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The Structure of a Battle

Analysis of a UN-NK Action North of Taegu, Korea, September 1950

by

Robert J. Best

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CSRD/E (31 Jan 55)

4 March 1955

SUBJECT: Technical Memorandum ORO-T-261, "The Structure of a Battle."

Chief of Military History
Department of the Army
Washington 25, D. C.

1. Forwarded herewith for your information and retention is a copy of ORO-T-261, subject as above.

2. This study is a working paper of the Operations Research Office. It was prepared by the Operations Field Office in Army Forces, Far East, Eighth Army, and is not a part of the FY 1955 ORO Work Program. It is considered that this study will be of value to the Service School System.

3. The study contains a very intensive analysis of a UN-NK action north of Taegu, Korea, September 1950. It endeavors to determine whether ORO can uncover a pattern of battle from which it may be possible to define in measure the part played by certain factors and component relationships, such as terrain, casualties, and fire power, and the cause-effect mechanism by which a battle progresses. Wherever possible data have been quantified with a view toward the development of computer methods and war-gaming techniques of operations analysis.

FOR THE CHIEF OF RESEARCH AND DEVELOPMENT:



HERBERT W. MANSFIELD
Colonel, GS
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PROBLEM

To demonstrate that battle, or at least one battle, has a pattern which research can uncover: to this end, to determine by exhaustive analysis of all data obtainable the lineup of troops, the tactics of each contender, and the course of events; finally, to deduce, and so far as possible define and measure, the part played by certain factors and component relations, such as terrain, the occurrence of casualties, and the effectiveness of particular fires.

FACTS

The subject of this research is a segment of the battle between United Nations and North Korean troops in Korea. The engagement described in this memorandum occurred north of Taegu, chiefly on and around the hill masses designated on US Army maps as Hills 570, 314, and 660. The period of time is from late August to late September 1950. The UN troops involved were mainly from the US 1st Cavalry Division and the 1st ROK Division; the North Koreans mainly from the 1st, 3d, 13th, and 15th NK Divisions. Particular attention is given to what is considered to be the key action of the conflict—the capture of Hill Mass 314 by the 3d Battalion of the 7th Cavalry Regiment, 1st Cavalry Division.

DISCUSSION

The course of battle may be determined by mechanisms of action beyond those built into the organizations and tactical doctrine of the contending forces. Tactical planning should embody as many of such relations as can be shown to be predictable. The only field for relevant research is actual conflict. In this memorandum all data obtainable on friendly and enemy movements, troops, and support in one battle are analyzed.

Although this study is historical in method, it deals not with an entire campaign but with a limited "vertical" slice of combat analyzed intensively. To aid in the effort to determine whether or not this battle had a pattern recourse was made not only to the usual sources of information (command reports, war diaries, unit journals, message logs, personal testimony, etc.), but

SUMMARY

also to tenuous information which might otherwise have been rejected. The pattern offered is therefore not supported by a body of absolutely established fact, but it is claimed that it is neither demonstrably inconsistent nor replaceable by a simpler alternate pattern.

CONCLUSIONS

Since wars are composed of many battles, and since battles may differ greatly, no generalized conclusions are drawn from this study of one such action. It is felt, however, that the consistent web of facts describing this battle may be useful as: (a) an example to test a general model of ground warfare; (b) a preliminary indication of key relations in the cause-effect mechanisms by which a battle progresses; (c) a basis for defining fundamental measures of effectiveness; and (d) an illustration of the conditional nature of military action at all levels.

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THE STRUCTURE OF A BATTLE

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INTRODUCTION

Battle may follow its own laws. Its shape on situation maps may be merely a silhouette of its real form. If chance is not its basis, it must conform to mechanisms of action beyond those built into the organizations and tactical doctrines of the joined contending forces. Certain interactions of setting, manpower, fire, casualties, and other factors may determine the course of battle as much as the wills and plans of the opposing sides. Future tactical planning should account explicitly for as many of the essential elements and as much of the total character of battle as possible.

Composite battle can be found only in actual warfare. In their human-machine-situational complexity, past and present conflicts are without doubt by far the closest approximations of future wars. Old battles analyzed into their vital components can provide the bases and much of the material for the maneuvers and war games to work out the tactics of an evolving weapons system.

The structure of battle should be most evident when it is viewed from the side having the lesser scope of free action—the defense. To preserve its integrity the defending force must in its unit dispositions impose a spatial pattern upon the battle, however well or poorly these dispositions may suit the actual situation. In defense, much more than in offense, a force is obliged to maintain the internal order of its organization and the external order of its battle array. Dispositions necessarily follow tactical plan and are therefore almost inevitably somewhat outdated. Since an adequate plan anticipates all eventualities, and to some extent provides for them, the defending force must be heavily and variously committed. When the battle develops on enemy initiative, the defense becomes only partially engaged; it is inevitable that only a small fraction of the total fire power available can be concentrated on the point of attack selected by the enemy. Defensive battle exhibits the military machine committed, stressed, and strained. It is in this condition that one should expect to find a *significant succession of critical points and crucial moments.*

The Subject Battle

This study is an operational research which has as a subject an entire actual operation, a battle in which UN ground forces, though initially (later almost desperately) on the defensive, ultimately won the victory. The study's first purpose is to show that at least this battle had a pattern. To this end, there is an attempt to determine by exhaustive analysis of all data obtainable the lineup and resources of each side, the tactics employed, and the course of events. Secondly, there is an attempt to deduce, and so far as possible define

and measure, the part played by certain factors and component relations, such as terrain, the coordination of supporting arms, the occurrence of casualties, and the effectiveness of particular fires. Since wars are composed of many battles, and since battles may differ greatly, no generalized conclusions are drawn. It is believed, however, that an essential point is implicitly demonstrated: analytical treatment of separate aspects of combat can be related to the over-all course of battle, provided that other major aspects and the flux of whole chains of contingencies are taken into account. The conditional significance of small actions is one of various typical conditions of warfare often neglected in theoretical studies and illustrated in the subject battle.

From several points of intense conflict along the UN defense perimeter in southeastern Korea in September 1950, that battle which included the particularly threatening enemy penetration north of Taegu is selected for study. The course of events is traced from the initial frontal attack upon the friendly line through the following friendly counterattack and withdrawal, through a succeeding period in which the opposing forces again came to grips, and, finally, to the decisive phase of determined thrust and counterthrust at the new line of defense which resulted in the turning of the tide. The key action, in which friendly forces seized (and were then in position to hold) the tactical initiative, was the capture of Hill Mass 314 on 12 September by the 3d Battalion, 7th Cavalry Regiment. This engagement is subjected to thorough analysis. The particular aspects of combat studied in this key action are considered to be fairly typical for the over-all battle.

The battle chosen for study is an unusually promising subject for analytical dissection. The opposing forces were small and fully committed. The defense could not meet attacks simply by committing reserves, since they were usually not available. It had to react with forces already deployed. As neither side was endowed with great resources, critical action was not obscured by waves of reinforcements and volumes of excess fire. For the observer and analyst the confusion of several arms all brought to bear on the same target was much less than normal. This Korean battle therefore was typical neither of the grand engagements of the past nor of probable future large-scale conflicts, but if actual battle can ever be reduced to analytical terms, it should be possible here.

Method and Sources

The study for this memorandum proceeded from the particular to the general. At the outset, all the available detailed data for both sides were analyzed separately. The facts which emerged after further checking and correction were then fitted together in a synthetic process of interpretation and generalization to build up the final reconstruction. The process terminated with the elucidation of the essential factors that determined the course of the fighting.

There was an attempt to make the coverage of formal recorded material especially thorough, since secondary but basic purposes of this study were to determine the extent to which military events can be established and measured, and to evaluate the utility of various sources of information—documents, statistics, and interviews—in this establishment and measurement. Recourse was also made to a few incidental sources, such as personal diaries and affidavits

for awards. Also, all the photographic files of the Army Signal Corps were screened for relevant pictures, and the major press services were consulted. The only important recorded data not studied are thought to have been destroyed.* These include the firing charts of the artillery battalions and the tables of ammunition expended by the infantry units. Such data would have enriched the findings greatly, and the lack, of course, is in principle unnecessary. On the other hand, this study incorporates captured enemy statistics not usually available.

The value and reliability of the various sources of information are not discussed as such in this study. However, the origin of all the data used is stated at the head of each section or subsection, and completeness and reliability are in some cases pointed out.

One aspect of the action which is now thought to be of great importance but has been considered only in passing is the communication of combat information. It has not been ascertained whether any pertinent records that might have contributed to this battle analysis were kept.

The intent at the outset of this work was to make every part an entirely independent building block of the whole, so that any derived facts or conclusions would follow strictly from the particular sources consulted. However, it was found impossible to proceed in such a manner, one reason being that no one source ever reported completely even a small matter, and was hardly ever completely correct. Very often, seemingly objective facts had to be altered somewhat when checked in a wider context. Throughout the text, such alterations of quoted data are indicated by comments in brackets. The process of study, then, was one of continual feedback and readjustment.

Reliability and Use of the Study

This study is historical in method but differs from most military history in scope and detail. Instead of an entire campaign, the subject is a limited "vertical" slice of combat; this slice, however, is analyzed intensively. The battle is assumed to have a pattern which research can uncover. To define and sketch in the pattern, use is made not only of information from the sources usually employed—historical documents and personal testimony—but also of both physical and numerical data not ordinarily available, and the findings of operations research field teams, whose specialized studies included the subject battle (among other areas). Where no better data exist to bring events into intelligible relation, recourse is made to tenuous information which might otherwise be rejected; in some cases purely arbitrary assumptions of cause and effect are introduced. The resulting pattern therefore is not entirely supported by objective evidence, but it should neither be demonstrably inconsistent nor replaceable by a simpler alternate pattern.

This memorandum is not concerned with personalities, although it is recognized that the mind and character of individuals are intimately involved in every phase of battle. Personal factors in the higher command echelons are a familiar subject of historical study. The writer feels that they are important

*At the writer's request, the Far East Command made an exhaustive search for captured maps and documents of the 1st and 13th NK Divs, reports of interrogations of prisoners of war carried out within the 1st Cav Div, firing charts and records of the 9th, 99th, and 77th FA Bns, and records of ammunition consumption and expenditure by particular infantry units for the period covered by this study—all, as of summer 1953, with negative results.

at all levels but that no individual has more than very limited freedom to impose a new departure on the course of events within his sphere of influence, especially in such an action as the subject defensive battle. Usually the material situation itself—as appreciated—determines at once the nature of the responses deemed appropriate. It is in part in the choice of response, but far more in the adequacy of response, that individual make-up and interpersonal relations are of influence. The intention of this study is primarily to relate the events that actually occurred and deduce their self-determining continuity, and only implicitly to suggest the adequacy of a scheme of operations, the coordination of an attack, or the defense of a position. As the men involved are considered in terms of function rather than individuality, they are as a rule designated by military title rather than by name.*

The consistent web of facts describing the subject battle may be useful as a basis to test a general model of ground warfare. The key factors and relations appearing in this battle may well serve as a basis for further research and study, since they may also be important in other battles. The placing of small actions and particular concentrations of fire in the context of over-all battle may serve as a suggestive basis for defining some fundamental measures usually applied and summed over an entire battle. Certain parts of the memorandum, such as the relation of battle casualties to the outcome of an action, or the effectiveness of enemy mortars in a specified tactical situation, may, within their historical and military limitations, have utility as data, since detailed information on such points is otherwise almost totally lacking.

*It is planned to append to the final version of this study a list of names of the men prominently involved in the battle, those consulted for basic data, and those who criticized the draft.

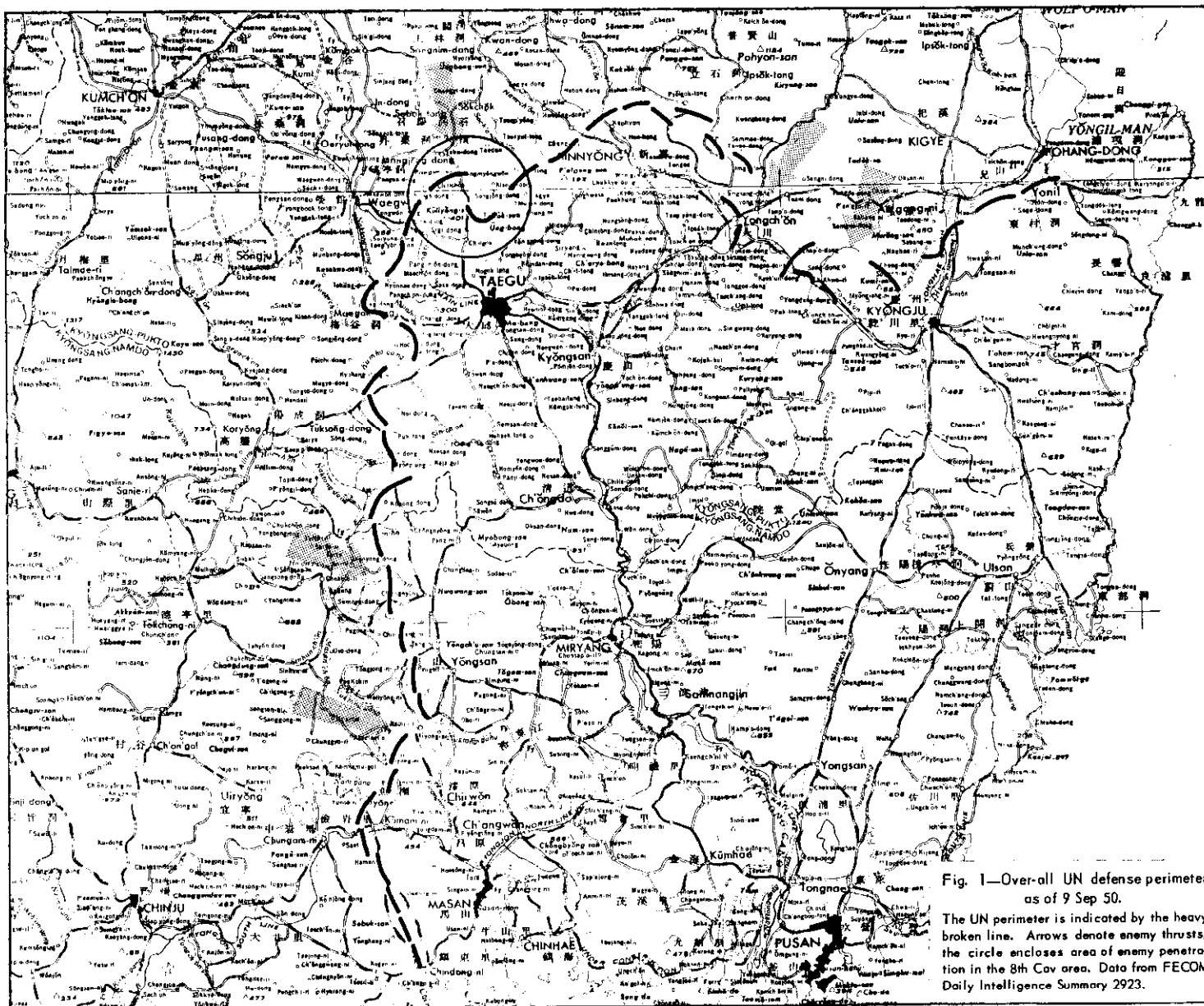


Fig. 1—Over-all UN defense perimeter as of 9 Sep 50.
 The UN perimeter is indicated by the heavy broken line. Arrows denote enemy thrusts; the circle encloses area of enemy penetration in the 8th Cav area. Data from FECOM Daily Intelligence Summary 2923.

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Part I

NARRATIVE DIARY OF THE BATTLE

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NARRATIVE DIARY FROM FRIENDLY ACCOUNTS OF THE
BATTLE IN THE SECTOR NORTH OF TAEGU, SEPTEMBER 1950

This part is a day-by-day account of the action of friendly units in the regimental sector due north of Taegu during the period 1 - 21 Sep 50. The fighting so delimited in space and time had a clean-cut beginning with the launching of the enemy offensive on Tabu-dong; it ended cleanly with decisive enemy defeat in the same area. The intervening enemy advance was stopped short of Taegu at Hills 570, 314, and 660, and then the tide slowly receded. The narrative below is concerned chiefly with the subject sector and in particular with engagements on these hills, but it also gives a running summary of the evolving tactical situation in the adjoining areas.

The enemy attacks north of Tabu-dong prior to the period studied are of present interest chiefly because of the enemy's use and loss of virtually all his armor. These actions are described in Part II under "Supporting Armor" and are summarized in App F.

In this part events are reported as seen at the time through many friendly eyes and as recorded in the command reports, war diaries, journals, and message logs of the units involved.^{1-24*} Such records are the usual documentary sources of battle data. The accounts which follow necessarily reflect the incompleteness and emphases of the sources. It would be impractical to give the authority for every statement, but important basic reports are often quoted, especially in cases of disagreement, and the source is always indicated.

Up to 2400 on 9 September K-zone time was used. Clocks were then turned back 1 hr to I-zone time, which was kept from then on. Sunrise on 12 September was at 0547 I-time; sunset at 1821. Positions are given in terms of the 1000-yd coordinates of the World Polyconic Grid system in use at the time, and may be located from the marginal scales in the basic map, Fig. 2, even though the corresponding grid is not ruled. The position at any time of any friendly unit (company) may readily be found in the diagrams of Part III, whether or not the unit is mentioned in the text which follows. The diagrams may also serve to keep the over-all action in perspective.

*References 1 to 24 represent all known formal reports pertinent to this study; several units apparently did not submit command reports.

1 SEPTEMBER

The renewed enemy offensive against the UN perimeter began on the night of 31 Aug - 1 Sep 50 with massive attacks along the southern Naktong front in the zones of the 2d and 25th US Inf Divs. With part of the 2d Div's 9th Regt overrun and its 23d Regt penetrated as deeply as 8000 yd, the outlook was grave. In addition to drastic measures to avert a breakthrough toward Pusan,* a diversionary counterattack on the northern front was deemed necessary. The Eighth Army commander issued an emergency order (dated 1045, 1 September) to the commanding general of the 1st Cav Div and the chief of staff of the ROK Army directing that their forces attack without delay to seize and secure the following line:

1st Cav Div: 1138.7-1457.3 to 1139.3-1458.9 to 1138.9-1460.5 to 1137.9-1463.0 to 1138.7-1463.5 to 1143.1-1462.6 to 1144.3-1463.3 to 1146.8-1465.5 to 1149.8-1466.2 to 1150.4-1467.2 to 1151.2-1469.0 and

ROK forces: 1151.7-1470.2 to 1154.8-1471.5 to 1158.4-1475.7 to 1159.0-1477.0 to 1162.8-1481.4 to 1155.0-1482.0 to 1168.0-1480.5 to 1169.0-1480.6 to 1172.4-1482.5 to 1177.4-1483.5 to 1179.0-1483.3.

The line held by the 5th Cav Regt at that time, along the east bank of the Naktong River, would require little or no adjustment. East from the Naktong and hinged on it, the northern front would make a great swinging advance toward the northwest. The line of the 7th Cav Regt would move forward a variable distance, up to 4000 yd, and its continuation in the sector of the 8th Cav Regt would advance up to 6000 yd. At the time the order was transmitted, the 11th Regt, 1st ROK Div had just completed relief of ROK units occupying positions running northeast from the 8th Cav Regt right flank along the general line 1157-1462.5 to 1161-1467 (excluding Hill 527), and the 12th Regt, 1st ROK Div was continuing to defend against light enemy pressure along the adjacent segment of the front from 1161-1467 to 1165-1469.5. Further to the east, the 1st Bn of the 7th ROK Regt and the 15th ROK Regt were continuing to counterattack northward against enemy penetrations of the line from 1177-1465 to 1180-1466.5. It is then evident that the newly arrived 11th ROK Regt and the 12th ROK Regt were called upon to advance approximately 9000 yd, the already counterattacking 15th ROK Regt even further.

The attack plans formulated by the 1st Cav Div provided initially only for advance to that portion of the newly specified line west of the point 1144.3-1463.3. At 0900 on 2 September the 7th Cav Regt, using at least two battalions, was to seize Hill 518 (1142.0-1461.5) and Hill 346 (1139.7-1461.8). The 8th Cav Regt was to support the attack with six of its 4.2-in. mortars and cover the 7th Cav Regt right flank by advancing to Hill 290. (A hill of this designation does not appear on the map and coordinates are not given, but the numeral is repeated in many reports. Perhaps the 280-meters-plus knob 1800 yd southeast of Hill 518 at 1144.0-1460.7 was meant.) Subsequently, the 8th Cav Regt was to advance to the line 1150-1465, 1152.5-1465, further east and not as far north as specified in the Army order.

*The 1st Prov Mar Brig was committed in the zone of the 2d Div. The two units comprising the army reserve, the 24th Inf Div and the 27th Brit Brig, were alerted but not committed here.

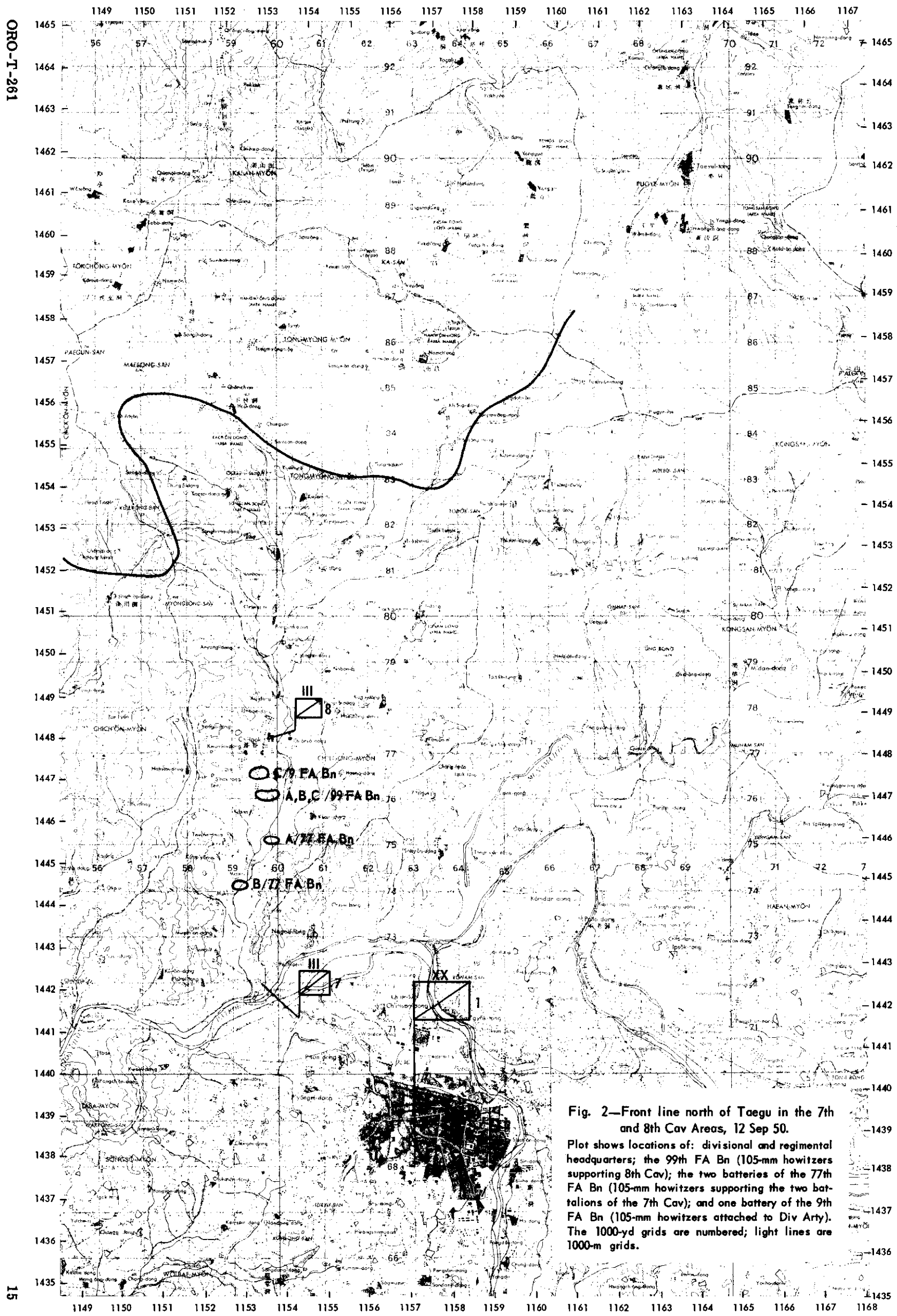


Fig. 2—Front line north of Taegu in the 7th and 8th Cav Areas, 12 Sep 50.

Plot shows locations of: divisional and regimental headquarters; the 99th FA Bn (105-mm howitzers supporting 8th Cav); the two batteries of the 77th FA Bn (105-mm howitzers supporting the two battalions of the 7th Cav); and one battery of the 9th FA Bn (105-mm howitzers attached to Div Arty). The 1000-yd grids are numbered; light lines are 1000-m grids.

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The 8th Cav Regt, upon which attention centers in this part, moved up to the Tabu-dong area on or about 29 Aug 50 to relieve the 1st ROK Div and 3d Bn, 27th Inf Regt, which had remained in the area. The positions held by the various companies of the 8th Cav Regt on 1 September were essentially those shown in the diagram for 2 September in Part III. The high ground north of Tabu-dong and west of the highway was occupied by Co A and Co C; Co B was spread along the ridge of the west to contact the 7th Cav Regt. Company G blocked the highway by occupying the hills on either side. The remainder of the 2d Bn was disposed to the east in an arc to tie in with the 11th ROK Regt. The 3d Bn, 8th Cav Regt, the regimental reserve, was in position south of Tabu-dong astride the highway. According to the regimental operations orders, the 8th Cav Regt was at 70 percent of authorized strength, its morale was good, and its combat effectiveness was 75 percent.

There was little action on 1 September, as both the 1st Cav Div and the 1st ROK Div prepared to attack. Far to the east, the 15th ROK Regt seized Hwasan-dong (1178.5-1467). The 11th ROK Regt planned to take Hill 527 (1159.3-1464.2), but apparently did not. Most of the 8th Cav Regt contacts with the enemy were on the regiment's left front, that is, in the area of the 1st Bn. As early as 0445 on 31 August, the 1st Plat, Co C had used machine-gun fire and grenades (both rifle and hand) to repulse an attack by an enemy force of unknown size. During the morning of 1 September, enemy troops were seen digging in on the high ground on the west side of the highway across from Co G positions on Hill 448. Somewhat to the west, a disaffected enemy officer surrendered to Co C at 2040. Four hours later, the preliminary information he supplied was reported in the following telephone message:

020100. From S-3, 8th Cav. Report on prisoner picked up at 1147.9-1464.9. A South Korean who could speak English interrogated the prisoner picked up by the 1st Platoon, C Company, 8th Cavalry, with the results as follows: the prisoner is an officer of the I&R Platoon of the enemy forces, and he left the North Koreans to surrender at the time he was captured this evening, 1 September. The prisoner stated that during the day (1 September) groups of four or five North Koreans moved into the vicinity of C Company's front, at which point approximately 400 North Koreans were to assemble. This force when assembled had the mission of making an all-out attack supported by one (1) tank. He further stated that he (the POW) thought the attack would come off early in the morning (2 September)...¹*

The 8th Cav Hv Mort Co (see 2 September diagram in Part III for positions) fired continually from 0800 to 1930. In the evening, Co A and Co C exchanged small-arms fire with small groups of enemy, and Co G received 50 rd of enemy mortar fire.

North of the physical boundary between US and ROK forces, but in the ROK area of responsibility, a continuing enemy build-up was observed in a valley along the Kunwi - Tabu-dong road in the vicinity 1158.8-1470.5. Enemy supporting weapons were observed to total 31 artillery pieces plus SP guns. This target was bombed by friendly aircraft with 500-lb fragmentation bombs. During the night of 1 - 2 September fire was again noted coming from enemy guns in this area.

*The subsequent formal interrogation report on this prisoner is reproduced in full as Item I in App A.

Along a secondary valley leading south from the principal enemy build-up area, a patrol from Co E, 8th Cav drew fire in the afternoon. ROK forces reported later that there were two hundred enemy troops and four 120-mm mortars still further south along this valley, across from their lines at 1158.0-1463.7. The 11th ROK Regt. made plans to block further enemy movement down this valley by taking Hill 527.

2 SEPTEMBER

Though the situation in the zone of the 2d Div remained serious, the enemy penetrations had been contained and some of the lost ground retaken. The absent 3d Bn (reinforced) of the 23d Regt, 2d Div was urgently needed by its still intensely engaged parent unit. The battalion remained attached to the 1st Cav Div and held positions on the division's left flank, along the Naktong River. In this sector, continued crossing of the river and infiltration toward Taegu by small groups of enemy were of persisting concern. To relieve the battalion, it was planned to commit the current army reserve, the 27th Brit Brig and Co C of the 73d Med Tk Bn. Though these units remained temporarily in position some forty or fifty miles south-southwest of Taegu, they were attached to the 1st Cav Div effective 2400, 2 September in an order dated 1345, 2 September. At the same time, the 19th Regt of the 24th Div, which had been reorganizing after severe losses, was ordered to move up with attachments to 1169.9-1379.0 as the new army reserve, to prepare for possible commitment in the zone of the 2d or 25th Inf Div. The other two regiments of the 24th Div were already in the line elsewhere.

The only regular infantry reserve of the 1st Cav Div was the 16th Recon Co, which had abandoned and burned its organic tanks in the August fighting. This company was not fully available, since several hundred enemy troops had infiltrated on the division's left flank, and the company, with attached tanks of the 70th Tk Bn, had been sent to positions south and west of Taegu to block any attempt by these troops to reach the city. The 8th Engr Comb Bn, the division's organic engineer unit, was the immediately available reserve, plus, of course, those tanks of its armor attachment (the 70th Tk Bn) that had not yet been assigned missions forward.

The 7th Cav Regt jumped off in the attack at 0900, as scheduled. Company B, 8th Cav Regt had been ordered to cover the attack by occupying Hill 290, apparently 1800 yd southeast of Hill 518. Company B reported that it had occupied its objective in the morning, without opposition. At 1230, the divisional command ordered Co L, 8th Cav to make a similar move to Hill 400, which is at 1142.5-1464.0, 2200 yd north of Hill 518 and 5 miles west-northwest of Tabu-dong. Company L, the 1st and 2d Plats of the 8th Cav Hv Mort Co (the 1st Plat for direct support of the 7th Cav), and a section from Co M, 8th Cav moved out by truck at 1410. At 1726 the task force reported that it was ready to jump off for its objective on completion of the artillery preparation. The attack was suspended shortly after it began, however, when the enemy launched an offensive against the 8th Cav itself.

On the 8th Cav front, the remaining 3d Plat of the Hv Mort Co fired continually from 0600 until about 2300, when it was ordered to displace.

The 52 ground-support plane strikes listed in the 1st Cav Div Tactical Air Control Party (TACP) log on 2 September were all directed at Hills 346 and 518 in support of the 7th Cav Regt attack. No air strikes hit the enemy build-up opposite the 8th Cav Regt.

Formal interrogation of the prisoner picked up by Co C on the evening of 1 September yielded fuller and somewhat different information than had first obtained. He was the S-3 of the 19th Regt, 13th NK Div. According to him, the 23d and 21st NK Regts were located to the west of the highway, the remainder of the 13th NK Div to the east; the 13th Div was to make a full-scale attack at dusk (not dawn) on 2 September. At 1700 all friendly units were alerted about the impending attack.

The enemy attack materialized as predicted, beginning at about 1815 with mortar and artillery preparation. A first thrust straight down the highway was stopped by Co G. A second thrust appeared soon after down the ridge to the east of the highway. This apparently was the attack later reported as follows:

031330. Spirit 2 [S-2, 99th FA Bn]. Heavy mortar and high velocity fire coming from small town at approximately 1156.1-1466.9. Mortar from 1155.5-1465.8. Enemy closely followed barrage in attack. Enemy heavily loaded with grenades and small arms, no packs. Enemy did not follow trails but attacked across country in waves. Enemy followed closely behind withdrawing troops, hurling grenades. No enemy small-arms fire at that time. While attacking, enemy screamed loudly.^{3*}

At 0320 on 3 September a special flight of two F4U's strafed and rocketed enemy artillery at 1155.6-1469.8, and another strike was requested for 0700. Enemy artillery was evidently well dispersed, as guns at 1155.8-1467.7 had been observed firing at 2100 on 2 September. The attacks mentioned above were first thought to be by two enemy regiments. The estimate was later reduced to one regiment.

One platoon of Co F was overrun. After an unsuccessful attempt to retake the lost ground, the company was forced to withdraw to the right to the vicinity of Hill 742, and then further to the rear. Company H also was hit. The platoon of Co G that was on Hill 346, on the right side of the road, was driven off. Thus the enemy pushed a wedge into the center of the 8th Cav line and threatened to overrun the 3d Plat of the Hv Mort Co, the only heavy-mortar support available; at 2335 the platoon was ordered to withdraw to the vicinity 1153.3-1455.6.

*A different version of the same report was also recorded and is of interest because it gives the time of the observation and, apparently incorrectly, the origin of the troops that made the attack, an important point in later analysis.

"031340. From Spirit—A sergeant from the 99th FA Battalion while OP in Scrappy sector at 021830 observed the enemy attack and discloses the following facts of the attack. The enemy attacked immediately after the enemy barrage of mortars ceased. The enemy came from a village at 1156.1-1466.9. They left their packs and attacked cross country. Upon reaching our lines they used mostly hand grenades when engaging in close combat with our men and seemed to be conserving A/W ammo. The North Koreans came hollering and screaming when in the attack."¹

Unless the attack described was that against units of the 11th ROK Regt on Hill 558 late on 2 September or during the morning of 3 September, the report would seem to be in error in ascribing the origin of the troops, rather than of the supporting fires, as at the stated village, for the following reasons: (a) the enemy troops would have had to come 3 miles cross-country and climb 200 to 500 m to attack the 8th Cav; (b) this report was logged out of chronological order more than an hour after it was received (i.e., after items dated 1600), whereas the log previously cited³ is strictly chronological; and (c) this report has errors of typing, etc. (which have been corrected), whereas that above does not.

The ROK forces on the 8th Cav Regt right flank had not made the preventive attack on Hill 527; instead, their positions on nearby Hill 558 were the objective of a third enemy thrust. This appeared at about 2300 but was repulsed. Company E, 8th Cav, in position on the adjacent ridge, was not subjected to great pressure, but was in a difficult situation with enemy penetrations on each side. Apparently no attack was made on the left flank against the 1st Bn, 8th Cav, although Co A and Co C engaged in fire fights with probing enemy elements.

3 SEPTEMBER

On the night of 2 - 3 September, the enemy began a massive counterattack against the attacking 7th Cav Regt. This was launched on the left of the enemy drive against the 8th Cav toward Tabu-dong. To the east, the enemy offensive against the ROK Army also got under way. Following the repulse of the attack late on 2 September on units of the 11th ROK Regt occupying Hill 558, a new push 3000 yd to the east, at Hill 655, began. This was against the 3d Bn, 11th ROK Regt, at 0200 on 3 September. This attack was still under way at 0400, but ROK units had at that time lost no ground. Some time later, the 11th ROK Regt left flank was again attacked, and then Hill 558 fell to the enemy. The earliest report states: "031205. Tel Message. From Shamrock [1st Cav Div Arty]. The left battalion of the 11th ROK Regiment has been pushed off Hill 558, and have fallen back to the next high ground. 'E' Company of Scrappy fell back to 'walled in' area, 1155-1459 grid square."¹

Somewhat later the G-3 Section, EUSAK, in Taegu, received the following message: "1330. Message from KMAG. 2d [3d?] Battalion, 11th Regt ROK attacked by estimated two enemy battalions and withdrew to positions in vicinity 1159.2-1461.5, which is better defensive ground. The attack is being contained"²¹

Another report at 1335 stated that ROK forces had withdrawn somewhat further, to 1159.5-1460.5.

Taken together, the following reports indicate that the enemy penetrated straight ahead between Hills 558 and 665 from his observed build-up area at 1158.0-1463.7, bypassing ROK units still on the southern slopes of these two hills:

031500. Tel Message. From Capt Kiernan. From Hill 538 (1160.8-1460.8) there are friendly troops. They can see 400-500 enemy troops at 1158-1460 headed toward "Walled City."¹

1845. Talked to Capt Cunningham [KMAG, G-3 Section] at 1845, relative the gap between the 11th ROK Regt and 8th Cav reported to be existing at that time by 1st Cav (Col Carlson). ROK reports that they believe E Company of 8th Cav to be at 1156.3-1460.2. If that is the case, the situation should be under control, because the ROKs have a company at 1157.2-1462.1 and a company at 1159.5-1461.2 and are attempting to make contact with elements of Cav. Further, the ROK 11th Regt have requested an overlay of Cav positions in order to determine their positions in order to better effect lateral contact.²¹

Whether or not Co E, 8th Cav had ever moved as far east as the line 1156.3, it had already withdrawn to the friendly rear at the time of the later report (see below). The 11th ROK Regt may in fact have moved as far west as the line 1153.3.

The EUSAK Periodic Operations Report No. 159, covering the period 1200-2400, 3 September, locates the 11th ROK Regt at 1153.3-1462.3 to 1156.2-1462.8, with other elements from 1159.2-1459.6 to 1160.2-1459.6 to 1159.2-1463 to 1160-1463 to 1160-1464 to 1160.9-1464.8 to 1161.3-1465.4 to 1161.6-1466.4. The central element apparently moved back still further, for at 1950 ROK forces were reported on Hill 756 at 1158.2-1458.0, along the ridge east of the "Walled City."* If these reports are correct, the ROK regiment had been split, leaving a gap of approximately five thousand yards open all the way to the Walled City. However, the left ROK element, which early in the day moved west, covering the least precipitous approach, had been left isolated by the withdrawal of Co E, 8th Cav Regt, with which it would otherwise have been in contact; thus the gap had been widened.

By daybreak, the situation in the 8th Cav sector was as follows: the enemy thrust had split the 2d Bn and penetrated some 3000 yd to the friendly second line of defense; Co F had been scattered by the spearhead and had withdrawn to the rear to reorganize; Co G had moved across the road toward the west and joined Co A and Co C, which, while they held their main positions, had pulled back somewhat. The enemy was then left in possession of the high ground on both sides of the Taegu road almost as far south as Tabu-dong. Company E, which was flanked both by this penetration and by the enemy advance against the ROK forces, started to withdraw at 1000, and rejoined the 2d Bn at 1600.

Meanwhile, Co I and Co K of the 8th Cav Regt, Co A of the 8th Engr, and the tanks of the 2d Plat, Co B, 70th Tk Bn, had moved up somewhat to man a new line through Tabu-dong. Friendly infantry blocking the main enemy advance then comprised Companies I, K, and H; also the Sv Co and Co A of the 8th Engr Comb Bn. In addition, there were the two battalion headquarters companies; most of Co M; the 3d and Hq Plats of the Hv Mort Co; and the Hq of Co B; 70th Tk Bn, with the 1st and 3d Tk Plats. Batteries A and C, and presumably B, of the 99th FA Bn, were not far to the rear along the Taegu road in the vicinity of Hill 570. (The 9th FA Bn was to the rear of the 7th Cav Regt in the vicinity 1147.8-1450.8.) During the day, Co C, 8th Comb Engr was also attached as infantry, with the mission of occupying Hill 516, just west of Tabu-dong; they did so, against some enemy resistance. The regimental CP was moved back during the day from its location on the highway just south of Tabu-dong to 1153.2-1456.1, 2 1/2 miles to the rear. Companies B and L and attachments were ordered to button up during the night of 3 - 4 September at their positions to the west.

The enemy was quick to consolidate the penetration almost to Tabu-dong, with consequent splitting off of the 1st Bn from the regiment. At 0900 enemy troops were observed digging in on the hill just east of Tabu-dong at 1150.3-1460.5, and at 0955 somewhat further to the east along the same ridge on Hill 466 (1152.0-1460.4). At 1130 enemy mortars were seen on Hill 673, which overlooks Tabu-dong from the northwest. Armor and artillery also were brought forward. At 1030 a tank was spotted on the road within 2 miles of the village, (the one tank reported by the prisoner just after his capture?), and later in the afternoon 9 "tanks" were observed about 1 1/4 miles from it. (Most or all of

*The "Walled City" of Kasan is not really a city but the crown of a mountain (Hill 902) enclosed by retaining walls. It is of religious significance to the Koreans.

these either were SP guns or the hulks of previously destroyed armor.) Two T34 tanks towing field pieces were reported knocked out by Co I as they approached its position astride the road north of Tabu-dong, and an accompanying column of troops was dispersed.

