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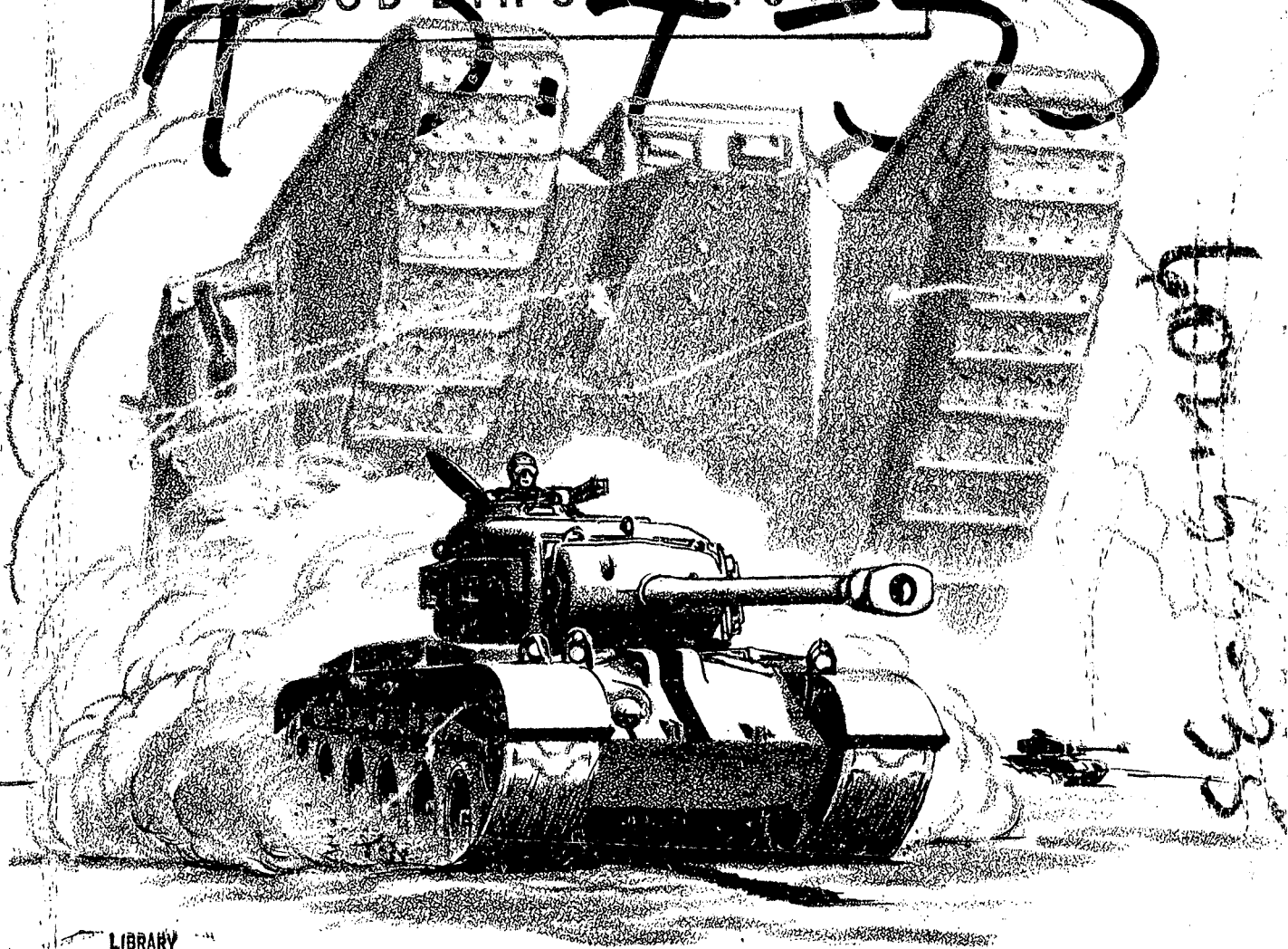
EMPLOYMENT OF ARMOR IN KOREA—2D YEAR



A RESEARCH REPORT

Prepared at
THE ARMORED SCHOOL
Fort Knox, Kentucky
1952-1953

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EMPLOYMENT OF ARMOR IN KOREA

THE SECOND YEAR

A RESEARCH REPORT PREPARED

BY

COMMITTEE 35, ARMORED OFFICER ADVANCED COURSE

THE ARMORED SCHOOL

1952 - 1953

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APRIL 1953

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CHAPTER I

EMPLOYMENT OF ARMOR IN KOREA--THE SECOND YEAR

INTRODUCTION

This Research Report has been produced for the purpose of presenting the reader with an evaluation of the employment of Armor in Korea during the period 26 June 1951 - 25 June 1952, the second year. Even as Armor normally - and particularly in Korea - does not operate alone, neither can a study of it be divorced from and stand alone from an overall coverage of the Division, Corps, and Army on which the study is based. To present Armor in its proper context, it was decided to cover the history of the second year in Korea from the corps level. This scope of historical coverage is considered to be the most appropriate for a general outline, while also serving as a vehicle for presentation of more detailed coverage of those actions which involved Armor.

Certain factors exercised great influence on the employment of Armor in Korea, as they influence employment of any force anywhere. Some of these - terrain, culture, climate and weather - were not peculiar to the period covered by this study. They are given brief coverage, however, to insure that the reader is fully cognizant of their greater-than-normal influence, and to re-emphasize their importance. Excellent studies on these subjects are available to the reader who wishes to explore them further.

One factor influencing the employment of Armor as studied here stands prominently alone. It probably influenced the action more than any other single factor. The presence of this factor became, during the period covered by this study, the first prolonged influence of its kind in the history of United States Armor. This was, of course, the presence of restriction of military action created and maintained by the Communist-United Nations 'Peace Conferences.' So great was this factor's influence on all action in Korea, from the beginning through the end of the period studied, that all actions and employment of all arms must be examined in the light of the restrictions so imposed. For this reason, rather full coverage has been given to the conferences themselves and to the restrictive orders which resulted. And in those chapters devoted to Corps histories, references to these political and diplomatic barriers to logical military action will necessarily recur.

Some necessary coverage has been given to other factors - enemy equipment and tactics; maintenance, supply and evacuation; training and equipment of ROK Armored Units; artillery and air

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support; engineer support; and adequacy of United States equipment. These are not given full coverage in themselves, but discussed only to the extent that they affect our own employment of Armor in Korea. The study presented is thus limited in scope as stated.

Since it is desired to produce a document as factual as possible, little time has been devoted to the individual interpretations of actions as presented in newspapers and periodicals, although some such publications have been called upon for illustrative material. Information presented herein has been gleaned primarily from official publications. Command Reports of all the United States Corps, Tank Battalions, and most United States Divisions in Korea have been used to the fullest extent possible. Intelligence Reports, Operations Summaries, and After-action Reports have been studied. Summations of the views of participants in representative actions and situations have been compiled through the medium of questionnaires and interviews. Personal experiences of committee members have been utilized to obtain source material, but every attempt has been made to minimize the loss of authenticity through exaggerated importance of these personal experiences.

Due to the role relegated to tanks in Korea during this period; due to the unnatural restrictions on offensive actions; due to absence of any decisive tank-to-tank battles or large-scale Armor commitments against suitable objectives, Armor in Korea during this period must be and has been studied as what it actually was - an Infantry support weapon. It is not the aim of this group to conjecture as to what Armor could have done had it been 'turned loose', nor to draw conclusions based on supposition as to what superiorities would be established in a test of United States Armor against the enemy in tactics, equipment, training, or personnel. No such actions were available for study. Therefore conclusions have been based upon evaluations of material available, the preponderance of which constituted an Infantry commander's viewpoint of an Infantry action, supported by tanks. Lessons learned bear this identical limitation of applying primarily to tanks in an Infantry support mission. It is, therefore, inescapable that conclusions and recommendations based on this study be restricted in application to situations of a similar nature.

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CHAPTER 2

BACKGROUND INFORMATION

Summary of EUSAK Activity 1st Year

Summary of Terrain, Climate, Weather and Cultural Factors

Culture and Zones of Military Significance

Summary of EUSAK Activity 1st Year

During the first year the North Korean and Chinese Communist Forces made every possible effort to envelop, capture and destroy the remaining ROK Forces, together with the ever growing United States contingent in an unsuccessful war of aggression on the Korean Peninsula. On 25 June 1950 the North Koreans launched their bid for control of the Korean Peninsula. The various ROK Forces were quickly overrun and Seoul captured. The first US Force to arrive from Japan was Task Force SMITH of the 21st Regiment, 24th Division, which was quickly overrun by some thirty-one T-34 enemy tanks at Osan. Throughout July and August US Forces were committed piece-meal from Japan, and along with ROK Forces, fought a delaying action against enemy armor and mass infantry assaults. The continuous arrival of US Units, to include three tank battalions from the United States, permitted the UN Forces to build up and contain enemy advances in the Pusan Perimeter. By the middle of September the United Nations' Forces absorbed the series of heavy and indecisive engagements on the Pusan Perimeter.

On 15 September the X Corps made the fabulous amphibious assault on the Inchon Area. The recapture of Seoul was greatly aided by the employment of tanks at the airport, railroad yards, and the plaza areas. Tank actions included direct fire against heavily armed enemy barricades, antitank and armor fire at point blank range. In coordination with the successful Inchon landings the ROK, British, and US Forces attacked along the entire Perimeter, forcing the enemy, in some fierce fighting, to relinquish tactical control of nearly all Republic of Korea territory south of the 38th Parallel by 30 September 1950.

Then came the pursuit with ROK Forces rapidly advancing on the east coast of Korea from below the 38th Parallel, to capture the North Korean Port of Wonsan. On the west coast Eighth Army, along with British, Australian, Phillipine and US Units, drove across the 38th Parallel with enemy resistance being

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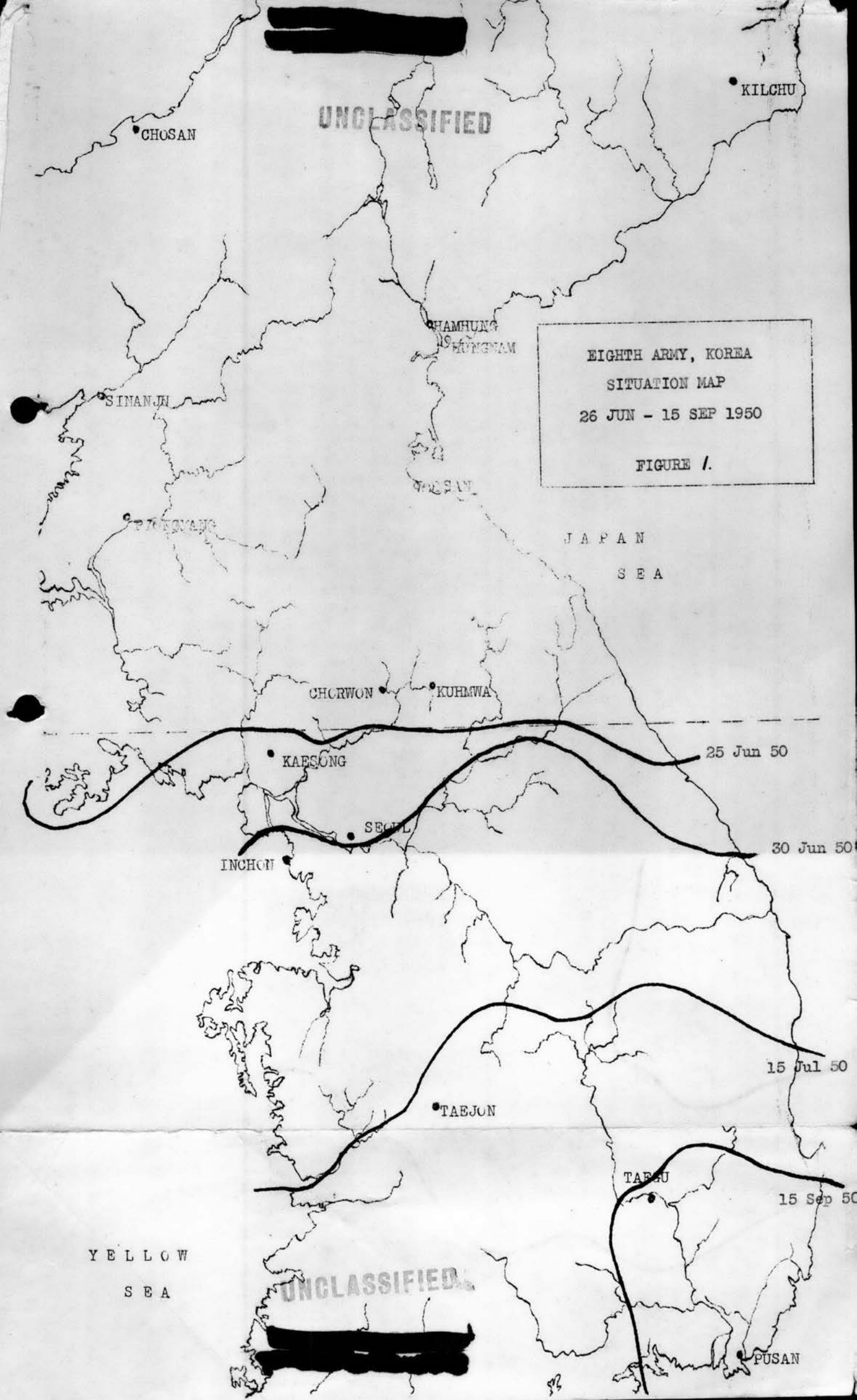

EIGHTH ARMY, KOREA
SITUATION MAP
26 JUN - 15 SEP 1950

FIGURE 1.

sporadic and weak. On the 20th of October elements of X Corps landed in the Wonsan Area and, with ROK Army Units, hotly pursued the rapidly disintegrating North Korean Army in its approaches to the Yalu River. It was at this time that General MacArthur made his call for the enemy to surrender and to liberate all United Nations' prisoners of war and civilian internees. No answer was ever forthcoming.

In mid-October several Chinese PW's were captured and remnants of the North Korean Forces began making a last desperate stand in the Unsan and Yalu River Areas. However, by late October entry of sizable Chinese Communist Forces into the Korean War commenced, with an estimated strength of more than 250,000 and a potential of further reinforcements. On the night of 25-26 November the North Koreans and their new Chinese Communist Allies launched a counterattack all along the line, devoting their main efforts to the Eighth Army's central sector along the Chongchon River. These strong and penetrating enemy attacks forced United Nations Command (UNC) Units to give ground and fall back on a series of main line of resistance. However, with the UNC having complete supremacy in the air, the enemy suffered heavy personnel losses. The massive Chinese hordes attacked X Corps in the Chosin Reservoir in a major enemy drive to disrupt and cut off the withdrawal of the X Corps. Friendly air, artillery, and naval support played a very important part in the action permitting the embarkation and evacuation of X Corps Units at Hungnam. This withdrawal action was costly in supplies and material and, as the year closed, the enemy once again controlled all of Korea north of a line generally along the 38th Parallel. During this critical period of advance to the Yalu River and the more critical withdrawal action employed by the UN Forces, armor was utilized in assault echelons, supporting roles, and as strong point delaying factors. The new Chinese Communist Aggressor, although massive in personnel, did not possess the mobility which armor could have given, thus preventing a much quicker and deeper penetration on UNC lines. UNC armored operations during this campaign were characterized by the use of tanks in the infantry ideal of sustained defense and as armor overwatching infantry on limited attacks.

Late in December Communist activity increased and on 1 January a general offensive began with the main effort in the Seoul Corridor. Deep enemy penetrations were made and UNC Forces were forced to withdraw south of the Han River with the enemy reoccupying Seoul. Taking advantage of their superior numbers the enemy continued with unrelenting pressure all along the line; however, increasingly stubborn UNC resistance blunted the Communist attacks and the UNC Forces again returned to Aggressive patrolling.

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Aggressive UNC Forces attacked on limited fronts against fiercely resisting enemy forces. The enemy suffered extremely heavy casualties during this period with a peak being reached on 7 March, when the combined casualties for the day were estimated to be 24,464. Near the end of March the enemy began a general withdrawal with well controlled and strongly contested rear guard action. The Communists established their main line of resistance on 8 April north of the Imjim River line and thereafter continued to build up a powerful reserve force generally in support of the frontline. During this period the enemy demonstrated a marked increase of artillery and mortar strength and for the second time challenged the UNC air supremacy. In this period of operations armor again was developing in importance. Supplies, maintenance material, and equipment were rapidly becoming adequate. Armor was used more readily as armor heavy task forces and the use of armored personnel carriers gave the greater mobility for infantry required in fast actions. The capability of tanks employed in an indirect fire support role was realized for its importance.

As previously indicated the Chinese Communist spring offensive began in mid-April on a general attack along the UNC front with the main effort being made by the 20th CCF Army in the I Corps area. Although some penetration was achieved by the enemy, none was decisive and the first impulses of the "Fifth Phase Offensive" had been contained. The enemy continued to mass troops and threatened Seoul for the third time; however, timely withdrawals by the UNC Forces on the I and IX Corps fronts forestalled Communist efforts. The second enemy impulse came on 16 May with thirty CCF and NK Divisions attacking on a 150 mile front; the main effort developing on the central front. Although the enemy made gains up to thirty miles in some areas, the ceaseless pressure and counterattacks applied by the UNC Forces inflicted the most impressive defeat of the enemy since the CCF entrance into the war. The enemy's use of mass troops employed on a relative narrow front proved fatal tactics and no match for the massive fire power employed by the UNC Forces. Armor was employed in a supporting role with infantry creating fabulous enemy casualties.

By the close of the first year the UN Forces were deployed along a line fifteen to twenty miles north of the 38th Parallel from Chorwon to Sohwa and were more than thirty-five miles north of the Parallel on the east coast. The enemy had suffered over 1,000,000 casualties, considerable material losses, and severe reduction of industrial production capability.

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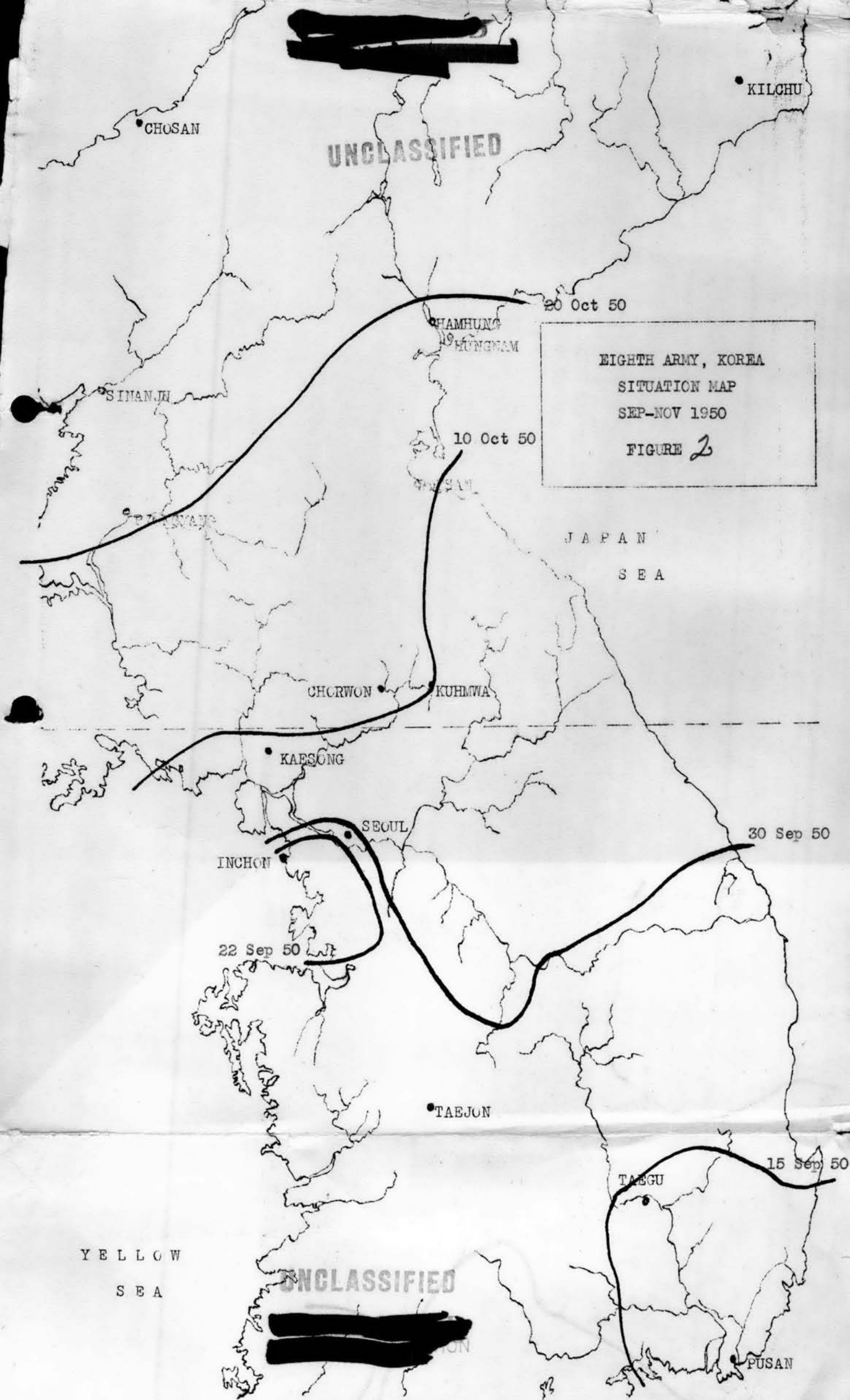
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PUSAN
EIGHTH ARMY, KOREA
SITUATION MAP
SEP-NOV 1950
FIGURE 2

Summary of Terrain, Climate, Weather and Cultural Factors

In evaluating the terrain, weather, climate, and cultural conditions, it is necessary to evaluate the Korean Peninsula according to several climatic and terrain zones. This portion of the report intends to consider primarily the relief of Korea, including weather and climatic conditions. In addition, the drainage, vehicle trafficability, and vegetation from the military topographic and geographic viewpoint will be evaluated.

1. Drainage. There are relatively few lakes and marshes in Korea but the country is well watered and drained. The lack of vegetation and the mountainous terrain cause the water to drain off rapidly. Fall and winter are fairly dry periods, while spring and summer are the wet periods.

2. Vegetation. The most significant feature of the vegetation pattern of Korea is the treeless, grass clad hills and tremendous mountains throughout the Peninsula. There is some scrub pine scattered over mountains, but on the whole, this affords little concealment. Several mountain ranges have mixed forests of pine, birch, and oak with an abundance of dense shrubs and vines.

3. Relief. Korea is a Peninsula in the shape of a mountainous 'S', extending southeast-ward from the Nanchurian and Siberian borders into the Sea of Japan toward the Isle of Kyushu. The Japanese have often called it "The dagger pointed at the heart of Japan." From the northern border (Yuman-Gang River) to Pusan in the south, it is 525 miles long. Its east-west girth varies from 125-200 miles. The entire Peninsula covers an area of approximately 85,000 square miles.

The relief pattern of Korea is dominated by six major areas discussed below:

a. The Northern Korean Highlands. This mountainous area covers the northern third of Korea and is a continuation of the mountains of southern Manchuria. The mountains are largely rugged, steep, and rocky. They also include some areas of flattish uplands. The area is also characterized by U-shaped valleys as much as a mile wide, which are winding and mostly narrow. The Yongruim Range is the highest and most inaccessible portion of the Northern Highlands. The terrain in this area is unfavorable to vehicular movement, but the valleys offer limited passage.

b. The Peninsular Highlands. These ranges include the Northern Taeback Range, the Southern Taeback Range, and its appendage, the Loback Range. The Northern Taeback Range is the southward extension of the Northern Korean Highlands. Here the range runs north to south to the end of the Peninsula and generally along the east coast. This area is rugged, partly forrested, and well drained but is generally unfavorable for vehicular movements. The valleys in this range are gorge-like and extremely winding. In the upper reaches the larger, westward flowing rivers further add to its limiting movement or deployment in the lower regions. Separating the Northern and Southern Taeback Ranges is the Wonson-Seoul Corridor which is the most favorable passage between the east and the west coasts.

(1) South of the above mentioned Corridor is found the Southern Taeback Range. This is a continuation of the Northern Taeback Range and is similar in nature--steep, rugged, with narrow winding gorge-like valleys. The ridges are generally aligned north to south, although the region, as a whole, trends northwest and southeast.

(2) The Soback Range is the northward extension of the Southern Taeback Range. This range crosses the Pusan-Seoul Corridor. The range here is also rugged like the Taeback Ranges, although lower with moderate slopes in certain areas. In general the highland terrain of Korea, Northern Highlands, and Taeback Ranges is unsuitable for cross-country employment. In the lower areas we find steep eroded slopes, and non-trafficable soils resulting from heavy summer rains. All of this restricts vehicular movement. In the higher areas, cross-country travel is almost impossible. Even on the flat valley floors, movement is greatly hampered by the winding nature of streams, by floods, and by wet rice paddy areas.

(3) The Hill Country. Extending westward and southwestward from the Taeback Ranges are a series of smaller mountains and spurs which separate the various lowland regions of which there are few in Korea.

(4) Lowlands. The largest of the Korean lowlands are located in the west and south and are associated with the larger rivers, such as the Taedong, the Han, the Kum, and the Naktong. These lowlands are generally sloping, well cultivated and drained by a main stream. In flood periods these areas are untrafficable. The Northern border lowlands are along the Lower Tuman River Valley area and are steep-sided, winding and flanked by hills and mountains. These lowlands do not provide for favorable movement inland. The routes are close to the rivers and wind into the hills.

c. The Eastern Coastal Lowlands. This area consists of a series of semi-isolated pockets near the mouth of streams. These lowlands are generally flat and intensely cultivated. Each pocket winds inland to a steep-sided valley. The largest and most important of these is between Hamhung and Wonsan and leads inland to the Wonsan-Seoul Corridor which is the most favorable east-west passage of Korea.

d. The Southern Interior Lowlands. These lowlands include the Naktong-gang Basin which is an extensive area of lowland. This lowland borders the Naktong-gang River and varies in width from a few yards to 10 miles. It provides a winding route from the Pusan Delta inland for 125 miles. The lowland terrain favors cross-country movement except in wet areas and during wet summer weather. The routes are winding but not steep.

e. The Southern Coastal Lowlands. These lowlands are comprised of several small lowland areas trending north to south. These areas are high cultivated with rice while some are barren. Low, steep, gullied hills separate these lowlands. The most favorable areas of trafficability are those not planted and in the lower hills. Naturally the rice paddies are unfordable and also many of the hills are steep and gullied.

f. The Western Lowlands. These lowlands are the most extensive in Korea. They trend mostly northwest to southwest and the largest are from 25 to 30 miles wide and extend inland from 30 to 50 miles. Rolling and steep hills separate the various lowlands from each other and constitute potential natural defensive positions, blocking north-south movement. The higher lowlands in this area are overlooked on both sides by eroded hills extending inland to the Taeback Ranges. Movement southward and/or northward is further hampered by the rivers paralleling these lowlands, wherever lowlands lay in Korea.

g. The general characteristics of the lowlands lend themselves toward trafficability in cold weather but not in summer as they are intensely cultivated. They can be navigated in certain areas near the lower part of the hills. These routes are winding and have ample room for deployment.

4. Waterways. There are nine principle rivers in Korea and each one drains an extensive area. The Tuman-gang is the only major eastward flowing river. It drains most of northeastern Korea and flows into the Sea of Japan. It's upper section forms part of the Korea-Manchuria boundary.

a. In southern Korea we find the Naktong-gang and Somjin-gang flowing southward draining that portion of Korea.

Figure 4.

An M46 tank attempts a crossing of a partially frozen river.

b. On the west side of the Peninsula are the Yongsangan, Kum-gang, Han-gang, Taedong-gang and Chonchon-gang River systems all draining into the Yellow Sea.

c. The longest river in Korea is the Amnok-kang in the northwest which empties into the Yellow Sea also. It also forms part of the Korea-Manchuria boundary. It is navigable for 350 miles inland.

d. Few of the rivers can be used as waterways, but their valleys are used for land movement. The current varies from swift to slow. With few exceptions they drain with the relief of the Peninsula. These rivers are shallow and fordable in many places during low water season. However, in high water season these rivers flood and may inundate rice paddies by 15 feet of water. In this latter season they are for the most part rocky and high. While in the lowlands the banks are gradual in slope with sand or gravel bottom for foundations.

e. The rivers in northern Korea are frozen from two to three months each year. During winter many of the lowland streams can also be crossed by vehicles and troops as well as the rivers in north and central Korea. The rivers in southern Korea are open all the year around.[2]

5. Soil Trafficability, Terrain. By far the greater part of Korea is rough and mountainous and therefore unfavorable for cross-country movement of vehicles, regardless of soil or weather conditions. Where topography is favorable in valley and coastal lowlands, rice paddy lands restrict movement considerably. The paddy lands are flooded in June and are non-trafficable from that month until harvest time in early November. The terraced farming and canal systems also tend to make additional areas in the lowlands non-trafficable.

a. In the non-paddy areas, we find medium textured soils of stone or gravel. Where this type soil occurs on valley terraces or on hill slopes, they remain trafficable during non-persistent or moderate rains. During heavy rains they become slippery and muddy and impede the movement of vehicles. In contrast to this, in the lowland areas is located the type of soil in which vehicles can become mired almost anywhere. The areas of this type soil dry slowly and are subject to local flooding.

b. Coarse textured soils found in the inland areas are trafficable unless subjected to flooding or torrential rains. Where these soils occur along the beaches, they are trafficable in most places regardless of weather. However, where the area is sandy, trafficability lasts for light vehicles, but deteriorates with excessive passage of heavy vehicles.[3]

6. Soil Trafficability, Weather. In Korea as a whole the most favorable period for cross-country movement of wheel vehicles is from late September to early November. During this period precipitation is generally light and infrequent with a decrease from November through February. But there are important regional contrasts in trafficability due to snow, soil conditions, and thawing of frozen areas. In some areas above the 38th Parallel, rivers support vehicles when frozen. But in thawing, they are in poorer condition than rivers in southern Korea which do not freeze.

a. During March and April the soil is generally well saturated and offers poor trafficability. Thawing soils drain slowly and during this period better trafficability conditions exist in southern Korea than in northern Korea. In May and early June rains are frequent, but the soils with good drainage are passable during this period. In June and through September the heavy rains result in generally poor trafficability. A large portion of the annual rain falls during this season, and cross-country mobility as a whole is greatly restricted.

b. Climate and Weather. The contrasts between winter and summer in Korea are extreme - from Asiatic winters to tropic-like summers.

c. Cyclonic and monsoonal disturbances are somewhat common in the spring and early summer but seldom effect Korea in the winter. In these winter seasons, the Peninsula is swept by trailing cold fronts from Siberia which result in unsettled rains, and occasionally in spring, Korea is swept by dust from the Mongolian deserts, north China, and Manchurian areas.

d. Typhoons may be expected to effect Korea about twice a year during June through September. These typhoons limit all ground operations and move from 75-150 miles per hour, causing widespread damage.

e. In other portions of this report there is an analysis of this section. Along the same line we have connected this appraisal of Korean terrain and climatic conditions and evaluated the conditions of roads; their trafficability and structure based upon the evaluation made here. It is a foregone and accepted conclusion that the factors discussed in this section are primarily of greatest import in any type of ground operations in Korea.[4]

7. Precipitation. In any terrain evaluation it must be realized that the factors of weather, precipitation, humidity, temperature, and seasonal changes must be considered. This discussion is related to their effects upon the terrain and consequent effects on armor mobility and deployment.

a. The greatest effect on terrain can be caused by precipitation - either too much or too little of it. The trafficability of soils and roads is determined largely by the amount and the intensity of precipitation - rain or snow. In Korea the annual average amount of precipitation varies from 20" in the north or Tuman-gang area to 60" in central south Korea. There is relatively light precipitation from the northeast to the lowlands of the Taedong Basin. High precipitation occurs from the interior of the northwest to the entire south and southwest coastal areas and the central portion of the Peninsula.

b. The winter season is light in rain generally. The precipitation increase begins in March, and about the middle of May four (4) inches have fallen in most areas.

c. Summer is the season of heavy rainfall throughout all of Korea. The amount varies from 3" to 4" in the north to 4" to 6" in the central Peninsula areas during the month of June. In the southern coastal and interior areas there is 8" to 10" of rainfall. July is the heaviest month of rainfall with an average 4" increase in all areas. August is considered the wettest month with an increase of 6" to 8" of rain in the northcentral and northeast regions. However, August also finds a decrease in rainfall which lasts until the autumn season. In the autumn months there are about 4" to 7" of normal rainfall.

d. The period from October through March is considered the dry season. The period from April through September is classified as the wet season.

e. Naturally there are heavy rains with the arrival of the typhoon seasons. These rains and the melting snow reduce trafficability greatly. This season is generally from March through September, inclusive. Therefore, armor movement and deployment in Korea during this period is greatly restricted.[5]

8. Temperature. The winters in Korea are cold; extremely cold in the north. The temperatures in the north have been reported from -34° F to -44° F as compared to -3° F in the south. Throughout all of Korea there is a sharp rise and fall in the temperature between daylight and nightfall.

Rivers in the northern part of Korea freeze to permit trafficability. Most rivers in the south during these winter months remain open, as they are throughout other seasons.[6]

9. Humidity. In this evaluation we can briefly state conditions of humidity as pertain to winter periods, the dry season, and summer periods, and the wet season.

a. In the winter and dry seasons, humidity is not high. This is not chargeable alone to the fall of or low temperature. The prevailing winds over the Peninsula also lower the humidity.

b. In contrast to the winter, the summer months have a consistently high humidity rate due to high temperature and heavy precipitation. The highest humidity occurs in the morning during the months of July and August.

c. The ravages of mold and corrosion in the wet season must be prevented by proper storage and protective equipment. Otherwise it is apparent that armor equipment would suffer great damage. The resultant damage would serve to further handicap armor employment in Korea.[7]

10. Ground Operations. From an evaluation of the facts of this section it is our conclusion that the synoptic conditions favorable for armor employment is the dry period from October through March. Added to the conditions described herein there are air flows which pass over Korea during the above mentioned period which help clear areas of conditions of moisture and overlying high pressure areas.

Fog is reduced and turbulence minimized greatly due to these overlying winds. These winds cool the air masses and shift cloud layers to other areas outside the Peninsula borders.[8]

11. Roads. a. First consideration is the three main regional routes which are formed by the topography of the land. The routes are:

(1) The Pusan to Antung main trunk route is 550 miles long and stretches from Pusan to the Manchurian border via Seoul and Pyongyang.

(2) The Onsong main trunk route is 560 miles long and travels as follows:

(a) Onsong to Seoul via the Tumangang River.

(b) Turns at Chongjin on the east coast and goes to Wonsan.

(c) It then passes through the Wonsan-Seoul Corridor into Seoul proper.

Figure 5.

A typical Korean valley road after a hard rain.

(3) The third trunk route is 510 miles winding through the Loeryongchon and Suson-chon valley to Chongjin. It then heads into Wonsan and passes through the Wonsan-Seoul Corridor into Seoul.

b. These routes are the results of the geographic formation of Korea. Naturally weather, soil, and climatic conditions effect their use and trafficability. However, their value militarily is of paramount interest due to the avenues of Korea. The lines of communication, logistical factors, and unit mobility are influenced by these trunk routes to a considerable degree. Otherwise, some areas of Korea are vehicularly inaccessible without considering these units. The necessity to control them is evident.

c. Supplementary to the study of these trunk routes is the study of other militarily significant routes. Throughout this route description, it must be remembered that an armored unit's mobility is cannalized in Korea. The use of these roads by armor is of considerable importance to this study in that there are so few areas where armor can be used extensively.

(1) Route #1 (Seoul to Sinuiju). (a) This route runs between Seoul and Sinuiju and is a segment of the Pusan to Sinuiju Road. It was developed by the Japanese as an overland route into Manchuria. Later the North Korea and USSR engineer units worked on the road to convert it into an all weather, two-lane gravel surface thoroughfare. This route connects with several alternate routes and a few railroad centers. The present conflict finds this route in considerable use by the Communist Forces for all types of military traffic and purposes.

(b) The route is 530 miles in length and 25 feet in width. It has good drainage and affords year-round traffic. Maintenance problems are not great due to the soil of the road.

(2) Route #2 (Kangung to Onsong).

(a) This route which parallels the east coast provides the passage from Pusan to the Manchurian border at Onsong. The route originates at Kangung.

(b) The road has several segments, which possess normally the same characteristics of soil structure, width, condition and drainage. Due to these features it was used to great advantage by the North Korean Army in its initial drive toward Pusan. The naval fire of the UN Forces rendered it untenable, hence the reason the North Korean Forces were forced to use alternate routes.

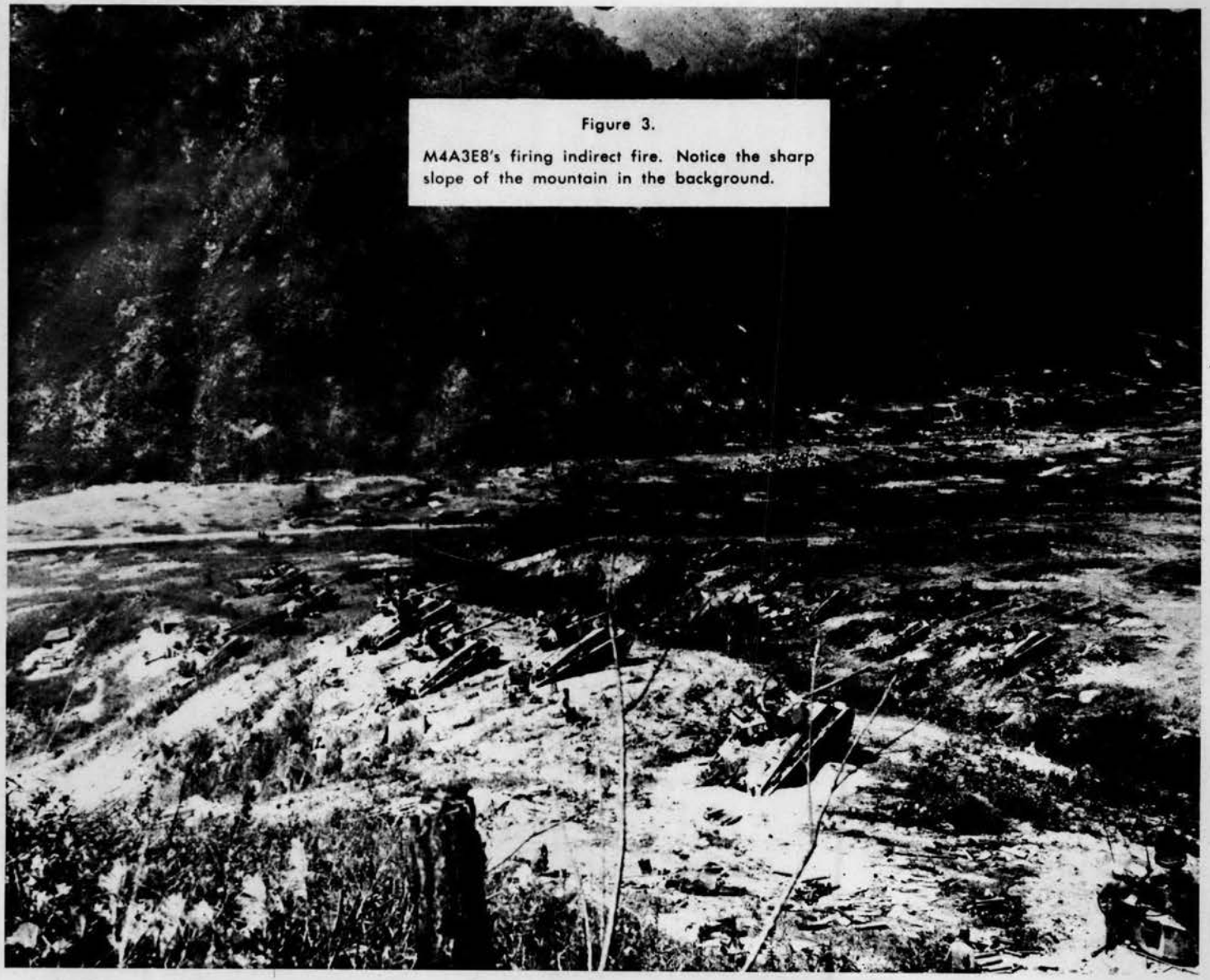


Figure 3.

M4A3E8's firing indirect fire. Notice the sharp slope of the mountain in the background.

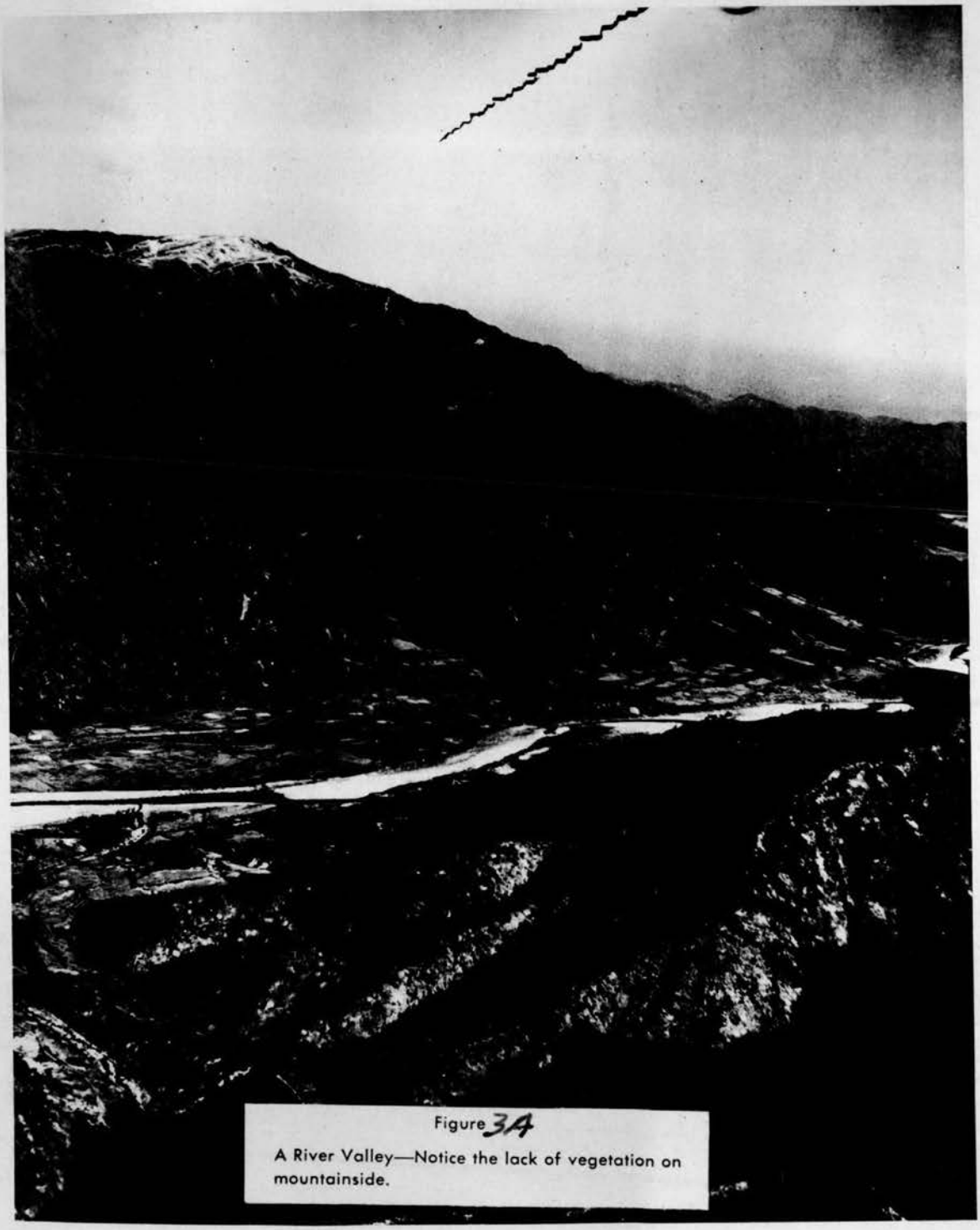


Figure 34

A River Valley—Notice the lack of vegetation on mountainside.

