised effectiveness of individual antitank weapons, the doughboy alone is not psychologically equipped to stand up to an enemy armored attack. He knows he can cope with enemy infantry, but he is always concerned about this machine gun emplacement or that tank position. An accompanying friendly tank dispels that concern; he can see it with him, he knows it will move when he moves, and he knows what it can do. The regimental tank company provides this support always at the disposal of the infantry battalion commander immediately upon request. On two different occasions, platoons of my company were attached to elements of the 7th ROK Division during offensive operations

against the Chinese Reds. The ROK regimental commander asserted that those tanks spelled the difference in some ten miles of advance per day!

Another consideration in favor of the integral tank company is the exploitation of a local success which may not have been anticipated and for which no tank attachments from division would originally have been requested; the regimental tank company would be on hand to meet this unforeseen need.

In the regimental tank company, we have a unit which is already integrated into the team. This situation

Captain Robert E. Drake commanded A Company of the 77th Tank Battalion in Japan for one year prior to the outbreak of hostilities in Korea. This company furnished the provisional tank platoon which took the first M26 tanks into Korea, and supplied the cadres for the three regimental tank companies of the 7th Infantry Division. Captain Drake commanded the Tank Company of the 31st Infantry Regiment in the Inchon-Suwon and Chosin Reservoir operations. Now back in the States, he is assigned to Army Field Forces Board Number 2 at Fort Knox, Ky.

averts last minute coordination difficulties that invariably arise when orders are issued hastily. I know of few instances in Korea where attack plans allowed sufficient time for prior planning in which to enable a new member to be properly integrated into the team. Frequently, alerts were given late at night for attacks to jump off the following dawn. Most units involved in the attack plans would be committed in night defense positions; thus coordination plans were difficult to make. As a part of the regiment, my tankers knew the battalion and company commanders throughout the regiment. My own work was closely tied in with regimental S-2 and S-3. This had great common advantage.

The inadequacy of maintenance and logistical support of the regimental tank company appears to be the primary concern of proponents of the divisional two-battalion organization. The concern is duly justified but the proposal that an attached tank company with maintenance team support from the tank battalion would be any better off fails to take into account all the facts in the case. Problems do exist in the regimental setup but they are not insurmountable. Most of our

maintenance problems in Korea, both in the regimental tank companies and the division tank battalion, stemmed from the inadequacy of the Division Ordnance Company. It had neither equipment, parts, nor personnel sufficient to cope with the infantry division armor. At any rate, as in the case of any newly conceived organization, the test of combat and the maturing with use generally point out numerous minor changes which will effect improvements. My company incorporated many of the changes and systems proposed herewith and we established one of the best maintenance records of tank units in X Corps, including the battalions.

The current maintenance and logistical organization in the regiment is as follows:

TANK COMPANY

Maintenance Section

- 1 Mtr Sgt
- 2 Rcvy Veh Mech
- 5 Track Veh Mech
- 1 Radio Mech
- 2 Turret Mech
- 2 Mech Helper

SERVICE COMPANY

Tank Maintenance Section	Tank Company Section
1 Mtr Sgt	1 Sect Ldr
3 Track Veh Mech	2 Sqd Ldr
1 Turret Mech	9 Lt Trk Driver
1 Welder	4 Ammo Handler
2 Lt Trk Driver	
1 Mech Helper	

The Tank Maintenance Section of Service Company was attached permanently to my company. The mechanics of this section performed the quarterly preventive maintenance checks on all tanks, while the tank company mechanics accomplished trouble shooting and monthly preventive maintenance checks. Except for these mechanics and the welder, the personnel of this section were charged with much of the recovery work and all evacuation and parts supply. Parts were procured through normal channels when available, directly from Ordnance of the tank battalion, or through cannibalization of knocked-out vehicles. So acute was the parts shortage that maintenance personnel from various tank units would descend on knocked-out vehicles before the dust settled. In many respects, I believe parts supply would



U.S. Army

have been better handled in Service Company, which is actually the source of supply. The Tank Company Section of Service Company, responsible for ammunition and gasoline supply, consists basically of ten 2½-ton trucks and was more than adequate for operations in Korea, but perhaps quite suitable for other battlefronts; consequently, no changes in this section are suggested in the organization proposed below except the addition of a parts supply section:

TANK COMPANY

Maintenance Section

- 1 Mtr Sgt
- 2 Rcvy Veh Mech
- 7 Trck Veh Mech
- 1 Radio Mech
- 1 Welder
- 2 Turnst Mech
- 3 Mech Helper

SERVICE COMPANY

Tank Supply Section

- 1 Sect Ldr
- 1 Parts Supply Clerk
- 1 Mech Helper
- 2 Sgd Ldr
- 9 Lt Trk Driver
- 4 Ammo Handler

The supply of rations and individual equipment presents no problem whatever in the regimental tank com-

pany. In the case of an attached company, if the lessons of the last war are appreciated, this supply matter was usually a serious bone of contention between the tankers and infantry.

By incorporating a tank company into the infantry regiment, maintenance and logistics problems were somewhat multiplied but communications within the regiment were greatly enhanced. On many occasions, the tank company radio net provided communications links among regimental units when other means failed; due to terrain interference, this system was not optimum and was accomplished by relay. Many infantry commanders fail to appreciate this valuable communications support; it not only ties them to regiment but usually directly to adjoining battalions. Tanks also enabled tactical air liaison officers, as well as artillery forward observers, to move well forward to better accomplish their missions while maintaining their communications by relay.

It is interesting to note here that interspersing tank sections through a long column of vehicles provides a source of continuous information of the progress of the column, through use of the tank radios. In the with-

drawal from the Chosin Reservoir, from Hagaru-ri to Koto-ri (6 miles), my company was distributed by sections through the long Marine vehicle column. At that time, we were attached to the 5th Marine Regiment. Enemy forces in strength occupied the high ground on either side of the road for most of the march and thus were at liberty to cut the column almost at any place of their choosing during the eighteen-hour march. There is no question about the effectiveness of the tank fire in beating back enemy attacks on the column and of the tank radios in keeping the regimental commander aware of the extent of enemy activity.

In addition to the assets of the regimental tank company already mentioned, there are considerations of the all-important morale factor which must not be overlooked. We have established the infantry's need for the continual presence of armor whether or not it is integral to the regiment. In the case of an attached company, such a unit might remain with the regiment for extended periods of time without rotation and, of course, without administrative records. This situation creates numerous problems in such matters as casualty records,

mail, pay, decorations and promotions for the personnel concerned. No such trouble arises in the integral tank company.

Certain consideration must be given the distinction between the intangible feeling of an infantry commander toward a tank unit which is part of his outfit and a tank unit which is attached. This difference, though unintentional, may be defined as deep concern over his own outfit and mere interest for the attached unit which has its own "parents." Tankers of the regimental tank company have close ties of friendship throughout the regiment and are not simply regarded as strangers who may be gone tomorrow.

Normally, the regimental tank company will operate with two or three platoons attached through the regiment while the fourth platoon undergoes a maintenance treatment. The action at Chosin Reservoir, previously described, represents the only occasion in six months wherein my company fought as a unit. For this reason, only a few days' training in company tactics should be included in the schedule of a regimental tank company. Company size missions should be the responsibility of a company of the division tank battalion and no at-

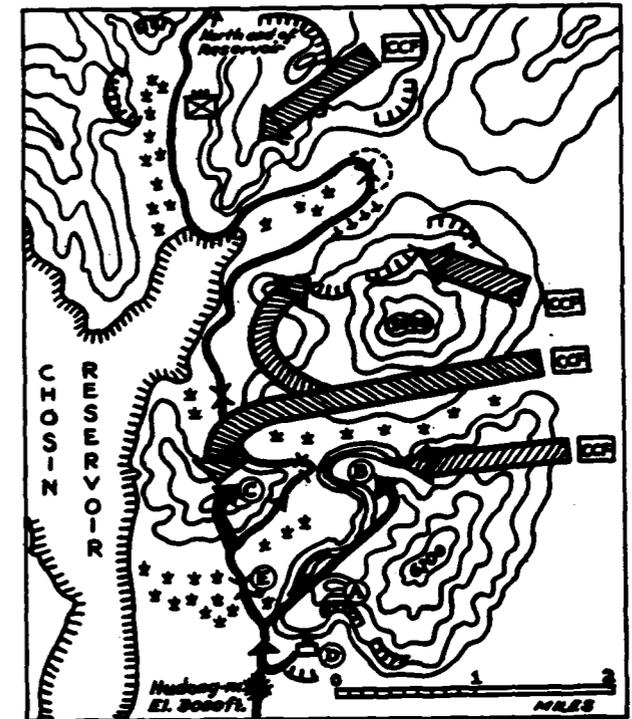
tachments of such a unit should be requested unless such a mission is contemplated. There are actually few occasions in combat [in Korea] when a regimental tank company is assembled, and some of these are not usually warranted. Generally, the tank company will move together when accompanying the regiment on long administrative or technical marches. However, some deliberation should be given the matter of interspersing tanks through the regimental vehicular column for protection; the matter is of no little significance in wars involving "fluid" tactics. Columns are subject to ground attack while operating anywhere in the combat zone.

For the redeployment of X Corps from the Inchon area to the East coast of North Korea, my company was attached to the division tank battalion and all tank units moved together by LST. Meanwhile, my regiment moved overland to Pusan by motor convoy. About midway on this march, deep in what was considered friendly territory, the convoy was ambushed, sustaining casualties. The presence of armor in this column would have beaten off the enemy attacks and might well have discouraged the attack in the first place. Armor accom-

panying regimental columns not only affords protection but provides a means of assisting the less mobile wheel vehicles through stretches of difficult terrain. If the regiment had no integral tanks, it is hard to imagine that column protection would be adequate justification for the attachment of a company from a tank battalion.

In fact, it would have been equally hard to have justified the attachment of a tank company for many of the actions previously described. With the regimental tank company, we have established the value of its immediate availability and outlined its advantages as an integrated team member. The importance of the morale factor has been pointed out. We know that the problems of logistics and maintenance are not insurmountable and we realize that the communications system of the regiment is greatly enhanced by the regimental tank company. So why bother to concern ourselves over the justification for the attachment of a company from a division tank battalion? Let's study and adjust the difficulties of the regimental tank company. Let's exploit its advantages, but let's not eliminate it!

The author's combat experience in support of his views on retaining the regimental tank company



time, I was becoming increasingly concerned over the bridge at E which had no by-pass. The fourth platoon was ordered to hold E and maintain fire on A while we attempted to evacuate two tanks from C with thrown tracks and to dislodge the two knocked-out tanks at the bend that blocked the one-way road. Due to the icy conditions and the intense small arms fire, both of these latter attempts failed; we sustained a number of casualties in the recovery operations. We knocked out the two disabled tanks and the company withdrew to D.

Though unsuccessful in the two-day action, we had crippled a Chinese regiment, thereby relieving the pressure on our own regiment. Marshes, icy roads, mountains, and 30 below zero temperatures severely handicapped our operations. Had my company not been integral to the regiment, I doubt that armor would have accompanied the regiment into this terrain; however, we learned through necessity that the handicaps could be overcome and we played an important part in this and later operations.

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At midnight on November 27, the Chinese Communist Forces attacked suddenly and isolated battalion positions of my regiment in the Chosin Reservoir area (see map). Up to 0300 November 28, little was known of the situation and no reports had been heard from our I & R platoon operating on the regiment's exposed flank; however, at that time intermittent radio reports from the battalions were received at regimental rear D (also the tank company position) indicating the disposition of enemy forces.

It was obvious that the situation required a strong armor task force to attack north, open a supply route to the battalions, and, on arrival, to lend armor support to the defense. The task force required infantry and the only infantry available comprised the regimental antitank mine platoon (which was usually under my control), an attached platoon of combat engineers, and various personnel of Service Company, all committed on the defensive perimeter at A. Picture the coordination problems! Yet the problems were somewhat simplified because the leaders concerned knew each other well, had worked together before, and were all on the scene. Radios had common preset channels, call signs were well known, and familiarity with regimental SOP was thoroughly established. The details of the plan of attack were worked out and the attack jumped off on schedule.

FROM THE KOREAN FRONT

A SMALL UNIT ACTION

Two platoon size tank-infantry task forces attacked north to seize hills B and C, both strongly defended by the Chinese and both quite steep. On reaching these objectives after a stiff fight, infantry losses had been severe and tankers experienced quite some trouble in holding their ground alone; however, they held long enough to permit me to send my third platoon north on the road to attack around the sharp bend indicated by the X's and which was the scene of an ambush on the previous night. At this time, the Chinese counterattacked, swarming over the unaccompanied tanks on B like bees and knocking out two tanks of the first platoon at the bend with captured 3.5" rocket launchers.

Tank fire from C drove the enemy from B and permitted the fourth platoon at B to withdraw to more tenable positions. We occupied C and commanded B by fire until nightfall, awaiting the arrival of infantry support, which was not forthcoming. The enemy in the meantime had occupied the northern slopes of A in our rear and threatened the regimental supply dump at D. At this

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Sum & Substance

A regular feature in ARMOR, where you may express your views in approximately 500 choice words—the effective medium between the letter and the article. This section is open to all on any subject within the bounds of propriety. Name and address must accompany all submissions. Name will be withheld upon request. No pseudonyms.

Mobility is a key factor in war. More and more have we become aware that it penetrates every phase of the military, touching alike upon individuals and units, tactics and strategy, equipment and supply. Carrying forward its appraisal of a broad field, ARMOR has asked the United States Army's Army Commanders for their views on the general subject of MOBILITY IN THE FIELD ARMY. ARMOR is proud to offer this professional roundup as a contribution to the military thinking of the day.—THE EDITOR.

The writer of the following entered upon a career in the field of mobile warfare with his graduation from the United States Military Academy in the Class of 1913. Commissioned in Cavalry, he served in a broad range of assignments as troop leader and staff officer, service school student and instructor. In 1934 he joined the 1st Cavalry (Mechanized), beginning a lengthy association with the early development of mechanization in the U. S. Army, which was to include command of an armored brigade, division and corps. In World War II he commanded the IV Corps in the Italian Campaign. He now commands the First Army with headquarters at Governors Island, New York.

The mobility of the Field Army depends not only upon the flexibility and maneuverability of assigned combat and service troops, but also upon the training and quality of leadership in all echelons, upon communications, upon supporting combat aviation and reconnaissance, upon the weather and terrain conditions in the theater of operations, and upon the enemy. These elements are interdependent and combine decisively to influence the course of operations.

With the advent of combat aviation, armor, and other developments, in the later stages of the First World War, the concept of trench warfare was on the way out. Mobility on the battlefield, which had been exemplified by the horse cavalry, began to pass over into tracked vehicles, combining fire power, shock action and swiftness of maneuver. Since then, and moving up through World War II, there is no longer any place in modern battle for such a concept of static warfare as gave rise to the Maginot complex. The advantage in modern battle rests with the Field Army that can effect sudden, swift movement which will shock and overwhelm the enemy, and inflict on him sudden paralysis.

In America the Field Army is not a fixed organization but is made up of a number of corps and army troops. Neither do the corps have a fixed organization. There are, however, three types of division—infantry, armor, airborne—that may be included in variable proportions in corps and field armies.

Maintaining a superiority in mobility gives the essential freedom of action in offensive operations and greatly enhances defensive capabilities against superior forces. The United States infantry division is a highly mobile fighting unit when compared to its foreign counterparts. With additional truck transportation, it becomes a mechanized division in fact and capabilities. Our airborne divisions, of course, are most mobile through their own element, the air. On the ground, armored units are provided with full tracked combat vehicles to give them cross-country mobility. The combination of these complementing divisions, infantry, airborne, and armored, with adequate logistics support is the real key to tactical mobility in our larger forces. At one time the Ninth Army in Western Europe was composed of ten infantry and four armored divisions; the Third Army had ten infantry and five armored divisions; the First Army had nine infantry and three armored divisions; and the Seventh Army had nine infantry and two armored divisions. In various situations airborne divisions effectively participated with this grouping of infantry and armored units. If we are correct in stating that mobility is enhanced by increasing armor in the Field Army, it would follow that the United States Army with a high proportion of armor should be the more mobile. The achievements of the Third Army would tend to illustrate this. In December of 1944 when Von Rundstedt struck from the Eiffel with his highly mobile panzer army, the major elements of the United States Third Army in a matter of two days were swung through a 90 degree change of direction, from a position facing the Siegfried Line to a full-scale attack against the southern face of the famous Bulge. This same operation illustrates effective mobility of combat forces in strategic defensive situations.

The most mobile combat elements of the Field Army on the ground are the light armored cavalry regiments, the armored divisions and the separate tank battalions, assigned one each to the type corps. Though not inherently motorized, the infantry division can be quickly con-

verted to a motorized division by the attachment of sufficient motor transport to carry its dismounted elements. With its organic tanks, equalling two battalions, and a reconnaissance company, the motorized infantry division is well suited to provide continuing close cooperation in mobile armored combat.

Another vital factor in the mobility of a Field Army is the effectiveness of the tactical air support given it. In modern warfare, the ground forces that have a close tactical air support are fortunate indeed. The extent to which this tactical air support enhances not only the combat effectiveness, but also the mobility of the ground forces cannot be minimized.

The airborne division, transported by air and coordinated with mechanized ground forces, becomes a major means of increasing the mobility potential of a Field Army. While in the air it adds a degree of mobility to the Army which may be considered proportionate to the speed with which the Army Commander can effect a juncture of his airborne and ground troops.

The infantry division, which is now organically equipped with tanks and antitank guns, is a basic major fighting unit in the Field Army's role of assault or defense. It is still true that all other arms and services exist for and dedicate their efforts to the mission of the infantry. The fact that tanks and countermeasures against tanks are now organic to the infantry division, emphasizes the role of armor in infantry combat.

Built around the tank as the main striking weapon, the armored division complements the infantry division. Advancing by deep penetration or by powerful sweeps that envelop the enemy's flank, armor aids the infantry attack. The impetus of mobility and fire power enables an armored division to strike deep into the enemy's communication zone. With its inherent mobility and shock action, armor paralyzes an enemy threat to advance infantry formations. As a result, armor provides a flexible member of the Field Army's fighting team.

Armor aids the infantry committed to a defensive mission by providing a mobile force for counterattack. In addition, it is the counterbalance to the threat of enemy armor. Together they can provide an economical unit equipped with the implements of war to accomplish the wide variety of missions required of the Field Army.

Although the Army Commander is not responsible for organization or weapons, he certainly can have an influence on both. The Field Army, to carry out the mission assigned, should be organized and equipped so as to have the greatest fire power and mobility possible in that part of the theater of operations in which it is committed.