The enemy moved into the gap between the US and ROK forces. During the day, several hundred enemy troops were seen moving toward the south and east at 1157.5-1461.5 and 1158.5-1462.3. Some enemy forces had evidently already slipped through past the western rim of the Walled City well to the south, for at 1445 Co K, 8th Cav was reported driven off Hill 570, which was to its right rear. (The four coordinates reported located the hill mass without question, but perhaps the designation of the company is incorrect.) The next day the Scty Plat reported that what was estimated to be an enemy regiment had moved eastward through the gap toward ROK forces.

The controlling position of the 902-m mountain crowned by the Walled City was much appreciated. From the south, the I&R Platoon of the 8th Cav Regt, with an attachment of 150 South Korean police, was sent up to maintain contact with the enemy. It arrived there at about 1610, but by 1955 had withdrawn to the village of Namchang at the southern base of the mountain, after enemy opposition had been encountered. Company D of the 8th Engr Bn was attached to the 8th Cav Regt and at 0500 given the mission of occupying the Walled City. Plans were made to reinforce it with Co E, 8th Cav Regt. Engineer Co D made a preliminary move up from Taegu but returned in the evening when its mission was postponed.

Since the only permanent infantry reserve of the 1st Cav Div was the 16th Recon Co, two provisional rifle battalions were organized from headquarters and service personnel of various divisional units and designated as Task Force Allen (Brig Gen Allen, Asst Comdr of the 1st Cav Div). Though they were never committed, they had the mission of being ready for movement to any part of the division area within 30 min after being alerted. The composition of one of the two battalions was:

Personnel	Strength
Co A, 15th QM Bn	107
Co B, 70th Tk Bn	110
Co C, Band and Repl Co	101
Co D, 8th Engr Bn	167
	485

In its move up to relieve the 3d Bn of the 23d Inf Regt, the 27th Brit Brig completed its move into the 1st Cav reserve area at 1153-1442 on the north side at Taegu at 2125. Though the brigade was not available to the cavalry commander for general commitment, it was in position to block a drive from the north.

4 SEPTEMBER

In the sector north of Taegu, the intention of the command of the 1st Cav Div was to reestablish a continuous line of defense across the road at Tabu-dong and eastward along the ridge to include the Walled City, where contact

with the ROK Army would be made. Though the 8th Cav remained out of physical contact with ROK forces, the regiment, according to one observer's report at 0620, was still confident of closing the gap. From the ROKA side, closure was to be effected by redeployment of the 15th ROK Regt on the left flank of the 11th ROK Regt, but the lead unit, the 3d Bn, 15th Regt was not expected to move into position until 0430 on 5 September.

Commitment of the engineer companies completed the line at Tabu-dong. Here the enemy attack continued. At 0415, Co A, 8th Engr Bn repulsed an attack against its positions on the ridge east of the village at the cost of seven casualties. Engineer Co C, on Hill 516 just west of Tabu-dong, was now subjected to intense pressure and cut off. Covered from the west by the fire of the tanks of the 2d Plat, Co B, 70th Tk Bn, it fought its way north onto Hill 673 to join the 1st Bn, 8th Cav. Meanwhile, to block any further enemy advance south of Tabu-dong, the 2d Bn, 8th Cav (H and Hq Companies?) had been ordered to occupy the hill at 1150.2-1458.2, and by dark on 3 September had done so without opposition.

The enemy continued to attack just east of Tabu-dong. Company I, 8th Cav was pushed off the high ground at 0800, and its four attempts to retake it ended without success. Company A, 8th Engr Bn maintained its positions to the right on the ridge at 1151.3-1460.4, and Co K and Co F, 8th Cav, remained deployed further east through the grid square 1152-1460. During the morning, Co B rejoined the 1st Bn, and Co L and its attachments returned to bolster the line by replacing Co F. However, the positions of the 3d Bn became untenable when the enemy gained an observation point on Hill 466 and was able to call down observed artillery and mortar fire. The Tabu-dong line was then temporarily abandoned. The battalion withdrew about a mile to the vicinity 1152.0-1459.0 and set up a perimeter defense. The units of the 2d Bn remaining in the area were ordered to withdraw to tie in with the 3d Bn, but they stayed through the night in the locations they then held.

The friendly operation to reoccupy the Walled City seems to have been two-pronged. Around 1345, Co D, 8th Engr reported that it was engaged in a fire fight about a half mile southwest of the Walled City while on the way up. At 1550 the company reported that it had advanced to within 200 yd of the objective, and at 1627 that forward elements were within the Walled City. It is thought that Co E, 8th Cav, met its augmentation of 125 South Korean troops at the former regimental CP at 1100 and was moved by truck south around Hill Mass 314 and then north to the village of Namchang, southeast of the Walled City, at 1157.0-1457.2. Here, at 1530, Co E passed through the I&R Plat and moved up to the Walled City through a mortar and artillery barrage. It was reported that this fire caused some of the inexperienced attached Korean troops to flee. At 1730 Co E was pinned down by small-arms and automatic-weapons fire and remained on the southern slope of the mountain during the night.

At 1845 a message from the ROK II Corps reported that a prisoner had stated that 800 enemy troops were in the Walled City and that 3 additional battalions were massed just to the north. The head of the enemy penetration was said to be at the village of Namchang. Friendly troops further forward within the walled area soon discovered that they were cut off.

To block a possible enemy attempt to penetrate far to the south from the Walled City, the ROK 5th Spl Tng Bn, a unit composed of South Korean police, was moved up from Taegu at 0220, 4 September to blocking positions at Chilgok (1153-1448). (This battalion apparently was maintained at nearly the strength of US battalions, for its strength on 15 September was 630.)

5 SEPTEMBER

During the night of 4 - 5 September, the 27th Brit Brig moved from the 1st Cav Div reserve area on the north side of Taegu at 1153-1442 to the division's left flank, where it took up positions along the Naktong River, relieving the 3d BCT of the 23d Inf Regt. Nevertheless, a considerable gap still remained between the 2d and the 27th Brig.

In the 8th Cav Regt sector, the situation was reported as follows:

050530. Saber 3 - Situation report as of 050530. Blue in perimeter defense 500 yard radius in vicinity 1152.0-1459.0. White ordered to move out and establish line to west of and in contact with Blue. (Orders to White via officer over telephone.) Red, no change except B Company ordered to move to vicinity 1147.0-1461.0 and establish road block. Tanks to begin patrol at dawn along MSR from Blue to junction of MSR and Burma Road [junction at 1153-1445]. All 8th Cavalry forces have been committed. Out of communication with White and Blue. Radio contact with Red. Battery A, 99th FA receiving small arms fire from vicinity 1154.0-1455.5. Enemy infiltration as far south as 1154.0-1455.5. Report on D and E: E Company advanced through village and up hill toward Walled City, receiving excellent artillery support. No small arms fire, some mortar fire. Continues to move to contact D.³

Company B was to block the Waegwan-Tabu-dong road to protect the battalion's left flank. The intention of the cavalry command apparently was still to regain Hills 449 and 466, but any operations to this end necessarily presupposed success in holding the Walled City. In the event that the situation should deteriorate here, the two provisional battalions of Task Force Allan were alerted to prepare to occupy defensive positions on the 8th Cav right flank.

At 0540 Co D, Engr was reported deployed along the wall at 1156.2-1458.6, with the enemy directly to the north. Company E, 8th Cav moved up from the position it had held on the slope during the night and joined Co D at 0700. The two companies (and remaining 60 attached ROKA troops) were intensely engaged, and shortages of ammunition and other supplies became critical. Attempts were made to resupply by airdrop, but, perhaps because of the bad visibility, all supplies landed in enemy-held territory. Plans to resupply the companies by an armored convoy were made, but at 1330 the divisional command ordered the companies to withdraw at once, and the operation became a rescue. The convoy, made up of elements of the Sv Co and the Hv Mort Co, with tanks of Co B of the 70th Tk Bn, cleared the regimental CP area at 1430 and reached the base of Hill 902 at about 1500. By 1540 Co E was already coming down from the Walled City. Because of severed communications, the message to withdraw was delayed in reaching Co D until 1930, when the company had to fight out of the Walled City. Company E had three officers and 99 men. Company D reverted to the control of its parent engineer battalion.

Further enemy reinforcement from the rear was reported at 0945, when an estimated 400 enemy troops were seen moving south along the Kunwi - Tabu-dong road, at grid square 1155-1469, in columns of 25 with a wide interval between men. At the close of the day it was estimated that at least four enemy battalions were in the Walled City.

In the Tabu-dong area, action slackened markedly as the enemy brought up reinforcements. Small enemy elements slipped through gaps in the friendly line and appeared to be trying to set up road blocks, but a force composed of the 16th Recon Co and tanks of the 70th Tk Bn was able to keep the main supply route (MSR) clear. After attempts to bring up tank-towed artillery had failed, on 4 September, the enemy resorted to manhandling. Throughout the day of 5 September, troops carried ammunition and hauled field pieces through the village to the south. As described in the subsection on friendly armor support, in Part II, this movement provided perfect targets for the tanks of the 2d Plat, Co B, 70th Tk Bn, which remained in position on the road west of Tabu-dong.

6 SEPTEMBER

As the friendly position north of Taegu continued to deteriorate, the enemy penetration toward Yongchon in the eastern portion of the northern front became increasingly menacing. On 5 September the remaining army reserve was committed to meet this new threat. The infantry reserve consisted of the US 19th Regt and certain other units of the 24th Inf Div, and had been located approximately forty miles south-southeast of Taegu at 1169.5-1379.0. With all forces now in action, the top command echelon began to move from Taegu back to Pusan. As of the morning of 6 September, Korean Army Hq and part of the EUSAK staff had been reestablished in Pusan.

North of Taegu, Hills 518 and 464 were falling to the enemy in the 7th Cav sector. The 8th Cav had been infiltrated, and the gap on its right flank had only partly been closed by moving up companies of the ROK police battalion to separated positions on Hill 660 and Hill Mass 314. The 8th Cav Regt and the 15th ROK Regt had not yet joined forces. On the morning of 6 September, the Eighth Army commander authorized a general withdrawal by the 1st Cav Div to consolidate the front. The confirming formal order, dated 1545, 7 September, was addressed to the commanding general of the 1st Cav Div and the chief of staff of the ROK Army. It stated that "contact will be established and maintained, repeat, maintained" and specified as the new line of the 1st Cav Div: 1139-1439 to 1142-1441 to 1144-1443 to 1146-1448 to 1146-1451 to 1147-1454 to 1150-1456 to 1152-1457 to 1154-1457 to 1156-1455 to 1160-1455. On the right side, this line is based on Hill Mass 570, Hill Mass 314, and Hill 660. The course of the crucial fighting on these hill masses* is described in the succeeding pages of this narrative.

*The term "Hill Mass" denotes the entire ridge defined by the surrounding valleys. On Hill Mass 570 there are other peaks lower than the 570-m peak, notably the one at the southern end, called Hill 373. The 314-m point from which Hill Mass 314 derives its designation is not a peak at all, and the northern portion is over 500 m in elevation.

In accordance with a divisional order, the 1st Bn, 8th Cav at 0350 on 6 September was preparing to break contact and move back to the new line of defense by way of the 7th Cav MSR. The 3d Bn, 8th Cav was also planning to displace, and the 2d Bn, 8th Cav was already gradually withdrawing to tie in with it. To the rear, the two provisional battalions of Task Force Allen were again alerted for possible quick commitment, and they remained in this emergency condition throughout the day.

At 0520 an enemy attack drove back outposts of the 3d Bn, but the battalion hold its main positions. At the same time, the enemy attacked the regiment's rear from flanking positions on Hill 570, and for a time succeeded in cutting the MSR with a fire block across the Taegu road (see below under Hill 570).

The move of the 1st Bn to the west during the morning left the tanks of the 2d Plat, Co B, 70th Tk Bn cut off. Around 1430 they were guided eastward from the air along the Waegwan road to Tabu-dong, while covered by friendly artillery fire brought down on the enemy positions north of Tabu-dong and on the road block further south. From the village, the column of tanks turned south onto the Taegu road and ran a gantlet of enemy antitank weapons without losses, to rejoin Co B Hq and the 3d Bn, 8th Cav northwest of Hill 570. This action is described in the subsection on friendly armor support in Part II. Company C, 8th Engr, which had been with the 1st Bn, 8th Cav, moved down the ridge between the 7th and 8th Cav sectors to Hill 714. Here it was attacked from the south in an engagement lasting 2 hr, and then subjected to continuing small-arms fire.

By 1925 most of the 1st Bn had withdrawn to the vicinity of 1143.1-1458.8. As of 2015, the 2d Bn had closed with the 3d Bn 3/4 to 1 mile north of Tongmyongwon, and the 3d Bn maintained its previous positions.

Hill Mass 570 (Including Hill 373)

At about 0630, Btry C of the 99th FA Bn, in position along the Taegu road in the vicinity of the 480-m peak on Hill Mass 570, was subjected to mortar fire for 20 min, and then attacked by enemy troops who moved down from Hill 570. The enemy were driven off by machine-gun fire. A prisoner taken later said that the battery was the express objective of the two attacking enemy companies. The enemy troops withdrew somewhat and set up a fire block across the Taegu road. A friendly task force composed of Co E (which had been retrieved from the Walled City only the preceding afternoon), the I&R and Scty Plats of the regimental Hq Co, a platoon of the 16th Recon Co, and five tanks of the 70th Tk Bn (two from the 3d Plat Co C, two from the 3d Plat, Co B, and one from the 4th Plat, Co B) moved up the road from the south during the morning and after a rather prolonged engagement succeeded in clearing the road. The action is reported by the 16th Recon Co as follows:

0730 hours. Our force jumped off with one-half of the troops and two of the tanks, going along a dry creek bed about six hundred yards to the left of the road block as the flanking forward element. The second element, with the remaining three tanks, moved along the road to the block, coordinating their fire with that of the flanking element. Within six hours the road block had been broken, and the road was open to Tabu-dong, which permitted contact to be made once again with the main group of the 8th Cavalry Regiment, which had been cut off. Our casualties were one KIA and five WIA. The enemy's losses were estimated at more than one hundred KIA.⁹

The tank battalion reported that small-arms fire was received in this action and that small-caliber antitank fire scored about twenty hits on the tanks without producing more than minor damage. The platoon claimed that it destroyed 2 antitank rifles and inflicted 200 casualties.¹⁴ Company E took the prisoner mentioned above. Among other things, he stated that two companies of the 3d Bn, 1st (14th) Regt, 1st NK Div had made the attack (see the section on enemy units in Part II) and that prior to the attack his company had a strength of 51 though the entire 3d Bn had a strength of only 153. It is possible that the 1st Bn of the enemy 14th Regt also participated.

Clearing the fire block did not eliminate enemy forces in the 8th Cav rear. During the evening, large numbers of enemy troops were observed by a liaison pilot on the ridge on the southeast side of the 570-m peak, and his plane was fired on. At 2000 a friendly air strike hit enemy troops on the top and east side of the hill mass with bombs, rockets, and strafing.

Hill Mass 314

The following message from an air liaison flight indicates a very quiet situation north and east of Hill Mass 314:

1145. From Lt Greer. Two American tanks in pass at 1156.4-1452.8. The road running south to north just east of these tanks [that is, between Hills 314 and 660] shows no sign of defense or of defensive troops. Road is passable for small vehicles. One group of men (approximately 8 or 10) was seen coming southeast out of Wall City at 1157.5-1456.7. South Korean artillery battery in position at 1160.9-1451.7. Two small groups of men seen moving along path running around hill in a generally southeast direction at 1160.3-1455.5 [the ridge northeast of Hill 660]. No enemy vehicles or concentrations of troops seen.¹

At 1415, ROK observers on Hill 660 reported that enemy troops were on Hill Mass 314. Friendly artillery then fired on its west side. To block any further enemy advance, US officers and the I&R Plat, 8th Cav Regt led two companies of the ROK 5th Tng Bn onto the southern part of the hill mass. At 1750, the Korean Military Advisory group (KMAG) reported that patrols of the 1st Cav Div and 15th ROK Regt had made contact at 1156-1453 (southern tip of the hill). Friendly forces did not engage the enemy on the northern part of the hill mass. The location of the enemy troops was reported at 2030 by a liaison pilot as the northwest side of the hill at 1156.0-1455.5.

Hill 660

As reported under "Hill Mass 314" above, but little enemy activity was observed north and east of Hill 660. This hill was occupied by one company of the 15th ROK Regt, and except for patrols, no activity was reported.

7 SEPTEMBER

Plans were made to eliminate the salient from which the enemy was harassing the 8th Cav. Attacking toward the rear, the 3d Bn was to take Hill 570 while the 2d Bn covered the attack by blocking the Tabu-dong road. The 1st

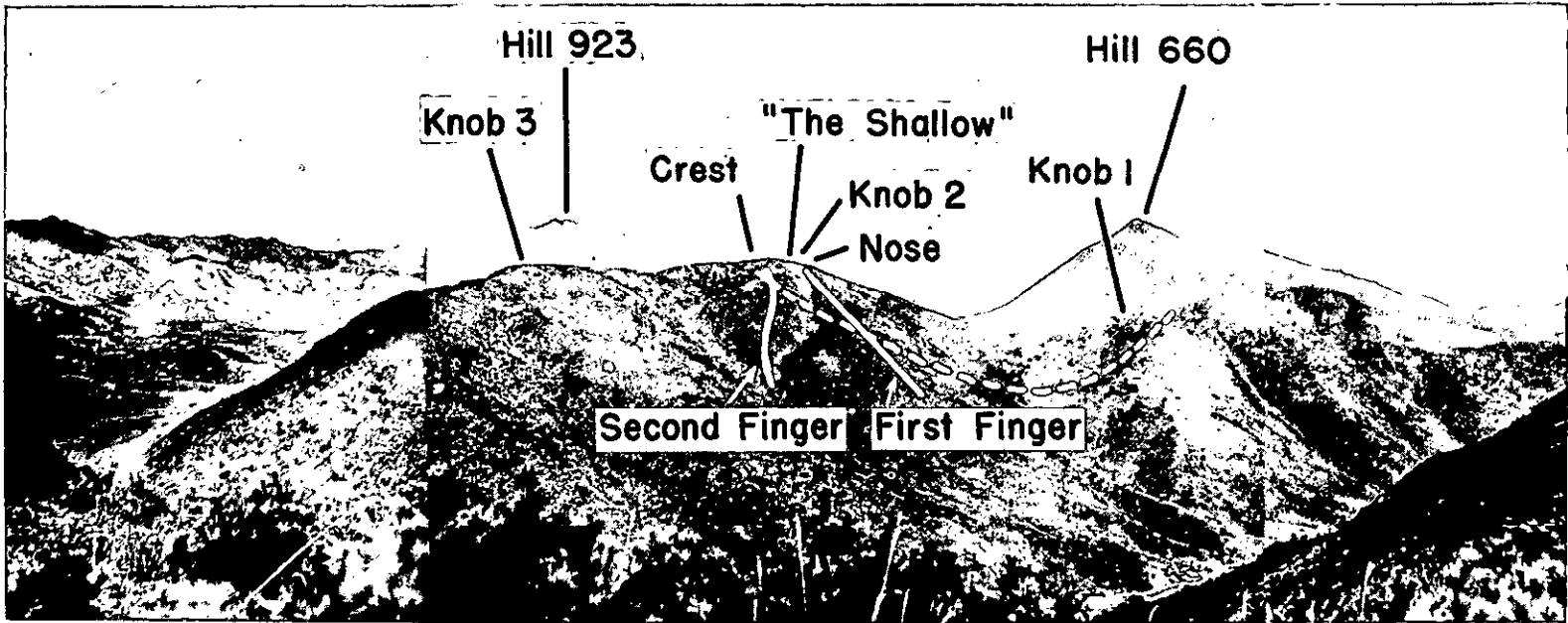


Fig. 3—Panoramic view of Hill 314 from most forward enemy positions on Hill 570 to west. Most infantry action took place on both sides of the ridge above the dotted line. The distance from the dotted line to the upper limit of the ridge appears highly foreshortened.

Scale: Hill 660 is 3500 m from viewing position; Hill 923, 6300 m. Points on ridge vertically in line with these peaks are 920 m apart.

Bn was also ordered to fight rearward to establish a road block at 1148.6-1455.6, thus denying the enemy the possibility of penetrating readily from the west and linking up with the forces on Hill 570. At 1524 the 1st Bn was further ordered to occupy a new line running from 1145.0-1455.5 to 1152.8-1457.0. The battalion reported at 2200 that it had fought back almost to the new positions.

Hill Mass 570

It was clear that the enemy was on the hill in force. At 0730 troops were observed at 1154.05-1455.99, and at 0820 friendly artillery fired on enemy mortars observed just east of the 570-m peak in the vicinity 1155.0-1456.0. The situation as seen from the air at 1140 was reported as follows:

Spirit [99th FA Bn] air observer, saw approximately 150 North Koreans on Hill 570 and approximately 100 North Koreans at 1154.3-1456.8 [north end of the ridge]. Both groups were taken under "time" fire with good results. The observer also saw 50 troops at 1154.5-1455.9 [southwest side of the 570-m peak] and 50-75 troops at 1154.9-1455.7 going through pass to 1154.9-1454.9 [moving south down ridge to the 480-m peak]. On Hill 373 at 1155.1-1454.1 observed 50-75 troops. Targets in Par [sic] 2 not fired on due to weather conditions and low gas supply in plane, forcing it to return to base.¹

If these estimates were accurate, at least an enemy battalion fairly up to TO strength was on the hill mass (see the section on enemy units in Part II).

The value to the enemy of an observation point on Hill 570 was demonstrated at 1430, when Btry A, 99th FA Bn was for an unspecified period subjected to 1 rd of artillery fire every 2 sec and forced to displace.

At 1535, after leaflets had been dropped, a friendly air strike hit Hill 570. Seven planes strafed, dropped napalm, and then strafed again. The entire hill was reported covered, and the mission reports described the results as "good" or "excellent." At 1900 fires were seen burning on the east side of the hill.

Hill Mass 314

United States observers reported from their vantage point on Hill 660 that they estimated two platoons of enemy troops on the northeast slope of the hill mass. These were fired on by friendly artillery. Many enemy troops were also observed just to the northeast in the village of Kisong-dong and on the ridge further to the northeast. Enemy movement from the Walled City down the trail to the south was noted.

Other observers noted activity at the northwest end of the hill mass, adjacent to Hill 570. At 0620, enemy mortars were seen at 1155.8-1455.3. Nearby, at 1155.8-1455.4, at 1007, enemy troops were observed, and at 1045 the number of troops was estimated at 50, located at 1155.9-1455.8.

Hill 660

The 1st ROK Div reported its line stabilized as of 1150. The hill was still occupied only by Co F, 15th ROK Regt.

8 SEPTEMBER

The 8th Cav sector remained very quiet through the early morning hours. During the preceding night, however, an enemy force had infiltrated from the east, blown up the bridge on the Taegu road at 1153.5-1452.5 near the southwestern tip of Hill 373, and mined the bypass. The block caused some difficulty, and the mines damaged two tanks, which were moving up to protect the 99th FA Bn, and a jeep. The 3d Bn planned attack on Hill 570 was not affected, however, as its supporting tanks were already to the north.

The bulk of the 2d Bn covered the 3d Bn in its attack to the rear (see below) and then withdrew, arriving at the assembly area at the southern tip of Hill 314 at 1155.8-1452.6 by 1250. Later it took up positions south and west of Hill 373, which remained unoccupied.

Pending the completion of the 1st Bn move to the east to cover the regiments left flank, Co F was placed in position across the valley west of Hill 263 to block any enemy move from Tabu-dong along this corridor parallel to the Taegu road. By 1300, the 1st Bn right flank was already moving into position, and at 1407 Co C was engaged in a fire fight at 1151.6-1456.3, in the vicinity of Hill 263. Company F moved back to take up a new blocking position across the Taegu road at Hills 225 and 373.

On the 8th Cav Regt right flank, the 15th ROK Regt reported at 1445 that the enemy was attacking at Hill 923, 2 1/2 miles northeast of Hill 660. It was feared that massive enemy forces in this vicinity would swing west against the 8th Cav Regt unprotected right flank. Later reports stated, however, that ROK forces were containing the enemy, though with difficulty.

At this time, when the 8th Cav situation had become more difficult, ammunition shortages became more critical. Stocks on hand in the five artillery battalions in the zone of the 1st Cav Div totaled 12,400 for 105-mm rd and 3803 for 155-mm rd, and reserve supplies at the Taegu supply point were very low. Except in case of emergency, a daily ration of 50 rd of 105-mm ammunition per piece was imposed. Mortar ammunition was also short, and daily expenditures were limited to 15 rd per 81-mm mortar and 10 rd per 4.2-in. mortar.

Hill Mass 570 (Including Hill 373)

With the support of tanks of the 70th Tk Bn and the mortar platoon of Co H, the 3d Bn moved south at dawn to attack Hill 570. Because of bad weather, there was no air support or air observation. By 1010, the first objective, the knob at the northwestern end of the hill mass, had been taken with little opposition. A second peak was also taken, but apparently against resistance. Information on the succeeding action is meager, perhaps in part because communication with the battalion was poor. It appears that when two companies attacked the main ridge in parallel an unexpectedly strong enemy force counter-attacked and drove between them. (Casualties were considerable in all three rifle companies. See Table D2.) The battalion withdrew, first to its first objective and then from the hill mass. It was ordered to proceed to the rear, where it became the regimental reserve.

Undetailed and unconfirmed reports state that a third thrust on Hill Mass 570 was made by one platoon of provisional infantry of Co A, 71st Tk Bn. The company had lost its tanks in previous fighting and had been formed into two rifle platoons, which on 21 August were committed as a security force for the 8th Cav forward CP. After 8 September, at least one platoon held positions on the front line in the 1st Bn area.

In support of the attack, the 99th FA Bn fired "numerous" concentrations (the number of rounds expended was not recorded). This fire was reinforced by that of the 9th FA Bn, which fired on and silenced enemy mortars and artillery at 1154.56-1456.37 (the ridge on Hill 570), a mortar at 1154.74-1456.30 (just north of the 570-m point), and a mortar at 1155.13-1456.19 (down the slope east of the 570-m point), among other targets.

Hill Mass 314

The 16th Recon Co was assigned the mission of occupying and holding the northern part of the hill mass. It relieved the two ROK police companies on the southern part and moved without opposition onto the central portion, one platoon apparently establishing positions on Knob 2, the others in the vicinity of Knob 1. Late in the morning, the I&R Plat of the 8th Cav Regt moved from the northwestern slopes of Hill 660 to join the Recon Co on Hill 314. The day passed here without incident.

Hill 660

By 1645 two companies of the ROK 5th Tng Bn had moved east from Hill 314 onto the northwestern slopes of Hill 660. A company of the 15th ROK Regt apparently remained on the crest. There were some reports of massive enemy attacks on the eastern side of the hill, but confirming evidence is lacking.

9 SEPTEMBER

The commanding general of the 1st Cav Div assigned the 8th Cav Regt the missions of taking Hill 314 (the current mission of the 16th Recon Co) and of preparing to capture and hold Hill 570. The 3d Bn, 7th Cav Regt, in division reserve at Taegu, was attached to the 8th Cav Regt to first capture Hill 373, if not already occupied by the 8th Cav Regt, and then to aid in the capture of Hill 570. The plan of attack formulated by the 7th Cav Regt on the evening of 8 September set the time of the attack as 1100 on 9 September. The 3d Bn, 7th Cav moved out of the Taegu rest area at 0700, but the attack was postponed because of bad weather, and the battalion took up blocking positions across the highway south of Hill 373.

The front of the 1st Bn, 8th Cav, was inactive. In the late afternoon a tank-infantry patrol by the 2d Plat, Co B, 70th Tk Bn and troops of Co F proceeded up the highway almost as far as Samsan-dong without observing enemy activity.

Hill Mass 570

At 1215 the divisional command ordered that Hill 373 be occupied. Company G did so and maintained positions there throughout the day. There was little aggressive activity on either side. Around 0930 a flight of four F51's dropped napalm on Hill 570 with the "area well covered," according to air observers.

Hill Mass 314

During the night of 8 - 9 September, the 16th Recon Co received small-arms fire from enemy units which had also moved onto the hill. The first enemy attack materialized at 0700. It consisted of a frontal assault and attempt to envelop friendly units by way of their left flank. Forward units on Knob 2 withdrew 800 yd to Knob 0, and the bulk of the friendly force at Knob 1 moved back 300 yd to Knob 0. The Recon reports: "When we reorganized, our casualties came to three KIA and fifteen WIA. We were unable to estimate how many casualties we had inflicted on the enemy."⁹

A patrol was sent forward; by 1050 it had almost reached Knob 2. Receiving no opposition, it moved into the former positions on Knob 2 and found that they had not been occupied by the enemy. Near Knob 3, 250 yd further forward, a group of 20 enemy soldiers was observed. The patrol was attacked by this group and also drew fire from its left flank. The Recon Co had by this time followed the patrol to occupy Knob 2. It sent a message, relayed at 1626, reporting opposition by one strong enemy platoon armed with automatic weapons. Its later report stated further:

1630 hours: counterattacking in an attempt to retake the hill, we had a recoilless-rifle team [from Co E, 8th Cav] and artillery support and got to within two hundred yards of our objective [Knob 3], only to be driven off by intense enemy fire. Due to the fact that night was rapidly approaching, we withdrew to the line of departure [to reorganize for the night]. KIA, 5; WIA, 6.⁹

Sandbags were sent up, and the Recon Co dug in around Knob 1. Companies A and C of the ROK 5th Sp Tng Bn (police) were sent again onto Hill 314 from Hill 660 to reinforce the Recon Co on the southern part of the hill mass. Company A was reported attacked at 1855, apparently in the same action as the Recon Co.

Hill 660

Late in the afternoon, Hill 660, which was occupied only by Co F 15th ROK Regt and a scouting party of the 1st Cav Div, received mortar and artillery fire from the north. During the evening, the ROK force repulsed an attack by an estimated enemy battalion. Company B, of the 5th ROK Bn, was placed in a backup position just southwest of Hill 660 and due south of Hill 314 at coordinates 1156.5-1452.0. During the night, it closed in on an estimated 300 enemy troops who had infiltrated to the southwestern slopes and were now in the vicinity of Todok Temple at 1157.9-1453.0. At 0200 on 11 September, Co F, 15th ROK Regt reported that it had repulsed an attack by what was estimated to be an enemy company.

10 SEPTEMBER

Still another gap persisted in the friendly line of defense, this one between the left flank of the 8th and the 5th Cav Regts. In an effort to close it, the 1st Bn, 7th Cav, which was attached to the 5th Cav, attacked Hills 345 (1147.6-1454.4) and 392 (as reported—presumably Hill 312 at 1148.9-1452.6). The gap

remained, however, when the enemy held and went on to take Hill 232 (1148.8-1451.4). The separation between the two regiments was further increased when Co A and Co C of the 8th Cav were pulled in from the area 1150.6-1456.5 to the vicinity 1151.2-1455.8 in order to tighten the regimental front.

For the first time, high-velocity flat-trajectory artillery fire was received along the Taegu road from the north. The CP of the 8th Cav Regt was moved back one mile from 1153.9-1449.7 to 1153.4-1448.1, the village of Chilgok.

With Hill 660 only lightly held by ROK forces, the right flank of the 1st Cav Div was still vulnerable. At 0700 the 2d Bn, 7th Cav, which was in division reserve at Taegu, was alerted to be prepared to occupy the hill. As the 3d Bn, 8th Cav was ordered to take over the attack on Hill Mass 314, the attack on Hill Mass 570 planned for the 3d Bn, 7th Cav was again postponed, presumably to keep a regimental reserve.

Hill Mass 570

The day passed quietly. At 1025 an air observer reported that nothing was visible on the ground. Air strikes scheduled for the morning had to be postponed until the weather cleared. Finally, at 1835, a flight of four F80's appeared and remained in the area until 1905, strafing and rocketing the highway west of Hill 570 and strafing the other hills along it. No results were noted from the air, but on Hill 373 Co G, 8th Cav reported being strafed even though panels were displayed. Around 1900 an unknown number of F51's attacked the ridge. From 1902 to 1930 an F82 struck at the pass traversed by the highway north-west of Hill 570. This plane expended 2400 rd of 50-cal ammunition and dropped two 500-lb bombs on troops in a rice paddy, with unobserved results.

Events on Hill Mass 570 late in the evening of 10 September are discussed under 11 September.

Hill Mass 314

During the night of 9 - 10 September, the enemy attempted to seize the southern part of Hill Mass 314. The 16th Recon Co reports:

0400 hours: the enemy carried out two banzai attacks in company strength, but they were repulsed with no friendly casualties. When daylight came, we counted 14 KIA around our positions and 38 at the bottom of the hill [presumably the bottom of the saddle between Knobs 1 and 2], all enemy.⁹

Companies A and C of the 5th ROK Tng Bn were pushed back somewhat in this action.

Around 0700 the 3d Bn, 8th Cav was assigned the mission of capturing Hill Mass 314. The 16th Recon Co was relieved and attached to the 2d Bn, 8th Cav. Companies A and C of the ROK battalion were attached to the 3d Bn, 8th Cav and remained on the hill in backup positions.

By 1155, units of the 3d Bn, 8th Cav were moving into position on Knob 1. By 1235 they had undergone mortar fire. There was a short artillery preparation, and at 1330 Co K jumped off. At 1435, the 99th FA Bn expended 50 rd on "enemy troops," probably on Hill Mass 314, with "casualties high" reported. By 1515, after having again been subjected to mortar fire, Co K occupied Knob 2. Here it was confronted by an enemy platoon backed up by an estimated two

companies at Knob 3. Artillery was called in on Knob 3 (none is reported by the 99th FA Bn), and friendly troops moved back below Knob 2. Here they remained at least until 1840, for a message relayed at this time by a pilot stated that red panels were observed on the ridge at coordinates 1156.5-1455.3, i.e., just forward of Knob 2. It was further observed that personnel dressed in white were on the north slope and a few personnel in white on the south slope. These figures may well have been civilian labor parties working for the respective opposing sides (see Fig. E1).

The situation at the end of the day's fighting was reported in a relayed message:

102000. White 5 reports that the 3d Battalion will hold on position of first ridge-line south of objective and attack at 110650 Sep. SK Company will attack and secure bridge south of objective. I Company on third ridgeline behind K and L Companies blocking road on trail to east. 22 North Koreans killed. Two enemy companies on objective and one platoon forward of K Company position.¹

The 22 enemy dead were apparently killed on the hill in the day's fighting.

Hill 660

An unelaborated report relayed at 0300, 11 September mentioned heavy fighting between the peak of Hill 660 and the village of Kisong-dong. Reports are not available from Co F, 15th ROK Regt which was on the hill. At 1235, small-arms and mortar fire on the hill were noted by observers elsewhere, and at 1355 an observer reported groups of enemy moving from Hill 660 along the ridge to Hill 313, 1 mile to the south. Just to the east of Hill 660, the left flank of the 15th ROK Regt was under heavy attack. At 2259 the I&R Plat, 7th Cav Regt reported a fire-fight on the west side of Hill 660.

The 300 enemy troops reported at Todok Temple the night before were still there at 2300, shouting and singing. They were hemmed in by Co B of the 5th ROK Tng Bn and reserve units of the 3d Bn, 8th Cav.

11 SEPTEMBER

Enemy efforts were concentrated north of Taegu. To the west the sector of the 27th Brit Brig remained quiet, but in the sector of the 5th Cav Regt and attached 1st Bn, 7th Cav Regt, seesaw fighting of attack and counterattack continued around Hill 203. Both sides also attacked in the subject sector of the 8th Cav Regt. To the east, however, enemy attacks against the ROK 1st Div slackened, and ROK forces began to patrol to the north.

Hill Mass 570

At 2024, 10 September two enemy patrols of about twenty-five men were driven off Hill 373 by Co G, 8th Cav. Two enemy NCOs taken prisoner stated that their unit of 115 men was to attack at 2100. They further stated that they were members of the 14th Regt (1st NK Div) and unfamiliar with the regiment to which they were assigned (presumably the 19th Regt, 13th NK Div).

The attack, by enemy first estimated at 115, then 200 to 300, came at 2345, the enemy using grenades and automatic weapons. Company G's left flank gave way, but the attack was repulsed with the support of fire by the 99th FA Bn. By 0210, 11 September, Co G had reestablished its line. At 0320 the enemy was observed regrouping on the western finger of the 480-m peak behind Hill 373.

It was planned to send up Co E in the morning to bolster the defense of Hill 373. The second attack came at 0710, before the reinforcement arrived. The assault was again turned back, but this time positions on the forward slope of Hill 373 were overrun and Co G suffered many casualties. A message relayed at 0801 reported that there were 35 WIA. Official casualty statistics are presented in Part II.

While making these frontal assaults, the enemy was also persistent in attempts to infiltrate, as the following report of enemy intentions had anticipated:

101700. From G-2. Just received from reliable confidential sources the following additional information: The 1st and 13th NK Divisions are having difficulty in coordinating their advance. The 1st NK Division commander had been ordered to barricade a major road in the 1st Cav Div prior to sunset 10 September.

The road in question must be the Taegu - Tabu-dong road and the barricade in question must be contemplated in rear of our front troops, perhaps in the vicinity of the blown culvert (1153.6-1452.2) or further to the south so that our movements and resupply will be hampered.¹

The attempt materialized. Around 0100 a group of an estimated fifty enemy was engaged by a friendly highway patrol at the bridge at coordinates 1153.4-1452.8, a quarter of a mile north of the expected spot but still well to the rear of Hill 373. The friendly patrol was driven back to a second bridge and then pushed off that one. When it returned to the latter bridge, the enemy had apparently withdrawn. A prisoner's account that seems to fit this incident appears in Part II.

The situation at Hill 373 was precarious. Already the enemy had penetrated to the rear in company strength, if only briefly. As shown in the 8th Cav operations overlay dated 1000, 11 September (see Part III), Co G had been pushed back to the fingers on the southern slope, Co F on its left was spread out across the valley and had already been infiltrated, and Co B was on the far side of the valley on Hill 225. From his position on Hill 314 the CO of the 3d Bn, 8th Cav observed Hill 570 "teeming" with enemy troops. At 0725 a message came from the commanding general of the 1st Cav Div announcing that the 3d Bn, 7th Cav would again postpone its planned attack on Hill 570 (and 373) pending development of the situation at Hill 373 and the outcome of the final assault on the northern part of Hill 314 by the 3d Bn, 8th Cav.

The timely intervention of the most intense air attack yet directed against Hill 570 appears responsible for the respite necessary for the reinforcement of Co G. Hill 570 was the target of at least twenty fighter-bombers in a period of an hour and a half. A flight of four F51's appeared at 0830, dropped napalm, and strafed, with results claimed to be "good." At approximately 0850 another flight of four F51's rocketed and strafed the ridge, with undetermined results. Four more F51's attacked shortly after 0855, dropping napalm with "excellent" results, strafing with "fair" results, and missing a 20-mm gun

with their rockets. At around 0905 still another flight of four F51's dropped napalm and rocketed, with "good hits" claimed. Finally, at about 0950, one more flight of four F51's bombed and strafed the ridge, with unknown results. It is uncertain from the conflicting reports whether a flight of four F80's that were over their target from 1115 to 1140 expended their 16 rockets on Hill 570 or on some other hill.

The effectiveness of these strikes is indicated by a ground observer's report at 0940. Having moved down from the 570-m peak toward the southwest, 150 enemy troops believed flushed by the air attack were observed milling around in the saddle (1154.7-1455.4) between the 570-m and the 480-m peaks. They were taken under artillery fire and fled to the road on the west side of the hill, where they were again taken under fire and dispersed by the tanks of Co B of the 70th Tk Bn.

At 0801, Co E was already on the way up to Hill 373. After it arrived, Co G moved out at 1200 in a limited advance to stabilize the situation on the hill by occupying the positions lost previously on the northern slope. During this action it sustained additional casualties from intense enemy mortar fire.

Throughout the day, the 99th FA Bn fired a total of 472 rd on targets of opportunity, in support of 8th Cav troops engaged on Hills 373 and 314. Of 22 missions fired, only 2 were to repel enemy attacks.

As further reinforcement on Hill 373, the 16th Recon Co, which had been relieved on Hill 314 by the 3d Bn, 8th Cav, joined Co E and Co G, and was stationed in the forward positions. That the enemy offensive had only been delayed was demonstrated on the night of 11 - 12 September by the following attack reported by the Recon Co:

During the night our company was placed in front of the battalion's position. During the early morning hours an estimated reinforced enemy company attacked our position at several points, but was driven off by artillery, mortar, automatic weapons, and small-arms fire. Over one hundred enemy dead were counted the following morning, and there were no friendly casualties. . . . There were no further attacks on our positions during the remainder of the night.⁹

The enemy dead counted by the Recon Co had probably accumulated from all the actions to date.