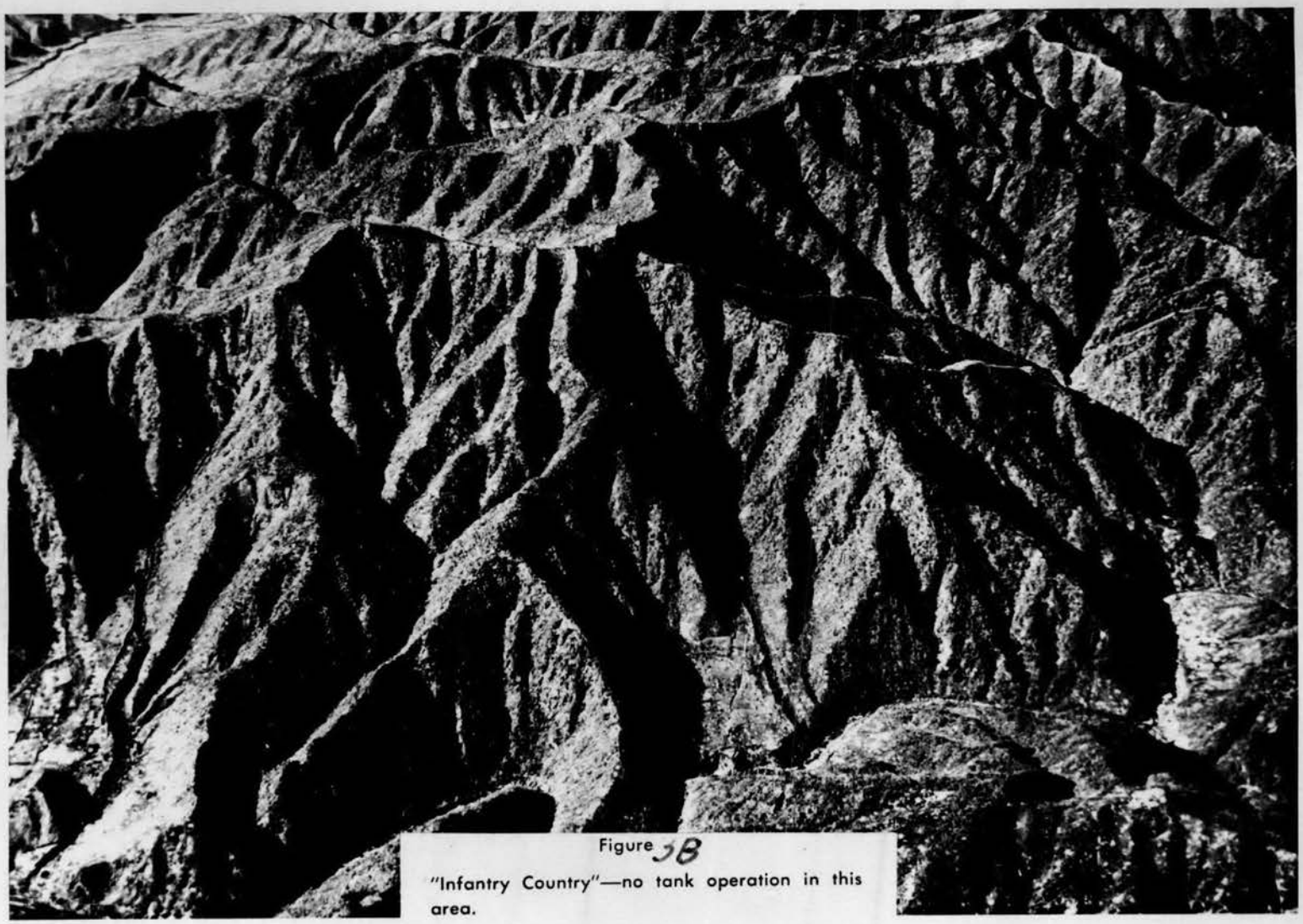


Figure 3B

"Infantry Country"—no tank operation in this area.

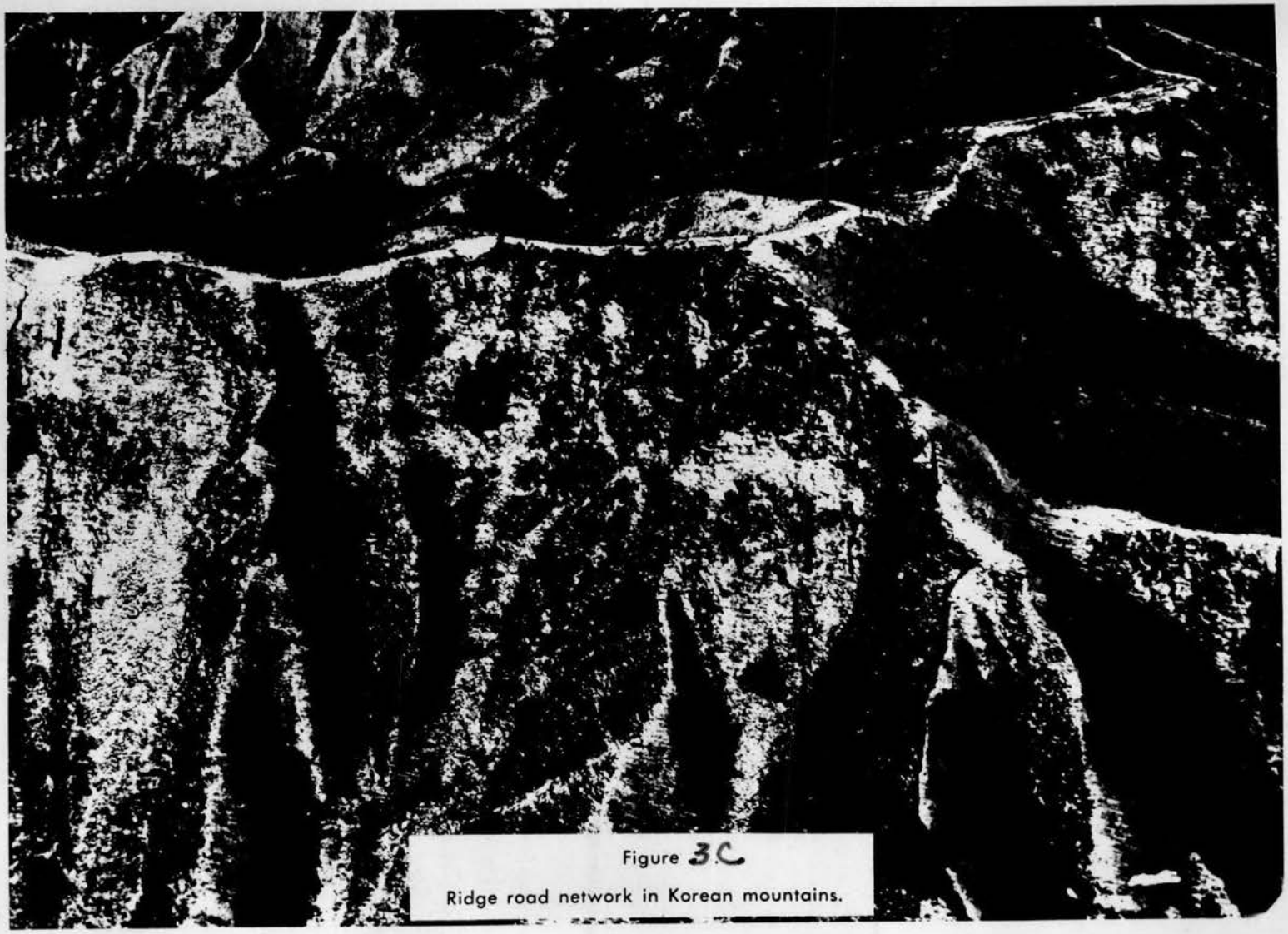


Figure 3.C

Ridge road network in Korean mountains.

(c) Several strategic centers are located along this route. A few are Wonsan, Hamhung, Chongjin and Ungg[illegible] which include port facilities. These strategic centers also serve as segments for this route which has an overall length of some 500 miles and an average width throughout of 18-25 feet. It can support speeds in the neighborhood of 25 miles per hour.

(3) Route #3 (Seoul to Wonsan)

This route is the best coast to coast route in Korea. It follows the natural main trunk route formed by the hydrographics of that portion of Korea. The Japanese designed and constructed this road as the overland route between Seoul and Wonsan. Again, the North Korean Government with Russian aid converted this highway into a first class route. It is capable of supporting most types of traffic and is an all weather route. Naturally this route is of value to the unit controlling it.

(4) Route #4 (Sinuiju to Onsong). The value of this particular route is due to its location. It is near the border of Manchuria and Korea. Several of it's branch roads run into Manchuria. It is apparent that this road is of military value to the force possessing it, in that it controls some routes into and out of both areas bordering the Tuman-gang River.

(5) Route #5 (Highway network in the northeast of Korea).

(a) The several short connecting roadways of this area radiate in several directions from Chongsan. Alternate passages from the east coast to the inner cities of this area and the border are possible by means of this road network.

(b) These roads are of various distances with general widths of 20-25 feet. Good passage exists except in rainy seasons. Generally the roads are in fairly good condition and can withstand speeds up to 30 miles per hour.

d. Many of these roads can be used by armor while others cannot. However, the major roads leading into and connecting the major military significant areas are usable. In areas of cannalization, the employment of armor on or adjacent to the major roadways is highly practicable and tactically sound. These routes afford ample logistical support to armored units. Communications over these same major roads can be established and adequately maintained.[9]

Culture and Zones of Military Significance

Chongjin Lowland. a. This lowland is probably the principal gateway to the northeastern part of Korea, Manchuria, and to Siberia. Chongjin is situated at the eastern end of a flat bowl and dominated by hills and drained by a small, winding master stream, a few smaller streams, canals and ditches. Most of the lowland is planted in rice and other crops.

b. The principal east coast road crosses the lowland from the southeast and turns inland abruptly at Chongjin, going up to the eastern side of the valley. One of the principal road and rail routes to the Tuman Valley and Manchuria follows this valley.

Hamhung-Wonsan Lowland. This is the largest lowland on the eastern coast. It provides one of the best lodgement areas in that region. Wonsan is one of the best harbors in Korea and is an important military and naval base. The city is on the southwestern shore of a sheltered bay and occupies a small low area overlooked by low, partly forested, hills. The main-east-coast road and railroad pass through Wonsan and the most favorable east-west passageway leads southward from Wonsan to Seoul.

Wonsan-Seoul Corridor. a. This is the most favorable cross-peninsular route of Korea, but it does not offer easy passage. Railroad and road have different routes with ascents to elevations of greater than 2000 feet. The corridor is not entirely suitable for rapid large scale operations but provides more favorable terrain than do other routes across the Peninsula.

b. This corridor consists of a narrow, winding depression between the Northern Taeback Range and the Southern Taeback Range. It contains two separate routes; one road and one rail. The corridor trends from north-northeast to south-southeast and is 60 miles long with a varying width from three miles at its northern end to 20 miles in the middle and 12 miles at its southern end.

c. At the northern end of the corridor, which is two to three miles wide, we find rolling terrain with vegetation, rice fields, and slopes rising steeply to 1300 feet above the floor. The terrain is dominated by steep hills, but is such that passage through it is alternately easy and difficult. Secondary routes are generally used. The drainage in this strategic corridor is dominated by the Namdoechon in the northern sector and the Hanton-chon in the southwest. There are sharp turns throughout the valley, and it is cut through rock. The stream bed widens as it nears the Wonsan-Lowland in the north and western lowlands to the southwest.

d. Much of the area is rough mountain land with some soils of loams, clays, and sandy clays. There are rice paddy areas and terraced farming along the routes which are flooded during June to September. Soils are most trafficable from mid-September through mid-November. Persistent snow cover lasts from December to February and these freezing conditions aid trafficability until the thawing season commences in March. The yearly rainy season from mid-June to mid-September causes poor trafficability conditions to exist during this period.

e. The mixed forests and scrub brush in the corridor do not impede observation. There are heavy grassy areas and a marsh area at the source of the Namdae-chon. Most of the valley floor is barren of vegetation and trees except for some grass.

Pusan and Vicinity. a. Pusan has a large protected harbor and handles more shipping than any other harbor or port in Korea. This harbor opens to the southeast and is separated into two entrances by rugged Mok-to-Island. Starting at Pusan, the main south-north road and rail routes go northward to Seoul and Sinuiju.

b. Pusan is the principal entry into Nakton Basin area. The route from Pusan inland to An-tung is one of the largest routes in Korea. The Yaktong-gang area includes the Pusan area and the Naktong-gang River, which is the second largest river in Korea. This River drains an area of about 9000 square miles and empties into the Korean Strait. The River is about 320 miles in length and has numerous tributaries, which flow in low, winding, gentle sloping beds. The River is navigable for about 200 miles, but is irregular in depth from one to 54 feet.

c. The banks of the Yaktong-gang are generally moderate gradients except near the mouths. These entrances have moderately steep and grassy covered banks. There are numerous curves with many barren areas exposing rock and boulders. This River floods yearly and inundates the rice fields in the low-lying valley bottoms. The streams in this area do not freeze and are fordable except during flood periods.

d. Numerous valleys throughout this area provide cross-country movement to foot troops and vehicles. The rice paddy lands occupy much of the lowlands and is non-trafficable during the rainy season or wet season from May to September. This region provides best movement during the period September through December in non-rice paddy areas and is less favorable from December to March. It is apparent that the thawing season also affords poor movement to vehicles throughout this region.

e. The vegetation is scattered, although trees and other undergrowths afford concealment for small groups.

Seoul and Adjacent Area. a. Seoul is the political center and transportation hub of Korea. Primary north-south and east-west roads and rail routes meet at Seoul. The city occupies most of a small lowland about two miles north of the Han-gang River. It is dominated by steep, rugged 1000-2000 foot hills. The Han is 200-500 yards wide near Seoul and is a barrier to north-south movement.

b. A few brief comments on this general lowland must be made in order to realize the importance of the entire lowland area. This lowland contains the key areas of Seoul, Mucon, Pyongijand and Pukchin. The key road routes pass through this area, such as the Pusan-Siniuju Road, Wonsan-Seoul Corridor route with their respective railroad centers. Also, we find four major rivers in this area: the Kum-gang, the Han-gang, the Taedong-gang, and the Chongchon-gang.

c. The Seoul area is one of the most important communication centers of Korea. This vital area and the Mehon area lie in the Han-gang Basin of the Western Lowlands.

d. Seoul and vicinity is a meeting place for routes from all directions and is considered the important area of the Western Lowland. This lowland is drained by three rivers. They freeze in the winter and are not trafficable during the rainy season. The alluvial plains and rice paddies are frequently inundated by the torrential rains and over-flowing rivers. The valleys are bordered by slopes which are often barren and steep. However, in other areas along the coast they are gradient and cultivated.

e. This region contains the largest cultivated area within the Peninsual, mostly cropland with considerable artificial irrigation. There are no extensive forests but the wooded areas are patchy and consist mostly of mixed broadleaf and needleleaf trees.

f. Barren valleys and hill tops are characteristic of Korea and this area is no exception to these factors. Though observation is good, there is little cover and concealment. Cross-country movement in the valleys is good when the routes are usable. Bridges across the rivers at vital points are capable of supporting armor.

Siniuju Area. a. Siniuju is not a deep water port, but it is significant because of its location on the Korean side of the Kang River. Although this River is trafficable when frozen, it is a serious barrier when open. Its banks are steep and it overflows in spring to inundate the lower parts of the valley.

b. The Siniuju-Antung area is the sixth of the military "must" areas. In this vicinity we find a focal point for roads and railroads for this area. The entire area lies in the Amnak-Kang River region. The Amnak-Kang River is the largest in Korea. When frozen this River is trafficable to vehicles, but in summer months and during the wet season the plains and road nets adjacent to this River are non-trafficable. Although the banks of the River are of sand and gravel, trafficability is still limited by steep bluffs bordering the River and its tributaries in this region.

c. Observation is good almost everywhere in the region except where obstructed by relief. Concealment is generally poor, and movement is **fairly** good except in rice paddy areas.[10]

NOTES FOR CHAPTER 2

[1]Joint Army - Navy Intelligence Study of Korea (The Joint Intelligence Publishing Board, 1945) chap 1, p 7-10, chap 2, p 1-49.

[2]Ibid, 2, p 4-6.

[3]Ibid, 2, p 5-6.

[4]Ibid, 2, p 5.

[5]Ibid, 4, p 1-8, p 25-38.

[6]Ibid, 4, p 8.

[7]Ibid, 4, p 2-8, p 14-16.

[8]Ibid, 4, p 10-15.

[9]Intelligence Summary, GHQ, FECOM, 31 May 1951.

[10]Joint Army - Navy Intelligence Study of Korea. (Joint Intelligence Publishing Board, 1945), Chap 2, p 56-58.

CHAPTER 3

I CORPS ACTIVITIES

Period Covered: 1 June - 30 June 51

During the first half of June, I Corps was engaged in Operation "Piledriver." This offensive drove deep into North Korea against stubborn enemy resistance and resulted in the seizure of key enemy supply and communication centers of Chorwon and Kumhwa. Enemy counterattacks, mines, and antitank positions slowed the friendly advance and damaged 57 tanks, three of which were totally destroyed.

No effort was made to push northward on the western front as it was decided to anchor the left flank of the Corps on the Imjin River. By mid June, Line "Wyoming" had been reached and work was begun on the preparation of defensive positions along that line. Aggressive patrolling continued throughout the period 15-30 June, along with the preparation of defensive positions.[1]

Period Covered: 1 July - 31 July 51

The mission of I Corps during July was to maintain defensive positions along Line "Wyoming" and to conduct extensive combat and reconnaissance patrols. These patrols were to penetrate the enemy reconnaissance screen in the Corps front in an effort to determine the disposition of enemy forces and to give early warning of any enemy movement in the Corps zone.

On 1 July the 7th Infantry Regiment, 3d Division and the 64th Tank Battalion attacked to seize Hill 717, the commanding terrain 8,000 yards southeast of Pyonggang. The 7th US Infantry was to attack the hill from the south while the 64th Tank Battalion was to split and envelop the hill. The 7th Infantry succeeded in reaching the south peak of Hill 717, after encountering an estimated two battalions of enemy, and established a defensive perimeter for the night. The 64th Tank Battalion enveloped the hill but failed to dislodge the enemy from his position on the hill; the tank battalion broke contact at 1800 hours and returned to friendly lines.[2]

The 3rd Battalion of the 65th Infantry moved up the Chorwon - Pyonggang road on 2d of July to the vicinity of Won-ni in preparation for an attack on the north side of Hill 717. The attack was made on the 3rd but little gain was made. At 1030 hours the same day, the 7th Infantry attacked and seized the hill.

[redacted]

Eight hundred forty-eight casualties were inflicted on the enemy by the 3rd US Division in the securing of Hill 717. On 4th of July, divisional units withdrew to Line "Wyoming" leaving reconnaissance elements in the vicinity of Hill 717.[3]

During the first half of July the 89th Tank Battalion was in Corps reserve. Those tanks which did not participate in patrol activities were dug in and camouflaged at key points along the main defense line. Special care was exercised to prevent the enemy from determining their exact location.[4]

Combat patrolling was in the form of limited objective attacks, and was conducted for three reasons: first, to clear the area of enemy; second, to obtain prisoners of war; and third, to prevent an enemy build up in the area west and north of the friendly main line of resistance. Limited objective attacks were launched on the extreme right of the Corps zone to secure more favorable terrain for the establishment of the main line of resistance. (Line "Wyoming")

Although the enemy did not launch any major offensive to drive the Corps south of the 38th Parallel, he employed probing attacks to determine the friendly outpost line of resistance and main line of resistance. Friendly patrols encountered an ever increasing amount of enemy mortar and artillery fire.

The cease fire conferences between representatives of the UN Command and the Communist Forces in Korea continued at Kaesong. The Communist representatives insisted that the buffer zone be astride the 38th Parallel while the UN representatives contended that the zone should be along the existing front lines.

The component units of I Corps in July were the: 1st ROK Division, 1st Commonwealth Division, 3rd and 25th U.S. Infantry Divisions, 1st Cavalry Division (Infantry), 73rd Heavy Tank Battalion, The Turkish Armed Forces Command, The Belgian and Thailand Battalions, The Greek Expeditionary Forces and other supporting units.[5]

Period Covered: 1 August - 30 August 51

The Kaesong cease fire conference had its effect upon friendly and enemy operations during the month of August. Neither side adopted an offensive attitude, although friendly forces launched several limited objective attacks.

The enemy reacted aggressively to all limited objective attacks. His reaction became evident in the number and intensity of his retaliatory night actions against friendly front lines during the month.

[redacted]

The Corps operated in the central and western portions of Korea. Along the west flank of the Corps sector the terrain was generally low, and rolling hills extended into some steep sloping hills. The Imjin River, extending along the western section made an extremely wide and muddy lowland barrier. The central sector was covered by hills of a slightly higher nature and in greater numbers. Small rivers and streams throughout this central area form natural barriers. The eastern section included low rolling hills and some area of generally flat lowlands. Flooded rice paddies and swollen streams existed throughout the Corps area.

Flash floods and overflowing small streams made vehicle and foot traffic difficult except along main roads and highland trails. All bridges across the Imjin River were washed out at one time or another. Rainfall during August was exceptionally heavy in comparison with previous years.[6]

The mission of I Corps during the month of August was to maintain defensive positions on Line "Kansas" from Munsan-ni northeast to the junction of the Hantan and Imjin Rivers and on Line "Wyoming" from the junction of the Hantan and Imjin Rivers northeast to the I - IX Corps boundary, some 4000 yards northeast of Kumhwa.[7]

On the 4th of August a tank-infantry force comprising of Company A and elements of Company C, 70th Tank Battalion of the 1st Cavalry Division, with two platoon of infantry in M39's and a mine team, crossed the Imjin River to conduct a raid into enemy territory. It soon became apparent that the selected route was impassable to armor. While trying to find a suitable route to the objective, the Task Force was subjected to heavy rains which washed out the bridge over the Imjin River and isolated the Task Force. The rains also reduced the area of operations to a quagmire and extreme difficulty was experienced in withdrawing. At one time the Task Force had seven tanks mired. Two additional recovery vehicles were disabled while attempting recovery operations. As a result of mines, terrain and weather, four tanks, four recovery vehicles, and one M39 Personnel Carrier were lost. The Task Force withdrew on the 7th of August over a river bed. Recovery operations to recover the vehicles that were abandoned were again tried on 24 August with a special force of five recovery vehicles, three tanks, one D-8 dozer and the reconnaissance platoon; however, again weather and terrain so hampered operations that only one M39 was recovered. The force was, in fact, so hampered that, but for the D-8 dozer, additional equipment would have been lost.[8]

On the 5th of July the 1st ROK Division launched a raid to the high ground southeast of Kuhwa-ri. Two days later the

1st Cavalry Division conducted a raid with one company to Hill 187 some 3,000 yards north of Line "Wyoming." This company received heavy small-arms and automatic weapons fire during the day and was counterattacked by approximately 300 enemy. Another company was sent to reinforce the attacking force while an air strike of 20 aircraft was placed on the enemy force with excellent results. Friendly forces continued the attack and secured the objective without further difficulty, remaining on the hill for the night.[9]

The 3rd US Division conducted a raid to the Pyonggang area on 8 August. One battalion of the 65th Infantry Regiment attacked from a patrol base located 2,000 yards southwest of Won-ni to Pyonggang. The enemy offered no resistance to this attack and friendly elements withdrew to the main line of resistance.[10]

In the 89th Tank Battalion, combat action during the month was confined to patrols and limited objective offensive operations. Continued emphasis was upon construction and improvement of defensive positions. Operations by armor were severely handicapped by the terrain, heavy rains and flash floods, and the enemy's extensive use of mines. As a result tanks were employed primarily in defensive roles along the main defensive line or in blocking roles in which they could be quickly utilized in a counterattack mission. Throughout the month, seldom were tanks employed in units larger than a platoon. The period 10-15 August was one of much mud; road travel was impossible and tanks became mired down.

In the month of August, the 89th Tank Battalion had 64 tanks, which used 65,860 gallons of gasoline and 4,959 rounds of tank ammunition.[11]

On the morning of 17 August a company size patrol base from the 5th Cavalry Regiment was attacked by an estimated reinforced company, approximately 9,000 yards west of Yonghon. This engagement lasted two hours before the enemy withdrew suffering heavy casualties. A platoon of tanks assisted in this action. Thirty-one enemy troops were killed in the action and thirty-three prisoners of war were taken.[12]

One company from the 65th Infantry Regiment plus a company of tanks closed into an assembly area, 2,000 yards north of the main line of resistance on the west side of the Chorwon-Pyonggang road. This force repulsed a small enemy probing attack while enroute to the assembly area. This tank-infantry action occurred on the 18th of August.[13]

UNCLASSIFIED

On the 19th of August the 1st Cavalry conducted a limited objective attack in the right portion of the division area. The 3rd US Division endeavored to clear the enemy from in front of the 65th Infantry. In order to place its main line of resistance on more favorable terrain, the 25th US Division made an attack in the right of the division zone.[14]

The enemy's patrolling continued to be aggressive. There were no indications of an impending counteroffensive, however, the enemy dispositions gave him the capability of strong attacks with little or no prior notice.[15]

In the last week of August tank-infantry elements of the 25th US Division encountered mines along the road that parallels the main line of resistance. Two tanks were damaged; one was set afire by a mine explosion and the other was recovered. As the tanks commenced their return via Kumhwa late that same afternoon, another minefield was encountered 3,500 yards northwest of Kumhwa.[16]

The Corps Commander ordered the Corps Armor Officer to obtain three tanks equipped with flails, to be used to clear the enemy mine fields. Vehicles of that type were not available in the Far East Command and little or no information was available as how to construct such a vehicle. Useful information was received from the 7th Royal Tank Battalion and the 30th Heavy Ordnance Maintenance Company was ordered to start construction of the vehicles.[17]

Period Covered: 1 September - 30 September 51

In an effort to sustain the offensive spirit of friendly troops, Corps conducted frequent limited objective attacks and raids into enemy held territory. The attacks served the two-fold purpose of training the newly arrived replacements and securing more favorable terrain upon which to set up the friendly outpost line of resistance and the main line of resistance. The latter part of September was devoted to preparations for the execution of Operation "Cudgel" an Eighth Army limited objective attack. This operation was called off but Eighth Army approved a Corps plan (Operation "Commando") designed to strengthen the supply line of the Corps by reducing the truck hauls during the winter months. The objectives of this plan were; to seize key terrain features overlooking the Yonchon-Chorwon Valley, to reduce the enemy's offensive capability, and to advance the main line of resistance a sufficient distance to permit the development of the Seoul-Chorwon-Kumhwa rail line. D-Day for Operation "Commando" was set for 3 October.[18]

UNCLASSIFIED

Major tank-infantry action during the month was the employment of Task Force Cutthroat to attack west along the Chorwon-Tosan Axis, destroy enemy emplacements, inflict casualties, and screen the Chorwon-Pyonggang road. The Task Force was composed of the 65th Infantry Regiment, the 64th Tank Battalion (- one company) and a detachment of the 10th Engineer Battalion, all units of the 3rd US Division. The Task Force attacked 18 September at 0530 hours, with one battalion employed in a secondary attack, the remainder of the Task Force making the main effort down the Chorwon-Tosan axis. After repulsing two enemy counter-attacks of company size, the Task Force advanced 4,000 yards against resistance by an estimated battalion. The enemy employed mortar and artillery fire against the attacking troops, while enemy mines slowed the advance of friendly tanks. The Task Force established defensive positions approximately 4,000 yards west of Noltari, after which units assigned blocking missions were withdrawn to the main line of resistance. The operation inflicted 163 casualties on the enemy.

There was only one reported use of tanks by the enemy during the period. This was two tanks engaged in a harrassing mission in the vicinity of one of our patrol bases. Enemy armor sightings in the rear areas increased in concurrence with the general build up of enemy strength opposing the I Corps. The 1st Chinese Mechanized Division with 120 tanks was believed to have been located in the Bibyon-ni area. This increased armor availability prompted a requirement that all divisions submit detailed antitank plans for their sectors.[19]

On the 6th of September Company A, 70th Tank Battalion, in support of Company K, 5th Cavalry Regiment, was at a patrol base forward of the main line of resistance. The patrol bas was attacked by elements of two enemy regiments at 2300 hours. The base was cut off and surrounded by the enemy forces, but managed to fight off the enemy until daylight. At that time the 3rd Battalion, 5th Cavalry crossed the Imjin River and attempted to reach the surrounded friendly troops. Foot elements of this force were pinned down by small-arms and mortar fire and were unable to advance. At 1400 hours, tanks of the 3rd platoon, Company A, 70th Tank Battalion crossed the river and advanced in an attempt to reach the base. Despite the fact that Chinese were on both sides of the only passable route into the area, the tanks pushed through alone, losing only one tank and one personnel carrier to enemy antitank mines. The second section of this platoon carried ammunition to the cut off friendly base. After linking up with the friendly troops, the entire force started to fight its way back to friendly lines, with the tanks carrying dead, wounded, and equipment. The Chinese, now caught between two fires, retreated in disorder leaving over five hundred dead on the battlefield.

During the remainder of the month all companies supported their respective regiments on line and in tank-infantry patrols. Tanks of the battalion were satisfactorily employed throughout the period on indirect fire missions, controlled through the fire direction center of the artillery. The use of tank guns in this manner gave valuable training and made full use of the guns when poor tank trafficability ruled out the use of tanks in normal roles.[20]

On the 17th of September a letter was initiated by the Commanding General, 1st Cavalry Division requesting that the three regimental tank companies authorized for the three regiments be activated and equipped. I Corps concurred strongly but Eighth Army replied that after a study of ceilings for tank strength in Korea, the request was not favorably considered at that time.

Tanks, especially the M46, were periodically employed as artillery to strengthen the fires of defensive positions and thereby increase enemy casualties. The lack of prior knowledge of such employment of tanks made the resupply of ammunition difficult. The normal rate of consumption of 90mm tank ammunition averaged 100 rounds per week per division. In one week, the expenditure of this type ammunition jumped to 1700 rounds. Part of this increase was due to frequent use of the tank gun to destroy enemy bunkers. Part was also due to the employment of tanks as artillery. All tank battalions were notified to advise the Corps Armor Officer in advance when tanks were to be used as artillery in order that supply agencies could arrange for transportation and resupply of the additional ammunition.

Friendly tank casualties for the month of September were; five destroyed by mines, twenty damaged by mines and two damaged by antitank fire. The box type land mine was most effectively used against Corps armor. No pattern or standard depth was noticed. The Chinese were using more powerful mines or were placing several mines together.[21]

Period Covered: 1 October - 31 October 51

The mission of the I Corps during the month of October was to attack and seize Line "Jamestown." This line linked key terrain features overlooking the Yonchon-Chorwon Valley. The purpose of this operation was to reduce the enemy's offensive capability and to advance the main line of resistance a sufficient distance to permit the development of the Seoul-Chorwon-Kumhwa rail line.

Once this line was secured, the Corps was to maintain the strategic defensive. All Corps units were to continue to emphasize raids, reconnaissance in force, and deep combat patrolling to keep the enemy off balance and to inflict maximum damage to his personnel and material.

On the 1st of October, the Corps continued the readjustment of positions and the regrouping of forces in preparation for Operation "Commando", the attack mentioned in the first paragraph.[22]

The operation was launched on the 3rd of October and was successfully concluded on the 19th of October. The remainder of the month was spent in mopping up operations in the 1st Cavalry Division zone, aggressive patrolling along the entire front, and the preparation and improvement of defensive positions along the newly secured Line "Jamestown."[23]

During the first day of the attack (3rd October) the 5th Cavalry Regiment, located on the division left flank, advanced against moderate enemy resistance for a distance of 2,000 to 3,000 yards. The left flank of this regiment was protected by Task Force MAC, composed of Headquarters, 70th Tank Battalion, the 16th Reconnaissance Company, two platoons of the 70th Tank Battalion, and four M16's.[24]

On the 4th of October, in the 3rd Division zone, elements of all regiments of the divisions were engaged in the attack to seize Line "Jamestown." Elements of the 7th Infantry Regiment attacked to seize high ground 2,000 yards west of that regiment's northwestern-most patrol base. This objective was secured after an hour firefight. One company of the 7th Infantry and one company of the 64th Heavy Tank Battalion established a blocking position on the Chorwon-Tosan road 3,000 yards west of Noltari.[25]

On the 4th of October the 1st Commonwealth Division secured its portion of the Corps objective. Two days later the 3rd Division had reached the part of Line "Jamestown" in its zone.[26]

The next day (7th October) a tank-infantry patrol of the 3rd Division became engaged with an unknown number of enemy 5,000 yards north of Line "Jamestown" on the Pyonggang road. Three enemy groups of unknown size, astride the road, forced the friendly patrol to withdraw after a two hour firefight. Another tank-infantry patrol on the Chorwon-Sibyon-ni road was engaged in a three-hour fight.[27]

The 1st ROK Division, which had reached its objective on Line "Jamestown" on the 3rd, conducted a limited objective attack on the 9th to the high ground 3,000 yards northwest of their

position on "Jamestown." One battalion of the 15th Infantry, supported by one company of tanks from the 73rd Heavy Tank Battalion, made the attack and was engaged by several platoon size enemy groups. The objective was reached and the friendly force withdrew. During this limited objective attack two hundred twenty-eight casualties were inflicted on the enemy.[28]

On the 11th of October the 1st Cavalry Division continued to attack to secure Line "Jamestown." The enemy continued to give heavy resistance from well emplaced bunkers, and the friendly forces were unable to make any gains. Task Force MAC relieved one battalion of the 5th Cavalry in line.

One company of the 64th Heavy Tank Battalion, less two platoons, were placed under operational control of the 1st Cavalry Division. These tanks were given to the 1st Cavalry Division to assist in the destruction of bunkers and emplacements in their area. The 90mm guns of the M46 proved to be much more effective than the 76mm guns mounted on the M4A3E8's of the 1st Cavalry Division tank units.[29]

On the 17th of October the 1st Cavalry Division was heavily engaged with the enemy while continuing the attack to seize its portion of the Line "Jamestown." The 5th and 8th Cavalry Regiments, supported by three flights of thirteen fighter aircraft inflicted one thousand two hundred ninety-two casualties on the enemy.[30] The next day the Corps completed securing Line "Jamestown" in the 1st Cavalry sector. This completed Operation Commando.[31]

The remainder of the month was devoted to extensive patrolling, raids, and improving the defenses along the Line "Jamestown."

At a firing demonstration on 30 October it was demonstrated that medium artillery and tanks could be maneuvered to the top of hills to furnish fire support. Two tanks and a 155mm gun were utilized in this demonstration.

A tank-infantry patrol of the 1st Cavalry Division lost one tank north of Ojoksan-ni to enemy direct fire.[32]

The antitank mine was the most potent antitank weapon employed by the enemy. Of the forty-two tank casualties sustained by the Corps during the month of October, thirty-nine were caused by mines. Two friendly tanks caught fire and burned as a result of mine explosions. The enemy attempted to destroy rather than merely damage friendly tanks. An M46 tank of the 64th Heavy Tank Battalion struck a mine, which exploded under the rear of the

right track. The tank was flipped over, the gun tube and turret were blown off and the tank landed upside down off the side of the road.[33]

During October tank sightings of enemy armor indicated that tanks were dispersed for defensive action. These sightings indicated that the enemy had sufficient tank forces to keep up the momentum of a counterattack, should he elect to do so.

As a result of an Eighth Army directive that the Corps tank units equipped with M4A3E8's be converted to M46 tanks, the 3rd US Division was issued sixty-six M46's for the regimental tank companies. This necessitated special training for tankers and mechanics who were not familiar with these tanks.[34]

The average percent of tanks operational for the month was 90.9 percent. This was a drop from the high average of 94.8 percent for September. The drop was caused primarily by the casualties inflicted by the enemy during Operation "Commando."[35]

The tank unit commanders of the 64th Heavy Tank Battalion complained that throughout the past operations the infantry unit commanders would not permit the tanks to fire as close to the attacking infantry as the tank unit commanders would have liked to fire. According to the tankers, the infantry commanders considered the tank fire as if it were artillery with a large dispersion instead of a direct fire, high velocity weapon with pin point accuracy. In many instances the tanks were in a position to the flank of a ridge, down or up from which the friendly infantry was trying to advance. When the tanks were forced to lift their fire it was necessary for the tanks to sit and watch friendly infantry receive machine gun and grenade casualties from enemy positions which could have been taken under tank fire with no danger to the friendly infantry.[36]

Component units of I Corps during October were the: 1st ROK Division, 1st Commonwealth Division, 1st Cavalry Division, 3rd Infantry Division, 9th ROK Infantry Division, 73rd Tank Battalion, 20th Phillippine Battalion Combat Team, Belgian United Nations Command, Greek Expeditionary Forces, Thailand Battalion.[37]

Period Covered: 1 November - 30 November 51

The month of November was characterized by the preparation and improvement of defensive positions along the "Jamestown" Line which was seized during the month of October in Operation "Commando." Friendly elements of the Corps were engaged in aggressive combat and reconnaissance patrolling through the month. Almost

every night the enemy launched limited objective attacks along Line "Jamestown." These attacks varied in strength from platoon to division, and in many instances these attacks succeeded initially, forcing friendly units to withdraw. Counterattacks by friendly Corps units regained the lost ground in most cases.[38]

Near the end of November the delegates of the armistice conference, being held at Panmunjon, agreed upon a military demarcation line to be used as a basis for a two kilometer withdrawal by both sides if an agreement could be reached on the other points that were being discussed.[39]

During the night 1-2 November elements of the 25th Infantry Brigade of the 1st Commonwealth Division observed enemy vehicles which were believed to be tanks or self-propelled guns. Friendly forces received a heavy volume of high velocity fire. The enemy attacked friendly positions of the Royal Canadian Regiment but was forced to withdraw.[40]

On the 4th of November an estimated two enemy battalions, supported by approximately 22 tanks and 3 to 4 self-propelled guns, participated in an attack against the 1st Commonwealth Division, located on Hills 217 and 317 near Kizong. By 1855 hours one of the friendly companies had been overrun and at midnight it was believed that an entire enemy division had been committed in this attack. Friendly forces were forced to withdraw from the two hills. The friendly division was supported by fighter aircraft, which attacked enemy tanks, self-propelled guns and troops. Four tanks and one self-propelled gun were destroyed.[41]

An enemy battalion forced elements of the 1st Cavalry Division off Hill 200. As planned, the platoon which was forced off the hill called for artillery after all troops had withdrawn. Five artillery battalions fired a Time on Target mission on the hill. Friendly troops counted 135 enemy dead when they had resecured the hill. This action took place on 8 November.[42]

On the 10th of November, the 1st ROK Division, 1st Cavalry Division, 1st Commonwealth Division, and the 9th ROK Division conducted night raids against enemy positions. The enemy stubbornly resisted these raids with small arms, automatic weapons fire, and grenades. It appeared that the enemy was not prepared to fire unobserved fire in defense of his positions. Tank and troop sightings indicated a continued aggressive attitude on the part of the enemy.[43]

The enemy conducted a limited objective attack on 17th of November against the 1st Commonwealth Division and captured Hill 227. The next day the hill was back in the hands of the Commonwealth Division but it was again lost to the enemy. After the enemy had captured the hill, he withdrew and the Commonwealth Division reoccupied the hill.[44]

The Corps was notified on 20th November that the 45th US Infantry Division from Japan would replace the 1st Cavalry Division.[45]

On 23 November the enemy launched a limited objective attack against Hill 355 in the 3rd Division area. The attack was intense and friendly elements were forced of the hill. The 2nd Battalion, 15th Infantry counterattacked at 2000 hours and by 2400 hours succeeded in reaching the foot of the hill. At 1630 hours, 24 November friendly troops were in possession of Hill 355.

The enemy again recaptured the hill at 2015 hours in an attack supported by tank and artillery fire. Pressure was continued against the enemy until he withdrew from the hill at 0305 hours.[46]

All Corps units were notified on the 28th of November that for each round of artillery or mortar fire received, they were to fire five rounds on enemy positions. The Corps Commander directed that all ground action was to be counterattacks to regain lost ground.[47]

With the coming of cold weather tank mechanics worked long hours in an effort to keep all tanks operational. The shortage of parts hampered and delayed the repairs on tanks; little hope was seen in the future for the required supply of spare parts.[48]

During the first part of November additional M46 tanks were received by the Corps causing much enthusiasm among the commanders. During this period all US tank battalions and tank companies had received mountain tents for use by members of tank crews; units were lavish in their praise of these tents. A request was made on 23 November by I Corps to Eighth Army for the construction of 12 flail tanks. This type equipment had performed efficiently in mine detonating test and with a few modifications should prove invaluable in reducing mine casualties.

The only significant lesson learned during the month of November concerns counterattacks; the well established principle of counterattacking promptly was reaffirmed. In one case during

the month, the counterattack was unsuccessful when a division required 18 hours before counterattacking to regain lost ground. In all other cases, when friendly counterattacks were promptly executed within a few hours, they were successful.[49]

Period Covered: 1 December - 31 December 51

Activity in the I Corps area during the month of December 1951 was characterized by a continuation of friendly reconnaissance and combat patrols, concurrent with the improvement of defensive positions along Line "Jamestown." During this month, the 45th US Infantry Division took over that section of the Corps front formerly held by the 1st Cavalry Division.

All divisions of the Corps maintained daily contact with the enemy by patrolling. In addition all units had screened their sectors for the apprehension of unauthorized personnel. Enemy activity on the front was limited to patrol probing of friendly outposts and occasional artillery, in reaction to friendly patrols.

Operation "Bounty" was published in the middle of December to advance portions of the friendly line to more advantageous terrain features. This plan was contingent on the possibility that the events at the Peace Talks, may make renegotiation of the line necessary; it was not necessary to implement this plan.[50]

On 1 December elements of the 3rd US Division directed tank fire on an enemy group on Hill 317 with excellent results. One hundred thirty-eight casualties were inflicted on the enemy.[51]

All units were directed to use both combat and reconnaissance patrols to locate and destroy the enemy. The enemy was not to be permitted to advance into areas not previously held by him.[52]

On the 5th of December the 3rd US Division was directed to maintain one tank company in the Yonchon Valley as security against a possible enemy airborne landing. This area was a vital communications hub, and its loss would cut off the withdrawal of friendly units to positions behind the Imjin and Hantan Rivers.[53]

In the 3rd US Division area on the 14th of December troops maintained defensive positions and patrolled without contacting the enemy. Friendly tank fire destroyed ten enemy bunkers and inflicted an estimated 34 casualties on the enemy. Friendly artillery fire destroyed one of two enemy tanks observed on the division front.[54]

On the 15th of December all divisions of the Corps conducted Operation "Skunkhunt" to apprehend all unauthorized personnel north of a restraining line three to five miles south of the Line "Kansas." This operation was conducted to eliminate enemy infiltrations and guerrilla personnel. 2,140 persons, 41 of whom were detained for further investigation, were evacuated from the area.[55]

A reinforced enemy battalion supported by artillery fire and tanks attacked elements of the 28th ROK Infantry Regiment on the 18th of December. The friendly outpost line was driven in, and the enemy continued his attack to the main line of resistance where the friendly regiment stopped him.[56]

The most significant friendly offensive action had been the attempt by the 1st ROK Division late in December to capture Hill 104. The occupancy of this hill by the enemy enabled him to dominate 1st ROK Division positions to the south. Initial assaults by friendly forces were unsuccessful, and the month ended with the enemy vigorously resisting attempts to dislodge him.[57]

In the month of December there were no major changes in the disposition of enemy armor on the Corps front. The 1st Chinese Mechanized Division with a maximum of 120 T34/85 tanks remained in the Sibjon-ni-Tosan area. These tanks were scattered with no indications for their use in large concentrations. The enemy used his tanks to support the infantry. Enemy tanks and self-propelled guns were used as roving guns, a logical mission for enemy armor during the prolonged defensive phase of combat in this theater.[58]

A World War II technique of bunker destruction employing 76mm tank cannon was found to be very effective by the 70th Tank Battalion. Generally the bunker is destroyed by firing above and below the embrasure opening. This caused the roof to collapse and the firing chamber to be filled with falling logs and dirt. A combination of HE and APC ammunition is employed in this technique.[59]

Tanks of the 17th Infantry Regiment were dug in on MLR positions of that unit. Defilade positions were prepared just below the ridge lines, approximately ten feet from the firing positions. After firing, the tanks would back into these prepared positions. On the first day, one platoon of tanks destroyed 19 bunkers, damaged 52, and blew up an ammunition dump. These tanks also killed 35 and wounded 75 enemy troops.[60]

Period Covered: 1 January - 31 January 52

The mission of I Corps during this period was to maintain and improve defensive positions along Line "Jamestown." All units of the Corps were to continue reconnaissance and combat patrols designed to capture prisoners, to locate and destroy the enemy and to prevent the enemy from securing positions not previously held by him.[61]

Throughout the month of January, all five divisions of the Corps maintained defensive positions, patrolled, and resisted the enemy's probing attacks.