Some individuals have questioned the need for strong mobile forces in a defensive period of war. Because of the vast frontages involved and the tremendous offensive power of modern weapons, a situation such as existed in World War I involving a continuous line of defenses with flanks resting on secure obstacles is not apt to recur. We must fight the opening phases of any future war on the system of "mobile defense," a line along a natural (or artificial) obstacle, lightly held and backed by strategically located highly mobile forces quickly to reinforce a threatened point and immediately counterattack a penetration. Great mobility and armored striking power are essential if such a defense is to succeed.

When our build-up has reached the stage where we can pass over to the offensive, then must we have mobility to mass our forces quickly at a vulnerable spot to break through the hostile forces before they can bring up reinforcements. Once having achieved the breakthrough, mobile columns with armor capable of striking deep into the enemy rear are vital to the exploitation of this success. A typical example of such exploitation is the United States Third Army which broke clear of the German defenses at Avranches on 1 August 1944, and 22 days later had crossed the Seine River to the east, was investing Brest 400 miles to the west, and held the line of the Loire River on the south.

Speed is of great importance in pursuit and the Army Commander should be prepared to push forward the mobile elements of the Army at the first indication of an enemy retrograde movement. In this connection, however, it must be remembered that pursuit of an undefeated enemy is a hazardous undertaking. It is, therefore, of highest importance that reconnaissance in the air and on the ground be stepped up to the maximum in order that the pursuing forces may not be caught off balance and surprised by the enemy. In this event, a competent intelligence service should forewarn the commander so that he could either stop the pursuit, or concentrate quickly the necessary type of troops at a given point and time, for the purpose of countering the enemy's actions or breaking down his resistance. In this phase of operations the object should be to bring final ruin upon the enemy by means of continued and uninterrupted action throughout the day and night. This last can best be accomplished when mobile troops are disposed in depth.

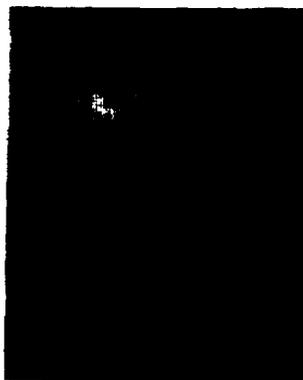
The measure of the mobility of a Field Army depends not only on the mobility of the fighting forces themselves, but also on the capacity and flexibility of the supply system. After the St. Lo breakout in the summer of 1944, the Twelfth Army Group had balanced forces of mobile infantry and armor sufficient to move to the Rhine. Lack of supply capacity in a newly invaded country with damaged railroads and long lines of communications, however, forced these armies to sit before the Siegfried Line until November, when offensive operations once more became feasible with a guaranteed supply of fuel and ammunition. Thus it is seen that mobility is not merely a matter of mobile equipment. Unless it is adequately supplied, the best of such equipment can be a millstone tied to a commander's feet. Mobility, therefore, also includes the means to support mobile action, large stockpiles of supplies and the means of getting them to the rapidly moving troops. But given all these means, the equipment and the supplies, without mental mobility in command and staff the most cannot be attained from the mobility in the Field Army.

Our conclusion is that mobility in a Field Army is a necessary asset that must be balanced against logistics capacity, communications, weather, and terrain obstacles. Superior mobility is an essential in achieving tactical superiority. In striving for increased mobility of the Field Army, that military principle of getting there "fustest with the mostest" is even more important today than when uttered many years ago.

LT. GEN. WILLIS D. CRITTENBERGER.

The writer of the following was commissioned in Infantry Reserve following completion of Officer Candidate School at Fort Sheridan, Illinois, in 1917, and received his Regular commission the same year. He served overseas with the Fifth Division in World War I. Between the wars he served in troop, staff and school assignments. During World War II he was Assistant Commander of the 25th Division and Commander of the Americal and 43d Divisions and of the XXIV Corps in the campaigns in the Pacific from Guadalcanal to Okinawa. He commanded XXIV Corps in the Korean occupation. He now commands the Third Army with headquarters at Fort McPherson, Georgia.

With all the technological advances of our generation the tactical mobility of an Army is, in sum and substance, still tied to that of the foot soldier. It is in the improvement of his mobility that we will obtain an increase in



Lt. Gen. Hodge

the mobility of the Army in the field. Continuity of tactical action on the battlefield is provided by infantry units. Regardless of the quantity and availability of motor transport, the lightning actions of armor and the mobility of service support, the Field Army as a whole advances no faster than its basic component, infantry, is able to move forward fighting on foot. Hence, while continuing to improve the ground mobility of armored and wheeled vehicles, and of supporting units, the greatest effort to improve mobility must be directed toward means of accelerating the movement and action of the infantry company and battalion without decrease in fighting efficiency.

The armored division is a special case. Not alone does it exemplify surface mobility of the highest order in its combat elements, but it can move forward to concentrate or engage in action as an entity, all of its men, equipment and supplies transported simultaneously. Not so the infantry division which is the foundation of our army. Its motor movement as a unit can be accomplished only by pooling or attachment of extra trucks. It is not practical for several reasons to so motorize the infantry divisions that they adopt the mobile characteristics of armor, and even if it were, they would lose their cross-country mobility so essential in ground warfare.

These are four facets to tactical mobility. They are mobility of mind, of equipment, of units, and of individuals. We can stand improvement in each of these fields. We are now striving toward improvement through sounder training and in research and development.

Mobility of mind connotes mental alertness, prevision, careful prior planning, energetic execution, and the ability of the leader to project his thinking and planning farther forward than the shallow and narrow area of the immediate battle. Smaller units, in particular, must make

improvement in this direction. From the regiment down, commanders and leaders must learn to see and think farther than the thousand yards of slugging to their next objective. The exploitation of an unexpected or unforeseen success is the most to be desired maneuver in warfare.

In mobility of equipment we are and have been making great strides. Technology and orderly development processes are providing us with greatly lightened equipment. This is essential, for we hope always to fight as far from home as possible, if fight we must. Hence, the weight of our fighting and supporting equipment is closely correlated to bridging, shipping, railroad capacities, and to the ability of roads to carry sustained traffic loads. Also, in this new day we seek to carry, within reason, all the equipment of a standard division by air. Air-transportability, then, has become an important key to equipment mobility. As a word of caution, however, we must not sacrifice effective battlefield performance of an item solely to make it air-transportable.

Our outstandingly important goal must be improvement of the mobility of the individual. We load our men down with too much junk, not essential to combat. Our troops have become too road bound; all of them too anxious to ride into battle. We must re-instill in the infantry the art and capability of covering ground rapidly by marching on foot and in being in fighting condition at the end. We must ruthlessly eliminate all equipment from the person of the soldier that does not contribute directly to battle efficiency.

In summation, the mobility of units is the combination of efficient loading and utilization of available transport, mental mobility and individual mobility. As we improve in these fields, we will achieve better unit mobility. In addition, unit mobility can improve with effectiveness of signal communication. We are making satisfactory technical progress in this field, but must carry on further training and indoctrination in the use of all means available.

LT. GEN. JOHN R. HODGE.

The writer of the following entered military service with the Washington National Guard's Coast Artillery. He was commissioned in Infantry in the Illinois Guard in 1914 and appointed in the Regular Army in 1917. In early 1919 he was transferred to the Coast Artillery Corps. Troop, staff and school posts came between the wars. During World War II, as Director of Operations of SOS, Director of Planning and Acting Chief of Staff of ASF and as Director of Plans and Operations of ASF, he was a key figure in the planning and implementation of the logistical support of U. S. fighting forces around the world. He now commands the Fourth Army with headquarters at San Antonio, Texas.

From the earliest times, the greatest captains of history have been those who have been able to increase the mobility of their troops above that of their adversaries. This increased mobility has usually resulted in more effective fire power. It enables the commander to better and easier shift his fire power as necessary, quickly and surely to the decisive point, before the enemy can react.

As warfare extends to wider fronts, covering greater areas, mobility becomes more and more important. Originally this mobility was confined primarily to the individual soldier. But as the degree of complexity of war increased, the supporting elements increased, and they, too, had to increase their mobility to match that of the front line soldier. If this were not done, the increased mobility of combat troops would be wasted, as the supply and support echelons would not be able to keep up with the front. History is replete with examples where the mobility of fire power coupled with adequate mobility of logistical support has given professional success on the battlefield. Perhaps one of the best was the swift swing of the German armies through Belgium and northern France in World War I. It is believed by most students of military history that only the blunder of one staff officer prevented a swift and early victory by our enemy in that war. A study of the first months of World War I shows that the professional German army of that time



Lt. Gen. Lutes

had mastered the combined movement of troops, weapons and logistic support.

Our own American campaigns in Africa and France in World War II showed our professional recognition of these principles also. However, history is replete with examples of military operations limited at the crucial moment or resulting in defeat when combat units too rapidly outstrip their logistical support. Two well-

known examples occurred in World War II. The British in North Africa at one time were in hot pursuit of Rommel with every hope of clinching a quick victory west of Cairo, when suddenly they found they had outstripped their gasoline, and motor maintenance support. The crucial moment passed—Rommel escaped. Again, we remember when Patton with his Third Army felt that he could pursue the German forces on his front beyond the Rhine and crush or demoralize them, only to find that he had outstripped his logistical support and that further advance was not practicable. These and other lessons should be borne in mind by combat commanders to insure that flexibility and mobility of fire power can be supported by mobile logistical support also sufficiently flexible to insure the movement and maintenance of fire power of the combat units through to the final blow of victory. This requires meticulous logistical planning and the most painstaking supervision of operation. The commander must provide alternate plans to insure flexibility and must have reserves of mobile logistical support capable of sudden and direct movement to the critical areas at the critical time. If he fails to do this, he may find his logistical support dissipated or tied up in unprofitable ways at the very time he needs it to take advantage of the moment of opportunity for victory. No commander would knowingly outstrip his logistical support.

Frontages in war have been gradually extended in the

past, and future wars may find units fighting on widely separated frontages with large gaps or military vacuums in between. Particularly could this happen on the larger continents. On the ground, armor and other vehicles have given the commander a means of increasing both his tactical and strategical mobility; thus, flanks can be turned, troops more quickly concentrated, fire power shifted, at a pace unrealized a number of years ago.

Motorized transports, both track and wheeled, have contributed to the ability of the supply echelons to keep up with and adequately support this increased ground mobility. But there is a definite technique in allocating and handling these resources, which must be mastered by command and staff.

A recent addition to the field of transport—the airplane—has increased, and in the future, will continue to add to the mobility of troops and supplies. The speed and range of the modern airplane must be fully exploited in order to gain maximum results. This must be done in both the transportation of combat elements and the aerial supply and resupply of combat troops. Air transport has progressed to a point where it is now feasible to consider the transportation of most major items of equipment with which combat troops are equipped. This simply means that airborne and air-transported divisions will be able to engage in combat of a sustained nature, being resupplied with all classes of items by air drop or air landings.

The combination of air-transported troops, airborne and air-landed and air-supplied, with highly mobile ground troops advancing to a juncture on the ground, will give commanders in future conflict a most effective combination to outmaneuver future enemies and will enable the seizure of critical objectives deep behind the enemy strong points, making in many instances the holding of his present position inadvisable.

Neither phase of this combination can be neglected. Continuous research to increase the number, size and quantities of items which can be air-dropped and air-transported must continue. Hand in hand with this development and research must go studies to increase the mobility of troops advancing on the ground.

Effectively employed, this increased mobility will enable the most advantageous use of available troops and fire power. However, to most adequately employ this mobility, means must be developed simultaneously to add to the mobility of the supporting troops.

The increased mobility now available in the Field Army is primarily provided by machines. Steps have been taken and other improvements are being developed to enable the logistical support to maintain the pace set by the combat troops. However, all this increased mobility will be of little avail unless a great percentage of the machines and fighting vehicles are serviceable and available at the time and place needed. Increased efficiency and attention to maintenance must be attained. Basically, since our mobility is primarily gained from vehicles of all types, it can be said that it begins with the driver and crew and continues through the chain of command. Not only has maintenance become a vital factor in strategic and tactical mobility, but the cost of mobility in dollars has reached such staggering heights that maintenance has become a heavy factor in our national economy.

Properly employed, properly maintained, our mobility

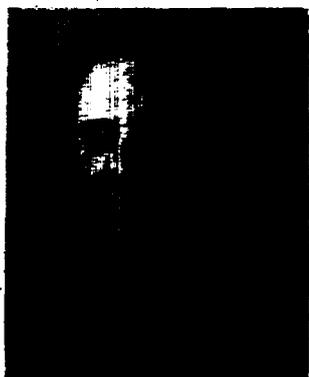
will enable commanders to more efficiently employ the team of combined arms, gaining far more decisive results with less men and equipment, and ultimately saving for our country countless lives, huge quantities of equipment, and large amounts of our national fortune.

LT. GEN. LEROY LUTES.

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The writer of the following was graduated from the United States Military Academy and commissioned in Infantry in 1912. He served in troop, staff and school assignments both in and out of the country between the wars. Shortly after Pearl Harbor he arrived in Australia to join the Southwest Pacific Area Headquarters and serve throughout the entire period of World War II with the Army Forces Pacific, successively as Assistant Chief of Staff, G-4 and Assistant Chief of Staff, G-3. In 1946 he became Director of Intelligence on the War Department General Staff. He now commands the Fifth Army with headquarters at Chicago, Illinois.

Mobility is a principle of war which is peculiarly applicable to American arms. Most of our campaigns have been won by emphasizing mobility, not only in the sense of using mobile troops, but relative to the mental attitude



Lt. Gen. Chamberlin

with which our great commanders have approached the planning and execution of operations. We need go back no further than the Inchon landing of last year to remind ourselves that mobility, coupled with considered audacity, pays big dividends.

Our need for conducting warfare with boldness and speed is probably greater today than ever before. We face but one probable opponent, and he is known for the employment of great concentrations of fire power. With numerical odds against us, it is obvious that victory can come only by consistently outmaneuvering a slower foe.

But if, as seems likely, hostilities are as widespread as they were in World War II, we must be prepared to apply the principle in many theaters and under widely divergent circumstances. Unfortunately, there is a tendency for veterans of one theater to apply to all theaters the tactics learned through their own experience. A leader accustomed to the deployment of masses of tanks in the ETO or in desert warfare may have to accommodate himself to the limitations of the jungle. Conversely, the Korea veteran, forced to operate with but few tanks, must remember (against the day when production lines reach full swing) the sound principle that maximum success for the tank lies in mass employment.

From the Field Army standpoint, it should be realized that the Pacific campaign offered as good, and perhaps a better, portrayal of mobility than, for example, the spec-

tacular thrusts of Patton's armor-tipped Third Army. The fact that troops were largely seaborne to the critical point only highlights the principle that really mobile warfare is made up of basically the same ingredients, regardless of the method of transport, land, sea or air.

The leader who strives for speed of operations should consider the common ingredients and apply them regardless of the conditions of terrain and climate. After all, in the essence, mobility does not necessarily mean speed but means merely outdoing the pace of the enemy. Almost any analysis of what promotes mobility will include the following:

Boldness of concept and of execution. These factors are always present in a successful mobile operation. There is a definite requirement for taking the calculated risk; inherent also is a flexible plan which permits the inevitable adjustments when things do not go exactly as visualized.

Personal mobility of command and staff is a prerequisite if speed is to be achieved without disorganization. Once the planning phase of an operation is resolved, it is essential that the commander visit key points and key units in order to influence developments according to first-hand observations. Where communications permit, staff personnel should likewise be abroad while tied to the command headquarters by radio.

Flexibility and Common Sense together make up a third requirement. Although applicable to all human activity, flexibility and common sense apply especially to mobile operations. A flexible plan, already mentioned, is not enough. Those charged with its execution must be able to adjust themselves philosophically to frequent and even drastic shifts in tactics without giving way to excitement, worry or frustration. Moreover, changes will occur with a frequency varying directly with the mobility of the enemy. Common sense is needed not only to appreciate such conditions, but to insure that plans and operations are kept simple, following as closely as possible to established SOP's. A Field Army drill is not as fantastic an idea as it might appear at first glance.

Effective communications are a fourth essential for the achievement of mobility. In the Civil War, General Nathan Forrest employed a group of staff "gallopers" who rode swiftly over the countryside to keep him informed of every change in the situation and to establish his reputation as a great leader. The modern radio network has outmoded the galloper. Its importance assumes significance when it is considered that the great current tactical exponents of mobility (the armored division, the airborne division, and the amphibious task force) possess powerful vehicular or ship-mounted radios which permit a degree of control which was impossible in the past. New equipment will provide infantry with the same means for blitz operations. And even more important to Field Army operations are the special nets which tie in commanders and staff observers—nets which achieve control even where the chain of command fails.

Teamwork is as fundamental to Field Army operations as it is to a rifle squad. It is achieved only when the command and staff personnel throughout the various echelons have learned to work with one another and to capitalize on good communications. Probably no greater obstacles to mobility exist than lack of confidence in one echelon for another, friction between commanders, or the presence

of staff personnel who fail to realize that their primary task is to facilitate smooth relations between their commander and his subordinate leaders.

LT. GEN. STEPHEN J. CHAMBERLIN.

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The writer of the following, a 1915 graduate of the United States Military Academy, was commissioned in Field Artillery. He served on the Punitive Expedition in Mexico and with the First Division in France in World War I. Between the wars he held troop, staff and school assignments, and in 1940 commanded the 1st Cavalry Division Artillery. He activated the 11th Airborne Division in 1943 and planned and conducted the first air lift by planes and gliders of an entire division. In World War II he commanded the 11th Airborne in its operations against the Japanese forces in the Philippines. He now commands the Sixth Army with headquarters at San Francisco, California.

Mobility has always been a principal ingredient of victory; lack of mobility a major contributing factor to defeat. Napoleon's many victories in Europe may be attributed largely to the ability of his forces to move rapidly and decisively. His inability to move resulted in his tragic defeat before Moscow. Jackson's Valley Campaigns are studied as masterpieces in mobility. The essence of Patton's and Patch's victories in Western Europe was mobility.



Lt. Gen. Swing

Some have observed that General Eisenhower held out substantially no reserve in Western Europe during World War II. His reserve proved to be the mobility of his forces—armored, airborne, and infantry. Thus, the ratio of reserves to troops committed is a function of mobility. The wider the front, the more important the mobility factor becomes in determining the percentage of forces that can be committed to the battle and the percentage which must be held or reconstituted as reserves.

The adaptation of scientific and mechanical advances to provide greater mobility has been and will continue to be one of the major problems of military men. The degree to which these products of industry can be utilized effectively to increase the mobility of the fighting man will often be determined by the climate, the terrain, and the nature of the enemy in the area in which the Army must operate.