Hill Mass 314

Units of the 3d Bn, 8th Cav moved out toward Knob 3 at 0730. Details on the subsequent action are lacking. The operations overlay dated 1000, 11 September shows Co K on Knob 1, Co I on Knob 0, and ROK forces on the southernmost slope of the hill (see Part III). These may not have been the actual locations of the units at that time. Reports of no specified time state that friendly forces were driven back from their objective by intense mortar fire from Hill 373. (Hill 373 was partly in enemy hands during the morning, but the fire probably came from Hill 570 or beyond.) At 1340 direct fire was also being received from a gun in the vicinity of the cemetery, 1 1/2 miles to the northwest. It would appear that the 3d Bn did withdraw as shown by the overlay, and then, later, made an attempt to capture the northern objective. A message at 1415 reported that friendly units had reached the 1454.5 line, the middle of the saddle between Knobs 1 and 2. At 1515 the advancing units were

counterattacked by an estimated 200 enemy troops and forced to withdraw to their "original positions," evidently those shown on the overlay.

Air support was sent and by 1540 was working over the northern part of the hill mass. The TACP log of the 1st Cav Div lists an air strike on Hill Mass 314 at this time by four F51's of the 39th Ftr Sq. Unfortunately, no corresponding mission report is available. The log states that the planes were armed with rockets, napalm, and 50-cal ammunition.

The TACP log also lists a second strike on Hill 314 at approximately 1615 by four F80's of the 8th Ftr Sq. The corresponding mission report is available; it specifies as the point of attack the proper coordinate of longitude for Knob 2 but gives a coordinate of latitude more northerly than any target scheduled after 4 September. The report states:

Contacted at 1600 and was directed to Wildwest [1st Cav Div] control, Taegu area. Contacted Mosquito Wildwest and had a ridge to be strafed at 3605-12835 [Coordinates of Knob 2: 36° 00' -128° 35']. Fired 15 x 5 HVA rockets in troop positions and strafed area. Results not observed but controller informed flight after first pass NK troops started to give up positions and run. In area from 1600 to 1325.¹⁸

In agreement with this description, the TACP log states that the planes were armed with rockets and 50-cal ammunition. Referring either to this or to the preceding strike, it further remarks: "bodies seen blown in air, perfect results."

During the air strikes, Co I and Co K withdrew to Knob 0. Company L, 8th Cav, which had been in reserve, then passed through these units to occupy this position. Company I and all but a platoon of Co K that was retained for right-flank security were relieved.

The night passed without incident on Hill 314. But, as shown in Part II, the enemy was bringing up new forces.

Hill 660

At 0015 a message was received from unspecified ROK units stating that enemy troops on Hill 660 were moving. These apparently were the enemy troops which had been at Todok Temple. At 0410 the 15th ROK Regt reported that there had been no activity of any significance during the night of 10 - 11 September. There were no later reports.

At 0905 the 15th ROK Regt, looking down on any movement of the 1st NK Div troops from the ridges northeast of Hill 660, was shelled by guns of the 13th NK Div at Tongmyongwon, 4 miles to the west.

12 SEPTEMBER

It had been planned to relieve the entire 8th Cav Regt with the 7th Cav Regt, the key operation being the capture of Hill Mass 570 by the 3d Bn, 7th Cav. The related moves by the several battalions of the two regiments were specified in the following order received on the afternoon of 11 September:

111655. Message from Commanding General, 1st Cavalry Division - 1a. 5th Cavalry will effect relief of 1st Battalion, 7th Cavalry by 111800 Sep. 1b. 7th Cavalry will (1) Upon relief of 1st Battalion by elements of 5th Cavalry, move 1st Battalion to vicin-

ity of bridge (1153-1442) under regimental control. (2) Relieve ROK forces now on Hill 660 (1158-1453) with 2d Battalion beginning 120600 Sep 50. (3) 3d Battalion will attack, seize and hold high ground from 1153.9-1456.9 to 1154.6-1456.9 to 1154.6-1456.0 to 1154.8-1455.0. Upon completion of mission, 7th Cavalry zone of responsibility extended from Division's right boundary to line 1152.0-1457.5, 1153.0-1446.0, road to 7th Cavalry. 1c. 8th Cavalry will: (1) Hold present position until 3d Battalion, 7th Cavalry has reached and secured objective. (2) When objective of 3d Battalion, 7th Cavalry is secured, 8th Cavalry (minus 1st Battalion) reverts to Division Reserve in vicinity 1153-1442. (3) 1st Battalion will remain in present position under control and logistical support of 7th Cavalry when objective area is secured.³

This order apparently assumed the capture of the northern part of Hill Mass 314 by the 3d Bn, 8th Cav. Since this did not occur, and since the battalion at the close of 11 September was in rather bad shape on the southern part of the hill mass, the major attack by the 3d Bn, 7th Cav was rescheduled for Hill Mass 314, as recorded in the following message:

Saber 5 [Executive, 1st Cav Div] called - Skirmish Blue will not go on scheduled mission but will take ground now held by Scrappy Blue. All operations under Skirmish 6. SW boundary approximately along vertical grid line 1155 south along east side of Hill 570 and to valley north of Skirmish position, then east to boundary. Scrappy Blue to remain in position until passed through, when they will assist Skirmish Blue to maximum extent by automatic weapons and mortar fire. Skirmish Blue plan begins one hour later than scheduled. Scrappy continue to hold Hill 373 and improve positions. No attack. Move forward only to improve positions.³

The 1st Bn, 7th Cav, which had retaken and was holding Hills 203 (1145.8-1452.6) and 174 (1146.9-1451.7) was relieved at 1830 on 11 September by the 3d Bn, 5th Cav which was redeployed from the west. The release of the 1st Bn to division reserve at Taegu merely compensated for the commitment of the 2d Bn, 7th Cav. On the evening of 11 September the 5th Inf Regt was ordered to send one battalion to Taegu at once. The 3d Bn, 5th Inf closed in its Taegu location at 0330 on 12 September.

With the 13th NK Div continuing build-up there was a general increase in the tempo of enemy activity, and 13th Div artillery and mortar fire reached a new intensity. Starting at 0420, enemy artillery walked up the Taegu highway from the 8th Cav Regt CP at Chilgok* to the front lines. Company G on Hill 373 and Co F across the valley and highway just to the west reported at this time that they were subjected to enemy artillery and mortar fire. At 0515, enemy fire was again received down the valley, when the 9th FA Bn (see Fig. 2 for current location)* reported that 100 rd of artillery fire had come in. At 0607 enemy mortar fire was again reported falling on Hill 373, and at 0715 Co B on Hill 225 on the western side of the valley reported that enemy mortar fire had killed 4 men and wounded 19.† At 0730 some artillery fire was still falling down the valley on the 9th FA Bn. Around 0855, 120-mm mortar fire landed at the foot of Hill Mass 314. Then there was a lull.

*Chilgok was 10,000 m and the 9th FA Bn 11,000 m south of the 13th NK Div Arty positions (POW information). Whether from 122-mm howitzers or 76-mm pieces, then, fire was at almost maximum range.

†Company C on 10 September reported that it received a mortar concentration of 30 to 50 rd around 1630, but suffered no casualties because it was well dug in.

With haze lying in the valleys until late in the morning little of the enemy fire could have been observed by the enemy. Enemy artillery (but not mortars) apparently remained quiet until 1640, when the 99th FA Bn was taken under fire.

Hill Mass 570

Aside from the fires noted above neither any enemy activity nor friendly moves were reported on the hill mass.

Hill Mass 314

Until the arrival of the 3d Bn, 7th Cav around 0800, there was no reported activity on the hill mass. The battalion's move-up and the subsequent battle on the hill are the subject of the detailed narrative of Part IV.

Hill 660

At 0815 it was reported that the night of 11 - 12 September had been exceedingly quiet on Hill 660; not a shot had been fired.

To eliminate the weak point in the line of defense, the 2d Bn was committed to relieve ROK police units on Hill 660. The battalion cleared the reserve area at Taegu at 0650 and moved by motor toward the objective by a route well to the east of the "Bowling Alley."* By 0830 the battalion had reached and cleared its assembly area. Moving up the ridge that runs north to Hill 660, Co F and Co G had reached the vicinity of Hill 339 by 1220. Company E at this time was moving to occupy Hill 516, somewhat to the northeast, and the battalion CP had been set up at the southeast side of this hill. Hills 660 and 516 were occupied without incident by 1400.

13 SEPTEMBER

In view of the intense enemy pressure maintained against the 5th Cav Regt at Hills 203 and 174 and the possible breakthrough here to the corridor to Taegu traversed by the railroad, the continuing gap between the 5th and 8th Cav Regts remained menacing. The concern of the 8th Cav regimental command was recorded as follows:

122045. Message to Saber 5 - Attached overlay shows my front line units as of 1900 this evening and the location of 5th Cavalry units as I last heard of them late this afternoon. The gap between the units is a matter of great concern to me and is in my estimation a very definite threat to securing the MLR. My estimate is based on terrain consideration and on known enemy activity on my left flank. Troops presently backing up the center, which I consider the most likely avenue of approach, could not be diverted in time to prevent an envelopment or the passage of enemy troops down my left flank. I deemed it advisable to call this to your attention for such action as you consider necessary. Scrappy 6.³

*The term "Bowling Alley" was applied first to the north-south valley north of Tabu-dong and later, as here, to the valley running from Tabu-dong to Taegu.

To patrol this gap, a task force of normally noncombat personnel from the 5th Cav Regt (Task Force Wolfe) which had moved up to protect the OP on Hill 260, was to sweep northward along the ridge to contact the 8th Cav in the vicinity of 1149.0-1456.0. During the day, forward observers and other patrols noted the presence of several enemy groups in the area of the gap, and these were fired on by friendly artillery.

At 1200 on 13 September, I Corps became operational. The 1st Cav Div, heretofore directly under Eighth Army control, was among the units assigned to it. Attachment of the 5th RCT to the corps gave a net increase in friendly strength in the Taegu area, as well as improved organizational control.

Hill Mass 570

Reinforced platoons of Co E felt out enemy positions with the following reported results:

131715. White sent out two patrols on Hill 373. Knocked off an enemy two-man outpost just below crest of next high ground between 373 and 570 [the 480-m peak]. Contacted a strong point of two machine guns and 20 rifles. Withdrew and brought mortar and arty fire on enemy position with unknown results. Leading elements have secured 300 yards in front of previous position.³

Contact with the main enemy force was further reported:

From S-3 Division Artillery: S-3 of 99th FA Battalion reported that observer with patrol from 2d Battalion, 8th Cavalry at 2220 hours observed two enemy companies massing at 1154.8-1455.3 [the saddle between the 480- and 570-m peaks]. The 99th FA Battalion massed one battalion volley on the enemy troops, repeated the concentration ten minutes later. Excellent results...¹

During the night of 13 - 14 September, a patrol from Co I, 7th Cav reached the point 1154.8-1456.4 on the east side of the hill mass, near the 570-m peak, and found only small, disorganized enemy groups. A prisoner was taken who had been on Hill Mass 314 during the battle on 12 September and who was from the 1st NK Div.

Hill Mass 314

Except for sporadic enemy mortar fire, the day passed quietly.

Hill 660

No action was reported. During the day the CP of the 7th Cav Regt moved up from its previous location just north of Taegu at 1153.5-1442.2 to 1161.3-1449.0, to the right and rear of the new positions of the 2d Bn.

14 SEPTEMBER

In the morning, Task Force Wolfe reported that it had been ambushed at Hill 401 and had withdrawn to Hill 260. At 0740 the 5th Cav Regt reported that its units on the 8th Cav left flank were disposed as follows: Co K, 5th Cav, east of Hill 203 (1145.8-1452.6); Co I, 5th Cav, Hills 312 (1148.8-1452.6)

and 232 (1148.7-1151.4); and Task Force Wolfe, north, on, and south of Hill 260 (1149.2-1448.9).

A patrol from Co I, 8th Cav moved to the top of Hill 401. A prisoner taken from the 23d NK Regt stated that both the 23d and 21st NK Regts were in the vicinity of Hill 401. Several days before, another prisoner had stated that these two regiments had been joined to make an effective force. Patrols from the 1st Bn of the 8th Cav Regt maintained contact with the enemy to the north, along the regiment's left flank.

To the northeast, the ROK Army opened its drive westward along the ridge leading to the Walled City. The newly arrived C Bty, 17th FA Bn (8-in. howitzers) fired its first missions this day on targets in the Tabu-dong area.

Hill Mass 570

Patrols of 3 to 10 men were sent out toward Hill 570 from Hill 373 at 1045 by the 16th Recon Co and by Co E and Co G of the 2d Bn, 8th Cav. From Hill Mass 314 small enemy groups could be seen withdrawing before the slow advance of the friendly troops.

The three companies jumped off in the attack at 1430, after an artillery preparation and air strikes at 1345 and 1415. Support of the infantry consisted of the two batteries of the 9th FA Bn, one battery of the 99th FA Bn, and the tanks of the 2d Plat, Co B, 70th Tk Bn. Progress of the attack was reported as follows:

1615. From 8th Cavalry. The 2d Battalion has moved past its first objective, that is, the first big bald hill on the nose [480-m peak?] and they are moving on the second objective....

1730. ...Scrappy units are now as far north as 1154.6-1456.3 [beyond the 570-m point]. There were 70 enemy dead counted and a total of 5 POWs captured on Hill 570 thus far.

2125. From S-3, 7th Cavalry: ...In the 8th Cavalry attack on Hill 570, the 3d Battalion, 7th Cavalry claims they killed at least 200-300 North Koreans as they came off the hill with 75mm recoilless rifles and machine guns....¹

The action ended with the 2d Bn's front line just north of the 570-m peak. Whether or not the 7th Cav claim is accepted as accurate, the fact that its 3d Bn had targets indicates that many of the enemy troops on Hill 570 fled to the north or northeast as well as to the northwest, where they were seen on the Taegu road. That the retreat was precipitous is suggested by the discovery (at 1400, 15 September) of the bodies of four Americans, obviously murdered, at 1154.4-1456.3, the point of farthest friendly advance on 14 September. They had been bayoneted or shot from short range. They had been tagged, prior wounds had been dressed, and their hands were tied behind their backs.

Casualties in the attacking companies were light. In Part II of this memorandum the attack and enemy withdrawal are described briefly from the enemy viewpoint by prisoners captured shortly afterward.

Hill Mass 314

No significant friendly activity was reported except for fire in support of the 8th Cav capture of Hill 570. Between 0100 and 0300, harassing fire fell on Hill Mass 314 every 15 min.

Hill 660

No activity was reported.

15 SEPTEMBER

The 10th AAA GP (strength 99) and the 68th (strength 776) and 78th (strength 368) AAA Bns were attached to the 1st Cav Div. In the absence of enemy aircraft, the 90-mm guns of the 68th AAA Bn, which had only landed in Korea on 6 September, fired its first missions on enemy ground targets on 15 or 16 September. The other AAA units may have been used actively in the same role.

Hill Mass 570

At 0420 the 2d Bn, 8th Cav was attacked by an estimated ten to twenty enemy troops; they were driven off by 0440.

The enemy was not abandoning the hill. During the morning an observer reported enemy activity in the two villages nearby in the valley to the east. At 1400 tank and mortar fire were received. A later report stated: "1720. From 8th Cavalry: My troops on Hill 570 have had 4 KIA and 40 WIA from mortars so far today. Artillery can't seem to stop it."¹ By evening the fire slackened off to a few occasional rounds. A prisoner from the 13th NK Div captured early the next morning near Hill 660 pinpointed eight 120-mm mortars at Tabu-dong.

Hill Mass 314

At 0900, the 3d Bn, 7th Cav Regt sent out a large patrol to reconnoiter and to contact the 15th ROK Regt to the east. The battalion contacted the enemy and suffered several casualties.

At 2210 some mortar fire was received on the OP on the hill.

Hill 660

Except for 12 to 15 rd of 14.7-mm fire received at 2300, no enemy activity was reported.

16 SEPTEMBER

With the arrival of its 1st Bn the entire 5th Inf Regt was present. Its total strength of about 2580 significantly increased friendly capabilities in the 1st Cav Div area.

Hill Mass 570

Enemy attacks were reported during the day, as follows:

1050. From Scrappy 3: 8th Cavalry states they are receiving heavy small arms fire from enemy force north and east of Hill 570. One platoon of the 8th Cavalry had advanced beyond Hill 570 but was called back. The enemy force had an estimated strength of 150 and attacked toward Hill 570 from the northeast.

1200. From Scrappy 3. Enemy attack still in progress on Hill 570. We still hold the hill. Appears to be a lessening of pressure by the enemy. Some movement to the west of the hill. Cannot hit with artillery.

1245. Scrappy 2 reports that at 1100 hours the 2d Battalion was attacked by 225 enemy from 1154.4-1457.0. Attack dispersed by mortars. Used 100 rounds.

1350. From Spirit 3. At 1153.4-1459.6 there are reported to be 800 enemy troops. At 1150.0-1460.6 are four 120mm mortars. The 99th FA Battalion will fire a TOT on these two areas.

1825. From G-2. Spirit 2 reports FO of Company E, 8th Cavalry states North Koreans are pounding Hill 570 continuously with artillery and mortars (predominately estimated to be 82mm mortars). Mortars are located at 1153.9-1456.9 and 1154.1-1458.1. Artillery is located at 1152.0-1459.1 and 1152.7-1457.9. The observer estimates he saw 300 enemy KIA by artillery fire and 100 KIA by small arms. Along the west slope there appears to be more dead, but he was unable to count them. There is enemy traffic on north and south road west of Hill 570. Our forces have withdrawn to south part of Hill 570, the point on the map where the 570-mark shows.⁴

Hill Mass 314

At 0200 a ROK company attached to the 3d Bn, 7th Cav broke up an attack by an enemy platoon, described by a prisoner as a suicide mission to capture Hill 660.

Hill 660

The 2d Bn, 7th Cav was relieved on Hill 660 for offensive action further to the west in the 5th Cav Regt sector. One company of ROK police moved back onto Hill 660.

17--21 SEPTEMBER

As a consequence of the successful US landing at Inchon on 15 September, the plans for the break-out from the UN perimeter were put into effect on 16 September, with attacks all around the perimeter. Within the zone of the 1st Cav Div the main effort got under way on 17 September. The division's initial thrust northwest to the Naktong River was made by the 5th Cav Regt, the attached 5th Inf Regt, and the 2d Bn of the 7th Cav Regt. The 3d Bn, 8th Cav Regt participated in the offensive by attacking objectives on the regiment's left flank. Against stubborn enemy resistance, this general effort gradually produced gains.

In the 8th Cav zone, the aggressive patrolling of the 1st Bn produced sharp reactions. Up to 18 September the 2d Bn was still being subjected to intense enemy fire and to attacks against its positions on Hill Mass 570. On 19 September a coordinated friendly operation was ordered, in which the 2d Bn was to take all of the hill mass, while the 1st Bn, with tank support, was to patrol north to Tabu-dong and then seize the village. The remainder of Hill Mass 570 was taken with little opposition, but the 1st Bn was stopped short of Tongmyongwon by enemy resistance which caused at least 31 casualties in Co B, and by the fact that the tanks could not advance beyond a blown bridge and mined bypass at 1153.2-1455.0.

The 8th Cav renewed its attack to the north on 20 September. Company B, 8th Cav Regt, and two platoons of tanks of Co B, 70th Tk Bn again moved up the highway, while Co F, 8th Cav Regt apparently advanced from the newly won forward positions on Hill Mass 570. After an advance of about a thousand yards, the friendly attack was stalled by another blown bridge and mined bypass in the vicinity 1153.0-1456.7 and by intense crossfires of artillery and automatic weapons from the approaches to the Walled City and the hills west of Tabu-dong. Company B suffered at least 23 casualties, and Co F at least 22; three tanks were put out of action by AT mines (all-wooden construction and difficult to detect). Friendly units withdrew to their original positions.

To the northeast, ROK forces continued to gain toward the Walled City in their frontal attack along the ridge, but the fighting was seesaw and they were stopped by the tenacious defense of the Walled City itself. They did succeed, however, in slipping past it and penetrating well to the north. Turning this advance to the south and west, they now threatened to envelop the Walled City. On the morning of 19 September, they took the road junction 3 miles north of Tabu-dong—the area from which the 13th NK Div had launched its offensive on 2 September—and at 1200 the 1st Bn of the 15th ROK Regt moved on south to take up positions on the west side of the highway only 1 3/4 miles north of Tabu-dong, at 1141.3-1462.8. By this time, a ROK company had taken Hill 902 within the Walled City. As of 1240 on 20 September, 2000 ROK troops had moved into the area between the road junction 3 miles north of Tabu-dong and a point within 1 3/4 miles of the village. Despite its continuing resistance, the 13th NK Div was definitely cut off. During the night, its chief of staff slipped away to the south and at 0700 on 21 September surrendered to the 8th Cav Regt at 1153.3-1454.3.

The 1st and 3d Bns of the 7th Cav Regt were withdrawn from their positions adjacent to the 8th Cav Regt on 19 September and recommitted to the west to relieve the 5th Cav Regt. After attacking westward in the Waegwan area, the 1st Bn was given the new mission of making a long, encircling movement behind enemy lines along the Waegwan-Tabu-dong road, with the 3d Bn following and, if necessary, relieving it for attack on Tabu-dong. On 21 September, the 1st Bn and tanks of Co C, 70th Tk Bn covered the more than 5 miles to Tabu-dong and took the village, at 1400, at the cost of few casualties. To the south, the enemy continued to oppose the 8th Cav (Co B had at least 15 more casualties on 21 September) and tanks of Co B, 70th Tk Bn. Finally, at 1700, the 2 tank-infantry forces made contact on the Taegu road 1 1/2 miles south of Tabu-dong.

Many prisoners were taken; for example, Co C, 7th Cav reported 35. They were chiefly from the 19th NK Regt. However, the enemy did not surrender en masse, but slipped away into the hills.

All around the perimeter, enemy lines were crumbling.

~~SECRET~~

UNCLASSIFIED

Part II

ENEMY AND FRIENDLY TROOPS AND SUPPORT

~~SECRET~~

UNCLASSIFIED

ENEMY UNITS

This section is based chiefly on reports of interrogation of prisoners of war and on captured enemy documents. Those journal entries which give information on prisoners just captured or observations of enemy movements are also used. Because the enemy situation has been worked out in retrospect from these data, it is natural that the present identification of some units differs from that carried in intelligence estimates current at the time of the action and necessarily based on less complete information. Very little recourse is made to general intelligence analyses of the time, partly for this reason and also so that the findings will follow directly from the raw data. Though the present analysis has not been examined by 1st Cav Div personnel, the enemy situation in outline has been discussed with the former S-2 of the division, and he proffered no alternate view.

Much of the possible utility of the interrogation reports for the purposes of this study was not realized, because of the incompleteness, inconsistency, and inaccuracy of the reporting of data furnished by the prisoners. There are sometimes discrepancies in the reporting of the same event or unit designation or date even within one document. The prisoner-of-war (POW) tags called for the time and place of capture and the friendly unit concerned, but often this valuable information does not appear in the report, and one must accept such data on these points as may have been given during interrogation by an ignorant and confused enemy recruit.

Many of the interrogation reports are reproduced in full or part in App A. In the text below, these are designated appropriately; in any case, the interrogating unit is specified. Most of them are referred to by their Allied Translator and Interpreter Service (ATIS) number. Those of these which were viewed in earlier identical form are referred to by Advanced ATIS (ADVATIS) numbers or by 164th Military Intelligence Service Detachment Interrogation (164th MISDI) designations. Several reports of interrogations carried out within the 1st Cav Div are also cited. These reports are the richest in tactical information and the most consistent in the facts reported.

GENERAL SITUATION AND ENEMY INTENTIONS

At the beginning of September 1950, three enemy divisions launched an offensive to capture Taegu from the north. Disposed along a line running east from the Nakdong River in the vicinity of Hill 518, the 3d NK Div faced the 7th

Cav Regt. To the east there was a gap of rough terrain almost unoccupied by either side. Due north of Taegu the 13th NK Div was concentrated astride the highway which leads south to the city through the village of Tabu-dong. Among the rough ridges on its eastern flank, the 1st NK Div opposed units of the 1st ROK Div.

The 13th NK Div had followed the 1st NK Div through Sangju and as far as Naktong-ni. From here, it fought south and east until it was stopped short of Tabu-dong by the 27th RCT. The 13th Div's mission in the new offensive was recorded in a notebook by its chief-of-staff* in a meeting 30 Aug 50, as follows:

(a) To operate in our Div main offensive direction date 2 Sep. Three days for preparation for attack. Begin attack at 1800 hours 2 Sept. (Arty firing for 15 minutes). After capture of Taegu City, advance 15-20 km south from Taegu and give Taegu strong defense.

(b) Supreme CG directive rush on 6 km at the first time.

(c) Advance before daybreak.

(d) 1st Div at the left side, 3d Div at the right side.

(e) ... (n)

Ammunition: every private 226, Regt 0.5, Div 0.5, Arty 1.5, Arty 1, Div 0.5.

[Basic load of regimental artillery was 60 rd per piece, and 120 rd per piece were issued at this time (Item 1, App A).]

Provision cooked for 2 days, raw food for 2 days.

.....

UISONG 3000 men.

ANDONG 1000 men.

Commanding Post 170 men.

.....

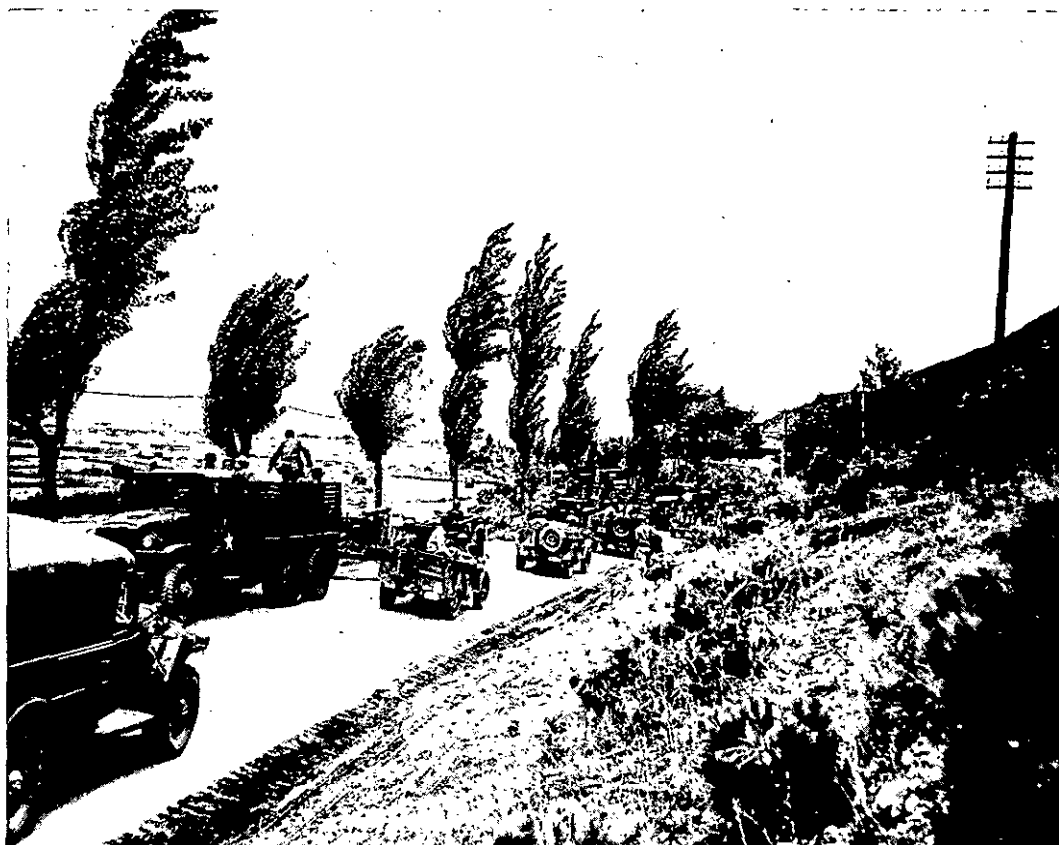
MU JONG
CG, 2 Corps

The entries for Uisong and Andong refer to replacement pools, and this subject is analyzed later in this section. As reported in Part I, the attack by the 19th Regt, 13th NK Div was disclosed by the 19th Regt S-3, who surrendered on 1 September. Nevertheless, the attack was carried out on the evening of 2 September just as ordered. From the food allowance it would seem that a period of four days was allowed for the first phase of the offensive. As noted in Part I, by 6 September the enemy had advanced little more than 4 of the 6 km prescribed for the first rush.

After the penetration by the 13th Div and the wide advance of the 1st Div which it facilitated, both divisions were given the same mission: reach Taegu via Chilgok in the Bowling Alley. (Figure 4 is a photograph of this corridor and the highway just north of Taegu.) Intelligence relayed at 1745 on 10 September¹⁴ reported that the commander of an enemy corps would attempt to take Chilgok by envelopment. The now rather spread-out units of the 1st Div would

* Surrendered on 21 September. See 164th MISDI 0930 or its apparent reproduction ATIS 1468. This lengthy interrogation report is unusually rich in tactical detail and in background information on the 13th NK Div and North Korean forces in general. An earlier, briefer interrogation of the same prisoner, ATIS 1293, is concerned mainly with strategic matters.

evidently have to converge sharply upon this avenue of advance. Prisoners of war stated that the operations of the two divisions were coordinated but offered no details. On 10 September informants behind enemy lines also reported that the enemy was having trouble in coordinating the offensive, and that a party of high-ranking officers was to visit the front. This visit seemingly took place on 10 September, a quiet day; at 1700 an official-looking party was observed in the valley between Hill 660 and the Walled City. Two or three enemy tanks were reported at 1747 at 1153-1456, further south than they had ever been. During the night and following morning intense enemy pressure was applied.



Wide World

Fig. 4—View up the "Bowling Alley" from point just northwest of Taegu. View to the north taken 18 Sep 50 at coordinates 59.4-72.7 (m). Shows the road which was the axis of enemy advance from Tabu-dong.

Appendix B is a battle order of the 3d NK Div drafted on 11 September. On 12 September the entire division, which was now opposed by the 5th Cav Regt, was to attack in coordination with the "motorized artillery regiment" on its right flank* and the 13th NK Div on its left. Since the 13th Div had been

*According to a prisoner captured at 1137-1446 on 16 September, the 65th Mecz Regt, 105th NK Armd Div, minus tanks, only crossed the Naktong over the damaged bridge at Waegwan at 0600 on 14 September, and then moved south.¹

rather inactive after its offensive stalled south of Tabu-dong, it would appear that it was now in condition to take over from the 1st NK Div the general offensive in the 8th Cav zone.

Several points in the 3d Div order are of note as probably typical of enemy operations at this time: (a) The friendly defense was considered to be a discontinuous line of independent outposts. (b) The enemy planned to advance by taking hill mass after hill mass rather than by slipping through the friendly defenses. (c) All three regiments were to attack abreast without a reserve regiment. (d) Artillery was to "protect infantry with continuous fire until end of an attack."

According to the 13th Div CofS North Korean units were not limited by geographical boundaries, and simply regarded territory in line with their assigned objectives as their area of operations.* Overlapping of the 1st and 13th Divs as they converged upon Taegu was therefore to be expected. There is evidence that at least for a brief time Hill Masses 570 and 314 were both occupied by units of both divisions. This could have been as much the result of poor control as the execution of a plan, for, according to the CofS, when the 13th Division made a limited advance toward the end of August it lost all contact with the regiments, and they were located only after the division staff officer scoured the hills for them. On the other hand, control of small units on occasion may have been formally transferred. For example, prisoners from the 14th Regt, 1st NK Div said they were unfamiliar with the regiment to which they were assigned on Hill 570 (this was certainly the 19th Regt, 13th NK Div).

There was little if any consideration of strategic withdrawal at any time in the enemy maneuvering north of Taegu. The CofS stated that news of the UN landing at Inchon on 15 September had not reached him at the time of his desertion on the night of 20 - 21 September, and that the only plan for his division was to defend in place. The course of the fighting confirms this statement. According to a prisoner from the 1st NK Div, almost daily conferences of its top command were held during the third week of September when the division was being enveloped by ROK forces, but suitable defensive tactics could not be arrived at because of the rapidly changing situation.

COMPOSITION AND CONDITION OF UNITS AT MID-SEPTEMBER

Analysis of information obtained from POWs indicates that by mid-September enemy companies were often committed singly or in pairs rather than as components of entire battalions. Enemy divisions appear to have become as much pools for the receipt, organization, and expenditure of low-grade manpower as integral tactical units. Such operating procedure would have been consistent with the enemy's replacement situation at this time. The introduction of rather large groups of recently conscripted and almost untrained North Koreans appears to have first occurred toward the end of August, and the large pools of impressed untrained South Koreans were first drawn on at the end of that month. By mid-September regiments were reported composed of as much as 70 percent replacements, a considerable proportion conscripted in South Korea.

* But see the 3d Div battle order, App B, in which regimental sectors are defined.

Morale of the surviving trained North Koreans, who formed the hard cores of units, was probably still high because of the prospect of imminent success, but the morale of the recently conscripted North Koreans was poor, that of the South Koreans certainly very low. In the interrogation report ATIS 1149 (Item 7, App A) a North Korean recently drafted into the 14th Regt, an experienced unit which had trained in Manchuria, stated:

Morale was very low. The men were aware that the majority of them were untrained and that the units were understrength. Consequently, the men were very reluctant to become involved in aggressive warfare. Some of the men refused to advance while the unit was under fire, and subject saw three men of his platoon being killed by his platoon leader for this reason. The unit commander had much difficulty in controlling the troops under fire because the inexperienced men were panicky.

It is not surprising that almost all soldiers who became POWs had been replacements.

With insufficient weapons and such a high proportion of poorly trained troops, the enemy appears to have devised appropriate tactics. One interrogation report (ATIS 1103; Item 8, App A) describes how recruits, some of them unarmed, were driven into a suicidal assault before the guns of a second wave of trained troops. An intelligence study made at that time states that it was usual for the enemy to attempt to wear down friendly defenses by the sheer pressure of masses of untrained troops before the decisive attack by more combatworthy units. The following rather curious statement by a prisoner (Item 9, App A) suggests how necessary such piecemeal commitment must have been: "POW stated the regiment stops at one place and sends out just one company to the front line. If the company is wiped out another company is sent out. Whenever a company is about to be annihilated a runner informs the battalion commander." Further illustration of this technique may be found in ATIS 1149 (Item 7, App A).

Replacements were sent up to forward units but apparently not to any appreciable extent to those in active combat. Thus, as shown below, 14th Regt units on the 480-m peak on Hill Mass 570 were not appreciably strengthened during their attacks on Hill 373, even though 19th Regt units just to the rear on Hill 570 itself were receiving massive consignments of replacements.

In the detailed analysis of unit movements which follows, the enemy's personnel situation must be kept in mind. Companies were apparently kept in combat until a very high percentage of casualties had been sustained, but very often this occurred in a single engagement. Remaining personnel were then withdrawn as a nucleus to which green replacements could be attached to bring the unit back to somewhere near normal strength. In the 1st NK Div in general there was evidently a high degree of depletion around 10 September. One prisoner, a senior lieutenant and commander of the division's antitank battalion, stated (ADVATIS 0875) that he heard that the 2d and 3d Regts were ordered to withdraw from the front line and assemble at Kunwi on 16 September.* As appears in the detailed analysis, the 14th Regt was in much the same need,

* The same document also gives the date as 10 September. Other POW information¹ states that the decision to withdraw two regiments to Kunwi was made known in a meeting of the 1st NK Kiv held on 14 September.

but replenished its depleted companies near the front at the Walled City while some of its other companies remained in combat.

An indication of the rapidity of attrition of enemy units is furnished by the interrogation report (ADVATIS 0936) of a medical officer of the 13th Div, a major captured on 23 September. He restated the fact widely reported by prisoners that the enemy dead were left where they fell. Front-line soldiers were not permitted to carry the wounded to the rear, even though there were not enough medical personnel to collect, evacuate and treat them. Eighty per cent of the wounded who might otherwise have been saved died because of the primitive medical facilities and complete lack of vehicular transport at the regimental level. The major apparently was referring to cases requiring evacuation, for he stated that soldiers with flesh wounds were treated immediately and sent back to the front. His estimate that the number of wounded was about the same as the number killed would agree with the following assumed situation: on the battlefield, one killed in action to every three wounded (as with the US Army); of every three wounded about one-third wounded seriously (most of these also die). Thus, of every four enemy casualties, one is KIA, one is DOW, and two are WIA. In view of the massive flow of replacements, it is immaterial when the WIAs return to duty.

With such enormous transfusions of replacements flowing into unengaged units, the total strength of a division or regiment on a particular day is not a good indication of the effective strength of the force opposing friendly units. The proper quantity would appear to be the number and actual strengths of the companies in active contact. With such an improvisatory enemy situation it is difficult to account for individual companies. It appears logical to assume that newly committed companies had been padded to somewhere near TO strength, if not to TE equipment. For units that had been in sustained combat a much lower average strength must be assumed.

Figure 5 is given as a basis for strength calculations. It is based on testimony of a 1st Div officer captured on 16 September. The many subunits in the organizational chart that he omitted, intentionally or otherwise, have been filled in from statements made by a 15th Div officer captured on 14 September. The latter prisoner also estimated the standard strength figures shown with the different units. These amount to a regimental strength of 2423, a figure which agrees with the approximate total of 2500 given by other prisoners. This probably was the assigned regimental strength at the time; the figure of 2810 carried by US intelligence would seem to be authorized full strength. The number given by the CofS of the 13th Div was 2700. Numerous prisoners mentioned actual regimental strength figures in the range 1000 to 1200 and gave the strengths of their own companies as around 60, proportionately low in relation to the TO company strength of 150 given in Fig. 5.

The omission of subunits from the battalions of the 1st Div shown in Fig. 5 may be significant, and may represent deterioration in the organization due to lack of weapons, equipment, and trained men. Therefore, where more definite information is not available, a battalion is assumed to be made up, on the average, of: 2 combat-worn rifle companies, perhaps incorporating specialized remnants, with a strength of 60 each; a newly committed rifle company with a strength of 120; and a newly committed 82-mm mortar or machine-gun

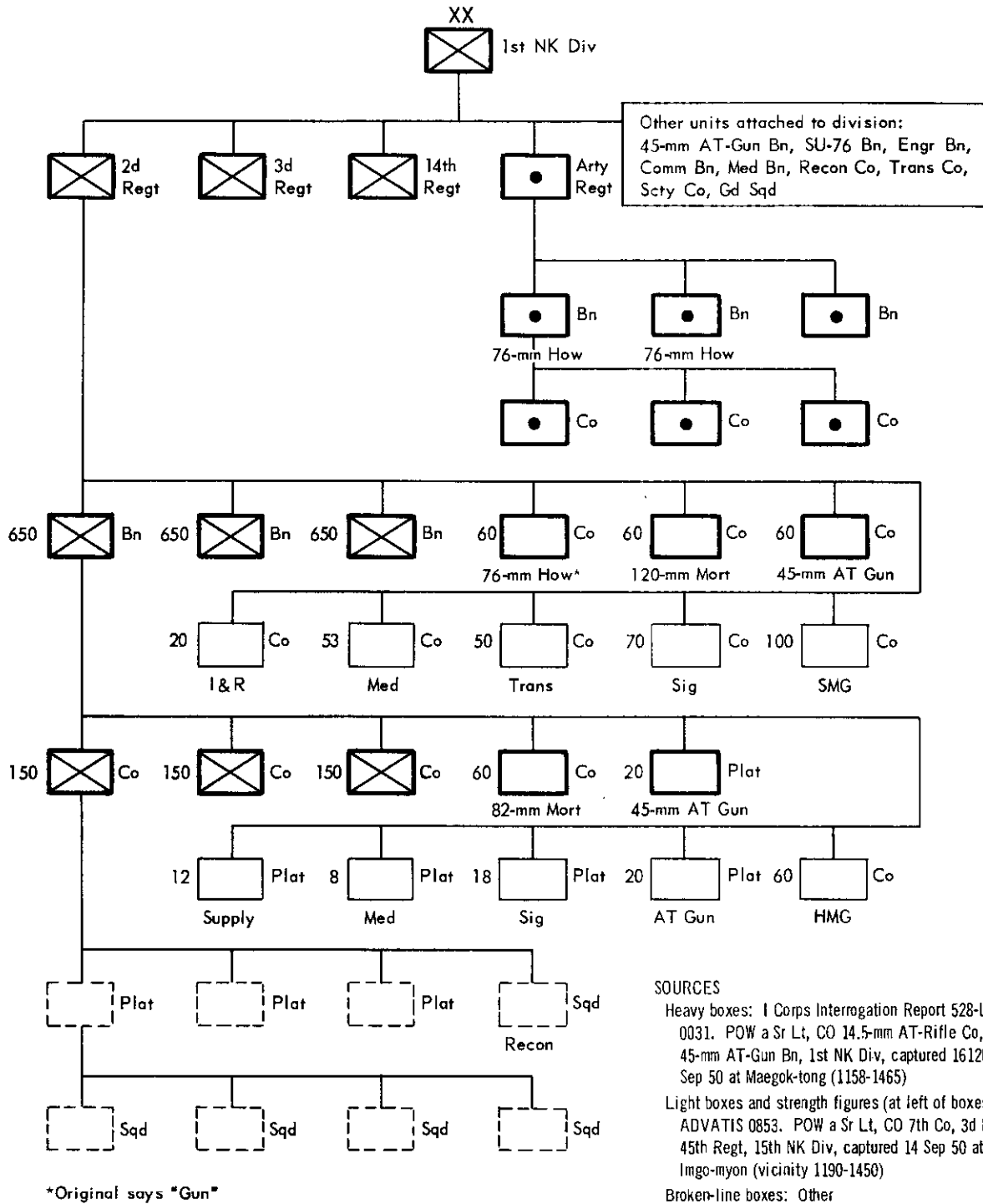


Fig. 5—Organization of the North Korean rifle regiment and, in particular, of the 1st NK Div, in September 1950.

company with a strength of 40. Total battalion strength is then 280; regimental strength would be 1120.