On the 3rd of January the 1st ROK Division continued the limited objective attacks on Hill 104 and the high ground north and northwest of Hill 104. In this attack, the attacking forces consisted of two infantry companies, each reinforced with a platoon of tanks. The attack started at 1000 hours and by 1200 hours two of the three objectives were secured. Shortly after noon, a two company size counterattack by the enemy was repulsed. Later in the day the enemy again counterattacked and at the end of the day the friendly elements withdrew from 300 to 500 yards and consolidated for the night. A Corps observer noted that during this attack, the tanks made extremely slow progress due to terrain difficulties and that the infantry, therefore, moved to the objective area without the tanks.[62]

The 1st ROK Division continued its attack in the vicinity of Hill 104 but with little success. In one attack two companies of the 12 ROK Regiment, supported by artillery, air, and the fires of a company of the 73rd Tank Battalion, were unable to secure their objective.[63] On 8 January, after conducting limited objective attacks in the vicinity of Hill 104 since the latter part of December, the 1st ROK Division was ordered to suspend offensive operations in that area. Pressure was to be maintained by artillery fire and air strikes.[64]

On the 9th of January in the 45th US Division zone, a tank-infantry patrol fired on enemy occupied bunkers and trenches east of Kamagol, destroying three bunkers and possibly five more.[65]

On the 10th of January a company size patrol from the 20th Phillippine Battalion Combat Team, reinforced by a platoon of tanks and a platoon of mortars, raided Hill 166 southeast of Tan-dong. The patrol reached the objective by 0333 hours and engaged the enemy until 0600 hours. At that time the friendly patrol withdrew and returned to the main line of resistance.[66]

The 3rd US Division held a firing demonstration to demonstrate the effect of VT fuse against personnel in tanks and bunkers. The purpose was to emphasize that during enemy attacks, friendly troops may remain in bunkers and tank positions under their own defensive artillery fire.[67]

On the 29th of January a tank company patrol from the 179th Infantry Regiment moved to the vicinity of Togun-gol and fired for two hours on enemy bunkers on the ridge to the northwest.[68]

There were no mass sightings of enemy armor during the month, nor indications of its use in large concentrations. Enemy tanks and self-propelled guns were used primarily in defense against friendly patrols.[69]

In the action during the first part of January when the 1st ROK Division was attacking Hill 104, the tanks of Company C, 73rd Tank Battalion experienced difficulties in securing proper footing in the approaches to firing positions. Leading tanks chewed up the terrain, making further progress impossible. By the end of the operation, 14 tanks were immobilized. Two tanks were immobilized by enemy fire, one M32 by a broken propeller shaft and another one, by a broken clutch. Ten tanks had thrown tracks. Of all the 14 tanks immobilized, three were M32's. All but one tank was ultimately recovered. The large number of tracks thrown can be attributed to:

a. Insufficient time to reconnoiter the approaches to firing positions.

b. Deterioration of tank approaches due to constant traffic.

c. Frozen ground on the slopes which prevented build up of dirt against the tracks, which in turn would have prevented the tracks from slipping off.

d. Inexperience of the drivers.

e. Driving on the lateral slopes of the hills, of necessity to get into the most effective firing positions of Hill 104.[70]

In view of the difficulties encountered with the M46 tank and the subsequent recovery, it is believed that future use of the M46 must of necessity be confined to roads or gentle terrain where problems of traction do not exceed the capabilities of the tank.[71]

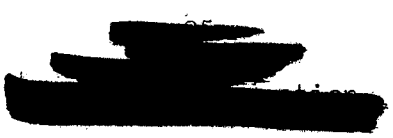
The 64th Tank Battalion found that the traction of the M46 did not permit the full use of the power of the tank on steep frozen grades. Tests were made of one-two-inch chevron block in each four or five, to focus weight on fewer points. Better traction was obtained, but still did not make full use of the tank's power.[72]

Period Covered: 1 February - 29 February 52

Action in the I Corps during this period was characterized by continued patrolling and reconnaissance and raiding parties. This was interrupted only by the six day Operation "Clam-up." This was a feigned withdrawal, designed to combat the enemy's tactic of relying on our patrols for contact, by which mean he protected his own troops from capture and casualties. The operation was marked by restrictions on movement, lights, patrolling, and unnecessary firing which would give away our positions. When the enemy came probing our positions, prisoners were taken. There is some indication that the enemy may have interpreted our quiet attitude as preceeding an attack, rather than making a withdrawal. There is also some indication that the plan may have been compromised.[73] Operation "Clam-up" was terminated in this sector at 1300 hours, 16 February by a short but intense delivery of all available fires. It was believed that these unexpected fires inflicted heavy casualties on an enemy grown over-bold.

During February friendly tank activity on the Corps front was relatively light, being confined primarily to use in bolstering infantry defenses and by firing on enemy bunkers and targets of opportunity. The largest offensive action involving tanks was Operation "Hobart", a tank-infantry battalion size raiding force of the 245th Tank Battalion and elements of the 9th ROK Division. Starting at 0530 hours 6 February the first objective was easily taken, although delay was experienced in closing tanks on the objective due to difficult terrain. The tank element could not reach the other two objectives, due to wide ditches and a deep river gorge. Reconnaissance had disclosed these natural barriers, but ROK Engineers had expended most of the explosives allotted in the early stages of the raid. Tanks delivered fire on both objectives, then covered the withdrawal of the party, breaking contact and returning to the MLR at 1100 hours. This operation was successful in many ways, in that it apparently took the enemy by surprise and also served as excellent training for the 245th Tank Battalion which had little combat experience.[74]

On the 29th of February, two tank forces from the 245th Tank Battalion were sent out to attack in double envelopment. Three tanks of one element, as well as a retriever, were disabled by mines but the remainder moved to the objective area where they



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inflicted damage on enemy positions, and returned to our positions. In the other element, two tanks became mired in soft ground but the other tanks advanced to positions to the north where they fired on enemy bunkers and trenches. One of the mired tanks was set afire by enemy white phosphorous shells.[75]

Enemy armored vehicles continued to be sighted along the Corps front and were employed as direct support artillery. Enemy tanks and self-propelled guns were used primarily in defense against UN patrols.

Reports from the 73rd Tank Battalion stated that the combat and training requirements to which the M46 tanks of the battalion were subjected during December resulted in placing over half of our tanks on the deadline because of mechanical abuse inherent in meeting the tactical demands for use in rugged terrain. On divided slopes tracks are thrown; on continuous climbing of steep grades output shafts and final drives give out. To alleviate this to some extent, the tank commander should be given as much latitude as possible in the selection of approaches and in determining grades which are too steep for the mechanical ability of the tank. Before ordering his tanks to perform a task which is mechanically ruinous, the Task Force commander or the commander to whom the tanks are assigned should carefully consider the risk involved in losing the tanks through mechanical failure. A loss, which is as serious to the current mission as a loss from enemy fire.[76]

Period Covered: 1 March - 31 March 52

Very limited activity characterized the operations of I Corps during the month. No special operations were undertaken by either friendly or enemy forces.[77] There was no change in the mission of the Corps. As in the past several months, the Corps was to maintain and improve defensive positions along the Line "Jamestown." Reconnaissance and combat patrols continued to locate and destroy the enemy, capture prisoners, and prevented the enemy from securing positions not held by him previously. Intense efforts were made to destroy enemy bunkers, fortifications and installations in the immediate front of the Corps by artillery, tank fire and air strike.[78]

A company of tanks from the 73rd Tank Battalion destroyed 36 enemy bunkers and 121 houses in the area south of Panmunjon. The twenty tanks involved returned to the main line of resistance with no loss in tanks and no friendly casualties.[79]

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Tank activity was relatively light during the month. Several tank-infantry patrols were made in the 45th US Division sector early in the month, but the tanks were primarily used on the main line of resistance to fire on enemy bunkers and fortified positions.

The 73rd Tank Battalion which had been in support of the 1st ROK Infantry Division, was relieved from the Corps on 31 March following the relief of the 1st ROK Division by the 1st Marine Division. The tank organizations in the 1st Marine Division include the 1st Tank Battalion, and three regimental antitank platoons for a total of 85 M46 Tanks. This increased the M46 tank strength of the Corps by 24 tanks.

Maintenance of the M46 tank had been hampered by the lack of trained maintenance personnel. Information was received during the month that Eighth Army would conduct a two-week M46 Tank Maintenance School in Seoul, with the classes to commence in April. It was expected that the school would materially improve the efficiency of maintenance personnel in tank units.

Three M4A3E8 tanks and M32 recovery vehicles were damaged by mines in February. These tanks were not recovered during March and the decision was made to abandon them until the rice paddies became firm enough to support recovery operations.[80]

Period Covered: 1 April - 30 April 52

There was no significant change in the I Corps operation during April. Corps units continued reconnaissance and combat patrols and improved defensive positions on Line "Jamestown."

Two major changes in troop dispositions occurred. The 9th ROK Division was relieved from I Corps and attached to IX Corps. The boundary between the 45th US Infantry Division and the 9th ROK Division then became the new boundary between I Corps and IX Corps. Also during April, the 3rd US Division was relieved on line by the 1st ROK Division and relieved from attachment to Corps to come under the control of Eighth Army.

The enemy continued his defensive attitude and reacted strongly to friendly patrols. His probe of friendly lines continued as did artillery fire on friendly patrols and positions.[81]

Period Covered: 1 May - 31 May 52

Activity on the I Corps front had remained relatively stable during May. Corps units continued improvement of defensive positions along Line "Jamestown," and conducted vigorous combat and reconnaissance patrols, concurrent with improvement of defense lines to the rear.

The enemy continued to react strongly to friendly patrols. He demonstrated his sensitivity to friendly probes with increased artillery and mortar concentrations. There was some indication of greater movement in the enemy's rear and a redistribution of his forces.[82]

During 3-13 May three outposts of the 1st ROK Division were repeatedly attacked by enemy forces. A heavy toll in enemy casualties were taken by the ROK Division by the tactics of withdrawing slightly and directing intense artillery and mortar fire on the enemy occupying the outposts. The friendly forces were then able to reoccupy the outposts without encountering enemy resistance.[83]

On the 20th of May at 0530 hours, one platoon of tanks and one infantry squad from the 1st Marine Division departed the main line of resistance. West of Changpa-dong one of the tanks was immobilized by a mine, but was retrieved. At 0815 hours, southwest of Changpa-dong, the friendly force received sporadic enemy small-arms, artillery, mortar, and rocket fire. Friendly tanks returned the fire and destroyed one 76mm gun before returning to the main line of resistance.[84]

Nine friendly tanks of the 45th US Infantry Division raided the village of Agok at 0630 hours on the 25th of May. The friendly force received artillery, mortar, and antitank fire from Hill 270 north of Hyoryongdae, but in conjunction with two friendly air strikes placed on the hill, the tanks killed five enemy, wounded three, and destroyed or damaged 24 bunkers.[85]

On the 28th of May a company size force of the 1st Marine Division, supported by two reinforced platoons, made an attack on Hill 104, south of Tumae-ri. Despite heavy enemy artillery, the objective, as well as two flanking objectives, were successfully occupied before the force withdrew under cover of smoke.[86]

During the month of May, tanks continued to be used to render close support from dug-in positions along the main line of resistance. Emphasis continued on enemy bunker destruction by direct tank fire.

In the 1st ROK Division the tank positions of a reinforced tank company of the 245th Tank Battalion were subjected to enemy artillery fire. To counteract this, additional camouflaged tank positions were dug and tanks moved to the new positions.

During the month, preliminary tests were conducted with flail tanks against Soviet AT TMD-B box mines. The tests proved the flail assembly fairly successful. It was concluded that from

50 percent to 75 percent of the time the tank flail would detonate AT mines buried up to six inches in depth on the first pass over a buried mine.

Fifty 18-inch searchlights for mounting on tanks arrived and were shipped to the Corps Engineer Dump for distribution to tank units of the Corps.[87]

Period Covered: 1 June - 30 June 52

The mission of I Corps during June was to maintain defensive positions along the "Jamestown" Line, to continue reconnaissance and combat patrols, to locate and destroy the enemy, capture prisoners, provide security for the main force, and to prevent any loss of ground. During the month, this mission was expanded to include company size raids on Corps authority to intensify efforts to gain intelligence and for strong limited objective attacks to improve and strengthen line "Jamestown."[88]

On the 7th of June the enemy launched a series of probes up to company strength against the 45th US Division. These probes, which were the strongest enemy effort in several weeks, centered around Hill 300. The enemy was repulsed without loss of ground by friendly troops. These attacks against the 45th US Division area were intensified on the 10th in the vicinity of Hill 200.[89]

A battalion size attack on 11 June, with the objective to seize the southern finger of Hill 191 in the vicinity of Tumyong-dong, crossed the line of departure at 0600 hours with two companies in the assault and one in reserve. Two platoons of tanks supported the assault. Friendly forces were on the objective by 0800 hours. Enemy activity increased, with evidence that the enemy was preparing to counterattack. Tank elements of the friendly forces continued to fire from the right flank, engaging targets of opportunity until they returned to the MLR at 0900 hours. At 0820 hours the reserve company was committed and became engaged with an undetermined number of enemy on the southeast slope of the hill at 0930. At 1145 hours, an undetermined number of enemy launched a heavy counterattack from the north, but the friendly troops held their positions. Three friendly platoons were dispatched from the main battle positions as reinforcements at 1355 hours. An estimated enemy battalion was bombed by an air strike while they were in the assembly area preparing for an attack. At 1640 hours an enemy company launched a counterattack but was repulsed with heavy casualties. By 1710 hours the enemy was attempting to withdraw to the north. At the end of the day, action had lessened and friendly troops consolidated their positions.[90]

On the 22nd of June Hill 191 was secured by the 45th Division after resisting some twenty counterattacks.[91]

The Commanding General, Eighth Army ordered the attachment of the 3rd Infantry Division to I Corps, effective 1 July. He further ordered that the 1st ROK Division be relieved from attachment to I Corps and revert to control of the Chief of Staff of the ROK Army.[92]

During the month inconclusive results were obtained with the tank-mounted searchlights. The tanks mounting these searchlights assisted materially in the 45th US Division's defense of Hill 191.[93]

NOTES FOR CHAPTER 3

[1]US I Corps Command Report July 1951, p 1.

[2]Ibid, p 3.

[3]Ibid, p 6.

[4]89th Tk Bn Command Report July 1951.

[5]US I Corps Command Report August 1951, page 2.

[6]Ibid, p 4.

[7]Ibid, p 5.

[8]70th Tk Bn Command Report August 1951.

[9]US I Corps Command Report July 1951, p 15.

[10]Ibid, p 17.

[11]89th Tk Bn Command Report August 1951.

[12]US I Corps Command Report August 1951, p 29.

[13]Ibid, p 31.

[14]Ibid, p 89.

[15]Ibid, p 35.

[16]Ibid, p 39.

[17]Ibid, p 74.

[18]US I Corps Command Report October 1951, p 1.

[19]Ibid, September 1951.

[20]70th Tk Bn Command Report September 1951.

[21]US I Corps Command Report September 1951.

[22]US I Corps Command Report October 1951, p 5.

[23]Ibid, November 1951, p 1.

[24]Ibid, October 1951, p 9.

[25]Ibid, p 12.

[26]Ibid, p 89.

[27]Ibid, p 18.

[28]US I Corps Command Report October 1951, p 21.

[29]Ibid, p 25.

[30]Ibid, p 33.

[31]Ibid, p 34.

[32]Ibid, p 54.

[33]Ibid, p 61.

[34]Ibid, p 77.

[35]Ibid, p 78.

[36]64th Tank Bn Command Report October 1951.

[37]US I Corps Command Report October 1951, p 2.

[38]Ibid, December 1951, p 1.

[39]Ibid, November 1951, p 2.

[40]Ibid, p 7.

41 Ibid, p 11; Intelligence Summary, Headquarters UNC No. 3345, 6 November 51, p 2.

42 Ibid, p 20.

43 Ibid, p 107.

44 Ibid, p 108.

45 Ibid, p 109.

46 Ibid, p 49, 51, 53.

47 Ibid, p 61.

48 Ibid, p 92.

49 Ibid, p 114.

50 US I Corps Command Report January 1952, p 1.

51 Ibid, December 1951, p 7.

52 Ibid, p 9.

53 Ibid, p 13.

54 Ibid, p 28.

55 US I Corps Command Report December 1951, p 101.

56 Ibid, p 36.

57 Ibid, January 1952, p 2.

58 Ibid, p 67.

59 Ibid, p 107.

60 17th Infantry Command Report December 1951.

61 US I Corps Command Report January 1952, p 7.

62 Ibid, p 11.

63 Ibid, p 17.

64 Ibid, p 19.

[65] Ibid, p 20.

[66] Ibid, p 21.

[67] Ibid, p 27.

[68] Ibid, p 45.

[69] Ibid, p 52.

[70] Ibid, p 73.

[71] Ibid, p 96.

[72] 64th Tk Bn Command Report January 1952.

[73] US I Corps Command Report February 1952, p 93.

[74] Ibid, p 72.

[75] Ibid, p 48.

[76] 73rd Tk Bn Command Report December 1951.

[77] US I Corps Command Report March 1952, p 89.

[78] Ibid, p 8.

[79] Ibid, p 28.

[80] Ibid, p 68.

[81] US I Corps Command Report May 1952, p 1.

[82] US I Corps Command Report June 1952, p 1.

[83] Ibid, May 1952, p 94.

[84] Ibid, p 35.

[85] Ibid, p 43.

[86] Ibid, p 94.

[87] Ibid, p 80.

[88] Ibid, June 1952, p 8.

[89] Ibid, p 86.

[90] Ibid, p 25.

[91] Ibid, p 87.

[92] Ibid, p 88.

[93] Ibid, p 76.

CHAPTER 4

IX CORPS ACTIVITIES

Period Covered: 25 June - 31 July 51

At the beginning of the second year the IX Corps Units consisted of the 2nd ROK Division, 24th US Infantry Division, 7th US Infantry Division and the 6th ROK Division. The IX Corps Units occupied line WYOMING and were actively engaged in preparing the fortifications and defenses of both WYOMING and KANSAS lines.[1] See Situation Map, Figure 6, as to area location and disposition of units within the Corps sector. Line WYOMING was the major defense line along which the friendly forces would hold if the enemy launched an attack.

As the last days of June passed, friendly activities were limited to strengthening defensive positions and fortifications. Enemy resistance was moderate, however, increased hostile resistance and rear area wheeled vehicle movements indicated a general build up within the area. Air reported in one instance a 40 to 50 vehicle convoy immediately in the rear of front line positions. In addition enemy front line preparations of antitank ditches, mine fields and troop movements in the area southeast of Chuktong-Kumsong and east of Kumhwa indicated his defensive attitude. On the 26-28th a limited friendly attack resulted in 7,518 enemy casualties at a cost of 325 friendly forces.[2]

During early July little activity occurred, probably due to the peace rumors and talks, however, extensive patrols operated up to 8,000 yards during both daylight and darkness. It is well to note here that the best terrain for the employment of enemy armor was in the Kumhwa area. On the 5th and 19th July elements of the 24th US Division received some 58 rounds of self-propelled fire. The 2nd ROK and the 24th US Divisions launched limited attacks on the 8th and 12th respectively to determine enemy strength, destroy fortifications and dislodge enemy assembly areas. Both attacks were successful in the accomplishment of their missions.[3] Limited gains were again achieved on the 14th and positions were consolidated in preparation of an expected enemy counterattack. During this action elements of the 6th Tank Battalion advanced some three miles toward Chuktong and were heavily engaged by small-arms, mortars and artillery fires. After this action was over, 75 enemy casualties were counted, as well as six ammunition dumps destroyed; four 82mm mortars and one field artillery piece were also destroyed. Little action took place between the 15th and 20th

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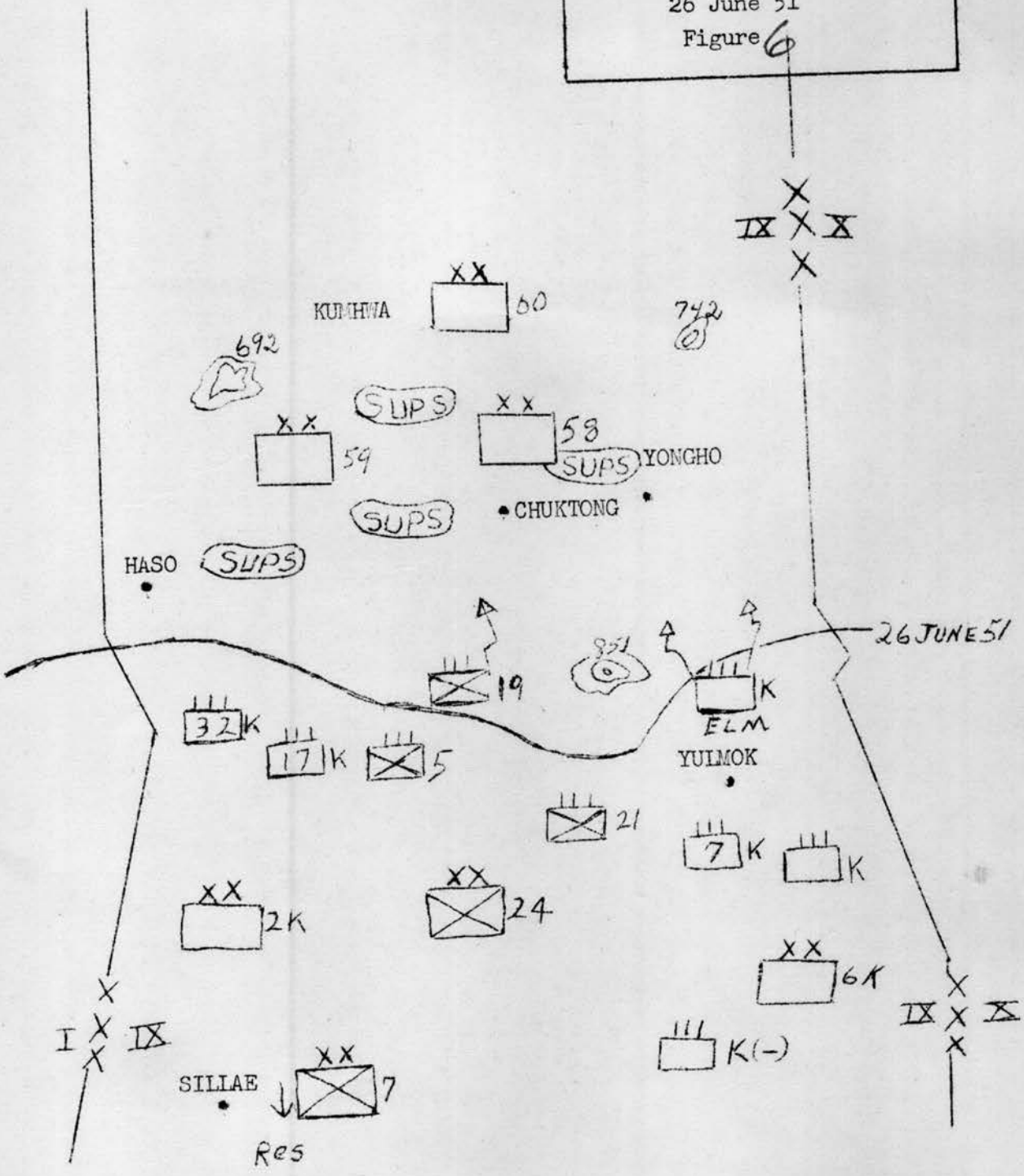
IX CORPS
COMBINED G-2/G-3
SITUATION MAP
26 June 51
Figure 6



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July, with elements of the Corps engaging in light patrols and probing attacks, thus keeping continuous pressure on the enemy. The 7th US Division remained in Corps reserve throughout this period, as did the newly received Ethiopian Battalion, and fortified line KANSAS.[4] The first month of "Peace Negotiations" ended with little being accomplished in either the tactical situation or in the Negotiations themselves. Some limited objectives were gained against light to heavy enemy resistance. Extensive short phase patrolling took place as did numerous tank-infantry team operations.

The Corps front line remained stabilized during the entire month with a few minor adjustments. Due to rigid engineer restrictions on movements of heavy equipment on rain soaked roads and bridges, it was necessary that arrangements be made with Corps Ordnance for maintenance teams to perform transmission, minor repairs and welding jobs in the tank company areas. This system did not prove too sound economically nor did it materially aid in maintenance productivity. There were 33 separate enemy armor sightings during the month. In addition there were 12,304 enemy casualties in the IX Corps sector.[5] The armored units assigned were as follows: the 72nd Tank Battalion was assigned to the 2nd Infantry Division; the 6th Tank Battalion was assigned to the 7th US Division.

Some difficulty was encountered with the M32A1B2 and 3 as a recovery vehicle. It was found that the M32 could tow the new M46, however, after a sufficient period of towing, the spark plugs became excessively fouled and the engine consumed excessive oil. In several instances rods were thrown.[6] In addition to this, the 6th Tank Battalion tried using the M46 as a recovery vehicle, with unsatisfactory results. Several tanks were lost due to enemy antitank mines during the period. These tanks were recovered in accordance with normal recovery operations, if the position was tenable from a security point of view. In situations of this nature the tank crews remained behind and assisted or provided security as required. With the new M46 in combat the need for spare parts increased, however, priority did not justify this allocation. The Armored Section of the Corps Headquarters recommended that an additional officer space be allocated to Staff Section due to the numerous problems arising from the tank employment in the rugged Korean terrain.[7]

Period Covered: 1 August - 31 August 51

Early in August action became brisk on the 7th US Division front as elements of this division became involved in a two day engagement with an enemy probing battalion. Task Force HOOK was organized with elements of the 6th Tank Battalion, 987th AFA

Battalion, 2nd Battalion of the 17th Infantry Regiment and the 1st Platoon, Company A, 3rd Engineer C Battalion. The mission of the Task Force was to counterattack any penetrations made in line WYOMING in the IX Corps left sector and in the eastern sector of I Corps in the vicinity of Kumhwa.[8]

Operation Directive 49, dated 2nd August, directed that the 7th US Division assume responsibility for rear area installations in the 24th US Division area. The 24th US Division attacked on the 2nd August in operation COWPUNCHER with the mission of causing casualties and securing terrain 5,000 meters forward of line WYOMING. Medium enemy resistance was encountered, however, the enemy employed 400 to 500 rounds of artillery on the 2nd day of this engagement. This is the heaviest enemy artillery engagement that has occurred in the IX Corps area since the beginning of the Kaesong Peace Negotiations. Line COWPUNCHER was secured on 8th August only to have friendly elements withdraw to line WYOMING. During this encounter the enemy suffered 1,760 casualties for a seven day period.[9] The 24th US Division was relieved by elements of the 7th US Division and went into Corps reserve. Along the remaining Corps front, strong friendly patrols met and engaged numerous enemy probing patrols. Reports continued to indicate the enemy was stock piling supplies and equipment on the Corps front, retaining the capability of sustained enemy limited offensive.

During the period 8-18 August the usual patrol activities occurred, with some limited attacks being made in the IX Corps front by elements of the 2nd ROK Division. Resistance became stiff as friendly aggressive patrols probed into enemy held positions. On numerous occasions enemy counterattacks, up to battalion size, were employed against friendly front lines. On the 18-19th August elements of the 7th US Division, in the general vicinity of Chuktong, gained limited ground against stiff enemy resistance. Elements of the 2nd ROK Division were forced to withdraw and then counterattack Hill 600 in the vicinity of Kumhwa. On the 22nd August elements of the 32nd Regiment on Hill 600 were again forced to withdraw.[10] Friendly actions during the last few days of August were characterized by tank-infantry patrols on the 7th US Division front. Company B of the 32nd Regiment, with tank support, engaged the enemy in a pitched battle for four hours with friendly forces advancing up to three miles. The fighting spread and for the next three days the area south of Chuktong was engulfed in a bitter struggle of combat patrols and minor offensives against critical terrain features.[11] The 6th Tank Battalion supported the 7th US Division operations during this period expending some 3,069 rounds of 76mm ammunition.

On the 28th of August the 25th US Division, to include the Turkish Battalion and the 24th US Regiment, was attached to the Corps. On the 28th the Corps sector was shifted to include the 25th US Division area as it became part of the Corps. This new change included the area east of Chorwon-Kumhwa-Pyonggang.

During the period the Corps conducted daily patrols, ranging up to 3,000 meters in the 2nd ROK Division area, to 8,000 meters in the 6th ROK Division area. The patrols varied up to company size and an average of two per division per day were dispatched. Tanks were employed either as tank-infantry teams or as a supporting element to the infantry patrols. An increase of enemy tank sightings were reported in enemy rear areas to bring the estimated total of tanks and self-propelled vehicles up to 120-246. Enemy casualties for the period were 7,736.[12]

Period Covered: 1 September - 30 September 51

While the Kaesong Armistice Negotiations developed during July and August, friendly forces in the IX Corps front were faced with a rapidly increasing enemy. Large stock piles had been observed in the Kumhwa-Pyonggang-Koeyang Triangle, as emplacements and fortification constructions were being observed on the front line. This mass influx of troops and supplies imposed serious restrictions in the advances of friendly elements. Previously discussed Task Force RIGHT HOOK, authorized by Corps Operation Directive 48, was redesignated as Task Force BYORUM on 1 September. However, the mission of counterattacking enemy penetrations remained unchanged.[13]

Elements of the 25th US Division, supported by the 89th Tank Battalion and the 6th ROK Division, attacked on limited fronts to secure favorable positions on Hills 851 and 819 in their respective zones. Enemy resistance was strong with friendly tanks encountering antitank mines and antitank guns. The enemy's use of antitank mines was the most effective encountered thus far.[14]

On 8th September friendly outposts were forced to withdraw due to enemy probing pressure. An example of this type action was in the 35th Infantry area, southwest of Chungdong. In patrolling action an antitank mine disabled a friendly tank south of Chuktong.[15] Another armored action took place on the 9th of September in the 7th Division zone where a friendly tank-infantry patrol engaged the enemy south of Chuktong inflicting 150 casualties, 40 of which were KIA. It had become universal throughout this area, in this type of patrol action, for tanks to accompany infantry in a supporting or overwatching capacity.

Tanks proved their value of great fire power in a concentrated force and also as an everlasting morale factor to friendly infantry. Friendly forces of the Corps continued their limited aggressive movements on the 10th of September with the exception of the 35th Regiment, 25th US Division, which began withdrawing in accordance with previously laid plans. In this action the 25th US Division attacked against Hill 717 with seven tanks from the 89th Tank Battalion. These tanks became mired down due to heavy weather and darkness. "To save these tanks from enemy tank hunter teams the entire Task Force formed a perimeter around the disabled tanks. All tanks were recovered and returned to friendly lines."[16]

In the 27th Infantry sector two friendly tanks were disabled by antitank fire while on a routine patrol mission. On the 11th, the 27th Infantry, with Companies B and C of the 89th Tank Battalion attached, launched a limited attack to secure more favorable defensive terrain. During the initial action a tank dozer encountered an antitank mine while in the process of filling in an antitank ditch. Two additional tanks became mired down in the same area, however, these were recovered and proceeded on the mission. Four other tanks were lost due to antitank mines, mortars and artillery fires. On the following day the objective, Hill 538, was secured. In this operation, 70 enemy were KIA.

It was also during this period that Task Force LIGHTNING was composed: one Infantry Battalion of the 14th Regiment; two Tank Companies of the 89th Tank Battalion; and one Antiaircraft Platoon. Twenty-five half-tracks were secured to transport this Task Force.[17] Here again is shown the need for a fully covered armored personnel carrier. In this particular operation the Task Force Commander was required to dismount the personnel and leave his vehicles behind since they were unable to run the heavy mortar and artillery fires in open half-tracks. If accompanying infantry elements of the Task Force are not adequately covered, results of the armored units cannot be fully evaluated.[18]

On the 12th and 13th two additional tanks were disabled in a successful limited attack of Hills 419 and 400. Tanks were employed as a reinforcing factor in this action. Another example of this supporting action occurred in the 24th US Infantry positions southwest of Hasoon on the 15th and 16th. In this action the 24th Infantry Division was engaged in a limited offensive, however, without success. Additional troops and tanks were secured and employed with the original attacking force, thus resulting in the securing of the objective. On the 21st Operation CLEAVER, consisting of four tank-infantry Task Forces from the 25th Infantry Division, was composed as follows; Task Force

LYNX consisted of a Company from the 14th Infantry, a tank company from the 89th Tank Battalion, the 25th Reconnaissance Company, a platoon of Engineers, and elements of an antiaircraft platoon. Task Force LYNX launched a coordinated attack against their objective northwest of Tuchon. A second Task Force, HAMILTON, composed of equal elements, launched an attack northeast of Haso. Enemy antitank fire disabled four tanks and an antitank mine disabled another in the advance forward. Visibility was limited by heavy ground fog and the Task Force moved slowly with only limited success. Infantry troops were forced to dismount due to enemy mortar and artillery fire. The tanks, advancing ahead of the Infantry, proceeded to advance by sections in a leap-frogging action. Antitank fire disabled one tank, however, the antitank position was silenced by other tanks of the platoon. The forward advance of the Task Force was stopped temporarily as friendly air and artillery strikes were delivered. In the continuation of the advance, one tank was lost to an antitank mine; two others were hit by antitank fire, one of which returned to friendly lines under its own power. All disabled tanks were recovered under cover of smoke and Task Force HAMILTON returned to friendly lines. During the action the Task Force received some 500 rounds of artillery and mortar fire. In addition approximately 90 rounds of antitank fire were received. This was the most concentrated AT fire received by the 89th Tank Battalion in its fourteen months of combat operations. It is noteworthy to add that the ability of armored forces to move rapidly and penetrate deep into enemy positions was greatly favored by the fact that the enemy forces had very limited communication facilities.[19] Considerable damage had been inflicted by both Task Force LYNX and HAMILTON on enemy bunkers, positions, troops and Ordnance material. Four of the five disabled tanks were recovered and returned to friendly lines.

In the 2nd ROK Division Area, Task Force BYORUM, comprised of tank-infantry units as previously designated, gained limited ground in the division sector. The Task Force was severely hampered by antitank ditches, mines and fires. By noon four tanks and one tank dozer were disabled by mines; two additional tanks were disabled by antitank fire. The Task Force carried their objective without additional armored losses. The Task Force inflicted 556 casualties; destroyed 107 bunkers and three machine gun positions. In other sectors of the Corps, small tank actions of the Regimental Tank Companies took place in patrols, defensive operations and limited aggressive movements.[20] The raiding operation CLEAVER, launched by friendly forces on the 21st of September, were obviously expected by the enemy. Captured enemy PW's revealed that captured UN prisoners had disclosed the expected UN plan of operation.[21]

[redacted]

Action during the last week in September was similar to that of July, in which friendly forces made a series of limited attacks on hill-type objectives and strengthened defensive positions. The enemy made a series of small company-battalion size probing attacks without results. During the period numerous friendly tanks were disabled by enemy antitank mines and enemy tank fires. However, recovery of the disabled vehicles was universal throughout the Corps Area.

Corps actions for the month of September netted an enemy loss of 35,992, of which 442 were POW's, and approximately 20,000 were KIA. Close tactical air support was predominant throughout the period. In addition, maximum employment of artillery in all operations was utilized. To facilitate coordination with supporting artillery units, a tank liaison officer was attached to each artillery battalion and was extremely effective in securing rapid coordination of fire missions. Tank Battalion radio command channels were used.[22]

Period Covered: 1 October - 31 October 51

The Corps under Operation Directive 45 occupied line WYOMING and conducted an active defense. In early October the pattern of friendly action remained unchanged from that of late September as small reconnaissance patrols continued to operate forward of the main line of resistance. "Raids were conducted by tank supported elements that penetrated deeper into enemy territory than the infantry patrols."[23] Tanks destroyed enemy fortifications along the armored approaches to enemy positions. Patrols encountered harassing anti-personnel mines throughout the 7th US Division sector. Elements of the 25th US Division attacked on a limited scale east-southeast of Tuchon to seize more favorable terrain for the defense. Tanks of the 35th Regimental Tank Company were employed to disperse enemy counterattacking elements, and in friendly probing patrols south of Chunkgdong. Elsewhere along the front, light and brief encounters were reported.

By the 3rd of October the 7th, 24th, and the 25th US Divisions had drawn 25 personnel carriers M3A1 as authorized by EUSAK TWX 021100 September 51, to provide infantry transportation for tank-infantry operations. Friendly order of battle included the 7th US Division; with the Ethiopian Infantry Battalion attached, the 25th US Division; with the Turkish Battalion and the 89th Tank Battalion attached, the 2nd and 6th ROK Infantry Divisions; all of which were on line, and the 24th US Division; with the Columbian Infantry Battalion and the 6th Tank Battalion attached in Corps Reserve. On 3 October elements of the 14th Regiment and the Turkish Battalion launched a successful coordinated attack to secure the railroad north of Chorwon. Also on the 7th US Division

front tank-infantry teams of the 27th Regiment engaged elements of an estimated hostile regiment with satisfactory results. The enemy suffered over 380 casualties with the friendly forces losing one tank to an antitank mine before returning to their lines.[24] On the 6th of October the 7th US Division was relieved by the 24th US Division to become Corps Reserve. The 7th US Division was then transferred on the 23rd of October to become part of X Corps.

On the 7th of October elements of the 24th US Division sighted two enemy tanks with supporting troops in the area southeast of Chucktong. Later friendly patrols received fire from these same two tanks without results. An enemy 50 vehicle convoy was observed in the same general area and was engaged by friendly artillery; five of these vehicles were destroyed. As in the case above, normal patrol operations were to force the enemy to withdraw or, if not able to force a withdrawal, artillery was placed on the enemy positions prior to the friendly withdrawal. Because of the terrain limitations and other man-made obstacles, tanks were utilized in the valleys and elevated their guns high enough to fire at enemy troop positions on top of the ridges.[26]

Along the Corps front air reported three new tank traps, 10 x 15 feet x 5 feet deep, at various points north of Chuktong. Again, on 9 October two separate tank-infantry teams were organized from the 14th Infantry for patrolling missions. Both patrols advanced to the vicinity southeast of Chundgong, destroying six enemy bunkers and killing 40. Significant increased resistance occurred on the 24th Division front. A tank-infantry patrol of the 19th US Regiment on 10 October engaged a company sized enemy unit south of Chuktong. The action terminated with friendly elements returning to their main line of resistance. During the engagement friendly tanks destroyed three enemy mortars and a 76mm artillery piece.[27] Other elements of the 24th US Division continued aggressive patrols against strong enemy positions throughout the sector. (The 6th ROK Division sent out patrols, however, the enemy offered only moderate resistance, therefore, little, if any, being accomplished.)

The objectives of line NOMAD were three fold: first, the terrain was more favorable for winter defense operations; second, the road net in the 6th ROK Division area would permit better logistical support; third, was the destruction of enemy personnel and material.[28] Elements of the 2nd ROK, the 24th US Infantry, and the 6th ROK Divisions jumped off early on the morning of the 13th on limited attacks towards the NOMAD line. Action continued the following four days with the 2nd ROK Division advancing to line NOMAD after a small enemy withdrawal. Other elements of the Corps encountered heavy enemy resistance, to include,

antitank, mortar and artillery fires. However, aggressive movements by friendly forces resulted in the capture of critical terrain features; namely, Hills 529 and 472. On the 18th attacking elements of the IX Corps advanced toward its new objective, line POLAR, generally 3,000 meters forward of line NOMAD. The 25th US Division met only small delaying tactics in its advance, as did the 2nd ROK Division. Deployed sizable hostile forces continued to harass elements of the 24th US Division in the seizure of Hill 435. However, enemy pockets withdrew in front of the 6th ROK Division. Antitank fire and mines were encountered throughout the advance.[29] A typical example is that encountered by the 25th US Division in the vicinity of the Tuchon area. Advancing friendly units lost six tanks due to antitank mines. These tanks were in direct support; thus permitting friendly troops to advance against a heavily fortified antitank position. Tank fire in this action dispersed numerous enemy groups on Hills 404 and 598.[30]

It should be remembered that these limited attacks were made through difficult terrain and the final results, although seemingly small, were adequate and sufficient in the close-in fighting that occurred in this sector. Action continued across the Corps front after more than twenty-five hours of heavy fighting. The enemy employed battalion and regimental blocking and counterattack units against the 24th US Division front. Extremely heavy mortar and artillery fires were employed by both sides as the action continued throughout the nights and days of 19-20 October. Tank-infantry teams in this action advanced to one and one-half miles of Tuchon.

Line POLAR was secured on 21st October and reconnaissance patrols were immediately dispatched to secure an outpost line. The 24th US Division sent two tank companies of the 6th Tank Battalion into the valley area north of Kumsong to destroy enemy personnel and material. Friendly forces destroyed 115 enemy bunkers before returning to the main line of resistance. Again, on the 23rd of October, the tank battalion made the same trip up the Kumsong Valley destroying some 109 bunkers and inflicting 233 casualties on enemy personnel.[31] On 26 October the enemy used bangolore torpedoes and mine fields to stop a friendly tank company patrol. One friendly tank was lost to mine action in the company's advance. Again on the 28th of October a tank patrol had four tanks damaged by enemy mines. This patrol received some 240 rounds of artillery and mortar fire. On 24th October the 2nd US Division (the French Battalion, the 9th US Regiment, and the Netherlands Battalion attached) became Corps reserve. Other friendly tank-infantry elements patrolled through the period 24-27 October with excellent results. Some advances were achieved as enemy resistance lessened and friendly units

strengthened their front line positions and outposts. During this period the enemy employed antitank mines, mortars, artillery, self-propelled guns, satchel charges, and bangalore torpedoes in a concentrated effort to limit the tank-infantry probing patrols.[32]

As the month's activities closed, friendly elements on the Corps front were busily consolidating their positions, yet maintaining a constant tank-infantry patrol pressure against an enemy stubbornly resisting at every terrain feature. Antitank mines continued to harass and cause extensive damage to friendly vehicles. Advancing friendly forces achieved considerable limited ground advances during the month of October. For actual ground advances and unit disposition, see Situation Map, Figure 7.[33] During the period tank elements, without loss of excessive equipment and personnel had little trouble penetrating enemy forward areas. However, by the end of the month, the enemy began developing a defense against armored elements. This defense consisted primarily of antitank ditches and mines. It is well to note that enemy artillery and mortar fire caused no damage to friendly tanks or personnel. Also, it was noted that once friendly armor had penetrated the enemy's defensive line, the enemy antitank measures were not found in depth.

During the period enemy casualties totaled 58,881. Friendly elements captured large amounts of enemy equipment and supplies during the month. In addition over 750 mines were located and deactivated.[34] Friendly tank losses for the month totaled 28. Twenty-five of these tanks were lost to antitank mines, while the other three were lost to antitank guns.