Napoleon lost his mobility in Russia because of the climate, the terrain and the nature of his enemy. Modern armies may also lose their mobility for similar reasons. Although an outstanding role was played by the airplane, the vehicle and the ship during World War II, the tactical mobility of forces in the Pacific campaigns, in Asia, and in certain parts of Europe and Africa was largely

dependent upon the man on foot. Throughout the Korean Campaign the climate, the terrain, and the nature of the enemy have shifted major advantages in tactical mobility to the foot soldier. Some of the modern weapons of war, highly successful in other theaters, become more liabilities than assets under conditions found in Korea. Others, such as the helicopter, have proven to be highly adaptable. A knowledge of such conditions, imagination, judgment, and determination can and must continue to overcome such obstacles.

The invention and use in war of gunpowder, machine weapons, and the airplane greatly influence the application of the principles of war. The pendulum has swung and will continue to swing as weapons and equipment employed influence the mobility of forces and the formations used. The ability to achieve surprise, concentration of mass, or dispersion for security has been dictated by the weapons used and the mobility of the forces involved. Similarly, the tactical employment of atomic weapons will require adjustment in the application of principles. The contradictory requirements of dispersion for security versus concentration for effective application of mass increase the importance of mobility as we enter another phase of weapon evolution. The development of solutions to meet these contradictory requirements will involve extensive tests and careful establishment and evaluation of facts. Only by the establishment, evaluation, and interpretation of such facts, as they apply to the practical military field, and by the indoctrination of field commanders and troops, can we effectively employ atomic weapons tactically or minimize the effects of those which may be used against us.

Those of us responsible for the execution of our national policy in the military field must constantly demand facts—facts about our enemies and potential enemies—facts about the areas of the world in which we may have to fight—and facts about the weapons that we will use or that may be used against us in order that we can continue to develop sound tactical doctrine.

In our evaluations and development of tactical doctrine, which ultimately determine the military characteristics of our weapons and equipment, we must always carefully assess the impact of such doctrine on the mobility of our Field Armies in the areas in which they must fight. We must defeat many with few by developing the capacity to operate on wide fronts with comparatively few forces of high mobility. We must overcome the contradictory requirements for dispersion and rapid, effective concentration of mass which are dictated by atomic weapons. Above all, we must avoid gullibility for gadgets and maintain a balance between mass and mobility.

LT. GEN. JOSEPH M. SWING.

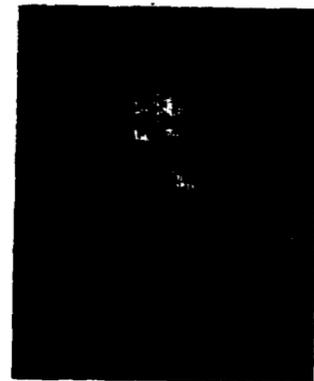
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The writer of the following was commissioned in Infantry in the Regular Army in 1916. In World War I he commanded a machine-gun company and battalion in France. Between the wars he served in troop, staff and school assignments until 1942, when he assumed command of the 9th Infantry Division, leading it overseas and through the World War II campaigns in North Africa.

ca, Sicily and Normandy. In 1944 he moved to command of XII Corps, a part of General Patton's Third Army. In 1948 he became Commandant of the Command and General Staff College. He now commands the Seventh Army, a U. S. Field Army in Europe with headquarters in Germany.

It may seem far-fetched to consider a huge thing like a Field Army as having much connection with mobility, but it really has a surprising degree of maneuverability. Mobility, along with fire power, is the great factor upon which the U. S. Army relies to offset inferiority in numbers. It has been traditional for us, and the prospects are that we will continue, to have a deficiency in military manpower; so, the Army has been forced to develop mobility to the utmost. Not only that, mobility is an inherent American characteristic—the vitality and expansion of our great country and the development of far-flung interests quite naturally have been expressed in the rapid movement of people, ideas, and things. Mobility suits the American temperament and gives vent to our vigor.

Our Colonial fighters had to move fast if they were to survive, and even more so to advance toward their bright New World. Nothing could have been more natural than the rapidity and flexibility that characterized the movements of the Continental



Lt. Gen. Eddy

Army in the Revolution, the Civil War's Confederate and Federal forces, the American Expeditionary Force under Pershing, the American Armies of World War II, and lately, the Eighth Army in Korea. Mobility is a hallmark we try to stamp on every American weapon and on every General and every Private alike. When George Washington hit the British from behind, when Stonewall Jackson romped all over Shenandoah Valley, when Pershing broke the Western Front stalemate in 1918, when MacArthur ran circles around the Japanese, when Eisenhower moved a mammoth army across the Channel and Patton raced across France on a dubious supply of gasoline—they were simply Americans doing what comes naturally.

Within a Field Army today, mobility is typified principally by motor transport. Air transport—be it airplane, glider, helicopter, or parachute—is of the greatest interest to a Field Army, limited as airborne means now may be. And at such time as suitable and sufficient aircraft are available they will be put to far greater use by the U. S. Army in planning and conducting field operations. Meanwhile—and for a long time to come—the motor vehicle is the most potent man-made contribution to a Field Army's mobility.

We are all familiar with the use of motor transportation to maneuver fire power, to shift troops rapidly, to bring troops fresh onto the battlefield, to more effectively per-

form reconnaissance and security missions and to gain surprise. Conversely, motor-mobility enables a commander to shift his forces rapidly when he is surprised by the enemy. A classic example, of course, is the Third Army's movement to the north during the Battle of the Bulge. Mobility of troops must not overshadow the rapid movement of supplies. When the Allied Armies in Europe plunged ahead of their logistical support in the fall of 1944, the offensive ground to a halt.

Any good commander sees in mobility a means of conserving manpower. American superiority in motor transportation constitutes an economy in manpower not only by making divisions and smaller forces maneuverable on the battlefield and saving manpower in reconnaissance and security missions, but also enables large forces to be shifted rapidly from one part of the front to another.

An infantry division with its own motors reinforced by a transportation truck battalion can rapidly follow and support an armored thrust. Or it can move hundreds of miles in a very few days. Even with organic transportation alone, an infantry division can move its combat elements quickly by motor thus gaining valuable time and energy.

As for armor, an armored division is machine-age mobility personified. Except for the armored infantry this division is simply mounted fire power. Little more need be said here except that the endless conflict between mobility and weight (armor protection) in an armored vehicle will probably continue to favor speed (mobility) over thicker armor and slowness.

Infantry and armored divisions are ordinarily the main fighting forces of a Field Army, and the nondivisional artillery and engineers are as mobile if not more so than their divisional counterparts. Of course, the supply and service units that support the Army are made very mobile, by motor and rail means. While not part of the usual Field Army, the airborne division or RCT is interesting in that, while it is highly mobile until it hits the ground, airborne forces have few motor vehicles and must be reinforced before they are really mobile on the ground. (They get their real mobility from plenty of guts and training to use their feet.)

Mobility of the Field Army comes not only from the mobility within the divisions themselves (what we might term tactical mobility), but also through nondivisional transportation truck battalions. The manpower in the transportation truck battalion of six companies is less than that of an infantry battalion. Yet these truck battalions, normally engaged in logistical missions, give the commander tremendous mobility reserve when it is necessary for him to shift his divisions rapidly in a one-shot haul. These battalions must always be ready to execute a rapid movement of troops in accordance with a pre-planned campaign or to move troops rapidly for a counterattack in case of an enemy breakthrough.

Motor transportation enables an Army commander to employ fully many of his divisions rapidly. By means of the motor transportation available in a Field Army, a numerically weaker force gains what amounts to more strength.

In Europe the Seventh Army does not have a great many divisions. But by increasing a division's mobility with a transportation truck battalion each division could have a remarkably greater battle worth than a less mobile

division. In the defense of Western Europe certainly, and in most other areas of concern to the free world, inferiority in strength can best be offset by greater fire power. And this is achieved by mobility wielded with a will to win. On the continent of Europe, motor rail, and air transport will figure large in the mobility of field armies.

Spread over a piece of Germany some 200 by 300 miles, the Seventh Army obviously must be mobile to an exceptional extent if we are to be ready for trouble on short notice. And we aim to excel in the technique of rapid motor movement just as earnestly as we seek perfection with our weapons. But a caution should be offered lest the U. S. Army neglect the basic mobility of the combat soldier—his legs and feet, guided by his fighting spirit. All mechanized armies are tempted to be road-bound, or, worse yet, seat-bound. The Eighth Army reported this sort of difficulty early in the Korean war, and when it was corrected, fighting efficiency rose noticeably.

Nothing could be more dangerous than for the American Army to exchange dependence on its feet for an engine. Much has been said on the subject, but now more than ever we must resist the easy course of doing everything sitting down! This thought may sound more philosophical than the practical view to be expected from the commander of an active Field Army, but I am certain it hits the heart of the matter.

The free world will survive only if it is defended by soldiers whose minds are able to direct their feet to move toward and kill the enemy. Defensive warfare, as much as any other kind, succeeds only when soldiers will ma-

neuver themselves as well as things. The small unit and individual actions that seek and close with the enemy, that make him pay blood for the ground he takes, that find men holding against incredible odds and see them fight on when by-passed and surrounded—these are the true examples of mobility. The real mobility of an Army is in its spirit to move against the objective because it has to be done. Americans have this spirit instinctively and they dare not let it fade.

As an Army Commander, I count heavily upon the splendid machines of mobility that our Nation's science and industry and taxpayers have provided. And surely all the instruments I or any other American officer is given will be used completely. But in my Army, the real fighting power will lie in the stout hearts and mobile minds of American soldiers who will not shrink from the tests of ground fighting when, as will happen, a tank burns, a truck miscarries, or the time arrives that only a man on his feet can do the job. Men so imbued will get the most mobility out of whatever machines they are given, and no urging to be mobile is necessary for such men. But men whose minds are not of the right turn will not be mobile even if you put jet engines on their feet!

We can get tremendous military advantage from the mechanical wonders of our time; indeed, we can exploit every principle of war with these manufactured weapons. Still, the strength of an Army remains in the tenacity of its purpose, the mobility of its spirit, and the endurance of its feet.

LT. GEN. MANTON S. EDDY.

FROM THE THIRD QUARTERLY REPORT OF THE DIRECTOR OF DEFENSE MOBILIZATION

An estimated \$45 billion has been obligated for military procurement and construction since Korea. In addition, \$7 billion was obligated but unspent at the time of Korea. Appropriations requested for this year would bring the total available for procurement and construction to nearly \$100 billion. These figures include the program of military aid to foreign countries.

Deliveries against this total now have reached an estimated \$14 billion.

Now that contracts have been let on a large proportion of the total program, the schedules that were established for planning purposes are being converted into definite production schedules. This involves a detailed job of allocating production resources in short supply to the most urgent programs and the realistic scheduling of the remainder. During the past quarter, the Armed Services have made considerable progress in this essential step in the production process.

As compared with the original planning schedules, deliveries of some items are ahead of schedule and others behind. On the whole, some "slippage" was expected and has occurred.

What is even more important—particularly on items with a long lead time between placing orders and getting delivery—is our progress in making ready for the quantity production scheduled for 1952 and 1953.

In the process of making ready, contractors on some items have encountered difficulties that have slowed their progress, and their scheduled dates for coming into production have been set back. Whether these setbacks have been greater or less than what might be "normal" for a buildup on the present scale, no one can know.

Progress toward quantity production cannot be measured in any single percentage figure. But this much we can be sure of: Our progress in getting ready for quantity production can never be fast enough. Our Nation is in danger. Until we are fully ready to produce the weapons we would have to use if an enemy attacked, we must strive constantly to move toward preparedness at a faster rate.

Once we have made ready for quantity production—with our plants equipped and the production organizations in being—new factors enter into the decision as to how fast we actually proceed in the production of a given item.

A basic consideration, always present, is the extent to which quantity production should be held back in order that new and superior models may be substituted for those now in production or about to be produced. Scientists and engineers are at work constantly on weapons more effective than those currently accepted as standard models. To the extent that "freezing" of designs is delayed, we still get fewer weapons immediately but better weapons later. Weighing the advantages of faster production against the advantages of waiting for new models will be a major continuing concern of the Armed Services during the period immediately ahead.

The tank-automotive program—amounting to about one-sixth of total military procurement—will increase sevenfold in deliveries in the next year. One-third of the combat vehicles, tooling-up is complete and volume production, now begun, will reach a peak in the middle of 1952. On the other two-thirds, development is complete and volume production will begin in 1952.

Amphibious Tank Experiment

This account of hurry-up, German experiments to develop a tank for use in an assault landing on the shores of England was given me by an ex-Oberleutnant of the Panzer Corps who, because of his previous proximity to Soviet occupation forces, shall be nameless. I have no authentication for the experiments other than his word, but I believe his account to be accurate and factual.—MAJOR CHARLES R. CAWTHORN.

Shortly after the blitzkrieg in France in 1940, my panzer division was ordered back to its home station at Vienna, Austria, where we enjoyed the welcome that winning soldiers always receive. The spirit of the Wehrmacht was high and nowhere was it higher than in the Panzer Corps.

This holiday was not destined to last long. In a few days, the division was ordered to assemble one platoon from each company of its two tank regiments for a highly secret mission. My platoon of the 3rd Company, 2nd Regiment was one chosen. We were mustered in an empty Kaserne, where the division commander told us that we were to embark on a dangerous assignment that would make us the envy of the entire Army.

We had not yet become cynical of this type send-off, and so departed with enthusiasm, under orders for a training area near Lübeck, Germany.

We found the training area deserted except for a detachment guarding a warehouse, in which, we were informed, was an experimental amphibious tank. More were on the way. Instantly we knew that they were tanks designed for the assault against England and we were ambitious to start work with them. This ambition changed to anxiety when we discovered that the tank was not designed to float, but was to travel under water on the floor of the sea, after first being carried by ship to within striking distance of shore. Underwater travel was made possible by sealing the hull and turret openings with a rubber compound. Air for the motor and crew was pumped by the tank engine through a long flexible tube extending from the turret and floated above the water by a buoy. The buoy also supported an antenna connected with the tank's radio. A small explosive charge that could be detonated from inside the tank was designed to blow the seal from the gun muzzle and make it ready for use.

The joint between the turret and hull was closed by a small rubber tube that could be inflated and deflated from inside the tank. The exhaust pipe was fitted with one-way valves to keep the water from entering. Navigation was by gyro compass mounted beside the driver.

We quickly found that the greatest danger lay not in flooding of the tank, but from the carbon monoxide gas from engine leaks. To combat this, we were supplied with a mask containing a special

filter and also a device to measure the carbon monoxide content of the air.

For escape from a stalled tank all crew members were equipped with the type of mask used by submariners for abandoning ship under water. Before taking the tanks in water more than 5 meters deep, all crews had to undergo training in escape technique at the submarine school in nearby Neustadt.

Following this training we began to operate the tanks in 15 meters of water, keeping contact with a control radio on shore. In spite of the safety measures, tanks and crews were lost at an alarming rate. By the time the stalled tank could be lifted from the water by a stand-by salvage ship, the crew had either died from carbon monoxide poisoning, or else were in such shape as to require long months of hospitalization.

My own horrible experience of being trapped in a tank under water came after some days of training. On this occasion our tank had been under water for about 15 minutes when the motor stopped. We could not start it again because of the pressure of water against the exhaust valves. In answer to an SOS to the shore radio, we were told that the rescue ship with a crane and drivers to lift the tank was on the way. In the meantime, as the air pump had stopped with the motor, we knew that we had at most 20 minutes inside the tank before all the emergency oxygen was exhausted. The best time that had been made to date by the ship and crane in lifting tanks was over an hour.

The mathematics of this indicated that we should abandon tank at once and this we proceeded to do.

The following few moments were the worst I experienced in the war, including being in a burning tank and being caught in a Russian artillery barrage. The water rose slowly over the escape hatch, which one, two and then three members of the crew were unable to force open against the outside pressure.

Finally, all five of us braced our feet against the hatch, and with the strength of desperation slowly forced it open. We shot like corks to the surface.

It was with heartfelt thanks that we learned shortly afterwards that active plans for the cross channel invasion had been shelved.

As short-lived as they were, the experiments cost the lives of some 50 crew members and put many more in the hospital. At times the tanks worked very well under lake conditions. How they would have done in a rough ocean and in actual assault, I do not know, but am of the opinion that a big percentage would never have gotten ashore.

To my knowledge this type of tank was used only once in combat. That was on the invasion of Russia when they were used in crossing the Bug River. However, the Bug was only about 3 meters deep and they performed very well.

A NEW SECRETARY OF DEFENSE



With the recent retirement of General George C. Marshall, the Hon. Robert A. Lovett was named to become the third Secretary of Defense, moving up from the Deputy's post.

Robert A. Lovett, the new Secretary of Defense, entered Government service in December, 1940, when he was appointed special assistant to the Secretary of War. In April 1941, he was named Assistant Secretary of War for Air, in which capacity he served until the end of World War II. He was Undersecretary of State under the Honorable George C. Marshall, recently appointed Secretary of Defense, from July, 1947 to January, 1949, after which he returned to the N.Y. investment banking firm of Brown Brothers Harriman and Co., of which he had been a partner for several years.

Mr. Lovett was born in Huntsville, Texas, on September 14, 1895, the son of Judge and Mrs. Robert Scott Lovett. He was educated at Yale University (BA, class of 1918), took postgraduate courses at Harvard Law School (1919-1920), and Harvard Graduate School of Business Administration (1920-21).

In 1916, he joined the Aerial Coast Patrol Unit No. 1, organized by F. Trabee Davison (the first Assistant Secretary of War for Air) as a naval reserve group, and learned to fly at Port Washington, L. I. This unit was absorbed by the Navy at the outbreak of World War I.

As a naval ensign pilot Mr. Lovett went to France in August 1917. There he won his French wings flying land planes, at Tours, in the autumn of 1917. Thereafter he established a U.S. Naval Air Service Transition Flying School in the fall of 1917.

From November, 1917, to January 1918 he was assigned to the Royal Navy Aid Service at Felixstowe, England, and piloted flying boats on the North Sea submarine patrol and convoy patrol.

He then served with the R.N.A.S., flying night bombers in France against the German submarine bases of Bruges, Zeebrugge and Ostend and marshalling yards and shops in occupied Belgium and France. He became a strong advocate of bombing and on the basis of reports prepared at that time the Navy Department formed the Northern

Bombing Group and Mr. Lovett commanded U.S. Naval Air Squadron No. 1. It was based at St. Inglevert and was equipped with night bombers. During this period he received the Navy Cross and was promoted to Lieutenant Commander. He returned from France in January 1919.