Information supporting the assumptions above can be found in the testimony or prisoners captured in the area under study. For example: a prisoner from the 3d Bn of the 14th Regt (ATIS 1155), which had fought on Hill 570, stated that as of 11 September, even after replacements were received, the strength of his 7th Co was only 75 and that the equipment of the company, other than rifles, then comprised 2 heavy machine guns and 3 light machine guns; the prisoner from the 5th Co, 2d Bn, 2d Regt captured on Hill 314 on 12 September (ATIS 1142; Item 10, App A) stated that the battalion had a strength of 100 and consisted of 3 rifle companies, a heavy machine gun company, and a mortar company, but that the mortars were issued to the rifle companies during engagements (since presumably the mortar company itself was so depleted it was unable fully to use them). The other prisoner who had been on Hill 314 during the battle on 12 September was from the 2d Bn of the 14th Regt. This battalion had been badly beaten at Hill 373 and evidently was withdrawn to Kasan. There on 11 September the prisoner was one of 80 replacements joined to its 4th Co, bringing the company strength to 120, or almost the TO level. The HMG Co was brought to a strength of 40 and equipped with 5 machine guns, and both companies were recommitted to combat, this time on Hill 314.

IDENTITY AND MOVEMENT OF PARTICULAR UNITS

In this subsection an attempt is made to reconstruct from all available data the identity and movement of the battalions and companies of the 13th and 1st NK Divs after they moved into the Tabu-dong area. Especial attention is given to dispositions on Hills 373, 570, and 314 as of 12 September. Since much of the information is incomplete, ambiguous, even self-contradictory, and was often supplied by uneducated farmers only just impressed into enemy service, it is inevitable that the connections made between the reported facts are often devious and tenuous. It is believed, however, that the pattern of events which has been reconstructed is not in conflict with any confirmed friendly observations of enemy disposition and movement.

The first of the subdivisions which follow is devoted to the units of the 13th Div. It divides naturally into two periods—that before and that after the lull in the division's activity around 8 September. The second subdivision follows the respective regiments and battalions of the 1st Div throughout the over-all period under study. Table 1 summarizes the location of units of both divisions on 12 September.

The 13th North Korean Division

Unit Locations through 8 September. Information on the movement of the 13th Div to the Tabu-dong area appears in the report of interrogation of the S-3 of the 19th Regt, sections of which are reproduced as Item 1, App A. By 19 August, the 23d Regt was deployed 1 km southwest of that road junction 3 miles north of Tabu-dong on the northern slope of the hill mass called Yuhak-san, the 21st Regt was deployed 1 km to the southeast of the junction, and the 19th Regt was in reserve in the Sangjang-dong area, about 3 1/4 miles to the

northwest on the Sangju road. On 20 August, the 21st Regt moved across the Taegu road to the southeast slopes of Yuhak-san to escape intense shelling, and the 19th Regt moved up to take its place. The 2d Bn in turn became disorganized by friendly artillery fire, and this contributed to the failure of the division's attack on 21 August. After the attack, the units fell back to their original positions and maintained them through the time of the S-3's desertion on 1 September.

TABLE 1

PROBABLE LOCATION OF ENEMY UNITS IN VICINITY OF
HILL MASS 314 ON MORNING OF 12 SEP 50

Unit	Location			
	Hill Mass 314	480-meter peak	570-meter peak	Elsewhere
19th Regt, 13th Div				
1st Bn	—	—	Bn ^a	—
2d Bn	—	—	—	Bn, Not 570 ^b
3d Bn	Bn ^b	—	—	—
14th Regt, 1st Div				
1st Bn	2 Co	—	—	2 Co unaccounted
2d Bn	—	Bn ^{b,c}	—	—
3d Bn	—	2 Co ^c	2 Co ^c	2 Co to NE ^a
2d Regt, 1st Div				
1st Bn	Bn ^c	—	—	—
2d Bn	3 Co	—	—	—
3d Bn	—	—	—	Unlocated
Total present, AM, 12 September	1 Bn, 5 Co	Remnants	1 Bn (+?b)	—

^aLocated on positive evidence.

^bLack of direct evidence for location.

^cUnits probably destroyed, depleted, or withdrawn in previous fighting at or near specified locations.

The following logged message gives explicit information evidently furnished by the S-3 shortly after his capture:

021920K. From G-2. Interrogation of POW of 19th Regiment, 13th Division reveals:

At 1153.5-1465.7 on trail is the headquarters of the 13th NK Inf Div [or rather, the 19th Regt, 12th Div?].

At 1150.9-1464.4 is the headquarters of the 23d NK Regiment.

At 1149.8-1462.9 [?] is the headquarters of the 21st NK Regiment.

At 1150.2-1466.95 are 5 x 120mm mortars.

At 1150.3-1466.90 are 4 x 76 mm guns.

At 1151.3-1466.0 are 3 x 45mm guns.

At 1151.5-1466.0 are 3 x 45mm guns.¹

The rather forward location specified as the site of the 13th Div Hq is doubtless that of the 19th Regt Hq, which of course was well known to the prisoner and was not otherwise recorded. The stated location of the headquarters

of the 21st Regt falls just within friendly lines and is probably the site as of 21 August, when the regiment attacked and then fell back somewhat to the rear of its original positions. All the weapons positions are in the vicinity of the road junction. It therefore seems very likely that the 13th Div was still astride the road, with the 21st and 23d Regts on the west side and the 19th Regt on the east. As may be seen from the strength figures of Table 2 (shown later in this section), such deployment would have produced the best balance of 13th Div forces across its axis of advance. Furthermore, a prisoner from the 1st Bn, 19th Regt captured on 12 September (Items 2 and 3, App A) stated that he joined his unit on 3 September northeast of Tabu-dong in the vicinity of Hill 742.

Some information on succeeding movements appears in the interrogation report (ATIS 1518) on a political officer, a captain attached to the 19th Regt 45-mm AT-gun Co, who was captured just south of Tabu-dong on 24 September. The report states that the 19th Regt moved to Tabu-dong around 3 September and that:

o/a 6 September. All the artillery pieces (122mm howitzers, 76mm mountain guns, 76mm AT guns and 45mm AT guns) of the 13th Division were in position along the hills located approximately two kilometers south of Tabu-dong. All the infantry troops had advanced further south at this time. POW's company (45mm AT Company) was attached to the 45mm AT-gun Battalion, which was directly under the 13th Division. All the artillery units waited two kilometers south of Tabu-dong until 22 September 1950.

Few prisoners from the 13th NK Div were taken during the first phase of the enemy offensive. The meager evidence which follows is taken from the several pertinent interrogation reports, indicates that all three regiments were close to the front, and tends to confirm the conclusion that the 21st and 23d Regts initially were to the west of the highway. All three regiments had apparently been committed, at least in part, by 8 September.

If the following report can be taken as approximately true, it would indicate that the 19th Regt had ceased offensive operations by 5 September to receive replacements, and that the now possibly strengthened 21st Regt had moved over to the east to take over the 19th Regt positions, while the 23d Regt remained on the west side:

051915. From G-2. Scrappy 2 reports... have captured a prisoner from the Medical Detachment, 19th Regiment, 13th North Korean Division. He claims that the 19th Regiment is 3,000 strong and is located at Tabu-dong (1150.1-1460.4). He states that the 21st Regiment is located on Hill 466.3 at 1152.9-1460.4; the 23d Regiment, 13th Division is on Hill 449 at 1150.7-1459.5. He states that the 19th Regiment's Headquarters is at the village of Tabu-dong; the headquarters of the 21st and 23d Regiments are located on top of their respective hills. Five artillery guns were located last night (2400 hours) at Soya (1150.8-1460.1); five mortars were located on top of Hill 449 at 1150.7-1459.5.¹

This prisoner was evidently the subject of ADVATIS 0720, which states that a member of the 19th Regt First Aid Plat was captured on 5 September at 1152.0-1459.0, a point along the Taegu road 1 1/4 miles southwest of Tabu-dong.

On 8 September a patrol from Co A, 8th Cav Regt captured a private of the 1st Bn, 21st Regt at 1149.5-1459.5, just south of Tabu-dong and west of

the highway between Hills 516 and 449 (164th MISDI 0789). He stated that his company had previously been attacked at Tabu-dong by US forces.

At 0700 on 8 September Co A, 8th Cav also took a private (who had separated from his unit) of the 2d Bn, 23d Regt at a point reported as 4 km north of Tabu-dong but certainly elsewhere—from the Co A location, probably somewhere to the west of the highway and 4 km south of Tabu-dong (164th MISDI 0796).

Unit Locations after 8 September. The following report indicates that the regiments of the 13th Div were still in the vicinity of Tabu-dong on 8 September:

090320. From S-2, 8th Cavalry. POW picked up at 090220 Sep is a wire man of the 13th Div Signal Battalion. The North Korean 19th Regiment is located on and in the vicinity of Hill 466 (1152.0-1460.4). The 21st North Korean Regiment is located on the east slope of Hill 516 (1148.9-1459.9) as of 082400. The 13th Division's OP [sic, CP?] is located by a bridge (1150.8-1461.0) on the northwest side of the road approximately 1,000 yards north from the road junction at Tabu-dong (1150.1-1460.3) as of 082400....¹

The interrogation report on this prisoner contains no tactical information.

The locations of the 13th Div major units on 20 September were given by its CofS (164th MISDI 0930) as follows: 23d Regt south of Tabu-dong at approximately 1150-1457, 21st Regt east of Tabu-dong, and 19th Regt along the southern wall of the Walled City. The 13 Div CP was at 1150.3-1461.0. The principal over-all changes in position from 8 to 20 September were then advance of the 23d Regt to the south and displacement of the 19th Regt to the east. More detailed information follows.

At 1830 on 10 September a rifleman of an enemy patrol was captured just north of Hill 225 by Co B, 8th Cav. The prisoner, who was wounded, said that he belonged to the 19th Regt and that the regiment was on both sides of the Taegu-Tabu-dong highway in the vicinity 1153.0-1456.6, and that the 21st and 23d Regts of the 13th Div were to the west. This information would place the 19th Regt on Hill 263 and perhaps Hill 351, as well as on Hill 570.

A prisoner from the 3d Bn, 23d Regt (see below), who was captured on 12 September in the vicinity, 2 1/2 miles southwest of Hill 373, stated that the 21st and 23d Regts were located to the north of Hill 307, and that the 23d Regt had a strength of 1400. The only possible location for such a large unit would be Maebong-San, Hill 624. The presence there of the 23d Regt would mean that the 19th Regt was deployed no further to the east than Hills 351 and 263.

On 10 September a private deserted the 3d Co, 1st Bn, 19th Regt after it had undergone artillery and air attack on Hill 570. He surrendered at 0800, 12 September to Co F, 8th Cav at the southwest edge of Hill 373 near the highway. Reports of two interrogations of this soldier are available, and both are reproduced in full in App A. Item 2, App A gives the interrogation by the 1st Cav Div, Item 3 that by ATIS (1158). The prisoner, a replacement from North Korea, said that he was assigned to the 1st Bn on 3 September at a hill thought by the interrogator to be Hill 742, somewhat north of Tabu-dong and 2 miles east east of the highway. The 1st Bn departed from this location for the Walled City, to leave for Hill 570 on 9 September with an estimated strength of 200. The 1st Bn Hq was located at the north end of the Hill 570 ridge. According to the prisoner, when last he had been with his own platoon, 10 of the original 17 men were left.

This private was one of a group of 1000 replacements from North Korea who passed through Wonju on 28 August. Further information was obtained from 3 South Koreans who had been impressed at Wonju into another group of 1000 and included in a detachment of 300 also dispatched from there around 29 August as replacements for the 1st Bn, 19th Regt. The 1st Cav Div report on the interrogation of these men is reproduced in full in App A as Item 4. The 3 men, with 27 others, arrived at Hill 570 on 10 September and were assigned to the Mort Co, 1st Bn, 19th Regt, bringing its strength up to 60 men. They stated further that the 1st, 2d, and 3d Bns of the 19th Regt were all in the vicinity of Hill 570, and that the strength of the entire regiment, including replacements, was about 1000 men. This figure is confirmed by enemy statistics compiled on 11 September (see Table 3 later in this section) listing for the 19th Regt a strength of 1024 (846 privates, 148 NCOs, and 30 officers).

The fact that on 12 September Hill 570 was occupied by one enemy battalion with a strength of 200 or 250 is confirmed by the following report:

121330. Divarty S-2 reports: ... At 1154.9-1456.1 (saddle on Hill 570) [on present map these are coordinates of a point on the east side of the 570-m peak] 100 people dug in (west side of saddle). Also, on east side of saddle ammo boxes, 50 soldiers and mortars dug in. At 1154.9-1455.0 (top of Hill 570) [on present map, the coordinates of the 480-m peak] 100 people dug in...¹

The estimated total of 250 enemy personnel observed would be just right for one battalion of the 19th Regt at this time. The observation of "50 soldiers and mortars" agrees remarkably well with the prisoners' statement that the 60-man mortar company, with certainly 1 mortar (and probably at least 3), was deployed on the ridge within a 200-m circle.

As a result of the attack on Hill 570 on 14 September by the 2d Bn, 8th Cav a number of additional prisoners from the 1st Bn, 19th NK Regt were taken. The subject of ATIS 1165 was captured on 14 September, and may be one of the three prisoners reported above; the subjects of ATIS 1193, 1203, 1215, 1218, and 1237 were all taken on 15 September. Several of their statements on the 8th Cav Regt attack are of interest. ATIS 1203 states:

o/a 10 Sep. 19th Regiment Headquarters located approximately three kilometers south of Kasan. The 70 men were separated into squads and took positions along the hills located approximately four kilometers south of Kasan. The troops dug foxholes and remained there for about four days.

14 Sep. US troops started to attack with artillery, mortars, machine guns. The 1st Company [of the 1st Bn] retreated to the 19th Regiment Headquarters area (three kilometers south of Kasan). After the firing ceased in the evening, the troops advanced toward the US positions. About 50 men, including the POW, came as close as 50 meters to the US positions.

14 Sep. [night of 14-15 Sep]. The 50 men were discovered by US troops. The US troops fired machine guns, and many North Koreans were killed. Some of the North Koreans escaped, but the POW and two others were captured by US troops at the point 1154.6-1456.1 [570-m peak].

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On the night (14 Sep) [14-15 Sep] that POW and two others advanced to the US positions, POW heard from his platoon leader that most of the men in the 1st Battalion, 19th Regiment were killed.

The enemy withdrawal in the face of the attack is confirmed by the subject of ATIS 1193, a soldier of the 2d Co, 1st Bn, 19th Regt: "14 Sep. At 1500 hours the regiment was attacked by aircraft, and at the same time artillery shells began to fall in the area. The shelling and air attack lasted until 1900 hours. Losses sustained unknown. The 19th Regiment withdrew immediately after the attack lifted."

What remains is to establish the location of the 2d and 3d Bns of the 19th Regt. One interrogation report, 164th MISDI, is available on the 2d Bn, 19th Regt. The subject, a second lieutenant of its 5th Co, captured on 20 September when he deserted his unit, stated that from 28 August to 20 September he was in the mountains 2 km southeast of Tabu-dong in the vicinity of the Walled City. It is then quite possible that from early September—not 28 August—the 2d Bn remained on the abutment of the Walled City ridge lying just north of Hill Mass 570, and was the reserve battalion of the 19th Regt.

The 3d Bn, 19th Regt may have occupied the fingerlike hill mass (Hills 449, 351, 263) which runs southeast from Tabu-dong. In a recent communication, the former commanding officer of Co B, 8th Cav, which occupied Hill 225 and the unnumbered hill just to the north, stated that at the time one reinforced enemy company was estimated to be on Hill 263. The enemy force stayed there until a platoon of Co C, 8th Cav occupied Hill 263 without casualties about 19 September.

Further information on the 19th Regt was supplied by a prisoner from the 3d Bn, 23d Regt, whose capture on 12 September was recorded as follows:

121030. POW captured in vicinity 1152.8-1451.6 [west side of the Taegu road, south of Hill 373] was member of 3d Battalion, 23d Regiment. Reported his battalion at 200 strength moved to new location 1600 meters northeast of 1151.0-1452.4.³

121300. From Scrappy 2 [8th Cav Regt S-2]: POW states that at 121030 the 3d Battalion of the 23d Regiment, estimated strength of 200, was located in grid square 1150-1452. Report is unconfirmed. POW also states that as of 121100 the 19th Regiment of the 13th Division, with estimated strength of 1000 was on Hill 570 (1154.5-1456). POW stated further that the 3d Battalion of the 1st Infantry Division [sic] was moving today to join forces at 1156-1455 [northern part of Hill Mass 314]. . . . Time and place where 3d Battalion departed from unknown.¹

Unfortunately, no interrogation report is available for this prisoner. It is thought for the following reasons that the reported move to Hill 314 was to be made by the nearby 3d Bn, 19th Regt of the prisoner's own 13th Div: (a) Within the 1st Div, the 3d Bn would have to be that of the 2d or 3d Regt, since the 3d Bn, 14th Regt has been accounted for (see below). The prisoner would probably have no knowledge of these units, as they were disposed to the east. (b) The prisoner meant the 1st Regiment was following the common enemy usage of referring to the lowest numbered regiment of any division as the "1st Regiment."

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The following observations confirm that some battalion, presumably the 3d of the 19th Regt, 13th Div, did move from the 13th Div area toward Hill Mass 314 on 11 September:

111415. From 1st ROK: We have an OP on Hill 660 that observed troops and supplies estimated at one battalion moving on trail 1152.7-1457.5. [These are the coordinates of Tongmyongwon, the village at the northwest edge of Hill 570 where the highway meets the trails that lead to Hill 314.]

111500. From Artillery Liaison Officer with ROK: ... Estimated one battalion of North Korean troops moving east along road at 1152.70-1457.55 to 1155.0-1456.8 [from Tongmyongwon along the trail that skirts the northern rim of Hill 570 to a point 3/4 mile from the northwest edge of Hill Mass 314].¹

Further observation of continued enemy movement in this direction would have been masked to observers on Hill 660 by Hill 314 itself. Since the enemy force was definitely coming from the 13th Div area, and since the 3d Bn of the 19th Regt remains unlocated, it is assumed that they were one and the same. It is further assumed that on the evening of 11 September, the 3d Bn, 19th Regt moved onto Hill 314.

The assumption that units of the 13th Div moved to Hill Mass 314 on 11 September is strongly supported by another move in this direction observed on 12 September. A report states:

121330. Divarty S-2 reports: ... Town at 1152.6-1457.5 [Tongmyongwon] was full of soldiers; soldiers moved from town on trail to 1153.6-1457.8 [village of Tumo at the northernmost point of Hill 570], then along trail southeast to 1154.6-1457.3 [vicinity of the cemetery, 1 mile northwest of Hill 314].¹

Since this move was made during the battle on Hill 314, it could well have been a preparation to send up reinforcements.

The seeming reinforcement of units of the 1st Div on Hill 314 (see below) by units of the 13th Div would only repeat the situation on Hill Mass 570. Furthermore, ADVATIS 0875 gives the statement of the commander of one of the companies of the 1st Div AT Bn that he had heard that the 19th Regt, 13th Div had "reinforced" the 1st Div. According to the CofS of the 13th Div, the 19th Regt did not replace the 1st Div, 2d and 14th Regts at Kansan until 19 September. Therefore, any reinforcing prior to 17 September, the date of the prisoner's statement, must have been south of the Walled City, i.e., on Hill Mass 314, Hill 570, or both. The presence of troops of both divisions on Hill Mass 314 is also suggested by the fact that toward the end of the battle they fled or withdrew to Hill 570 as well as to the north and east, i.e., back to their parent units and in the directions from which they had come.

The plan of attack on Hill Mass 314 by the 3d Bn, 7th Cav Regt (App E) stated that the hill was held by units of the 13th NK Div, but the basis for this estimate is not known.

There is little further information on the 23d Regt to add to that for its 3d Bn on 12 September cited above. On 23 September a private of its 1st Bn (ATIS 1465) was captured. He stated that the last known strength of the 23d Regiment was approximately 300.

No information is available on the 21st Regt.

The 1st North Korean Division

The 1st Div arrived at Kunwi on 17 August (164th MISDI 0824) and was intensely engaged with the ROK Army. The objective of its 14th Regt, and probably of the entire division, was the mountain Palgong-san (Hill 1192, 10 miles east-southeast of Tabu-dong and 10 miles northeast of Taegu). At 1157-1472 on the road south of Kunwi one valley leads southward toward the Walled City and another runs southeast toward Palgong-san. Both valleys were used, but the main weight of the division was sent into the one leading southward. The division's CP, Arty, and SP guns were all located in the vicinity of Kogok-tong (1153.3-1468.2). According to a prisoner from the 1st Div, SP-gun Bn who was captured on 20 September (ATIS 0871), the battalion advanced to Tabu-dong on or about 1 September, and withdrew on or about 8 September. Most of the 14th Regt moved on through the first Su-dong, 3 miles north of the Walled City, to confront ROK units at the second Su-dong, 2 1/2 miles to the southeast.* The 2d Regt and the 2d Bn of the 14th Regt appear to have moved along the southeasterly valley. The 3d Regt seems to have followed and moved between the other regiments. Thus, by 6 September, when all three were reported attacking abreast, the line from west to east was: 14th Regt, 3d Regt, 2d Regt.

One rather puzzling bit of evidence suggests that some troops of the 3d Regt, perhaps only a specialized unit, were sent to the Tabu-dong front to back up the 19th Regt, 13th Div. At 1545 on 4 September a tank dozer of Co C, 70th Tk Bn was sent up to the 8th Cav Regt forward positions. Its loss was reported as follows: "One EM that was with the dozer from Company C reported to the CP with the information that the dozer accomplished its mission and threw a track while trying to turn around. Enemy antitank, mortar and artillery fires were falling. The crew abandoned the tank."¹⁵

On 22 September, after Tabu-dong had been retaken, the disabled dozer was found north of the village. The following statements, apparently in English, were reported by telephone as painted on it: "... on side: 'Sep 4th Destroyed by 3d Regiment, 1st Division'; on dozer blade: 'Victory is with the People Army. Taegu and Pusan Will Fall with the Speed of Winds.'¹⁵

As noted above, the 1st Div SP-gun Bn was said to have moved to Tabu-dong early in September and to have remained there till around 8 September.

Around 31 August, after the division received 2000 replacements, it was stated by prisoners that all three regiments were attacking abreast, and also that the division's mission had in some way been changed. The change appears to have been the reassignment of objectives directly to the south of the 14th Regt and then rather later, to the 2d Regt, since a thrust of this direction was obviously necessary after the 13th Div offensive had stalled just south of Tabu-dong. Palgong-san, however, was still being attacked by the 2d Regt as late as 10 September. All prisoners from the 3d Regt were taken east of the Walled City. It appears almost certain that the 3d Regt was never engaged with US forces. According to the 13th Div CofS, the 19th Regt moved onto the southern slope of the Walled City on 19 September, replacing the 14th and 2d Regts, which had occupied this area, and which now moved back to a point 1 km southwest of Kogok-tong.

* The two villages have the same name and are less than two miles apart.

Information furnished by POWs on the movements of the various battalions of the 14th and 2d Regts is given below. The 14th Regt was also designated the 1st Regt. * At the same time, one prisoner might report his regiment as the 14th, and another, from the same company, as the 1st. Wherever the designation "1st" was given, it has been changed to "14th."

A private of the 1st Co of the 1st Bn, 14th Regt who surrendered to ROK forces near the Walled City on 31 August, said he had joined his unit the same day at a point 4 miles north of the Walled City (ATIS 914). On 3 September a member of the 2d Co of the same battalion deserted, and surrendered at 0800 on 4 September to the ROK Army at Yongchu (1158.5-1459.9). It is evident that the battalion did not move far, if at all, between 31 August and 3 September. Its continued presence in the 8th Cav area is indicated by the statements of the subject of ADVATIS 0747, a private of the 1st Bn HMG Co. This unit, formed entirely of North Korean replacements, joined the battalion on 3 September. After an engagement with US forces on 6 September (in which the company lost 15 of its 80 men), the prisoner sought out US forces, to surrender on 7 September at 1153.3-1453.2, a point on the road to Taegu near Hill 373. The status of the battalion on 2 September is suggested by the following data on its 1st and 2d companies (furnished by the prisoners cited above):

Strength data	1st Bn, 14th NK Regt	
	1st Co	2d Co
Original strength	-	120
Strength 24 August	50	-
Replacements 26 August	40	-
Losses from ROKA, 27 August	20	-
Strength 28 August	70	-
Strength 2 September	-	98

These two companies, if not the entire 1st Bn, appear to have been withdrawn to the north to receive replacements, and then, on 12 September recommitted on Hill 314. The subject of ATIS 1418 (Item 5, App A), a private from the 1st Co, 1st Bn, 14th Regt, was captured by ROK forces on 19 September at a place specified as Namsan-dong, 3 1/2 miles northeast of Hill 314. Probably

*The following explanation of regimental designations within the 1st Div appeared in OB Annex to G-2 EUSAK P/R No. 61, 11 September 1950: "1st Rifle Division: Originally, the infantry regiments of the division were numbered 1st, 2d, and 3d. Upon recall of Korean personnel serving with the Chinese Communist Forces and subsequent activation of the 6th Rifle Division, a regiment—the 14th Infantry—of the 6th Division was transferred into the 1st Rifle Division. This was done for the obvious purpose of boosting combat effectiveness of the 1st Rifle Division through integration of battle-wise and politically indoctrinated personnel of the 6th Rifle Division. In turn, a regiment—the 1st Infantry—of the 1st Division was assigned to the 6th Division. Both regiments retained their original formation and personnel. Further, recent reports indicate that the original regimental designations were also retained. This fact coupled with the North Korean system of arbitrarily referring to the lowest numbered regiments as the 1st Infantry, etc., has caused endless confusion in the identification of infantry regiments of the 1st and 6th Rifle Divisions. Although the picture still remains unclear, for the purpose of clarification, infantry regiments of the 1st Rifle Division will hereafter be referred to as the 14th, 2d, and 3d Infantry."

Namwon-dong is meant, as this village, just northeast of Hill 314, was reached by the advancing 1st ROK Div on 19 September, whereas the division was already 1 3/4 miles beyond Namsan-dong on 17 September. Furthermore, Namwon-dong agrees with the prisoner's statement about an attack that must have been on Hill 314, since only here did US forces attack on 12 September:

12 September. 1st and 2d Companies advanced to a point 16 kilometers north of Taegu and took up positions on a high hill. The hill was attacked by US troops with machine gun and mortar fire, and the two (2) companies fled from the hill towards the north. POW deserted and hid in a village at the foot of the hill for a period of a week.

On 24 August a soldier of the 5th Co of the 2d Bn, 14th Regt was taken in the vicinity of Palgong-san (ADVATIS 0714). On 26 August a private from the same company was captured by the 1st ROK Div at Taesa-dong (1161-1467.7), a village along the valley leading to Palgong-san (164th MISDI 0781). A trained soldier, he had on 23 August rejoined his unit at this point, where, he said it was being reorganized. At 0900, 31 August a member of the 6th Co, 2d Bn was captured at 1127.0 [an impossible coordinate, perhaps a juxtaposition of 1172.0]-1462.4 after he had separated from his unit (ATIS 884). If the first coordinate actually was 1172.0, it would again appear that the battalion was well to the east of Tabu-dong on 31 August. The prisoner stated further that on 31 August the 6th Co had a strength of 50; the 2d Bn, 175, and the 14th Regt, 1000.

A soldier of the 8th Co of the 3d Bn, 14th Regt was taken prisoner by Co E, 8th Cav Regt at 1030, 6 September at 1153.8-1454.3, a point on the Taegu road at Hill 570 (ADVATIS 0725). It was evidently this prisoner who supplied the following preliminary information:

061715. From G-2. Elements of the 1st North Korean Division are hitting our right flank. The road block is now an attack. 300 enemy are located at 1154.2-1455.0, since 1130. We have a POW from the 3d Battalion, 1st [14th] Regiment, 1st Division, who states: (a) the regimental headquarters of the 1st Regiment, 1st Division is on top of Hill 570 (1154.6-1456.1), (b) the 3d Battalion, 1st Regiment has 6 HMG, 3 mortars, which are at 1154.2-1455.0, (c) the mission of the enemy 3d Battalion was to destroy US artillery located at former "B" Battery, Spirit [99th FA Bn], (d) three regiments of the 1st North Korean Division are attacking abreast to capture Taegu, (e) the CP of the 1st NK Division was in Wall City on 4 September, (f) the ammo supply is good and soldiers are getting two meals a day, (g) the 7th and 8th Companies of the 3d Battalion, 1st Regiment, 1st Division came down hill 1154.2-1455.0 at 0530 today and went to road with no resistance; companies were dispersed by our MG fire; the two companies were, at 061130K Sep, at bottom of hill on west slopes, (h) he has seen no Chinese in his battalion.¹

After the engagement on 6 September, Co 7 and Co 8 of the 3d Bn appear to have been withdrawn to receive replacements. One of these replacements is the subject of ATIS 1147, which reports that he was a member of the 7th Co, 3d Bn, 14th Regt and was captured by ROK forces on 19 September in the vicinity of Palgong-san, an 1192-m mountain 5 miles east of Hill 314. The report states:

8 September. 800 men arrived at Taedun (1150-1460) [coordinates of general area; more exact location is 1156-1461] and were assigned to various units of the 1st Division. Details unknown. Fifteen men, subject included, were assigned to the 7th Company, 3d Battalion, 14th Regiment. Location of other units, 14th Regiment unknown. POW issued weapons and uniforms. They came from unit casualties.

12 September. The 7th Company was deployed on the ridges approximately 4 kilometers south of the castle (KASAN). Disposition of other units unknown. The 7th Company did not make any contact with the enemy between 8 September and 12 September. At dawn 12 September, the 7th Company was surprised by ROK forces and suffered heavy casualties. Losses unknown. POW taken prisoner.

The 7th Co probably was located on 12 September at Hill 783, 4 km east-southeast of the Kasan enclosure, for by 12 September ROK forces had reached this point in their offensive. The 8th Co, 3d Bn, 14th Regt is established in proximity with the 7th Co on 9 September by the testimony of three prisoners who participated in the same raid. Their statements also confirm that the same regiment was known to enemy soldiers as both the 1st and the 14th. On 9 September in the vicinity of the Walled City a group of 15 officers and enlisted men was organized to raid Taegu airport. This mission fits in with the assumed location of the companies. During the advance of the group, four men were wounded in a fire-fight, and on 11 September the raid was broken up by ROK forces with four enemy killed and seven taken prisoner. Interrogation reports are available for three of the prisoners. The subject of ATIS 1273 was a junior sergeant of the 7th Co, 3d Bn, 1st (sic) Regt; the subject of ATIS 1282 was a private from the 8th Co, 3d Bn, 14th (sic) Regt; the subject of ADVATIS 0869 was a private of the 8th Co, 3d Bn, 1st (sic) Regt.

The first information on Co 1 and Co 2, 3d Bn, 14th Regt is as of 10 September, the date a replacement from North Korea save for his assignment to the 2d Co north of the Walled City. He was captured in the vicinity of Hill 401 on 12 September. The interrogation report, ATIS 1149, which is somewhat muddled and requires considerable interpretation, is reproduced in full as Item 7, App A. From the point of capture it appears that the actions described by the prisoner were the skirmishes south and west of Hill 373 reported by friendly forces on the evening of 10 September and again on the evening of 11 September:

o/a 11 Sep 50: 1st and 2d Companies, 3d Battalion were ordered to march south, objective unknown. Remaining units of the 1st Regiment remained at the above location [the Walled City. As noted above, the 7th Co and 8th Co, 3d Bn remained here.] The 1st and 2d Companies marched south through the castle enclosure to a ridge approximately two kilometers south of the castle [presumably Hill Mass 570]. At this point at about 2000 hours, the 2d Company was ordered to proceed further south, while the 1st Company remained at the position. The 2d Company proceeded south to a point approximately five kilometers south of the castle and was ambushed by UN forces. In the ensuing battle the strength of the 2d Company was reduced from 60 to 14 men. The remaining 14 men retreated to the position of the 1st Company. At about 2200 hours the 1st Company with the 14 men of the 2d Company proceeded southeast from its position to a point about five kilometers south-southeast of the castle, where it was also ambushed. The engagement lasted until about 2400 hours. At the end of the engagement the combined strength of the 1st and 2d Companies was approximately 70 men. When the engagement ended, subject remained concealed. He then became separated from his unit.

Further information on the 1st NK Div was obtained from a deserter from the 19th Regt who was later captured by US units. While hiding in the village of Kwiam-ni on the northwest side of Hill 373 on the evening of 11 September, this soldier observed a group of 30 soldiers of the 1st Div withdrawing to the

north, and was told by one of them that the area belonged to the 1st Div (1st Cav Div Interrogation Report 0085; Item 2, App A).

On 7 September friendly observers estimated that two enemy platoons were on the northern part of Hill Mass 314. The first contact here was on the night of 8 - 9 September, when the 16th Recon Co was attacked at its positions around Knob 2 by a group of unspecified size. In this intense action the Recon Co withdrew. When it reoccupied the positions during the day, it was confronted by what was estimated to be a strong enemy platoon. Evidently one of the original two platoons was still intact. On the night of 9 - 10 September the enemy attacked in company strength. After this action, 52 enemy dead were counted in the vicinity of Knob 1. According to the assumptions discussed earlier, under "General Situation and Enemy Intentions," total enemy casualties were probably around 200, the equivalent of almost 2 companies.

Taking over the mission of capturing the entire hill mass, the 3d Bn, 8th Cav Regt reported in its attack on 10 September, that it was faced by one enemy platoon apparently backed up by two companies. It would seem that two fresh companies had come up to reinforce the remaining equivalent platoon, and that an entire battalion of four companies had now been committed.

The only mention of the identity of this battalion is this message: "111515. Unit fighting Blue [3d Bn, 8th Cav Regt] is 1st Battalion, 2d Regiment, 1st Division (NK)." The basis for this report is not known. No interrogation reports are available on members of this battalion.

In the fighting on Hill 314 on 11 September, casualties were fairly heavy in the 3d Bn, 8th Cav Regt. It is assumed that casualties to the enemy were also high, that the effectiveness of enemy units was destroyed, and that surviving troops of the 1st Bn, 2d Regt were relieved by morning of the next day.

According to ADVATIS 0711 the 2d Bn, 2d Regt attacked the Walled City on 2 September, moved on, and deployed approximately five hundred meters south of it on 5 September. The prisoner, a South Korean private of the battalion's 82-mm Mort Co, had been assigned to the company on 1 September, and was captured by ROK forces south of the Walled City at 1400, 7 September. All or part of the battalion then apparently moved on to the east. The G-2 situation map for 9 September shows the 2d Regt, 1st Div making a two-pronged attack on ROK forces northwest of the 1192-m mountain called Palgong-san, 6 1/2 miles east of Hill 314. On 10 September ROK forces took a prisoner at approximately the site of these attacks. He was from the 6th Co, 2d Bn, 2d Regt. The report of his interrogation by US forces (ATIS 1103) is given as Item 8 in App A.

The latter prisoner, also a replacement from South Korea, joined the 2d Regt on 8 September 8 km north-northwest of Palgong-san. He said that the entire 2d Regt, with a strength of 1200 (including 200 replacements) marched south at 1000 9 September and occupied the summit of Palgong-san (probably really the high ridge running north from the summit). Here, at 0530 on 10 September, the prisoner's company, consisting of 100 replacements was driven into the assault before the guns of 50 trained soldiers and dispersed. It is not known whether the nucleus of the 6th Co survived.

On the afternoon of 11 September and night of 11 - 12 September new enemy forces came up on Hill Mass 314 from the north, northeast, and northwest. The preparation for reinforcement from the northeast is suggested by the following

report: "111500. From Artillery Liaison Officer with ROK: 200 North Korean troops unloading supplies at 1158.8-1456.0 [1 1/4 miles northeast of Hill 314]. . ."¹

From this direction, the 1st Div is thought to have sent up three companies from the 2d Bn, 2d Regt (and two companies from the 1st Bn, 14th Regt—see above).

The prisoner captured on Hill Mass 314 by the 3d Bn, 7th Cav Regt on 12 September was a private from the 5th Co of the same 2d Bn, 2d NK Regt. Two reports of interrogation of this soldier are available, one by the 1st Cav Div and one by ATIS (1142). Both are reproduced in full as Items 9 and 10 in App A. They are discordant and internally inconsistent, especially with regard to locations, directions, and distances. The inconsistency is not surprising, as the prisoner was from extremely distant North Korea and had just arrived in the battle area, traveling always by night. His reported capture by Co I, 7th Cav Regt agrees with firsthand information supplied by the commanding officer of Co I. The two reports are in complete agreement as to the prisoner's organizational affiliations. Though the movements of the prisoner's unit are hard to trace on a map, the following general data seem factual: marching south over a mountain road, the prisoner's group of replacements reached the 2d Regt at 0400 on 11 September at a mountain northeast of Taegu. After assignment, the prisoner, with the 85 men of the 5th Co, left the hill at 1800, 11 September. At 0500 on 12 September, the company arrived at Hill 314, deployed in a wide area, and dug foxholes.

A second enemy soldier who had been on Hill 314 during the battle on 12 September was taken prisoner two days later when a patrol from Co I, 7th Cav Regt moved from Hill 314 across the Taegu road onto the eastern slope of Hill Mass 570. A first report states:

140825. From S-2, 7th Cavalry: A POW captured last night on Hill 314 (1456.4-1453.8) was from the 2d Battalion, 2d Regiment, 1st North Korean Division. He states the enemy had 700 men on Hill 314 prior to the attack of the 7th Cavalry and the enemy suffered 200 KIA with many of the remainder WIA. The unit is now located in the temple at 1157.2-1457.9. . .¹

A later message appears to refer to the same prisoner but differs somewhat:

140915. From S-3, 7th Cavalry: Our patrols were about 1000 yards behind Hill 570 (1154.8-1456.4). We took a POW who had been on the hill attacked by our 3d Battalion. He is from the 3d [sic] Battalion, 2d Regiment, 1st North Korean Division. He states that at least 200 in his battalion were KIA and most of the rest wounded, his battalion commander is a Chinese Communist, and that elements of the Division are at 1157.2-1457.9 trying to get organized.¹

Extracts of the one interrogation report that might represent this prisoner are reproduced as Item 11, App A. He was from the 4th Co, 2d Bn, 2d Regt of what he said was the 14th NK Div. Up to this time the 14th Div had never been reported in contact with UN troops, and according to the assistant commander of the 45th Regt, 15th NK Div (ADVATIS 0958) was used for security around Seoul. Since the prisoner had only joined his unit on 11 September, it seems certain that he had mistaken the designation of the neighboring 14th Regt as

that of his own parent division. It is therefore assumed that he was from the 2d Regt, 1st Div. The 5th Co and HMG Co of the prisoner's 2d Bn, as well as his own 4th Co are then placed by the prisoner's testimony on Hill 314 on 12 September. Since he gave strength and equipment figures for 14 September, as well as for 11 September, he must still have been with the battalion when it reorganized after the battle. (See "Strength and Casualties on Hill Mass 314," later in this section.)

The subject of 164th MISDI 0784, a North Korean conscriptee, was one of 2000 replacements received by the 1st Div. On 28 August he was assigned to the 7th Co of the 3d Bn, 2d Regt at a point 7 km southeast of Kunwi; he was captured on 30 August 9 km southeast of Kunwi. The company was said to have a strength of 120 and the battalion a strength of 500 (including 300 replacements). Except for what seems to be a typographical error in one of the reports cited above, there is no later recorded mention of the 3d Bn, 2d Regt. It apparently remained to the east of the 1st Cav Div zone.

The 3d and 15th North Korean Divisions

The location of all three rifle regiments of the 3d NK Div in the vicinity 1145-1452 on 11 September is definitely fixed by the captured attack order of the division (App B). At least two of the regiments had been further to the north. The evidence from the few relevant interrogation reports follows.