Armored problems encountered during the period were; armored officer replacements and spare parts for the personnel carriers received by the various divisions. It is believed that no armored branch officer entering Korea should be given a branch immaterial assignment until all positions requiring armored officers have been filled or the Korean Veteran rotated. In addition a period of transition should be set up prior to the rotation of the Korean Veteran. In regard to the spare parts of armored personnel carriers, units should take immediate action to requisition and maintain the authorized stock level.[35]

Period Covered: 1 November - 30 November 51

As the Korean War entered its seventeenth month of hostilities, little activity was encountered along the IX Corps front. The early days of November resulted in small patrol activities and probing actions. Both friendly and hostile forces patrolled

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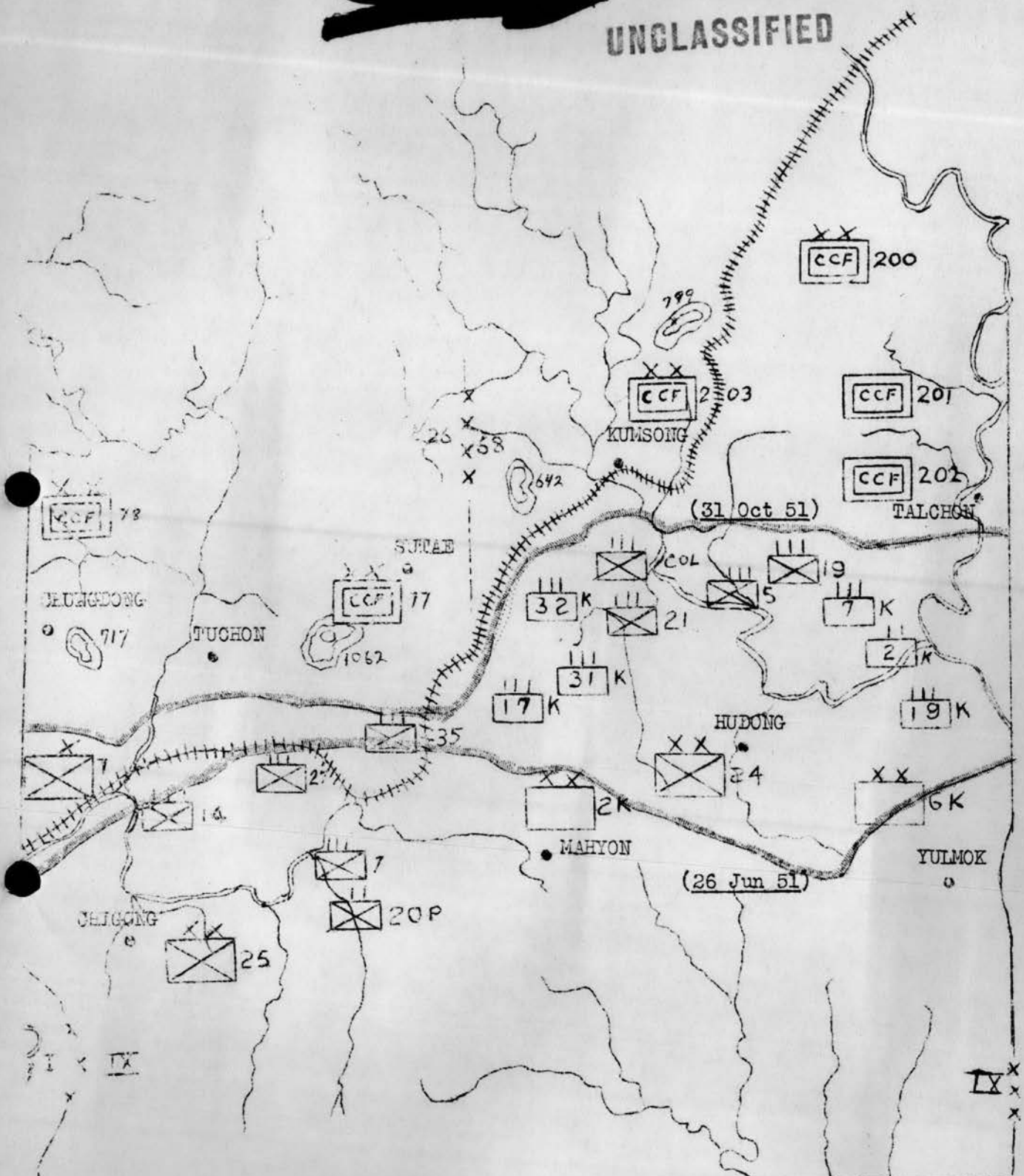

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IX CORPS
COMBINED G2/G3
SITUATION MAP
31 October 1951
Figure 3

Scale 1:250,000

[redacted]

in force as platoon-company size probing elements. The enemy's aggressiveness increased to company and platoon size attacks in the Kumsong area against elements of the 24th US Division. Tank-infantry patrols proved to be the most aggressive and better suited for this type of patrol mission in this particular area. Numerous antitank mines continued to be a harassing and costly element to friendly armor. The Corps mission reduced operations to those required to maintain the present position; counterattack to regain any key terrain lost due to enemy action and to exert every effort to prevent unnecessary loss of life and equipment.[36] During this period defensive positions were strengthened and greatly improved. Numerous elements of the Corps conducted a much needed and a well rounded training program. Training of armored units consisted of firing individual weapons, driving instructions, 30 and 50 caliber machine gun, map reading, communications, scouting and patrolling, tank gunnery, vehicular maintenance and cold weather instruction. This program did much to offset the shortage of noncommissioned officers in unit TO&E's in preparation for future combat.

On the 3rd of November a tank company was attached to the 6th ROK Division, with the mission of indirect support and assisting in the destruction of enemy bunkers and fortifications. The tanks were efficiently employed as, in one patrol, tank elements destroyed 21 bunkers and killed 135 enemy. It is important to note in these operations that no antitank mines or guns were encountered.[37] On the 6th of November a tank-infantry patrol of the 19th Infantry patrolled east of Kumsong. During this patrol tank fires destroyed enemy type bunkers, dug in positions and buildings. Elsewhere along the Corps front, actions were relatively quiet. The enemy employed two and three companies in attack echelons exerting strong pressure on the 2nd and 6th ROK Division fronts without success.

As in the preceding period, patrol actions and light probing attacks characterized the action along the IX Corps for the period 7-15 November. Tanks of the 35th Regiment encountered antitank mines southwest of Tuchon with a result of three friendly tanks being disabled. In other division areas eight friendly tanks were disabled during the same period; all results of enemy antitank mines. Almost without exception these disabled tanks were recovered by the same unit prior to returning to friendly lines. It is well to note that the tanks of the 35th Regiment received some 106 rounds of mortar and artillery fire.

The Corps sector was changed by EUSAK on the 14th of November to include additional area on the east boundary. In addition the Corps was ordered to attack and seize line GARY.

The operation was named VULTURE and the 21st US Regiment, in coordination with the 6th ROK Division, attacked in their respective zones. The operation called for three regiments to attack from three separate directions without artillery preparatory fires. The planned operation went quickly and effectively with line GARY being secured within 48 hours.

In other sectors of the Corps front the 24th US Division dispatched numerous patrols. Of these, five were tank-infantry patrols with limited objectives. The extremely rugged terrain and heavy weather limited the friendly armor to such a degree that it became channelized and the enemy was able to maintain antitank mines on all possible armored approaches. This type of armored action made such operations non-economical and extremely wasteful of equipment. Of the five above patrols, three tanks were reported damaged, and one destroyed.[38] Elements of the 2nd ROK Division occupied positions on line POLAR and prepared defensive positions. Other elements of the Corps remained relatively quiet.

On the 17-18th of November the 7th ROK Regiment of the 6th ROK Division, launched a limited attack for important terrain features southwest of Talchon; namely, Hills 623, 503, and 586. Although hostile battalion units counterattacked, all objectives and advance points were secured by 180900.[39] The enemy continued regimental size counterattacks with heavy artillery concentrations on recently captured positions for the next four days without results.

During the period 20-24 November no significant action occurred as units maintained positions and patrolled to their front. Heavy friendly artillery concentrations and tank fires were employed against enemy patrols and probing elements.

On 25-26th a series of enemy attacks overran friendly outpost positions of the 35th Infantry southeast of Tuchon, the 17th ROK Regiment southeast of Sutae and positions of the newly acquired area in the 7th ROK Regimental sector. UN units counterattacked in the afternoon to regain most of the lost outpost area. However, enemy elements again applied pressure on the morning of the 17th forcing friendly outposts to again withdraw. During this period of activity, tank-intercept patrols were utilized with satisfactory results. Friendly tanks encountered antitank mines in the 25th US Division area with a loss of two tanks.[40]

The enemy aggressive action during the last few days of the month resulted in a see-saw battle for outpost positions.

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Heavy artillery and tank-infantry patrols were predominant during the month. This was the quietest month since the beginning of the second year in Korea. The 2nd US Division, with the French Battalion and the 72nd Tank Battalion attached, remained in Corps reserve for the entire period. All elements of this division were in constant training phases, with tank-infantry patrols and probing actions being stressed throughout the training.

Tank patrols operated 3,000 to 4,000 yards in front of the MLR with the mission of destroying enemy bunkers and fortifications, as well as enemy personnel. If stiff resistance was encountered, the normal patrol action included placing friendly artillery and mortar fires on enemy positions prior to its withdrawal to friendly lines. The channelized armor actions resulted in considerable enemy success in the use of antitank mines. In the 23 tank-infantry patrols dispatched, a total of 12 tanks were damaged due to mines; one to artillery fire. In all except one of the disabled tanks, the damage was in the track and suspension systems, however, in all cases the tanks were recovered.[41]

The 79th Tank Battalion was inactivated and elements released to other armored organizations. The 89th Tank Battalion was released by EUSAK to become an organic part of the 25th US Division. In addition the tank companies were changed from four companies of three platoons, to three companies of four platoons.

Of the estimated 36,086 enemy casualties reported during the period, it is believed that the majority were due to patrol actions with the assistance of friendly artillery. Enemy armor sightings for the period on the Corps front were 105 tanks and nine self-propelled guns, however, no armored engagements took place. With the exception of the 2nd and 6th ROK Division fronts and their seizure of the line GARY, the month of November produced very few changes in the line along the Corps front.

Period Covered: 1 December - 31 December 51

December operations were tied directly to the Armistice Negotiations at Panmunjon and a line of contact was established between the two forces. "Eighth Army issued letter instructions on the 27th of November and the 6th of December which defined the mission of the Corps." These instructions reduced combat operations to the minimum offensive actions--to be controlled by Army. It further implied that friendly casualties were to be avoided, if at all possible. Outpost positions were to be prepared as well as a main line of resistance (ICELAND) position. In addition it emphasized the necessity and importance of continually taking enemy POW for intelligence purposes. As a result of these and other instructions, numerous defensive operations were planned, produced, and then superceded.

With the accepted demarcation line and the thirty day trial period set aside, the Corps reverted to strengthening defensive positions, security measures, enemy ambushes and friendly ground reconnaissance. The average tank positions were well forward on the MLR and were well dug in with approximately four feet in front and a minimum of two feet on each side. Defilade positions were prepared immediately behind the firing positions on the reverse slopes. Generally the terrain restricted maneuver areas and tanks were required to back into their defilade positions. The main line of resistance was renamed MISSOURI and plans prepared for local attacks and counterattacks.[42]

Little variation occurred in the division operations during the first part of the month. Day and night patrols, averaging fifteen per division, were dispatched to assigned objectives up to 3,000 meters forward of the front line positions. Enemy encounters were normally brief, yet stiff.[43] During the first six days of December, all divisions remained in position with some limited patrolling action occurring. These light and sporadic actions normally were terminated with friendly elements withdrawing and artillery fires placed on enemy held positions. In one situation an infantry squad became engaged with an estimated enemy company, so that friendly tanks had to be dispatched to the scene of action, to permit the squad to return to friendly lines.

On the 7-8th activities increased, as friendly probing elements and patrols met with stiff resistance. In the 2nd ROK Division, in the area southeast of Sutae, enemy platoon size units attacked friendly outpost positions without results. Tank-infantry teams patrolled throughout the Corps area during the first part of the month, encountering little resistance. Typical action encountered was southeast of Tuchon, on Hill 28, when tanks fired on a hostile platoon patrol, causing heavy casualties of 20 enemy KIA. In this same action one tank was damaged due to an antitank mine.[44]

On the 15th of December a tank-infantry patrol from the 27th Regiment southeast of Tuchon engaged and forced an enemy withdrawal. Here again one tank was damaged by an antitank mine. Small patrol activities along the Corps front were generally reinforced or directly supported by elements of the various tanks battalions. This supporting action was normally directed against enemy held positions, bunkers, troops, or antitank positions.

In mid December the 24th and 25th US Divisions increased the number of tank-infantry patrols. These tank patrols were able to penetrate deeper into enemy territory and to inflict greater damage to enemy positions. The terrain and weather

again channelized most of this armored action and enemy antitank mines continued to take a heavy toll of friendly tanks. Six tanks were disabled between the 13th and the 15th during these patrol operations.

Elements of the 2nd US Division, with the French and Netherlands Battalions attached, previously reported in Corps reserve, moved into the line, relieving the 25th US Division on the 18th of December.

During the 15th--22nd December very little friendly activity occurred along the Corps front. Light enemy probing attacks occurred at scattered points along the 24th US Division and the 6th ROK Division areas. The enemy continued to use intercept patrols and light probing attacks, generally ineffective against friendly elements.

On the 23rd of December an upsurge of enemy resistance became apparent along the Corps front. In the 2nd US Division area a tank-infantry patrol, from the 23rd Infantry, was intercepted by two enemy platoons, forcing friendly elements to withdraw under heavy fire. This engagement lasted for approximately two hours with three tanks being disabled by antitank mines. To secure information on the previously reported tank action, the following day an attempt was made, but with unsatisfactory results, and the loss of an additional tank to an antitank mine.[45]

The month's activity closed with little ground advance occurring along the front. Of the 46 patrols dispatched during the month, 16 were tank-infantry; 28 were infantry, supported by artillery and tank fires; the remaining two were tank patrols without infantry security. Normally the tank heavy teams operated in the open terrain along the roads and trail nets. The infantry heavy patrols, supported by tank fires, normally operated in rough terrain with the infantry on the ridge lines and the tanks supporting the operation from the valley floors.[46] Elements of the 89th Tank Battalion assisted the Division Engineers in clearing AP mine fields in the division area. In this procedure friendly tanks buttoned up and drove through the mine fields in a farm plowing manner. Although the mission was accomplished, severe damage was done to the tank suspension systems.

Organic tank battalions of the division were: the 72nd, attached to the 2nd US Division, in reserve; the 6th Tank Battalion attached to the 24th US Division; and the 89th attached to the 25th US Division. Eleven tanks were damaged during the month, all due to enemy mine action. Of these, ten were recovered, and three of these were permanently abandoned. Enemy armor sightings for the period totaled 145 tanks and self-propelled weapons.[48]

The main conclusion drawn from the period's activity resulted in the establishment of an active training program. Due to the rotation and morale problem, a constant training program is essential. This training is best accomplished by team composition of one tank platoon with one or more infantry platoons. Service ammunition should be used to create realism. A more common basis of understanding the capabilities of both arms are achieved and appreciated by those concerned.

Period Covered: 1 January - 31 January 52

The first part of January proved similar to that of December with relatively light action occurring across the Corps front. Friendly elements continued to probe with patrolling activities, on a relatively small scale. Light to moderate artillery fire occurred in support of friendly activities. Early in this period the enemy offered light to stubborn resistance to friendly patrolling operations. Enemy antitank and anti-personnel mines were encountered on strong points and in front of fortified positions, playing a primary part in the stubborn resistance maintained by the enemy. Enemy AT mines took a heavy toll of friendly armor, although tank-infantry teams generally fell off during the period.

The 2nd US Division with the French and Thailand Battalions attached, along with elements of the 25th US Division, occupied the left of IX Corps' portion of line MISSOURI. The remaining elements of the 25th US Division were sent to Koje-do Island to guard prisoners of war and also to act as Corps reserve.

On the east side of the Corps front, the 2nd ROK Division, the 24th US Division, and the 6th ROK Division extended to the Pukhan River. Corps elements engaged in interception and reconnaissance patrols with the primary mission of capturing prisoners for intelligence purposes. Hostile outpost positions increased in number and limited friendly action by the use of artillery and mortar fires. It seemed the enemy was content to have UN Forces come to him, as a decrease of enemy patrols and probing actions occurred. To break up or modify this type of action, a directive was issued by EUSAK for a step-up of air and artillery strikes. "On the 8th these operations were put into effect with inconclusive results." On the 8th, 9th, and 10th the artillery fired 19,348, 38,205, and 21,313 rounds respectively, for a total of 78,866 rounds and a daily consumption rate of 26,289 rounds. It was estimated that daily enemy casualties totaled 307.[49]

On the 9th of January the 3rd ROK Division was attached to IX Corps for operational control. On 10 January the 3rd ROK Division relieved the 6th ROK Division on line in the Sosong area. The 6th ROK Division then passed to control of the Chief of Staff, ROKA, on 12 January.[50]

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In the week 12-18 January, the enemy stepped up their patrol activities to platoon and company size operations, as well as the frequency of the patrols, from a general number of 8 or 9 to 20 to 22. Patrol activities during this period were generally confined to the hours of darkness. During this same week, the Corps Divisions sent out ten raiding parties as directed under Operational Directive 64. The mission of these raiding parties was to secure prisoners of war. Only one of the raids succeeded in bringing back enemy PW's. One of the raiding parties became engaged in a heavy fire fight and was extracted only after the 23rd Regimental Tank Company established an adequate covering force.

Previously reported tanks or SP guns were confirmed on 23rd January; as four enemy tanks were again observed in the 2nd US Division sector in the vicinity southwest of Tuchon, near the Hantan River. All tanks appeared to be operational, however, bogged down due to weather conditions. This is the first time enemy armor had been reported in the Corps front so close to the front lines since the beginning of the second year activities.

In the 24th US Division area near Kumsong, hostile box type antitank mines were encountered, disabling friendly tanks. In the process of recovering these friendly vehicles, friendly tank retrievers received small-arms, mortar and artillery fires. Increased friendly tank fire and friendly patrols caused damage to enemy bunkers, positions, personnel and gun positions. On the 23rd, the 40th US Division was attached to the Corps and remained in Corps reserve in the Nadong area.

The 24th US Division action was devoted to the destruction of enemy fortifications. Extensive use was made of the 6th Tank Battalion and the 5th Regimental Tank Company on the 23rd of January inflicting enemy casualties. Enemy propaganda attempts were employed along the Corps front on the 27th of January to all ROK units with unsatisfactory results.

Elsewhere friendly patrols clashed in minor actions with stiff resistance being encountered in the Kumsong area. One tank-infantry patrol in this sector, from the 5th US Infantry, was engaged with two hostile platoons for a period of two hours, with friendly elements disengaging and returning to outpost positions. On the 28th the 40th US Division assumed operational responsibility for the 24th US Division sector.

The month of January ended with no significant changes in front line positions and with friendly aggressive patrols and probing actions predominant throughout the period. The enemy

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was effective in intercepting friendly patrols as were enemy antitank mines in intercepting our vehicles. However, tanks continued in the supporting role for infantry patrols. During the period armored units of the divisions were engaged in 45 patrols, twenty-six of these were tank-supported infantry patrols, eleven others were utilized as tank-infantry patrols. In eight cases the tanks assaulted enemy positions by fire and maneuver, or from blocking positions and five times as tank patrols unaccompanied by infantry. During the period the enemy suffered 28 bunkers destroyed, 9 houses damaged, one antitank gun and one machine gun destroyed. Frequently tank units were called upon to cover the withdrawal of friendly forces.

Camouflage became necessary due to the weather conditions and numerous means of camouflaging were attempted. One means of camouflage utilized in the 72nd Tank Battalion was to use air-slack lime and brush it on the tanks with brooms. The lime was effective in that tanks could not be picked out from an OP without the aid of field glasses.[53] The most important thing is to change the basic background as the weather elements change. The brown and green colors now on the majority of the tanks in the Corps will stand out vividly against a snow background. Other corrective methods are: a. Painting vehicles with white paint; b. By spot painting the vehicle with white paint so as to break the vehicle outline. Both methods proved satisfactory and at a distance of 1000 yards the vehicles blended nicely into the background.[54]

Damages to tanks totaled nine; eight by enemy antitank mines; one by artillery fire. Percentage of tanks operational for the period totaled 88.7%. The majority of deadlined tanks were due to weather.[55]

Another weather problem is the track tension over icy roads and frozen terrain. The rubber tracks have helped materially, however, excessive wear has been caused by the rough, rocky terrain of Korea. A large number of field expedients, generally welding various type grousers to the tracks, were utilized to increase the trafficability of tanks and recovery vehicles.

Period Covered: 1 February - 28 February 52

Patrolling action similar to that previously described for January was universal throughout the Corps front during the first few days of February. In the 2nd and 40th US Division areas, patrols were materially assisted by tank supported fire. In many situations engaged infantry patrols were reinforced by

tanks, thus permitting friendly elements to withdraw under tank cover. Elements of the 40th US Division were bombed and strafed by unidentified aircraft on the 3, 5, and 8th of February in the Kumsong area.[56] The 40th US Division tank-infantry teams were active daily in probing and raiding party activities as a means of keeping the enemy firmly in contact. Antitank mines were responsible for some tank losses.

On the 7-8th the Thailand Battalion, attached to the 2nd US Division, received unsuccessful platoon size enemy probing attacks. Elements of the 72nd Tank Battalion continued in Corps reserve and Companies B and C conducted a tank-infantry team training program in conjunction with the Thailand and French Battalions. Artillery fires on both sides reached a new low as few encounters occurred during this period. An example of this limited artillery fire was in the 2nd ROK Division on the 9th of February, when five rounds of mortar and three rounds of artillery fire fell in the division area.

On 14-15 February enemy company size probing attacks occurred in the 3rd ROK Division area during hours of darkness, forcing friendly outpost positions to withdraw from Hill 662. Enemy positions, recently acquired, on Hill 662 were immediately reinforced by an enemy company.[57]

During this period friendly elements of the 40th US Division used tank patrols to place direct fire on enemy bunkers and fortifications within the area. Friendly fires dispersed enemy groups and destroyed 30 bunkers in one, two hour action.[58] Hill 662 was again contested by two enemy companies as was Hill 510, in the 3rd ROK Division area on the 14th of February. Friendly air strikes were successful in destroying some enemy artillery positions in support of the action on Hill 662. However, heavy volumes of artillery fire continued to fall on friendly forward positions.[59] Elements of the 11th ROK Company, 23rd ROK Regiment, successfully counterattacked Hill 662 to regain the outpost position.

Elsewhere along the front elements of the 2nd and 40th US Divisions employed tank-infantry raiding parties against stiff enemy resistance. Friendly patrol units normally placed tank fires or directed artillery fires on hostile held positions. In one typical action the 224th Infantry Tank Company dispatched a raiding patrol southwest of Kumsong, killing 49 and wounding 110 enemy.[60] For the fifth consecutive day Hill 662, southeast of Talchon, was bitterly contested by platoon size enemy groups. Friendly ROK outposts were again forced to withdraw, however, enemy action subsided the following day and friendly elements reoccupied the outpost positions.

The 7th US Division, with the Columbian and Ethiopian Battalions, was attached to IX Corps as Corps reserve in the Hwachon-Kapyong area. On 20th February the 25th US Division passed from operational control of IX Corps to X Corps. On the same day the 14th Regimental Tank Company reverted to control of the 14th Infantry Regiment and prepared to move into the line. The 89th Tank Battalion (minus) moved into the 25th Division area as part of the Corps reserve.[61]

The month's activities again closed with patrol clashes and light probing attacks. Featuring action was in the 3rd ROK Division area. Tank-infantry teams of the 2nd and 40th US Division areas were predominant in the friendly patrols in this area. Friendly artillery was again light to moderate, generally being employed by patrolling elements on enemy forward positions. Enemy artillery increased during the month, but, with little results. Little ground change occurred during the month with friendly outpost positions of the 3rd ROK Division being exchanged frequently as on Hill 662.

Corps patrols totaled 24. Five of these were tank-infantry; two were tank assaults on enemy positions by fire from blocking positions; seventeen were tank patrols without infantry security. A total of 5,946 rounds of 90mm and 76mm ammunition were fired in support of friendly activities.[62] In addition the enemy suffered casualties totaling 69 KIA, 101 WIA and 53 bunkers damaged or destroyed. Friendly tanks damaged during the period were 13. Of these, three were abandoned as of no value. All tanks damaged were results of antitank mines, with an increase of 50% over the previous month. It was believed that this antitank mine increase was due to the spring thaws and an increase of sensitivity of mines that had been frozen during the winter months. Enemy armored sightings for the month totaled 38, a sharp decrease of previous reportings.

During the period, the 72nd Tank Battalion gave great emphasis to their training program. Particular attention was placed on the communications available to the infantry in directing tank fire on desired targets. "It is believed that this training has done much to increase the infantryman-tanker respect for one another's capabilities." The knowledge and proficiency gained is reflected in the successful combat operations.[63]

A lesson learned during the period was that excessive use of smoke by combatants can at times be harmful, if not properly regulated. In this situation the smoke not only blinded the enemy observation of friendly troop movements, but hindered our own troop movements.

Period Covered: 1 March - 31 March 52

Corps activities in March centered around the formation of the 2nd ROK Corps. Numerous unit movements and shifts were necessary to accomplish the formation of this new Corps. The 6th ROK Division returned to the front lines and assumed responsibility for the eastern half of the Corps' front. Other changes occurring during the first half of the month included the 40th US Division shift to the west to replace the 2nd ROK Division.

UN forces continued to strengthen their position and to dispatch daily reconnaissance patrols for intelligence purposes. Tank companies of the 89th Tank Battalion and the 72nd Tank Battalion remained in positions and engaged in supporting fires from blocking positions. The 90mm guns of the 89th Tank Battalion were employed along the 25th US Division front, on the main line of resistance, to fire on enemy type bunkers and emplacements. This type of employment was entirely successful as the bunkers destroyed for the period totaled 180. 34 tank positions were occupied on the MLR; many of these positions were located on peaks and saddles of critical terrain, normally considered inaccessible to tanks.

Mobility was extremely limited and the only maneuver available was to the reverse slope for some protection against enemy artillery. Tank positions in these situations were generally exposed and the maximum use of camouflage material was essential. Tanks were dug in and, in addition, sand bags were used universally throughout the Corps. When tanks were so exposed and could not return to defilade positions, trenches were constructed to the escape hatches, to permit personnel movement. These exposed positions always drew enemy artillery fire. An additional problem created by the rugged terrain was the logistical hand carrying of 90mm ammunition to isolated tank positions. It was concluded that the M39 Cargo Carrier was not satisfactory in terrain of a similar nature. The Weasel was preferred by the majority.[64]

Friendly ground action on the IX Corps sector during the beginning of the period was characterized by minor patrol activities and probing actions. Friendly patrols lost several tanks and a retriever in the Kumsong area due to antitank mines.[65] Normal operation of patrols from the 2nd and 40th US Divisions included enemy interception, a brief fire engagement and then a withdrawal and the placing of friendly artillery on enemy held positions.

During 1-6 March the tank companies from the 14th and 35th Infantry Regiments occupied MLR positions and fired on

targets of opportunity with the following excellent results: 131
bunkers destroyed; 17 bunkers damaged; 1-76mm field piece destroyed; 11 enemy KIA and 14 enemy WIA. On the 5th, friendly patrols of the 40th US Division became engaged in a fire fight which lasted one hour and thirty minutes, without decisive results.[66] This action was unusual in that the normal fire engagements lasted ten to fifteen minutes. Enemy small probing patrols increased in frequency on the 7th and 8th of March on the Corps front, however, action generally terminated in enemy units disengaging and returning to their lines.

Brief patrol clashes marked the action along the Corps front during the 2-11 of March. On the 13th, elements of the 72nd Tank Battalion retrieved three tanks and one jeep from forward areas, as a result of previous actions in the month. The policy of recovering disabled tanks and vehicles was universal throughout the Corps, in that every effort would be made to recover each and every vehicle. However, economy of equipment should be realized by the commanders. Such an example is cited on the 13th of March, when Company C of the 72nd Tank Battalion was ordered out to recover a damaged jeep. In the process of recovering the disabled jeep, one tank hit two Soviet T41 anti-tank mines and two more tanks encountered mines in an attempt to by-pass the first disabled tank. The ¼ ton truck was not recovered.[67]

Numerous brief patrols, most of which occurred in the Talchon area, marked the action along the Corps front for the period 14-16 March. On the 18th of March the Capital ROK Division passed to operation control of the IX Corps. Also on the 18th Task Force PAIK (2nd ROK Corps) composed of the 3rd, 6th, and Capital ROK Divisions, the 5th FA Group (three 155 How ROK FA Battalions, three 105 How ROK AFA Battalions and three 105 How ROK FA Battalions); 52nd ROK Tank Company; Engineer Group; and an MP Company was activated. The 2nd ROK Corps operated through the IX Corps Headquarters to Eighth Army.[69]

Friendly probes of platoon size and patrols of smaller units were effectively utilized by IX Corps elements to control and harass the enemy during the period 17-21 March. Greater patrol frequency occurred in the Kumsong, Sutae and the Talchon areas, however, hostile action was light and normally consisted of minor probes and patrol clashes.

UN light probes and minor patrols generally characterized friendly activities near the end of March. Friendly positions and defensive areas were materially strengthened during this period, however, aggressive operations were reduced to only minor engagements. The 73rd Tank Battalion was assigned

and attached to the 7th US Division during the period. Sixty patrols were conducted by various tank elements of the Corps during the month. Of these, eight were tank-infantry; 18 were infantry assaults supported by tank fires from blocking position; 34 were tank patrols without infantry support. In these and other operations 9,774 rounds of 90 and 76mm ammunition were fired. Armored results were: 179 enemy killed; 67 WIA; 322 bunkers destroyed or damaged. During the period six friendly tanks were damaged. Enemy armor sightings for the period totaled 17 tanks and SP vehicles. Here again, was a marked decrease in the 38 sightings reported last month.

The 52nd ROK Tank Company was assigned to the Corps and later was attached to the newly formed 2nd ROK Corps (Task Force PAIK). This unit had just completed its armored training at the Korean Infantry School. The Company was equipped with M36 armored vehicles, commonly known as tank destroyers, during World War II. The M36 was equipped with a modified 90mm gun with muzzle break and bore evacuator.[70]

Various recommendations expressed during the period were: that key personnel replacements arrive in sufficient time to be adequately trained on assigned jobs, prior to the departure of the Korean Veteran; that the M4A3E8 engine be made available in the forward areas and repair shops in static positions. This would save time in the deadlining of vehicles.[71]

Period Covered: 1 April - 30 April 52

The Corps continued to reorganize, consolidate and regroup the major units under its control during early April. On the 1st of April there were seven divisions under the IX Corps: the 3rd ROK; the 6th ROK; the Capital ROK were operating in Task Force PAIK (2nd ROK Corps). The 2nd ROK, 2nd US, 7th US, and the 40th US Divisions, comprised the remaining elements of the Corps. The 40th US Division relieved the remaining elements of the 2nd ROK Division on line. The 73rd Tank Battalion was attached to the Corps and reverted back to its parent unit, the 7th US Division. On 3 April the 2nd ROK Division was released to the Chief of Staff, ROKA. In addition Task Force PAIK was released from IX Corps and was redesignated as the 2nd ROK Corps and began to operate independently.

With the shifts in boundaries, as directed by EUSAK Operation Order 26 (TUNE UP), the IX Corps received the 9th ROK Division from I Corps. The extensive changes in troop disposition, location, and boundaries did not change the mission of the Corps. The month began with extremely sharp action as the enemy

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launched a coordinated attack on Hill 575. This attack was preceded by a two hour artillery preparation and continuous enemy action succeeded in surrounding the ROK Company of Hill 575. Savage fighting resulted with close hand to hand encounters being reported. The enemy attack lasted over two hours without any friendly positions being taken. Again on the following day, a three hour encounter ended with the same results. Other ROK units on line continued this constant pressure until the Task Force PAIK was activated as the 2nd ROK Corps on the 5th of April.[72]

Elsewhere on the Corps front the action retained those patrol and probing characteristics similar to those as expressed in March. On the 9th of April the 73rd Tank Battalion closed in to the 2nd US Division area and was attached for operational control. On the 12th of April the 72nd Tank Battalion, having been relieved by the 73rd Tank Battalion, was released from IX Corps and was assigned to X Corps.

The tempo increased suddenly as the 140th Tank Battalion of the 40th US Division launched two successive attacks on enemy positions. On the 14th three tank companies advanced beyond the MLR in the first and largest of the two patrols. Friendly tanks engaged all types of positions, fortifications, and targets of opportunity, with excellent results. All tanks returned to friendly lines after the two hour engagement with one tank slightly damaged by an antitank mine. Friendly armored units had expended 2,000 rounds of 90mm and about 50,000 rounds of AW ammunition with the following results: 11 KIA, additional casualties estimated in the destruction of 53 bunkers; 46 bunkers damaged; 16 AW positions destroyed; and 39 communication trenches destroyed.

The second tank assault by the 140th Tank Battalion was on the 16th with two tank companies. Similar action was encountered, however, the enemy utilized antitank rockets against friendly armor without appreciable damage. Results of this second attack equaled that of the first assault. Only one friendly tank was damaged by an antitank mine. Even this vehicle was recovered and returned to friendly lines. Success achieved in these two operations can be attributed to careful, well prepared plans with a minimum of confusion and delay. Lack of antitank mines in the area can be attributed to the area being previously occupied by ROK Units with no organic armor.[73]

Routine patrols were conducted during the period 6-30 April, however, were greatly reduced in number by some 50%. The majority of the patrols were dispatched during the hours of darkness with the enemy contact ratio dropping to about 1 to 25.

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Numerous intercept ambush positions were tried with excellent results with enemy casualties generally one-fourth of the enemy unit. The only other actions occurring during the month were three limited offensives, all occurring in the middle of the month. Two of these attacks were tank operations with only marked success and no unusual events.

Altogether 35 tank actions were reported in the Corps. Outstanding fact is that only two were tank-infantry, while 33 were tank assaults. Total rounds of 90mm and 76mm ammunition expended during the period was 9,107 rounds. With an enemy damage of 538 bunkers destroyed or damaged, 373 KIA, and 323 WIA. During the month only two tanks were damaged by enemy mines. Again this success is attributed to the fact that the enemy had not used antitank defenses while the sector was occupied by ROK elements.74

Elements of the 79th Tank Battalion in reserve conducted training in tactical exercises, radio procedure, tank gunnery, maintenance, tank driving, and map reading. The disposition of armored units and location of each tank position had not varied to a great degree during the month. Tanks occupied positions on the MLR with the Infantry. In many situations these exposed tank positions were used necessitating the use of sand bags on and around the vehicle. Daylight firing during the month was much reduced and was generally restricted to destroying enemy bunkers and fortifications. On the other hand the use of range cards and night firing proved to be successful in inflicting considerable casualties. The Korean terrain has necessitated in the reduction in the number of tanks utilized in an area at one time. However, mass fires can still be achieved by careful planning, timing, and evaluation of terrain features. This information and coordination must be carried down to the lowest echelon.

Period Covered: 1 May - 30 May 52

From east to west the following units occupied the front line positions; 40th US Division, 7th US Division, 9th ROK Division and the 9th US Infantry, with the Thailand Battalion attached. The 2nd US Division was in Corps reserve at Kapyong. Operations emphasized the night patrol with ambush. Tank-infantry operations consisted of reconnaissance patrols normally comprised of two infantry squads and section of tanks. Tanks were frequently used in firing positions forward of the main line of resistance; such operations were generally protected by infantry. Ratio of contact with the enemy was the lowest since the beginning of the second year of hostilities. Attempts were made to establish

contact. The first was in the 40th US Division sector when a combat patrol of two infantry platoons engaged the enemy on the objective. After a forty-five minute engagement, no prisoners were taken and friendly elements returned to their lines. On the 27th a company size similar raid occurred in the 9th ROK Division zone without enemy contact.

On the 20th of May a change to Operation Plan 28 (HANG-FIRE) was published which called for a coordinated withdrawal to line KANSAS in the event of a major enemy offensive. The only other operational change that occurred during the month was a slight forward movement in the 9th ROK Division area to take advantage of the high ground south of Chorwon.

During the month 653 patrols were dispatched during the hours of darkness with only nine enemy contacts being made. Of the average 57 patrols dispatched daily, only six were averaged during daylight hours. Minor enemy patrols occurred during the month, however, all such patrols consisted of one or two squads.[75]

During the month tanks were engaged in 92 operations without infantry. These operations consisted chiefly of one of the two types of activities; first, was "bunker-busting" with armored units up to reinforced battalion size, firing from positions near the MLR; the second, was tank firing from positions near the MLR. One of the largest "bunker-busting" shoots occurred in the 40th US Division sector with 31 tanks of the 140th Tank Battalion participating. Results of this operation were; 51 bunkers destroyed, 72 bunkers damaged, 2 automatic weapons destroyed, and 19 houses destroyed. Ineffective enemy artillery was received throughout the period. Operations in May, utilizing armor, increased approximately 200% from that of the previous month. Ammunition expended for the month totaled 21,622 rounds of 90mm and 76mm ammunition. Estimated damage to the enemy occurring in the month totaled 1,771 bunkers destroyed or damaged, 197 KIA, 176 WIA. Also, five tanks were lost to mines and one to mortar fire.[76]

As spring and summer advanced, the dry weather permitted increased reconnaissance activities. Numerous tests demonstrated that tanks can be maneuvered over uncultivated, dry, rice paddies by careful selection and knowledge of the terrain being crossed.

Exercise MUSHROOM continued throughout the period, with bunker construction nearing completion. Other armored activities during the period included that of an active training program with emphasis being placed on combined tank-infantry operations. Enemy armor sightings increased with a total of 136 tanks and

self-propelled vehicles being reported. This increase is contributed to the fact that friendly armor activities also increased during the month.

Period Covered: 1 June - 25 June 52

As the Korean War entered its twenty-fourth month of combat, the 9th Corps continued to occupy and defend line MISSOURI. On 1 June the 2nd ROK Division was released from the Chief of Staff, ROKA, and attached to IX Corps. During the period 1-10 June ground operations were confined to patrol actions, with no contacts being encountered. Tank units of the 89th and the 73rd Tank Battalions occupied firing positions on the MLR; firing on known enemy bunkers, gun positions and targets of opportunity. Enemy contact remained difficult and to insure sufficient enemy order of battle the US Divisions reverted to company size raids. Authority for these raids was obtained from FECOM and some 12 of these raids were actually employed. A typical raid was that of the Columbian Battalion, supported by seven platoons of tanks, on the MLR and the OPLR in which it launched a coordinated attack on a limited objective. The fire encountered lasted for twenty-five minutes, just after dawn on 21 June. An estimated enemy platoon was engaged and destroyed during the severe fighting and hand to hand engagement. Tank fires destroyed 11 bunkers with one friendly tank being damaged by a mine.

The 9th ROK Division conducted a raid in force on 22 June to secure enemy contact and information. Raiding elements included an armor supported infantry regiment plus one battalion. The mission called for the seizure of four objectives. The first three were secured with little effort; however, on the fourth, heavy opposition was met and friendly forces were forced to withdraw. Even though the fourth objective was not physically occupied, the mission was considered a success, in that enemy positions, bunkers, personnel and the securing of prisoners was successfully accomplished. The operation was supported by five battalions of artillery; a battery of eight inch howitzers; and a tank battalion minus. Results of the operations were 299 KIA, 250 estimated dead, 500 wounded and 11 prisoners. Tanks in the operation destroyed 55 bunkers, and one 82mm mortar position. Three tanks were damaged by antitank mines, however, these were successfully retrieved.

Of the 30 raids reported to EUSAK, three were by the 7th US Division, seven by the 40th US Division and twenty by the 9th ROK Division.

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IX CORPS
SITUATION MAP
25 Jun 52
Figure 8

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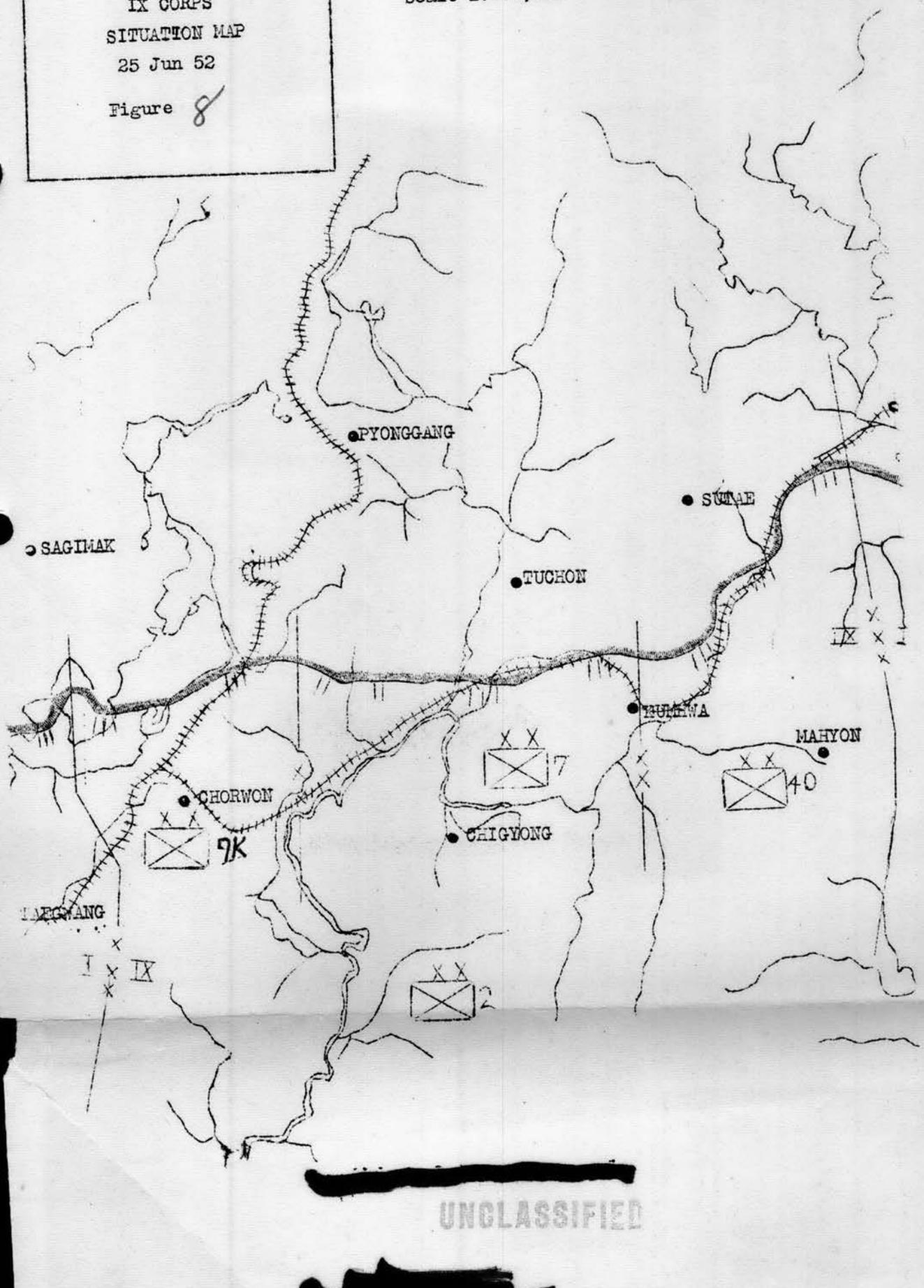
Scale 1:250,000



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Tank units engaged 53 operations during the month, with the majority of these from positions on or forward of the MLR. Tank enemy casualties for the month totaled 471 bunkers, 318 KIA and 84 WIA. Ammunition expenditures for the month were 7,368 rounds of 90 and 76mm. Seven tanks were damaged by antitank mines; one by 120mm mortar; three by artillery; and one by AT Rocket.

Tank-infantry training continued during the month as previously reported. The only exception was in the 40th US Division Tank Companies, in which a training period was set aside to familiarize tank personnel with the M46 prior to the conversion from the M4A3E8.[77] During the period the 53rd ROK Tank Company was attached to the IX Corps for operations.

The year's activities closed with operations being conducted on a minor scale. Patrol actions, raids, mass armor and artillery fires set the trend for the year's period.

NOTES FOR CHAPTER 4

[1]Command Report, No 8, Headquarters IX Corps, Korea, Bk 1, p 1.

[2]Intelligence Summary No 3222, Headquarters, UNC, p 3.

[3]Ibid; passim.

[4]Ibid; passim.

[5]Command Report No 8, Headquarters IX Corps, Korea, Bk 1, p 18.

[6]Armor Daily Journal, Command Report, Headquarters IX Corps, Annex 2, July 51.

[7]Ibid.

[8]Command Report No 9, Headquarters IX Corps, Korea, Bk 1, p 10.

[9]Ibid, p 12.

[10]Intelligence Summary No 3272, Headquarters, UNC, p 4.

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[11] Ibid, No 3275, p 3.

[12] Ibid; passim.

[13] Command Report No 10, Headquarters IX Corps, Bk 1, p 11.

[14] 89th Tank Battalion Command Report, Sept 51.

[15] Intelligence Summary No 3288, UNC, Sept 51, p 3.

[16] 89th Tank Battalion Command Report, Sept 51.

[17] Ibid.

[18] Combat Notes, Headquarters, IX Corps.

[19] 89th Tank Battalion Command Report No 10, Sept 51.

[20] Ibid; passim.

[21] Ibid, p 5.

[22] Ibid; passim.

[23] Command Report, Headquarters, IX Corps, No 11, p 13.

[24] Intelligence Summary No 3313, Headquarters UNC, p 3.

[25] Ibid; passim.

[26] Command Report, Headquarters, 8th US Army, Korea, Sec II, Supp Doc., Bk 7, Armor.

[27] Intelligence Summary No 3319, UNC, p 4.

[28] Ibid; passim.