In 1921 he began a business career as a clerk in the National Bank of Commerce and eventually became a partner of Brown Brothers Harriman and Company.

Mr. Lovett's personal interest in aviation continued throughout his business career. He was one of the group of aviation enthusiasts who financed an experimental plane in hopes of winning back the Schneider Cup. On annual trips abroad he carefully studied and kept abreast of developments in European commercial and military aviation.

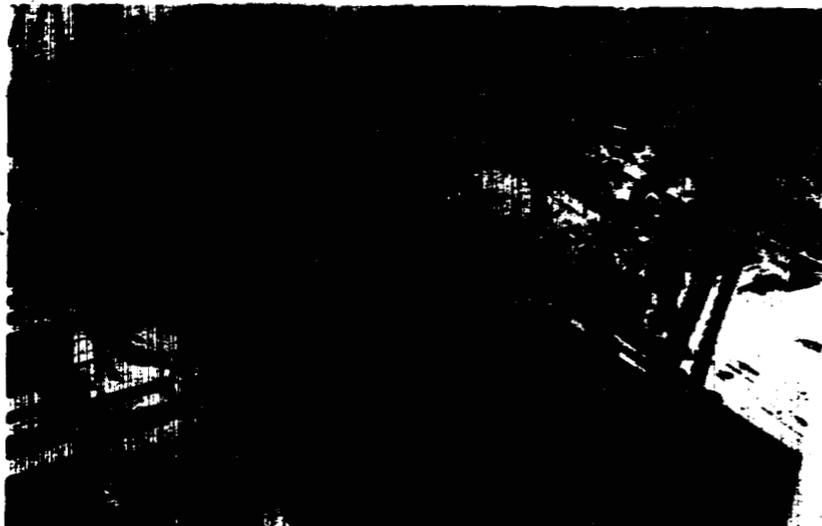
In 1940 Mr. Lovett resigned all his business connections and obtained leave of absence from his philanthropic and education interests, and accepted on December 19, an appointment as Special Assistant to the Secretary of War.

In this position, and following his appointment on April 19, 1941 as Assistant Secretary of War for Air, he continued his advocacy of striking power in the air and prevailed upon aircraft manufacturers to pool their plants and experience in the production of long-range bombers. In May and June, 1943, Mr. Lovett inspected air operations in United Kingdom and North Africa.

In December, 1945, Mr. Lovett resigned as Assistant Secretary of War for Air and again became a partner of Brown Brothers Harriman and Company.

He was awarded an honorary Master of Arts degree by Yale University in 1942.

On September 28, 1950, Mr. Lovett was again called to government service. He was appointed Deputy Secretary of Defense by President Truman, and was unanimously confirmed by the Senate on November 29, 1950, under a suspension of the rules to permit immediate action.



A tank, part of Turkish-Greek military aid, is swung aboard a transport at N.Y.



Turkish NCOs study armored warfare under Turkish instructor and U.S. adviser.



Turkish armor strength is paraded for the citizens in the capital city, Ankara.



U. S. Army and Turkish Photos

TURKEY BUILDS AN ARMOR BACKBONE

A major subject in Atlantic Pact discussions has been the consideration of the status of Turkey and Greece in the Western defense picture. At the recent North Atlantic Council meeting in Ottawa the 12 member nations agreed that these two countries should be brought into the Atlantic Treaty.

Turkey is a strong point in a critical area. She is a connecting link between Europe and the Middle East. She borders the Mediterranean Sea, and lies astride the Dardanelles, connecting the Mediterranean with the Black Sea. She has a common boundary with Russia, and with its satellite, Bulgaria. Further than that, she has a sizable army of well-trained fighting men whose abilities have been sampled by Reds on the Eastern battlefield in recent months.

As part of the implementation of Truman Doctrine, a United States Military Aid Mission has been assisting Turkey with modernization of her forces. The story in respect to armor is told in the pictures on these pages.



A Turkish tank crew with their American M-24, furnished through Aid Mission.



At Turkish Armored School in Ankara a class studies tank engine maintenance.



Turkish tank crews fire tank guns on the range at the Turkish Armored School.

A MESSAGE FROM THE COMMANDING GENERAL OF THE ARMORED CENTER



Major General I. D. White entered the Army as a Second Lieutenant of Cavalry on 5 January 1923 after graduating as an honor student from Norwich University.

He is a graduate of The Cavalry School and the Command and General Staff College. He has served as an instructor at The Cavalry School.

In 1940 General White joined the 2d Armored Division as a major, organizing and commanding the 2d Reconnaissance Battalion. During the course of the war General White held every rank from major to major general while with the division. The division participated in eight major campaigns, including two amphibious assault landings, during which General White successively commanded a battalion, a regiment, a combat command, and finally the division.

After the war General White returned to become Commandant of The Cavalry School, later redesignated the Ground General School.

He returned to Germany in 1948 to assume command of the U. S. Constabulary. On 24 November 1950, he was named Deputy Commanding General of the newly activated United States Seventh Army in Europe. On 7 March 1951 he returned to the United States to be Chief of Staff of First Army, Governor's Island, New York.

He was appointed Commanding General of the Armored Center on 25 July 1951.

It is a great pleasure for me to return to the Home of Armor to be Commanding General of The Armored Center. As one who has been associated with Armor since its beginning in the Army it is a distinctive privilege to be in a position which enables me to supervise the standards and functioning of The Armored School and to ensure that our graduates are properly qualified to assume their roles in meeting the ever-increasing demands for trained armor specialists.

During and subsequent to World War II, Armor has grown in size, employment, and complexity. Examples of the varied methods of employment of armor are myriad and well known and I shall not dwell upon them here. The Armored School will, however, continue to be the leader in the never-ending study of the many applications of Armor to the doctrines of warfare. Changes are constantly being made in equipment, logistics, and tactics for the more successful employment of our arm. The Armored School has always been in the forefront in the determination and application of these changes and will carry on in that role.

The standards of the School have, since its founding, been high; the caliber of instruction has been excellent. I do not intend that there shall be any change in this policy but shall insist that our efforts remain at the same admirable level.

One frequently hears that the School teaches only theory which does not coincide with the experience of all officers. Actually, the School teaches a compilation of the experiences of many officers. By using what is learned at the School in conjunction with what he has learned from experience, an officer will be equipped to meet any ordinary situation and

the majority of the extraordinary ones. We will present—as we always have done—instruction on new techniques, equipment, and organization. However, we will not stray from current organization and operation so far that what the School teaches can have no practical application.

I do not contemplate that our training shall imbue personnel with the idea that Armor, or any other branch, is élite. We must all remember that we are part of a team, the success of which is dependent on the successful manipulation of all its parts. We shall include in all our training the idea of teamwork to the end that no

battle shall ever be lost because Armor failed the other members of the team.

The interest of The Armored School does not lie entirely in training of Armor personnel. We are also interested in the forging of raw material into Armor officers and soldiers. To accomplish this, we have established the Officer Candidate Department and intensified the work of the 3d Armored Division. The Officer Candidate Department will not cover entirely classroom work, but will also include much physical training and field exercises, in addition to that instruction in the personal moral code needed to start these young officers

solidly on their careers.

My experience with armored units in the field has convinced me that we must inculcate into the curriculum of the School and the training of our troops the latest ideas, thoughts, and desires of those who use our equipment in training and in battle. I intend to incorporate realism into our training. Troops fight in the field: they should gain experience in the field in training. I envisage many of the present classroom units moved into the field in the near future. The experience gained in the field will benefit all students upon return to their units.



General White, accompanied by General A. E. Walk, of the 3d Armored Division, and the company commander, inspects an honor guard composed of members of the 30th Tank Battalion.

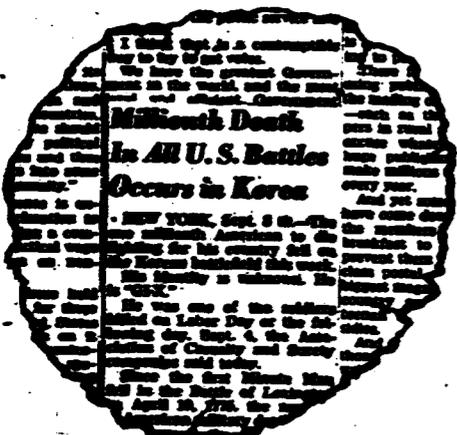


Our experiences with hordes of enemy would make a report of three divisions acceptable with calm. But—when the report mentions three *armored* divisions it's something else again. This armor is reported massed in the Western front area in Korea, two divisions in the hills behind the Communist lines, the third farther north. An older NK armored division has been listed here also.

When you relate this to suspended truce talks, increased invective, continuing build-up of troops, one thousand planes, increased air activity, and Caucasian troops—these are the ingredients of trouble.

Introduction by the enemy of air and armor, and a proportion of these in the hands of Caucasian troops, would inject

into the battle elements of balance for consideration by those who have forgotten the perspective of war fought against an opponent employing balanced forces of ample size, with first class troops, and over average terrain. It would remind airmen that operations based upon complete air superiority make the record of vehicles knocked out and troops killed look fine. It would remind infantrymen that they will often go up against as well as fight with tanks. It would remind tankers and others that the armored division and the medium tank are the primary tools of mobility. It would remind all that first class equipment and first class troops are not the monopoly of any nation.



America's millionth war death has just been recorded in Korea. "GI-X," the one millionth soldier to die in all wars in the more than 176 years of this nation's history, was killed on a Korean battlefield in September. The estimate was made by the Association of Casualty and Surety Companies, which has conducted a comparative study of war and traffic casualties in connection with the forthcoming millionth automobile death in the nation's history.

The war dead date back to the time when the first Minute Man fell in the Battle of Lexington on April 19, 1775. The millionth military death is estimated to have occurred on Labor Day, 1951. As the first traffic death dates only to the turn of the century, the edge goes

to that field. However, both milestones are unpleasant to consider. Despite the efforts of the National Safety Council and other agencies, automobile accidents go on. Despite the efforts of the United Nations—a sort of international safety council—and other agencies, war goes on.

There isn't too much difference between the two problems. Most highway deaths are caused by a minority of maniacal lawbreakers totally unfit to wield the power inherent in an automobile. Most military deaths are caused by a minority of maniacal lawbreakers totally unfit to wield the power inherent in government.



The situation with respect to atomic weapons is becoming more pointed every day. Insistent reports of tactical atomic weapons indicate that they are at hand. The recent official announcement that service units were being assigned for forthcoming Nevada tests puts plans well along for the possible use of atomic weapons against front-line troops.

War has become the great specter over the modern world. Defense has become a primary consideration of nations. Military service has become a principal occupation. Budgets and taxes are weighted with defense requirements.

Senator Brien McMahon, who heads the Joint Congressional Committee on Atomic Energy, recently presented a

program on the Senate floor for concentration upon atomic weapons, with the view of an atomic army requiring smaller, more specialized units, and ultimately costing less while doing more than the staggering burden and conventional methods of today. The problem of national security within economic capacity is our big headache. It cuts across every part of our national and individual lives. Our solutions will bring tremendous change in weapons, tactics and organization. The effects upon warfare will be far-reaching. The projection of mobility will be interesting. One of war's main ingredients is already developed—common to the battlefields of the past, and likely to be in the mixtures of the future. That is the ground soldier.



September 13, 1951, was the 100th anniversary of the birth of Walter Reed, the conqueror of yellow fever. Born near Richmond and educated at the University of Virginia, Reed graduated in 1869 with a degree in medicine and went on to New York's Bellevue Medical College as a medical student, serving his internship at Brooklyn's Kings County Hospital. Several years later he gave up his idea of a private practice and applied for and received a commission in the Army Medical Corps.

At about the time when Custer was being wiped out farther to the north, Reed was reporting in at his new station, a little frontier post in Arizona territory.

Reed's long desire to do medical research came with assignment to a post in

Baltimore in 1889, and permission to work at Johns Hopkins Hospital. But it was in 1900 that his big opportunity came when he was authorized to form a board to study diseases buffeting U.S. occupation troops on the island of Cuba. It was there that he carried out the experiments that pinned down the cause of the dreaded yellow fever. Reed and his work are examples of our outstanding medical corps, which has contributed so much to military medicine and to the entire medical field—contributions evident through the entire chain from aid man on up. The combat arms in particular know what lies in back of the decreasing loss among battlefield wounded, and the high health rate throughout the service.

ARMOR IN THE HILLS

by FIRST LIEUTENANT ROBERT L. BURNS

IT'S amazing what tanks and tank crews can do when the circumstances are demanding. Take A Company of the 70th Tank Battalion, for example, attached as support for a regiment.

It was the dry season in June. The situation was somewhat static. The enemy had been active with antitank measures in the sector. The only road was heavily mined. Antitank ditches ran about ten to the mile. The rice paddies flanking the road were effective means against by-passing the

successive obstacles. A tank dozer attempting to fill in one of the traps was destroyed by stacked mines. Clearance of the road mines was an under-fire job for the engineers, with the enemy constantly harassing with small arms and mortars. Cleared areas could be mined again during the night.

With infantry patrols going out without tank support, and in view of the long and difficult job of overcoming the antitank measures, alternate possibilities for use of the tanks were

considered. It was decided to attempt to scale the hills along the road.

Typical of those in Korea, the hills in the area were high and steep, hardly suitable for tank operations. Yet no rain had fallen in something more than a week, and the tanks had at it, the author's platoon drawing the assignment.

The climb was a steep and difficult one, bringing into play all of the abilities of the drivers and crews. It was with a feeling of accomplishment that the platoon reached the ridge top.



A sketch taken from the turret of the author's tank indicates the field of fire available from the mountain top.



A tank of the author's platoon in position on top of the ridge line, with good camouflage provided by scrub pines.

ARMOR—September-October, 1951

The ground on top was hard and firm, with considerable vegetation. The tanks were able to move quite freely along the ridge lines, and infantry were moved up to protect the blind sides in various positions.

From these positions the terrain for miles around could be dominated by the tanks. The observation and fields of fire were perfect. Enemy positions could be quickly located and taken under fire.

The terrain was most difficult for operation. Patrolling in the ridge-line area was done to a limited extent, in support of infantry operations. Repair of tracks proved to be a pretty difficult thing on a hillside.

Following a first day of limited movement, the tanks accompanied the infantry along the ridge lines, moving through heavy growth of scrub pine, about twelve feet high and some eight to ten inches in diameter. They were easily knocked down by the tanks, and the infantry followed along in the paths of the tanks.

Upon reaching the highest point of the ridge line, the tanks took up firing positions overlooking the countryside beyond. Enemy troops were moving about below, indicating that they could not have been aware of the presence of the tanks. The growth provided good camouflage, and fields of fire were improved by clearing away some of the branches.

The tank fire that day was not returned by the enemy. One section and an Artillery FO were left on top and the other section led an infantry patrol down the enemy side of the hill. This proved to be steeper, and the descent was difficult. One tank threw a track at the bottom and the enemy began dropping mortar shells, delaying repair efforts and causing casualties among the infantry. Four hours elapsed before the repairs were completed, and the patrol was forced to return to the ridge top.

In succeeding days, as both sides operated in a common middle ground, the tank crews became quite skilled at all types of rough terrain, rarely losing a track or bogging down. Eventually the tanks and infantry moved together over all types of ground.

Obviously, tanks should not be sent into the hills unless their employment will be profitable. Condition of the

ARMOR—September-October, 1951

THE AUTHOR



First Lieutenant Robert L. Burns served as an enlisted man in the Air Force from 1943 to 1946. Upon graduation from the University of Massachusetts he was commissioned in Armored Cavalry and attended the Associate Basic Course of the Armored School. After brief assignments with the 3d Armored Cavalry Regiment and the 56th Amphibious Tank and Tractor Battalion, he moved overseas in the early spring to Korea and assignment as tank platoon leader with the 70th Heavy Tank Battalion.

FROM KOREA

A TANK

COMBAT BRIEF



A tank of the author's platoon moving across the top of the ridge line. Dust and silhouette are the disadvantages.

tank is important, as is the need for experienced crews. Wear and tear is heavy. One platoon in our organization had a "road section" with the worn tanks in it, and a "mountain section" boasting better suspension systems. The road section maintained the base of fire while the mountain section maneuvered. Tanks undertaking difficult and restrictive terrain should always be covered by other tanks.

Mountain operations of this sort are most effective as a means of overcoming obstacles set in canalized terrain. They result in improved fields of fire, and provide close tank support for infantry. Use of the hills is a good surprise element, visual contact can be maintained much more easily, and, of course, communications by radio are markedly more favorable.

On the other hand, a tank on a hill-top or ridge line makes a good target. In this period of action, on one occasion, an enemy gun fired 25 rounds at one tank in about twenty minutes. Another tank had a round land in the dirt right beneath the final drive. Against a more skillful opponent, skyline operation might have been considerably warmer.

In hill operation, movement is somewhat restricted, repairs are more difficult to carry out and retrieving is rarely possible.

The M4A3EA tank has proved its ability to negotiate practically all types of dry terrain. Training and equipment are the keys to negotiation of rough ground. New types of tanks and appropriate techniques of operation for hill fighting will bring a lot of "unsuitable tank country" within the realm of profitable operation and expand armor's potential in many parts of the world.

In training it is highly improbable that such a thing would have been considered, much less attempted. But the alert commander in combat, who tries to make maximum use of the weapons at his disposal, often can successfully carry out a number of unlikely things. In this instance the regimental sector had only one road for vehicular operation, cutting through very rough country, and canalizing the regimental operations. The ridge lines became a supplemental network of roads for the tanks, furthering the action in progress at the moment.

Three new Officer Candidate Schools began operations September 1 as part of a plan to increase opportunities for qualified personnel from both military and civilian life to obtain commissions in the Army.

The new officer candidate courses will be offered at the Engineer School, Fort Belvoir, Virginia; the Signal School, Fort Monmouth, New Jersey, and the Armored School, Fort Knox, Kentucky. These courses will be in addition to those now offered at The Infantry School, Fort Benning, Georgia; the Artillery School, Fort Sill, Oklahoma and the Army General School, Fort Riley, Kansas.

Courses at the schools will be five months in length. Starting next month, the Officer Candidate program is scheduled to produce 8,000 officers annually.

The program will reduce both the time required to obtain a commission through OCS, and the length of obligated service after receiving a commission. Effective immediately, graduates of Army Officer Candidate Schools will be required to serve a minimum of 18 months after graduation, instead of the previous mandatory time of 24 months. The Leadership Course of eight weeks, formerly a prerequisite for OCS attendance, may be waived. This will permit qualified individuals to be sent to OCS directly from basic training, or from units.