Prisoner's unit	Date of capture	Data on capture	Reference or interrogation report
1st Bn, 7th Regt, 3d Div	041530 Sep	At 1143.7-1454.7	Killed ¹
2d Bn, 8th Regt, 3d Div	051200 Sep	4 km NE of Waegwan	ATIS-971
3d Bn, 8th Regt, 3d Div	7 Sep	By Co G, 7th Cav	164-MISDI-0790
HMG Bn, 7th Regt, 3d Div	7 Sep	At 1143.8-1457.9	ADVATIS-0746
1st Bn, 9th Regt, 3d Div	8 Sep	At 1143.8-1457.9	ADVATIS-0729
1st Bn, unkn Regt, 3d Div	8 Sep	At 1143.8-1457.9	ADVATIS-1743

As the division had fought at and to the south of Waegwan at the end of August, it evidently had displaced to the north and east by 4 September. One of the 3d Div prisoners captured on 7 September stated that a regimental CP was located at 1147.7-1458.6.

The prisoner captured on 5 September (ATIS-971) stated that elements of the 15th NK Div were on the 3d Div left flank. The only additional evidence of the presence of units of the 15th Div is the following:

041700. From G-2. Skirmish-2 reports that two POWs were captured in their area. One is wounded and will probably not live to get to Division. He had quite a bit of information. He is a FO captured on Hill 464 (1143.7-1457.9). He estimates [that there are] 1200 enemy on Hill 518 and back of the ridge with 120mm mortars at 1141.8-1461.2, also states there are six 82mm mortars, three 120mm mortars on north side of Hill 518, one 120mm mortar 1141.8-1461.2. POW states there is plenty of ammo for the mortars, states that one regiment or 2d Battalion [sic], a total of 1800 troops, is located west of river in town by railroad track (coordinates unknown at present). POW is from 1st Battalion, 28th Regiment, 15th North Korean Division.

Sapphire [77th FA Bn] captured the other POW in the vicinity 1141.3-1458.2. He is from the 1st Battalion, 28th Regiment. POW came to Hill 464 last night but didn't want to fight. His captain threatened to kill him if he didn't fight. POW escaped when his captain went to sleep. He has substantially the same information as the above POW. He also states there were 1800 enemy in the vicinity 1141.8-1461.2. The 77th FA Battalion is firing into these areas.¹

Supporting interrogation reports are lacking. The bulk of the 15th NK Div unquestionably was located to the east in contact with the ROK Army in the vicinity of Yongchon. Many prisoners were captured from its 45th, 48th, and 50th Regts, from the Arty Regt the SP-gun Bn, and other divisional units. The parent division of a 28th Regiment is not known to the writer and may perhaps be an earlier or mistaken designation of another unit. Whatever the designation, an entire regiment may have been attached to the 3d NK Div, just as the 15th Div's 45th Regt was attached to the 13th Div for a period in the latter part of August. (ADVATIS 0670 directly confirms this attachment, as reported in Item 1, App A.)

STRENGTHS, REPLACEMENTS, AND CASUALTIES IN THE 13TH NORTH KOREAN DIVISION

The personnel situation of the 13th NK Div can be outlined from the beginning of the war to 31 August from information supplied by the S-3 of the division's 19th Regt, who surrendered on 1 September (see Item 1, App A). The division was formed from conscripted troops in March 1950. It crossed the 38th parallel on 26 Jun 50 in the wake of the general enemy attack on South Korea, but did not experience resistance until subjected to friendly air attacks and artillery fire in its approach to the Naktong River in mid-August. From the account given by the S-3, and from his estimates of strengths, casualties, and replacements, one can follow the attrition of the division in its crossing of the Naktong and through its battle with the ROK Army. Table 6, at the end of this subsection, gives the appropriate data.

Statistics captured with the chief of staff of the 13th Div on 21 September afford a basis for putting together a more detailed picture of the situation in the period 31 August—11 September, the time during which the 13th Div attacked the 8th Cav Regt. The figures also throw some light on the manner in which the enemy units were committed. Though the enemy statistics in their original form have already been presented and analyzed in a previous ORO report,²⁵ they are given again in this study, since more complete information now available leads to a rather different lineup of friendly and enemy forces.

In the enemy's personnel system, forward units did not requisition needed replacements, nor, so far as is known, was there any formal, routine system for reporting daily strengths. Rather, the responsibility rested with higher headquarters, which, it is inferred from the captured statistics analyzed below, periodically directed that censuses of all subunits be made, usually in a period of quiet before a new phase of the offensive, and then allocated available replacements accordingly. By September a time lag as long as a week might occur before a particular group of replacements actually completed the march for-

ward and reported to the unit to which it was assigned. It is quite likely that sometimes a group did not arrive intact, if at all, or reported to the wrong unit.

From the enemy figures on the strength of the 13th Div and its subunits on 31 August and 11 September, and from the enemy data on the receipt and assignment of replacements during this interval, it is possible to make a personnel material balance yielding the over-all number of losses sustained. Since the quantitative validity of this computation rests on the interpretation of the data on replacements, particular attention is given below to their meaning.

TABLE 2

ENEMY DOCUMENT SHOWING ACTUAL STRENGTHS
OF 13TH NK DIV UNITS 31 AUG 50^a

Unit	Pvts	NCOs	Officers	Total
Div Hq	267	63	93	423
19th Regt	806 (694) ^b	161	90 (66) ^b	1057 (878) ^b
21st Regt	382 (230)	51	53 (25)	486 (305)
23d Regt	535 (521)	163	71 (71)	769 (751)
13th Arty Regt	492	204	89	785
Tng Bn	135	23	12	170
Sig Bn	150	46	24	220
Engr Bn	132	35	21	188
AT Bn	110	74	22	206
SP-gun Bn	18	29	14	61
Medics	46	47	20	113
Recon Co	63	16	2	81
Trans Co	30	16	7	53
Unassigned	314	—	—	314
Total	3480	928	518	4926
Total (In action)	(1445)	(327)	(162)	(1934)

^aDocument one loose sheet, handwritten, carried on person of Sr Col Lee Hak Ku, C of S 13th Div, NKPA, who surrendered to US forces at 1153.3-1454.3 on 21 Sep 50.

^bAll parentheses quoted from original document. These figures for troops in action presumably also represent the date 31 August. Note that columns are totaled as indicated, with totals of entries in parentheses given in parentheses.

Table 2 is the accounting of 13th Div strength as of 31 August. The parenthetical "in action" figures are of incidental interest. In the 23d Regt, 98 percent of the personnel are listed as in action; in the 19th Regt, 83 percent; and in the 21st Regt, 63 percent. This variation suggests different degrees of commitment of the subunits of each regiment rather than, as with the US Army, absence of assigned personnel for medical or other reasons, since in general the enemy took account only of groups, not individuals. Figure 5 (given earlier in this section) is an organization chart of a North Korean division constructed from information supplied by POWs. Nearly exact TO strength figures are given for each of the regimental subunits. If three infantry battalions and, say, the 120-mm mortar company are considered as being "in action" while the

remaining seven specialized companies are not, then, just as with the 19th Regt, 83 percent of regimental personnel are in action. Similarly, if two of the infantry battalions and, say, the 76-mm howitzer, 120-mm mortar, and 45-mm AT-gun companies are considered to be in action, then 61 percent of regimental strength, almost as with the 21st Regt, is found to be in action. Though the determination of commitment of the specialized companies on this basis is questionable, the situation of the infantry battalions seems established: as of 31 August, only one infantry battalion of the entire division was not "in action." Table 3 is a similar listing of the strengths of units of the 13th NK Division on 11 September, but it does not include "in action" notations.

TABLE 3

ENEMY DOCUMENT SHOWING ACTUAL STRENGTHS
OF 13TH NK DIV UNITS 11 SEP 50^a

Unit	Pvts	NCOs	Officers	Total
Hqs	267	63	93	423
19th Regt	846	148	30	1,024
21st Regt	439	131	53	623
23d Regt	521	159	71	751
13th Arty Regt	739	205	71	1,015
Tng Bn	113	21	11	145
Sig Bn	146	48	23	217
Engr Bn	266	33	19	318
AT Bn	174	74	20	268
SP-gun Bn	23	27	16	66
Medics	51	42	20	113
Recon Co	59	11	2	72
Trans Co	29	22	7	58
Unassigned	1,021	8	—	1,029
TO	7,777	2,954	1,061	11,792
Present ^b	4,694	992	436	6,122
Short	3,083	1,962	625	5,670

^aDocument (dtd 11 Sep 50) one loose sheet, handwritten, carried on person of Sr. Col Lee Hak Ku, CofS 13th Div, NKPA, who surrendered to US forces at 1153.3-1454.3 on 21 Sep 50. Note the differences between this table and the similar listing for 31 August (Table 2).

^bThe horizontal line marked "Present" rather than the line marked "TO" gives the totals of the columns above.

Table 4 is an accounting of the disposition of batches of replacements received at the 13th Div several replacement depots on the dates given. The number of men and the place of origin (whether the group came originally from North or South Korea) are stated for each consignment. The date of the document is unknown, but would seem to be 11 September or shortly before, as this was the date of a number of related documents with which it was captured.* The table also gives the distribution of each batch by assignment to the division's

* This replacement table shows a total of 1065 men unassigned, whereas the divisional strength table of 11 September shows 1029 unassigned.

various units as of the date the figures were compiled. Thus it is seen that with the exception of one-third of a very large group of South Korean replacements received on 31 August, virtually all those received on or before 2 September had been disposed of by 8 - 11 September, while three-quarters of those received on 6 September and all of those received on 8 September had yet to be assigned.

When did replacements received at a certain depot and subsequently assigned to a unit actually join that unit? First, the locations of these centers must be considered. All are situated on main roads in the 13th Div rear area; Kunwi and Uisong also may have served the 1st Div, and Sangju the 3d Div. A town named Angae cannot be located on any map or in the gazetteer; it is thought

TABLE 4

ENEMY DOCUMENT DETAILING RECEIPT AND ASSIGNMENT
OF REPLACEMENTS IN THE 13TH NK DIV^a
(Document undated)

DATE:	23 Aug	—	31 Aug	2 Sep	6 Sep	8 Sep
PLACE:	ANGAE	SANGJU	UISONG	KUNWI	KUNWI	SANGJU
FROM:	NK	SK	SK	NK	NK	NK
TOTAL: ^b	961	319	2271	314	219	163
Hq	20	100	27	—	—	—
19th Regt	309	—	459	200	—	—
21st Regt	245	—	97	—	—	—
23d Regt	245	—	208	114	—	—
13th Arty	—	—	301	—	—	—
Tng Bn	—	128	250	—	—	—
Sig Bn	—	—	—	—	50	—
Engr Bn	140	50	—	—	—	—
AT Bn	—	31	190	—	—	—
Medics	—	10	8	—	—	—
Total ^c						
Assigned	959	319	1540	314	50	0
Unassigned ^d	2	0	731	0	169	163

^aDocument one loose sheet, handwritten, carried on person of Sr Col Lee Hak Ku, CofS 13th Div, NKPA, who surrendered to US forces at 1153.3-1454.3 on 21 Sep 50.

^bTotal replacements received: 4247.

^cThese entries have been added by present author by subtraction of unit totals from number of replacements received by the division.

^dThe total number of unassigned replacements derived from the enemy's figures is 1065. This value does not quite agree with the total of 1029 given in Table 3.

likely that it was the road junction in the valley at the coordinates 36° 23' 13"N, 128° 16' 18"E, variously known as Angye-myon, Ankei-men and Angyejang. The approximate distances in road miles from these depots to Tabu-dong are, reading from north to south: Sangju, forty; Angye, thirty-five; Uisong, thirty; and Kunwi, eighteen.

Interrogation reports are available for prisoners who probably had been included in two of the consignments listed in Table 4. The three subjects of the 1st Cav Div Interrogation Report No. 0088 (Item 4, App A) correspond to the group received at Uisong on 31 August. According to their statements, they

were impressed into the NKA on or about 22 August at Wonju. On or about 29 August they were part of a group of about 1000 replacements which set out for Andong, where they were told they would haul ammunition. However, they were sent further forward and on 7 September arrived at a place called Son gyo-dong, on the highway 5 miles north of Tabu-dong; the prisoners heard that this was the site of the 19th Regt Hq. Details are not given on this move, but the route followed would have taken them through Uisong, Kunwi, and Hajang-dong. Of the 1000 men arriving at 19th Regt Hq, 300 were further assigned to the regiment's 1st Bn, which they joined on Hill 570 at sunset on 10 September.

The prisoners' story fits in well with the interpretation of the table of replacements, i.e., that on 31 August 2271 South Koreans were received by the 13th Div at Uisong, of whom 459 were subsequently assigned to the 19th Regt. From the two sources it is then deduced that traveling from Uisong to regimental headquarters, a distance of 25 miles, took 7 days in all. The prisoners' statements alone show that the move from regimental headquarters to the eventual combat unit, a distance of 9 miles, took 3 days.

Some of the South Koreans in the group of 2271 received at Uisong on 31 August were seemingly sent forward quickly but not committed to battle. The subject of ADVATIS 0721 stated that he was one of 3000 South Koreans conscripted in the vicinity of Wonju. His group left there on 27 August, and traveling via Andong and Uisong reached the vicinity of Tabu-dong on 3 September, where he was assigned to the 3d Bn of an unknown regiment and division. The strength figures given by the prisoner seem to be much too large for the units represented, but the statements that of 370 men in the new unit only 70 of its original troops remained and that 100 men were unarmed may be significant. Up to the time when the prisoner deserted at 2400 on 5 September, the unit had not been engaged in battle. He surrendered to US troops at 0600, 6 September at 1151.7-1459.4, a point near the road, 1 1/4 miles southwest of Tabu-dong.

The 1st Cav Div Interrogation Report No. 0085 and ATIS Report No. 1158 (see Items 2 and 3, App A) both represent the same prisoner, a North Korean who was apparently in the group of replacements received at Kunwi on 2 September. He was inducted on 19 August and after three days of training sent with a group of 1000 recruits to Seoul and then further south. On or about 28 August the group arrived at Wonju. They continued to Kunwi, where the prisoner was issued a rifle. The date of arrival there is not reported but could very well have been 2 September, when, according to the 13th Div replacement table, 314 North Korean replacements were received. Moving on, the prisoner on 3 September arrived at a point several miles north of Kasan, where he was assigned to a company of the 1st Bn, 19th Regt. The same day, his group of 200, which he thought an independent battalion, moved on to Kasan. It stayed there until 9 September, when it finally displaced to Hill 570. These statements again check the replacement table, which shows that 200 of the 314 replacements received at Kunwi were assigned to the 19th Regt. Contrary to the prisoner's impression, it would seem that the group of 200 was not a battalion itself but consisted simply of replacements designated for the several companies of the 1st Bn; the group waited at Kasan until the 1st Bn had moved from a position to the west onto Hill 570.

The two examples just presented indicate that the tactical situation of the combat units rather than the distance replacements had to march or the time required to process them along the way was primarily responsible for delaying

their arrival at the front. Green replacements, especially unreliable South Koreans, could hardly be incorporated into units currently in active combat. In particular, the 2271 South Koreans received at Uisong on 31 August could hardly be used in the offensive on 2 September. That their presence was taken into account, however, may be seen in the notes made by the CofS on 30 August at a conference for planning the offensive: "Uisong 3000 men, Andong 1000 men." The replacements received on 23 August certainly were introduced into forward units during the lull before the offensive. The 319 South Koreans from Sangju received at an unknown time between 23 and 31 August, however, were apparently not yet assimilated. The strength table for 31 August shows 314 replacements unassigned. This must have been the Sangju group, not yet used because of too recent arrival, lack of training or arms, or unreliability. By the time the replacement table was compiled between 8 and 11 September all had been assigned. From the foregoing considerations it is concluded that only the replacements received by the division on 23 August are included in the various unit strengths listed on 31 August.

There is little doubt that almost all those replacements received by the division through 2 September who were subsequently assigned to units did actually arrive at those units to be counted in the strength list of 11 September, as by 8 or 9 September the 13th Div had again stopped attacking. It is also likely that the 50 replacements received on 6 September and subsequently assigned to the Sig Bn joined by 11 September, as this unit was probably somewhat to the rear.

Losses in the period 31 August-11 September can now be computed by adding to the strength of each unit on 31 August the number of replacements considered to have arrived after this date and subtracting the strength on 11 September. This procedure is straightforward and produces credible figures, with the following few exceptions: the 21st Regt, which was indeed in reserve, has a balance of minus 40, the engineer battalion minus 80, the SP-gun company minus 5, and the transportation company minus 5, while the training company, with a strength of about 160, has the incredible positive balance of 403 losses. It is most probable that the training company served as a replacement depot within the division and that the apparent 403 losses actually were men passed on to units showing negative losses. Entirely arbitrarily, the bloc of 128 South Koreans received by the division between 23 and 31 August, and subsequently assigned to the training battalion, has been given to the 21st Regt. To avoid distributing the remaining excess personnel of the training company, all divisional units except the four regiments and the AT Bn have been lumped together. The results are given in Table 5.

In the table it is seen that in the 11-day period there was a turnover of about one-third of the division's strength, which remained roughly constant. The actual rate at which losses occurred probably varied greatly and most likely was highest in the early days of the offensive. Casualties were probably very low during the week before the offensive began on 2 September, because there were almost no friendly air attacks. For computing average casualty rates, all losses are considered to have occurred in the nine days of fighting from 2 through 10 September. Since the strength of most units was about the same at the end of the period as at the beginning, the simple average of the two has been used. The resulting loss rates are shown in Table 5 as percent of average strength per day. Their interpretation in the light of the tactical situation is given elsewhere.

The data on the replacements also permit calculation of the number of South Korean draftees in each unit as of 11 September. For this purpose it is assumed, as all evidence indicates, that prior to the period considered the division was entirely North Korean. As suggested by the data presented above, the South Korean replacements shown in Table 5 arrived at their units late in the period, after the fighting had died down; therefore, it is also assumed that all losses shown were North Korean personnel. The ratio of South Korean replacements to unit strength on 11 September thus gives a conservative figure for the fraction of South Korean personnel. As seen from the table, for the division as a whole the figure is 37 percent, and this is typical of most of the

TABLE 5

STRENGTH LEVELS OF THE 13TH NK DIV 31 AUG -11 SEP 50
(A synthesis of enemy statistics)

Strength levels	Inf Regts			Arty Regt	Bn	All other units	Entire 13th Div
	19th	21st	23d				
Strength 31 August	1057	486	769	785	206	1309	4612
Replacements 31 Aug-11 Sep:							
Dates received, place of origin							
23-31 Aug, SK	—	128 ^a	—	—	31	160	319
31 Aug, SK	459	97	208	301	190	258	1540
2 Sep, NK	200	—	114	—	—	—	314
6 Sep, NK	—	—	—	—	—	50	50
Total	1716	711	1091	1086	427	1777	6835
Strength 11 September	1024	623	751	1015	268	1412	5093
Losses 31 Aug-11 Sep	692	88 ^b	340	71	159	365	1742
Average strength	1040	555	760	900	240	1360	4850
Loss rate, percent per day ^c	7.4	1.8 ^b	5.0	0.9	7.4	3.0	4.0
Percent South Koreans, 11 Sep	45	36 ^b	28	30	83	30	37

^aThese replacements arbitrarily reassigned from training battalion.

^bArbitrary figure. See Footnote a.

^cBased on nine days of combat, 2-10 September.

division's component units. From the same assumptions it also follows that only 47 percent of the personnel composing the division's units on 31 August were still present on 11 September.

When the data of Table 5 are combined with the information furnished by the S-3 of the 19th NK Regt, a balance of losses and gains in personnel can be made for intervals throughout the period from the first action of the 13th Div in mid-August through 11 September 1950. Table 6 gives the data.

According to the S-3, the 13th Div went on the defensive on 24 August. It is of particular interest to compute its attrition as of this date. If it is assumed that half the losses in the period 21 - 31 August occurred by 24 August (the only active fighting was on 21 August) then the strength of the 19th Regt on this date had fallen to about 1100, while the combined strength of the 21st and 23d Regts

had fallen to about 2250, or again to around 1100 per regiment. The 13th Div offensive really stalled for the first time—and for ten days—when its strength had fallen to about 40 percent of the TO figure.

TABLE 6

STRENGTH LEVELS OF THE 13TH NK DIV FROM
FIRST COMMITMENT TO 11 SEP 50^a

Strength levels	Rifle Regts, 13th Div			Entire 13th Div
	19th	21st	23d	
Original TO strength	2,500 ^b	2,500 ^b	2,500 ^b	12,000 ^c
Losses from Air & Arty on move to Naktong	—	—	—	2,000
Losses crossing the Naktong	—	700	—	—
Strength 16 August	2,500	1,800	2,500	10,000
Losses 16, 17 August	700	800	—	—
Strength 18 August	1,800	1,000	2,500	—
Losses 18 August	300	400	400	—
Strength 19 August	1,500	600	2,100	—
Losses 19 August	—	—	100	—
Strength 20 August	1,500	—	2,600	—
Losses 21 August	—	—	—	—
Losses from Air & Arty 21–31 August	750 ^d	—	700 ^d	—
Replacements 24 August	182 (309 ^e)	—	618 (590 ^e)	800 (961 ^e)
Strength 31 August ^e	1,057	486	769	4,926
Losses from 8th Cav 31 August–11 September ^d	692	88	340	1,742
Replacements 31 August– 11 September ^e	659	225	322	2,223
Strength 11 September ^e	1,024	623	751	6,122

^aFigures as given by the S-3, 19th NK Regt, who surrendered 1 Sep 50 (Item 1, App A), except as otherwise noted.

^bEstimate, consistent with balance; TO strength 2,815.

^cTO strength 11,792; see Table 3.

^dEstimate, consistent with balance.

^eFigures from enemy documents.

One rough check can be made of the data in Table 6. A medical officer of the 13th Div stated that from 24 August to 20 September 800 wounded of the 21st Regt were treated at his field hospital (ADVATIS 0964). If, as estimated above, the regiment's strength was about 1100 on 24 August, by 11 September it had lost from all causes about 600 men, for its strength by then was 486.

STRENGTH AND CASUALTIES ON HILL MASS 314

The summary listing of enemy units on Hill 314 which follows is derived from the analysis given earlier in this section under "Composition and Condi-

tion of Units at Mid-September." Strength figures are added if given by POWs; otherwise, they are estimates in accord with the assumptions discussed at the beginning of this section.

Time and unit	Strength	Source
Before 12 September:		
1st Bn, 2d Regt, 1st Div	280	Assumed
On 12 September:		
4th Co, 2d Bn, 2d Regt, 1st Div	120	POW
5th Co, 2d Bn, 2d Regt, 1st Div	85	POW
HMG Co, 2d Bn, 2d Regt, 1st Div	40	POW
1st Co, 1st Bn, 14th Regt, 1st Div	60	Assumed
2d Co, 1st Bn, 14th Regt, 1st Div	60	Assumed
3d Bn, 19th Regt, 13th Div	280	Assumed
Total present, 12 September	645	

It is interesting to compare this total with the statement by the POW in the report quoted earlier, in "Composition and Condition of Units at Mid-September" that 700 enemy troops were on the hill at the time of the attack by the 3d Bn, 7th Cav Regt.

Total enemy strength may have been lower but hardly higher. According to those members of the 3d Bn, 7th Cav who were on the ridge between Knobs 2 and 3 in the perimeter defense maintained in the days after it was captured, the ridge was very crowded; they could not imagine it holding many more than 700 men. On 15 September the number of US personnel present for duty in Companies I, K, and L totaled 477. ROK troops integrated into the 3d Bn who were present for duty totaled 115. In addition, a platoon of Co M and the equivalent of a platoon of personnel of the Bn Hq Co were probably on the ridge. Total friendly strength then numbered about 670, and this population was close to the capacity of the ridge.

A rough count of enemy bodies gave a figure of about 250. Most of these were found in the wooded crown around the ridge rather than on the ridge itself. It is likely that the enemy disposed of his dead just as US troops disposed of enemy bodies on occupying the ridge, that is, they were pulled out of the fox-holes and rolled down the slope. The number counted would then be product of all the fighting on the hill. The prisoner mentioned above said that 200 men were killed on 12 September, but it appears that at least 74* had been killed previously. In the final action, many of the enemy troops immobilized by non-fatal wounds were undoubtedly killed by friendly supporting arms or by the infantry when the objective was overrun; on the previous days many of the enemy wounded may well have been evacuated. On the average, perhaps three out of eight men hit died on the hill. Total enemy casualties would then have been

* Of these, 52 reported by 16th Recon Co on 8, 9 September; 22 by 3d Bn, 8th Cav Regt on 10 September.

about 665, out of about 925 enemy troops committed to battle on the hill. The breakdown of all enemy troops committed would then be, of 925 men committed: 250 bodies left on hill (167 KIA; 83 WIA, then KIA); 415 WIA, escaped from hill; and 260 not hit, escaped from hill.

If it is assumed that none of the wounded remained with their units after they regrouped, then enemy units would be at 28 percent of original strength after the battle. The prisoner from the 4th Co, 2d Bn, 2d Regt gave the residual strength of his company and the HMG Co as 40 percent of original strength. Since the medical officer from the 13th Div stated that soldiers with flesh wounds were immediately sent back to the front after field treatment, it is more reasonable to assume that perhaps 100 out of the 415 wounded estimated to have left the hill suffered only trivial wounds and remained with their units.

FRIENDLY STRENGTHS AND CASUALTIES, AND COMPARISON WITH THOSE OF THE ENEMY

The first subsection below presents statistics on friendly casualties sustained in the first phase of the enemy offensive. Though they are not complete and have not been corrected by special study, they serve for comparison with the data derived earlier on casualties in the 13th NK Div. This comparison is made later in this section.

A more rigorous accounting of friendly strengths and casualties in the 8th Cav Regt area for the period 6-16 Sep 50 also follows; the sources of the data are discussed there.

CASUALTIES IN THE ENEMY'S INITIAL DRIVE

Table D1 is an accounting of friendly strengths and casualties in the 8th Cav Regt in the period 1-9 Sep 50. In addition to all the regiment's companies, those engineer companies attached as combat troops appear. Company A of the 71st Tk Bn was also attached as a provisional rifle unit during this period but is not included because it did not become actively involved in the fighting (five battle casualties, of which three KIA, in period 1-9 September). Also, the 5th ROK Spl Tng Bn (South Korean police), which moved into backup positions on or about 5 September, does not appear. The ROK troops integrated into US companies, however, are represented in both the strength and casualty figures, except in the case of the 8th Engr Bn, whose morning reports have not been consulted. Though the artillery batteries were close to the front line and did become somewhat involved with infiltrating groups of the enemy, they are not included, since their casualties never reached a high number on any one day.

Strength figures are given as of the time of the enemy attack, i.e., the close of 2 September, and are presumed to be accurate, since there was very little combat on the preceding days. The figures given in the morning reports for the succeeding days are not considered to be accurate and so have not been used. For example, the morning report of Co E for 5 September gives the number of US personnel present for duty as 169, but the regiment's operations report for this date states that on withdrawal from the Walled City Co E had a strength of 102 (3 officers and 99 men), which may indicate that integrated ROK troops were included in the morning report. It is unlikely that replacements were received in the first days of the offensive. Company strengths may then be taken as the figures for 2 September minus casualties to date.

The casualty statistics of Table D1 are provisional. They were prepared by a machine run made by the Adjutant General's Office, FECOM in January 1951 and should be replaced by more complete data from currently available corrected machine records, as has been done for the period 6-16 Sep 50 for the data given in Table D2. As pointed out below, the 1951 listing accounts for only about 75 percent of the names now carried in machine records. The discrepancies are thought to be due chiefly to incomplete reporting for certain companies on those days when many casualties were sustained. From the overlapping coverages of the two tables in App D for the period 6-9 Sep 50 it may be seen, for example, that whereas 52 casualties were listed for the 3d Bn, 8th Cav in 1951, the number is now carried as 95. On the other hand, for the 2d Bn in the period 6-16 Sep 50, the earlier listing carries 91 percent of the casualties of the later tabulation.

ANALYSIS OF STRENGTHS AND CASUALTIES 6 - 16 SEP 50

Table D2 is a day-by-day listing of strengths and casualties of infantry units in the 8th Cav Regt zone in the period 6-16 September. For complete coverage of each unit, the data on troops attached from the South Korean army are tabulated in parallel and also combined with the figures on US personnel to give the totals. In addition to the 8th Cav Regt, which is completely represented, the 16th Recon Co, which was attached to the regiment and fought as infantry throughout this period, and the 3d Bn, 7th Cav Regt, which was attached and moved up to the area on 10 September, are included. The companies of the 8th Eng Bn, which had fought as infantry with the 8th Cav in the Walled City and south of Tabu-dong, are now shown because they were no longer attached as combat troops. Company A of the 71st Tk Bn was still attached as a provisional infantry unit but did not become involved in active combat and so is not included (the only battle casualty was one KIA on 18 September). No data are available on the 5th ROK Tng Bn, whose Co B did briefly become engaged with infiltrating enemy on Hill 660 and whose Co A and Co C, though never intensely engaged, did back up friendly forces on Hills 314 and 373. The 2d Bn, 7th Cav, which occupied Hill 660 on 12 September, is not included because this hill was never actively fought on and has therefore not been taken into the area under study here.

For US personnel, the strength figures have been taken from the morning reports of the individual companies and correspond to the entry "present for duty" as of the close of the preceding day. As the reports are replete with directions for small retroactive corrections and adjustments, these numbers are not considered precise. Since they are used for the computation of casualty rates, and in sum, for gross comparisons of friendly and enemy strengths, this correction has not been deemed necessary.

The statistics on US casualties have been furnished by the Adjutant General's Office, FECOM, and are the product of a recent machine run. The totals are rather larger than those shown in a previous report,²⁵ which was based on a machine run made a few months after the action. The earlier listing included only about 75 percent of the casualties presently carried in the records. One reason for the incompleteness of the previous figures was the inadequate ac-

counting of casualties hurriedly evacuated from the theater. The statistics of Table D2 are still considered to be somewhat inaccurate as to the precise date a casualty occurred, especially in the KIA cases. Misdating is shown, for example, in the listings of the 16th Recon Co for 9 and 10 September. Though correction is attempted in using the data in interpreting tactical developments, the figures have not been changed in Table D2.

Attached ROK troops were all enlisted men. In the 7th and 8th Cav Regts they were integrated into US squads rather than attached as small homogeneous Korean units. The number attached to each company was available from occasional entries in the morning reports, which did not account for them from day to day. Nevertheless, from entries giving the number assigned, in blocs or by "K" number (see Table 16), and from subsequent notations as to casualties and other gains and losses, it was possible to work out the number present on each day. Sometimes this balance sheet for a certain company could be checked by an entry that mentioned the number present for duty. Furthermore, medical data on casualties occurring in the period 11-14 September among all Korean personnel attached to the 1st Cav Div were obtained from the A&D sheets of the division's clearing company. Through the K numbers and knowledge of the assignments by the numbers in blocs, the mention of individual casualties in the morning reports could be checked. It is concluded that the data in Table D2 are substantially complete but that the dates are not necessarily accurate. It has not been discovered why the casualty rate among the attached Koreans in 8th Cav Regt units was lower than the US rate in the same units.

The opposing forces were in contact at or on Hills 624, 225, 570, 373, and 314. The area of active defense against the enemy penetration is therefore defined to include these hills and the area more or less directly to the friendly rear. It is impossible to define just what units constituted the essential infantry defense in this area, even though the situation was clear-cut at the line of contact and, by 12 September, all regular reserves had been committed to the vicinity of the front line. The ROK Tng Bn, though inexperienced, was on hand and available for use in an emergency. To the rear of the area as defined above several provisional infantry battalions could readily be assembled from miscellaneous specialized US Army personnel of quartermaster, headquarters, armored, and other units. For the present purpose, the defensive infantry force is taken to be those units appearing in Table D2. There is a lack of rigor in including the specialized companies of the 8th Cav Regt with its infantry battalions, but this is felt to be of little weight in comparison with other uncertainties.

Daily total infantry strength in the defense area is plotted in Fig. 6. Straight lines are drawn because the individual points are somewhat questionable. In particular, the strength figures for the several days just after the intense fighting on 10-11 September probably did not fully account for the casualties sustained.

To show the accumulation of losses by the defensive infantry force as a result of enemy action, the daily grand totals of battle casualties as given in Table D2 have been cumulated and plotted in Fig. 6. The symmetry of the plot is striking. In the period 6-10 September casualties were sustained at the roughly constant rate of about 58 per day. This period can be characterized as that of enemy initiative with increasing pressure, stemmed by limited friendly counterattacks. The apparent enemy bid to force a decision began on the night

of 10-11 September, was checked, and then, before it was fully developed, decisively turned back with the friendly capture of Hill Mass 314 on 12 September. On these two days friendly casualties increased at a rate of about 175 casualties per day, three times the previous rate. The period 13-16 September was then much like the 6-10 September phase, except that the initiative was now on the

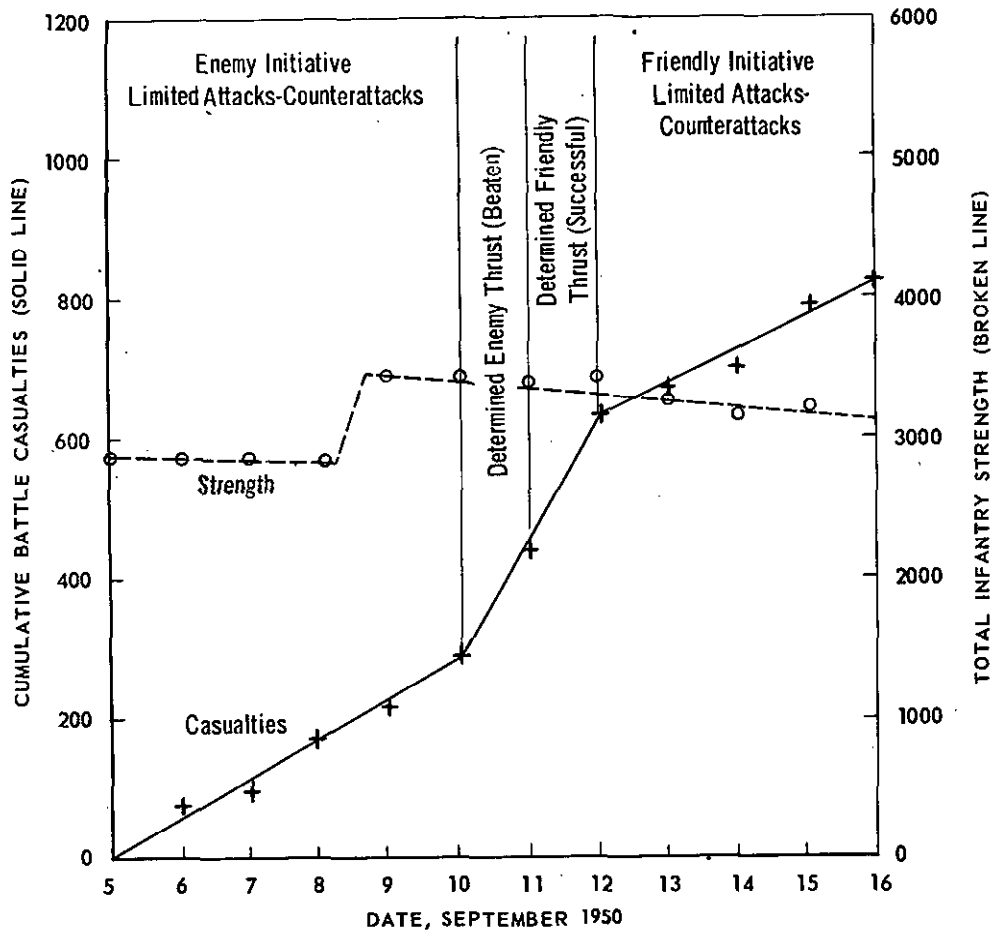


Fig. 6—Daily strength of friendly infantry and cumulative total friendly battle casualties in 8th Cav zone.

friendly side. Friendly casualties again increased at a roughly constant rate, almost the same rate as before. Comparison of the strength and casualty plots in Fig. 6 shows that the fluctuation of the absolute casualty rate does not reflect gross variation in the total number of men present and therefore must reflect the development of the tactical situation.

The relationship of friendly casualties to the tactical situation is outlined by the data of Table 7. On each day of the period 6-16 September, those gen-

TABLE 7

RELATION OF FRIENDLY CASUALTIES TO THE TACTICAL SITUATION^a

Date, Sep 50	Place	Company	Casualties ^b		Action	Outcome
			No.	Rate, % ^c		
5	Walled City	E/8	21	12	Fight into Walled City and back	Join Co. D, 8th Engr Bn, both companies withdraw
6	West of Hill 570	E/8	16	9	Task force attacks enemy fire block across Taegu road	Road cleared
6	Unknown	H3/8	10	8	Unknown, rear guard?	Unknown
7	----- No cases -----					
8	Hill 570	{ L/8 K/8 I/8 }	{ 27 15 14 }	{ 15 9 7 }	Friendly attack	Friendly withdrawal
8-9	Hill 314	16 Recon	32	17	Enemy attack	Friendly withdrawal
9	Hill 314	16 Recon	20	12	Friendly attack	Friendly withdrawal
9-10	Hill 314	16 Recon	0	0	Enemy attack	Friendly stand
10	Hill 314	K/8	18	11	Friendly attack	Friendly withdrawal
10-11	Hill 373	G/8	36	(10)	Enemy attack	Slight friendly withdrawal, friendly stand
11	Hill 373	{ G/8 E/8 }		{ (12) (12) }	Limited advance, enemy mortar fire	Slight advance, then friendly stand
11	Hill 314	{ I/8 K/8 }	{ 27 16 }	{ 14 12 }	Friendly attack	Friendly withdrawal
11-12	Hill 373	16 Recon	0	0	Enemy attack	Friendly stand
12	Hill 225	B/8	18	8	Enemy mortar fire	Friendly stand
12	Hill 314	{ L/7 I/7 K/7 }	{ 62 58 23 }	{ 34 34 13 }	Friendly attack	Friendly capture of hill
13	Hill 225	B/8	11	5	Unknown	Unknown
14	Hill 570	E/8	9	4	Friendly attack	Friendly capture of hill
15	Hill 570	{ E/8 F/8 16 Recon }	{ 16 9 5 }	{ 7 6 4 }	Limited advance, small counterattack, enemy mortar fire	Short friendly advance
15	Hill 401	L/8	18	14	Friendly move to occupy ridge	Friendly capture of Hill 401, then 307
16	Hill 307	H1/8	10	10		
16	Hill 570	F/8	6	4	Enemy attack	Short friendly withdrawal

^aAll cases of (a) ten or more casualties per company per day, or (b) fewer than ten casualties per company per day but company directly attacked or was attacked itself.

^bCasualties and casualty rates include ROKA augmentation and the IIA.

^cRate expressed as percent of company strength per day. Parentheses show estimated breakdown of combined casualty figure for two attacks.

eral circumstances have been determined in which (a) any company sustained ten or more casualties on one day or (b) any company sustained less than ten casualties and yet is known to have made an attack or to have been attacked itself. The number of casualties in each company on each day is given in the table. From this number and the strength of the company at the beginning of that day, the casualty rate has been computed and listed. Except in those cases where many casualties resulted from a concentration of enemy fire in the absence of an attack, it is assumed that most of the casualties occurred in some phase of an attack, whatever the cause might be. Where the daily casualty figure was the result of two separate actions, the fraction attributable to each has been estimated.

To avoid a misleading implication, data from an earlier statistical tabulation are included for Co E for 5 September when it was engaged with the enemy at the Walled City. It is possible that all the casualties listed for 6 September occurred when the company participated in the action of an armored task force which cleared an enemy fire block on this date, but it seems more likely that many of these casualties actually occurred at the Walled City.

Since all attacks, friendly and enemy, and all effective enemy concentrations of fire are represented in Table 7, it is evidently a partial schedule of significant action in the entire defense area. To be complete, of course, it would have to show those presumably numerous cases where, in the absence of friendly infantry action, friendly air attacks and concentrations of artillery and other supporting fires inflicted a significant number of casualties on the enemy.

There is reason to suppose that the development of the general situation depended on how many friendly casualties were sustained at each point of contact of the opposing forces. Since friendly battalions were not as a rule backed up closely, if at all, by a reserve battalion, it was important to them to avoid being crippled by enemy action for they could not easily be relieved. Perhaps most often only two rifle companies were involved in a hill action, with the third held in reserve. To be sure, if one company were rendered quite ineffective, as by being overrun, the elasticity of the entire battalion would be gone, but lesser losses, whether concentrated in one platoon or distributed over the entire company, would not destroy its functional unity and there would be opportunity to repair the unit with replacements. One would therefore expect that only a certain maximum percentage of casualties would be acceptable in any rifle company. Individual platoons might, however, be expendable.