[29] Intelligence Summary No 3326, UNC, p 3.

[30] Ibid, No 3327, p 3.

[31] Command Report, Headquarters, IX Corps, p 21.

[32] Ibid, p 22.

[33] Ibid; passim.

[34] Ibid, p 54.

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[35] Command Report, Headquarters, IX Corps, Bk II, vol 4, sec 2.

[36] Command Report, Headquarters, IX Corps, No 12, p 13.

[37] Ibid.

[38] Ibid.

[39] Intelligence Summary No 3355, 3356, Headquarters UNC, p 3 & 4.

[40] Ibid, No 3364, 3367, p 4.

[41] Command Report No 12, Headquarters, IX Corps.

[42] Command Report No 13, Headquarters, IX Corps, p 9.

[43] Ibid, p 10.

[44] Intelligence Summary, No 3383, Headquarters, UNC, p 4.

[45] Ibid, No 3394, p 3.

[46] Command Report, Headquarters, IX Corps, Bk 3, part 4, sec 2.

[47] Command Report, Headquarters, 89th Tank Battalion, Dec 51.

[48] Ibid.

[49] Command Report, Headquarters, IX Corps, No 14, p 12.

[50] Ibid, p 13.

[51] Intelligence Summary No 3425, Headquarters, UNC, p 4.

[52] Command Report, Headquarters, IX Corps, p 20.

[53] Command Report, Headquarters, 72nd Tank Battalion, Jan 52.

[54] Command Report, Headquarters, IX Corps, Annex 2, p 2.

[55] Ibid.

[56] Intelligence Summary, No 3437, Headquarters UNC, p 4.

[57] Ibid, No 3441, p 3.

[redacted]

[58] Ibid, No 3448, p 3.

[59] Ibid, No 3449, p 4.

[60] Ibid, No 3451, p 2.

[61] Command Report, Headquarters 89th Tank Battalion, p 6.

[62] Ibid, Annex 2, Part 3.

[63] Ibid.

[64] Intelligence Summary, No 3462, Headquarters, UNC, p 4.

[65] Command Report, Headquarters 31st Infantry Regiment.

[66] Intelligence Summary, No 3466, Headquarters, UNC, p 3.

[67] Command Report, 72nd Tank Battalion.

[68] Intelligence Summary, Headquarters, UNC, No 3481, p 3.

[69] Command Report, Headquarters IX Corps, No 17, p 1.

[70] Ibid, Bk 2, Sec 2, Part 3.

[71] Ibid.

[72] Command Report, Headquarters IX Corps, No 17, p 5.

[73] Ibid.

[74] Ibid, p 26.

[75] Command Report, Headquarters, IX Corps, No 18, p 9.

[76] Ibid, p 14.

[77] Command Report, Headquarters, IX Corps, No 19.

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CHAPTER 5

X CORPS ACTIVITIES

Period Covered: 26 June - 31 July 51

The first six months of 1951 had witnessed the complete regaining of the initiative by the UN Army after the intervention of CCF Forces in November 1950. With the arrival of the X Corps on the right flank of the Eighth Army, following its masterful redeployment from Northeast Korea, the UN Army halted its retrograde movement, fought the enemy advance to a standstill in January, and in following months prevented the enemy from regaining the offensive. UN successes during the first half of 1951 were climaxed by the smashing of the enemy's supreme offensive effort during April and May.[1]

As the month of July started, the UN Army had driven back across the 38th Parallel into North Korea and was preparing to defend and hold the Kansas Line. This was a strong natural defense line extending from coast-to-coast, outlined generally in this sector by Hwach'on, Hwa-dong, Worun-ni, Kajon-ni, and Kaesong on the East Coast. X Corps elements and dispositions at this time were as follows: the 7th ROK Division on the left, the 1st Marine Division, with 1st KMC Regiment attached in the center and the 5th ROK Division on the right. Adjacent elements of US IX Corps were on the left, and I ROK Corps on the right. The US 2nd Infantry Division, with French Infantry and Netherlands Battalions attached, in Corps reserve, was established in bivouacs along the Hongchon-Hangye axis, except the 23rd Infantry, which was maintained in the Inje area. The 8th ROK Division occupied positions to the rear of the 5th ROK Division.[2] X Corps was opposed in this disposition by the 12th, 32nd, and 13th Divisions of the NKPA II Corps.[3]

X Corps operations during July, in response to directives from Eighth Army, were limited. Unlimited offensive action was curtailed. In order that the initiative not pass to the enemy, a policy of aggressive patrolling, reduction of enemy outposts, and seizure of forward patrol bases North of the KANSAS Line was emphasized. Concurrently all units on the KANSAS Line continued to install barbed were and mine fields and otherwise improve defensive positions. On 8 July units not committed on or forward of the MLR began to develop secondary Lines WICHITA and SWITCH on dominating ground to the South of the Main Battle Position.

Regimental-size patrol bases, maintained on the Line BADGER in the sector of the two flank divisions, were augmented

by a battalion-size patrol base approximately 1500 meters forward of the MLR in the 1st Marine Division (center) sector.[4] This action was possible after successful limited-objective attacks were launched on 8 July against Hills 1100 and 1001.

Training also was emphasized during this period, especially in the case of the 8th ROK Division, which contained a high percentage of replacement troops not battle tested. Regiments of this division were attached to the 5th ROK Division to afford an opportunity for training and indoctrination was so successful that on 21 July the 5th ROK Division was ordered into Corps Reserve, the 8th taking over their sector of the front.[5]

Meanwhile relief of the 1st Marine Division by the 2nd Infantry Division was initiated on the 15th of July and completed five days later. This period was characterized by nightly small probing attacks against the MLR and OPLR, all of which were repulsed. Daily patrol operations were conducted to ascertain enemy dispositions and strength. Skirmishes occurred daily between patrols and the hostile counter-reconnaissance elements in the area 2,000-6,000 meters forward of our lines.

Reconnaissance in force was executed by the three front-line divisions during the following week. On 20 July task forces, of one and two company size, advanced 2,000 to 6,000 meters forward of friendly lines. Strong resistance was encountered all along the front and reconnaissance elements broke contact with the enemy after engagements of 2 - 3 hours duration.

On the 26th of July X Corps launched a limited objective attack against enemy positions on Hill 1179, an important terrain feature dominating a portion of the BADGER Line (OPLR). The 1st Battalion, 38th Infantry, 2nd Infantry Division made the main effort. Minor gains against strong resistance, broken off at night to occupy perimeter positions, characterized the fighting. On 30 July the objective, Hill 1179, was captured.[6] At the same time elements of the 7th and 8th ROK Divisions advanced 2,000 - 4,000 meters against stubborn resistance and some counterattacks, but had to be withdrawen to friendly lines at nightfall.

Armored units operating within the Corps during this period, other than those organic to Divisions, were the 300th Armored FA Battalion and Battery A, 937th Armored FA Battalion, Divisional Tank Units, being primarily in reserve roles during this period, engaged in training and preparing for future employment.[7] Political restrictions on unlimited offensive action and deep penetrations denied the opportunity for using available Armor in its traditional role of mobility.

Period Covered: 1 August - 31 August 51

Operations during this month consisted of two primary factors. The first was continued occupation and strengthening of positions along the KANSAS Line. The second was the continuation of aggressive patrol actions and limited objective attacks to keep the enemy off balance and to maintain a continuing flow of information to the command. This latter consideration, gaining information of the enemy, was even more imperative in view of the position of X Corps. Confronted by an enemy numerically superior, but lacking in mobility, the Corps was able to anticipate his moves and block his attacks only by a close and continued surveillance of his dispositions and movements.[8]

Dispositions remained unchanged during the first five days of August. On the 6th of August the Netherlands Battalion was withdrawn from attachment to the 2nd US Infantry Division and X Corps, and was withdrawn to be reconstituted. No further major changes occurred during 7 and 8 August.

The 8th ROK Division was committed on 9 August to limited objective attacks on the right (East) flank of the Corps. Objectives were seized on the 9th and 10th of August, and subjected immediately to counterattacks. The division alternately held and lost several pieces of key high ground for several days, and objectives were finally secured on 23 August.

Except for these minor gains, the tactical situation remained virtually unchanged through the 15th of August. Although the enemy remained passive across the Corps East and Central fronts, he offered immediate and determined resistance to efforts of the 7th ROK Division to advance on dominating terrain on the left of the Corps.

On the 18th of August limited objective attacks were launched across the Corps front to seize key terrain in all sectors. Principal objectives had been secured in the eastern and western zones by 20 August and others were being closed in upon. The enemy counterattacked the following day with elements of two division of the V Corps, NKPA. By 22 August the left flank of the Corps front was stabilized generally along lines held on 18 August. On the right flank the 8th ROK Division continued to advance and seized their final objective on 24 August.[9]

Relatively heavy enemy attacks in the 2nd Infantry Division's zone on 26 August pushed elements in contact back to vicinity of Hill 1179. Reserves were redisposed to meet this threat. The following day the 3rd Battalion, 38th Infantry, 2nd Infantry Division became heavily engaged by two enemy battalions, and

persistent action followed throughout the day. The attack was driven off, with help of artillery concentrations, and the number of enemy dead abandoned indicated that the enemy unit had been reduced to combat ineffectiveness.[10]

Reliefs and readjustments of units were effected on 28 and 30 August, the 5th ROK Division and elements of the 1st Marine Division moving into the line. The remainder of the 1st Marine Division remained in Corps reserve. Limited objective attacks continued throughout the month - attacks which gained minor ground advantages and inflicted heavy casualties on the enemy when he attempted to contain them.

By the end of the month Corps units had taken up new positions with the 7th ROK Division on the left (west) flank, the 2nd Infantry Division, 5th ROK, 1st Marine Division, and the 8th ROK Division eastward in that order.

X Corps continued to utilize the Armored FA units available to it, making use of their mobility to reinforce fires at threatened points. During the latter part of the period the 72nd Tank Battalion maintained one company in support of the 7th ROK Division attacks, and one company operated with the 38th Infantry Regiment. Other units of the battalion engaged in security and training missions.[11]

Washouts and slides in the mountainous trails and roads impaired traffic and movement seriously during the heavy rainfall of this period. This led to the recommendation by X Corps G-4 that "During periods of wet weather track laying vehicles should be prohibited from using roads subject to slides and washouts except in cases of emergency."[12] Conditions necessitating such a recommendation would naturally seriously affect movement and employment of Armor during such periods.

Period Covered: 1 September - 30 September 51

The political and diplomatic considerations of the 'peace conferences' at Kaesong continued to curtail offensive action by UN Forces during this period. Three factors, however, permitted centering of major activity in the X Corps sector. These were the suspension of the 'conferences' by Communists on 23 August; the remoteness of this area from the neutral zone; and the fact that advances by X Corps tended to shorten and straighten the UN line.[13]

Across the central front of the Corps at this time lay the area known as the 'Punchbowl' - an accident of terrain comprising the main avenue of friendly or enemy offensive action. This

three-by-five mile 'bowl' was completely dominated by a series of hill masses and peaks, held generally to the South by UN Forces and to the North by the enemy. Of particular interest to X Corps at this time were, left to right (West to East) across the front, were the enemy-held Hills 893 and 1142 in the 7th ROK Division zone; Hills 983, 931, 1181, and 1211 in the 2nd Infantry zone; Hill 1243 in the 5th ROK Division zone; and Hills 1026 and 924 in the zone of the 1st Marine Division.[14]

Toward the end of August X Corps had redisposed its troops and made plans for offensive action designed to seize and secure these dominating terrain features and establish its forward defensive battle position along the former OPLR, which was modified and redesignated Line Hays. Concurrently further development of the defense-in-depth positions along Lines Wichita and Switch was halted, and divisions were authorized to reduce troops maintained on the heavily-fortified Line Kansas to company-size units.

On the Corps East (left) flank the 8th ROK Division and its 21st ROK Regiment, the northermost in the Corps, already held positions along Line Hays. All other forward elements of the Corps attacked on 31 August and 1 September to seize objectives along the Hays Line in zone. Enemy resistance ranged initially from light and sporadic in the 1st Marine Division zone to heavy and continuous in those of the US 2nd and ROK 7th Division.

Within two days all attacking units had developed stubborn resistance characterized by strong counterattacks. In the east-central and east zones the 1st Marine and 5th ROK Divisions had taken all objectives and were encountering heavy counterattacks during the days following. Farther West the see-saw battle for dominating terrain finally resolved around Hills 983 and 1211 in the 2nd Infantry Division area.

Although Hill 1211 was North of and not incorporated into the actual Line Hays, it dominated a ridge running northeast-southwest and was the enemy's last foot-hold in the immediate vicinity of the 'Punchbowl.' The denial of its use by the enemy was considered vital to development of defensive positions along Line Hays. To the enemy this position was the key to his ability to carry out counter-offensive action in this area, and he showed willingness to hold the area at the cost of innumerable casualties. This naturally strong defensive position was defended by numerous bunkers of a very strong type, mutually supporting, and offering no perceptible blind spots. Although supporting fires completely defoliated the enemy positions in succeeding days, the bunkers thus revealed were of such strong construction that only direct

[redacted]

hits by large caliber artillery caused appreciable damage.[15] The positions were taken time and again, only to be lost by counter-attacks. Toward the end of the period this zone was transferred to the 5th ROK Division in order to allow the 2nd Infantry Division to concentrate on other important objectives in the western part of its zone.

In this area to the west, other elements of the 2nd Infantry Division fought a similar continuing battle for Hill 983. This objective was finally seized after fierce fighting and such heavy casualties that it became known as "Bloody Ridge." With the capture by friendly forces of this objective, a rearrangement of boundaries and redisposition of troops on 6 September permitted organization of the defensive positions along the Hays Line, which by this time was almost completely dominated by friendly units.

Meanwhile and in succeeding weeks the battle for the contested areas forward of the Hays Line continued, with neither side able to achieve sufficient advantage to reach a decision. The 8th ROK Division joined the offense with an assault against positions 3,000 meters to its front; the US 2nd Infantry Division carried its attack forward of the Hays Line to Hill 931 where fierce fighting at 50 - 75 meters range on the crest earned the connotation "Heartbreak Ridge;" the 5th ROK Division continued its attempts to drive the enemy from Hill 1211; and on the left (west) flank of the Corps, the 7th ROK Division resumed its weeks-long assault on Hill 1142, later continued by the 8th ROK Division in a relief of the former unit.

As a result of September's offensive friendly elements along the entire Corps front had improved their defensive positions along the Hays Line and were preparing for further offensive action.[16] Although intermediate objectives had been taken forward of the HAYS Line the primary points, Hills 931, 1142, and 1211 remained in enemy hands at the end of the period. The enemy paid severely for his retention of these positions.

Armor action during this period consisted mainly of support of Infantry in the foregoing attacks. Units were rotated during the month to permit maintenance and training as possible, but in general one tank company was maintained with the 7th ROK Division, and one tank company with the 9th Infantry Regiment. During the month the battalion claimed the destruction of 15 enemy bunkers, 24 machine guns, one enemy anti-tank gun, one ammunition dump and 162 enemy personnel casualties. The battalion suffered four tanks disabled by antitank mines.[17]

[redacted]

Period Covered: 1 October through 31 October 51

The pattern of strong limited-objective attacks to keep the enemy off balance and improve our defensive positions was carried over into the initial days of October. Hill 1142, on the west, fell to the 8th ROK Division on the 1st of October after the crest had changed hands several times during the day. In the center the 5th ROK Division took the long-disputed Hill 1211, only to be driven off by strongly supported counterattacks the following day. Boundaries were readjusted to give the 5th ROK Division Hill 1052, which dominated one spur of Hill 1211 and provided another route of attack on that stronghold. See-saw battles for these two terrain features continued throughout the month. The end of the period found the approach, Hill 1052, firmly in the hands of the 3d ROK Division, which had replaced the 5th ROK Division in the line and in the Corps on the 21st of October.[18]

On the 5th of October the 2nd Infantry Division advanced 2,000 meters north of the Hays Line without opposition and on the following day, at along last, assaulted and seized Hill 931 - 'Heartbreak Ridge.' The division continued to advance against increasingly heavy opposition.

Meanwhile emphasis shifted back to the zone of the 8th ROK Division on the left (west) of the front. Having earlier secured Hill 1142, the Division continued its limited objective attacks designed to bring the left flank of X Corps generally on line with the IX Corps line on that side. This division made daily gains of 1,000 to 2,000 meters, fighting heavily for the high ground which dotted the zone. The advance was slowed by steadily stiffening resistance and brought up short against the enemy's formidable position on Hill 1220, near the right limits of this division's left-flank zone.

As the 2nd Infantry Division's advance began to slow, new impetus was added by the formation of strong armored task forces. These forces met with such success that a temporary boundary change was effected on 12 October to require the 2nd Infantry Division to attack westward to seize the afore-mentioned Hill 1220, which was holding up the advance of the 8th ROK Division. This area was thus taken by armored and infantry forces by mid-month, and on 18 October former boundaries were restored, with the 8th ROK Division resuming responsibility for this hill.[19] Continuing to advance, both these left-flank divisions made additional gains before being slowed and stopped by increased resistance.

During 21 - 23 October the US 7th Infantry Division replaced the 2nd Infantry Division in the line and within X Corps, as had the 3d ROK Division replaced the 5th ROK Division. The

Minnesota Line had been delineated to permit organization of defense of this newly-won position several thousand meters north of the former defensive battle position, the Hays Line. During the period following the relief of the two divisions, above, the quiescence of the enemy permitted continued consolidation and improvement of positions in the Minnesota Line.

The end of the month saw the 3d ROK Division again attacking their principal objective, Hill 1211, which had changed hands three times during the month, and its approach, Hill 1052. The latter had been firmly secured on 28 October after division elements repulsed three battalion-size counterattacks. On 30 October all three regiments of this division resumed the attack on Hill 1211, but at the end of the period this was the only Corps objective still unattained.[20]

By the end of October X Corps had accomplished its purpose of gaining sufficient territory in the central and western sectors to firmly control the northern rim of the 'Punchbowl,' deny the enemy his best areas for counteroffensive action, and shorten the UN lines considerably swinging the left flank up generally on line with forward elements of IX Corps.

Period Covered: 1 November through 30 November 1951

Replacement of two divisions within the Corps during October resulted in dispositions at the beginning of November as follows: holding the Minnesota Line, left (west) to right (east) across the front were the 8th ROK Division, the US 7th Infantry Division, the 3d ROK Division, and the 1st Marine Division. Corps Reserve comprised the 12th Security Battalion (ROK) and one regiment each from the 7th Infantry and 1st Marine Divisions, maintained at designated areas under division control, but to be committed on Corps order only.

Action during the month consisted mainly of organization, development, and winterization of defenses along the Line Minnesota. A few limited objective attacks designed to secure patrol bases forward of the battle position were initially successful but rejected by counterattack, or resulted in little or no real ground gain.

Two factors contributed to this reduction of offensive action by X Corps and the UN Forces at this time. One was preparation for the oncoming winter, which experience had taught would be severe. The other was the resumption of 'cease-fire' talks, suspended since 23 August, during late October.[21]

This resulted in more reliance being placed on patrols and raids, designed to gain information, retain the spirit of aggressiveness, and keep the enemy morale low. Raids in nearly all instances were carefully planned, well supported, and as a result, highly successful. Frequently raiding parties counted 30 to 50 enemy dead, usually a total of 5 to 6 times the number of friendly casualties.

Patrols and raids which employed armored elements were restricted to the Mundung-Ni and Satae-Ri areas of the 7th Infantry Division front - the major north-south roads in the center of X Corps sector. Such patrols were dispatched almost daily. They were successful in engaging targets of opportunity in these areas, but the cost of continuing them became increasingly high as tanks were disabled by antitank and recoilless rifle fire, and mines. Few of these patrols returned with all their armored vehicles intact, and operations to recover disabled vehicles were a constant necessity. A total of 26 tanks were disabled as a result of 285 tank sorties. Twenty-three of these were recovered, of which 3 were damaged beyond repair. These armored task forces, though expensive, were invaluable in preventing the enemy from solidifying his defenses in these areas where employed. In addition, employment of tanks along this front made it impracticable for the enemy to employ his artillery close enough to fire deep into friendly territory.[22]

On the 20th of November, the 7th ROK Division, newly assigned to X Corps, completed the relief of the 8th ROK Division and the 31st Infantry of the US 7th Division. The 8th ROK Division less the 21st ROK Regiment which passed to operational control of IX Corps in a boundary change, was withdrawn to Chunchon and reverted to control of Chief of Staff, ROKA. Meanwhile the 7th US Division and the 1st Marine Division shared the relief of the 3rd ROK Division, which was withdrawn from X Corps to Training Command on 22 November.

When Panmujon Conference agreed on the tentative military demarcation line on the 27th of November it became apparent that preparations would be required for the occupation of defensive positions to the South. Commanders at all echelons began considering possibilities for defense between the Kansas Line and the Minnesota Line. As the month closed planning was underway to establish a strong position to the South of the tentative demilitarized zone.[23]

Period Covered: 1 December through 31 December 51

The month in X Corps sector was generally quiet. Divisions were employed in improvement of defensive works along Line Minnesota, and all front-line elements employed patrols, ambushes and

raids to maintain pressure on the enemy. The enemy also launched probing and local attacks, sometimes enjoyed local successes, but in each case was driven back by counterattack. Thus the only change in front-line dispositions resulted from a voluntary withdrawal of outpost positions in the vicinity of the enemy's heavily fortified Hill 1211. This position had been captured and secured as a part of an attack plan in this area, but with curtailment of offensive action, the position was considered no longer tenable.

A need to neutralize or destroy enemy bunkers and emplacements on Hill 1211 - that strong position which had withstood two months of constant attack by 5th and 3d ROK Divisions - arose and became more pressing during the month. Friendly troops held Hill 1243 in that vicinity, but grades were too steep to be negotiated by heavy pieces, and no roads existed. Corps Engineers were given the mission of building tank trails to firing positions on Hill 1243. At first tanks had to be winched up the steeper grades, but the trails were subsequently relocated and improved so that tanks and their supply vehicles could move freely from the rear to firing positions and back to cover. Thus the effectiveness of this strong enemy fort was reduced considerably.[24]

Both X Corps elements and the enemy patrolled vigorously along the front during the entire month. Our patrols were limited by directive as to the distance they could go, being restrained from passing the line beyond which the enemy was deployed in strength. Thus all divisions resorted to setting up ambushes at night to capture enemy patrols and thus gain necessary intelligence. In addition, these ambushes provided an excellent security force forward of our defenses during darkness.

The month of December closed with little action having occurred. Except for the voluntary withdrawal of the 7th Division outpost, defenses remained unchanged and by 31 December differed only in the more complete development and winterization of installations.[25]

December saw the culmination of a program of road development in this hitherto virtually inaccessible sector of Korea. X Corps Engineers finished a complete system of two-lane, Class-50, all-weather roads capable of handling all military traffic. The road net was now considered capable of supporting any actions required.[26]

Period Covered: 1 January through 31 January 52

Action across the X Corps front during January was very light, and none of the minor actions which occurred were significant. No efforts were launched by either side in sufficient

strength to change the static situation which carried over from the previous month.

Platoon size raids were conducted by each division - each with a mission of destroying a specific enemy position or capturing prisoners. All units patrolled continuously. Three hundred and thirty-six contacts were made across the front during the month. In all instances, however, these patrol actions were broken off by one side or the other before other troops could intervene.[27]

Front line elements continued to employ the direct fire of tanks to destroy enemy bunkers and installations. The construction of tank trails to still more firing positions made it possible to employ this fire against most of the important enemy positions. A self-propelled 8" Howitzer from the 780th FA Battalion was utilized for the same missions against the more strongly constructed bunkers. This howitzer fired 442 rounds in direct fire, destroying 90 personnel bunkers, 2 machine gun bunkers, and 4 ammunition bunkers.[28]

In view of the inactivity of this period, X Corps published a training policy calling for continuous training of all units.

Period Covered: 1 February - 28 February 52

As February opened there was no change in the static situation of the previous month. Realizing that there were limitations on operations by the UN Forces, the enemy sharply curtailed his own patrols, depending on friendly patrols for the maintenance of contact, without subjecting his own troops to the possibility of casualty or capture. To counter this tactic, Eighth Army and X Corps initiated Operation Clam-up on 10 February - a feigned withdrawal from the Line Minnesota. Units restricted daylight movements and suspended patrolling. Blackouts were enforced strictly. Artillery fired on 9 - 10 February as if covering a withdrawal, and then ceased.[29]

On 11 February 16 NKPA patrols approached our positions. The following day the Chinese launched two battalion size attacks, which were repulsed by the 7th Infantry Division. Squad-size patrols continued on 13 February, with two probing attacks during the night which were repulsed. On 14 February the NKPA sent out eight patrols and moved weapons into open positions forward of their lines.

Operation Clam-up terminated at 1400 hours, 15 February with an intense period of preplanned fires. As a result of the operation, X Corps had captured one prisoner and inflicted at least 325 casualties.[30]

Except during Operation Clam-up, front line units continued to dispatch reconnaissance, ambush and combat patrols forward of their defensive positions. Patrols made 180 contacts with enemy during the month.

Front line elements continued to employ direct tank fire to destroy enemy bunkers and new positions and approaches thereto were prepared in the zone of the 1st Marine Division for employment of the 8" Howitzer against bunkers in that area. This weapon destroyed 34 enemy bunkers by direct fire. This was the same weapon employed in this mission so successfully in January.

On the 20th of February the 25th US Infantry Division was attached to X Corps, replacing the 7th US Infantry Division, which was released by Corps on the 24th of February. Attached to the 25th was the Turkish Army Field Command Brigade. Relief of the 7th Division was completed on the 27th of February.

Period Covered: 1 March - 31 March 52

The largest action of the month occurred the night of 12-13 March when 4 NKPA companies launched three attacks against the 25th US Infantry Division. Action began at 2020 hours and continued sporadically until shortly after midnight. During the heaviest enemy effort about 2230 hours the Commanding General of the Turkish Brigade moved his reserve battalion into blocking positions in rear of the MLR. The enemy, however, failed to reach the MLR and was repulsed.[32]

Both the UN and Communist forces engaged in company-size raids during the month, in about equal number, with no particular advantage accruing to either side as a result. Aggressive patrolling was engaged in by both belligerents, with 222 patrol clashes across the front. Front line elements continued to employ direct tank fire to destroy enemy bunkers, and close support air strikes were employed against enemy artillery and mortar positions and rear area installations.

In a series of changes in dispositions of units within Eighth Army during the latter half of March, the 8th ROK Division relieved the 1st Marine Division on the line and replaced it within X Corps. The 31st US Infantry Regiment with Columbian Battalion attached was attached to X Corps, as was 2 additional Field Artillery Battalions. In these exchanges the Corps suffered a net loss of 2 Artillery Battalions and one tank battalion, due to the fact that the incoming 8th ROK Division had no such units organic, as had the departing 1st Marine Division. Groupments of X Corps Artillery were set up to fire support for the ROK Divisions, serving in place of Division Artillery, and a tank battalion was requested to alleviate the deficiency in Armor.[33]

Period Covered: 1 April - 30 April 52

The static situation carried over from the previous months continued during this period. Only two actions involved units as large as a company - one offensive and one defensive. Front line units continued to dispatch reconnaissance, ambush, and combat patrols forward of their defensive positions. Front line elements continued the employment of tanks in direct fire role to destroy enemy bunkers and installations. The 8" Howitzer employed in this mission from the MLR destroyed 21 bunkers and inflicted casualties.[34] Close air support was employed against enemy rear area installations, particularly artillery and mortar positions.

On the 24th of April the 5th US Infantry Regiment relieved the 31st US Infantry Regiment in X Corps reserve. The 72nd Tank Battalion passed to operational control of X Corps on the 12th of April and was moved to the Soyang River Valley, prepared to occupy blocking positions. One company supported the 8th ROK Division on the MLR by direct fire.[35]

With the arrival of warmer weather it became possible to resume work and effect improvements and repairs on the Kansas Line. Directives were issued during April prescribing the effort to be expended and requiring reports of progress to be submitted. By the end of the month each division within the Corps had at least one battalion working full time on the improvement of Line Kansas in its sector.[36]

As in the past months, the inactivity of this period permitted continued emphasis on training. Small unit tactics received the greatest attention. The arrival of the 72nd Tank Battalion made it possible to schedule tank-infantry training for the 8th ROK Division.

Period Covered: 1 May - 31 May 52

The same static situation and general inactivity along the front that had characterized the last several months continued in the same pattern through May. Two platoon-size raids were the largest friendly forces committed to offensive action, while the enemy's few attacks comprised a company on one occasion, plus others of platoon and squad size.

Front line units continued to employ patrols forward of their defensive positions. In some areas these patrols were the primary means of security, proximity of enemy lines and lack of suitable terrain precluding the establishment of an OPLR.

Front line units continued to employ direct tank fire against located targets - enemy positions and bunkers. On 10 and 12 May the 8" Howitzer being employed in the MLR fired 23 missions and destroyed 18 bunkers.[37]

There were no major troop movements or reliefs within the Corps during this period. This quiet period permitted units to increase work on Lines Kansas and Iceland - the latter, for planning purposes, being the line to be occupied by Eighth Army in event of an armistice requiring movement out of a demilitarized zone along the present line of contact.[38]

Training of small tactical units and tank-infantry teams continued to receive emphasis, with the 72nd Tank Battalion conducting schools for US and ROK officers during the month.

Period Covered: 1 June - 25 June 52

There was no change in the situation which existed across the Corps front during the several preceding months. There was a marked increase in the number of combat patrols and raiding parties dispatched during this period, due to a directive from Eighth Army requiring positive identification of CCF Armies and NKPA Corps every 4 days. The divisions executed 58 raids and combat patrols.[39]

The largest enemy initiated action of the period took place during the night of 12 June against the 8th ROK Division. Ten enemy platoons launched separate attacks and were repelled in fire-fights lasting up to 2½ hours. An enemy company and two platoons attacked the 25th Infantry Division sector on 30 June, supported by 1300 rounds of mortar and artillery. In neither of these attacks did the enemy succeed in reaching the MLR.[40]

A total of 132 contacts made by both friendly and enemy patrols during the month resulted in brief exchanges of fire. As during past months, the proper employment of listening posts and outposts gave warning of impending enemy probes and prevented surprise by him.

Tanks firing from positions on both the 25th Infantry Division and the 8th ROK Division MLR continued to support the infantry units with direct fire against enemy bunkers, weapons positions, and personnel.[41]

The static situation, lack of major troop movements, and general quiet alon the front again permitted time and effort to be expended in improving the Kansas Line by all units. Emphasis

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continued to be placed on completion of training missions also, this being facilitated by rotation of units through front line positions periodically.

NOTES FOR CHAPTER 5

[1]Command Report, Headquarters X Corps, July 1951 (Secret) pp 3, 4.

[2]Ibid, p 9.

[3]Ibid, pp 25-27 and Maps B-1; C-1.

[4]Ibid, p 11.

[5]Ibid, p 12.

[6]Ibid, p 13.

[7]Command Report, Headquarters 72nd Tank Battalion, 2nd Infantry Division, July 1951, (Secret) Sec I.

[8]Command Report, Headquarters X Corps, August 1951 (Secret) p 26.

[9]Ibid, p 11.

[10]Ibid, p 12.

[11]Command Report, Headquarters 72nd Tank Battalion, August 1951 (Secret) Sec I.

[12]Op Cit - X Corps, August 1951 - p 41.

[13]Command Report, Headquarters X Corps, September 1951 (Secret) p 3.

[14]Ibid, p 9.

[15]Ibid, p 10.

[16]Ibid, p 14.

[17]Command Report, Headquarters 72nd Tank Battalion, September 1951 (Secret) Sec I.

[redacted]

[redacted]

[18] Command Report, Headquarters X Corps, October 1951, (Secret) pp 8, 9.

[19] Ibid, p 11.

[20] Ibid, p 14.

[21] Command Report, Headquarters X Corps, November 1951 (Secret) p 3.

[22] Ibid, p 8.

[23] Ibid, p 10.

[24] Command Report, Headquarters X Corps, December 1951 (Secret) p 43.

[25] Ibid, p 9.

[26] Ibid, p 43.

[27] Command Report, Headquarters X Corps, January 1952 (Secret) p 8.

[28] Ibid, p 16.

[29] Command Report, Headquarters X Corps, February 1952 (Secret) p 10.

[30] Ibid, p 9.

[31] Ibid, p 14.

[32] Command Report, Headquarters X Corps, March 1952 (Secret) p 7.

[33] Ibid, p 9.

[34] Command Report, Headquarters X Corps, April 1952 (Secret) p 13.

[35] Ibid, p 9.

[36] Ibid, p 35.

[37] Command Report, Headquarters X Corps, May 1952 (Secret) p 11.

[38] Ibid, p 8.

[redacted]

[39]Command Report, Headquarters X Corps, June 1952 (Secret) p 7.

[40]Ibid, p 8.

[41]Ibid, p 8.

CHAPTER 6

ENEMY ORGANIZATION, TACTICS, TECHNIQUES AND WEAPONS

Organization of Enemy Armored Units
CCF Tank Tactics
Communists Antitank Unit Organization and Tactics
Enemy Weapons
Enemy Field Fortifications In Korea
Enemy Mines
Enemy Camouflage Practices

Organization of Enemy Armored Units:[1]

Reports from the field strongly indicate the presence of North Korean and Communist Chinese armored divisions in North Korea. These units, being equipped and trained by the Soviets, are likely to be organized similarly to the Soviet armored division of World War II.

It is reported that a North Korean armored division is different from its Soviet counterpart in that it is approximately 50% less in personnel, and that it does not have a heavy tank regiment, a rocket battalion, a mortar regiment or an antiaircraft regiment. These exceptions are probably due to the fact that this division was not organized for employment as an armored division, but rather to be used in battalion and regimental size units in direct support of infantry divisions. It is believed that North Korean armor appearing in the future will be organized as shown in figures 9 and 10.

Although details are lacking, current information indicates that the divisions and regiments of the CCF operating in Korea will be organized as shown in figures 11 and 12.

Unconfirmed reports of July 1951 state that the North Korean mechanized divisions are organized with one tank regiment of 30 tanks, two infantry regiments, and one regiment of artillery.

CCF Tank Tactics[2]

To the CCF the tank is the strongest weapon for offensive action or defensive counterattack.

The tank division and tank regiment are organized as independent units and a tank regiment is commanded by the Army Group Commander, or by the Army (Corps) Commander in coordinated

NORTH KOREAN ARMORED DIVISION

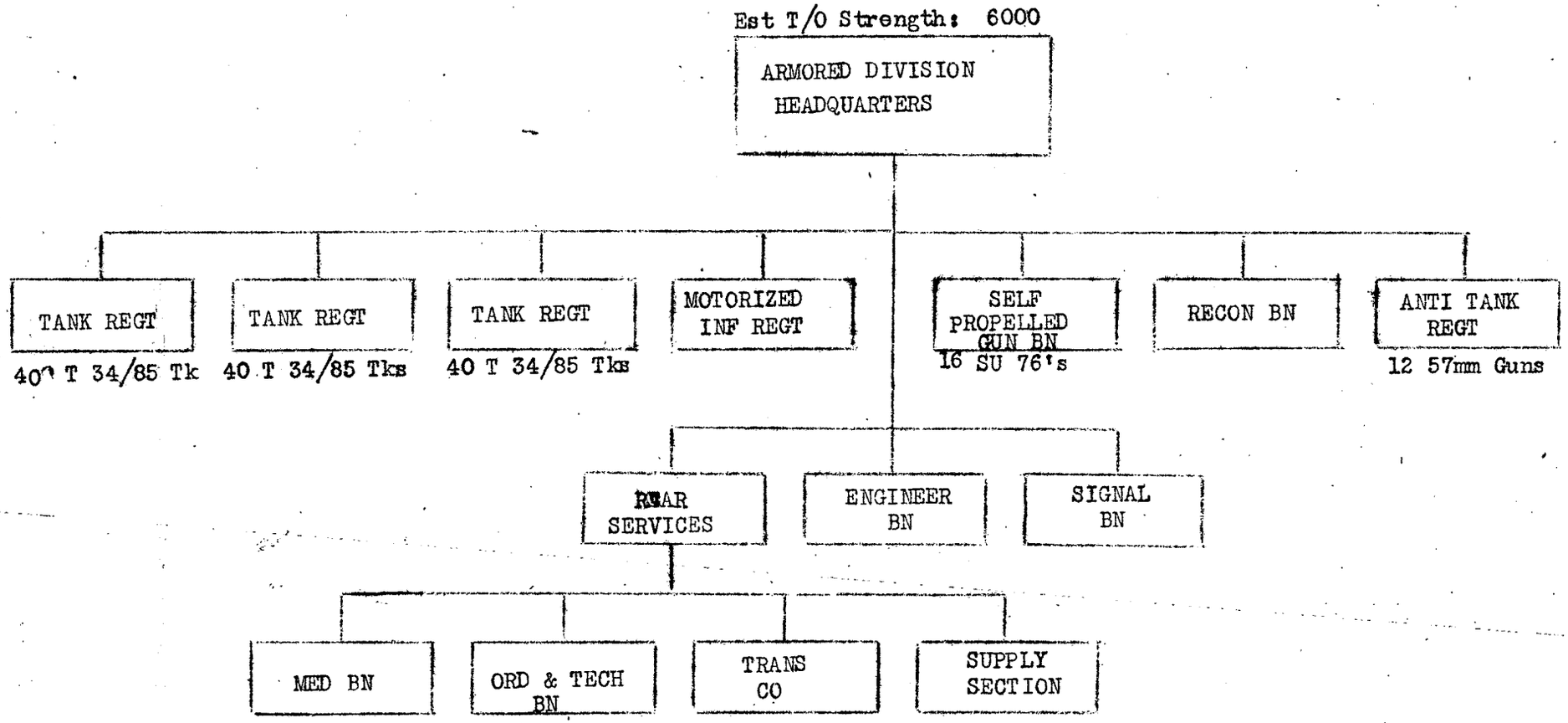

Figure 9.

[redacted]

NORTH KOREAN TANK REGIMENT UNCLASSIFIED

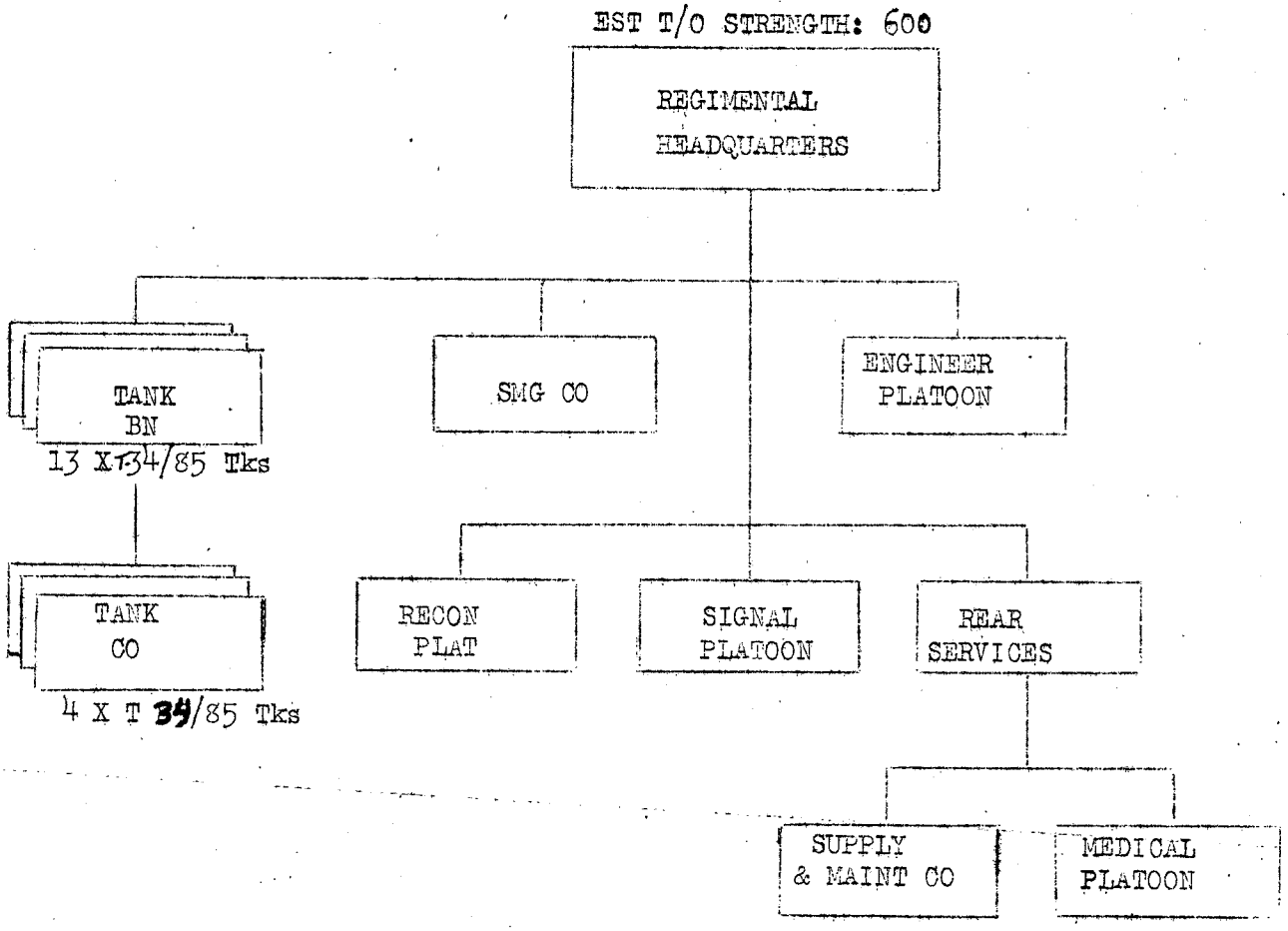

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Figure 10

SECRET SECURITY INFORMATION

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CCF ARMORED DIVISION

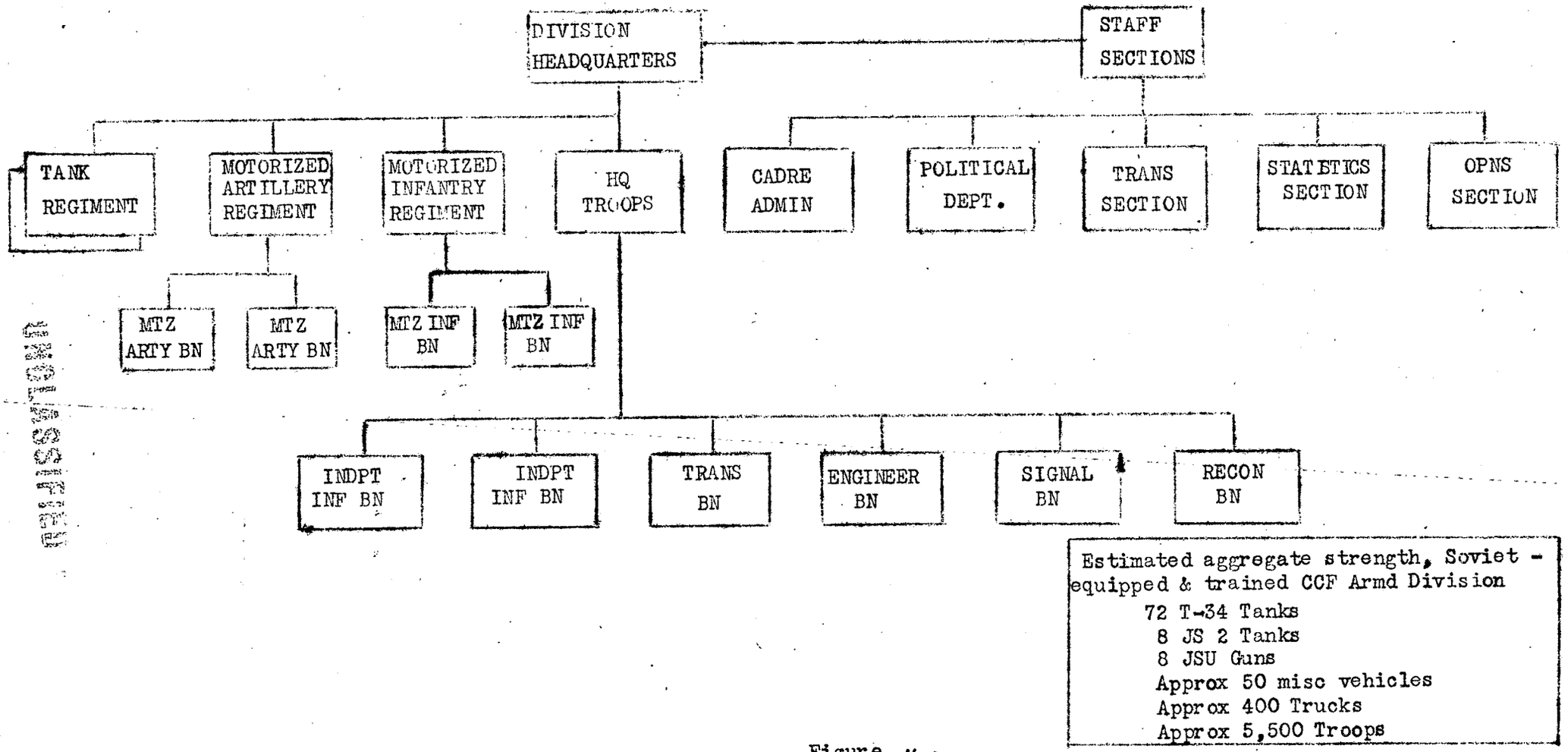
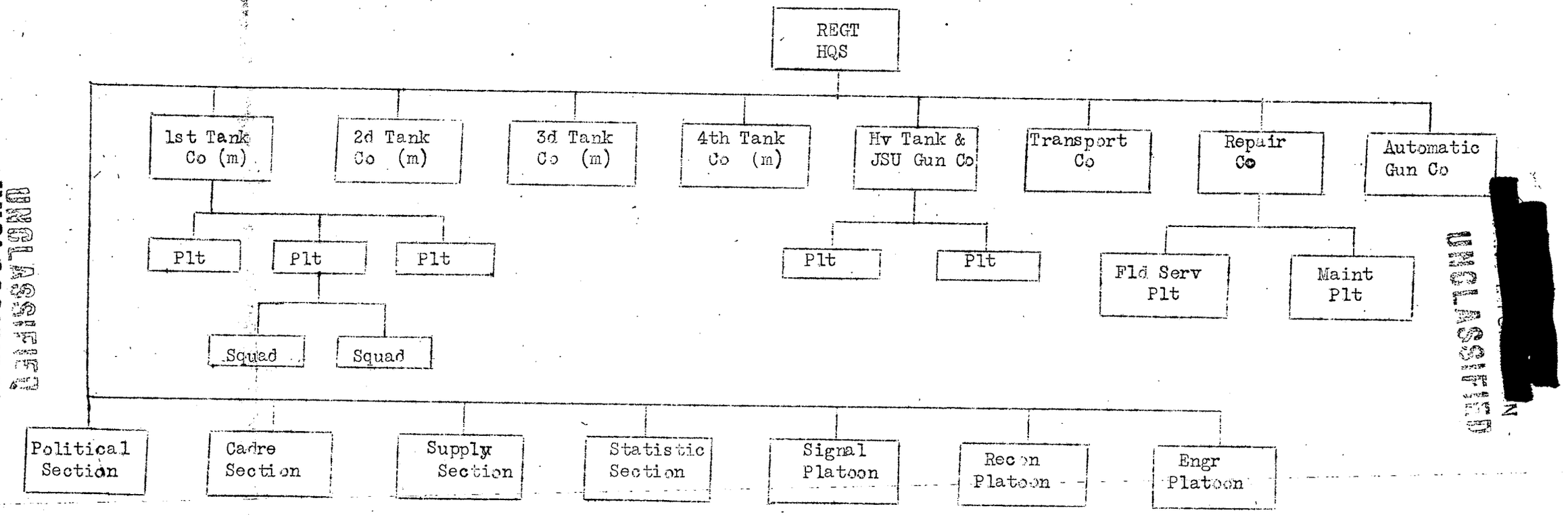


Figure 11.