Warner Brothers have been engaged in making a full-length movie of an armored division in combat. They selected the 3d Armored Division, and will base the film on the outfit's path from St. Lo to the Siegfried Line. With Lt. Col. Jack Boulger, former member of the division, as technical adviser, the movie company has been at Fort Knox shooting scenes for the film.

The picture is produced by Joe Breen, who wrote the story for it, who was a tank man in World War II. In fact he spent some time in school at Fort Knox. He has always wanted to do a picture of an armored division; started just such a thing when he wrote "Breakthrough," but that turned into an infantry story.

"I want this to be a faithful story of the lives of tankmen in war," Breen said. "I want to portray how it feels to live in a tank and fight in one. And I know the whole thing is authentic, because I worked with reports made by the Third Armored during that action. Even the terrain will be essentially the same."

For battle scenes, the Army is lending the services of G.I.'s in training at Knox. The Army supplied an old worn-out tank which the film people cut away in several places for close-up shots. German relics from the Patton Museum at Knox are being loaned to the film company for more realism. For instance,

a German 88mm gun was hauled out for a battle with two tanks. The film folk needed a German command car, so the movie crew borrowed a jeep, and converted it into a German vehicle by building a metal shell around it.

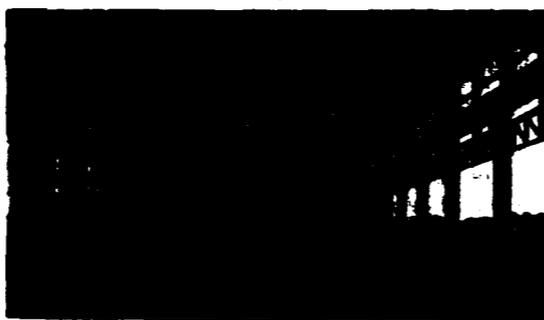
It is expected that the film will be released this fall. Title has yet to be decided upon.

The following is an extract from a recent speech by Lt. Gen. Willis D. Crittenberger, Commanding General of First Army and President of the U. S. Armor Association, made in New York City.

By way of explaining why armor is so important a part of our American army, it is only necessary to remember that war is a national effort.

Accordingly, we should capitalize on those American attributes, characteristics, and achievements

New Tank Plant



Last issue these pages carried an architect's conception of the Chrysler tank plant at Newark, Del. The photo above shows a section of the plant where construction is running 30 days ahead of schedule. Chrysler Corp. will produce medium and heavy tanks here.

which make us great as a country.

One of these is our automotive industry, in which the United States is preeminent.

Another is the steel industry. . . .

Then there is the field of radio and communication; the rubber industry; precision instruments; and other phases of design and manufacture.

Putting these all together, we have a tank.

The President says we should gear-up so that we can turn them off our assembly line at the rate of 35,000 a year—if necessary.

Who else in the world can do that?

And don't forget, once we get this tank, we man it with American boys.

All of those boys—any of them—can drive a car, fix a spark plug, shoot a gun, and jiggle a radio or television.

All of this adds up to the fact that armored troops are characteristically American.

That is why we should use them to the maximum! In a war, calling for a national effort, we should

capitalize to the fullest on those American characteristics—industrial know-how, etc.—wherein we lead the world. . . .

At the beginning of the Korean War we read in the headlines that "AMERICAN TANKS NO MATCH FOR T-34."

Of course that referred to our light tanks.

You all know that our first troops went to Korea with only light tanks, which is what they were equipped with, in Japan, for occupation purposes.

And our light tanks were knocked out by the Russian T-34s.

But we soon had medium tanks, shipped from the States, in action out there—and it is reported that in every single encounter to date our mediums have knocked out the Russian T-34s.

We think our guns are better, our fire-control

Sand Table Models



Maj. Gen. D. W. McGowan, CG of the 50th Armored Division, New Jersey National Guard, his Assistant Division Commander, Brig. Gen. E. O. Wolf, and the division instructor, Col. C. F. Reynolds, look over new plastic training aids, replicas of the division vehicles.

equipment is better, our men are better trained. . . .

Our new light tanks are equipped with a 76mm gun, the new mediums with a 90mm gun, and our new heavies have 120mm guns.

All of these have improved, high-velocity ammunition, and they will all be capable of knocking out enemy tanks of comparable size, at ranges up to 3,000 or 4,000 yards.

We have funds for more than a thousand modern light tanks, going into production now.

We have designed a medium tank called a T-42.

But as a matter of fact, the last medium tank we had during the war, the Pershing tank, was a good tank.

Until we get a new medium we are able to take the hulls of those Pershings and make use of them, putting in a new engine, a new transmission system, a completely new fire-control system, a better gun and improved turret.

And that is now called the Patton tank.

These modifications were accomplished, within

the last seven months, as these tanks moved down the assembly line.

Then we have ordered a limited number of new heavies—with a 120mm gun.

It's a terrifically powerful gun and we have ordered enough heavy tanks for a whole battalion test, and some for our schools.

All together, light, medium and heavy, they make up a family of tanks which only America can produce in sufficient numbers and variety.

That is our program, with the medium tank the backbone of American armor.

And don't let anyone tell you our tanks aren't any good.

That is not what our tank crews say.

In addition to production we have actually increased the proportion of tanks in our army.

We have in our Infantry Division today, in contrast to World War II, a tank company as an integral part of each one of our regiments.

Then we have a tank battalion assigned to each Infantry Division.

So we now have the equivalent of two tank battalions in each standard Infantry Division.

Then, of course, the Armored Division is the big brother of the tank battalions.

In Korea, the terrain and roads limit full-scale armored operations, and limit tank action to platoon, company and battalion size.

In Europe, however, the story would be different.

There is where full-size armored divisions can play the same decisive role they played in World War II.

Knifing across the fields of France and Germany, crossing rivers, mountain ranges, and all types of terrain—16 divisions strong—in a decisive support of our ground effort.

Accordingly, we must not let the particular situation that prevails in Korea, lead us to believe that future tank employment elsewhere—in Europe for example—will be limited to engagements where single tanks or platoons closely support a ground attack.

With characteristic American forethought, we must have all types—tanks in Infantry Regiments, Tank Battalions in Infantry Divisions; and finally Armored Divisions, and Regiments for mass armored operations. . . .

It was recently reported by United Press that France will probably abandon plans for mass production of its new heavy tank, the 50-tonner designed to combat Soviet armor, because of the cut in U.S. aid.

The arms-standardization program of the North Atlantic Pact nations also is a prime factor in French willingness to give up manufacture of the tank.

FROM THESE PAGES

60 Years Ago

Night firing of the Chasseur Detachment of the Eighty-fifth Regiment of Infantry (each battalion has its Chasseur detachment consisting of the strongest, most skillful and athletic men—generally volunteers. The duties are essentially those of foot scouts).

The regulations require all classes of troops to be acquainted with night firing. It is known that with special facilities one can fire as well by night as by day. All these facilities are especially adapted for the defense of a position from which various distances have been measured; but the guns must not be changed. It is also known that night firing without special advantages is very difficult, on a dark night almost impossible; the results are simply accidental. Pasting a piece of white paper on the sight, smearing it with a substance that burns, helps materially. Better yet is always to hold the head and hands the same way and to wear the same clothes and equipment that will be worn at night. It is necessary to observe how the cheek is placed on the rifle, the position of the shoulder, etc. If the target be seen at night, however little, then success may be reckoned upon.

Experiments in Night Firing by Russian Troops

PROFESSIONAL NOTES

60 Years Ago

The employment of aeroplanes in war will for the present be very largely limited to tactical reconnaissance. In this role they will, of course, in no way replace the cavalry scout, whose capacity for resistance and screening they cannot imitate. Since their use will be, accordingly, supplementary to that of cavalry it is important to examine how they will best cooperate, and what organization will fit them for the work.

Figuratively speaking, the function of the aeroplane scout will be to obtain information in "plan," while that of the cavalryman will be to fill in the corresponding "elevation."

The view of the airman is unrestricted but his military perspective is distorted. He can obtain a very accurate measurement of distances, but very little idea of height.

Thus the aeroplane scout can be properly used to obtain the relative positions of the enemy's forces and his information can be relied on in questions of numbers (at any rate, of formed bodies), but he can obtain very little indication of their "tactical strength" (less, in fact, than can be conveyed by plotting their position on a contoured map). Again, it may be laid down that "negative" information from the air can never be wholly reliable. The country needs to have been traversed by combatant troops to be certain that it is unoccupied. "Positive" information, on the other hand, will be of greater accuracy than that of cavalry, since it will be derived from direct vision, and not from fire effect. . . .

Since the aeroplane will, to some extent, relieve the cavalry of their role of reconnaissance, it is possible that cavalry movements will become more definitely tactical, as less extended formations can be adopted, and "maneuver" units can be directed, as a whole, against bodies of the enemy already located by aeroplane information. The ground scouts and patrols will, however, still be essential in order to supply such information as is unobtainable by the aeroplanes, for the condition of the terrain cannot be ascertained from the air and it will rarely be possible to say whether buildings, woods, etc., are occupied unless they are examined by patrols.

Aeroplanes With Cavalry

Lt. R. A. CAMPBELL

25 Years Ago

The public interest is now centered on the air service. Some enthusiasts expect airplanes to take the place of several of the older branches of the army. It has been stated, that, among these, the cavalry is to be supplanted by airplanes.

Now, the importance of aircraft in our national defense is admitted by all. It is only its relative degree of importance, what it can or cannot do, whether it should replace this or that arm, etc., that is argued and made a subject of contention.

This article is written on the subject of cavalry, and has nothing to do with the arguments about the air service, except in so far as to explain that the air service and the cavalry do not conflict. Neither is trying to assume the role of the other.

The statements recently made to the effect that airplanes would take over the role of cavalry, because airplanes instead of cavalry have become the eyes and ears of an army, are misleading and must be corrected.

It is true that airplanes are now depended upon for the greater part of distant reconnaissance. But cavalry must do the close reconnaissance. And even in distant reconnaissance the cavalry must take its share, because reconnaissance from the air cannot be depended upon when visibility is poor, or during night movements, or to obtain negative information, or to gain information by taking prisoners, or to ascertain the real strength of enemy troops in wooded or mountainous country. Cavalry, unfortunately, must still be used for these fatiguing tasks, though airplanes may assist it or take over the task entirely when conditions are favorable. This is well understood in the air service and in the cavalry. The more of this work done by the air service the better for the cavalry which can be thus spared for its principal role.

Role of Modern Cavalry

COL. H. S. HAWKINS

10 Years Ago

Since the publication of a featured article in our July-August, 1941 issue—"Air Force in Support of Ground Forces," by General Breerton—five Air Support Commands have been created within the framework of the Air Forces Combat Command to provide effective and close air support of the Army's ground units.

The support commands include observation aviation (both lighter- and heavier-than-air); light bombers, dive bombers, aerial photograph planes, gliders and air transports for parachute troops and air-landing troops. This is a unified grouping of all the aviation elements that a ground force needs to achieve local air superiority and to insure the success of its mission.

The First, Second, Third and Fourth Air Support Commands will operate with the First, Second, Third and Fourth Field Armies, respectively. The Fifth will operate with the Armored Force. Thus each of the Army's major strategical and maneuvering units will have an air support organization that is specifically identified with it.

This plan for support aviation will not require any change in the principle that all types of units of the Air Force Combat Command must be trained and used in support of ground forces. When conditions make it necessary, air support aviation may be used for special Air Force missions, in conjunction with naval forces or with ground forces other than those to which they are specifically identified.

Air Support Commands Created

EDITORIAL COMMENT

The Congress Dances!

by DR. ROGER SHAW

THE new conscript Prussian army (reinforced by its *Tugendbund* Underground) did well in the War of Liberation against Napoleon Bonaparte in 1813. In 1814, it invaded France and helped to capture Paris. The next year it saved the day at Waterloo and in mad pursuit chased the French far into the night. Old Blücher wanted to blow up the Jena Bridge across the Seine because of its name, but they dissuaded him by changing the "obnoxious title." He thought they ought to hang the Corsican, and Dismissed France in the "Polish" manner. But he was overruled by saner minds.

In the fall of 1814, with Bonaparte sent off to the island of Elba, the great ones of Europe met at Vienna for a postwar dispensation. There were many weighty problems to be discussed, for the French had shifted the boundaries of all of Europe, made and unmade Kings, and introduced widely their Bourgeois anti-feudal reforms. All the world, in the eyes of the old-school diplomats, was topsyturvy, and amoral. Their watchword was "legitimacy"—as opposed to revolutionary ways and means.

The now famous Congress of Vienna was described as follows by a Belgian observer: "You have come at the right moment. If you like fetes and balls, you will have enough of them; the Congress does *not* go, it dances. There is, literally, a roval mob here. Everybody is crying out: Peace! Justice! Balance of Power! Indemnity! As for me, I am a looker-on. All the indemnity I shall ask for, is a new hat. I have worn mine out in taking it off to sovereigns whom I meet at the corner of every street. . . . Take notice of that graceful martial figure, walking with Eugene de Beauharnais; that is the Czar Alexander. And that tall, dignified man with the lively Neapolitan on his arm, is the King of Prussia. . . . And there in that Venetian suit, the stiffness of which scarcely conceals

his affability, is the Austrian Emperor, the representative of the most paternal despotism that ever existed.

"Here is Maximilian, King of Bavaria, in whose frank countenance you can read the expression of his good heart. . . . Do you see that pale little man with an aquiline nose, near to the King of Bavaria? That is the King of Denmark, whose cheerful humor, and lively repartees, enliven the royal parties—they call him the merriest of the brigade of sovereigns. . . . That colossal figure, leaning against the column, whose bulk is not lessened by the folds of his ample domino, is the King of Wurtemberg, and next to him is his son, the Crown Prince, whose affection for the Grand Duchess of Oldenburg has brought him to the Congress, rather than the settlement of public business that will soon be his own. All this crowd of personages, who are buzzing around us, are either reigning princes, archdukes, or great dignitaries from various countries. With the exception of a few Englishmen (easily distinguished by the richness of their clothes) I do not see anyone without a title to his name."

And again, according to a modern commentator: "Dividing the spoils at Vienna, was made painless by sumptuous festivities, military parades, balls, fireworks, hunting and sleighing parties, a thousand diversions. Emperor Franz, as host, felt morally justified in draining the already slender resources of his country's treasury. It was his bounden duty to see that his guests had the best possible time. That the sum ran to 16 million gulden, never seemed to irk the imperial conscience."

The Czar Alexander of Russia was generally considered the big gun of the Congress. It was his wife that tipped Beethoven! Alexander was spasmodically a liberal, with ideas of reform. He wanted to see Poland restored under a progressive constitution, and Germany properly united

according to the notions of his friend, Baron Stein. Nor was Alexander enthusiastic about the restoration of the Bourbons (who never learned, nor forgot) in France. But there were very few at the Congress to agree with Alexander.

Prince Metternich, Austrian Foreign Minister at the time, acted as President of the Congress, and he was an extreme reactionary, although a very clever one withal. He hated progress and wanted to set the clock back to before 1789. Chancellor Kaunitz had been a raving red, compared to Minister Metternich. But Metternich was much admired, and his successes with the ladies (including even Bonaparte's sister) were notorious. Metternich detested the contemporary romanticism, and ideologically was something out of the Eighteenth Century: cold, stiff, formal, sane.

Turncoat Talleyrand represented France. He had served the Old Regime, the Directory, and Bonaparte. Now he was serving the Bourbons again, and would live to work for the Orleanists. He saved his country from the fate of Germany in 1919—and 1945—by his extraordinary diplomatic talents. England, Russia, Prussia, and Austria had decided to function as a "Big Four," ruling from their inner councils over France, Spain, and the smaller countries; but Talleyrand soon had France admitted to the inner circle where (despite the defeat of his native land) he played an extremely influential part. Wellington and Castlereagh, both of them renegade Irishmen, represented Great Britain.

Wellington, unpopular with the military rank and file, was soon to be fired on by his own men, at Waterloo. His Nassauers there "had served under the French eagles, their arms, uniforms, and drill were still French, and during the battle his aide-de-camp only once persuaded Wellington to draw bridle. It was when he was about to pass in front of a square of the Nassauers. There was real fear

that they might fire upon him, instead of upon the French." Later on, Wellington did approach the Nassauers. Afterward he admitted himself that, "They sent a few shots after me as I rode off." No such unpleasant, humiliating experience could ever have happened to Bonaparte.

And so the waltzing Congress danced, and wrangled, and tried to administer. France was deprived of all the territory conquered by Bonaparte, and the Revolution. Belgium (taken from Austria by France) was awarded to the next-door Dutch. Belgium Antwerp had been the Napoleonic naval base, a pistol pointed at the head of England, as it still could be!

Norway was taken away from Denmark, which had been loyal to the Corsican, and given to Sweden, which had fought on the Allied side in 1813, under Crown Prince Bernadotte, a former Napoleonic marshal. The independence and unity of Switzerland were guaranteed, and the little republic received Geneva. The Napoleonic Kingdom of Italy was broken up, the old pre-revolutionary Italian states were restored, and Piedmont was awarded Genoa, while Austria took back Venice.

Bonaparte had consolidated the 300 states of the Holy Roman Empire into some 39. This immense step forward, the Congress did nothing to counteract. But it had to do something about the recent Confederation of the Rhine, and the only less recent Holy Roman Empire.

These were two conflicting viewpoints at the Congress, those of the honest patriot Stein, and the crafty legitimist Metternich. Stein, in keeping with the nationalistic spirit of the times, demanded a close federal union of German states, while Metternich placed Hapsburg interests ahead of German interests, and worked for the loosest sort of bond. Metternich's was the conservative course, and the diarch Congress, for the most part, rallied around him. The newly created (by Bonaparte) Kings of Bavaria, Saxony, and Wurttemberg were proud of their royal titles, and the lesser princes were jealous of their dynastic rights. It was a clean-cut case of the Germanic peoples (who desired union), versus their ruling families (who did not). Stein, in the eyes of the aristocratic

Congress, was acting as the devil's advocate.

Metternich won the day. The result was the Germanic Confederation, a union not of German peoples, but of German monarchs. There was to be a federal Diet at Frankfurt, with Austria and the Hapsburgs in the federal presidency. But there was no national army or financial system provided for, and "the executive consisted in making one division coerce another, if it refused to carry out the laws." In a sense, it avenged the Seven Years War, for it was definitely a victory for the Austrian aristos over the Prussian plebs. Stein was furious.