As the company is the smallest administrative unit, no data on the distribution of casualties among platoons exists. (Some suggestive information on this point is considered, however, later in this memorandum in the section on friendly casualties in the capture of Hill Mass 314.) In Table 8 the data on individual companies presented in Table 7 are rearranged into several categories according to which side took the aggressive action and which at the end of the engagement held the contested point, a hill or a knob on a ridge. No friendly or enemy defending force was ever overrun.

The following generalizations express the contents of Table 8 and may not be at all valid for prediction: (a) Friendly companies occupying a hill facing enemy forces and subjected only to enemy fire held the position even though 12

percent casualties had been sustained. (b) Friendly companies occupying such a hill and assaulted by the enemy held even though 4 percent casualties had been sustained, withdrew from forward positions, then held when 10 percent casualties had been taken, withdrew from the contested point when 17 percent casualties had occurred. (c) Friendly attackers did not capture a hill if more than about 14 percent of the strength of one company became casualties. Exception: the two assault companies that finally captured Hill 314 each had a casualty rate of 34 percent.

TABLE 8

CASUALTY PERCENTAGES IN FRIENDLY COMPANIES IN RELATION TO OUTCOME OF OFFENSIVE AND DEFENSIVE HILL ACTIONS^a

Action	Company casualty rate ^b (in percentages) when result was:		
	Friendly capture of hill	Friendly withdrawal	Friendly stand
Friendly attack	3 cases: 34 (34, 13) 14 (10) 4	4 cases: 15 (9, 7) 14 (12) 12 11	—
Enemy attack	—	3 cases: 17 10 4	2 cases: 0 0
Enemy fire only	—	No cases	2 cases: 12 (12) 8

^aAll are actions in which defending friendly or enemy force made stand or withdrew, was never overrun.

^bThe highest company casualty rate in any one action is given, with casualty rates of other companies actively involved stated in parentheses.

As to casualties, the capture of Hill 314 by the 3d Bn, 7th Cav was not so exceptional as it may seem. As discussed in a later section, about half the casualties in Co L and Co I occurred during and after the long inactive period when they were pinned down by mortar fire after the second unsuccessful assault. The company casualty rate had reached about 15 percent at this point, and the attack might have been called off if the general situation had not been so critical. Also, it seems certain that the hill would not have been captured without the unusually effective air strike and outstanding leadership. In regard to taking further offensive action, the battalion was crippled for some days. This was not true of the other units that had withdrawn from unsuccessful attacks; for example, the 3d Bn, 8th Cav went on to take various points of high ground in the vicinity of Hill 401.

COMPARISON OF FRIENDLY AND ENEMY CASUALTIES
IN THE ENEMY'S INITIAL DRIVE

Data given earlier and in this section permit a fairly clean-cut comparison of friendly and enemy casualties in the first phase of the enemy offensive when the deployment of the units of both sides, as represented in the diagrams of Part III, is taken into account. For the comparison to be valid, the 1st NK Div must not have engaged the 8th Cav Regt. The evidence given earlier indicates strongly that this was so but does not prove the point. It is therefore possible that the ratios of enemy-friendly casualties calculated below are somewhat too low.

As shown earlier, in Table 5, from 31 August through 10 September the 13th NK Div's 19th Regt with an initial strength of 1057 is calculated to have sustained 692 casualties; its 23d Regt, with a strength of 769, 340 casualties; its 21st Regt, with a strength of 486, 88 casualties. It was estimated that one enemy regiment opened the offensive by attacking the 8th Cav Regt's 2d Bn; this was almost certainly the 19th Regt. In all likelihood, the weaker 23d Regt, which initially faced the 8th Cav Regt's 1st Bn, was moved up to reinforce the 19th Regt. The very weak 21st Regt doubtless remained in reserve or in a quiet sector. The strength and casualty figures suggest at once why the 1st Bn was subjected to only very light pressure and why the offensive stalled south of Tabu-dong.

Enemy casualties of course accumulated from friendly air attack and artillery fire as well as from infantry action. By 8 September contact had dwindled to clashes of outposts, and after the friendly withdrawal on this date there was no contact at all in this sector on 9 September, and perhaps 10 September as well. There was one air strike on 1 September and none on 2, 3, 4, or 5 September. Since the offensive had halted by 6 September, it is likely that the enemy did not overtly offer targets for the air attacks which were delivered on 6, 7, and 10 September. The casualties in the two enemy regiments were therefore probably sustained chiefly in the first days. For further analysis, 80 percent are arbitrarily assumed to have occurred before 6 September. If it is assumed that no replacements were received during the first phase, the following balance of personnel can be made: initial strength 31 August, 19th Regt—1057, 23d Regt—769; casualties 1–6 September, 19th Regt—557, 23d Regt—272; strength 6 September, 19th Regt—500, 23d Regt—497.

These figures include casualties caused by friendly supporting fires among regimental units to the rear of the front line, such as the regimental artillery and mortar companies. A proper comparison therefore includes casualties in friendly units just to the rear. In Table D1 casualties considered inflicted by the 13th Div's 19th or 23d Regts in any units, front or rear, are italicized. Company B is excluded because on 2 September it moved to the west and presumably into contact with the 3d NK Div; Co E is excluded from 5 September on because of its move into the Walled City and contact with the 1st NK Div. With such exclusions a total of 298 friendly casualties is attributed to the 13th Division in the period 1–6 September. If this total is assumed to be only 75 percent complete, the estimated actual figure is 397. The comparison for opposing regiments, may then be made: enemy casualties, 829; friendly casualties, 397; ratio, enemy/friendly, 2.1.

A comparison of the number of casualties in the opposing units at the front line is of particular interest. On the enemy side, estimates of strengths of sub-units and their casualties may be made for the 19th Regt. In accord with the data and assumptions given earlier in this part, the regiment is estimated to have had the following make-up on 1 September: total strength was 1057; of which, 1 battalion has 160; 2 battalions (280 each), 560; CP units, 1705 artillery, mortar companies etc., 167.

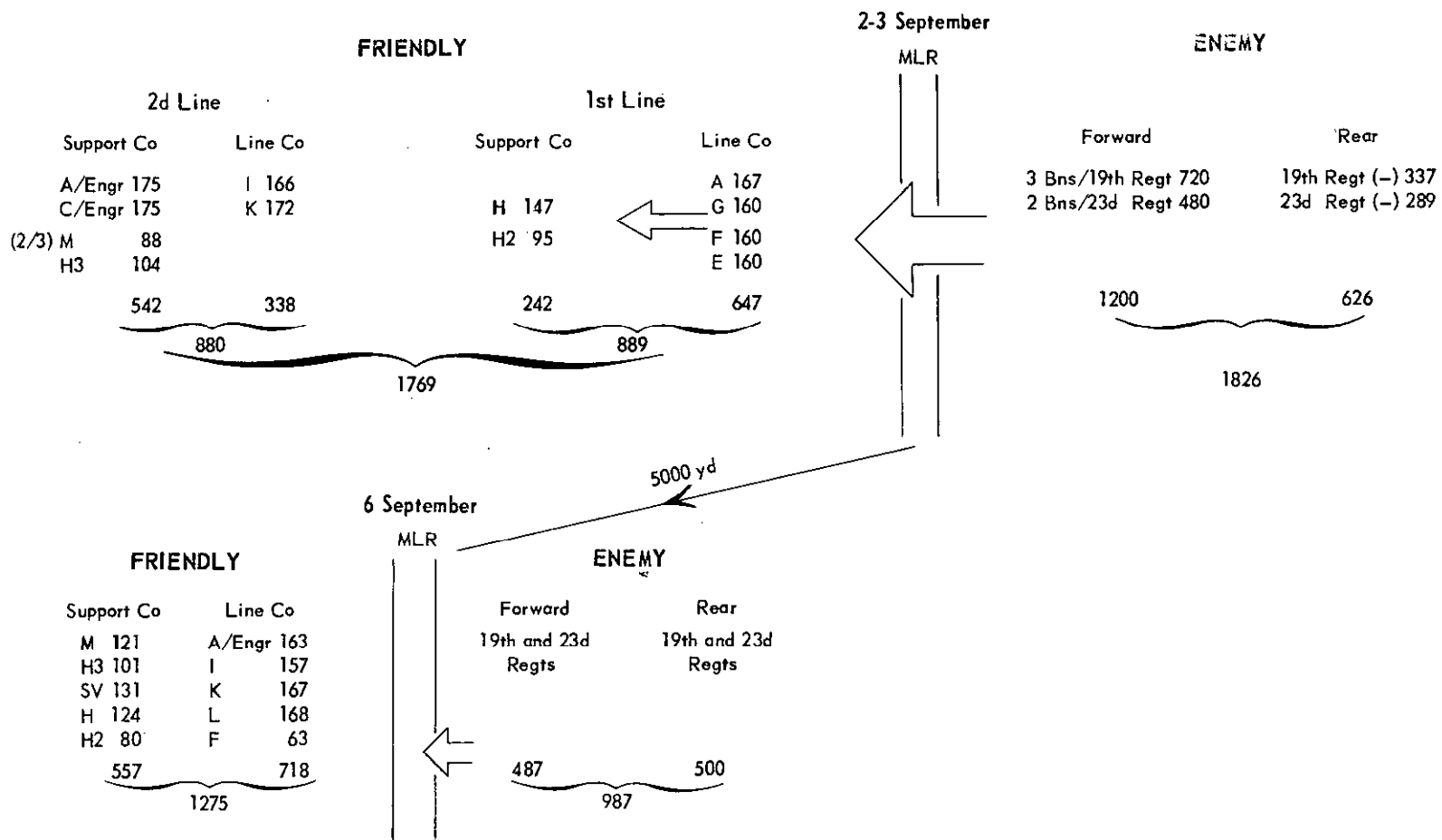
From the data of Table 5, it is calculated that in the period 1-6 September the 13th Div miscellaneous divisional units (with the omission of the antitank battalion, which was in a special situation) lost 17 percent of their strength (applying here again the 80 percent correction for casualties through 10 September). If the regimental rear units had a similar but somewhat greater hazard, an average depletion of 25 percent may be assumed for them. Of the 337 men not in the rifle battalions of the 19th Regt, then, 84 are calculated to have been casualties. If this figure is subtracted from the 557 casualties for the entire regiment, the result is 473 rifle-battalion casualties. Of their combined initial strength of 720, they then had only 247 men left, or 34 percent of the original number. One or two battalions very likely were depleted even more.

If it is assumed that two battalions (of 280) of the 23d Regt attacked, and that the remainder of the regiment remained in the rear and suffered 25 percent depletion, then 200 casualties are attributed to the two battalions. This figure, when added to that of the 19th Regt, gives a total of 673 casualties in enemy rifle battalions.

Friendly front-line troops may be taken to be the rifle and heavy weapons companies and the combat engineers. From Table D1 it is calculated that the 13th Div inflicted 240 casualties on these units. If the 75 percent figure of completeness is again taken into account, the number is raised to 320. The comparison for opposing front-line units may then be made: enemy casualties, 713; friendly casualties, 320; ratio, enemy/friendly, 2.2.

It is appropriate to compare the depletion of certain friendly companies with that of the enemy rifle battalions. Companies F and G were penetrated by the enemy's frontal attack. According to Table D1, both had an initial strength of 160. Through 5 September Co F suffered 63 casualties and Co G, 38. If the casualty-reporting for these hard-hit units is taken to be 65 percent complete, as suggested earlier, and if it is assumed that no replacements actually joined them at the front, then for Co F the remaining strength would have been 39 percent of the original figure, and for Co G, 63 percent.

The deployment of the opposing forces at the beginning and end of the enemy's first push is shown with attached strength figures in Fig. 7. Only units astride the highway, i.e., in the area of penetration, appear. On the west flank, the bulk of the 8th Cav Regt's 1st Bn, with Co L and elements of Co M (and with a strength of 617), was, in effect, opposed by the very weak 21st NK Regt (strength 486), though there was little actual contact. By the time of the withdrawal here on 6 September friendly strength had increased to about 800, so there was little danger of envelopment by the enemy.



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Fig. 7—Lineup and strengths of opposing forces astride the highway, 1 and 6 Sep 50.
Strength figures for 6 September assume no replacements received by either side.

The 13th NK Div evidently achieved its limited advance to Tabu-dong and beyond at the cost of temporary loss of combat effectiveness. Though its casualties were little more than double those on the friendly side, the low initial strengths did not afford leeway for much depletion with retention of organizational structure. The advance was evidently achieved by the concentration of force in a very small area, i.e., against Co G and Co F. Because of the limited scope of the offensive, it would seem that friendly units on the second line of defense could easily have moved up to meet the enemy attack and might well have held the original line. There were, of course, reasons why the reserves were not so committed.

ENEMY SUPPORT

Enemy supporting arms originally comprised armor, artillery, and mortars. Most of the tanks and SP guns were lost north of Tabu-dong just before the period under study here. As the circumstances of this unsuccessful employment of armor are of considerable interest, this prior action is analyzed in a succeeding subsection. Only fragmentary data are available on the number and disposition of enemy mortars and artillery pieces at the beginning of September 1950, but detailed and almost comprehensive data are available for the time when the battle was joined on Hill Mass 314. This section is therefore chiefly concerned with dispositions in the vicinity of Hill Mass 314 on 12 September, and coverage is extended to include a subsection on small arms and automatic weapons in direct support of enemy infantry on the hill mass at this time.

WEAPONS ON AND IN THE VICINITY OF HILL MASS 314

Supporting Weapons in General

One conclusion reached in the earlier section on enemy units was that by 12 September units of both the 1st and 13th NK Divs were or had been on Hill Masses 314 and 570. The artillery and mortars used by the enemy in resisting the attack on Hill Mass 314 by the 3d Bn, 7th Cav Regt were almost entirely those of the 13th NK Div. The reasons why the 1st NK Div did not actively support its own forward units are considered to be: (a) it did not have many supporting weapons, (b) its weapons were so located that only a very poor shot could be had at friendly units on the southern part of the hill mass, and (c) its rear units could not adequately observe friendly movements there. The evidence for these statements follows.

Information on the heavy weapons of the 1st Div is to be had from reports of interrogation of several prisoners of war. In the report ATIS 1430 a senior lieutenant from the 1st Div's AT Bn located the division CP and its artillery regiment 5 $\frac{1}{2}$ miles north of Hill 314 in the vicinity of the coordinates 1156.7-1464.4 on 15 September. He stated that the 2d Bn of the regiment had two 76-mm guns, and the 3d Bn two 122-mm howitzers. No mention was made of a 1st Bn. Further details from this prisoner are available in a field interrogation report by the 1st Cav Div. In this report the artillery regiment is located at 1157.7-1468.4 and stated to have, perhaps in all three battalions, three 76-mm guns and three 122-mm howitzers. The division was evidently very deficient

in these weapons, since the normal number with a full complement of personnel is 18 of each. The prisoner added that all tanks in the 1st Div had been sent to the 13th Div. From another POW, there is some evidence that the 14th NK Div's SP-gun Bn moved to Tabu-dong early in September and then withdrew on or about 8 September. Since the 1st Div was advancing on Taegu directly from the north through rough terrain, it would appear that available heavy equipment, including artillery, had been assigned to the 13th Div because of the good roads leading from its area directly to Taegu. This would be a concrete example of the kind of intradivisional coordination discussed in the previous section.

No detailed information is available on the heavy mortars or artillery of the 14th and 2d Regts of the 1st Div. The fact that they were committed piecemeal and moved onto Hills 570 and 314 at night from the ridges to the north and east suggests that heavy equipment was not brought along. Also, the broad open valley south of the Walled City in the 1st Div area (see Fig. E9) did not offer suitable intermediate positions in defilade for artillery or heavy mortars even if the division had any.

Furthermore, the configurations of Hill Mass 314 and Hill 660 simply did not offer good targets. The gentler reverse slopes of Hill 660 could be reached by howitzers and mortars, but such fire would be pointless without observation and without frontal assault, impossible up the steep forward slopes (see Figs. 3 and E8). The US positions on the southern part of Hill 314 could also be reached by high-angle fire, but again, such fire would not be useful without observation of friendly units and the movements of the enemy's own troops. By 12 September the ROKA advance had reached the vicinity of the 783-m point on the northeast ridgeline, leaving the enemy even distant observation only from here to the 900-m elevation of Kasan. Very little could be seen of Hill 314 south of Knob 2.

Circumstantial evidence also suggests that 1st Div mortars of 82-mm size or greater were not involved in the fighting on Hill 314. Previous to 12 September, and especially on the 11th, 8th Cav units had fought back and forth for many hours each day on Hill 314; however, they were not punished with anything like the intense mortar barrage directed at the 3d Bn, 7th Cav. As discussed in Part IV, it is surmised that on the night of 11-12 September the 3d Bn of the 19th Regt, 13th Div moved onto Hill 314, establishing a new and potent position of four 82-mm mortars at the north end of the hill. Also, Hill 314 was now included in the field of fire of the 13th Div 120-mm mortars (if it had not been before). From Hill 570 friendly movements on the ridge and the left side of Hill Mass 314 were nakedly displayed, as shown by the photograph from this point (Fig. 3). From one central observation post on Hill 570, the fire of both groups of mortars and of regimental artillery could be controlled.

Number and Type of Mortars and Artillery Pieces

Authoritative enemy data are available from the enemy on the number of weapons in the 13th NK Div. A comprehensive count of personnel and weapons in all 13th Div units was made on 11 September. These statistics happened to be in the pocket of the CofS of the 13th Div when he surrendered later in the month. Table 9 presents the figures on weapons in the 19th Regt, 21st Regt, 23d Regt, Arty Regt, and certain other units. For comparison, TE figures for full-strength infantry and artillery regiments are included. As shown in a

previous study,²⁵ the division was hardly underequipped, in proportion to its reduced strength. For its manpower at that time, the 19th Regt, as an outstanding example, had 275 percent of the normal number of 120-mm mortars and 275 percent of the normal number of 76-mm guns. The 1st NK Div certainly was in no such favorable position. The enemy document used in constructing Table 9 does not specify the model of each weapon listed, but, among 76-mm pieces, does distinguish those of the type for regimental support (howitzers)

TABLE 9

NUMBERS OF CERTAIN WEAPONS IN MAJOR UNITS
OF THE 13TH NK DIV 11 SEP 50^a

Weapon	TE ^b		Actual numbers ^c						
	Inf Regt	Arty Regt	19th Regt	21st Regt	23d Regt	Arty Regt	SMG Bn	AT-gun Bn	SP-gun Bn
LMG	118	—	13	7	15	—	8	—	—
HMG	54	12	12	5	6	—	2	—	—
AAMG	6	—	2	3	5	—	—	—	—
14.5-mm AT Rifle	18	12	2	—	12	—	—	34	—
45-mm AT Gun	12	—	4	4	5	—	—	11	—
82-mm Mortar	27	—	4	2	6	—	—	—	—
120-mm Mortar	6	—	6	1	2	—	—	—	—
76-mm How	4	—	4	—	1	—	—	—	—
76-mm Gun	—	18	—	—	—	8	—	—	—
122-mm How	—	18	—	—	—	9	—	—	—
SP Gun	—	—	—	—	—	—	—	—	2

^aData from captured enemy document, which states "These statistics were made 11 September 1950."

^bSource: Document, one loose sheet, handwritten, carried on person of Sr Col Lee Hak Ku, C of S of the 13th Div, NKPA, when he surrendered to US forces at 1153.3-1454.3 on 21 Sep 50. For the complete table see Ref 25.

^cUS intelligence estimates as of September 1950.

and those for divisional artillery (guns). The distinction between guns and howitzers and among the different models of howitzers is important. Artillery fire can usually be distinguished from mortar fire by the scream of the projectile at supersonic speeds and, in the case of guns, perhaps by the flat trajectory. High-angle fire from one weapon, the 76-mm howitzer M1943 (which has an extremely low, subsonic muzzle velocity about the same as mortars at long range), probably could not be distinguished from mortar fire. As adequate data on the models of its weapons are lacking from the 19th Regt itself, recourse must be made to information from other sources, including the interrogation of prisoners from other units. It is not known whether the prisoners volunteered the model designations or merely chose among pictures of various weapons shown them.

The Asst Regt Cmdr of the 45th Regt, 15th Div (ADVATIS 0958; Item 2, App C) gives the assignment of weapons within his division as: Div Arty Regt—122-mm How M1938, 76-mm AT Gun M1942 in all-purpose role; Regt Arty—

76-mm How M1927; and Div AT Bn, Regt AT Co—45-mm AT Gun M1942.

A number of additional interrogation reports indicate that the only 122-mm howitzer supplied the North Korean Army was the M1938 model, and the only 76-mm field gun the M1942 model.

The following weapons can be identified in photographs of the Tabu-dong area taken in October 1950: 45-mm AT Gun M1942; 122-mm How M1938; 76-mm How M1927.

Besides the M1927 howitzer, 76-mm regimental artillery could have included the M1943 howitzer or the M1938 mountain gun. A private who had been with the 19th Regt Hq from March 1950 to 7 September (ADVATIS 0879) stated that Regt Arty had originally been an M1938 Gun Bn, though he had no idea of the situation around the time of his capture on 12 September. A junior lieutenant from the Arty Bn of the 6th Regt, 2d Div (ADVATIS 0837) stated that his unit was equipped with M1943 howitzers, and a sergeant from the AT Co of the 9th Regt, 3d Div (ADVATIS 0927) also said that his regiment had M1943 howitzers. However, a lieutenant from the 18th Bn, 21st Regt, 13th Div (ADVATIS 0926) stated that as of 18 September he saw ten 76-mm pieces, M1927 and M1942, emplaced along the hills 5 km southeast of Tabu-dong; some of the M1927 pieces may have belonged to the 19th Regt.

The former S-3 of the 3d Bn, 7th Cav Regt said that from Hill 314 he positively identified an enemy 76-mm mountain gun up on Hill 570. This weapon is exceedingly similar to the M1943 howitzer; neither is very different from the M1927 howitzer.

The Technical Intelligence Branch, G-2, Dept of the Army, reports that ordnance intelligence teams have scoured the battlefields and in the entire Korean war picked up only one model of 76-mm howitzer, the M1927, with the exception of one M1910 model that had been with Chinese forces.

Though it is possible that the enemy may have destroyed other models, it is concluded that the regimental artillery of the 19th Regt, 13th Div consisted of 76-mm howitzers M1927.

Though most prisoners reported the M1942 long-barrel model of the 45-mm antitank gun, mention was also made of the M1937 short-tube version. The leader of the 2d Plat, Co B, 70th Tk Bn, which ran the gantlet of these weapons north of Tongmyongwon on 6 September, noted that both types were present. Former personnel of the 99th FA Bn stated that air observers had noted the distinctively long barrels of the M1942 model, but that these weapons in general were hard to locate from the air. Probably both types were present on 12 September.

There is no problem in the identification of mortars. The CofS of the 13th Div (ADVATIS 0900) stated that at the time of his capture on 21 September the only 120-mm mortars the division possessed were the five model M1938's buried at the north edge of Hill 570. These almost certainly had belonged to the 19th Regt. At any rate, the M1943 modification which had been issued to the 15th Div (ADVATIS 0755) differed only in minor respects. As for 82-mm mortars, the CofS identified the nine remaining in his division on 21 September as M1937 model's. Very likely all 14 in the division on 11 September were of this model.

Location of Mortars and Artillery Pieces

Evaluated data on the exact locations of enemy weapons are not available. Such information might be expected from the artillery observation battalion, but it was in no position to cover the front. Recourse must be made to observations from any source whatever.

The 1st FA Obsn Bn arrived in Korea on 25 Aug 50, understrength (61% of TO), and without full equipment.¹³ Batteries B and C were attached to the 1st Cavalry Division when it took over the defense of the Tabu-dong area at the end of the month. Though full equipment had not arrived on 4 September, it was considered that sound, flash, and radar operations could be undertaken. Battery B went into positions in the sector of the 7th Cav Regt and Battery C with the 8th Cav Regt in the vicinity 1153.5-1450.3.

Battery C's radar went into operation at 1115 on 4 September but closed down in the evening when the battery was withdrawn due to the uncertainty at the front line. Sound and flash equipments were installed on 9 September. The battery's three OPs were located in a cluster: No. 1 at 1156.7-1445.7, No. 2 at 1155.3-1445.5, and No. 3 at 1154.1-1444.8. The radar was located nearby at 1156.1-1446.2. The first radar target, an unidentified movement in the vicinity of the Walled City, was picked up on the evening of 9 September.

The character of the terrain placed the observation battalion at a severe disadvantage. Because the ridges and peaks decreased in elevation from the enemy to the friendly positions, much territory was screened from visual and radar observation, and the deep valleys probably hindered accurate sound ranging. From Btry C's three OPs only a very short segment of the enemy front line could be seen, but all of the Taegu-Tabu-dong road from south of Hill 373 to within a few thousand yards of Tabu-dong was included in this narrow angle. From enemy sources it is known that the 13th NK Div Arty was along the road within the visible stretch north of Tongmyongwon (12,000 to 13,000 yd from the OPs), and the 19th NK Regt Arty was very likely at Tongmyongwon. Battery C's flash observers were then suitably placed to observe enemy artillery if it fired, and since virtually all of the valley north of Hill Masses 570 and 314 was hidden from them, there was no need to divert attention from the Taegu-Tabu-dong road.

On several occasions from 9 through 21 September, Battery C's observers noted enemy movements, and several times they looked for enemy guns already observed by other units. The following list gives all enemy gun positions actually picked up by the flash observers throughout the period and logged by the 1st FA Obs Bn.¹³

- 10 Sep, 1500. Gun firing at 1153.15-1456.20 [on road at Hill 263]. 1st Cav Divarty reports gun too close to friendly line to fire on.
 - 1520. Tank at 1153.0-1456.7 [on road, just north of previous position]. Battery C flash OP adjusts fire of 9th FA Bn, several direct hits reported.
- 12 Sep, 0440. Location [unspecified] of enemy gun reported by flash OP, which at 0515 adjusts fire of 9th FA Bn.
 - 1445. Enemy gun observed at 1152.50-1458.00 [on road, 500 yd north of Tongmyongwon].
- 14 Sep, 0810. What appear to be flashes observed at 1153.87-1451.75 [on road in friendly held territory].

There is evidently rather strong negative evidence to confirm the POW report that 13th NK Div Arty did not fire.

Doctrine for an artillery observation battery calls for a sound base within 3000 to 5000 yd of the front line. The enemy never took positions closer than within approximately 6500 yd of Battery C's OPs, yet its sound base was withdrawn on 10 September to a new location southwest of Taegu. Battery B of the 1st FA Obs Bn then extended its sound coverage to include the sector of the Taegu-Tabu-dong road. The only significant target of Battery B's sound ranging logged through 20 September was at 1255 on 13 September, when an enemy gun of unknown class was located at 1152.37-1456.95, just south of Tongmyongwon and on the west side of the road.

To determine the source of the fires received by friendly units on Hill Mass 314, one must first put together the reports of observers from various units on the ground and in the air and then combine them with the observations of both the men subjected to these fires and POWs.

Enemy weapons were not readily observed from the air. As the reports from the artillery air-observers are presumably included in the unit logs, the writer has not consulted the former air observers of the 1st Cav Div's artillery battalions. An Army observer who flew regularly in one of the 1st Cav Div mosquito planes said that enemy mortars were very hard to distinguish from the usual flying altitudes, and that airmen had great difficulty in identifying a particular ridge in relation to the map. Also, security required that they be told little and report little via radio. The writer has not communicated with the air observers of the 1st Cav Div's artillery battalions.

Figure 8 is the plot of enemy weapons on and around Hill 314 arrived at after consideration of all available evidence. In first form, it was made by the former S-3 of the 3d Bn, 7th Cav Regt over two years after the action, from memory and without the aid of any references whatsoever. Reports of enemy weapons logged at the time of the action were then keyed to this plot as a basis for comments and correction by several officers formerly with the 77th FA Bn and, independently, by the artillery liaison officer who had been on Hill 314 calling in the battalion's fire during the attack on 12 September. From the remarks of these officers a few changes were made. Further adjustments were made to fit the testimony of POWs, statements by various infantry personnel interviewed and, as a last, rigorous condition, the 13th Div's statistics.

Concentrations of friendly artillery fire shown in Fig. 8 are discussed in the next section of this memorandum. It may be noted here that most of the positions of enemy supporting weapons were not subjected to counterbattery fire during the battle on 12 September. In its antimortar role, the 9th FA Bn fired on various positions rather to the rear, as it was generally surmised that the troublesome 120-mm mortars could be anywhere, even back with the artillery near Tabu-dong. It now appears, however, that all enemy mortars were well forward. Of 13th Div units in the area, only the 19th Regt had mortars, and it and its weapons were in the vicinity of Hill 570.

The sites of reported enemy supporting weapons are discussed individually below. Where no weapon is shown, the reason is given. Unless otherwise noted, a given position was plotted by the former S-3 of the 3d Bn, 7th Cav, and was accepted by the artillery officers without comment.

Site 1. A map drawn by the former CofS of the 13th NK Div (ATIS 1468) shows five 120-mm mortars buried at this location. According to a former officer of the 99th FA Bn, there was a rumor at the time that the enemy had actually carried his heavy mortars up on the ridgeline of Hill 570 in order to secure greater range in the direction of Taegu. Since there is reason to believe that all the 19th Regt 120-mm mortars were located at Site 4 on 12 September, such a move would have had to be between then and 14 September. An active mortar position at Site 1 was not reported in any of the logs or by any of the 8th or 7th Cav personnel interviewed.

The presence of a gun in the vicinity of Site 1 is confirmed by the following report (made during the final battle for Hill 314): "121310. From Arty Liaison Officer with 7th Cavalry: Receiving possible tank fire from 1155.0-1456.9 or north of these coordinates."¹ The day before, a gun had fired from this vicinity at the 3d Bn, 8th Cav Regt in its attack on Hill 314. "111340. From Arty Air Observer: In draw in grid square 1155-1457 there is a gun firing direct fire at hill at 1156.5-1455.5 [Hill 314]."¹

This weapon is presumed to be one of the two SP guns of the 13th Div. It could not have belonged to the 1st Division, for a prisoner from the SP Bn of this division (ADVATIS 0871) reported that from 8-16 September this unit, with two SP guns, remained at Hyoryong, well to the north. As shown in Table 9, the 13th Div also had two SP guns, and one of these must be the subject of the following report (sometime on 12 September): "...The 1st FA Observation Battalion reported a self-propelled enemy gun and adjusted the 9th FA Battalion, scoring two direct hits on the target."¹⁰

These hits apparently had little effect, for a prisoner from the 13th Div's SP Bn (ADVATIS 0925) stated that the two SP guns were only destroyed by air attack on 21 September. The enemy lost the guns as of this date but they were not damaged. According to the former leader of the 2d Plat, Co B, 70th Tk Bn in the breakout around 21 September two SP guns were captured intact at Tongmyongwon (one was driven some miles), and a third was reported to be nearby in the hills.

Site 2. These four guns were added to the plot by former officers of the 77th FA Bn. The following message sent during the battle appears to refer to these pieces but locates them somewhat inaccurately at the location shown as Site 3: "121455. From Shamrock [Div Arty]: From photographs the location of four guns at 1152.8-1457.2 has been confirmed."¹

Two days later further reports were made on this position. The coordinates in the following message are plotted as Site 4 but probably were meant to represent Site 2: "141315. From Divarty Air [through] Shamrock 3: Found three artillery pieces and one tank at 1152.6-1457.6"¹

Another report at about the same time specifies coordinates close to Site 2: "141555. From Divarty: ...Nathan Hale [1st FA Obsn Bn] reports suspected two pieces at 1153.58-1457.88."¹

The four pieces plotted at Site 2 are considered to have been 76-mm howitzers M1927, the infantry support artillery of the 19th Regt. One of the four could conceivably have been dragged up on Hill 570 the next day and been identified there as a 76-mm mountain gun, leaving three to be observed at the original location on 14 September. The confirmatory evidence for Site 2 is negative but strong. As discussed later, the weapons thought to be at Sites 5 and 6

by personnel of the 7th Cav Regt simply weren't there, or they would have been observed by units of the 8th Cav Regt occupying adjacent sites. The only possible site for regimental artillery, the only logical one in view of communication with the observation point on Hill 570 and defilade, is Site 2, as shown.

As given in Item 2, App C, a regimental commander of the 15th NK Div who was captured on 28 September, stated that the 76-mm regimental howitzers would be emplaced at least 2 km to the rear of a hill on whose top the observation point was located. Site 2 is 1½ km behind the OP on Hill 570; it would therefore be a forward position. Since it was enemy doctrine to move artillery into new emplacements at night, and since the first friendly observation of the position at Site 2 was apparently on 12 September (though 11 September was clear) it is likely that the 19th Regt howitzers only were emplaced on the night of 11-12 September at Site 2.

Site 3. See under Site 2.

Site 4. The enemy's 120-mm mortars are definitely located here on 12 September by the report: "121515. Scrapy Red 5 [Executive, 1st Bn, 8th Cav] reports that all Forward Observers report 120mm mortars are located at 1152.6-1457.5. Further reports that all movement draws fire from these mortars."¹

According to the former CO of Co B, 8th Cav, the mortar fire that caused approximately twenty-five casualties in Co B on Hill 225 around 0730 on 12 September was the first such intense fire received. The position at Site 4 was hidden from direct observation from Hill 225 and the outpost hill just to the north, and undoubtedly was responsible for these casualties. It apparently only became active on 12 September.

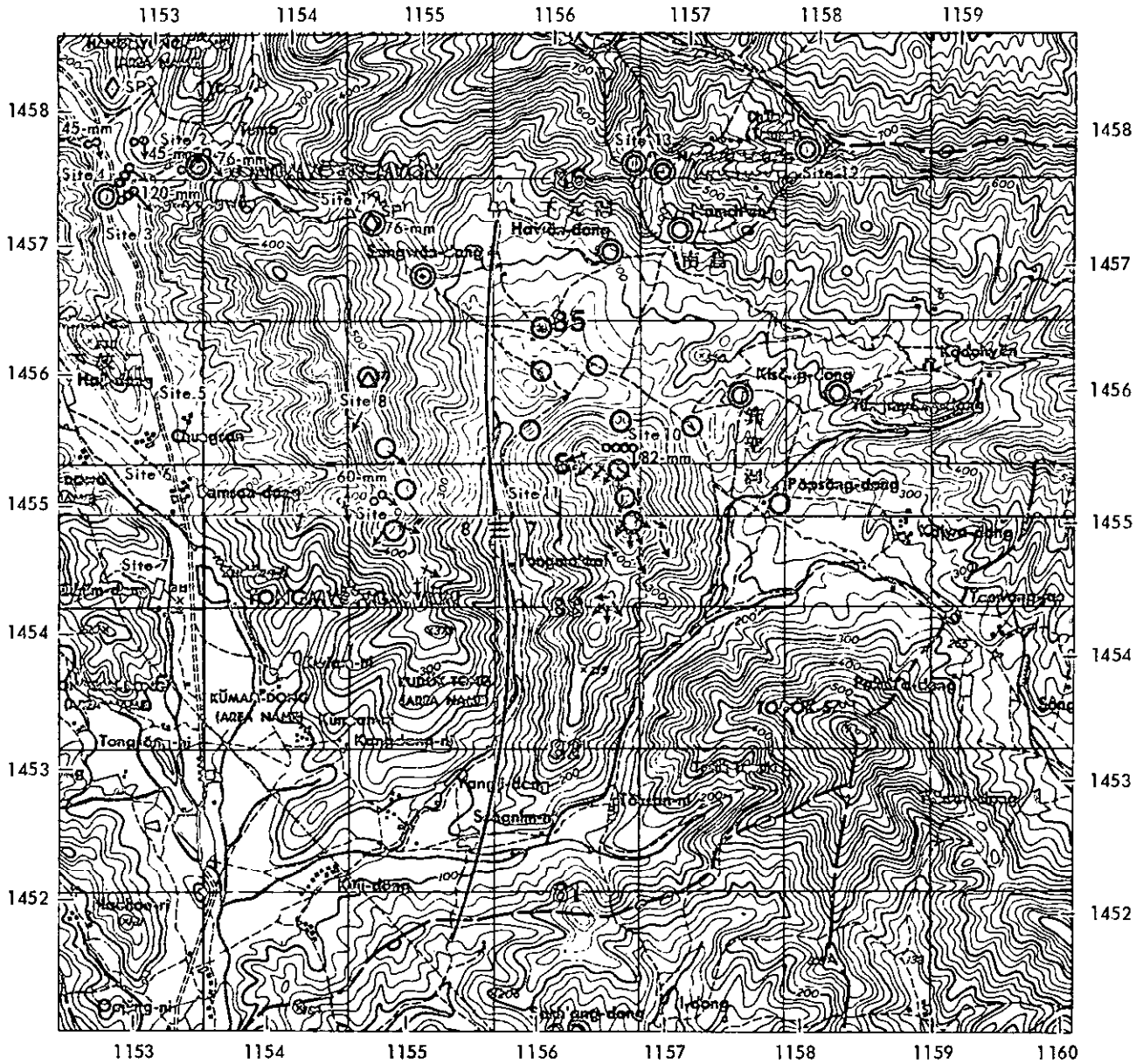
All six 120-mm mortars of the 19th Regt have been plotted at Site 4. Enemy doctrine (see ADVATIS 0755, Item 1, App C) called for six mortars in line. They are shown in two groups of three because fire on Hill 314 was noted as coming in two adjacent concentrations and in 3-rd salvos. Though this location would seem to leave the mortars vulnerable to counterbattery fire and south-to-north passes by friendly aircraft flying up the valley, it would permit the mortars to fire from a reverse slope on friendly positions on Hill 225 and the southern slopes of Hill 624, as well as on Hill 373, Hill 314, and elsewhere. The extent of the cover and camouflage offered by the town of Tongmyongwon is not known.

The four 45-mm antitank guns of the 19th Regt have been placed by the writer in the vicinity of Site 4 on the basis of the following reports:

131200. From Divarty: Field piece at 1152.48-1457.42 fired on and silenced.

131420. From Scrapy 2 [8th Cav S-2]: Reports two AT field pieces and ammo dump at 1152.9-1457.8, reported by FO of Spirit [9th FA Bn]. Arty was put on them but could not reach the guns. Our tanks ran into the fire of these pieces at 1305 but withdrew...¹

Personnel of the 8th and 7th Cav Regts reported that for several days before 12 September friendly movements across the mouth of the valley drew fire from small-caliber high-velocity weapons. Air observers' reports, as related by the former S-3 of the 99th FA Bn, stated that 45-mm AT guns were responsible.



Enemy Weapons

- ↓ US Bar
- ‡ LMG
- ‡ HMG
- ♀ Mort
- ♀ Gun or How
- ◇ SP Gun

Fire by:

- 77th FA Bn, Btrys B & C (105-mm How)
- ⊙ 9th FA Bn, elements (155-mm How)

Fig. 8—Enemy weapons and friendly artillery concentrations. Thirteen probable sites of enemy weapons are given. 1000-yd grids are numbered; light lines indicate 1000-m grids. Caliber of enemy weapons is given in some instances.

Fire at the southern mouth of the valley was also received from a self-propelled gun according to the former leader of the 2d Plat, Co B, 70th Tk Bn. On one patrol up the highway in the vicinity of the village of Chungsan, the tanks received high-velocity flat-trajectory fire, judged to be 76-mm. Night after night, fire of this same type landed against the knoll down the valley at the tanks base position and never landed anywhere else, as if there were some limitation on the traverse of the weapon. Clearly this limitation consisted of the walls of the corridor formed by the southwestern slope of Hill Mass 351-263 and the northwestern slopes of Hill 570. Situated in the assumed position, very close to the knoll north of Tongmyongwon at the coordinates 1152.7-1458.4 the presumed SP gun would have an exceedingly narrow fan of fire, but one that would just include the knoll at the tanks' base position and, 6500 yd up the valley, the village of Chungsan.

Site 5. The former S-3 of the 3d Bn, 7th Cav, who had observed the mortar fire received during the battle on Hill 314, later placed four 120-mm mortars at this site. No logged reports can be found to confirm this improbable position. Instead, for the reasons given above, these mortars have been located at Site 4.

The situation overlay of the 77th FA Bn for the period 101700-111800 September shows a tank at this site, probably the SP gun thought to have been based in the vicinity of Site 4.

Site 6. Enemy artillery was placed at this improbable location by several officers. It is considered that it was not artillery but one of the 13th Div's two SP guns which had been temporarily moved down on 11 September from its normal position north of Tongmyongwon, and was again moved to an advanced location on the morning of 12 September under the cover of mortar fire. The evidence for this conclusion follows.

(a) The former CO of Co B, 8th Cav, which was on Hill 225 with outposts on the next hill to the north, adjacent to Site 6, stated in a recent communication that no enemy gun positions were ever observed in the valley. Neither were any ever observed by the personnel of the tanks that patrolled the valley.

(b) Around 0730, Co B, 8th Cav was subjected for the first time to intense 120-mm mortar fire, and sustained many casualties.