CCF TANK REGIMENT



Estimated Aggregate Strength, Soviet-Equipped & Trained CCF tank regiment

- 36 T-34 Tanks
- 4 JS-2 Tanks
- 4 JSU Guns
- Approx 60 Trucks
- Approx 10 Misc Veh
- Approx 600 Troops

Figure 12.

operations with infantry troops. The major duty of a tank regiment is to annihilate the infantry and attack the enemy's defense line with the support of the artillery and the air force. It is not good tactics for a tank unit to resist another enemy tank assault, or become involved in an operation against enemy tanks that will influence its fundamental mission.

When the tank regiment is to be engaged in depth during a battle, the commanding officer must carefully observe passes, roads, and areas of rugged terrain. The officer should also consider all possible conditions favorable to the operation of his unit. A tank regiment, which is equipped with heavy tanks and self-propelled guns, can penetrate a strong enemy defense. The heavy tanks are also used as an assault force to defeat an enemy counterattack.

In order to defeat an enemy surprise attack, a tank reserve shall be established and disposed at both flanks, or at unit boundaries. The tank reserve can only be assigned by the order of commanding officer of the combined arms. He may dispatch the reserve to reinforce advancing units.

The radio is an important and fundamental instrument in any tank attack. During a combat operation, urgent radio messages may be sent in clear text; however, prior to a combat operation, codes or telephone communication will be utilized. Codes used in a combat operation will not be the same as those used in the preparatory stage.

In any tank operation, the element of surprise is the decisive factor in obtaining victory. Surprise is achieved by camouflage, proper disposition and movement, night marches, cover by the air forces, and the preparation of good offensive positions. It is also important to carefully reconnoiter the disposition of the enemy's weapons, the terrain, and any obstacles that may exist. Liaison must be maintained with friendly units. When the enemy retreats, the tank unit should pursue them and occupy narrow passes and cross roads in the enemy rear. They should also strive to encircle and annihilate the enemy.

In order to reinforce infantry troops in an important mission the tank division may be broken down into smaller units by permission of the Army Group Commander. The tank division is organized with various other arms such as infantry, artillery, engineer, antiaircraft, etc. Its fire power and mobility makes the success of the following missions possible:

a. Occupation of key front line position.

b. Development of the attack in a sectional offensive.

c. Security of a flank of an offensive unit.

d. Defense and protection of a new disposition of troops.

The formation of the tank division in combat is determined and based on the number of tanks, its mission, the terrain and the enemy's strength.

The direction of the main attack of a tank division should be selected on the enemy's defensive line where the easiest penetration may be made. The enemy should be strongly assaulted; their main disposition annihilated and the drive continued toward their flank or rear. Factors which should be considered in an attack are as follows:

a. The terrain should be suitable for tank combat.

b. Select the area that has the least antitank defense.

c. The artillery should select the penetration areas which have the best possibility for concentration of fire.

d. The penetration area should have air force support.

e. The accumulation of fuel and ammunition and supply routes should be studied.

The fundamental methods of supporting tank combat are by use of artillery, mortars, air forces, and motorized infantry reinforcements. The infantry troops and the motorized infantry, attached to the tank division, attack the enemy in the rear of the tank echelon. Their missions are as follows:

a. To mop up the enemy force remaining in the penetrated area.

b. To consolidate the zone of penetration.

c. To extend the breach and develop the offense in the rear or flank of the enemy.

The distance between tanks and infantry should be from 200 to 400 meters. The tanks drive forward at full speed and the machine gunners and infantry advance toward the enemy rear and flanks. When the tank offensive meets resistance and is compelled to separate from the infantry, the mission should be completed with artillery support. In the tank offensive zone,

for the purpose of mine sweeping, an engineer company is attached to the tank regiment. Due to the limitation of large scale tank mobilization in the Korean theater and because of lack of experience and training in coordinated activities, the units of the tank battalion or tank company are assigned to the infantry commanding officer.

In the night attack, the tank tactics can be simply applied in conjunction with the infantry. In the daytime, the tank men should carefully reconnoiter the formation of the terrain, study the direction of attack and prepare signals.

The tank missions in attacking a city are to occupy all avenues of approach, cover the assault units, and resist the enemy counterattack.

Tanks fighting in forests are usually within the infantry formation and visibility should be maintained between the tanks and infantry.

When tanks attack in a mountainous area, the individual tank unit should be led to the top of the mountain ridge in order to be in a position to secure the activities of our own troops. According to our (CCF) estimations of the present situation in the Korean theater, if a proper and complete arrangement can be planned, tank activities in the mountainous zone have a special value. The tank reserve must be controlled in any event.

In order to complete the mission swiftly and successfully, the tank units should have the mutual support of artillery and infantry.

The mission of the tank unit in support of infantry is to:

a. Annihilate the enemy's automatic weapons and fire points so that our infantry may advance with ease.

b. Clear the enemy wire entanglements in the way of our infantry's avenue of approach.

c. Support the infantry offensive with fire power or to lead the infantry in attack.

d. Destroy the enemy's counterattack.

e. Stabilize the occupations of the enemy position and wait for the arrival of our infantry.

f. Destroy the enemy artillery positions, command posts, communication net, supply installations, etc.

The attack should be directed toward a weak section of the enemy position and as soon as it is captured, surround and attack other important sections. The tank offensive tactics should be to attack the target with a concentration of strength.

The assault echelon of a coordinated attack of infantry, artillery and tank units is formed with two groups; the infantry group and the tank group. If the terrain is favorable, the enemy antitank weapons are weak, and can be suppressed by our bombardment, the tank group will be in the first line. In the event they cannot be suppressed, the infantry will be in the first line.

The support echelon is formed with the regiment artillery, the tank artillery, the self-propelled artillery, and the artillery units which are directly attached to army or division. They organize the strongest fire power possible in the coordinated attack with the assault echelon.

The reserve echelon is formed from the tank unit and infantry combined units used in mobile warfare, for reinforcement of the assault echelon, and the defeat of the enemy counterattack.

The tank division or regiment is formed in two or three echelons according to the characteristics of the enemy defensive works. The first echelon of the tank division consists of the heavy tank unit and its main purposes are to secure the advance of the assault unit, neutralize the enemy infantry and their weapons, and destroy all their defensive works. The second echelon consists of the medium tank unit, combined with infantry units, and its main purposes are to destroy the enemy and their weapons which hinder the advance of the infantry, to stabilize the occupation of defensive positions, and to open the route in depth for the infantry. The assigned reserve extends the attack in depth, and sometimes defends against the counterattack of the enemy infantry.

During an attack on an enemy defense in depth and an attack on the enemy front line, the tank unit is directed by the artillery commander who is in the forward observation post or on the tank which is equipped with a radio set.

The infantry attached to the tank unit begins to assault and to annihilate the defensive works from the front, while another part of the tank strength and the assault unit attack the enemy defensive works from their rear and flanks.

North Korean and Communist Chinese tank doctrine closely approximates that of US tank doctrine. A notable exception is that the communist forces state that it isn't correct for their tanks to resist an enemy tank assault or become involved in any operation that will influence its mission of annihilating the enemy infantry and attacking his defenses. Our doctrine provides that friendly tanks furnish antitank protection against enemy tanks.

The CCF's doctrine differs too in its breaking up a tank division to reinforce infantry troops in an important mission; rarely, if ever, would our armored divisions be dispersed in this manner. Corps tank units may possibly serve this purpose.

Another noted difference is that the CCF will commit their reserves to reinforce the assault echelon whereas US doctrine stresses the use of reserves to exploit success rather than reinforce failure.

Communist Antitank Unit Organization and Tactics[3]

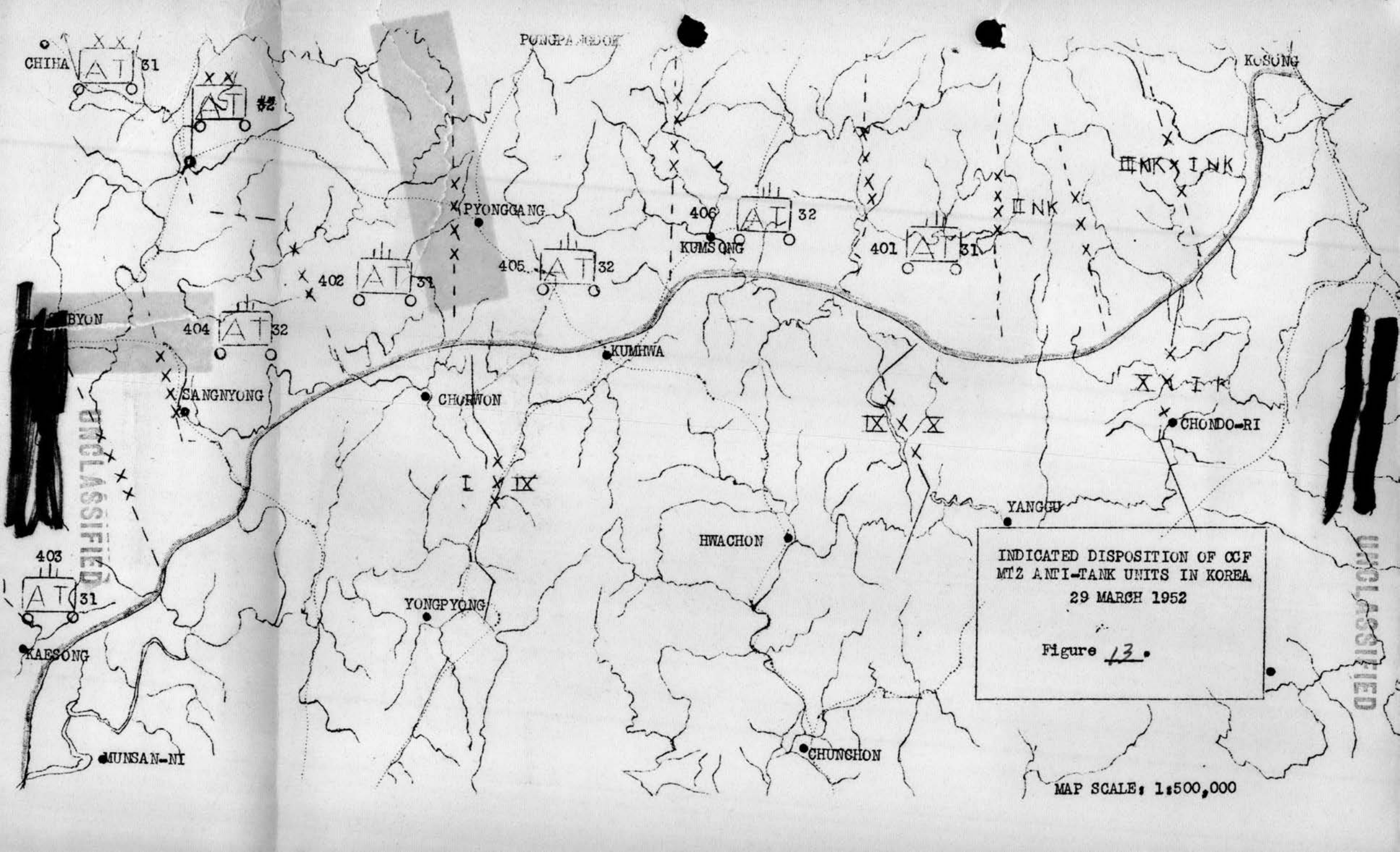
The following information was extracted from the translation of a captured enemy document entitled "How To Use AT Guns" printed by the Military Training Section, Headquarters, Northeast District, CCF, dated 30 March 1951.

"Calibers of AT guns are usually from thirty-seven to ninety millimeters. However, tendencies are apparent everywhere to better the caliber and muzzle velocity and to adopt the recoiless type. In order to increase their mobility against high speed tanks, they are usually drawn by trucks.

Types of AT guns we have on hand are as follows: US type 37mm gun, US type 57mm AT gun, USSR type 45mm AT gun, USSR type 57mm AT gun, USSR type 76mm AT gun. Infantry AT weapons include; hand grenade bundles, incendiary bottles, bangalore torpedos, AT mine, bags containing TNT.

The tactical unit for AT guns is the company (battery). Weapons of these units are usually drawn by trucks to increase their mobility. In armored units, self-propelled guns are utilized in the place of AT guns so as to be able to accompany their own tanks into combat. AT rifles and rocket launchers are short range AT weapons attached to the infantry battalion or company, but sometimes they may be attached to the AT gun company by organizing them into squads.

Our (CCF) AT Gun Regiment is composed of six batteries; three are equipped with 12 Russian-type 57 AT guns and the other three are equipped with 12 Russian-type 76mm AT guns.


CHIHA
XX
AT 31
XX
AT #2
PUNGPA-DONG
PYONGGANG
402
AT 31
405
AT 32
406
KUMSONG
AT 32
401
AT 31
III NK
I NK
KOSONG
404
AT 32
KUMHWA
SANGNYONG
CHORWON
I
IX
IX
X
X I K
CHONDO-RI
YANGGU
HWACHON
403
AT 31
YONGPYONG
KAESONG
MUNSAN-NI
CHUNGHON
INDICATED DISPOSITION OF CCF
MT2 ANTI-TANK UNITS IN KOREA
29 MARCH 1952
Figure 13.
MAP SCALE: 1:500,000
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All of these guns are drawn by either horses or trucks. As for the AT gun batteries attached to infantry regiments, they are, for the most part, equipped with US or Japanese type AT guns.

In the attack AT gun units move about to relieve any unit under attack by enemy tanks. When our (CCF) troops have penetrated into the enemy position, AT gun units are responsible for warding off any counterassault of enemy tanks, consolidating the area newly occupied, and pursuing the retreating enemy in coordination with our own tanks and infantry units.

AT gun units are usually deployed where enemy tanks are likely to appear; sometimes they are attached to the front line infantry. The guns are so located in the front that they can destroy enemy tank attacks by adopting the tactics of surprise attack. Their positions must not be discovered by the enemy prematurely. In order to successfully protect our infantry units from enemy tank attacks, and at the same time, evade enemy ground and air reconnaissance, AT gun units should move forward under cover from the central rear or both flanks of the first front line infantry. They should be able to fire at enemy tanks and cover infantry troops in the attack at all times.

During the period of attack, AT gun units should accompany, cover, and support our infantry troops, tanks, and self-propelled guns in their advance.

High ranking commanders should control a reserve AT gun unit in an area with communicational conveniences to destroy enemy tanks without delay if they launch a counterassault.

During the tactical march, a part of the AT gun unit is attached to the advance guard of the army or divisional main columns, marching ahead as a main force of the advance guard. In open terrain, it should march on roads parallel to routes adopted by the main body to take charge of the security of both flanks.

In the attack the AT gun units attached to the division will serve a mobile AT reserve unit. They are located in the area of the main attack and follow the first line units on the flank which is exposed to enemy tank attacks. The mission of the AT gun unit is to give enemy tanks an annihilating blow with sudden fire.

In the assault AT gun units should do their best to destroy enemy tanks engaged in the counterassault. They should help our infantry and engineer units to wipe out enemy AT weapons, strong fortifications, and all other heavy weapons, thus enabling the attack to be successful.

In the event of the assault being launched by our own tanks, AT gun units should be able to neutralize the fire of the enemy's AT weapons and cover the advance of our tanks.

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In a forced river crossing attack, the main force of AT gun units should build up positions on the river bank to support leading infantry elements occupying the beachhead, and, at the same time, a part of them should cross the river along with the infantry units to interdict and destroy enemy counterassaulting tanks.

In modern warfare, tanks are utilized in great numbers, therefore organization of AT units by the infantry itself is absolutely necessary. According to combat experiences gained by the Soviet Army in World War II, infantry battalions, companies and platoons would organize their own AT teams. Each infantry platoon should organize one or two AT teams. These teams will be composed of three brave soldiers, each equipped with sub-machine guns, hand grenades, liquid incendiary bottles, explosives, AT mines and etc.

AT teams are usually deployed in the areas where enemy tanks are expected to appear. No matter what type of warfare is being conducted (offensive or defensive) they should construct simple shelters, depending upon the terrain, so that they would not be easily discovered by enemy tanks. When the tanks have approached the area within range, AT personnel should attack them suddenly by throwing hand grenades and incendiary bottles at their weak spots. Kill any enemy soldier jumping out of tanks being set afire. In accordance with the overall disposition, AT teams should also be deployed in depth to attack enemy tanks at all times. Engineer units should work in coordination with AT units by using AT mines.

Although machine gun and rifle bullets cannot pierce the armor of the enemy tanks, there is a possibility of hitting the vision slit and the periscopic device and thus putting the crew in terror. The sound of the bullets hitting the armor would make the crew realize that their tank is under attack, and they would become nervous and slow in motion and can be easily destroyed by our AT units or AT weapons.

AT rifles and rocket launchers of infantry units should be coordinated with AT units, therefore, commanders of all levels should orient them on the AT dispositions according to the current situation and terrain."

The anti-armor tactics set forth in this enemy document are well considered. They are quite sound in doctrine and principle, and represent apparently a direct Chinese copy of a Soviet manual on the same subject.

Information received from PW's in March 1952 confirms the presence of two CCF Motorized Antitank Artillery Divisions in Korea. In each of these divisions, there are three antitank regiments consisting of six firing batteries each. It appears

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that all tactical elements of the 31st and 32nd CCF Motorized Antitank Divisions are now in the immediate forward areas, attached in support of CCF Armies in contact.

Recent events in Korea have indicated that the CCF has been rigidly adhering to the Soviet Battle-tested doctrine with considerable success. Main points of the Chinese usage has been sighting of pieces along likely avenues of approach; superior use of camouflage with material at hand and excellent fire discipline in holding their fire until they can engage armor at point blank range.

Enemy Weapons[4]

The armament of the Communist Forces in Korea consists of weapons from at least a half dozen countries. These weapons vary in model from the Russian 7.62mm rifle, model 1891 to the US 155mm howitzer and the Russian JS III tank. The following list includes weapons confirmed or suspected to be in enemy hands. For the purpose of this report only those weapons normally capable of affecting the employment of UN armor are listed. Identifications are considered positive only where so indicated by footnotes.

RUSSIAN

Gun, antitank, 47mm, type 1 (1941)
Gun, 75mm, six different models
Gun, 105mm, two models
Howitzer, 70mm, type 92 (1932)
Howitzer, 105mm, two models
Howitzer, 105mm, type 91 (1931)
Mine, antitank, type 93 (1933) (a)
Bangalore torpedo, type 99 (a)
Gun, antitank, 45mm, two models (c)
Gun, antitank, 57mm, M1943 (Zis-2) (a,c)
Gun, antiaircraft, 85mm, M1939 (c)
Gun, antiaircraft, 88mm, M1939 (modified from 85mm by Germany)
Gun, antiaircraft, 120mm, Stalin
Gun, 76mm, three types
Howitzer, 122mm, M1938 (M-30) (a,c)
Gun, 122mm, Corps, M1931-37 (A-19) (c)
Howitzer, 152mm, M1943 (D-1)
Launcher, rocket, 132mm, Model 13
Mines, antitank, four types (e)
Grenades, hand, HEAT, two types (c,e)
Tank, Medium, Model T-34/85 (c)
Tank, Heavy, Model JS-1 and JS-3
Car, armored, Model BA-64 (c)

Gun, self-propelled, 37mm, Model SU-37
Gun, self-propelled, 76mm, Model SU-76 (c)
Gun, self-propelled, 122mm, JSU 122
Gun, self-propelled, 152mm, JSU 152

UNITED STATES

Gun, antitank, 37mm
Gun, antitank, 57mm (d)
Launchers, rocket, 2.36" and 3.5" (d)
Rifles, recoilless, 57mm and 75mm (d)
Howitzers, 105mm and 155mm (d)
Mines, antitank, M-6, and M-7 (d)

CHINESE

Rifle, recoilless, 57mm, copy of US T15E13
Howitzer, 70mm, copy of Japanese, Type 92 (1932) (e)
Launcher, rocket, 95mm, model unknown
Launcher, rocket, 100mm (approx) model unknown, possibly Model 51
Mines, land, type 4 and 8 (e)

FOOTNOTES:

(a) Weapons positively identified by capture from CCF.

(c) Weapons positively identified by capture from NKA; possibly in the hands of CCF also.

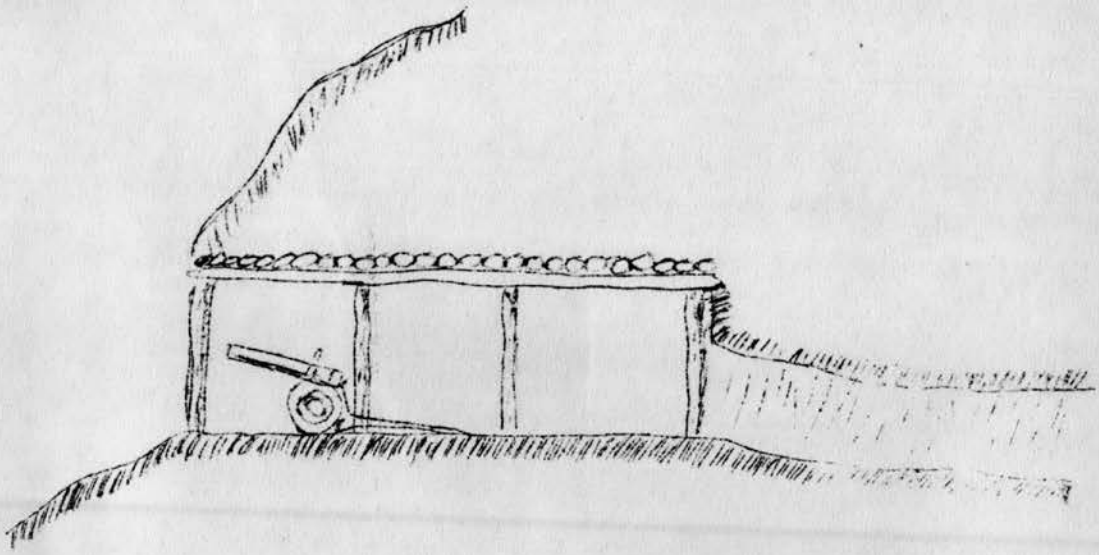
(d) Weapons known to have been lost by US or ROK forces. Other US weapons listed were probably captured by CCF in China and Manchuria.

(e) Weapons positively identified by capture. Although circumstances of capture are not positively known, it is believed those weapons were employed by the CCF.

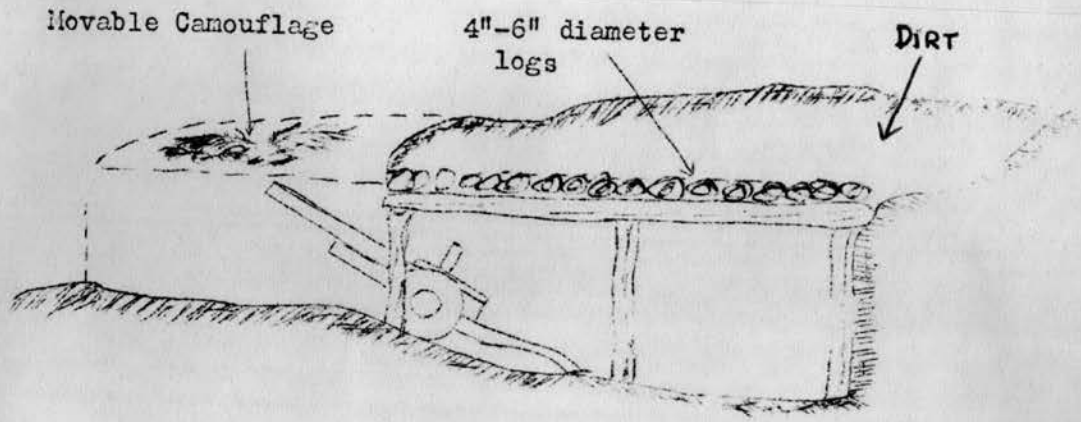
This list was compiled from Ordnance Technical Intelligence Reports, inventories of captured material, shell fragment and fuze analysis, PW interrogations, captured documents, examination of Signal Corps photos, and other intelligence sources.

Enemy Field Fortifications in Korea[5]

Sufficient information is now available on the defenses of the Chinese Communist Forces and the North Korean People's Army to give a clear picture of their deliberate type of enemy field fortifications. Such typical fortifications in Korea consist of gun emplacements and shelters dug deeply into the ground and interconnected by communication trenches.



Tunneled artillery emplacement.



Covered gun emplacement.

Figure 14.

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The skillful camouflaging by the CCF and the NKPA of their fortifications, and their employment of heavy overhead cover, proves to be sound doctrine, for the positions are difficult to detect and destroy, despite UN superiority of artillery and air power. The overhead cover is sufficient to protect the occupants of the defenses, except for a possible direct hit by artillery shells or bombs.

In sighting field fortifications, the enemy takes advantage of key hills which are suitable for all-round defense. Where possible the positions are constructed in depth and are mutually supporting; alternate positions, terrain, and camouflage are all taken into account. The fields of fire covering slopes and draws show good coordination.

The enemy is adept in utilizing native materials, not only to construct strong positions, but also to conceal them effectively. The overhead cover and the spoil are carefully camouflaged. Bushes and shrubs are transplanted and sod is laid, so that eventually the positions blend with the surrounding terrain.

Trench systems are extensive and well-laid-out on the enemy-defended hills of Korea. Each hill has one main communication trench following the contour of the reverse slope. From the main trench, short connecting trenches branch off to emplacements and shelters.

The main trench has heavy overhead cover at short intervals; it also has small-arms positions and 1-man shelters cut into its walls. In most cases, the connecting trenches are well-covered; they are tunneled wherever possible. All the trenches, average 5 to 6 feet in depth and 1½ to 2 feet in width. The overhead cover for the trenches is formed by a 3 to 6 foot layer of logs and earth. The tunnels are not dug to any standard depth below the surface. They are generally 2 feet wide by 3 feet high, although some are only 2 feet square. All the tunnels are shored with timber, wherever necessary.

Individual rifle positions are located on both the forward and reverse slopes for all-round defense. In some cases, three or four positions may be interconnected by tunnels, especially where a sharp ridge line exists to make extensive tunneling unnecessary.

Troop shelters have no standard size. They are normally built on reverse slopes and in many cases they serve as alternate firing positions. These shelters have a capacity of two to eight men, and have a headroom of only 4 to 5 feet.

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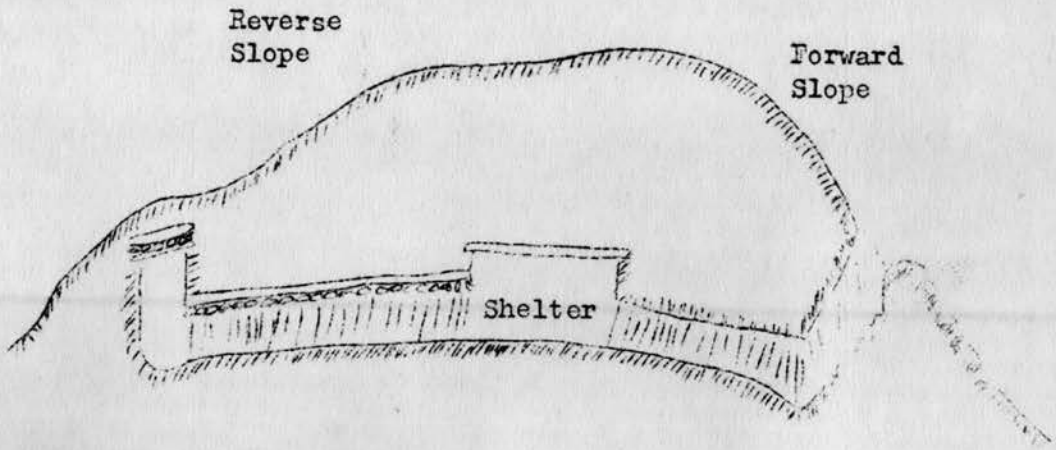
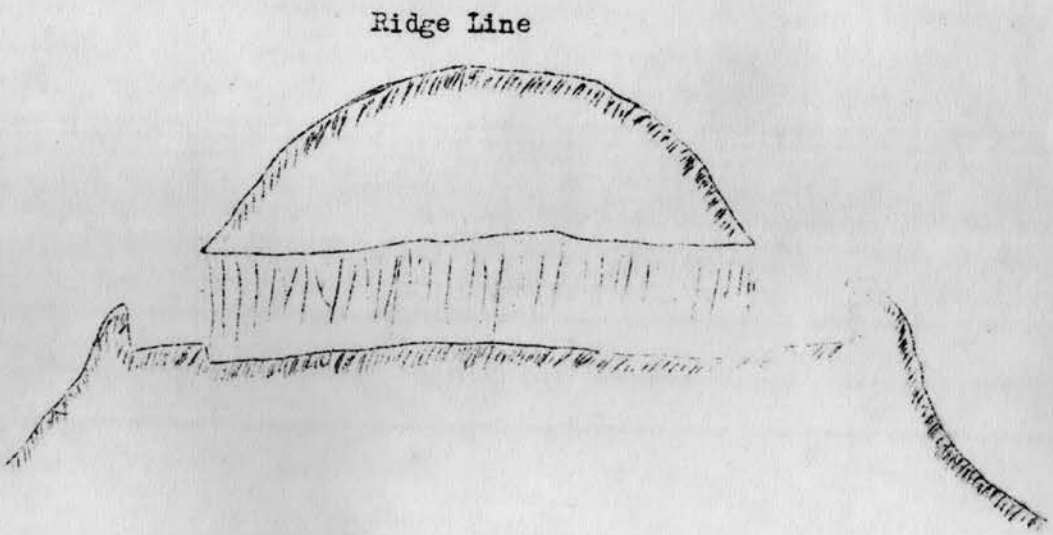


Tunnel between forward and reverse slope positions.



Individual rifle positions connected by a tunnel.

Figure 144

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The overhead protection of these shelters ranges in thickness from 3 to 12 feet and consists of many layers of logs and a coverlayer of earth. Logs 4 to 10 inches in diameter have been found placed in the overhead protective cover. Logs up to 13 inches in diameter serve as support posts.

Where the terrain permits, mortar emplacements are usually sighted on the reverse slopes. Occasionally, they may be found on the forward slopes. The emplacements are dug about 4 feet deep and provided with overhead cover for the crew. Most mortar positions are sighted to cover dead areas in the field of fire of flat trajectory weapons on the forward slopes.

As an example of diverse materials used in construction, one mortar emplacement was found with an overhead cover formed by a piece of sheet iron. The mortar was fired through a square opening in the sheet iron, which, however, offered less protection than the conventional log-and-earth covering.

Machine gun and automatic weapon emplacements are quite numerous; wherever possible they are positioned in depth along the forward slopes of hills and their crests. They are the ordinary cut-and-cover type of emplacements, with the emphasis on cover.

Recently, only small quantities of barbed wire have been used in enemy-defended areas. Two types have been found; one is a common 3-strand security fence; the other is an American type of chevaux-de-frise (knife rest). The security fence is crude and is no great obstacle, as many areas are not covered by fire. The chevaux-de-frise fences are poorly constructed but they are sighted effectively in draws leading to the defensive positions. They are apparently covered by fire, and antipersonnel mines are planted in the area.

There has been no need to differentiate between CCF and NKPA field fortifications, since both employ similar construction methods and make use of materials at hand. No unusual practices have been noted in construction or location of the emplacements. The enemy places emphasis on overhead cover as protection against UN aerial and artillery attacks. The sighting of positions and their camouflage with natural materials is exceptionally good.

It is not known why so little barbed wire has been found in the enemy-defended areas. However, it can be assumed that there is a shortage of barbed wire available to their front line forces.

Enemy Mines

This compilation of information concerning enemy mine laying activities is intended to show locations of enemy mines across the IX Corps sector, describe the type of the mines encountered, as well as methods used in constructing minefields. This discussion is an effort to determine enemy capabilities and possible courses of action as influenced by the pattern of enemy minefields in the area of the IX Corps. However, the mines and methods of employment are the same throughout the front.

The types of mines positively identified are as follows: TDM-B (box-type), Japanese "93", anti-personnel (FD Mand POMZ-2), antitank TM41, boobytrapped mortar shells, and captured US models.

In the areas considered, the enemy was found to observe little uniformity with regard to pattern or distribution of mines. Some general instructions appear, however, to have been followed by enemy units regarding the laying of mines. These are as follows:

Antitank mines were generally buried 10-18 inches under ground. In winter time these spots appear covered with snow. If buried on roads, mines often were arranged in "W" type formation. Mines on roads were generally arranged 5 meters apart. Wherever possible the enemy seemed to utilize tracks previously made by friendly armor vehicles for locations of his AT mines.

Frequently mines were also found at bends in the road, placed along the outside curve and under road shoulders. Occasionally a trip wire is attached to a pull-type fuze, with the wire secured to a tree or similar object off the side of the road. If a friendly vehicle should miss the mine proper, the pressure on the wire would then activate the mine. In some instances the enemy has been known to pull a string of mines across the road, from adjacent foxholes, upon approach of friendly vehicles. This latter device is apparently more prevalent in rear of the enemy MLR as it keeps the road open to enemy traffic at other times. Areas adjacent to and running alongside of important roads as well as bypasses are likewise frequently mined.

In the case of anti-personnel mines, trip wires were tied between trees and if no trees were available, to wooden pegs in the ground. Anti-personnel mines were generally buried under 2 inches of ground and camouflaged. Camouflage was observed to be more effective in front line areas. Mines observed further to the rear appear to have been generally laid hastily and could be detected much easier.

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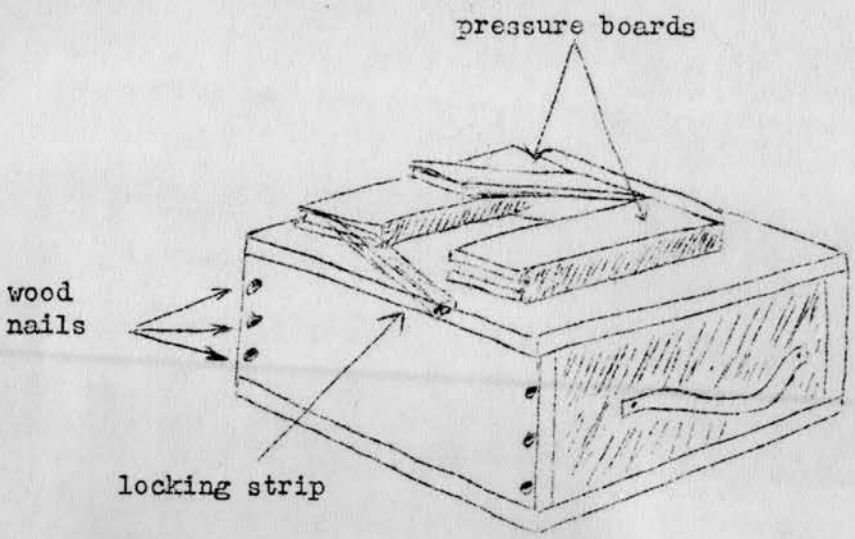

BOX MINE, TMD-B (SOVIET)

Because of its simple, cheap construction, this wooden box mine is one of the most extensively used. Its color varies but it is usually either black or unpainted. A force of 300 to 450 pounds applied to the top of the box will break the locking strip which is engaged in a groove in 3 pressure boards, allowing the pressure block to contact the fuze and detonate the mine.

The TMD-B may be used as an anti-personnel mine by disengaging the locking strip from its groove in the pressure boards. When armed in this manner a pressure of 10 to 15 pounds is sufficient to activate the mine.

To disarm, swing out the locking strip and raise the pressure boards. Lift out the fuze and its attached detonator. These mines may be booby trapped so extreme caution must be taken.

CHARACTERISTICS

Weight	18 to 20 pounds
Weight of explosive	13 to 15 pounds
Height	5.25 inches
Width	12.5 inches
Breadth	10.25 inches

FIG. 15

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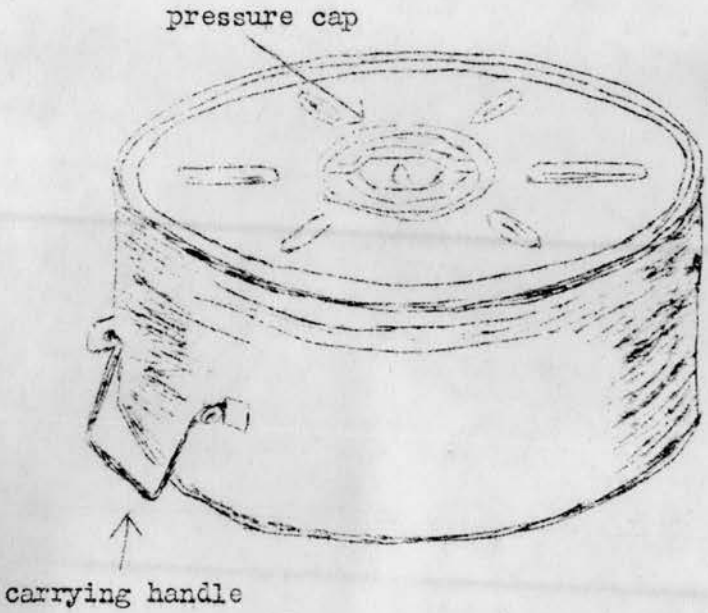

ANTITANK MINE, TM-41 (SOVIET)

The Soviet TM-41 anti-tank mine is made of blued sheet metal often painted white or olive drab. A pressure of 350 pounds anywhere on the lid crushes the upper section of the mine and activates a pressure fuze located beneath the pressure cap. The mine reportedly remains operative for months when it is waterproofed with rubber washers.

To disarm, unscrew the pressure cap and gently pull out the fuze with its attached detonator.

CHARACTERISTICS

Weight	12 pounds (approximately)
Weight of explosive	8 pounds (approximately)
Height	5.2 inches
Diameter	10 inches

FIG. 16

[redacted]

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Figure 16A

Mine hunting ahead of M46 tanks.

In the few cases where actual pattern was discernible in front line locations, mines were laid along furrows in rice paddies, approximately 4-8 feet apart, interspersed with anti-personnel mines and hand-grenade-type boobytraps. PW's have stated that mines are too heavy to carry in quantity and therefore as few as possible are being used in each minefield. Minefields frequently are laid across the narrowest part of a valley for the same reason.

Where box mines were encountered it was found that two or three were usually close together, sometimes in the same hole. Box mines were adapted as anti-personnel mines by using a block of wood to fill the void space between the pressure block and the top of the fuze. Bangalore torpedoes are likewise frequently used as AP mines. These are most often set off by means of a trip wire, although some cases have been reported where a rock was placed on top of the detonating mechanism, which was activated when the rock was accidentally moved. Bangalore torpedoes are rarely placed near enemy bunkers, but most often at the bottom or foot of a hill. Bangalore torpedoes are often coupled in series and more than one are set off by the same pull-string.

Most enemy minefields appear to be unmarked and enemy troops are merely warned by their officers not to approach the particular area. In some places rock is placed in front and back of the minefield. Sometimes a code number is marked on the rock or a piece of paper with the code number placed under the rock. In the event enemy forces withdraw from the area, markers are removed.

Enemy Camouflage Practices[7]

The individual enemy soldier receives no formal basic training in camouflage. However, the importance of camouflage is fully realized and stressed by enemy commanders, who place the responsibility for such training at low command levels. Continual, informal training in camouflage techniques, with emphasis on individual concealment, is given by each squad leader to his group, whenever time permits.

Camouflage training varies with the experience and ingenuity of the squad leader, and explains the wide variety of concealment and deception techniques discovered by UN forces. Such training has the advantage of being under constant improvement. Moreover, since it follows no set standard pattern and varies in application and effectiveness from sector to sector, it forces UN troops to be constantly alerted to new enemy tricks.

Enemy training in camouflage places the emphasis on individual concealment during daylight hours. It stresses the use of locate materials, such as leaves, branches, straw grass, and mud; at times, the enemy soldier covers his entire body with mud. Straw grase, and leaves are often attached to the soldier's headdress, or uniform. Fiber loops are provided on some uniform jackets and special head nets are used, for insertion of this vegetation.

Units up to battalions in size have escaped detection by aerial observation, in the open, during the day, by sleeping in ditches along roads and covering themselves with pine branches, or rolling up in straw mats and lying in orderly rows, like piles of straw.

Individual enemy camouflage often proves highly effective. UN soldiers sometimes have been startled by shots to the rear, fired by enemy troops which have slipped, undetected, through forward defense lines.

Some Chinese troops were known to carry circular, woven straw mats, three feet in diameter. These were worn on the head to afford concealment against aerial observation.

Wheeled and tracked vehicles are camouflaged in various ways, depending upon the tactical situation. In static situations, in forward areas, tracked vehicles are usually dug in, and covered with surrounding vegetation. If forward movement of the vehicle is anticipated momentarily, the vehicle is not dug in, but is parked, hull down, in ditches, gullies, and ravines, or behind bushes, and is covered with branches.