This Germanic Confederation—successor to the Holy Roman Empire and the Napoleonic Confederation of the Rhine—consisted of the "sovereign princes and free towns" of Germany. But it also took in the King of Denmark, lord of German Holstein, and the King of Holland-Belgium, proprietor of German Luxembourg. Furthermore, East Prussia and Hungary were not included in the Confederation, although Berlin and Vienna were rivals within its ranks. Wrote Stein: "The shallowness and diffidence of one man, the senile obtuseness and sluggishness of another, the commonness and intellectual frivolity of a third, and the combined triviality of all, make it impossible for any great and noble idea to be thoroughly and consistently carried out."

But not only were Stein and Metternich clashing over the exact form Germany was to take. The victor nations represented at Vienna were clashing between themselves, to the joy of Talleyrand and his vanquished France.

Poland and Saxony were the chief bones of contention. Czar Alexander wished to reunite Poland, and set her up as a constitutional monarchy attached to Russia. He was sincere enough doubtless, for already he had freed his Baltic serfs, and promulgated other domestic reforms of a more or less tangible nature. Prussia was willing enough to give up her Polish territory to the Czar, but demanded in return the whole of the Saxon Kingdom, the Saxon King having been a special friend of Bonaparte. Frederick the Great had been anxious to annex Saxony, in the Seven Years War, and Frederick William III was equally eager in 1814.

Austria and England opposed this arrangement, which was logical enough, and Talleyrand cleverly came to their support. The cleavage led to threats of war between the Allies, but finally the Prussians received half of Saxony, while the Czar was given parts of Prussian Poland for his pet project. Prussia also was awarded the left bank of the Rhine in order to bother the French more effectively. This "Siegfried" territory included Episcopal Cologne, Academic Bonn, with its "Saxo-Borussians," and Charlemagne's ancient capital of Aix-la-Chapelle.

The British imperialists did not do so badly at Vienna, although the long years of warfare had cost them a great deal of subsidy money. They kept Germanic Heligoland in the North Sea, Malta and the Ionian Islands in the Mediterranean, Dutch Cape Colony in South Africa, Ceylon, Mauritius, Demerara, St. Lucia, Tobago, and Trinidad. But after the Congress had been in session for five riotous months, Bonaparte escaped from Elba and appeared in France. The monarchs and diplomats were in consternation, and hastened to patch up their differences, in the face of the common enemy. Wellington left the Congressional debates, and rushed off to what turned into Waterloo, which he succeeded in winning with the help of Prussians, Hanoverians, Brunswickers, those Nassauers, Dutch, Belgians, and a great deal of luck. This was in mid-June, 1815, and the Congress of Vienna—still waltzing—adjourned that same month.

The Congress was not idealistic, nor was it democratic. Its language was the cool, unemotional speech of the Eighteenth Century, but its peace terms were surprisingly mild considering that France had plunged Europe into turmoil for twenty-two years. Very different was the treatment that World War Germany received at Versailles and Potsdam, where popular patriotism, the yellow press, race hate and home elections forced the politicians far out beyond their depth. The Metternich school doubtless were rascals, but they gave Europe a "limited" peace that lasted for forty years, and a defeated France that was neither crucified nor dismembered.

Nor were the Congress snuff-boxers wholly antihumanitarian. Except for Prussia, they opposed military con-

scription and its wholesale slaughter, and they condemned the hideous trade in "black ivory" which was building up the plantations of the Americas. They agreed with Alexander Hamilton—American Metternich—that "Your People, sir, is a great beast," but they were inclined in an Enlightened manner to be paternal. They even allowed the French to retain the international art treasures wrested from a dozen captured cities, and exhibited in Paris; and before Waterloo they asked no war indemnity. After Waterloo, their patience exhausted, they changed their minds to the amount of \$300,000,000.

The Austrian Prince Metternich was the connecting link between the old world and the new. Born in Coblenz on the Rhine, he was 41 at the time of the Congress of Vienna. His father was an Austrian diplomat associated with the astute Kaunitz, and he himself married Kaunitz' granddaughter. He served as ambassador to Saxony, Prussia, and France, and in 1809 became Austrian Foreign Minister. He negotiated the unfortunate marriage between Bonaparte and Marie Louise, daughter of Austrian Emperor Franz, but the Corsican always disliked him as a slippery courtier with a poker face. "After the Congress of Vienna he became the leading statesman of Europe, and the period 1815-48 is sometimes called the Age of Metternich." In 1821, the Prince became Austrian Chancellor.

He was lazy; but not as lazy as was commonly supposed! He would get up by nine in the morning, play with his children till ten or after, and then work, off and on, till one. In good weather, he would ride horseback till two-thirty, and then work again till four-thirty, have dinner with a dozen or more guests before six-thirty, and after dinner go back to his office. Every day at seven he would visit with the Emperor, and get home by eleven. After an hour or so in his salon, he went to bed by midnight. Once an excited messenger rushed to him with an important dispatch. Asked what the answer would be, Metternich replied, "I really don't know. Let me finish the novel in my travel-bag, and perhaps the answer will come."

Seldom has there been a man more unpopular with historians. "Austrians have denounced him for having kept

them chained to Reaction and Servility and, in the case of some contemporary writers, as being responsible for the dissolution of the Hapsburg monarchy because he impregnated upon Franz Joseph (who died in 1916) his system of governing by police rule and keeping the people under guardianship.

"The Germans," continues this commentator, "of nationalist and liberal persuasion reviled Metternich because he fought against their ideals. The Italians could see him only as the determined opponent of Italian national unity. The French, always under the influence of the Napoleonic cult, could never forgive him for what Heine called his diplomatic poison-mixing that resulted in the downfall of their great Emperor. . . . Finally, the English judged him severely. In recent years, there has been some tendency to do him greater justice."

For indeed, "European peace he achieved; during his Chancellorship there was no general European war. European powers were engaged in military conflicts, but not among themselves. To a Continent exhausted by more than twenty years of Revolutionary and Napoleonic struggles, he gave an ordered repose within the framework of which science and art and industry could and did flourish. Personally a man of peace, he carried this ideal over into the political sphere and was realist enough to know how to make it prevail. No finer act of statesmanship can be conceived than the mild terms imposed upon France," in 1814-15. So much for the Congress that danced and enjoyed itself.

Not long after the close of the Congress of Vienna, a strange, sugary anti-revolutionary agreement presented itself. It made its formal first virtuous appearance in the *Frankfurt Journal* in February, 1816, and it was primarily the instrument of Czar Alexander of Russia. Austria and Prussia fell in with the Petersburg Autocrat, and their joint pact was called the "Holy Alliance."

The Holy Alliance was pietistic and wool-gathering, but it gathered in, beside the Romanovs, Hapsburgs, and Hohenzollerns, the sovereigns of France, Spain, Piedmont, and Naples. The viciously ill-famed Prince Regent, George IV of England, commended the arrangement, although

the British liberals prevented him from joining it. Metternich, who had none of the Czar's well-meaning complexes and inhibitions, nevertheless found the Holy Alliance a useful instrument, and he became its mainstay.

The Alliance was, in a practical sense, a reactionary League of Nations or U.N. that held up its hands in horror at the very memory of Danton, Marat, and Robespierre, and at the sinister red strains of the song "Ça Ira." These men were Antichrists, according to the most Christian monarchs of Continental Europe, and the Alliance supposedly based itself on the principles of Christlike charity.

"No one of the princes who adhered to the Holy Alliance, with the single exception of Alexander himself, ever took it seriously," wrote a contemporary observer. But it held congresses at Troppau, Laibach, Karlsbad, and Verona, and made itself a real political force, none the less. In 1821 the Alliance crushed revolutionary movements in Piedmont and Naples with Austrian whitecoats, and in 1823 sent a French army into Spain to oust liberalism and reinstate the church. Thereby, the French themselves exterminated Spaniards duly inspired with the French revolutionary ideals.

The Spanish American colonies had been in spasmodic revolt against the mother peninsula since the opening of the century, under Bolivar. Miranda, San Martin, and other Creole leaders, and the Alliance turned its roval attention to transatlantic affairs. Several of the monarchs believed that Spain should be upheld on the pampas and in the jungles, just as they were inclined to sympathize (despite their outstanding Christianity) with the "legitimate" Turks and against the rebellious Greeks on the home continent.

At the Verona congress, England opposed the Alliance in its Spanish American orientation, and by 1823 the "Monroe Doctrine" came into being in a Yankee Presidential message. Both England and America wished the liberated South American ports to be kept open to their trade, and weak new republics made better customers than highly regulated Hispanic colonies. Russia had ambitions as affecting the Pacific coast of North America, and the United States was conscious of its "Manifest Destiny" in that far-

A book you will want

THE FORRESTAL DIARIES

Edited and with connective background text by

WALTER MILLIS

A journal written only for private consumption becomes the most revealing public document of our time.

No diary of so highly confidential a nature has ever before been made public so soon after the fact. The people Forrestal names, the conversations and secret decisions—all are a continuing part of today's deepening crisis.

★ ★ ★

Forrestal was one of the first men in public affairs to be deeply concerned over the threat of Russia's world purpose, and he entered in his diary conversations and events, large and small, that form a vital historical record of the growing menace.

Interlocked with the Russian problem is the hotly debated one of our Far Eastern policy. How this policy was shaped and reshaped under the exigencies of day-by-day developments is another major thread of this book.

It was tragically apparent to Forrestal that, in our haste to return to a peacetime economy, the U.S. was not sufficiently armed and prepared to back up its global commitments. It was clear, as these crucial years are mirrored in the diaries, that trouble spots were forming all over the world. Even the policies for which he was criticized, such as his position on Palestine, appear here as a consistent part of his thinking on his country's long-range welfare. He brought realism and courage to these great and inseparable problems of the postwar years, and that record shows that he accomplished much more than he knew. But the frustrations were many, and in May 1949, sickened by a sense of failure and defeat, he took his own life.

Only a record of this kind can show so well how government is conducted, how a public servant works. Primarily, however, *The Forrestal Diary* is an invaluable piece of history and it is fortunate that it can be made available at a time when it's so sorely needed for greater understandings of the gravest issues of our time.

592 pages — 5½ x 8½ — \$5.00 (October)

About one-sixth of the text is appearing serially in magazines at the time of book publishing.

October publication

592 pages. \$5.00

From the Book Department

away direction. James Monroe and George Canning outbluffed the scanty sea power of the Holy rulers, and after the "July" revolution of 1830 (in Paris, etc.), the Alliance began to decline. A last example of its motivation was the sending of Russian troops to help the Hapsburgs against Hungary in the "February" revolutionary period of 1848-49.

The Czar had had a soulmate named Juliane Kruedener. "She was responsible for the Holy Alliance. The impressionable mood of Alexander made him fall easy prey to her pietism. This lady of fifty, after a dubious marital and extramarital life, had turned pietist, began to evangelize, to advocate public repentance of sins, to believe in the immediate coming of the millenium and to consort with familiar spirits at seances. She captivated Alexander, who had met her many years before in Berlin, when she was at the height of her beauty.

"In Paris he attended her spiritualistic exhibitions, fell completely under the spell of her pietism, and floated along with her in vague, mystic reveries about the approaching human brotherhood. With the cooperation of her ready pen, he drafted the document which he called the Holy Alliance." Metternich said it had "the value and meaning of a philanthropic aspiration clothed in religious garb," which was very much of an understatement. The Holy Alliance also had Russian bulk, the Prussian army, and Metternich's devious brains.

Baroness Kruedener, with her "Moravian" views, survived the rude Monroe Doctrine by only a year. She had been a close friend of Queen Louise of Prussia in 1807, the bad year after Jena, and wrote a book called *Valerie*—"a novel of feeling, based on a love episode with her husband's secretary." This work made her a veritable literary goddess. Deeply religious, she died, appropriately enough, on Christmas.

Baroness Kruedener epitomized all that was humanitarian at the Congress of Vienna. And like the Congress of Vienna, she was cosmopolitan and antinationalist in outlook: a German Russian born in Latvia, and fond of life in heaven, Paris, Switzerland, and the Crimea. She might have proved successful, too, at Lake Success.

ARMOR—September-October, 1951

With the American Tankers in Germany

In Western Europe the preparations for defense go forward

Here is a story of one phase of NATO activity

by POVL WESTPHALL

The following is an extract translation from Berlingske Tidende, leading Danish newspaper, of an article written by one of its correspondents following a visit with American forces in Germany.

KITZINGEN.

"Most conspicuous is the high degree of preparedness of the Americans. In less than half an hour everything can be ready for a turnout. The visible signs are that everything is on wheels and in open air. All repairs are done in rolling workshops—even the repair of instruments. The most unusual order in the barracks makes a turnout possible on a moment's notice. The soldiers' equipment is placed so that they can jump into it like the firemen who jump into their boots on their way to the fire engines. Eighty-five per cent of the force is always ready, 15 per cent at most is on leave, and every night there is telephone control to all commanders. The Americans here in Germany are literally ready to turn out all 24 hours of the day.

"One of the things which involuntarily impresses a Danish officer is the field training. The troops now spend 50-75 per cent of the year in the open air and neither officers nor enlisted men leave the bivouac area. The commander of the battalion's Company A had spent 189 days last year under open air without using barracks. In return the food of the Americans in the field is unusually good.

There is probably nothing like it in any other army. . . ."

Captain Niels Erik Leschly from the Garderhusarene (The Royal Hussars) in Naestved who tells about this is the commander of 15 Danish cavalry officers studying tanks with the 63d Tank Battalion at Kitzingen, 18 kilometers from Würzburg. The Danish officers have been training for one month. The American Military Advisory Group in Denmark arranged the training course for the Danish officers with the First American Infantry Division in Germany.

"The background of our studies," says Captain Leschly, "is that we shall now have armored cars for the cavalry. We have had both tactical and technical instruction and we have taken part in two maneuvers in regiment combat group size similar to the combat groups which will be established as prescribed in the new Danish army law. We spent the whole period of the exercise in the open. Day and night for four days two regiments were tested under the command of General Samuel Conley. The 63d Tank Battalion has 69 tanks. The Danes worked with these tanks."

What have the Danes learned? "First and foremost, to drive the big Pershing tank and shoot with its weapons—gun and machine guns. Then we have learned the latest American armored car technique and have become familiar with the very extensive communications system which ties in the leader to a degree that we have

not hitherto known. As we are going to have these American-type armored cars this training has been of great importance to us."

The 15 Danes now finishing their training with the 63d Tank Battalion are not the first to be trained in an armored-car school with the Americans in Germany. One group has already been in Vielseck on a similar course and in October a new group will arrive there.

These training schools are a link in Europe's joint rebuilding of defenses under NATO. It is a comprehensive military training and education program built up under this defense cooperation. Denmark has up to now approximately 50 air cadets in training courses in American jet schools: infantry and artillery officers and others have been or are or will be on study tours at American training camps.

It is the new American weapons, vehicles and instruments for Danish defense that have necessitated this retraining. Several of the Danish officers who are in tank school in Kitzingen now have driven armored cars before. Captain Leschly, who was operations commander of the Danish Brigade in Sweden, has been trained both in Swedish tanks and by the English in Western Germany, with Centurion tanks. The Americans have an appreciative attitude for the professional qualifications of the young Danish officers, and for their excellent knowledge of languages.

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HOW WOULD YOU DO IT?

RECOVERY EXPEDIENTS

AN ARMORED SCHOOL PRESENTATION

AUTHOR: CAPT R P EDENFIELD

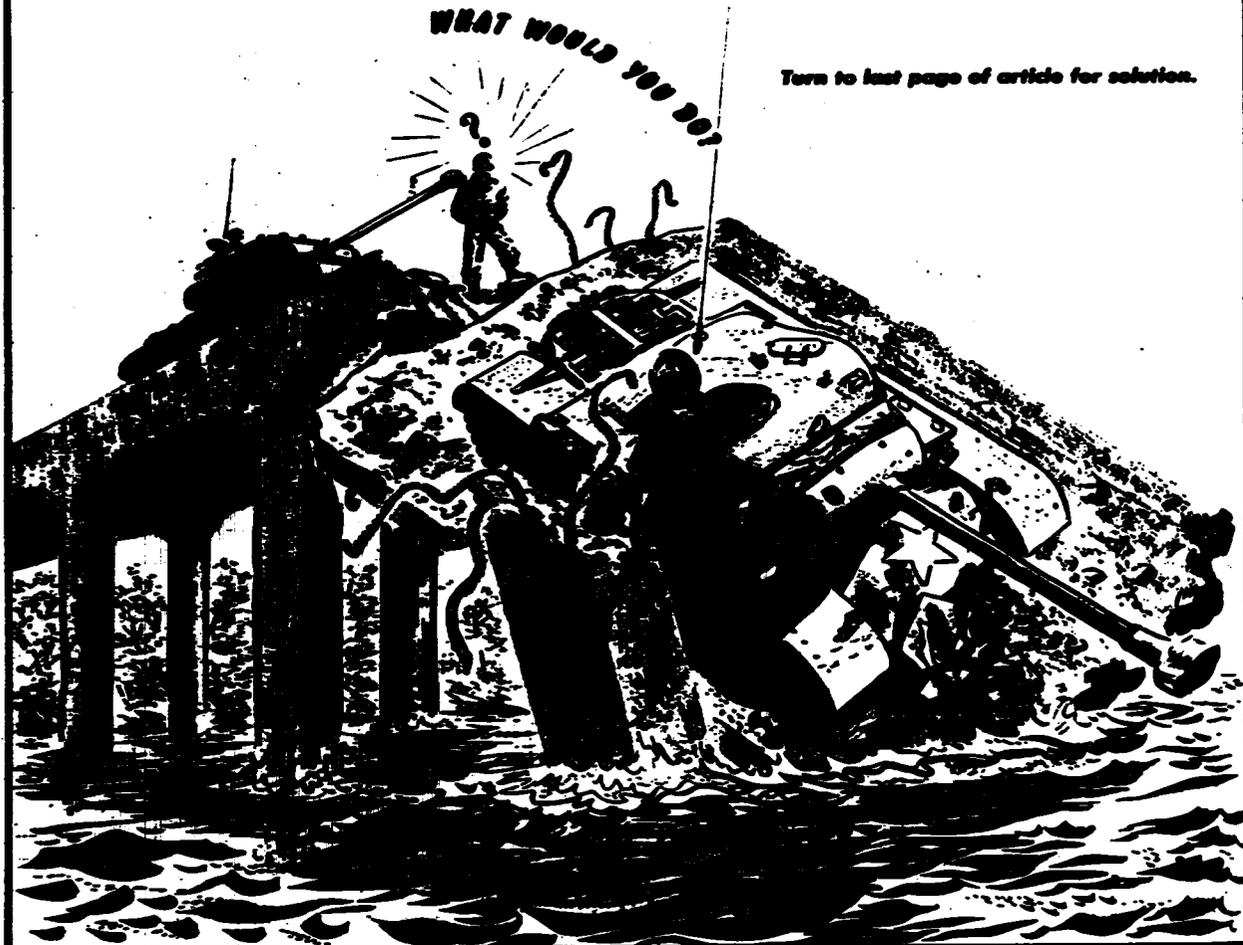
ARTIST: CPL M A CAMRUSO

You are the Platoon Leader, 3d Platoon, Company C, 1st Medium Tank Battalion. You are moving your platoon of medium tanks with steel tracks from a port area to an assembly area. A concrete bridge collapses as the lead tank is crossing it resulting in the situation shown in the sketch. The pier, 20 feet wide, without handrails, is collapsed at a 50-per cent slope and tilted slightly to the right. The tank on the collapsed pier is undamaged and held in place by broken pilings. The stream is too deep for other tanks to ford it.