(c) At 0730 a gun was firing nearby, according to the following report: "120735. From S-3, 7th Cavalry. I&R Platoon reports flash from artillery pieces in vicinity 1152.9-1454.5."¹

(d) These coordinates are of a point somewhat further south along the road and are plotted as Site 7. Friendly tanks at this time were not patrolling the valley.

(e) Later in the day, the tanks of the 2d Plat, Co B, 70th Tk Bn found a neat, untended pile of boxed ammunition along the road in the vicinity of the village of Chungsan.

(f) Several days after 12 September, the former S-3 of the 3d Bn, 7th Cav while on reconnaissance up the road found a large number of 76-mm shell cases in the vicinity of the village of Samsan-dong. These could either have come from an unusual expenditure of ammunition by a single SP gun or could have been the litter of the destroyed ammunition pile otherwise located slightly to the north.

Site 7. See under Site 6.

Site 8. Mortars of unspecified caliber are located on the ridge of Hill 570 by the report: "132015: From G-2: S-3, 8th Cavalry reports Heavy Mortar Company [positions in the valley to the rear of Hills 225 and 373] destroyed two enemy mortars at 1154.4-1455.7. Suspect more in this position."¹ The mortars are considered to have been at the somewhat different coordinates of Site 9, and are so plotted.

The presence of an automatic weapon at Site 8 is confirmed by the message: "131420. From Scrappy 2 [8th Cav S-2]: Enemy MG at 1154.7-1456.0."¹

Site 9. The coordinates in the following report made during the battle for Hill 314 seem interchanged with their parenthetical explanations: "121330. Divarty S-2 reports: At 1154.9-1456.1 (saddle on Hill 570) [sic] 100 people dug in (W side of saddle). Also on east side of saddle ammo boxes, 50 soldiers dug in. At 1154.9-1455.0 (top of Hill 570) 100 people dug in."¹

As noted in the earlier section on enemy units, this observation of personnel in the saddle on Hill 570 corresponds with the location given by POWs for the Mort Co, 1st Bn, 19th Regiment (see Item 4, App A). The three platoons of the company were in line one or two hundred yards apart. The site in the saddle is the only one possible for such a disposition. One more mortar is shown than originally plotted by the former S-3, 3d Bn, 7th Cav, in order to fit the relevant report quoted under Site 8 and attributed to Site 9. At least one of the pieces was a captured US 60-mm mortar. Men on Hill 314 were quite definite about having received fire with the distinctive burst of this caliber of shell.* More conclusively, this caliber was specified by one of the prisoners. A hearsay report passed on by a prisoner of a rear unit of the 1st NK Div had it that this division collected and issued US material. Since the 13th NK Div's statistics do not mention US items, it is suspected that if 60-mm mortars were on Hill 570 they had been the property of the 14th Regt, 1st NK Div, turned over to the 19th Regt, 13th NK Div when the former regiment's units on the hill had been decimated.

Again according to the 19th Regt prisoners, on 12 September 200 rd of ammunition were on hand for the mortar of one platoon. By 14 September one-third of this amount had been expended. The prisoners also stated that the mortar company had telephones, presumably linking it with the observation post on the 570-m peak.

Further confirmation of the presence of mortars at Site 9 is afforded by this report: "121835. White 2 [S-2, 2d Bn, 8th Cav] reports. . .four mortars and some machine guns on reverse slope of hill opposite G Company. White mortars taking this position under fire now. . ."³

The former S-3 of the 3d Bn, 7th Cav was rather positive about the presence of a 76-mm mountain gun at Site 9. The date of the observation is not known. This weapon is assumed to have been on Hill 570, possibly brought up by 1st NK Div units.

As Table 9 shows, the 19th Regt possessed easily enough automatic weapons to account for those plotted near Site 9.

Site 10. The former platoon sergeant of the P&A Plat of the 3d Bn, 7th Cav stated in a recent personal interview that during the later stages of the battle on 12 September, while he was bringing up ammunition to the troops then

* Soviet 50-mm company mortars, with a maximum range of 875 yd, could only have reached halfway to Hill 314.

advancing north from Knob 2, he heard the regular firing of enemy mortars from defilade at the northern end of the hill mass. When he returned on the next trip, the firing had stopped. Later, while on reconnaissance around the hill, he discovered the position from which the fire had come. Of four 82-mm mortars that had been emplaced, only one base-plate remained. Nearby, 600 rd of 82-mm ammunition were stacked in small piles. There were no empty boxes to indicate the number of rounds that had been fired. Single-strand telephone wire led from the position.

Mortars at Site 10 were not definitely reported by anyone else, though several officers, when shown only the mortars plotted at Site 11, said they thought enemy mortars had been at the north end of the hill.

It is assumed that the four 82-mm mortars at Site 10 belonged to the 19th Regt and were all it had of this caliber. They almost certainly were controlled from Hill 570, since no enemy observation of the concentrations falling in the saddle just south of Knob 2 was possible from Hill 314 itself.

Site 11. The location of three mortars here was confirmed only tacitly by the artillery personnel who were shown the plot. The mortars represented were probably those already definitely located at Site 10. Since that position accounts for all 82-mm mortars of the 19th Regt, mortars at Site 11 would have to be 120 mm in caliber. Their location here appears unlikely, because (a) they probably could not have been quickly and completely evacuated at the end of the battle, (b) in any case, the position would have been discovered by the P&A Plat reconnaissance, (c) the position would have been in full view of US troops on Hill 373, and (d) for 120-mm mortars, such a position would have been needlessly far forward.

Site 12. The only evidence for a position here is the following report. "140825. From S-2, 7th Cavalry: POW captured last night on Hill 314 states... that three large guns are 300-400 yards east of temple 1157.2-1457.9."¹ Since no fire was received from this area, no piece has been plotted.

Site 13. No weapon is plotted at this location because the sole evidence is the report: "141555... Nathan Hale reports a field piece at 1156.64-1457.85."¹

Enemy Weapons on Hill Mass 314

Information from the enemy is available on the weapons possessed before and after the battle by two of the companies on Hill Mass 314. The source is the interrogation of a prisoner thought to be from the 2d Bn, 2d Regt, 1st NK Div (see Item 11, App A). Personnel and weapons of the prisoner's 4th Co and of the HMG Co are listed as of 14 September. Parallel "original" figures are also given. These are taken to represent the situation as of 11 September, because (a) the prisoner only joined his unit as a replacement on this date, (b) he was one of 80 replacements assigned to the 4th Co, and this massive reinforcement would explain the almost TO strength figure, and (c) he was issued 60 rd of ammunition, as listed in the "original" column.

As reported by the prisoner, before the battle 108 of the 120 enlisted men in the 4th Co had M1891/30 rifles with 60 rd of ammunition, and 12 men had submachine guns. Each man had two grenades. Personal weapons are not listed for the 40 enlisted men of the HMG Co, but it was well equipped, with five Maxim heavy machine guns and a box of ammunition for each.

By 14 September both the 4th Co and the HMG Co had been reduced to about 40 percent of their "original" strengths. Personal weapons were lost in proportion, i.e., each survivor kept his weapon. All five machine guns were retained. Presumably all losses occurred in the battle on Hill Mass 314 on 12 September.

TABLE 10

PARTIAL LISTING OF WEAPONS CAPTURED OR
RECOVERED ON HILL MASS 314

Materiel	Amount & type of materiel listed by:		Additions & comments by S-3, 3d Bn
	7th Cav Periodic Logistics Rept No. 36 ^a	S-3 Jnl, 3d Bn, 7th Cav ^b	
<u>Enemy materiel captured</u>			
LMG	1, Soviet 7.62-mm DP	1, Japanese	—
HMG	—	1	—
Submachine guns	—	23	Many more captured
Rifles	90, Soviet 7.62-mm, M1891/30	72, Korean ^c	Many more than 72 captured ^d
Other	—	—	3 long AT guns Pistols Many grenades
<u>US materiel recovered</u>			
MG	2, cal 30, M1919A4	1, cal 30-32 1, cal 50	Total of 6 US MG were recovered
Auto rifles	2, M1918A2	2, BAR	At least a dozen were recovered
Carbines	6, cal 30, M1	—	—
Rifles	50, cal 30, M1	51, M1	—
Other	2 mounts, tripod, cal 50, M3	1 81-mm Mort 1 SCR-300 radio	—

^aCovering period 161800 to 171800 September.

^bEntry dated 161800 September.

^cAll North Korean weapons were of Soviet origin.

^dMany rifles were not counted because they had been used as improvised splints and litter poles.

Table 10 is a partial listing of enemy weapons captured on Hill Mass 314 and of US weapons recovered. The basic listing is an entry in the S-3 journal of the 3d Bn, 7th Cav. Over two years after the action, comments and additions to this list were made by the former S-3 himself, and these are summarized in the adjoining column. Another list appeared in one, and only one, of the 7th Cav periodic logistics reports, this one on the day after the battalion's listing. Since, except for the capture of Hill Mass 314, the 7th Cav Regt did not advance anywhere until 17 September, and then made only limited gains, it is likely that all of the heavier weapons listed were taken on Hill 314. Some of the rifles and carbines may have been picked up after skirmishes with enemy patrols that penetrated US rear areas. The type of rifle picked up, M1891/30, was the same as that reported by the prisoner from the 8th NK Co.

Entries that appear to refer to the same weapons are tabulated in parallel. In aggregate, the list roughly checks the layout of weapons plotted in Fig. 8 by

the former S-3 of the 3d Bn, 7th Cav. In all, nine light machine guns and nine automatic rifles appear. Table 10 includes two light machine guns of enemy origin and at least two US machine guns; according to the prisoner's list, five Soviet machine guns had been carried off. The fact that roughly twelve BARs were recovered perhaps allows for nine of these weapons to have been used by the enemy. The antitank rifles may also have been used against friendly troops or automatic weapons. No enemy mortars appear in the table or in the plot of the hill. The former sergeant of the P&A Plat was certain that none had been picked up. It is of course possible that the light portable 50-mm Soviet company mortars may have been used and removed.

Not all recovered US equipment was listed officially, because such mention would have required shipment of the weapons to the rear for accounting, etc. when they were needed at once to replace previous losses. In total, large amounts of US equipment had been abandoned prior to 12 September in various hill actions, including the fighting on Hill Mass 314. There is no information on the amounts of US ammunition in enemy hands.

Individual weapons (burp guns and Soviet and US rifles and carbines) total 170. The unknown number of pistols captured would increase this figure somewhat. Nevertheless, if, as the previous analysis has indicated, 645 enemy troops were present, this figure seems rather small. Estimates by US personnel and prisoners of war place the number of enemy killed at several hundred. If these several figures are correct and the majority of enemy troops were armed, then surviving enemy soldiers must have withdrawn from the hill in good order, carrying their weapons with them and even, as was their doctrine, retrieving the weapons of the dead. This conclusion agrees with the testimony given by the prisoner cited above, to the effect that survivors of the action were all still armed and, in particular, that all five machine guns of the HMG Co were retained.

Figures E6 and E7, photographs taken after the battle, show the litter of enemy equipment around the enemy foxholes at the very crest of Knob 2. Of weapons, only rifles are to be seen.

SUPPORTING ARMOR

A broad study of enemy armored operations in Korea is available.^{26*} Information obtained from captured enemy tank personnel and given in that study indicates that one depleted regiment—either the 107th or 109th, and probably the latter—of the 105th NK Tk Div advanced toward the UN perimeter along the Sangju-Tabu-dong road. Each of these regiments had had about forty tanks at the start of the war. After friendly forces swept back from the perimeter, fifteen T34/85 tanks were found along this route, all of them south of the Nak-tong River. The total number that reached the sector could not have been much greater. Almost all of them were knocked out before the 8th Cav Regt took over the defense of Tabu-dong at the end of August 1950. Most of the SU-76 guns of the organic battalion of self-propelled guns of the 13th NK Div, the enemy infantry that advanced along the Sangju-Tabu-dong axis, had by this time also been destroyed.

* A detailed study of tank-vs-tank engagements in Korea is soon to be published by the Operations Research Office.

In renewing the offensive in September, the enemy was forced to adopt tactics no longer based on thrusts spearheaded by tanks; with further changes in tactics, a breakthrough to Taegu was almost achieved. Perhaps the freeing of infantry maneuver from the limitations of tank movement was in part responsible. It is also pertinent to inquire whether enemy tanks, if they had still been available and if they had been suitably employed, might not have tipped the scale at the critical stage of the battle in September. The engagements in August throw light on these questions.

Armored Thrusts toward Tabu-dong

The tank-led drives on Tabu-dong were stopped by the 27th Regimental Combat Team. Detached from the 25th US Inf Div as the EUSAK reserve, the 27th Inf Regt was committed to the defense of Taegu in the latter part of August 1950 after the enemy penetrated the line of the 1st ROK Div north of Tabu-dong.²³ On the afternoon of 18 August, after air strikes covered the sector of advance, the 27th Regt moved out from blocking positions it had occupied at Chilgok and Hill 373. It was supported by Co C, 73d Tk Bn (M26's), with the 1st Plat of tanks attached to 1st Bn of infantry and the 3d Plat to the 2d Bn.²⁴ Supporting artillery comprised two batteries of the 8th FA Bn (105-mm howitzers) and two batteries of the 37th FA Bn (105-mm howitzers); for the 37th FA Bn, this was the first combat mission in Korea. Targets along the axis of advance as far south as 1150.3-1462.6 were fired on. On the RCT's left and right flanks, ROKA units advanced. Though enemy opposition to the RCT was light (11 casualties tabulated by the AGO for 18 August), the advance was halted 3000 to 4000 yd north of Tabu-dong in the vicinity of the twin villages of Singi and Soiri because the ROK units on the flanks had been slowed by rough terrain and enemy small-arms and mortar fire. The 1st Bn, 27th Inf deployed on the hills along the west side of the road, the 2d Bn on the right.* The tanks of the 1st Plat, Co C, 73d Tk Bn formed a line across the road in a dry stream bed, and the 3d Plat remained behind. By then, it was dusk.

The descriptions of engagements which follow represent reconciliations of somewhat discordant information from diverse sources. These include the 27th RCT's rather undetailed historical report,²³ from which a tabular summary of action in the period 18-26 August is derived and presented as App F; the afteraction report of Co C, 73d Tk Bn;²⁴ pertinent extracts from the tabular listing of enemy armor claimed destroyed by Co C, 73d Tk Bn (Table G1); and lists and descriptions from surveys (discussed more fully below) of enemy armor later found along the road (Table G2).

In addition, the tank company's own afteraction report²⁴ and data of especial value from recent interviews with its former personnel were available.† The unit reports of the 8th and 37th FA Bns, although they contained only fragmentary data of use for the present purpose, served to confirm the dates and general character of the actions. The designations in parentheses identify the tanks, so far as can be determined, in Fig. 9 and the lists of App G, and the notes relate the data to Fig. 2.

* It might seem that this defensive line was the same as the later deployment of the 8th Cav's 1st and 2d Bns astride the road in approximately the same place, but the 27th Regt's forces were probably much less widely spread.

† By Dr. A. Coox, Operations Research Office.

The 27th RCT's advance was promptly countered. As darkness fell on 18 August, friendly infantry observed enemy tanks flanked by troops 800 yd to the north (village south of Chonpyong-dong). The report radioed to the infantry battalion's CP was overheard by Co C, 73d Tk Bn. Two M26's of its 1st Plat moved out in column onto a stretch of the road just north of a blown bridge (at 1151.5-1461.8) and flanked by rows of trees. The platoon's remaining tanks in the streambed were in a line roughly perpendicular to the road, two on the west and one on the east. The five M26's of the 3d Plat were on the road somewhat to the rear and in column about 75 yd apart. It was now 2200 and quite dark. As the 1st Plat lead tank moved slowly forward, the men inside could hear the clanking of several enemy tanks, about 550 yd away, as they approached around a bend. Then they stopped.

The lead T34 opened fire. Its first round was 25 yd short. The second hit a small vehicle on the road between the opposing forces and set it on fire. The blaze revealed a column of five T34's, with the lead tank about three hundred yards from the forward M26. Some troops were in the ditches behind them. (The 27th Inf report states that enemy troops were following in vehicles, perhaps further behind.) With their guns and machine guns, two more of the T34's opened fire on the M26's to the rear and on the friendly MSR. Perhaps the two advanced M26's were hidden by the trees. The leading M26 opened fire on the foremost T34 (I/7). According to the M26's gunner (acting as platoon leader), the first round (HE) hit the front plate of the enemy tank. Expenditure of five rounds of HVAP then killed it, one round passing all the way through. As the M26's in the stream bed opened up, the four surviving T34's turned and retreated, and the enemy foot soldiers dispersed. The two advanced M26's moved back to the stream bed, and the tanks of the 3d Plat withdrew to a second position.

During the night, the enemy continued to probe with infantry and tanks but did not reach the positions of the friendly tank company. The M26's of the 1st Plat fired blindly, and both enemy and friendly artillery were active. At one point, a T34 supposedly abandoned among some houses off the road approximately five hundred yards away (Singi-Soi-ri) opened fire on the M26's of the 1st Plat with half a dozen rounds. They missed but were coming closer when the enemy tank was silenced by a hit on its left side by a 3.5-in. bazooka round fired from its left front.

According to the infantry's report²⁸ three enemy tanks were knocked out by close-in artillery and bazooka fire on the night of 18-19 August.

The 3d Plat, Co C, 73d Tk Bn was ordered to advance at daybreak on 19 August to protect the flank of the 2d Bn, 27th Inf against new attacks. The platoon leader moved his three effective tanks up to forward positions, stationing his own in the lead on a rise. The T34 knocked out the night before on the road (I/7) was now smoldering. Approximately seven hundred yards from his own position, there was an abandoned SU-76 (which had been damaged by a US AT-mine N/11) facing north. It was now destroyed with 1 rd of HE. Amid the houses 800 yd away (south of Chonpyong-dong), 2 or 3 stationary T34's were visible (O/12, P/13). The infantry reported that they had been knocked out from the air and added that direct fire was now coming from a house 3500 yd away (beyond the road junction?). Renewed fire confirmed the report. The

M26 fired two or three rounds at the house and silenced the T34 presumed to be inside. Later the enemy tank began firing again and had to be resilenced in the same way.

The next enemy attack came late on 20 August. It was pitch dark, and the leader of the 3d Plat stated that his gun was aimed by estimating the location of the road. Again the approach of enemy armor was reported by the infantry before the clanking was heard. This time, the M26 fired first and missed. The enemy tank replied and also missed, and then turned around and retreated as the M26 fired several more times. The infantry report states that tanks and SP guns had led an unsuccessful enemy attack in which the enemy troops had been deployed behind. No enemy armor was claimed destroyed by friendly infantry, armor, or artillery.

Fire still came from the supposedly destroyed enemy tanks in the buildings further up the road (presumably 0/12, P/13). It was evidently an enemy practice to send up small crews to man still-functioning tank guns. On the morning of 21 August an armored task force consisting of the 1st and 3d Plats, Co C, 73d Tk Bn and one company of the 27th Inf was sent approximately one thousand five hundred yards beyond the MLR to clean out the villages, reconnoiter and mislead the enemy as to friendly intentions. The US tanks destroyed at short range an SU-76 (M/10) in the pass to the right of the road and two T34's (0/12, P/13) parked in the yard of the school south of Chonpyong-dong (at 1151.9-1464.3). To date, therefore, friendly armor had destroyed one T34 in battle and further damaged two already immobilized T34's and two already immobilized SU-76's. Their crews had further observed three or four more T34's amid houses. The infantry report on the task-force operation states that six T34's and two SP guns were observed and now destroyed with thermite grenades if they had not been destroyed already. Three additional tanks were therefore apparently further damaged by the infantry, perhaps one or more of them off the road amid the houses at Singi-Soi-ri.

The enemy still had five intact T34's, but probably no more. The S-3 of the 19th NK Regt, who surrendered on 1 September (Item 1, App A), stated that the only tanks he knew of were the five he saw on 21 August. He added that they all took part in the attack on this date.

The defense against this attack was carefully planned. On the afternoon of 21 August, the crews of the 2d and 4th Plats of Co C, 73d Tk Bn took over the tanks of the 1st and 3d Plats, respectively. The five tanks now of the 2d Plat remained deployed in the creek bed to the left of the road; the five tanks now of the 4th Plat were moved up in staggered column on both sides of the road, the leader stopping just beyond and to the right of the T34 knocked out on the night of 18-19 August (I/7). Company G, 27th Inf occupied the point of high ground just to the east. The tanks took up positions carefully planned for camouflage and fields of fire. Tank guns and bazookas were zeroed in on the road.

It was another moonless night. Enemy preparatory fires began around 2200. Much or most of the fire at the MLR seemed to be direct, high-velocity fire, from only several thousand yards away. In the next hours perhaps two hundred and fifty rounds came in. The US artillery concentrated on the road junction

and may have beaten off the enemy temporarily. The fullest account of these events is from the 73d Tk Bn report:

At about 2300 hours 21 August 1950, an estimated eight T34 tanks, four 76-mm self-propelled guns, an unknown number of wheeled vehicles and one regiment of infantry were observed advancing toward our positions along the axis of the road leading into Kumwha-dong [the twin villages of Singi and Soi-ri are shown as Kumwha-dong on the 1:250,000 map], which was about 2,000 yards to our direct front. Our artillery was directed upon the enemy, causing him to halt his advance and disorganizing his attack. [The S-3 of the 19th NK Regt gives a different reason for the halt.] However, at approximately 0130 hours on 22 August, our artillery lifted, and the enemy maneuvered his tanks and SP-guns into position in the town, and began firing AP and HE into our positions, expending about 75-80 rounds total. We did not return his fire at this time, because of our inability to bring effective direct fire upon him. At 0300 hours, 22 August, tanks were heard maneuvering to our front, but because of darkness we held our fire. At 0325 hours, tanks were definitely heard advancing toward our positions amid screams and apparent commands...²⁴

The enemy tanks could be tracked by their noise. Enemy infantry had removed a first line of US AT mines strewn across the road. Now the leading T34 stopped at the second line, and some fifty yards from the leading M26. Three vehicles piled up behind it. The order came to fire. The first round from the leading M26 hit the leading T34 (J/6?) abreast of the driver. At the same time, the bazooka scored a hit. The tank did not burn. Following the plan, the M26 shifted fire to the second T34 as rapidly as possible. The first round of HVAP missed, but the second hit this T34 (H/5) on the right front slope and went through the side, bogie, and track into the ground. The third enemy vehicle, an SP gun (K/8), had been firing up the draw toward Kumwha-dong. The gun now traversed and fired the only shot at the friendly tanks. It hit the ground, and the leading M26 set the SP gun on fire with its fourth shot, a WP rd. Shifting fire back to the first T34, it expended the remainder of the original 9 rd in its ready rack. Three additional M26's opened fire, and the leading T34 started to burn. The fourth enemy vehicle, a T34, turned and escaped. Of the estimated platoon of enemy infantry accompanying the tanks (ten of these riding on the first T34), ten or fifteen were killed and the rest were dispersed. The bulk of the enemy infantry and the remaining vehicles never approached close enough to be engaged by friendly tanks.

The prisoner from the 19th NK Regt stated that of the five T34's on hand for the attack of 21 August only one survived, to be stationed subsequently at the road junction. The decimation of enemy armor would explain why the engagement on the night of 21-22 August was the last direct challenge.

In the early hours of 23 August, an SP gun took up a position 5000 yd from the MLR and scattered approximately twenty-five rounds over friendly positions. The 27th RCT reported another attack during the night of 24-25 August in which friendly artillery destroyed two more T34's. Confirming evidence is lacking. It would seem that either additional SP guns were knocked out or that knocked-out hulks were further damaged.

Enemy resources in armor on 2 September appear to have consisted of one T34 tank and a small number of SP guns. As reported elsewhere in this study, enemy plans for the attack on 2 September included support by one tank.

This tank was in fact observed moving behind the attacking enemy infantry on 3 September. Presumably, it is also the one knocked out with a bazooka round by Co I, 8th Cav north of Tabu-dong on 4 September (unidentified). By 2 September, the 13th NK Div very likely was already reduced to the two SP guns it is known to have had on 11 September. This lack would explain the move of the SP-gun battalion of the 1st NK Div to Tabu-dong on or about 4 September, as reported by one of its members taken prisoner, though there is no ready and convincing reason to offer for its reported withdrawal on or about 8 September. An additional bit of evidence is presented below to support the very likely conclusion that the two SP guns aggressively active south of Tabu-dong in the vicinity of Tongmyongwon on 11 and 12 September belonged to the 13th NK Div. One of these two, out of all the enemy armor committed in the attack on Taegu from the north, was the only vehicle to survive and fall intact into friendly hands.

Post-Mortem on Enemy Armor

The number, type, and location of knocked-out enemy armor found after the battle in September serve to check the several sources of data on the engagements in which it was involved. It is known that the North Koreans repaired damaged tanks at Sangju. Slightly damaged vehicles may well have been evacuated from the Tabu-dong area during the three to four weeks of enemy occupation. Furthermore, it was an enemy practice to cannibalize damaged armor, and several of the vehicles found north of Tabu-dong show definite evidence of such usage (O/12, R/15). Whatever the validity of these arguments, thoroughly destroyed enemy armor should have remained on the spot.

The remains were studied over a month after the most important engagements. On 27 Sep 50 an operations-research team, Survey No. 1, examined friendly and enemy armor which had been knocked out along the roads in the Tabu-dong area. On 11 Oct 50 a second team, Survey No. 5, covered the same ground. The two teams were made up of different individuals and the surveys were independent. Survey No. 1 was made by an infantry officer and an operations analyst; Survey No. 5 by an ordnance officer and an armor officer. The results of these and other surveys have been analyzed in a previous ORO report²⁶ but were not related to the battles that produced the armor casualties, nor was this considered possible. It is therefore of considerable interest to reconcile the two surveys with the battle reports.

The enemy tanks and SP guns found by the two teams are listed in Table G2 with the original notations and evaluations of the probable causes of the observed damage. Positive correlation of the duplicate sets of data was made possible by the series of photographs taken in each survey. The "Remarks" have been added by the present writer.

In each survey the location of each specimen was plotted only roughly on a 1:250,000 map. In an effort to locate the remains more definitely on the 1:50,000 map used throughout this study, the sequence and background detail of the photographs, the notations made by the survey teams, and the additional data furnished (without benefit of a map) by the former crews of Co C, 73d Tk Bn have been considered. The resulting most likely positions are plotted in Fig. 9. The approximate location of the front line of the 27th RCT and the southernmost line of the 8th Cav Regt are also indicated.

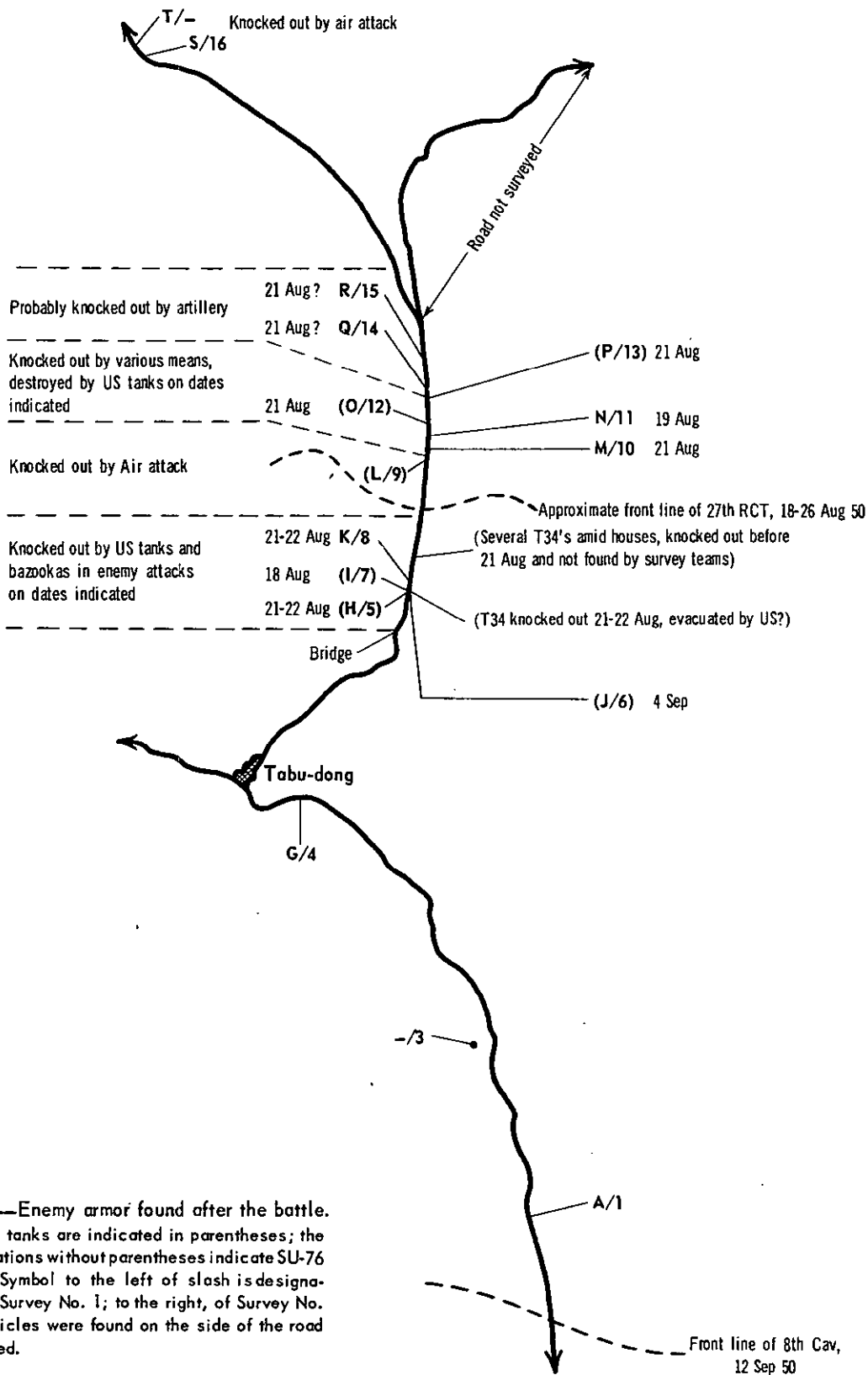


Fig. 9.—Enemy armor found after the battle. T34/85 tanks are indicated in parentheses; the designations without parentheses indicate SU-76 guns. Symbol to the left of slash is designation of Survey No. 1; to the right, of Survey No. 5. Vehicles were found on the side of the road indicated.

All the enemy tanks and SP guns which Co C, 73d Tk Bn reported as destroyed by one means or another can be correlated with remains found later, as indicated parenthetically in the preceding narrative. The reports of enemy armor hit in battle by friendly tanks or further damaged by them are in most cases confirmed by attributions of damage to 90-mm tank guns in Survey No. 5. Remains were not found to confirm the 27th RCT's claim of a total of 13 enemy tanks destroyed in the period 17-25 August. The surveys may have missed any T34's which may have been in houses off the road or which may have been evacuated by friendly forces. As for the rest, it may be that enemy armor that did not approach closely enough to be observed by Co C, 73d Tk Bn was knocked out but only slightly damaged and at once evacuated. It seems more likely, however, that the enemy practice of manning the guns of immobilized tanks caused certain tanks to be hit and reported destroyed more than once. The RCT's claim of six SP guns destroyed agrees with the number later found north of Tabu-dong.

The probable date and cause of destruction of each enemy tank or SP gun is indicated in Fig. 9. Since almost all of them were found along the road and facing south, most enemy armor was apparently knocked out while advancing.

The enemy division to which the SP guns belonged can be inferred from the numbers stenciled on their turrets and visible in some of the photographs taken by the various surveys. The first figure of a 3-digit designation and the first two digits of a 4-digit designation appear to represent the parent division of the SP-gun battalion. Without exception, such numbers visible on SU-76's along the Taegu-Tabu-dong axis are 4-digit, and begin with "13." They therefore appear to have belonged to the 13th NK Div. All numbers visible on the many SP guns knocked out in the Waegwan area are in the range 300 to 399, suggesting as the parent division the 3d NK Div, which was in fact the one in the area. Elsewhere, an SP with a number in the "600" series was found along the Naktong, and one with a number in the "800" range along the northern part of the perimeter. All visible numbers on enemy tanks found along the Tabu-dong-Sangju road are in the "300" series. The significance of the tank designations is unknown.

Role of Armor in the Enemy's Tactics

To evaluate the enemy's use of armor it is necessary to deduce his tactics from the over-all character of the battle. Appendix F presents a general description of the battle north of Tabu-dong in August 1950 as reported by friendly and enemy sources. These accounts have not been confirmed or corrected by further data, but they agree fairly well.

While the 27th RCT was advancing to the Tabu-dong area on 18 August against the negligible opposition of scattered units probably of the 1st NK Div, the 13th Nk Div was fighting toward it from the northwest. The 13th Div renewed its attack on ROK forces at 0500, from positions on the Sangju-Tabu-dong road approximately eight miles from the road junction north of Tabu-dong. As shown in Table 6, three rifle regiments of the 13th Div were at about 50 percent TO strength, and in the fighting on 18 August each of them sustained several hundred casualties. The fighting ended at 2100, evidently with a clean-cut pene-

tration to the road junction almost at the time the 27th RCT was going into position just to the south.

The tank-led enemy thrust on the evening of 18 August was probably not a counterattack in reply to the 27th RCT's advance but simply an attempt by the 13th Div to exploit its breakthrough and advance as far and as fast as possible. Up to that time it had never made contact with US forces and therefore had no reason to depart from the doctrinal practice which enemy armor followed at the start of the war: overt display of tanks ahead of infantry columns in order to intimidate opposing forces.²⁶ The 27th RCT's report of enemy infantry following the tanks in trucks agrees with this interpretation. Furthermore, no deliberate attack was made against the 27th Inf, if one may judge from its negligible casualties on 18 August.

The friendly casualty list suggests that at no time did the enemy infantry make determined assaults in an effort to capture the positions held by the 27th Inf. The daily number of battle casualties in the entire regiment during its stay in the Tabu-dong area are:*

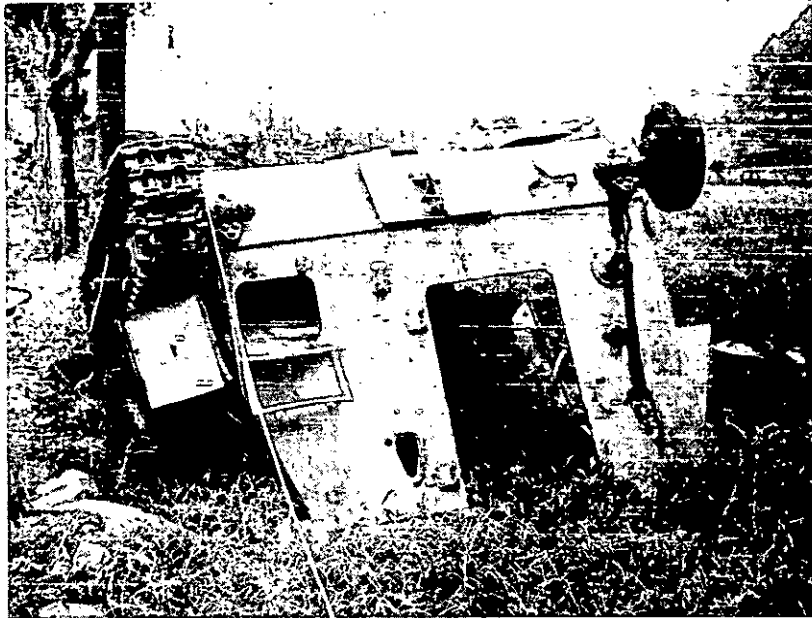
Day, Aug	Casualties
18	11
19	19
20	25
21	6
22	7
23	5
24	0
25	14
26	0

Figures are not available for the flanking ROK units, which may also have been engaged by the 13th NK Div. The data in Table 6 indicate that in the period 21-31 August the 13th Div's three rifle regiments lost about fifteen hundred men.

The huge disparity of the losses on each side seemingly follows from the enemy's tactics. Until 18 August the 13th Div had probably not been opposed by more than meager artillery fires and not by any armor at all. It evidently attempted to break through the 27th RCT with massive drives down the valley, very likely the kind of attack which had succeeded against the ROK Army. As described in App F, the massive formations were now beaten off by US firepower before they ever reached the friendly MLR.

Armor continued to spearhead the enemy attacks. It was finally destroyed as a tactical entity on the night of 21-22 August in what appears to have been the most determined attempt to penetrate to Tabu-dong. On this occasion, the leading vehicles got well beyond the friendly front line, only to be stopped decisively by the carefully planned ambush of the friendly tanks. There is good evidence that in this attack the enemy infantry was disorganized by friendly artillery fires concentrated on the vicinity of the road junction, the obvious

*The figures are from a machine run on 11 Dec 50 by the Strength Accounting Branch, GHQ, FEC, and may perhaps be less complete than later, corrected tabulations.



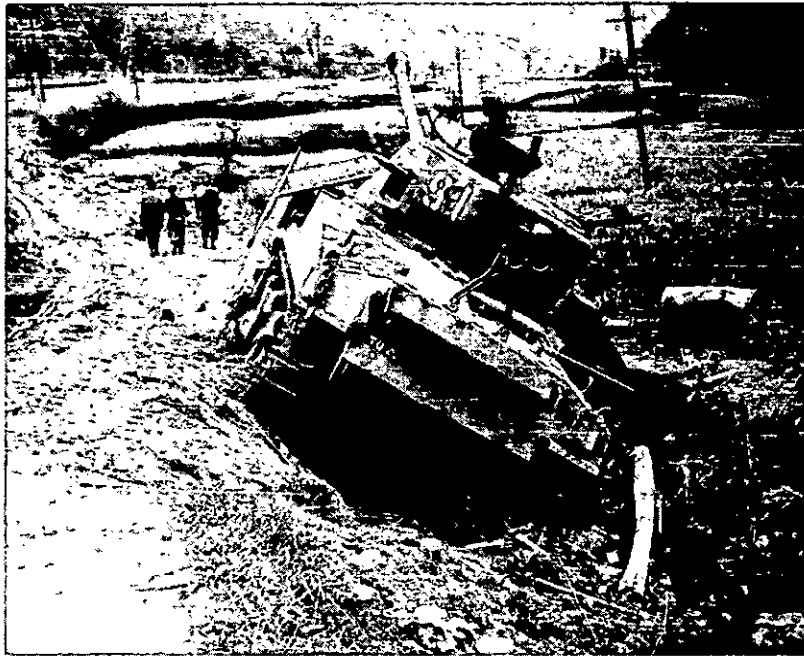
a.

Survey No. 1, 27 Sep 50



b.

Survey No. 1, 27 Sep 50



c.

Survey No. 1, 27 Sep 50

Fig. 10—Knocked-out tanks and SP guns in the “Bowling Alley” north of Tabu-dong.

a. The enemy view of 18 August and 2 September, looking south toward Tabu-dong. The destroyed SU-76 is Q/14. b. View the lead M26 of Co C, 73d Tk Bn would have had on the night of 21—22 August. The T34/85 (J/6) in the foreground and SU-76 (K/8) in the left rear were probably knocked out in the ambush on this night. The vehicle in the center rear is unidentified and may be a truck. c. The bottleneck just north of Tabu-dong, view looking north. This M4 tank dozer was abandoned by Co C, 70th Tk Bn on 4 September after throwing a track while attempting to back away from enemy direct fire.

assembly area for such obvious tactics as the enemy had been using. The timing was also seriously upset by the curious failure of the enemy command reported in App F. Except for the small number of troops riding on the tanks in this action, the enemy infantry did not penetrate to support the leading armor, so it was expended for nothing.

Figure 10 gives several views of the narrow valley north of Tabu-dong and of knocked-out enemy armor. In this sharply canalized terrain, US tanks simply canceled out the shock action of enemy armor. The defense had the advantages of knowing the route the enemy tanks must take, of cover and concealment, and of dispersion for greater total firepower. This damming of enemy armor made the enemy's infantry tactics unsuitable, as the enemy demonstrated in September when he took to the hills to attack.

The divisional battalion of self-propelled guns is intended for direct support of the infantry. Operating singly and boldly in September, but now to the rear of the infantry, the remaining SU-76's had a physical and nuisance value out of proportion to their small numbers. If the enemy had had more of them for use from forward positions at night or on days of nonflying weather, his climactic drive on Taegu would have been much stronger. Tanks could have been used in the same way.

A recent book on Russian doctrine contains some interesting statements derived from Soviet publications in 1940:

...Mechanized and tank formations (divisions) are not considered useful for development of a breakthrough in mountainous terrain. Medium tank battalions are assigned to rifle formations for close support in the mountains.... The use of artillery [in the mountains], especially in direct-fire roles, is considered very important....*

*R.L. Garthoff, *Soviet Military Doctrine*, p. 378, The RAND Corporation, Santa Monica, 1 May 53.