Vehicles and guns are often assembled beside houses or under sheds built against the house structure. On the move, vehicles crossing soft ground have often dragged trees behind them to eliminate their tracks. At halts, groups of tanks have escaped detection by parking under completely transplanted trees, in open fields along main roads. Tanks and self-propelled guns have also taken up defensive positions in houses, by crashing through the wall of a house, wherein the vehicle was entirely hidden from sight. Another clever scheme was to drive a tank into a demolished building, drape it with cloth and cover this cloth with ashes and rubble.

Ammunition and POL are never stacked in open areas by the enemy. Ammunition may be found in ditches near railroad stations. The cases are placed in long rows and then are covered with brush or grass. Apparently this camouflage material was freshened nightly, judging from the fresh vegetation found

covering ammunition dumps. In one instance, approximately 1,000 A/T mines were found carefully inserted in an evergreen hedge, around a schoolhouse. POL supplies have been found buried in cinder piles near railroad stations, and near main roads, in ditches, covered with straw, and other materials. Existing tunnels or caves are utilized to the utmost, and, if these are not available, excavations are made by the responsible unit or by conscripted civilian labor.

When the enemy digs foxholes, the soil is carefully removed and concealed with natural materials such as straw and branches, making detection very difficult, except at close range.

Sometimes, foxholes are dug with the walls undercut at the bottom, to allow a man to lie down. The soil is distributed around the hole and camouflaged with materials at hand, such as scrub pine, sod, rice straw, branches of leafy trees, or cane. Frequently, straw mats are used to cover the top of the hole.

The enemy's use of deceptive tactics has not been as effective as his concealment techniques. However, he has employed some standard ruses and devised a few new ones. The use of artificial materials, such as prefabricated nets, has been limited; the use of paint on industrial buildings and ships has been rather widespread, although rather ineffective.

One of the enemy's more ambitious deception projects was the camouflage of a sizeable highway bridge to simulate a continuous roadway. To create roadside appearances, trees reaching high above the roadway, were planted along, or secured to, the sides of the bridge. Gravel, and paint patches, added to the bridge floor, were intended to heighten the deceptive value of this tactic.

A most clever and effective scheme is the enemy's practice of breaking up pontoon bridges into rafts during the day, and dispersing these sections along river banks and under the nearby wreckage of bombed bridges. This ruse was first detected along the Han River, near Seoul. For a time, these pontoon bridges were considered to be under construction; actually they were being used, extensively, every night.

A common method of deception was that of parking tanks and other vehicles among disabled vehicles. Along the main highway from the Pusan perimeter toward Seoul, advancing UN columns found a number of undamaged tanks left behind, because of lack of fuel. In each case the tanks had been placed in ditches, in such awkward positions that when seen from aloft they appeared to have been put out of commission.

To draw fire from UN aircraft, the enemy often camouflaged, destroyed or wrecked aircraft, tanks, trucks, and other vehicles. Knowing that UN aircraft had discovered one of his favorite tricks of disguising tanks and other vehicles as haystacks, the enemy resorted to building many of the haystacks around destroyed tanks and vehicles. To increase deception and the chances of drawing UN fire, the position of wrecked equipment was often changed. Destroyed aircraft were moved to other points on an airfield and replaced with dummies. Thus, even if pilots had seen pictures taken of the original strike, the camouflaged and destroyed aircraft spotted in new locations on the airfields, served as decoys and were attacked uselessly, again and again, in subsequent strikes.

In the early months of the campaign seemingly harmless ox-drawn carts were spotted transporting much of the enemy's supplies. The enemy also achieved considerable success in concealing and transporting food, small-arms, and ammunition in frames and head bundles, carried by thousands of male and female native personnel posing as "refugees." Unlike enemy troops who resorted to camouflage with natural materials and exploited the advantages of shadows and cover, these "refugees," attired in the characteristic white garments of Korean natives, travelled openly over the highway and established trails.

Enemy soldiers, who also carried with them the typical white garb of the Korean natives, frequently mingled with the crowds of refugees which clogged the highway, and advanced in broad daylight without being detected.

When the enemy drove toward Taejon, 200 refugees, mostly women and children, walked directly through the combat area, creating confusion while US front line troops rounded them up. Meanwhile the enemy attacked. It later developed that the refugees were unarmed and had been ordered to proceed toward the US lines, creating a diversionary and deceptive tactic to assist the enemy in his offensive operation. It is also known that American uniforms have been used by the enemy to facilitate infiltration of UN lines.

Enemy camouflage in winter is much more difficult and less effective than at other seasons, due chiefly to the difficulty in concealing tracks. White cloth, where used, has generally proved ineffective, because it ripples in the wind and is easily soiled. Vehicles are usually located along the base of a hill or snowbank and covered with snow, but tracks always reveal the position.

Camouflage has become the enemy's most effective weapon of defense in Korea. In general the camouflage practices of the NKPA and the CCF show increasing ingenuity in their techniques of concealment and deception. This is due to the frequent UN bombing and strafing raids. The enemy has restricted movement of personnel and vehicles during daylight, has carefully sighted individuals and their weapon emplacements, and has made maximum use of natural materials in the concealment of supply dumps, bivouacs and vehicle parks.

NOTES FOR CHAPTER 6

[1] Enemy Armor in Korea, FECID, 17 September 1951.

[2] Enemy Tactics, Techniques and Doctrine, Headquarters IX Corps, G-2 Section. Chapter III, Section A.

[3] Intelligence Summaries No's 3315, 3489, Headquarters UNC, p M2, p OB 1.

[4] Intelligence Summary Nr 3214, CHQ, UN, FEC, 28 June 1951.

[5] Engineer Intelligence Notes Nr 15, January 1952.

[6] EUSAK Armor Bulletin Nr 4, April 1952.

[7] Engineer Intelligence Notes Nr 8, September 1951.

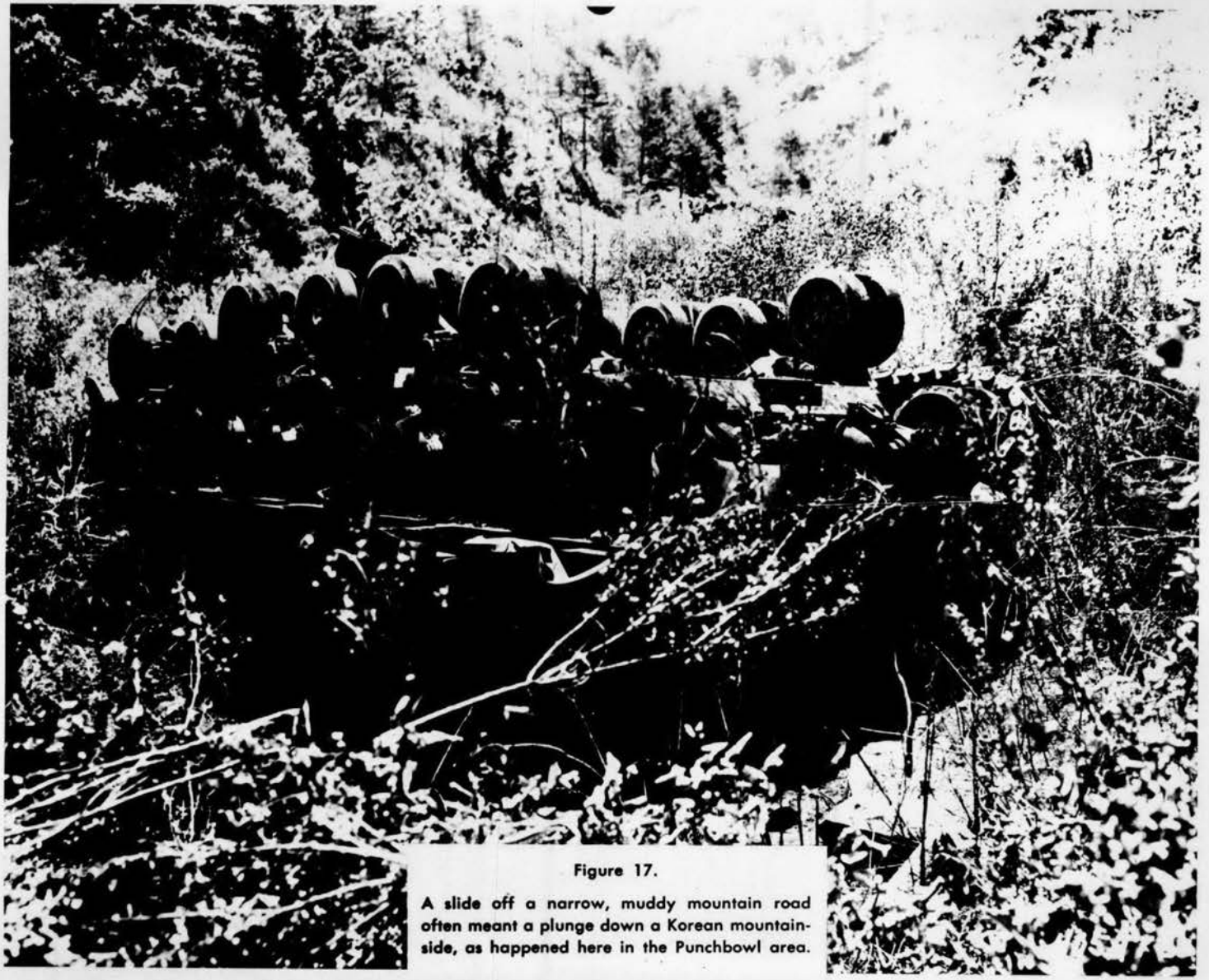

Figure 17.

A slide off a narrow, muddy mountain road often meant a plunge down a Korean mountainside, as happened here in the Punchbowl area.

CHAPTER 7

MAINTENANCE AND LOGISTIC OPERATIONS IN KOREA

Tank Maintenance
Shortage of Spare Parts
Personnel
Mechanical Failures
Field Testing of Final Drives
Tank Tests
Corrective Action Taken
Comparison of Centurion III and M46

Tank Maintenance

The very great number of tank casualties that have been charged to mechanical failures are deserving of particular examination. It is difficult, on the basis of the information presently available, to appraise this situation. The factors that bear heavily on this problem are; the rough and hostile terrain of Korea, the quality of maintenance and logistic support, the age and physical conditions of some of the tanks employed, and the skill and training of tank crews.

In an effort to shed some light on the nature of the mechanical failures, it should be remembered, in any consideration of mechanical failures by type, that the M4 and M24 tanks were products of a long period of development and modification and should be expected to perform with some measure of reliability. The M46 tanks were the first of this type to be built and the Korean employment was their first operation test. The M26 was a World War II development and was in a generally poor condition.

The performance of the M4E8 can best be described in one word--"reliable." Although possessing certain faults and disadvantages, the M4E8 has constantly out performed the M46 and other tanks over a long period of time. The tank is mechanically reliable and relatively easy to maintain. It is rugged in design and its hill-climbing ability has been underrated.[1]

Tank maintenance in Korea was conspicuous for its difficulties. Three major factors were involved in this situation: first, the general failure of the logistic system to have enough spare parts forward to the tanks; second, the lack of training and experience among tank mechanics at nearly all echelons; and third, the tactical situation. In addition, 8th Army did not have its quota of ordnance supporting units. Each Corps could have used three medium maintenance companies and one heavy maintenance company; instead of the two they had.[2]

The quality of organization maintenance and the age and physical condition of the equipment unquestionably influenced the whole maintenance problem. It is known that a number of tank units had little training on the type of equipment they were issued, and others arrived with vehicles that had seen considerable service.

Shortage of Spare Parts

The spare parts situation has been particularly critical. Our logistic build-up was not sufficient to deliver to the tank units their organizational spare parts, as specified in the Department of the Army Supply Catalog ORD-7.[3] The divisional support maintenance units were likewise without any measure of their field maintenance spare parts and equipment (ORD-8).

ORD-8 SNL 6-226, Department of the Army Supply Catalog on the M26 tank, specifies over 1,200 separate items in quantities of one or more, as the initial stockage of spare parts to be carried by a division with 60 to 100 tanks.[4] Some of the difficulties were from the lack of parts within the Zone of Interior. However, transportation and shipping restrictions on the movement of available spare parts from bases in Korea and Japan to forward areas, and to some extent the difficulty of establishing the identity of some parts shipped from the Zone of Interior without packing lists, hampered the supply exceedingly. Supply was further complicated by the frequent changes of location of units which resulted in delay in delivery, or losses in transit, of many shipments of spare parts. Consequently, salvaging and exchanging of parts from disabled tanks was necessary to obtain parts required for maintenance of other tanks in servicable condition.

The tactical situation at certain periods deprived the tank units of maintenance support. At times, great distances separated the tanks from their supporting units, therefore, making it very difficult to have the maintenance support necessary. When the units were close together, maintenance support was much more satisfactory.

Personnel

Shortages of trained and experienced tank mechanics further hampered the maintenance of tanks. It was noted that these shortages existed particularly on the third and fourth echelon levels, where this type of skilled personnel is essential. Unfamiliarity with mechanical arrangements of the M46 tank was rather general beyond the basic level. As a result the mechanics of many tank units have perforce been carrying out repair operations much beyond their normal capabilities. One Ordnance Company

organic to a division and assigned to maintain sixty-nine M46 tanks, costing approximately $200,000 each, had never seen the tank before, and did not have any mechanics who had had previous experience on the tank and no basic technical manual as an aid. This is a typical example of the type of mechanics available to maintain the tanks in the field. Ordnance technicians, as a general rule, lacked the practical experience which brought about considerable waste of equipment and maintenance time. Spark plugs were exchanged that were not the least bit worn; road wheels were replaced even though they were good for additional mileage. Many other items were salvaged that could have been evacuated for repair; carburetors were exchanged that were not dirty or worn out (adjustment was all that was required); and many other items replaced or salvaged that could have been adjusted, salvaged or otherwise utilized.

The lack of experience and knowledge of many crewmen has often resulted in damage to valuable pieces of equipment. The cause may be generally traced directly to failure of some to care for the equipment, but, it is generally a lack of knowledge, rather than criminal neglect, that is responsible for the failure. Unless personnel have been working around vehicles for many months and under close supervision at all times, there are still many small checks that are missed on the operation check.

To correct this condition 8th Army Ordnance has prepared a check sheet showing the duties of each crew member and what these members should look for on the various checks. Although the 140th Tank Battalion has used this form for the past month, it is too early to determine the benefits from the form.

Mechanical Failures

The greatest single cause of mechanical failure seems to be the power plant. The engines of the M26 and M24 were the least reliable of all types of tank power plants. The next most common mechanical failure was the transmission, including clutches and gearing; with the M46 transmission being the most troublesome. Tracks and final drive failures were numerous, but in proportion to the number of types involved, were about equal among all types.

Field Testing of Final Drive

Two experimental type final drive output shafts are to be field tested by the 64th Tank Battalion. Four M46 tanks having the new type output shafts were issued to the 3rd Infantry Division for field testing.[5]

Two of the tanks have output shafts which have been "shot peened." This process compresses the molecular structure of the shaft which should make it more resistant to fatigue cracks, which usually radiate inward from the outside splined surface. The other two tanks have hollow output shafts; a hole one inch in diameter has been drilled in the center of the shaft to a depth of 18 inches. This shaft is being tested on the theory that hollow shafts will have more torque which should reduce the failures of this unit.

The 64th Tank Battalion was given the mission to use and to test this experimental shaft and to perform routine preventive maintenance on them. Records on length of time operated and distance travelled are to be kept by the battalion. Monthly inspections are to be pulled by the 703rd Ordnance Company (3rd Division). This includes tearing down the final drive assemblies and inspecting the shafts for indications of fatigue cracks or failures.

Output shaft failures have been one of the major troubles experienced with the M46 tanks operating in the Korean Theater.

Tank Test

The 25th US Division, utilizing the 89th Tank Battalion, will conduct a 90 day combat test of the M47 tank. Seventy-five M47 tanks, with a one year's supply of parts and tools, will be issued during March 1953. Prior to the issue of the M47 tank, the M4E8 now in possession of this battalion, will be retained in readiness within the battalion area until the issue is completed.[6]

The training phase will cover a five-week period which will consist of crew training, platoon and company training exercises. Special schools will be conducted for the maintenance and communication personnel of the testing battalion and the supporting ordnance units. Upon completion of this training, the battalion will start its 90 day test. Companies of the battalion will be rotated with the regimental tank companies on the line. Test emphasis will be placed on the fire control system of the new tank.

The T41E1 (Walker Bulldog) tank will be tested by the 2nd, 25th and 45th US Divisions utilizing the Division Reconnaissance Companies and Reconnaissance Platoon of the 8th Tank Battalion. The Battalion will be equipped completely with the new type tanks. The scope of the test and training will be parallelled with that of the M47 tank. The T41E1 will be issued to testing units in April 1953.

Corrective Action Taken

One of the first steps taken to correct the maintenance problem was to have representatives of Continental Motors Corporation assigned to the Far East Command in Tokyo, Japan, for the purpose of rendering services involving supervision, overhauling, instructing, and maintenance of various models and types of Continental engines used in combat. It was also requested that civilian representatives from the District Arsenal be sent to the Far East for a period of six months to assist in rendering technical service on the M46.

Representatives from the Continental Motors Corporation arrived in Japan in July 1951. The first 44 day period was spent in working with personnel in the Ordnance Section, General Headquarters, and with personnel at Tokyo Ordnance Depot. During this period a school was organized for the purpose of teaching Organizational and Divisional Ordnance Maintenance of the M46 tank to men of the 40th and 45th US Divisions stationed in Japan. This school established a precedent and demonstrated the need for a permanent school which, since, has been tentatively set up, to give instruction on the M46 tanks to units from Korea scheduled to receive new M46 tanks for the first time or to units whose M4 or M26 tanks are being replaced.

The proposed program at this time called for all units in Korea will receive the M46 tank before the end of 1952. This will relieve the load on supplying spare parts for four different type tanks. Schools being conducted in Japan will make it possible to have trained maintenance personnel at all echelons. The reliability of the M46 can be expected to improve greatly when some of the weaknesses brought out the first year of the campaign are corrected.

So that we may better understand the maintenance capabilities and limitations of the M46, we will compare it with the Centurian III, which has seen considerable combat in Korea.

It should be remembered that the M46 is not our standard tank; the use of this tank in Korea was a proving ground for both the manufacturers and the ordnance personnel.

Comparison of Centurian III and M46

a. Power: The Centurian III engines are considered good but not powerful enough for the weight of the tank; however, it has been noted that this tank does have a good cruising speed on hard surface roads and has been able to climb steep hills.

The power of the M46 engine is adequate to propel the tank at relatively high speeds on flat or gently rolling terrain. When climbing steep hills or when towing another M46 tank, the power of the engine is not fully utilized because of the gear ratio in the final drive and slippage in the transmission.

b. Mobility: The Centurian III characteristics are -

(1) The tank has adequate speed on flat, gently rolling terrain.

(2) The hill-climbing ability of the tank is excellent.

(3) The tank has forded water approximately four feet deep. Rice paddies, with mud 10 inches deep, were easily traversed. Four tanks were seen to maneuver over an earth dyke with a vertical face 4 feet high. The top of the dyke was 7 feet wide with a gully 2 feet deep running through the middle; the far side of the dyke was approximately 12 feet high with a 65 degree slope leading into a soft rice paddy 10 inches deep. The four tanks in trace negotiated this obstacle with no difficulty.

(4) The tank makes gradual turns as compared with the sharp, abrupt turns of which the M46 is capable.

(5) The Centurian III tank has safely traversed the MSMC Treadway Bridge, however, because of the weight of the tank the safety factor for the bridge has been materially reduced. When a Centurian III crosses a pontoon bridge, the bridge almost submerges.

The characteristics of the M46 are -

(1) The tank has considerable speed on flat or gently rolling terrain.

(2) The tank has climbed hills approximately 30 degrees, however, when negotiating turns on steep slopes all the power is diverted to one track which then spins in place. It is then necessary to back the tank in a direction tangent to the turn and then start uphill in the direction of the turn.

(3) When climbing long steep hills the transmission tends to overheat. The transmission is cooled by braking the tank and running the engine for a few minutes.

(4) Neutral steer for pivoting the tank in place is seldom used because it places a severe strain on final drives and output shafts and tends to cause thrown tracks.

(5) Traction is fair on muddy hills, in rice paddies or in heavy muddy ground. Traction would be improved if the per-square-inch ground pressure were decreased and if the track block had deeper chevrons.

(6) Tracks are thrown easily when traversing lateral slopes. The center guides of the track are considered to be too narrow and too pointed for securing the tracks.

c. Ease of Maintenance: The Centurian III maintenance characteristics are -

(1) To replace a bogie wheel, the bogie wheel rocker arm is raised by a hydraulic jack applied from underneath the tank. This method is slower than the standard US method of removing bogie wheels.

(2) The tracks are hard to break due to the difficulty in removing the track pin. To expedite maintenance on the track, it has been broken by cutting it with an acetylene torch or breaking it by using small demolition charges.

The M46 maintenance characteristics are -

(1) In general, testing the main engine or replacing certain accessories to the main engine, are best accomplished by removing the engine from its compartment and making the necessary repairs while the engine is on the ground. It takes an average crew about three-fourths of an hour to remove the engine and about one hour to replace the engine. Removal and replacement of the engine requires a wrecker truck.

(2) The main engine must be removed to replace the following accessories of the main engine: level gears in the oil-cooler-fan assembly; fan shaft of the oil-cooler system; lower magnetos on the lower left hand side of the engine compartment; intake manifold clamps on the side next to oil-cooler radiators along the bottom of the engine to the oil filter; and the main transmission.

(3) The following maintenance can be accomplished quicker by removing the engine: changing the main engine generator; 100 hour check; and changing or adjusting of carburetors.

(4) Spark plugs can best be changed by removing the heavy steel grill work from the back deck of the tank.

(5) After engines are removed, they are tested by "ground hopping." If the engine is defective and requires repair by Ordnance, the engine must be reinstalled; the tank delivered to Ordnance and then Ordnance must repeat the process of removing the engine before correcting repairs.

d. Mechanical Reliability: The Centurian III is based on the tank deadline rates; the Centurian III tank appears to be as mechanically reliable as the M46.

In general, the M46 tank is not mechanically reliable, however, the mechanical unreliability can be penpointed to the following features; final drives, output shafts, oil-cooler-fan assemblies, and master junction boxes.

(1) Final drive gear.

(2) Output shafts develop radial cracks and eventually shear. It is believed that this shaft is under-designed in strength.

(3) The oil-cooler-fan assembly is the most unreliable assembly of the tank. The parts of the oil-cooler-fan assembly which frequently fail are the shafts, magnetic clutches and leveled gears. Oil-cooler-fan assembly failures, if not promptly detected, cause overheating and damage the main engine and transmission.

(4) Master junction boxes fail frequently. It is believed that the junction box is too complicated and controls too many of the electrical features of the tank. The chief failures in the junction box are sticking circuit breakers and burning out of ballast bulbs.

e. Ease of Handling: The Centurian III tank is reported to handle very well; turns are relatively long and gradual.

The M46 dual driving controls in the assistant compartment are not necessary. Because of the simplified driving control, the driver is not subject to driver fatigue and, therefore, assistant driver controls are not needed. The manual control driving lever makes driving of the tank easy and simple. New drivers learn to drive the tank in a relatively short time.

f. Fuel Economy: The Centurian III unknown--but, reportedly by a British Officer, to compare favorably with the M46 tank.

The M46 -

(1) Approximately 3 gallons per mile under average conditions.

(2) Because of cold weather, warm up periods and maneuvering over hilly and difficult terrain, average gasoline consumption is approximately 4 gallons per mile.

(3) Because of relatively high rate of fuel consumption, the range of tank operation is limited for extensive operations. Refueling requirements for tank units are high and must be carefully planned and anticipated.

NOTES FOR CHAPTER 7

[1] EUSAK, Armor Bulletin No 4, April 52.

[2] ORO Report, Employment of Armor in Korea, Volume I, p 29, 20 May 1952.

[3] Ibid; p 42.

[4] Ibid; p 43.

[5] I Corps Armor Section Letter Addressed To Field Forces Board #2.

[6] Memo to General Howze, subject: Issue of T41E1 and M47 Tanks in Korea for Combat Testing, from James O. Doulton.

[7] Gordon C. Page, (Continental Aviation and Engineering Corporation), Jan 1952.

CHAPTER 8

KOREAN CEASE-FIRE NEGOTIATIONS

Period Covered: 25 June 51 - 30 June 52

The UN Cease-Fire Group (composed of Nasrollah Entezam of Iran, Sir Benegal N. Rau of India, and Lester B. Pearson of Canada) created by the UN General Assembly on December 14, 1950, to find a basis for a cease-fire in Korea, reported failure on January 3, 1951. On February 1, 1951, the General Assembly adopted (44 to 7, with abstentions) a United States resolution branding the People's Republic of Korea an aggressor. This resolution also provided for a Good Offices Committee, formed on February 19 (consisting of Entezam, Sven Grafstrom of Sweden, and Dr. Luis Padilla Nervo of Mexico), to seek a peaceful settlement in Korea. On May 18, the UN General Assembly adopted (47 to 0, with 8 abstentions, the Soviet bloc not participating) a resolution banning strategic materials to Communist China.

Two identical peace proposals signed by North Korean Foreign Minister Pak Hun Yung, addressed to the presidents of the UN Security Council and General Assembly, were received on April 16. They asked for a meeting of Great Britain, Communist China, France, the Soviet Union, and the United States to end the war in Korea. Then, on June 23, Soviet UN Delegate Jakob A. Malik said, on the UN "Price of Peace" radio series in New York, that the "problem of the armed conflict in Korea" could "be settled." "The Soviet peoples believe that as a first step," he aserted, "discussions should be started between the belligerents for a cease-fire and an armistice providing for the mutual withdrawal from the 38th Parallel."

Malik's remarks stirred up immediate comment and action. UN Secretary General Trygve Lie said on June 24, "I urge that negotiations for a military cease-fire now be entered into at the earliest possible date." President Truman declared on June 25 that, "We are ready to join in a peaceful settlement in Korea now, as we have always been."

General Ridgeway was authorized to broadcast a message to the Communist commanders on June 29, in which he said, "I am informed that you may wish a meeting to discuss an armistice providing for the cessation of hostilities and all acts of armed forces in Korea, with adequate guarantees for the maintenance of such armistice." He suggested that "such a meeting could take place aboard a Danish hospital ship in Wonsan Harbor."

On July 1, General Kim Il Sung, supreme commander of the Korean People's Army and General Peng Teh-huai, commander of the Chinese "volunteer" forces, agreed to a cease-fire meeting but proposed that the talks be held at Kaesong, just below the 38th Parallel, between July 10 and 15. General Ridgeway agreed on July 3, and after a liaison meeting July 8, the truce negotiations began July 10 in Kaesong.

The United Nations delegation was composed of Vice Admiral Charles Turner Joy, chief; Major General Lawrence C. Craigie, US Eighth Army; Rear Admiral Arleigh A. Burke, US Navy; and Major General Paik Sun Yup, Republic of Korea Army. The Communist delegation consisted of: General Nam Il Korean People's Army, chief; Major General Lee San Cho, Korean People's Army; Generals Tunk Hua and Hsieh Fang, Chinese "volunteer forces."

South Korean President Syngman Rhee and his Cabinet strongly opposed the cease-fire talks. Their objections, however, did not prevail upon the United Nations. On June 30 the South Korean government submitted the following points to the UN Commission as a basis of a cease-fire:

a. The Chinese Communits armies must withdraw completely from Korea.

b. The North Korean Communists must disarm.

c. The United Nations must agree to prevent any third power from giving any assistance to the North Korean Communists, militarily, financially, or otherwise.

d. The official representative of the Republic of Korea shall participate fully in any international conference of meeting discussing or considering any phase of the Korean problem.

e. No plan, program, or course of action will be considered as having any legal effect which conflicts with the sovereignty or territorial integrity of Korea.

When Communist guards refused passage to a convoy of 20 United Nations correspondents on July 12, Admiral Joy ordered his delegation to return to his Munsan headquarters and the cease-fire meeting was suspended until the Communists accepted the following conditions:

a. The road leading to the Kaesong conference site shall be open to unrestricted use by vehicles of the United Nations command delegation.

b. A neutral area, 5 miles in radius with the Kaesong traffic circles as its center, would contain no armed personnel except the minimum needed for military police purposes, such personnel to be armed with small weapons. The conference site would be defined as an area having a radius of one-half mile centered on the meeting house.

c. Both sides should refrain from any hostile acts and must have complete reciprocity of treatment.

The meeting was resumed on July 15, and after setting aside the Communist suggestion of withdrawal of the foreign troops as a political question, the following agenda was agreed upon July 26:

a. Adoption of an agenda.

b. Fixing a military demarcation line so as to establish a demilitarized zone as a basic condition for a cessation of hostilities.

c. Concrete arrangements for the realization of a cease-fire and an armistice, including the composition, authority, and functions of a supervising organization for carrying out the terms of a cease-fire and armistice.

d. Arrangements relating to prisoners of war.

e. Recommendations to the governments concerned on both sides.

The question of fixing a military demarcation line deadlocked the meetings. The Communists wanted to make the 38th Parallel the center of a neutral zone, and the United Nations delegation wanted to set up a defensible line farther north. On August 5, the conversations were again suspended when Admiral Joy charged that an armed Chinese Communist Infantry company had passed within 100 yards of the conference house on August 4. The negotiations were resumed on August 10, after obtaining from the Communists an assurance of strict observation of neutral zone agreement.

Faced with an impasse in establishing a truce line, the United Nations delegation suggested creation of a subcommittee to deal with the issue. This suggestion was accepted on August 16, but the subcommittee, too, made no progress. In the meantime, the Communist delegation protested that a patrol in Kaesong was ambushed by armed United Nations personnel on August 19; that

their jeep was strafed and destroyed on the Pyongyang-Kaesong road, also on August 19, and that Kaesong was bombed by a United Nations plane on the night of August 22. When these claims were denied, the Communist delegation suspended the conference on August 23.

Communist protests of violations of the neutral zone continued. From August 29 through November 12 there were eight separate charges--most of them on alleged "bombing" in the neutral zone--exclusive of repetitions and complaints of flights over the neutral zone. The United Nations admitted only two of them--the strafing of Kaesong on September 10, and of Panmunjon on October 12, the latter causing the death of two children.

The Communists finally agreed to resume negotiations after the United Nations admitted the September 10 incident. Liaison officers met at Kaesong on September 24-26, but the meetings were stalled over the setting up of preliminary conditions for subsequent talks. On September 27, General Ridgeway suggested to Generals Kim and Peng that the truce site be moved from Kaesong to Songhyon-ni, but Panmunjon was finally selected on October 8.

Liaison officers resumed conferences on October 10 and agreed on October 22 to continue plenary negotiations. The joint subcommittee resumed its sessions on October 25 and took up the matter of fixing a military demarcation line. For 24 days the committee debated the issue without reaching a conclusive agreement. The Communist delegation abandoned its original demand for the 38th Parallel line and wanted to draw the demarcation line along present battle positions, implying a "de-facto" cease-fire without a formal armistice. The United Nations delegation insisted that no definite line could be established until an agreement on all other issues on the agenda was reached.

At the 24th subcommittee meeting, on November 17, the United Nations delegation proposed that the present line of contact (as jointly determined by the subdelegations) constitute a provisional military demarcation line; that two lines two kilometers from this line form respectively, the northern and southern boundaries of a provisional demilitarized zone; that both demarcation line and zone become effective in any armistice agreement signed within 30 days; and that, if an agreement was not signed within that period, the line of contact then existing would be determined and would constitute a new provisional line. Communist counterproposals were made on November 21. Two days later, a general agreement was reached largely as outlined in the United Nations proposals of November 17, and it was decided that the fighting would continue until the armistice agreement

was signed. A joint military subcommittee mapped the 145-mile demarcation line, which was ratified by the main delegations on November 27. Work was started immediately on the third point on the truce agenda, enforcement of the cease-fire. This issue was still unsettled on December 11 when the next point on the agenda, the exchange of prisoners, was taken up. Agenda items 3 and 4 were then debated in separate subcommittee meetings. Lists of military prisoners held by both sides were exchanged on December 18. The United Nations list totaled 132,474, as follows: North Korean, 85,531; Chinese, 20,700; and South Korean dissidents, 16,243. The Communist list totaled 11,559 as follows: South Korean, 7,142; American 3,198; other United Nations, 1,219.

In the first 113 days since General Ridgeway's first formal message concerning a possible military armistice conference on June 30, 1951, 32 days were devoted to substantive discussions by the delegations or the joint subcommittee of the delegations. Of these 32 days, the full delegations met on 26 of them and the joint subcommittee met 6 days. The liaison officers of both sides discussed matters concerning the initiation of full delegation conferences, or the resumption of them, on 15 days. Five days of the 113 were spent by liaison officers in the investigation of alleged incidents with no other business being transacted on those days. Sixty days of the total 113 were unproductive other than for the exchange of written communications on some of them.[1]

Discussion of the airfield question under agenda item 3 continued during the major portion of January. On 24 January, the United Nations Command Delegation asked the Communists to state clearly whether they intended to increase their military air capacity during the armistice. The Communists evaded the question. This item was sidetracked by the United Nations Command temporarily, and attention was devoted to agenda item 4 by the main, or staff delegations.

With the gradual development of discussion on agenda item 4 relating to prisoners of war, the Communists maintained an adamant position that the individual prisoner of war must be repatriated after an armistice, whether or not he desires such action. They have insisted that the plain wording of the Geneva Convention supports their view. They ignored the fact that forced repatriation is completely repugnant to the basic humanitarian concept of the Geneva Convention, the concept of protection for the individual. Without admitting openly they implied that in the matter of repatriation of prisoners of war the Geneva Convention is designed to protect the interest of the State rather than the individual. In opposition to their propaganda attempts to cloud and distort the issues, the United Nations Command resolutely held that the principle of freedom of choice stands

openly and conclusively as an equitable and humane solution to the problem of repatriation. The United Nations Command remains opposed to the inadequate, inhumane and revengeful doctrine of forced repatriation which the Communists advocate.

With equal emphasis, The United Nations Command presented, as logically and cohesively as possible, the further provisions of its proposal. In addition to establishing sound, workable solutions for the exchange of prisoners of war, it provides for the return to their homes of persons displaced by the war. By using prisoner of war exchange facilities, the unfortunate civilian victims of the conflict could be returned to their homes swiftly with a minimum of inconvenience to the individual and to the military forces concerned. The United Nations Command proposal insured that, by the application of the voluntary repatriation clause, those persons who prefer to remain where they had been carried by the flow of war would be permitted to do so.

As a further indication of its good faith and sincere desire to effect an exchange of prisoners which would be most advantageous to each side, the United Nations Command presented the Communists with newly revised rosters, in Korean and Chinese, of all the prisoners it had reported initially. Included on these lists was all available information on each individual listed. The Communists were informed that additional supplementary data on all the prisoners taken, since the start of hostilities, by the United Nations Command was available on short notice and would be provided in return for similar data from the Communists on United Nations Command and Republic of Korea prisoners taken by that side.

In view of the Communists' reluctance to make substantial effort to reach a satisfactory solution and their failure to take any positive steps whatsoever to resolve differences, despite their oft-repeated assertions that they do, in fact, desire early agreement, the United Nations Command decided to take a determined step toward expediting agenda item 4. After explaining carefully the UN's belief that both sides must take positive steps to resolve the issues which have thus far prevented agreement, the United Nations Command presented a draft of an agreement for the disposition of prisoners of war and civilians which incorporates all of the items considered essential for a complete solution. The initial reaction of the Communists, as was expected, indicated no agreement to those parts of the United Nations Command draft which touched on voluntary repatriation.

The Communists claimed that prisoner of war camp number eight, Kang-Dong, was attacked by United Nations Command aircraft at 2100 hours, 14 January and that total prisoner of war casualties

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included twenty killed and fifty-five injured. The Communists admitted that the camp was not marked as a prisoner of war installation. The United Nations Command lodged an immediate protest of the blatant disregard by the Communists of the basic humanitarian principles of the Geneva Convention, which required that all areas holding prisoners of war be plainly marked with identifying symbols and that such areas not be located at or near strategic and tactical military targets.

The United Nations Command further demanded that all prisoner of war and civilian internee camps be marked without delay so as to be visible from the air and that the exact locations of such installations be reported to the delegation. After some delay, the Communists agreed to United Nations Command demands and presented data which they showed exact locations of prisoner of war camps in their area. A careful investigation by United Nations Command of the alleged bombing incident indicated only that allied planes were in the vicinity of Kang-Dong for the purpose of attacking military targets in the area at the time the Communists claimed the attack took place. Failure of Communists to properly mark or to furnish accurate location of prisoners of war camps made it impossible to determine whether United Nations Command aircraft attacked the prisoner of war camp at Kang-Dong.

At the request of the Senior Delegate of the International Committee of the Red Cross, the United Nations Command provided transportation for two delegates to the conference site at Panmunjon where they attempted to arrange an interview with the commanders of the Korean People's Army and the Chinese People's Volunteers. With full respect for the neutral position which the International Committee of the Red Cross has traditionally maintained, the United Nations Command was happy to be of assistance to that organization and considered it regrettable that the Communists, without valid reason and with deliberate disregard of the humanitarian concepts epitomized by the International Committee of the Red Cross, do not see fit to permit them access to the prisoner of war camps in their territory.[2]

A riot believed to have been Communist planned and led, among Korean civilian internees in a compound on the island of Koje-Do on 18 February was put down by United Nations Command security troops who, in the course of their duties, had been suddenly attacked by over 1,500 inmates of the compound. The remaining 3,500 inmates did not join in the disturbances. Order was restored only after severe fighting. One American soldier and sixty-nine inmates were killed. One American soldier was injured, twenty-two suffered minor hurts and 142 inmates were wounded. No prisoners of war were involved.

[redacted]

The clash followed entrance of the troops into the compound at 0530. Their mission was to maintain order while United Nations personnel interviewed the internees to determine which individuals desired transfer to other compounds. Interviews were to be accomplished privately to encourage free expression of desires. Any internees requesting transfer would be moved to non-Communist compounds. It was evident that Red compound leaders were determined and prepared to block this procedure. Weapons known to have been used against the troops in the demonstration, which obviously had been planned and organized, included steel pickets, spiked wooden clubs, barbed wire flails, blackjacks, metal tentpole spines, iron pipes, rocks and knives.

The United Nations Command ordered an official investigation immediately. The situation was brought under control and peace restored. Unrest had not spread to other compounds. The senior delegate of the International Committee of the Red Cross, stationed in Japan, was notified promptly. He dispatched two of his assistants immediately to Koje-Do for an independent investigation.

As was expected, the Communists attempted to use this incident to bolster their stand on forced repatriation, claiming that the United Nations Command had been responsible for the uprising and that the participants were only demonstrating their desire to return to Communist control.

On the 22nd of February the United Nations Command submitted a complete draft of armistice wording on item four which reflected all changes to date. The Communists maintained their insistent opposition to voluntary repatriation and on the basis that the subjects were closely allied, rejected the proposals for parole and a sixty-day time limit in which to exchange prisoners, despite the fact that they had previously concurred in the principle.

On the question of joint Red Cross Teams to assist in the prisoners of war exchange, agreement with the Communists on the composition of such teams was obtained on 19 February. This agreement provides for three teams composed of equal membership from the National Red Cross Societies of both sides. One team would operate in North Korea with a total membership of thirty-six from each side. A second team consisting of twenty members would perform its duties in the demilitarized zone.

The International Committee of the Red Cross, Geneva, indicated agreement with the plan for the Red Cross Societies of both sides to assist in the exchange of prisoners of war in Korea.[3]

The period of April 1-15 1952, was accompanied by the usual viscious propaganda attacks by the Communists on the United Nations Command treatment of prisoners of war. The United Nations Command countered by re-emphasizing their invitations to a full and impartial investigation of its Prisoner-of-War camps and noted that the International Committee of the Red Cross had frequently conducted such investigations. On the other hand, the Communists leaders continued irrevocably to refuse to allow such investigations of their Prisoner-of-War camps. They also refused to accept the official reports made on the United Nations Command camps by the Red Cross as valid.[4]

During the period 16-30 June 1952, the senior United Nations Command Delegate recessed the plenary armistice session twice for three days each recess. The first recess covered the period from 18 through 20 June and the second from 27 through 30 June. These recesses were serious attempts to impress the Communists that the United Nations Command would not allow the Armistice Conferences to become an official outlet for their violent propaganda outbursts. In addition, it was hoped that the Communists would realize that the United Nations Command position on prisoners of war was reasonable, firm and final. The main Communist propaganda theme was their distorted version of the Geneva Convention.

The following is a quote by the senior United Nations Command Delegate on 25 June 1952:

> "Today, on the second anniversary of your treacherous attack against the Republic of Korea, we are meeting here in an effort to conclude a just and honorable armistice and put an end to this bloody conflict.
>
> On 28 April, the United Nations Command presented to you a compromise proposal capable of resolving our remaining differences. This proposal is fair and resonable. It represents major concessions on the part of the United Nations Command and is our ultimate negotiatory effort. However, after nearly two months you persist in your refusal to accept our humane proposal which would lead to peace for this war-torn peninsula. You insist that the United Nations Command ignore a fundamental human right and deliver prisoners of war to you by force. That we will never do. Your stand on this issue is a willful perversion of the humanitarian aims of the Geneva Convention. You completely ignore the basic purpose and intent of a document which was designed to delineate and protect the rights of prisoners of war.
>
> You stand alone in your malevolent misinterpretation of the Geneva Convention. You even disagree publicly with

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the stated policy of the country from which you adopted your political and social ideology. On 21 June we documented for you the historical precedent set by the Union of Soviet Socialist Republics in offering in 1943 the right of self-determination to German and Hungarian soldiers. We also documented for you the Union of Soviet Socialist Republic's official indorsement of this policy in 1951.

The United Nations Command has presented you with a fair, reasonable, and humanitarian proposal to end hostilities in Korea entirely in accord with the aims of the Geneva Convention. Unless you are guided by ulterior motives, unless you have no desire for peace and are completely lacking in good faith, you will accept that proposal. I suggest that we recess to permit you to reconsider your position."[5]

Thus ended the truce negotiations for the period covered by this report.

NOTES FOR CHAPTER 8

[1]Encyclopedia Americana 1952 Annual, p 393-395.

[2]The Department of State Bulletin, Vol XXVI, No. 671, 5 May 1952, p 715-716.

[3]Ibid, Vol XXVI, No. 678, 23 June 1952, p 998-999.

[4]Ibid, Vol XXVI, No. 684, 4 August 1952, p 194.

[5]Ibid, Vol XXVII, No. 699, 17 Nov 1952, p 795-796.

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CHAPTER 9

SUMMATION AND EVALUATION

As the Korean War entered its second year, the UN Army had completely regained the initiative. It had halted its retrograde movement and fought the intervening CCF Forces and the few remaining NKPA units to a standstill in January. It had crushed the enemy's supreme offensive effort during April and May, and refused to allow him to regain the initiative by steady advances all along the front. Thus at the beginning of the period studied the UN Forces were deployed along a line fifteen to twenty miles North of the 38th Parallel on the West portion of its area and thirty-five miles or more on the East. Major EUSAK tactical units were disposed as follows: on the West (left) was US I Corps; to their right and occupying the West-Central sector was US IX Corps; to their right and occupying the East-Central sector was US X Corps; and to their right and occupying the extreme right (East) flank of the Army area was the ROK I Corps. Details of dispositions of these units may be found in the preliminary chapters of this report.

The almost immediate removal of the enemy armor threat after the arrival of US tanks in earlier periods of the conflict had relegated friendly armor to the role of combat support before the beginning of this second year. During this period the basic doctrines of employment of tanks with infantry were proven and reiterated. Actions proved that the rugged terrain and severe weather of Korea did not alter the basic techniques of tank-infantry operations, provided proper consideration is given to those elements in planning, and in execution. At the beginning of the period studied, the 2nd Infantry Division published a staff study on this subject, which appears to state very well the concept of tank-infantry employment in Korea as seen by senior Infantry commanders. This report embodied the above statements, and stressed the need for simplicity of task force organization and plans, reconnaissance by fire and movement by leaps and bounds when possible, security, integrity of infantry units, and thorough briefing of participating personnel. In this study it was concluded that the enemy's inadequate communication prevents his timely reaction to tank-infantry probe or spearhead if the force moves rapidly, and that infantry should be equipped with armored personnel carriers to enable them to remain with the tanks. This study further concluded that field artillery supporting such an action should be self-propelled, so that it could join the force if needed. In covering tanks in the defense it was stressed that mutual briefing and coordination between the tank and infantry unit commanders is essential, that

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tanks should not be placed farther forward than necessary to give fire support, and that selection of positions should be made by armor-trained personnel in conjunction with the infantry commanders. The need for armor in counterattack was reiterated. It is on the re-learning of these principles, then, that armor was employed in Korea at the beginning of the second year.