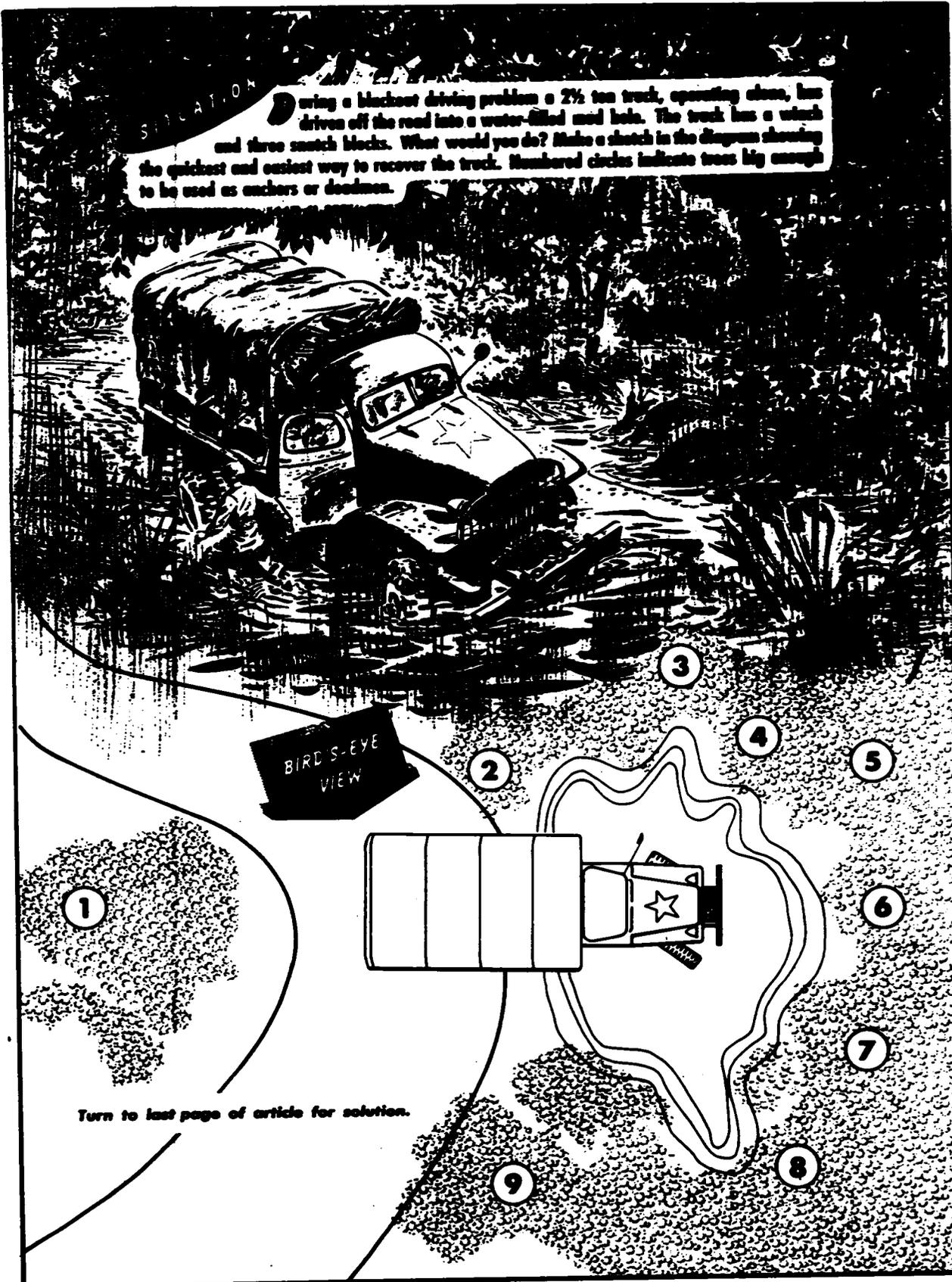
You radio your Company rear CP at the port for recovery vehicle assistance and find that it will be ten hours before a recovery vehicle is landed and available for use. It is therefore your job to retrieve the tank on the pier. Each tank in your platoon is equipped with a 20-foot cable. You note that the back end of the tank on the collapsed pier is 6 feet from the break in the pier and remember that the ground contact length of the track on this tank is 12 feet, 8 inches.

WHAT WOULD YOU DO?

Turn to last page of article for solution.

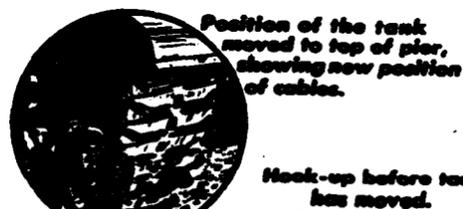


During a blackout driving problem a 7½ ton truck, operating alone, has driven off the road into a water-filled mud hole. The truck has a winch and three snatch blocks. What would you do? Make a sketch in the diagram showing the quickest and easiest way to recover the truck. Numbered circles indicate trees big enough to be used as anchors or deadmen.



Turn to last page of article for solution.

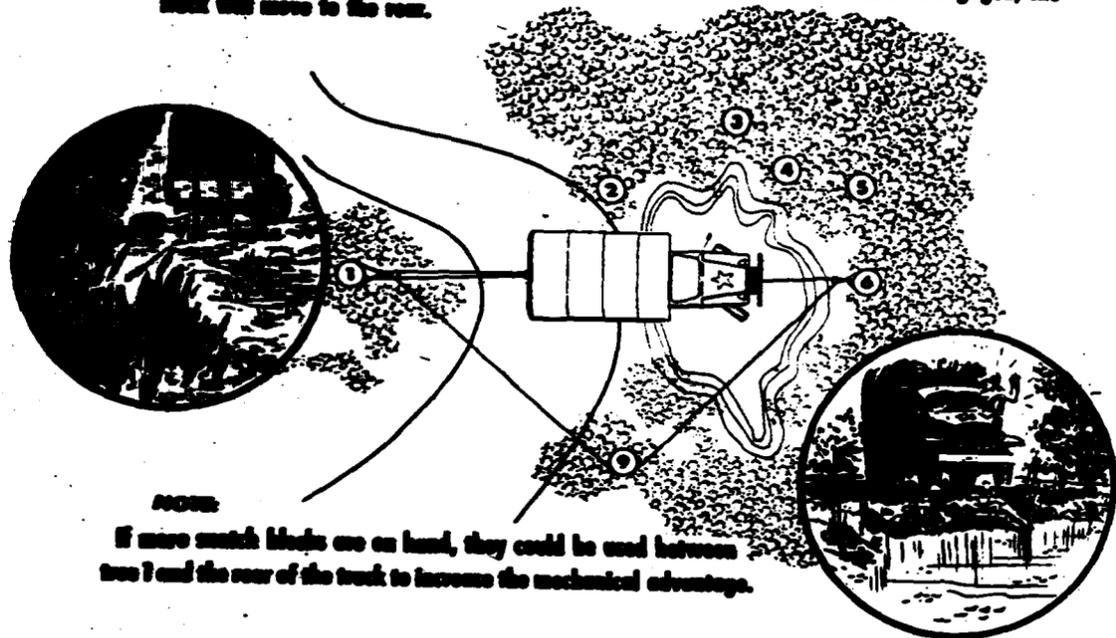
You realize first that any attempt to back this steel-touched tank on a concrete surface would cause the tank to slip off the pier into the water. Pulling the tank out with other tanks against a sharp angle of pull over a broken span would probably sever the cables. So you decide to have the tank winch itself up. You bring up two tanks, anchor them together with a tow cable, and gather the remaining four tow cables to form two forty-foot cables. After hooking each section of these cables to the front tow hooks of the lead anchored tank, you run the other end of both cables between two truck connectors on each tank of the endangered tank. Now the anchored tanks take up all cable slack, and the tank on the collapsed pier moves in reverse gear. Before the cable end tied to the truck is stopped by the Miller wheel, the tank has moved back far enough (12 feet, 8 inches) over the broken span to be able to rest on the top of the pier. Before moving the tank, you make sure that the gun on the pulling tank and that on the anchored tank are facing in opposite directions to prevent collision and gun damage.



Hook-up before tank has moved.



In snatch blocks to the rear of the truck and to trees 1 and 6. Run a cable from the winch through the block at tree 6, then around tree 9 and through the block fastened to tree 1. Next, pass the cable through the block on the rear of the truck, and anchor the free end firmly on tree 1. When the winch is engaged, the truck will move to the rear.



NOTE: If more snatch blocks are on hand, they could be used between tree 1 and the rear of the truck to increase the mechanical advantage.

The reactivation of the First Armored Division at Fort Hood, Texas, brought 13,000 fillers from nine reception centers across the land at the rate of 400 a day. Here's the story of what took place as the trains rolled in from Forts Devens, Sheridan, Lewis, Meade, Sam Houston, Custer, Sill, Jackson and Dix

Filling a Newly Activated Armored Division

by LIEUTENANT COLONEL M. C. PERTL

EARLY in March of this year, the famous 1st Armored Division was reactivated under the command of Major General Bruce C. Clarke.

During the short period that has elapsed since that time, the 1st Armored Division has been filled with cadre and untrained filler personnel and is going full speed ahead with the job of training new soldiers for whatever job lies ahead.

At the time of activation the division was faced with the problem of preparing to receive, process, classify and assign something in excess of 13,600 untrained fillers. A request was made to Department of the Army for the fillers to arrive at the rate of 400

a day. This was approved and the first fillers arrived April 10. A request was also made for 400 trained specialists to be assigned to the division prior to the receipt of the fillers. These included cooks, clerks and supply clerks, and were used to augment a cadre furnished by the 2d Armored Division.

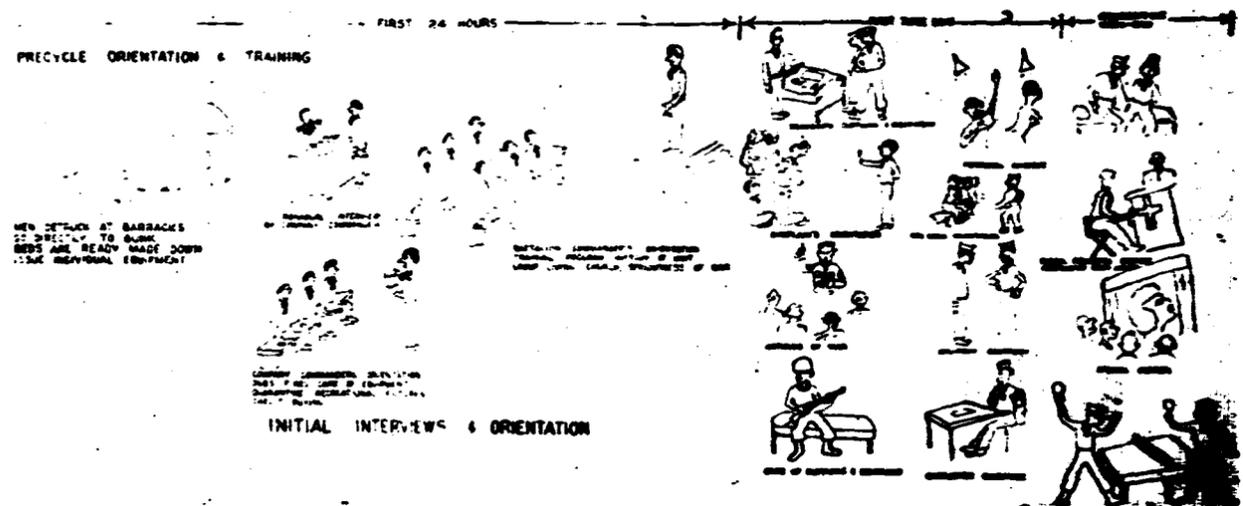
The first personnel assembled were those who performed the actual job of processing, classifying and assigning the fillers. They consisted of four officers and 60 clerical personnel, of which only one officer and four enlisted personnel were trained in classification and assignment procedures. Thirty of these personnel were taken from the 400 trained specialists who arrived prior to the untrained fillers. The remainder of the clerical personnel came from the Division Adjutant General's section and from tank and

artillery units' cadre which were the last units filled with trainees.

Two weeks prior to the arrival of the first filler personnel, a Provisional Reception Battalion was established. The personnel for this provisional organization was supplied from the cadre of the 81st Reconnaissance Battalion.

The Reception Battalion was located near the rail head and was responsible for the transportation, housing and comfort of the filler personnel during their stay in the reception area and delivered them to the receiving unit when they left the area. When the fillers arrived they were provided an immediate opportunity to clean up, eat a light lunch or standard meal and relax before beginning their processing. During this period a band played in the reception area. This type of handling proved invaluable.

Lieutenant Colonel M. C. Pertl is Adjutant General of the First Armored Division.



The Serviceman and the Law

by Colonels

EDWARDS and DECKER

You have the Uniform Code of Military Justice and the 1951 Manual of Courts Martial. You need this new book, which is the successor to *The Soldier and the Law*, to tell you how to do the things set forth in the Code and the Manual. With this new book you can understand the new philosophy of military justice—preventive discipline through leadership. These are comprehensive chapters on Charges, Trial Counsel, Defense Counsel, Investigating officer. There is a complete record of trial for general and special courts.

Know how to protect the rights of your men. Know how to be a member of a court—new style. Learn the details of court procedure—charges, records, review. This book provides all the answers.

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able as a morale factor.

The job of processing, classifying and assigning all incoming fillers was delegated to the Adjutant General who utilized the Classification and Assignment Sub-section as the nucleus for the processing center.

The processing center was broken down into four sections: Troop movements, Records, Interview, and a Miscellaneous Section which was composed of special orders, reproduction and statistics. To the processing center fell the job of classifying, checking records, and assigning the fillers to the units, giving as equal a distribution of skills as possible, while attempting to assign each individual filler to the type of unit he preferred, and one in keeping with his qualifications.

This was a pretty big order, but through the simple, unique procedure established, the initial classifying and assignment methods worked in 98 per cent of the cases. Only 2 per cent of the trainees had to be reassigned at the completion of Basic Training.

In order to understand the complete function of this processing section, it will be necessary to go back to the time prior to the arrival of the fillers. Operations began at the time one of the nine reception centers furnishing fillers wired arrival time of a troop train bearing incoming troops. The Troop Movement Section maintained a chart which indicated the date and time of arrival of all known incoming fillers.

Upon notice that a train was expected, this section immediately notified all interested general and special staff sections in order that they could make necessary plans. Approximately six hours prior to the estimated time of arrival of a troop train, a representative of the Troop Movement Section departed for Temple, Texas, a town located thirty miles from Fort Hood, and boarded the train in order to coordinate local plans with the troop train commander prior to arrival at Fort Hood.

Normally, each troop train consisted of 16 Pullmans and one kitchen car, with 25 fillers assigned to each Pullman. The train commanders were instructed to seat the fillers in each car in roster order, from front to rear of the train, utilizing the special orders affecting movement for the necessary rosters. The troop movement

representatives then prepared a master roster from the special orders. This roster reflected the car number, 1 through 16, and the names and number of people in each car. These rosters were delivered to the NCO's who assumed charge of the personnel upon arrival at Fort Hood. After insuring that all cars were properly arranged and the personnel oriented, the troop movement representative then checked and receipted for records and allied papers accompanying the shipment. This saved considerable time that would normally have been a vacuum period after the troops arrived.

During the time this important job was taking place, the Troop Movement Officer at Fort Hood was working in close liaison with the Post Transportation Officer and was keeping all interested sections informed as to the exact time of arrival of the troop train. As a result, an impressive group of 1st Armored Division personnel was on hand to greet the incoming fillers. The Commanding General was personally on hand, and with him, various members of his staff, invariably including the Division Chaplain and the Division Surgeon. The officers in charge of the processing sections were present, as were the military police who directed the 16 buses which carried the fillers from the detraining point to the reception area. Two officers and 16 enlisted men were bedecked with helmet liners painted the new Armor colors, yellow and green, and numbered from 1 to 16 in bold white figures. They took charge of the fillers as they detrained, the number on the helmet indicating the number of the group each would be responsible for. An important point to emphasize is that these men were responsible for the same group throughout the entire processing procedure.

Upon arrival of the train at the rail head, the troop movement representative was the first one off. His first job was to notify the Division Surgeon of persons that were to be hospitalized. He then turned over the records and allied papers to the Classification and Assignment representative and reported personnel who were AWOL or absent sick en route, to a representative of the 501st Replacement Company in order that proper disposition could be accomplished. The officers and noncommissioned of-

ficers with the colorful helmet liners then assumed stations at the exit of each pre-designated numbered car and placed markers next to the car to correspond with that number. The military police then escorted the bus convoy alongside the train and the noncommissioned officers proceeded to transfer each group from the cars to the busses, complete with baggage. The convoy then pulled out for the reception area where it was met by the 2d Armored Division Band and martial music. While en route the NCO's called the roll.

At the reception area, personnel and baggage were unloaded and conducted to barracks which had been pre-assigned to each group. The fillers were then allowed a short rest period before being marched to the dining hall for a hot meal, or a snack in event they had recently eaten a meal aboard the train.

Meanwhile, the Classification and Assignment section was at work preparing to process the newly arrived fillers. Records were arranged by groups according to the master roster prepared by the troop movement representative. WD AGO Forms 20 were separated and placed with a records check sheet under the flap of the records jacket for the convenience of the interviewer. Interviewers had previously been designated to handle a certain numbered group, therefore simplifying the assorting of records and allied papers.

Approximately one hour after detraining, the 400 fillers were delivered, still divided into groups of 25, to the Classification and Assignment section, which was set up in a large field house.

General Clarke delivered a welcome address in which he explained the mission of the 1st Armored Division and the part the new men would play in its operation.

Upon completion of General Clarke's address, groups 9 through 16 were escorted to the Post Exchange and afforded an opportunity to make purchases, while Groups 1 through 8 remained seated and were oriented as to the processing procedures. They were told why they were being processed in this particular manner and how they would be selected for assignment to various units.

Each group of 25 men was interviewed by the interviewer who had

previously been designated. He welcomed each filler individually to Fort Hood and the 1st Armored Division, presented him with booklets giving the history of the 1st Armored Division, and facts about the facilities to be found at Fort Hood and nearby communities. The interviewer at all times conducted himself in a manner to put the soldier at ease and to make him feel that he was being treated on an individual basis rather than "just one more in a group."

Each interviewer had an assistant who accomplished a personal analysis form which reflected the number of personnel in the group who could speak foreign languages, percentage of personnel in each aptitude area, educational background and those with prior service. This enabled the receiving unit to have a clear picture of the type of personnel composing each group immediately upon receipt.

Assignments were made to several different types of units by the interviewer. Each interviewer had previously been given a quota of from three to five different type units which were to be filled. For example, he would be assigned quotas to a headquarters and service unit, a combat command headquarters, a line unit and an engineer unit, etc. Thus he could match qualification with preference in making assignment.

The Division Trains Units consisting of the 124th Armored Maintenance Battalion, 1st Quartermaster Battalion, 47th Armored Medical Battalion and the 501st Military Police Company, 81st Reconnaissance Battalion and the 141st Armored Signal Company as attached units, were the first units to receive the fillers. This enabled these units to begin training and, as a result, they were able to furnish trained fillers to support Division activities.

Normally 25 men from each train were assigned to a receiving company. Thus, each unit receiving fillers had an equal assignment of personnel from throughout the United States and an equal allotment of varying skills. This size group was easier for the receiving unit commander to properly orient, with each individual receiving more attention.

At the end of an interview a man was assigned, and the assignment was entered on a postal instruction form. The assignment was then recorded

Index Guide to the Uniform Code of Military Justice

by TILLOTSON

A new handy reference and quick guide to any aspect of military justice. Indicates where to find specific data in the Uniform Code of Military Justice or the 1951 Manual of Courts Martial. Includes a digest of the points you want to know.

This book is a successor to Tillotson's *Articles of War, Annotated*, and is by the same author. Appearing at the time the new Code goes into effect, it will save all those connected with military justice a great amount of time and effort in locating information on a specific subject.

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Technique for Adjutants

by Major Arthur M. Chester

CHAPTERS ON

Post, Regimental and Separate Battalion Adjutants; How To Write Orders; Boards and Investigating Officers; Mail and Files Section; Message Center and Courier Service; Cable and Teletype Section; Military Publications; Courtesy Calls; Inspections; and checklists on Morning Reports and a host of detailed information on each of the major subjects outlined above.

Cloth 2.50 Paper \$1.00

on the man's record and on a copy of the orders transferring him to this station. The notation was later used in publishing Division orders and assigning him to the designated unit.

After the interview and assignment had been accomplished, each man was directed to another station where clerks prepared pencil rosters by unit assignment. These rosters were used to deliver the men to their assigned unit immediately prior to issuance of special orders, resulting in a saving of an extra hour in delivering the fillers to their units.

Immediately upon completion of the interviewing of the first group, all records and allied papers were returned to the records section where proper entries were made in the service records and Forms 20, and the records were indorsed to the units concerned by witnessing officers. This was accomplished while groups 9 through 16 were being processed. The records for the second group were processed upon completion of their interviews.

Besides routine processing of records, the records section recorded the physical profile of each filler for statistical purposes and conducted a daily check of service records and allied papers, noting errors and corrections on an attached records check sheet. Approximately one hour and 15 minutes was required to interview each group. During this time the records section had accomplished the aforementioned details and had the records in order for delivery to appropriate units. The following forms and publications were also dispatched to the receiving units along with the records: change of address cards, unit locator cards, information and education survey forms, officer candidate school instruction letter, public information form, form letter to be signed by the unit commander and mailed to the next of kin, and a pamphlet of information pertaining to Army Emergency Relief.

These forms and memoranda were furnished in sufficient copies so that at least one copy was available for each filler. Five change of address cards were furnished for each man, and one copy of the post newspaper, *Tracks and Half-Tracks*, was delivered for every two men assigned.

Meanwhile, three locator cards were prepared for each filler and were

distributed to the Division Adjutant General's Office, the Division Postal Section and the Fort Hood Post Office. Preparation of these cards consumed approximately four hours, but made location of personnel possible within 24 hours after assignment.

Upon arrival at units, the untrained fillers detrucked and went immediately into barracks where their beds were already made. Before they retired, however, their individual equipment was issued to them. If their arrival was early in the day, they proceeded through the various stages of initial orientation and instruction until it was time to retire.

Their initiation to the new unit began with an individual interview by their company commander. They were told what would be expected of them individually and as part of a team, and were given an opportunity to express their views or present personal problems.

After the initial interview with the company commander, the trainees were put through a succession of orientation and indoctrination periods. The battalion commander talked to them and explained the training program, the history of their unit, group living, religious aspects of military life, and the seriousness of war. Then the company commander oriented them as a group in the care of their equipment, explained the recreation program and cautioned them about fires, the handling of duds, etc.

During the balance of the week before actual training began they were addressed by the Chaplain, oriented in personal hygiene, the articles of war, military courtesy and were given a showdown inspection to ascertain whether or not they were short any personal equipment and to determine condition of equipment. During this time they also participated in organized recreation, viewed special movies and attended special religious services.

From the time the untrained fillers detrained until their delivery to their permanent unit, a total of four and one-half hours elapsed. Less than a week later they were in the midst of basic training. Taking into consideration the many details that were accomplished during this period, the old Army adage "hurry and wait" was completely discounted. Thus, no soldier's time was wasted, and time was gained for combat training.

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TOP REPORTING FROM THE HORIZON OF BATTLE

THIS IS WAR! A Photo-Narrative in Three Parts. By David Douglas Duncan. Harper & Brothers, New York, 1951. 171 pages. \$4.95.

Reviewed by
Marshall Andrews

In all the vast literature of warfare it is doubtful if there is a single passage which really conveys to the lay reader precisely what war means to the soldier who endures it. Language fails because no one can describe a sensation or an emotion which has never been felt any more than one can describe an odor to one who has never smelled it. Nor has art, in the narrow meaning of the term, done much better, since the artist cannot

The Subject



capture, except in memory, the evanescent compound of matter and emotion out of which each situation in battle is created.

Admittedly one object of David Douglas Duncan in *This Is War!* is to bridge, in some measure, this regrettable void. And admittedly he has largely succeeded, though I am far from convinced that he has contributed much of value to the serious study of warfare.

Whether the author intended his book to be part of military literature, I cannot for the life of me determine. And I have reason to believe Mr. Duncan himself may have been of two minds on this question.

In his "Explanation" prefacing the book, the author says his work is "simply an effort to show something of what a man endures when his country decides to go to war," and in that effort he succeeds very well indeed. But he says in the same prefatory "Explanation" that "each chapter deals with a military combat prob-

lem," and goes on to describe, in very good prose, a little of what the problem was and how it was met and dealt with.

As an exposition of the minutiae of warfare and of the almost unendurable agonies forced upon the few men who receive the greater part of its impact, the pictorial part of this book is probably without parallel. And it should be noted that the photographs are human documents, rather than military, not only because Mr. Duncan planned it that way, but because nothing he nor anyone else could have caught in his camera would have captured the sweep and complexity of modern warfare.

As for the text which introduces each collection of photographs, there is more room for debate. Mr. Dun-

The Reviewer



Marshall Andrews served in the Army overseas in both World Wars. He is a member of the staff of the Washington Post, specializing in the reporting of military affairs, and he has recently returned from an assignment in Korea for that paper. An expert student of military history, Mr. Andrews is author of the book *Dismaster Through Air Power* (Blanchard, '50).

The Author



David Douglas Duncan, a Marine combat photographer during World War II, has been a member of *Life's* staff for the past four years, covering assignments in many parts of the world. In Tokyo when the Reds crossed the 38th, he moved his base of operation to the front. Mr. Duncan is co-winner of the U.S. Camera Gold Achievement Award for 1950.

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can's writing is clear and colorful and he has a feeling for language which warms every paragraph. And yet you find yourself, if you have had any experience of warfare at all, unsatisfied that each chapter should be a success story in the best Rover Boy tradition. It is difficult to accept a series of military situations in which everybody makes the right decision at the right moment, in which there are impediments but no reverses, in which events move toward ultimate success as inexorably as if propelled by Providential machinery.

Of course these are Marines with which Mr. Duncan's book deals and the author, a former Marine combat correspondent, concedes a predilection for his old Corps. And it may not be too much to expect of a public, which has come to believe that disaster in Korea was staved off solely by one Marine division (reinforced), that it should accept Mr. Duncan's glowing presentation of the record. Furthermore, since, as the author says, "once a Marine, always a Marine," he manages to envelop his characters with an almost mystic quality of devotion and sacrifice which, seen in other troops through other eyes, no doubt would be accepted as a matter of course.

To my way of thinking, probably the best passage in the book is one which may be largely incomprehensible to the nonmilitary minded civilian. That is the section labelled "Late July" in the first chapter, "Korea 1950" (his pages are not numbered), which describes his brief contact with the South Korean army and the arrival among them of General Douglas MacArthur. In it Mr. Duncan ponders over the failure of the ROK forces to hold and, in pondering, reveals a good deal of why they did not, and of the faults of bad leadership and the advantages of good.

LIFE Photos

Another passage which appeals to me, simply as good descriptive writing, is that in the same chapter called "Early July," which describes the author's flight into combat in a two-place jet aircraft. It has the quality, inherent in good exposition, of placing you in the airplane, instead of the author, and permitting you to undergo, not always in comfort, the sensations of maneuvering in a high-speed aircraft.

Mr. Duncan's three chapters deal-

ing with "military combat problems" are not too happily done, as I have already indicated. They cover successively the capture and defense of a hill in the old Pusan perimeter, the seizure of Inchon and Seoul, and the retreat from the Changjin reservoir to the sea at Hungnam. All three share the same quality of effervescent optimism upon which I have already touched. In addition, the last of the three, entitled "Retreat, Hell!" contains one glaring fault which, unfortunately, is shared by Mr. Duncan with many others.

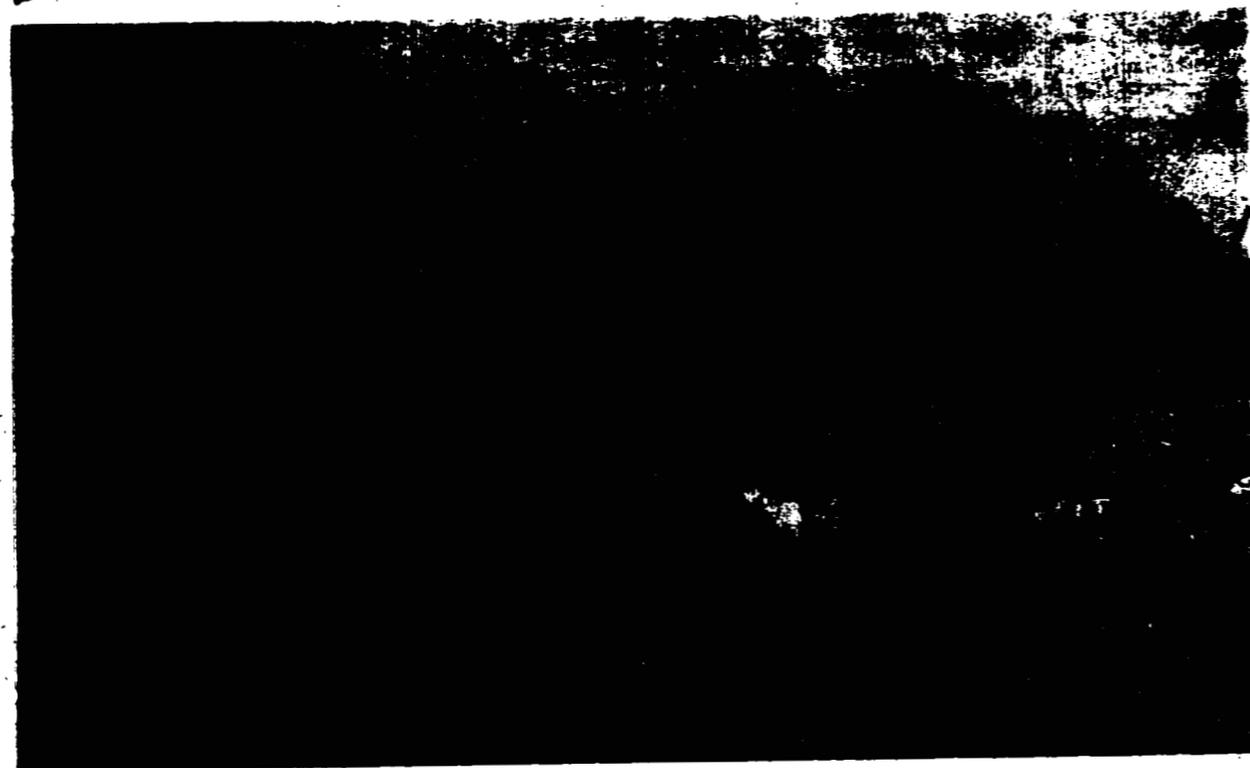
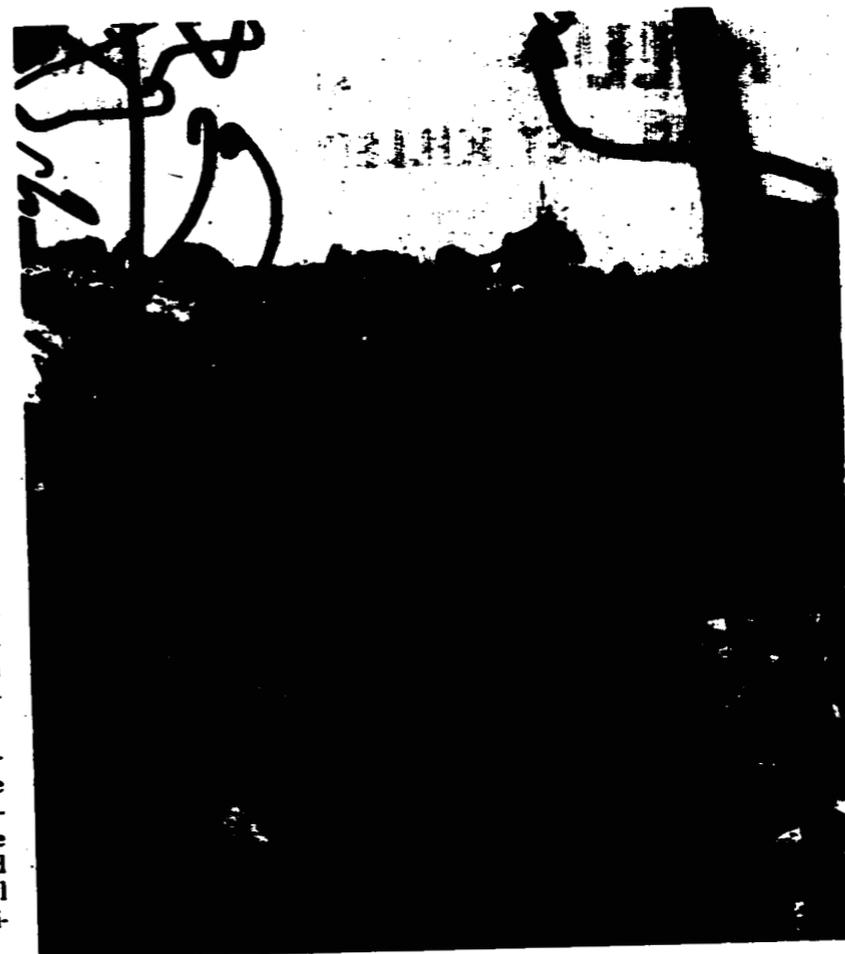
In it he briefly mentions the Third and Seventh Infantry Divisions of the Army, but only to say they were there; and he describes the Third, not too kindly, as "fresh." Then he forgets them and goes on to make the retreat, which he says was no retreat at all though it ended in flight by sea, purely and simply a Marine operation.

No one would ever know, from reading Mr. Duncan's account, that the escape corridor from Koto-ri to the coast was held open by the Third and Seventh and that these Army divisions remained at Hungnam for some twelve days after the Marines had left, holding the perimeter from which refugees and equipment were

evacuated. But perhaps it is too much to expect Mr. Duncan to escape what I shall charitably call this oversight, when the Marine Corps's own motion picture, *The Hungnam Story*, commits it in the same degree.

Of the photographs, all of which are magnificent, my choice goes first to that of two little Korean children, in Marine helmets, fearfully stopping their ears against the blast of machine guns firing nearby. My second choice is an equivocal one, being divided between that in which a wounded Marine is receiving a drink from another's canteen while a staff conference goes on within arm's length; and that in which a jeep has just struck a mine and Marines are rushing to the aid of a shattered man in a ditch. Perhaps these are not the pictures Mr. Duncan would have me select, but there it is: to me they convey more of warfare as I have known it than all the tortured faces and deploying troops in the book.

It is clear that Mr. Duncan accepted the rifleman's risk to get these fine pictures, and he is to be congratulated for it. There would be cause for rejoicing if his book should inspire emulation among Signal Corps photographers assigned to similar missions.



AMERICAN DEMOCRACY AND MILITARY POWER

A Study of Civil Control of the Military Power in the United States

by LOUIS SMITH

At mid-century the United States faces a military crisis unparalleled in her history. An international situation tense with fear and uncertainty continues to demand mobilization of men and resources. Military science becomes increasingly more complex and specialized, requiring a larger and more highly trained staff than ever before in history. National security can no longer be provided without interruption of normal civilian activities, and military factors are now considered in virtually every phase of national policy. Under such conditions the democratic state faces a singular and extremely crucial problem. The armed forces must be powerful if we are to be secure; they must be subject to democratic control if we are to be free.

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Can We Win Military Security Without Losing Democratic Rights?

The Peron Era

by Robert J. Alexander

Unless the United States is careful, she will wake up to find a united front of military dictatorships among the nations to the South, headed by General Juan Domingo Perón. This is the warning urgently stressed in *The Perón Era*, the first book in English to describe the Peronista regime, its growth and avowed purpose. In this trenchant exposé, Dr. Alexander describes the spread of Peronista totalitarianism over, first, the economic, then the political and cultural life of Argentina; the imperialistic aspirations of the regime; the extent of Evita's role in the formation and execution of the policies of Peronismo; and Perón's relations with labor, the Communists, the Church, the Army, and the press, including the recent *La Prensa* incident.

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Dance of Death

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