With the beginning of the Kaesong Peace Conferences on 10 July, and the possibility of an armistice in the battle area, the continuation of unlimited offensive action was curtailed. The attitude of the Commanding General, Eighth US Army, was reflected in operations in all Corps sectors - that of aggressive patrolling, raids, and limited objective attacks. Dominating terrain to the front of Line Kansas was seized, and this strong defensive line was further developed across the Army front. This characterized all action within the Army area through the latter part of August.

During this period tanks were employed in various roles. Although their routes were canalized to a very great extent, tank patrols of company and platoon size were successful in penetrating deep into enemy territory to patrol, reconnoiter, and raid. Tanks roamed continually in the enemy's rear, reporting enemy defenses, directing concentrations of artillery on rear installations, engaging targets of opportunity, and, on raiding missions, locating and destroying specific concentrations of material, emplacements, and personnel. These Task Forces operated both with and without infantry, and having once penetrated the front line defenses, usually encountered little resistance. During this period these operations were invaluable in keeping the enemy off balance, preventing solidification of his lines of defense, and making forward positions untenable for his artillery.

Tanks were used as fire support for limited objective attacks, and to support infantry units in defense of positions won. They were valuable as a morale factor to UN infantrymen, even when not teamed directly with them, as members of infantry patrols soon learned that tanks were excellent rescue vehicles. When a patrol would become too heavily engaged to withdraw, tanks would be dispatched to assist them. Tanks often broke through to encircled small infantry units, to take them supplies and help them fight their way back to UN lines. Tanks were utilized to evacuate wounded under fire. These missions, while a small part of the overall operations, nevertheless were invaluable in keeping up the morale and confidence of the other arms.

Toward the latter part of this phase of the action, weather and terrain became an even greater factor than previously, due to heavy rains characteristic of August and September in Korea.

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Roads were so weakened that they collapsed under the weight of tanks. A slide off the side of a narrow, muddy road often meant a plunge down a steep mountainside, resulting in complete loss of tank and crew. Rivers became impassible and bridges washed out or weakened. This situation became so bad that some units were ordered to remain in position until the rainy season was over.

One task force attempted a penetration during this period, but shortly after crossing the line of departure became mired down to the extent that it could not advance. The two companies worked for three days to free the unit, and finally had to withdraw with the loss of mine armored vehicles. Renewed recovery efforts during the following three weeks would have resulted only in further loss of equipment but for the assistance given by bulldozers. Eight of the mired vehicles finally had to be abandoned. This action re-teaches that fullest consideration must be given weather and terrain in the planning of an operation.

The Communists suspended the 'Peace Conferences' on 23 August. While committees and liaison officers continued to meet in an attempt to reestablish negotiations, the attitude of the Eighth Army Commander continued to be one of limiting offensive action, both to minimize UN casualties and to prove to the enemy our good faith in desiring a settlement of the issues at stake. Suspension of the conferences had the immediate result of permitting more freedom of offensive action in X Corps area, the most distant US Corps from the Kaesong Conference Site. This was desirable because it had the overall effect of straightening and shortening the UN line. When the suspension continued to drag on, Eighth Army's attitude of curtailment was set aside for the concept of continual application of military pressure and continuous advance. This was intended to provide the enemy a visible alternative to failure to reach an agreement. During this period Eighth Army successfully extended its application of combat power northward against an enemy force which appeared incapable or unwilling to retaliate with more than determined defense in conjunction with a few small-scale local counterattacks.

Tanks played their full role of infantry support in all these actions. With the passing of the rainy season, river beds again became trafficable, even avenues along which to advance, and mobility of armored vehicles was back at a restricted normal. Armor continued to be used in all roles previously described.

One lesson to be re-learned from experience during this period follows. In supporting an attack of an enemy defense, tanks in position on the flank of the objective were obliged to sit and watch enemy machine gun fire rip into advancing infantry. The tankers were helpless to fire in support of the friendly

EUSA, KOREA

SITUATION MAP OF

25JUN-25 JUN 51-52

Figure 19.

HWACHON-NI

KOSONG

KUMSONG

CHONDO-RI

HWACHON

YANGGU

YANGYANG

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infantry, because they had been ordered by the infantry commander to lift their supporting fire at a certain point. In this instance, needless casualties were taken by the assault unit because its commander did not realize the capability of the tank gun of firing accurate fire which need not be lifted until actually masked. Increased confidence and knowledge of each other's capabilities is essential to successful tank-infantry teamwork.

During this period and possibly before, units began to experiment with and engage in 'bunker-busting'. Of course, tanks had been employed extensively against bunkers in supporting roles and during raids and patrols, but the term was derived from and applies more aptly to the employment of tanks and other direct fire weapons in positions dug-in on or near the MLR to fire at located enemy bunkers. This use of tanks became extensive throughout the winter and spring, and will be discussed further during those periods.

Enemy reaction to probes by tanks was immediate and intense, as increased resistance was encountered in all phases of action. His mining of approaches became more extensive. These materially slowed the UN tanks, and were the enemy's most effective weapon in causing vehicle casualties. He employed heavy concentrations of artillery and mortar fire against friendly task forces, making it difficult to send infantry with the tanks, since they had no overhead protection on the APC's and half-tracks utilized. As resistance stiffened, the principle was relearned that alternate routes of advance are almost a necessity to raid continually on successive days. Routes which were used without incident the first time used would, on following days be found mined even deep into enemy territory - the mines often being buried in the tracks or imprint left by previous passage. Nevertheless, tank and tank-infantry task forces continued their operations, harassing the enemy, destroying emplacements and material, and causing casualties.

During late October this process of applying pressure was restrained once again as the peace negotiations, now moved to Panmunjom, were resumed. Winterization of defensive positions and continued raids and patrols into enemy territory became the characteristic operations.

In late November the UN and Communist representatives signed an agreement outlining the present line of contact as a demarcation line in event a cease-fire could be arranged within thirty days. This agreement also called for all troops to withdraw to positions at least two kilometers from the demarcation line when the cease-fire became effective. Accordingly, Eighth Army delineated Line Iceland as the position to be occupied and

Figure 18.

These tanks dug in along the hillside fire support for Infantry in defending the position.

defended if the cease-fire should be placed in effect, and all units prepared this line in sector and made plans to withdraw to it. To demonstrate willingness to reach an agreement, Eighth Army reduced operations to those essential to maintaining current positions, and limited offensive action to counterattacks to regain positions lost to the enemy. Every effort was to be exerted to prevent casualties. While recognizing the need for the capture of PW's for intelligence purposes, particularly during this period when the enemy's intent was vague, Army directed employment of ambushes and local raids for this purpose. Only if the available combat intelligence fell disturbingly low would Army authorize small patrols to go beyond the Patrol Restraining Line - the line behind which the enemy was deployed in strength. These policies, originally prescribed to govern until 27 December (the expiration of the 30-day period agreed upon) were extended by Army on 25 December "until further notice." They were modified a week later to permit strong raids in retaliation for strong enemy attack. In view of these restrictions, no significant action occurred during January.

Eighth Army had realized that the policy of patrolling and limiting offensive action led the enemy to rely upon our patrols for the maintenance of contact, permitting him to maintain contact without subjecting his troops to the hazards of capture or casualty. A letter of instructions of 4 February stated that Eighth Army would attempt to decoy the enemy into dispatching patrols against our lines so that we could ambush them and capture prisoners. Accordingly the period of planned inactivity began on 10 February, after two days of heavy artillery fire as if covering a withdrawal. Then followed a four to six day period of restricted activity designed to lead the enemy to the conclusion that UN Forces had withdrawn. At first the enemy appeared confused, then bold. Enemy patrols were repelled to prevent entry of our lines, but effort was made to make this appear as simple patrol clashes. Then the enemy became more cautious, although his troops in the MLR continued to move weapons forward and otherwise expose themselves to observation, possibly due to having interpreted UN silence as meaning an impending offensive. Operation Clam-up terminated on 15 February with intense concentrations of preplanned artillery and direct fires. Although much of the results couldn't be observed, being unobserved fires on previously registered areas of enemy activity, it was felt that this operation resulted in numerous casualties to the enemy. His cautious attitude, however, denied the UN the numbers of prisoners for which it had hoped. Regardless, this operation illustrates one of the many methods devised to keep the enemy off balance during this period of political restrictions on offensive actions.

During the next several months the restrictions continued, in whole or in part, in much the same manner as described. The peace negotiations continued, interrupted at times, with decisions being made to pass over items on which no agreement could now be reached, in an effort to agree on as many points as possible. Soon only the prisoner exchange issue remained unresolved. This situation did not materially change during the remainder of the period studied.

While the peace talks thus continued without significant development, the tactical situation in Eighth Army continued much the same. With the onset of winter both sides had become solidly dug-in across the entire front, and defenses improved to the extent that penetrations, even small for raiding purposes, were increasingly costly. In places, particularly in the East sector, the MLR's of the UN Forces and of the Communists were in visual contact - in most of the other areas, contact was maintained by keeping OPLR's and patrol bases in front of the respective MLR's. All such positions were secured by dug-in bunkers, emplaced weapons, and extensive defensive fortifications. Figure 18 is a photograph of a section of the line, showing tanks and bunkers dug in along the MLR.

Employment of armor during this period saw no new developments, rather the continuation of employments discussed thus far. Tank patrols and raids were curtailed due to weather and overall restrictions on offensive action, but continued by supporting fires and by fire and maneuver to deliver effective punishment on the enemy positions which could be reached. The employment of tanks in 'bunker-busting' had by this time become perfected and widely used by all tank units. From positions on or near the MLR, tanks from dug-in positions would deliver direct fire on located enemy installations - bunkers, emplacements, and troops. In such direct-fire positions tanks were impossible to conceal, and invariably drew heavy concentrations of hostile artillery and mortar fire. The enemy apparently had no inclination to bring his own pieces up to engage these weapons in a direct-fire duel. Where possible, covered positions were constructed in rear of the firing positions, but when tanks had to be left in exposed positions, tunnels were dug to the escape hatches to permit personnel to move about without exposure. The enemy fire very seldom damaged friendly tanks so engaged, and then only by repeated direct hits.

As before (August) when weather restricted mobility of tanks, they were utilized rather extensively in indirect fire missions. Tanks were tied in with artillery fire direction centers for best results, the fire being directed by artillery forward observers. To elevate the high-velocity tubes sufficiently,

it was necessary to find or make positions which held the entire front of the tank on an upward plane. For photographic illustration of this use of tanks, see figure 20 .

There is some question whether employment of tanks in the manner described in the two preceeding paragraphs is justified or wise. Almost universally, reports of these employments make mention of the logistical difficulties involved. Units have been unable to obtain replacement ammunition after firing unexpectedly large amounts in such missions. The necessary hand-cary of much tank ammunition to the ridgelines which comprise the MLR is tedious and difficult. Units have engaged in particularly heavy fire in these type missions, and then found themselves out of action for several weeks due to worn-out tubes, replacements for which were not available. There is no accurate information available on the effectiveness of this fire, even on the direct fire on bunkers, but incomplete information indicates that some thirty to forty rounds per bunker may be required to effect complete destruction. This depends, of course, on the construction of the bunker itself, the amount of above-ground target offered, and proficiency of the crew. By comparison, however, an 8" Howitzer utilized in this same direct-fire role over a period of time was reported to have destroyed one bunker per about five rounds fired.

With considerably more time than usual during this period of relatively little action, commanders and units devoted efforts toward solving problems and working out difficulties encountered. The following accounts are mentionable.

Having noted the distinctive outline made by his tanks against the snow of Korea, one commander caused the application of a solution of slacked lime to the hulls. He reported that these whitened tanks were then extremely difficult to pick up from an OP, and the deduction is that delivery of accurate fire on them from any distance would be most difficult. He concluded that Ordnance could well examine the possibility of furnishing white paint for this purpose.

Units continually reported that traction on the M46 was not sufficient to utilize the power of the engine. With winter's freezing of roads, it became more imperative that additional traction be obtained. Changing to rubber treads helped on ice, but they were short-lived among rocks. At least three separate battalions reported trying additional two-inch grousers, welded to each third or fourth track block. All units making this trial reported good success in this means to concentrate the weight of the tank on fewer points. Equally universally, they reported fears that vibrations thus generated might cause damage to other parts of the vehicle. All were insistent, however, that someone

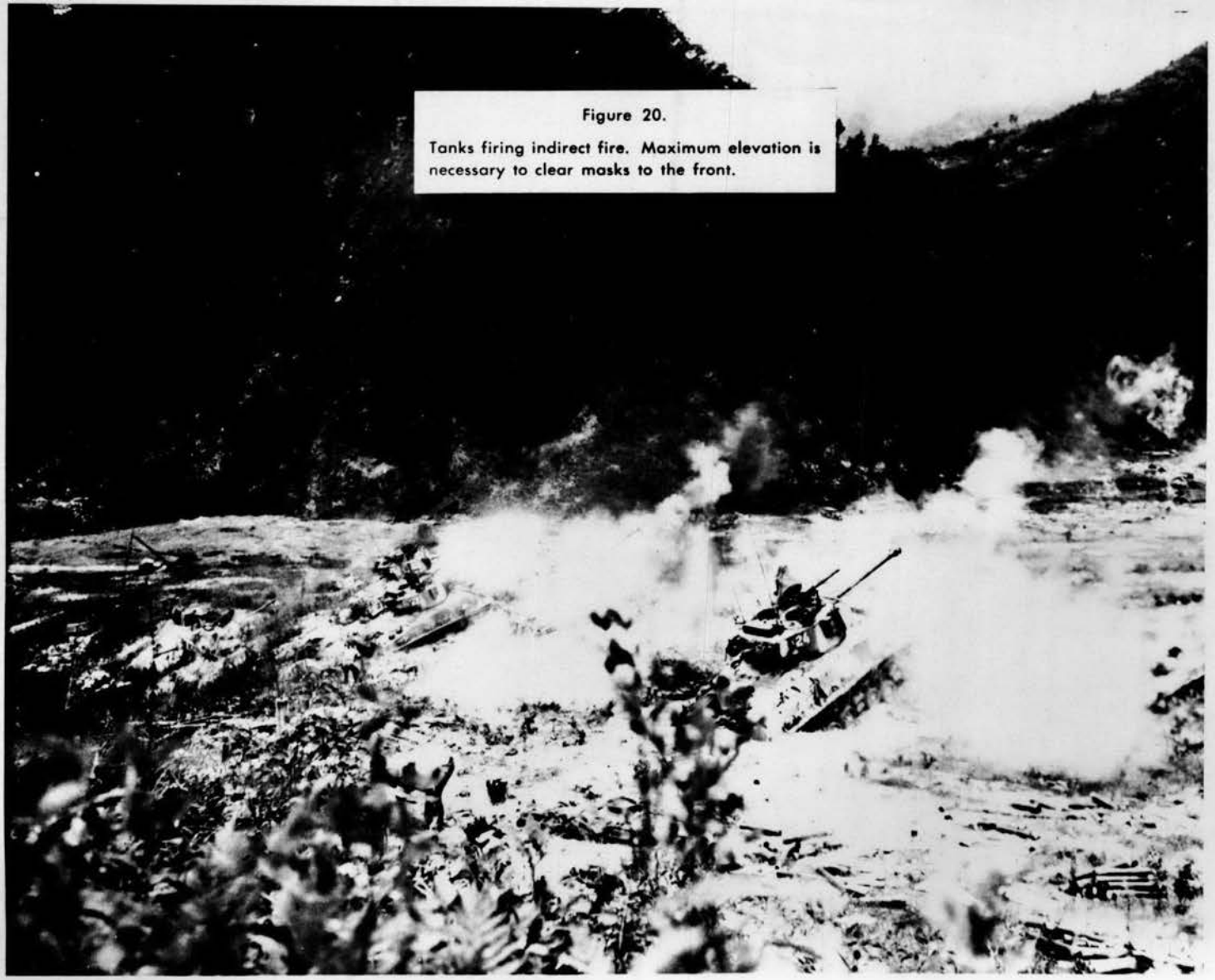

Figure 20.

Tanks firing indirect fire. Maximum elevation is necessary to clear masks to the front.

with more facilities than they had - ordnance or industry - should carry on along these lines to solve this problem of too little traction.

All units recognized early that the enemy's most effective weapon against our armor was antitank mines. In addition to requesting detection devices that would locate the elusive box mines employed against them, commanders began to strive for local and immediately usable means to clear mine fields quickly. Forsaking the detector for older probing methods was effective, but very slow, and still permitted the enemy to accomplish his mission of slowing our advances. Some Armor Sections of US Corps began to experiment with copies of British flail tanks, and later tested models produced in Japan by JLC. These worked very effectively against mines buried less than six inches deep in unfrozen ground, and tests continued to improve their effectiveness.

While continuing to take every possible measure to keep UN troops instilled with a feeling of the initiative and to maintain aggressive spirit, Eighth Army became increasingly concerned with the known build-up of enemy forces which had been made under cover of the peace talks. Directives issued early in April required Corps Commanders to submit revised plans for withdrawal to Line Kansas. Resumption of work on defensive positions on this former Main Battle Position which had been left far behind the present positions in the offensives of September and October was ordered. The 3rd Infantry Division was ordered to prepare and rehearse full-scale counterattack plans for any sector of the Army front. The result of these plans was Operation Plan Big Ben, issued on 13 April, setting forth the directive for a major withdrawal, and ordering subordinate units to prepare for implementation.

With the coming of warmer weather in May, continued emphasis was placed on improvement of defensive positions, and even front line divisions were required to employ some of their troops on Line Kansas. Continually concerned with the capabilities and intentions of the enemy during the Spring, Eighth Army on 9 June directed positive identifications of CCF Armies and NK Corps in contact at least every four days, and instituted battalion and regimental-size limited objective attacks, on Army order only, to determine dispositions. With the onset of less severe weather, more stress was placed on training of all units, with proper employment of fire power and defense of newly-won objectives against counterattacks emphasized in training and in combat operations.

During this period tanks were continually employed in all the roles previously discussed. There was one inherent

Figure 21

M4A3E8 tank, heavily sandbagged against mortar and artillery fire, prepares to move out on a mission.

mission of armor which now, in the face of the enemy's attack capability, became the most important. This was the mission of counterattack. Accordingly a large percentage of units were found in division or corps reserve. They devoted much time to maintenance, training, and to rehearsals of counterattack plans. At the end of the report period, however, no major offensives had been undertaken by either side.

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CHAPTER 10

THE SOUTH KOREAN ARMY

Organizational Weakness ROK Army
Problems of Personnel and Training
Training Program
Leadership
Korean Service Corps
ROKA Armor Program

Organizational Weakness ROK Army

This chapter is devoted to the South Korean Army; its organization of the Army Training Center and the organization and training of armor units during the second year in Korea.

The ROK Army was in the process of rebuilding and preparing for its task of placing eight divisions on line and training three others.

The organization of the Korean Army Division was based on that of the US Division; however, lacked the firepower. The Korean Division had only one battalion of 105mm artillery; it had neither tanks, nor heavy mortars, and the infantry regiments did not have recoilless rifles. The organic antiaircraft weapon of the Korean Army is the standard 50 caliber machine gun. The Japanese trucks, used in large numbers by the Korean Army, have no ring mounts for the machine guns. Consequently, a Korean Division committed to the responsibility of a sector did not have the tactical strength or firepower of a US organization committed in an adjacent and similar area.[1]

In June 1951 the Commanding General EUSAK directed the Chief KMAG, to institute a study of Korean Army Organizations directed toward the purpose of eliminating superfluous units.[2] This was the beginning of an attempt to bring the Korean Army organization up to US standards.

In September 1951 plans were completed for the activation of four 155mm artillery battalions; one to be activated in each of the final months of the year. Although it was planned to have one tank company (22) tanks with each division, this plan was later abandoned. In October Korean Army units began to receive instructions and training on the recoilless rifle. By December 1951 each division had a heavy mortar company attached or assigned to it.

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Problems of Personnel and Training

When the Korean Army withdrew from Seoul, most of its records and documents were lost; Korean Army units were dispersed; individuals were scattered.[3] No clear idea of the strength or disposition of much of the Korean Army existed; however, due tangibly to the insistance of the KMAG advisers, unit rosters were submitted to Korean Army Headquarters in August 1950. At this time morning reports began to be received. Two needs at once became apparent; additional units and adequate replacements.

The activation of one Korean Army division per month was planned for an eight month period. Actually, however, six divisions were activated in four months to comply with the accelerated rate demanded by EUSAK. With the Korean recruiting system in utter chaos, the formation of these new units bordered on the miraculous.

Prior to the beginning of the War, each Korean division trained its own replacements. No replacement training centers existed, although plans were being made to establish a centralized army replacement training system.

Shortly after the outbreak of hostilities, the Korean Army gathered together approximately 16,000 recruits and assembled them in four locations. Before training could begin, however, the rapid enemy advance forced two of these projected replacement training centers to close. The recruits were moved to Taegu and Pusan, where the training centers were again set up and began to operate. Initially a ten day cycle of training was contemplated, but even this abbreviated training period had to be shortened because of the critical need for replacements. Although individual "battle indoctrination" was part of the curriculum, rifle marksmanship was the basic course for Korean Army recruits. Emphasis was placed on a "practical" training program that would provide the individual soldier, within the minimum period of time, the basic knowledge sufficient to destroy the enemy which had invaded South Korea.[4]

From the very first, training was hampered by limited training facilities. The initial loss of weapons made shortages so acute that rifles and machine guns could not be spared from the combat elements for training purposes. During the first four weeks of the conflict, the shortage of small-arms was particularly acute. Old Japanese rifles and unservicable weapons were used so that trainees could fire a few rounds on the range.

Closely allied to the problem of replacement training was that of reinstituting the army school system. The first Officer's

Candidate Class began its schooling on 28 August 1950. The class was composed of lieutenants of the Youth Defense Corps (a National Guard Bureau) and Korean Military Academy Cadets.[5] This class graduated on 10 September 1950. The next class consisted of selected noncommissioned officers and received instructions between 4 and 18 September 1950. The graduates of the two classes, together, totaled 373 officers. The brevity and the haste of the initial training and school programs, designed to meet an immediate and critical situation, resulted in a variety of additional problems that had to be met later.

In November 1950 three Korean Army Corps, each with three Korean Army divisions, were operating in the eastern sector of the Peninsula. After the Chinese offensive in November and December 1950, the Korean Army Divisions were committed beside US Divisions to provide lateral strength. As EUSAK gradually assumed a more direct control over the operational activities of the Korean Army, KMAG was able, by the spring of 1951, to suspend a large part of its function as a combat G-3 agency and could concentrate on other aspects of its mission. Most important was its efforts to rebuild Korean military self-confidence. This was accomplished by thoroughly overhauling the Korean military educational system.

The extraordinary accomplishment of KMAG can best be gauged from the fact that the 50,000 men of the Korean Army that remained after the initial weeks of the conflict was expanded, to a force of 250,000 in the period of one year. This meant that the replacement and school system originally designed to support a 100,000 men army had to be similarly expanded. A total of approximately 300,000 replacements were provided.[6]

While training was carried out to meet the immediate exigencies of the tactical situation in the early days of the war, plans were made for the institution of a complete school and training system so that a self-sustaining army for the Republic of Korea could be insured.

By September 1950 seven basic replacement training centers were training enlisted replacements. Training for military specialists varied from on the job training to four weeks of school. In February 1951 the Korean Army Ground General School established separate schools to train infantry, signal, engineer, ordnance and artillery personnel. Each school conducted its own Officer's Candidate Courses, Officer's Basic and Advanced Courses for enlisted technicians or specialists. At the same time the replacement training centers were inactivated and one training center was established with a capacity of 14,000 recruits.[7]

A major problem in the establishment of the military educational system of the Korean Army was the lack of qualified instructors. Combat experienced commissioned and noncommissioned officers were needed with combat elements and were not avaliable as instructors. The Korean social system, emphasizing the importance of rank without reference to ability, prevented the use of sergeant instructors for classes composed of officers. Similarly, in the enlisted ranks, qualified technicians and specialists could not always be used in direct relation to their ability.

Because combat records of the Korean Army, during the first two months of the conflict, indicated that the greatest single weakness of the army was the lack of trained and aggressive officer leaders, plans were instituted and completed to send selected Korean Officers to the United States to attend Army technical and service schools. This was considered particularly desirable in order to make the Korean Army self-sufficient by having an adequate nucleus of well indoctrinated officers available as qualified instructors to implement the training of the Korean Army. In September 1951, 250 Korean Army Officers departed from the Far East Command for schooling in the United States.

Training Program.

As early as June 1951 the Commanding General, EUSAK planned to rotate Korean Army divisions; one or two at a time, for a sixty day period of field training.[8] Late in the summer EUSAK ordered the US I Corps to reduce the 9th ROK Division and move it to an assembly area where the division would be trained under the supervision of KMAG. The ten week training program called for two weeks to be devoted to the training of the individual soldier; the remainder of the time would be devoted to unit tactics and exercises. By August 1951 a nine week training program was scheduled for each of the other ten ROK Divisions.

To fulfill the requirements of unit training, KMAG activated the Field Training Command, an organization responsible for conducting unit training for the Korean Army. Three Training Centers were initially opened; two of which were functioning by October 1951 and were giving extensive training to ROKA divisions. By November four field training centers were available.

Leadership

The Korean soldier was generally praised by KMAG officers, but the effective use of the excellent Korean soldier was not always made because of the weak leadership of the Korean Officers. While US training is based, in large, on the initiative and self reliance of the US soldier, the Korean soldier, trained by his heritage to obey orders blindly, was at a loss in the absence of leadership.

The inexperience of Korean Leaders was complicated by the necessary rapid rise of officers to high rank. Company grade officers became general officers in the period of one year. By US standards Korean soldiers lacked initiative and drive. They tended to take it easy in periods of battle calm and did not enforce aggressive patrolling.

Specific deficiencies among ROK infantry officers were noted. Generally they were unfamiliar with rifle marksmanship techniques; the importance of aggressive action in the attack; the proper use of supporting fires; the necessity of delaying, withdrawal, occupying and organizing defensive positions. Korean officers were not skilled in map reading, the use of the compass and night operations.

Deficiencies of artillery officers were listed as; inability to reconnoiter and select firing positions; place individual artillery pieces so as to mass battalion fires; to plan artillery preparations and defensive fires; to use wire and radio communication to understand the duties and responsibilities of liaison officers; and to recognize the importance of internal security. Lack of knowledge of commend responsibility resulted in the abuse of vehicles; the non-performance of first echelon maintenance and deficiencies in field sanitation.

Korean Service Corps

The Korean Service Corps, since its activation in July 1951, has furnished personnel to transport, on foot, supplies of all kinds, to evacuate wounded, to maintain roads and construct field fortifications. The KSC is organized into three divisions of six regiments each and two brigades of regimental strength of 100,000.

Members of the KSC, with the exception of the ROKA superiors, are considered to be civilian employees of the United Nation Command and are provided food and clothing similar to that supplied to the ROK. For the most part they must depend upon their own ingenuity and resourcefulness in building their own living quarters. The equipment required in their work is normally supplied by the unit to which they are attached.[9]

The KSC has materially reduced the logistical and support burdens imposed on tactical and technical units, thus freeing many United Nation soldiers for direct combat duties.

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ROKA Armor Program

During the spring and early summer of 1951 the ROKA Armor Program was approved and put into effect. This program provided for the activation and training of ROKA tank battalion and tank companies for the ROK divisions. The units will be equipped with the M36 gun carriage modified by the addition of turret covers and bow machine guns. The T/O&E of units generally follows that of the US T/O&E.

a. Organization of the School - The official title of what is commonly referred to as the Infantry School is the "Korean Army Training Center" (KATC) and consists of three schools: Infantry, Artillery and the Signal School. The Armor School is under the control of the Infantry School; for organization of the Armor Section see Figure 21.[10]

A Korean Major General commands the Army Training Center. A Brigadier General commands the Infantry School and a Colonel commands the Armor Section of the School, with a US Army Major working in the school as the Armor Adviser.

b. Student - To turn out trained armor units, student companies of volunteer personnel are organized periodically in accordance with the projected plans. Personnel are all interviewed and tested to screen out undesirables. A company normally consists of 200 men. A continuous study by G-1, ROKA, is made to insure the highest type student in regard to literary and mechanical aptitude is being made available for armor training.

c. Training - Companies receive fourteen weeks basic training and four weeks of unit training. Upon graduation the company receives a unit designation and is supplied with vehicles and equipment. It is then ready to move to the front and be assigned to a ROK division. A tank company, upon graduation, usually assumes the duties of a demonstration company (school troops) relieving a numbered tank company (demonstration company) which is assigned to a ROK Corps. The Corps, in turn, attaches the tank company to a division.

The strength of an activated tank company is seven officers and 161 enlisted men. The overflow of a class of 200 men, upon graduation, is placed in the replacement company and is the only pool for furnishing trained armor replacements to armor combat units.

Far East Command approved, as of 1 September 1952, projected plans for KMAG to train nine tank companies and three Headquarter and Service companies at the school. Following is a status of progress and future plans:

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UNIT ACTIVATION

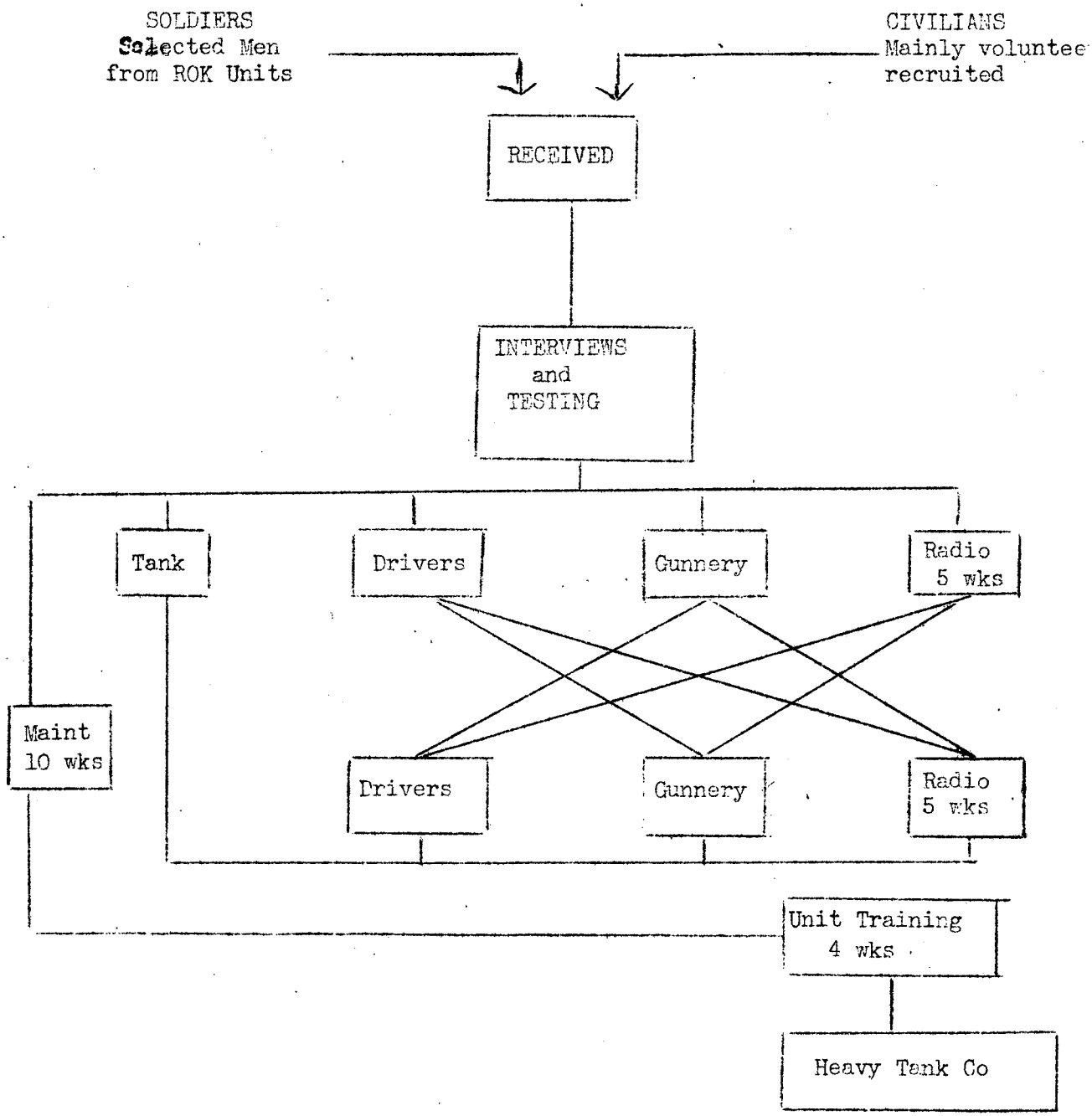

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Figure 22

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Unit	Commenced Tng	Completed Tng	Present Status
51st TK Co	15 July 1951	7 July 1951	On Line
52nd TK Co	1 July 1951	16 Sep 1951	On Line
53rd TK Co	29 July 1951	14 Oct 1951	On Line
59th TK Co	25 Feb 1952	31 May 1952	On Line
55th TK Co	5 May 1952	9 Aug 1952	Awaiting Tanks
56th TK Co	2 June 1952	6 Sep 1952	Awaiting Tanks
57th TK Co	28 July 1952	25 Oct 1952	Need Tanks in 30 days
58th TK Co	18 Aug 1952	22 Nov 1952	In Training
60th TK Co	29 Sep 1952	3 Jan 1953	
61st TK Co	27 Oct 1952	31 Jan 1953	
Hq Hq&Sv Co	?	?	
Hq Hq&Sv Co	?	?	
Hq Hq&Sv Co	?	?	
Replacement Company (100 men)	15 Oct 1951	22 Dec 1951	Continuous turn over

A question has arisen as to whether or not the tank battalions will be formed so that the training of Hq Hq&Sv Companies are suspended pending a decision. The proposed schedule includes ten tank companies being trained rather than the nine authorized. The additional company, the 61st, will remain at the school as the demonstration company in training replacements.

d. Shortage of Tanks - There is a critical shortage of tanks and equipment in the school. The 55th Tank Company has 22 M24 tanks in lieu of M36's. The 55th Tank Company was ready to be operational 6 September 1952, had tanks been issued. Training has been adversely affected by using the wrong type of equipment. 11

Another problem is in procurement of spare parts and tools. Due to nomenclature difficulties and the inexperienced Ordnance personnel in interchangeability of parts, confusion has resulted throughout. Units are having difficulty in getting authorized tool kits and spare parts. One great aid to these units would be an expediter in higher headquarters. At present Armor Adviser TIS, KATC, gives what aid he can on an informal basis.

There is apparently no tank resupply program. At present the Armor Adviser, KAMG is shipping four tanks to an operational unit to bring it up to full strength. Again this appears to be a matter of expediency adapted because no adequate measures have been taken to support these units after they become operational. One of the main difficulties is that Ordnance Channels are the only authority to which a company commander can go for assistance in expediting parts in the ROKA Headquarters.

e, Armor Difficulties - The principal difficulty of the tank units in the Korean Army, stems from the fact that it is a member of a headless organization, without identity in the Korean Army and without adequate organizational structure to maintain supply or direction after the unit becomes operational. Tank unit commanders must go directly to Chief of Staff, ROK Army, for Class II and IV supplies and replacements. Their administrative requirements are comparable to those of an infantry division. They have no overall guidance or supervision. As additional armored units become operational, these troubles will increase accordingly.

f. Officers' Schools - A fourteen week Officers' Basic Course is conducted at the Korean Army Training Center. Students are selected from Infantry OCS upon graduation and from combat units.[12] Outstanding students are selected for additional training within the United States; these special selected students attend courses at Fort Knox on Maintenance and Communications.[13]

The Korean Army Training Center is also responsible for conducting the Officers' Candidate Branch. Listed below are the prerequisites for attending Officer Candidate School.

(1) Physical: All candidates will undergo a complete physical, minimum requirements as stated below:

(a) Height: 157 cm (61.9 inches)

(b) Weight: 53 Kg (117 lbs)

(c) Chest measurements: 7.8 cm (31.2 inches)

(d) Vision: Correctable to 0.6

(e) Normal color: Perception

(f) Free of infectious disease

(g) Free of tuberculosis

(h) Free of piles

(i) Free of venereal disease

(j) Free of any other injury, defect or disease that preclude their performing full duty.

(2) Age: Candidates will have reached their 21st birthday but not have passed their 30th birthday at the time of appointment.

(3) Citizenship: Candidates will be citizens of the Republic of Korea.

(4) Education: Candidates will present evidence of having graduated from an accredited Middle School (6 years; 5 years under old system) or present evidence of having that educational equivalent.

(5) Moral:

(a) Present letters of character reference from at least three reputable citizens.

(b) Have no records of conviction by either Military or Civil Court for other than minor violations.

(c) Have no unsettled adjudication of bankruptcy.

(d) Candidates with prior service in the Armed Forces must present an Honorable Discharge Certification.

(6) Examination: Candidates must successfully pass a written examination as prescribed by Headquarters, Korean Army.

(7) Military Experience: Candidates will have at least 60 days military training prior to appointment.[14]

NOTES FOR CHAPTER 10

[1]Special Problems in the Korean Conflict, Headquarters Eighth Army, 15 Oct 1952.

[2]Ibid, p 27.

[3]Ibid, p 11.

[4]Ibid, p 12.

[5]Ibid, p 13.

[6]Ibid, p 16.

[7]Ibid, p 17.

[8] Ibid, p 20.

[9] Memo from United States Military Advisory Group to the the Republic of Korea, subject: South Korean Armor.

[10] EUSAK Armor Section, APO 301, 22 Sep 1952.

[11] Ibid; passim.

[12] Ibid; passim.

[13] Ibid; passim.

[14] Memo from United States Military Advisory Group, APO 301, subject: The Korean Army Ground General School, Tongnae, Korea, 14 Feb 1951.

CHAPTER 11

CONCLUSIONS AND RECOMMENDATIONS

General
Tactics
Enemy Tactics
Communications
Logistics and Maintenance
Miscellaneous

General

Employment of armor in Korea has proven without a doubt that the basic doctrines of tank employment with infantry are sound. Armor in its diversified roles--offensive, defensive, counter-offensive, artillery supplement, raids, patrols, anti-tank and morale, is still an essential and an indispensable part of ground combat. The rugged terrain and severe weather of Korea, although limiting and restrictive in nature, did not alter the employment of armor--~~it~~ they merely changed its application. The most common method of employment of the tank in Korea was the "Over-watching Method" due to the nature of the terrain. Tanks were used in a supporting role from the flanks or from elevated positions on or near the front lines. There was one outstanding mission of armor which ~~now~~, in the face of the enemy's attack capability, became of primary importance. This was the mission of counterattack.

The factor that probably influenced the employment of armor more than any other single factor was the restriction of military operations created and maintained by the Communist-United Nations "Peace Negotiations." So great was this factor that all actions, evaluations, conclusions and recommendations must be examined in the light of these restrictive powers.

Tactics

a. The effective use and number of assigned tanks ~~are~~ were dependent directly on the mission and the terrain. The size of armor units ~~vary~~ varied from a tank platoon per infantry company, as when the capture of a limited objective against normal opposition ~~is~~ was involved, to one tank company per infantry company, as when the capture of distant objective against heavy opposition ~~is~~ was involved.

b. Tanks can be effectively employed at night, in a supporting role, if the operations are carefully prepared, rehearsed, and coordinated at all levels of command or if night vision devices are provided.

c. The half-track or M39 ~~is~~ was not sufficiently covered to provide artillery protection necessary for armored infantry personnel in combat operations. ~~It is recommended that~~ The new Armored Personnel Carrier should be made available to the Infantry divisions in Korea and ~~that~~ adequate training be given the personnel involved.

d. Bunker busting shoots are extremely uneconomical and wasteful in ammunition with only minor results being obtained.

e. Armor employed with infantry is a powerful morale factor for the infantry. However, this fact alone should not warrant the employment of armor in a supporting or supplementary role.

f. Sandbags were used extensively in forward firing positions as additional protection against mortar and artillery fires. It is recommended that sandbags be used only when tanks are in a defensive role on the MLR or OPLR as protection against artillery. Otherwise, they serve only to increase the weight capacity of the vehicle.

g. Tank liaison officers were attached to each supporting artillery battalion. This method proved extremely beneficial in securing the rapid coordination of fire missions. It is recommended that a study be made to determine the feasibility of this additional liaison assignment in all phases of combat operations.

h. The employment of the tank as a mine (anti-personnel) clearing instrument is uneconomical and has proven to be costly in the damaging of tank suspension systems. This practice should ~~be discontinued immediately.~~ not be used.

i. The Korean terrain ~~has~~ necessitated a reduction in the number of tanks ~~utilized~~ employed in an area at one time. However, mass fires can still be accomplished by carefully planning and coordinating at all levels of command.

Enemy Tactics

a. During the period covered by this report the enemy did not use armor on a large scale. It was used in widely scattered situations in a supporting role. Sightings of armor in the enemy rear ~~have~~ did not indicate a pattern as to his future actions ~~he may contemplate~~.

defense against tanks during the second year was the UN air superiority with the use of bombs and napalm.

b. The most effective weapon employed against UN tanks was the antitank mine. The enemy's numerous deceptive measures, along with channelizing terrain restrictions, proved a harassing and costly factor to friendly armor. However, enemy mine fields were not found in depth, nor in areas not utilized by UN armor. The cause of most casualties among tank crews was approximately eighty percent from mines and twenty percent from small-arms fire against exposed tankers. The enemy's use of wooden material in the construction of antitank mines has rendered US mine detectors somewhat ineffective. New mine detector equipment must be developed to combat the modern variations of mine development.

Communications

Terrain in Korea ~~has~~ reduced and limited tank-to-tank, tank-to-infantry, and tank-to-headquarters communications, resulting in unsatisfactory operations. Replacement personnel ~~are~~ were lacking adequate training ~~and in~~ terrain appreciation in regard to communication facilities. It is recommended that the new family of radios be made available in Korea to alleviate this situation.

Logistics and Maintenance

a. Tanks and vehicles damaged due to enemy actions ~~have been~~ were recovered almost without exception. Every effort was made to retrieve the disabled vehicle prior to the unit's return to friendly lines. However, in a few situations, poor judgement on the commanders' behalf ~~has~~ resulted in the loss of much needed and costly equipment. It is recommended that consideration of economy of equipment be stressed in the training phase. The area immediately around the vehicle should be cleared of mines before recovery operations begin.

b. Difficulty was encountered with the M32 as a recovery vehicle for the M46. The M32 ~~can~~ could tow the M46 over relatively even ground for a limited period, however, it used excessive oil, and in several instances rods were thrown. Several approaches can be taken to this problem: a better recovery vehicle or a reduction in the weight capacity of the tanks.

c. On the basis of their over-all performance and casualty rates and considering the advanced state of mechanical development, the M4A3 and the M24 tanks were considered the best suited for use in Korea. Additional study along this line is suggested to determine the better desired capabilities for future development in the M46.

d. Terrain comparable to Korea creates additional logistic and maintenance problems. Mechanical failures among all types of tanks were extremely high. It is recommended that more mechanical on-the-job training programs and less theory be implemented. Improvement of mechanical simplicity and reliability of the tanks would greatly aid the armored employment.

Miscellaneous

a. Mal-assignment of armor branch officers ~~has~~ hindered rotation and the proper assignment of officers to armored units.

b. Performance of replacements ~~is~~ was not up to those standards considered essential by the unit commanders as adequate for combat. Additional training must be given replacements in combat driving, combat gunnery, map reading, operations of patrols and raids, cold weather operations and small unit tactics to include assault fires. Whenever possible realism must be emphasized in the training phases of the replacement. Intensive training of tank-infantry teams should be instituted in the Zone of Interior ~~immediately~~. Such a training program would do much to increase the "tanker-infantryman" respect for one another's capabilities and limitations.

c. Tanks in exposed front line positions must make every effort to camouflage their vehicles as they always draw enemy artillery fire. The most important thing is to change the basic background as the weather elements change. Emphasis in tactical training would alleviate this problem.

d. The coordination between tank unit commanders and infantry battalion or regimental commanders ~~has been~~ was excellent. The normal coordination of the fire plan, plan of maneuver and communications took place between the commanders concerned. It is felt that Korea ~~is~~ was no exception to the type and amount of coordination that must be effected in any combat operation.

e. Artificial moonlight (searchlights) ~~has been~~ was extremely helpful to armor for close-in fifty and thirty caliber machine gun support on night operations.

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