FRIENDLY SUPPORT

The subsections which follow are devoted to artillery, armor, and air support of friendly forces, with particular attention to their part in the friendly capture of Hill Mass 314. The material on fire during this action should be read in connection with the narrative description in Part IV. Because of the lack of detailed data, coverage of the other periods of the battle is less thorough.

ARTILLERY IN SUPPORT

In the absence of firing charts and detailed records, the following procedure was used to reconstruct the role of supporting artillery in the attack on Hill Mass 314:

(a) The general situation of artillery in support of the 7th Cav Regt was discussed with the former commander of the 77th FA Bn.

(b) The former S-3 of the 77th FA Bn was given a map of enemy weapon positions prepared by the former S-3 of the 3d Bn of the 7th Cav Regt, all pertinent entries on enemy weapons and fire in the journal of the 1st Cav Div, and a reconstructed timetable of the attack on Hill Mass 314 on 12 September. With several colleagues (the former Asst S-3 of the 77th FA Bn and the former SurvO of 1st Cav Div Arty), the former S-3, 77th FA Bn then plotted the concentrations fired by several artillery battalions.

(c) The former ArtyLnO of the 77th FA Bn, who was on Hill Mass 314 calling in supporting fires during the battle, was furnished the same material. He gave his observations and comments.

(d) The revised firing plot shown in Fig. 8 (given in the earlier section on enemy support) was then constructed.

(e) The revised plot and the general artillery situation in the 8th Cav Regt area were discussed with the former S-3 of the 99th FA Bn.

As a result of this research, the pattern of artillery fire on the objective is known with fair certainty. Data on counterbattery fire are inherently difficult to obtain and are also known less adequately for the reasons given below.

Artillery Support in General in the Sector North of Taegu

With the commitment of the 3d Bn, 7th Cav to the attack on Hill Mass 314, the right-flank boundary of the 8th Cav Regt was defined by a north-south line running between Hill Mass 570 and Hill Mass 314. The 99th FA Bn (105-mm howitzers), which had been continuously in support of the 8th Cav, at this time

was responsible only for targets west of this line, while the 77th FA Bn (105-mm howitzers) assumed support operations of the 7th Cav east of this line on Hills 314 and 660. Figure 2 (given earlier) shows the positions of the 99th FA Bn and of Btrys B and C of the 77th FA Bn. Battery A of the latter battalion had been detached for duty with the British Brigade.

Elements of the 8th FA Bn (155-mm howitzers) attached to Div Arty were also in position near the other battalions at the coordinates 1153.5-1447.5. The battalion apparently had only two batteries. On 12 September the attached elements were made available to the 77th FA Bn for countermortar fire. Shortly after Hill Mass 314 was captured Btry C, 17th FA Bn (8-in. howitzers) arrived in the area for general counterbattery fire. Its first mission was fired on 14 September. On 15 September supporting fires were further increased by use of the 68th AAA Bn (90-mm guns) against ground targets.

Ammunition, in short supply, was not critically low in the artillery battalions.* Stocks on hand were still close to basic loads, though VT fuzes were scarce and were hoarded. So that the imminent emergency would not find stocks depleted, daily expenditures were restricted. On 8 September Div Arty restricted expenditures of 105-mm ammunition to 50 rd per gun per day, except in emergencies. This restriction was to be lifted for the attack on Hill 570. Then, on 11 September, Div Arty announced that the 77th FA Bn was limited to 25 rd per piece. The next day, the artillery preparation scheduled for the attack on Hill 314 was entirely canceled. When the outcome of the attack became uncertain, the restriction was lifted, and perhaps as many as a hundred VT-fuzed rounds were fired in direct support.

Daily expenditures are reported by the 99th FA Bn as: 9 September, 774 rd; 10 September, 206 rd plus harassing fire at night; 11 September, 472 rd; 12 September, 490 rd plus harassing fire at night.

The average daily expenditure was then about five hundred rounds, or approximately twenty eight rounds per piece per day. Thus, the limitation of 25 rd per piece per day imposed on the 77th FA Bn on 11 September was in line with expenditures by the 99th FA Bn.

For all the artillery battalions, the only table of expenditures by type of target is that reported by the 99th FA Bn for 10 September.

As coordinates of targets are not specified, one can only guess which fire was on Hill Mass 314; however, since the only action during the hours covered was the attack of the 3d Bn, 8th Cav on Hill 314, it is likely that much of the fire centered about this hill. The attack jumped off at 1330.

According to the former S-3 of the 99th FA Bn, 75 percent of the missions fired in the 8th Cav area were unobserved and probably not very effective. There was great difficulty in locating enemy gun positions; firing also suffered from

* Of artillery ammunition, only 105-mm shells appear on the critical list for Ammunition Supply Point Number 2 at Taegu. The following numbers of rounds of critically low items were on hand on 11 September 1950: 105-mm howitzer, 1,971 (44 percent of basic load of one FA Bn); 60-mm mortar, 4,928; 81-mm mortar, 11,247; 4.2-in. mortar, none; 76-mm tank gun, 4,068; 90-mm tank gun, 548; 3.5-in. rocket, none; carbine, 896,000.

The EUSAK Artillery Status Report covering the period 1500, 8 Sep-1500, 9 Sep states that 1st Cav Div Arty expended 1,575 rd of unspecified caliber, leaving 12,400 rd of 105-mm and 1,814 rd of 155-mm ammunition on hand. These figures are apparently the totals for the 61st, 82d, 77th, and 99th FA Bns. A separate entry for the 9th FA Bn states that 580 rd were expended and that 1,989 rd of 155-mm ammunition were on hand. A complete set of status reports is not available.

the lack of meteorological data and subordinate personnel capable of computing corrections properly. The observed-fire missions, on the other hand, were considered effective. At some time the enemy observation post on Hill 570 was taken under observed fire with a single gun until a direct hit was obtained and enemy personnel were seen fleeing from the point. Unfortunately, it is not known

EXPENDITURES BY 99TH FA BN, 10 SEPTEMBER

Time	Target	Expenditure, rd	Results
1010	Enemy field piece	5	Silenced
1015	Large concentration of troops	14	Dispersed
1025	Enemy troops	18	Dispersed
1107	Enemy personnel on ridge	16	Dispersed
1137	Large troop concentration	48	Unobserved
1205	Field piece	7	Unobserved
1220	Troop concentration	26	Unobserved
1240	Registration	2	—
1400	Bridge	10	Not completed
1430	Automatic weapons	10	Not completed
1435	Enemy personnel	50	Casualties high
Total		206	

whether or not this incident occurred on 12 September. The 99th FA Bn fired continually, day and night. Requests for missions were of the greatest variety and far more than could be met with the official ammunition allotments. Unlike personnel of the 3d Bn, 7th Cav, men of the 8th Cav do not have in their memories a single, intense action.

Reports of Artillery Units on 12 September

Targets are not listed in detail in the artillery journals. Documentary information on rounds fired at particular coordinates and times is probably unobtainable, as the original firing charts are thought to have been destroyed. The journals do, however, list total expenditures on each day. These statements are used as limits in the estimates given in the next section, and are quoted here.

Operations of the 77th FA Bn on 12 September are summarized as follows in the division artillery journal:¹⁰ "The 77th FA Battalion fired two missions on enemy troop concentrations and several in support of friendly troops. 'C' Battery displaced to an alternate position." In its own unit history¹² the battalion reports on operations in the period 111800 September to 121800 September:

The battalion remained in position continuing its mission of supporting the 7th Cavalry Regiment. Nine missions were fired during the period, expending 128 rounds of 105mm ammunition, principally on enemy troop concentrations, in support of the attack made by the 2d [sic] Battalion during the hours of darkness on Hill 314.

The last statement above is considered to be very much in error. It is unlikely that the 77th FA Bn fired at all on 12 September before the 3d and 2d Bns, 7th Cav moved out toward their objectives after daybreak. Since the 2d Bn was merely relieving ROK units on Hills 660 and 516 and encountered no

opposition, it probably received no artillery support. All the 77th FA Bn expenditure would then have been in support of the 3d Bn attack on Hill 314, which is summarized by the same source:

At 1115 hours, the 3d Battalion, 7th Cavalry Regiment, also jumped off with the aid of extremely effective air strikes and artillery bombardment[there was no artillery preparation] was successful in securing hill at 1515 hours, at which time the battalion dug in and reorganized....

Operations of the 99th FA Bn on 12 September are reported by Div Arty: "The 99th FA Battalion... fired 10 missions, of which 7 were harassing, two on enemy troops and one on an enemy gun. The troops were dispersed and the enemy gun silenced." In its own war diary¹¹ the 99th FA Bn reports on 12 September: "Sporadic high-velocity artillery fire from the enemy hit in the A and B Battery area.... The battalion fired 14 missions with a total of 490 rounds expended. The battalion also fired harassing fire during the hours of darkness."

Operations of the 9th FA Battalion on 12 September are reported by Div Arty:

The 9th FA Battalion fired one observed and one unobserved mission on enemy field pieces and several missions on enemy troop concentrations. An estimated 150 casualties were reported. The 1st FA Observation Battalion reported a self-propelled enemy gun and adjusted the 9th FA Battalion, scoring two direct hits on the target.

No further information is available on the 9th FA Bn, as no unit journal was submitted. It would seem that only two batteries were in Korea, and that it was without its own headquarters battery.

Direct-Support Fire on Hill Mass 314 on 12 September

Figure 8 gives the revised plot of concentrations fired on 12 September in the vicinity of Hill Mass 314. Only for the 77th FA Bn is it reasonably complete and accurate. The targets at Sites 2 and 3 originally shown for Btry C, 17th FA Bn (which had not yet reached the area) have been assigned to the 9th FA Bn. Some of the concentrations just north of Hill Mass 314 may have been fired by the 99th FA Bn at the request of the 77th FA Bn, and not the 77th itself, as mentioned below.

Only the 77th FA Bn fired on the objective. The writer has deleted two concentrations plotted on Knob 1 because this point had already been overrun when the artillery began firing. One of the concentrations plotted on Hill 570 has also been deleted to accord with the distribution of the total expenditure estimated below. Replotting the enemy 82-mm mortars at Site 10 has also eliminated the concentration at Site 11, the originally plotted position. The three concentrations between Knobs 2 and 3, fired between the first and second assaults, were later refired when the attacking units were again pinned down between the second and third assaults. The concentrations beyond Hill Mass 314 were fired to prevent the enemy from reinforcing his units on the objectives; those on Hill 570 were apparently intended to inhibit the fire of enemy support- ing weapons. About 90 percent of all rounds fired were VT-fuzed.

It is assumed that one battery-volley of 6 rd was fired on each of the 77th FA Bn concentrations with the exception of the second mission at the objective, when, it is assumed, both batteries fired each of the three concentrations. The total expenditure of 128 rd reported in the battalion's journal would then be distributed as follows:

Mission	Estimated expenditure, rd
Registration	6
Three 1-battery volleys fired on objective after first assault	18
Three 2-battery volleys fired on objective after second assault	36
Seven concentrations beyond Hill 314	42
Four concentrations on Hill 570	24
Marking target for final air strike	2
Total	128

This distribution of fire from two batteries is in line with the tabulated expenditures of the three batteries of the 99th FA Bn given earlier.

The fire of the 77th FA Bn on the northern part of Hill Mass 314 was called in by the forward observers and by the artillery liaison officer, who initially occupied an observation post adjacent to the 3d Bn CP on Knob 2 and later moved up with the assault troops to a position just short of Knob 2. In a communication in 1953, among his observations on various aspects of the battle, he gave some information on friendly artillery fire.

Registration fire was laid down on the objective by 0930, when the fog had cleared sufficiently. The first supporting fire was supplied after the initial assault on Knob 2 had been repulsed and most friendly troops had withdrawn back into the saddle. The time would then have been about 1210. Up on the ridge, any enemy were located in foxholes, which were well concealed with brush. The second occasion for supporting fire by the artillery was when the assault troops were again pinned down short of Knob 2 in the linear depression along the backbone of the saddle known as "the shallow." The ridge forward of Knob 2 was thoroughly worked over by artillery fire, which was then called off for the final air strike. Immediately, the final, successful assault was made. An observation by the former commander of Co I, who was with the artillery liaison officer and others in the most forward position in the shallow, is pertinent. He said the torsos of enemy soldiers could be seen projecting above several foxholes. When the ridge was overrun soon after, no masses of enemy troops were encountered, only wounded enemy soldiers in the foxholes.

Though the objective was reported "thoroughly worked over" by artillery, it is evident from the meager expenditure of ammunition that not very much of the area of the objective could have been covered at any one time. It is of interest to calculate how much effect a reasonable distribution of fire along the objective ridge would have had on enemy troops on the flanks of the hill mass. After the second assault, the artillery liaison officer and one of the two forward

observers moved up to the shallow just short of the crest of Knob 2. From here they could see straight down the ridgeline about halfway to Knob 3 but neither into the declivity at this point or behind the little knoll just beyond, nor much to either side.

A reasonable distribution of fire in the absence of observed enemy troop concentrations would be battery volleys uniformly spaced between Phase Line 2 and Phase Line 3 with the guns firing in parallel sheaf. It is assumed that the transverse spacing of the bursts was 25 yd, and that each shell exploded 15 yd aboveground and had a radius of effective fragmentation of 25 yd. Along the ridgeline, about 240 of the 380 yd from Phase Line 2 to Phase Line 3 would then be covered by effective fire. Across the ridgeline, about 165 yd would be covered. Whether this fire reached the side slopes as well as the top of the ridge depended on the variable width of the plateaulike top. Figure 11 shows the transverse spacing of a 6-rd volley at the cross section of the objective along Phase Line 2. The second assault is thought to have been stopped by enemy troops located along this line to the left. According to the present assumptions the artillery fire would hardly have reached them. At the waist of the objective the fire would have covered some of the side slopes. On the other hand the long finger running northwest from Knob 3, and the assumed command post in the bunker on it, could hardly have been well covered.

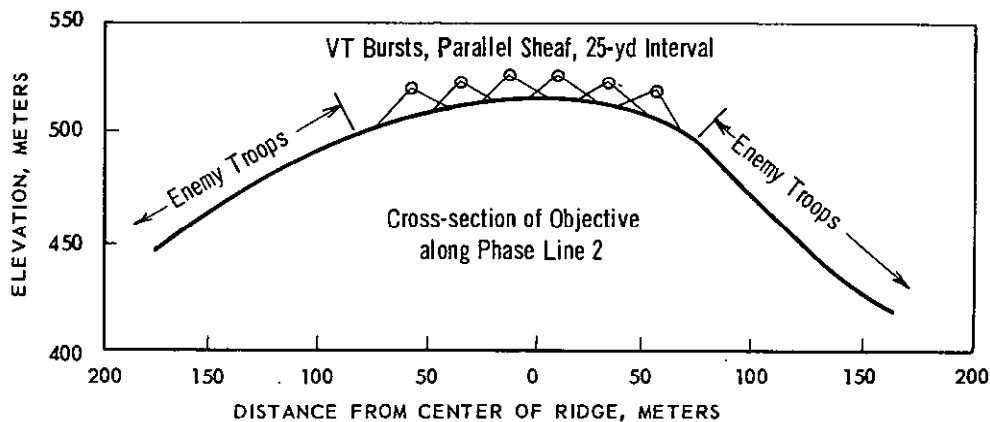


Fig. 11—Transverse coverage of VT-fuzed fire on the objective.

The former officers of the 77th FA Bn stated that forward observers reported the fire "effective." In the absence of observed enemy troops, the basis for this judgment is not known, unless it was the otherwise unreported inhibition of small-arms fire. When the objective had been taken, many of the enemy dead found down the wooded slopes were deemed artillery-fire casualties. Air attack and the fire of the organic weapons of the 3d Bn, notably that of the 81-mm mortars, could just as well have been responsible. All the same, denial of the top of the ridge must also be considered an important effect.

Counterbattery Fire on Enemy Supporting Weapons

The normal primary targets for friendly counterbattery fire did not exist, since enemy heavy artillery was lacking and medium artillery was inactive. The divisional 76-mm guns and 122-mm howitzers fired very little, if at all. At the front line, the few SP guns and the 45-mm AT guns did fire effectively, but they did not present good targets, the former because of their mobility, the latter—especially the short-barrel 45-mm AT guns—because of their inconspicuousness. In any event, these flat-trajectory weapons were more of a threat to fixed installations more or less toward the friendly rear than to friendly troops in the attack or defense.

The really troublesome enemy supporting weapons were mortars and perhaps 76-mm howitzers. As noted in the section "Enemy Support," US flash observers and radar were in no position to spot these defiladed weapons, and sound-ranging equipment had very little success. Such counterbattery fire as US 105-mm, 155-mm, and, later, 8-in. howitzers, could bring down on them depended, first, on a spotting by a ground or air observer who had only a map for reference and second, on indirect fire. This was usually unobserved, and, according to an artillery officer, probably inaccurate. When fire was observed, the invariable procedure was to adjust successive individual rounds. According to a report of a survey of enemy positions in the Tabu-dong area just after the battle,¹³ the enemy would simply stop firing after the first round came in, and the gun crews presumably would take to the well-constructed bunkers nearby. The weapons themselves were rather well protected.

There was also a significant time lag due to friendly organization. The 7th Cav troops attacking on Hill Mass 314 on 12 September were being punished by enemy supporting weapons located in the 8th Cav area of responsibility. Clearance from the 99th FA Bn was required for the 7th Cav's supporting 77th FA Bn to fire on targets in the former unit's area. In the ordinary case of a special mission against sporadically active enemy artillery, such clearance was quickly forthcoming. During an intense action, when communication links were broken or clogged, it was a difficult and slow process to obtain clearance.

Counterbattery fire does not appear to have inhibited enemy fire on Hill Mass 314 significantly. Figure 8 shows that the 77th FA Bn did indeed fire on targets on the ridgeline of Hill Mass 570, and the 99th FA Bn may also have laid down concentrations there. While this fire may have been effective in stopping the fire of automatic weapons, 60-mm mortars, and the 76-mm mountain gun thought to have been on the ridge, it appears to have left untouched the more potent weapons in defilade to the rear. The sensitive target on the ridge, the OP, was not affected, if one can judge from the fires of the weapons it presumably controlled (see Part IV).

It is possible that the 99th FA Bn on 12 September did fire on the weapons that were punishing the 3d Bn, 7th Cav on Hill Mass 314, but most of the 490 rd this battalion fired on 12 September were apparently harassing missions. The 9th FA Bn was used in general in a counterbattery role, but it fired only two or perhaps three such missions on 12 September. Two have been plotted in Fig. 8. Unconfirmed reports from the infantry state that enemy mortar positions active during the battle were located by the artillery air observer and neutralized by friendly fire. The casualty analysis given in Part IV, however, indicates no diminution in the intensity of enemy mortar fire until almost the end of the action.

ARMOR IN SUPPORT

A study²⁶ has been made of the operations of friendly and enemy armor in the Korean campaign up to 21 Oct 50. Annex 24, App K of this reference is a discussion of armor in the infantry division by an officer of the 1st Cav Div. The operations considered were those of the division's organic armor unit, the 70th Hv Tk Bn. Annex 23, App K of the same report is a critique of the same operations by an officer of the tank battalion. Though neither annex argues from specific data, pertinent information is given on the background, organization, and methods of the tank units.

The tank-vs-tank actions of the 73d Tk Bn in support of the 27th Inf Regt north of Tabu-dong in August 1950 are described under "Supporting Armor" in the section "Enemy Support" of Part II.

General Situation of Armor in the 1st Cavalry Division

The 70th Tk Bn had been stationed at the Armored School at Fort Knox for three years and used for demonstrations, school problems, etc. Though the individual tank platoons had completed training, the battalion as a whole had had only 30 days of training in the field. After being brought up to combat strength with about 250 new men, it was shipped to Korea and committed to action with the 1st Cav Div on 14 August 1950. Prior to combat, the tanks and infantry had had no opportunity to train together as small units.

In the absence of medium tanks, the battalion of heavy tanks was moved up to support the infantry regiments and essentially ceased to be an independent divisional force. One tank company, with approximately twenty-two tanks, was attached to each infantry regiment. Each infantry battalion in the line was usually supported by a tank platoon. The need to retain some flexibility of organization made it impossible to station uncommitted tank platoons with uncommitted infantry battalions. Armor and infantry personnel, therefore, did not work together between engagements, and did not get to know each other. In combat there was little more than the tenuous linkage of the SCR-300 radio.

Companies A and C were equipped with M4A3E8 medium tanks, which carry a 75-mm gun; Company B with M26 medium tanks, which have a 90-mm gun. Company B naturally was used along the MSR, the Taegu-Tabu-dong road.

There were no tank-vs-tank encounters in the sector of the Taegu-Tabu-dong road in the period 1-22 Sep 50. Eight tanks operating along the road were damaged by enemy mines: one on 6 September, two on 15 September, one on 19 September, three on 20 September, and one on 22 September. No tanks in the Tabu-dong area were put out of action by enemy fire.

The 16th Recon Co, also organic to the 1st Cav Div, lost all its M24 light tanks prior to September 1950.

Operations of Friendly Armor in the First Phase of the Enemy Offensive

On 1 September the tanks of the 70th Hv Tk Bn were distributed as follows: Co A in the general zone of the 5th Cav Regt, Co B in position on the MSR somewhat north of Taegu, and the 1st and 2d Plats of Co C in direct support of the 7th Cav Regt. For the attack on 2 September, Co C's 4th Plat was also attached to the 7th Cav and ordered to move up on its right flank to positions at 1148.3-

1460.7, about 1700 yd west of Tabu-dong on the Waegwan-Tabu-dong road. Company C's 3d Plat was attached to the 16th Recon Co and ordered to move south of Taegu to the vicinity 1148-1425 to constitute a security force against possible enemy attempts to reach Taegu by infiltration from the southwest.

The 4th Plat, Co C moved up to the specified position west of Tabu-dong but apparently was not required by the 7th Cav. As a result, it left this area on 2 September, just at the time the enemy was about to launch his drive on Tabu-dong against the 8th Cav. The following reports are relevant:

1423 [2 Sep] S-3 received concurrence from CO of 7th Cavalry Regiment to move 4th Platoon, Company C from its location on the Shelf Road to the Battalion CP area.

1700. 4th Platoon, Company C crossed IP (MSR and Shelf Road) to return to the CP area.

1705. Received from G-2 Interrogation of POW Report No. 0076 dated 02 September 1950.¹⁵

The interrogation report mentioned is most likely a report of interrogation within the 1st Cav Div (not now available, but No. 0075 is dated 01 Sep, and No. 0088, Item 2, App A, is dated 12 Sep 50) with the subject the S-3 of the 19th NK Regt, who surrendered to the 8th Cav at 2040 on 1 September. If so, the above-logged item would confirm the report⁴ that all friendly units were alerted around 1700 regarding the impending enemy attack disclosed by the prisoner. In the case of the tank battalion, this warning evidently came via the formal channel of an interrogation report, and insofar as it might have concerned the 4th Plat, Co C, came just too late.

Once the enemy attack materialized, plans to counter it with armor were promptly made. At around 2330 on 2 September the 3d Plat, Co B was alerted to make a possible counterattack with infantry. The 2d Plat, Co B remained in position, while at 0830 on 3 September Co B's 1st Plat was moved up from the bivouac area (1162.1-1437.9) to 1152.8-1457.3, the village of Tongmyongwon on the Taegu-Tabu-dong road. The 3d Plat, Co C and the 16th Recon Co were moved back north to Taegu.

It was the 2d Plat of Co B, not the 3d, that was sent to the area of enemy penetration. Early on 3 September, its six tanks moved up to Tabu-dong and west along the Waegwan road to take up positions at 1149.0-1460.5, close to those vacated by the 4th Plat, Co C the day before. In the move up the tanks destroyed one 76-mm field piece of an unknown type.

The 4th Plat, Co C was sent back from the area of the tank battalion's CP to the 7th Cav early on 3 September and joined its company's 1st and 2d Plats. The movements of Co B's platoons during the days were reported as follows:

2150 [3 Sep] . . . CO of Company B reported to the CP with information on the following locations for the company as of 032100K: 2d Platoon in position at curve in road at 1150.4-1460.0, 4th Platoon in defense position at 1152.6-1457.5 with Battery A, 99th Field Artillery, 3d Platoon in defensive position at 1152.8-1456.4 with Battery A, 99th Field Artillery [sic], 1st Platoon in defensive position at 1152.7-1455.4 with the 9th Field Artillery Battalion. The 1st Platoon at 031610K Sep 50 attacked from positions from coordinates 1150.4-1460.0 along the road west (MSR) to Company C positions at approximate grid square 1142-1459 with Company C, 8th Engineers providing infantry

support on bridges south of road. The tank platoon returned on the same route at approximately 031740K Sep 50. No enemy were sighted, fired approximately 1,000 rounds of caliber .30 per tank and 2 rounds of HE per tank. Planned for 04 September: 4th Platoon on same route with same support, Recon [Plat] on main road.¹⁵

While the Waegwan-Tabu-dong and Taegu-Tabu-dong roads were being patrolled by other tanks, the 2d Plat, Co B remained in position on the Waegwan road. At daybreak on 4 September, three enemy antitank guns which during the night had been wheeled into positions straddling the road suddenly opened up on the tanks. Two were 45-mm AT guns and one was a 76-mm M1942 all-purpose gun (recognized by its muzzle brake). A fourth 76-mm M1942 piece was not manned. The three enemy guns had fired only one round apiece when all four were destroyed by the immediate return fire of the tanks. A total of only 8 rd was required, and the engagement lasted only a minute or so.

Around midnight on the night of 4-5 September, reconnaissance intelligence was received from the 8th Cav that the road junction at Tabu-dong was in enemy hands. It was planned to take counteraction with 8th Cav troops and to sweep to Tabu-dong from the west with tanks attached to the 7th Cav. However, as shown earlier in this memorandum, the situation continued to deteriorate. In the general, limited withdrawal of the 8th Cav Regt down the Taegu road, the 3d Plat, Co B, 70th Tk Bn pulled back too.

On the flank of an enemy salient, the men of the 2d Plat, Co B were in good position to observe the enemy move up. Throughout 5 September, enemy troops were spotted carrying ammunition and dragging field pieces south through Tabu-dong. On the crossroad only 1200 yd to the side of this traffic, the tanks had a field of fire like a shooting gallery. A total was claimed of nine enemy weapons destroyed, of which seven were 45-mm AT guns and two were 76-mm howitzers (no muzzle brake, among other identifying features).

On the night of 5 September, the men of the 2d Plat thought that the infantry had withdrawn, leaving them stranded, and they were surprised when a supply truck with fuel and ammunition got through to them from the west. The 1st Bn, 8th Cav was still in position but had no communication with its supporting tanks. By roundabout routing, information on the situation was relayed from the battalion to the rear. The battalion was then ordered to withdraw to the west, and the tanks were ordered to fight to the east and back. The following order was relayed to the 2d Plat: "060550. Stateside Baker 6 [Hq, Co B, 70th Tk Bn] Message for Baker 26: Return to my position through your old sector at 0700. Shoot village on way. Fire several shots at low elevation to north."³

While the 1st Bn was withdrawing and the tanks were preparing to move, enemy positions north of Tabu-dong and the enemy road block south of the village were fired on by friendly artillery. The final order for the tanks to move out was relayed to them shortly before 1430 by the S-3 of the tank battalion, who was in the battalion's light aircraft. One tank had had to be abandoned because of mechanical trouble. Guided from the air, the remaining five moved east to Tabu-dong and then turned south toward Taegu. The first enemy gun positions were encountered 1000 yd south of the village, and the last about halfway between it and Tongmyongwon. The tanks claimed nine enemy weapons destroyed, eight of them 45-mm AT guns (some with short barrels and some with long), and the other a 76-mm regimental howitzer. They sustained no casualties, and, coming on the AT positions from the rear, apparently were not fired on. The entire

move was rapid, for by 1453 the 2d Plat had rejoined friendly units at 1152.5-1458.0. It went into position with Co I, 8th Cav, two tanks of the 3d Plat, Co B, and one tank of the 4th Plat, Co B, in the vicinity of 1151.8-1459.5. The remainder of the 3d Plat was back at 1153.4-1451.3.

It is interesting to compare the tankers' claim of seventeen 45-mm AT guns destroyed with information furnished by prisoners on the number of weapons present at a different times. The AT-gun company of a North Korean regiment normally had twelve 45-mm AT guns, and the divisional AT-gun battalion, eighteen. According to the S-3 of the 19th NK Regt (Item 1, App A) the 19th and 21st NK Regts each had their 12 guns on 31 August, while the 23d NK Regt had hardly any heavy weapons. At the time of his capture he stated that six 45-mm AT guns were along the road 4 miles north of Tabu-dong. It would seem, then, that as of this date the 13th NK Div had perhaps 42 guns, some of them well forward. Another prisoner from the 19th NK Regt stated that as of 2400 on 4 September four guns of unspecified caliber were along the road south of Tabu-dong. A prisoner from the AT-gun battalion of the 13th Div stated that as of 6 September all the division's 45-mm AT guns were along the road south of Tabu-dong. The tankers' claim therefore appears very reasonable, and it would appear that the 2d Plat alone knocked out a large fraction of the 13th Div antitank capability.

Armor Operations along the MSR at Hill Mass 570

Part I includes a description of the action on 6 September in which an armored task force in a prolonged engagement cleared an enemy fire block across the MSR at Hill 570. Elements of the 3d and 4th Plats, Co B, and of the 3d Plat, Co C, 70th Tk Bn participated. It is noteworthy that antitank fire was intense, scored many hits on the tanks, yet caused no serious damage. Apparently the only antitank weapon present was the 14.5-mm AT rifle. The 45-mm AT guns, through which the tanks of Co B's 2d Plat passed several hours later, evidently were not sited quite far enough to the south to participate in the fire-block engagement.

On 7 September three tanks of the 2d Plat, Co B withdrew to Taegu for maintenance. The remaining two were moved back to 1153.4-1457.3. On 8 September, with four tanks, the platoon was recommitted, taking up base positions at the highway behind and on either side of the knoll in the valley, at the coordinates 1153.4-1452.0. From these positions, the platoon made 12 patrols up the valley before the move forward on 21 September.

Infantry (2 squads from F Co) accompanied the tanks on the first patrol on the evening of 9 September, advancing to the vicinity of the village of Samsan-dong. No enemy activity or heavy weapons were observed, and only a few enemy small arms were found. Tanks alone took part in the succeeding patrols. In addition to the patrols run by the 2d Plat, several were made by the 3d and 4th Plats of Co B. Except for the incidents described below, on no occasion were any enemy troops, heavy weapons, or activity observed.

At about noon on 11 September, while the 2d Plat was in position to the left of the highway at the base of Hill 225, what was considered by armor personnel to be an enemy attack materialized from Hill Mass 570, the enemy troops coming down from the unnumbered 480-m peak along the finger that leads to the southwest. This might have been an organized attack of the type in which green troops are herded into battle. It lasted for four hours, during which at least the

several platoons of tanks fired and many of the enemy troops attempted to surrender to the friendly infantry. As recalled by the former leader of the 2d Plat, prisoners stated that about 150 men were involved, of whom 50 or 60 were hidden in the village of Kwiam-ni. Tank personnel claimed 100 killed. In the opinion of the writer, this incident is the same as that reported by other sources, in which the intense round of air strikes on Hill 570 on the morning of 11 September flushed the enemy troops and caused them to flee toward the highway, there to be hit by fire of the 99th FA Bn and evidently by tank fire as well.

The incident is included in the following summary of operations by Co B of the 70th Tk Bn on 11 September:

1500. CO of Company B reports to S-2 giving the following information on action of 1st and 2d Platoons today: 1st Platoon was in support of 3d Battalion, 8th Cavalry from position at approximate coordinates 1154.3-1452.6 [southernmost finger of Hill 373] fired into enemy position on Hill 373, coordinates 1155.2-1454.2 [coordinates of Hill 373 peak]. 2d Platoon was in support of 2d Battalion, 8th Cavalry Regiment from position at approximate coordinates 1153.2-1452.4 [base of Hill 225]. Fired into enemy positions in the following locations: coordinates 1154.3-1454.4 [draw north of Kwiam-ni], 1154.5-1454.8 [southwest slope of 480-m peak] and 1153.3-1455.7 [village of Chungsan]. Inflicted estimated 100 enemy casualties.¹⁵

As noted in the above report, the 2d Plat advanced as far as the village of Chungsan. On this or some other patrol they fired from here at a suspected enemy observation post in a cave on Hill 263. No enemy were observed, but from up the highway the tanks received high-velocity flat-trajectory fire judged to be 76-mm. A brief analysis of this fire appears under Site 4 in the subsection of enemy weapons on Hill Mass 314, given earlier in this memorandum.

On 12 September, during the attack on Hill Mass 314 by the 3d Bn, 7th Cav, the western slopes of Hill Mass 570 were neutralized by tank patrols made up the highway by the 2d, 3d, and 4th Plats of Co B, 70th Tk Bn from 1130, shortly after jump-off time, to 1330. On these patrols the 2d Plat fired only its coaxial machine guns against suspect areas. From 1500 to 1730 elements of the 3d and 4th Plats were again active in this way, firing at the trails on Hill 570, with, apparently, their heavy gun as well as the machine guns. There seems to have been no patrolling from 1330 to 1500; since mortar casualties on Hill 314 were heaviest around 1400, this gap may be significant.

Operations of Co B, 70th Tk Bn on 12 September are summarized in the battalion's journal as follows:

1455. S-2 received Tp call from Liaison Officer with 8th Cavalry Regiment. 2d Platoon, Company B destroyed two MGs, suspected ammo dump at coordinates 1153.3-1456.2 [this was a small, untended pile of ammunition] and inflicted estimated 10 casualties to enemy at approximately 121230 I.

1732. CO radioed CO, Company B requesting results of today's operation. He reports a little action. Destroyed 3 MGs, ammo dump and inflicted approximately 15 enemy casualties.

2100. S-3 Tp CO, Company B for report of action today. Received following report: 3d and 4th Platoons, Company B supported attack of 3d Battalion, 8th Cavalry Regiment [7th Cav] on attack of Hill 314. Platoons attacked abreast, 3d Platoon in the river bed from position along line 1153.2-1453.0 to 1153.1-1455.7; 4th Platoon along

road from 1153.3-1452.8 to 1152.8-1456.4. Time was 121130 I to 121330 I Sep 50. From 1500 to 1730 elements of 3d and 4th Platoons, Company B supporting 3d Battalion, 8th Cavalry Regiment fired on the south slopes of Hill 314 [must be Hill 570] from along coordinates 1153.5-1453.0 to 1153.2-1456.4. From 121700 to 121800 I Sep 50, 2d Platoon, Company B in support of 3d Battalion, 8th Cavalry Regiment fired into south slopes of Hill 314 [must be Hill 570] from along road 1153.5-1453.0 to 1153.2-1456.4. Destroyed one enemy MG (also fired on trails and assembly areas).¹⁵

The same operations are reported in the division's log:

122030. From 8th Cavalry: Results of the tank show supporting Scrappy [8th Cav]: Morning show: 2 machine gun nests destroyed, 1 ammo dump destroyed, 12 enemy killed, shot up village. Afternoon show: 1 machine gun nest destroyed, 4 enemy killed, trails leading up Hill 570 covered with tank, machine gun and HE fire. Ammo expended: 180 rounds HE, 12,000 rounds .30 caliber.¹

Armor in Direct Support of the Attack on Hill Mass 314

Information in this subsection was obtained primarily from communications from the leader of the 3d Plat, Co C, 70th Tk Bn, and from the battalion's unit journal. Some additional data were obtained from entries in the personal log of a corporal of the platoon and from personnel of the 3d Bn, 7th Cav.

The five M4 tanks of the 3d Plat, Co C, 70th Tk Bn were attached to the 3d Bn, 7th Cav for the attack on Hill Mass 314. These units of the two arms had not previously operated together, and until 12 September both armor* and infantry expected the attack to be on Hill 570. In theory, the tanks could have furnished valuable support to the assault by advancing around the right side of the hill mass and firing on the reverse slopes of the objective. This move was not attempted during the battle. Afterward it was discovered that such an advance would have been a physical impossibility because of a deep crater in the road at a defile (see Fig. 12). Investigation of the poor coordination and bad feeling between the armor and infantry personnel would therefore be academic. It is pertinent only to determine the extent to which the tanks actually did support the attack, and to take account of the independent observations of the armor personnel.

Operations of Co C, 70th Tk Bn on 12 September are reported in the unit journal as follows:

0830. S-2 received Tp call from CO Company B, said the whole thing as far as he is concerned has not jelled yet, probably it will be later than scheduled. Ask CO if he knows that Company C is involved.

0834. CO Company C Tp S-2, going to move one platoon to support operation this morning. 3d Platoon can get up on ridge [to Todok Temple?] to give fire support. Can give coordinates but will hold these. Right of unit now in position but left of unit making the operation today. Will support the left unit. 0930 preparation, [attack] 1 1/2 hour after that.

1005. CO and Col Withers left CP for 8th Cav Regiment to observe the attack planned for today.

* Tentative plans to attach the 3d Plat, Co C to the 3d Bn, 7th Cav were formulated on 9 September.

1020. CO Company C reports to CP with following information: 3d Platoon, Company C will support attack of 3d Battalion, 7th Cavalry Regiment from position at approximate coordinates 1155.8-1452.7 [southern tip of Hill 314].

1845. CO Company C reports to CP with following report: 3d Battalion, 7th Cavalry Regiment has completely taken Hill 314, forward units at 1156.5-1455.5 [Knob 3]. 3d Platoon supported 3d Battalion, 7th Cavalry Regiment, firing 19 rounds of WP, 89 HE. Mark target twice with smoke for aircorps and laid smoke for infantry. He was used to screen flanks and break up counterattack. 3d Platoon is at coordinates 1156.4-1452.8 [southwest tip of Hill 314]. . . .¹⁵

With the 1845 report quoted above for reference, the former leader of the 3d Plat, Co C, 70th Tk Bn supplied most of the information used to construct the following account. Some of the movements are given a time reference by entries in the personal log of a corporal of the 3d Plat. He states in a recent communication that his watch was always in agreement with the time maintained by the company CP, and several events mentioned in the log are given as at the well-established times.

Early movements are timed by the corporal's log as follows:

It is now 0730 and we're all prepared to go on a mission in support of the 7th Cav Regt. . . It's now 0913 and we still haven't moved out but we will shortly. . . 0930, we're moving out. . . 1000, we just got out of the river bed; we will soon be in touch with the enemy; right now our infantry is all around us. . . 1018, we just caught up with the main body of infantry (ours) and I guess there will be a waiting period while the Air Corps finishes its job and then the artillery does their share. Then we move. The Air Corps is busy right now. 1100, the Air Corps is through. 1110, the artillery is now busy plus the mortars [actually, mortar fire, but no artillery preparation]. . .

It is evident that the tanks arrived at Hill Mass 314 after the infantry, and therefore could not have marked the target for the air preparation. On arrival, the five tanks took up a position on the trail at the left side of the hill mass in the vicinity of the coordinates 1155.7-1453.3 (621820). From here Knob 3 could be seen, but Knob 2 was partly masked by Knobs 0 and 1. Two of the tanks, one of them that of the platoon leader, moved back around the hill to the right at the approximate coordinates 1156.7-1453.7 (630824). The corporal's log reports this move: "1125; the Lt. just took off to the right side with one other tank. . . ."

These two tanks received 120-mm mortar fire which seemed to walk along with them, and which the armor personnel considered directed at them. The sites of enemy weapons and observation points are now known, and the tanks could not possibly have been the objects of observed fire. The infantry received its first mortar fire at 1135, from 120-mm mortars on the line of departure. Rounds that overshot the ridge would have fallen just where the tanks were, and as this fire shifted to the assault units advancing in the saddle, long rounds would have seemed to follow the tanks too. The two tanks withdrew to their original positions to the left of Hill 314.

The infantry's report on this movement of the tanks is the only documentary information from this source on the supporting armor. The 3d Bn journal states:

121300. Tanks were given the mission of support of Battalion by moving along road to right and left flanks of Battalion. They moved up the right side and fired into

the village [evidently Popsong-dong] to the front of position and received some mortar fire and retired.⁶

Early in the attack all electrical communication between Co I and the rear was lost. Company L still had radios, but the completeness of linkage with the rear CP at the base of the hill is not known. From their midway position on the left flank, the tanks were able to serve as a secondary communications link and, in fact, relayed requests for ammunition, litters, etc.

By around 1200 the infantry's second assault on Knob 2 had been repulsed. Infantry sources state that an enemy grouping on the northeast slope of Knob 2 was dispersed by the fire of artillery and 81-mm mortars. The two tanks at the original position began firing at this time on the western slopes. The corporal's log states: "1215, we fired 10 rounds [reference is apparently to the corporal's tank; he is sure some of these were WP], stopped at 1230, now waiting."

At around 1320 a third assault was stopped, and Co L on the left was in serious trouble. The CO of the 3d Plat, who was now back at the original position with all five tanks, could see the bunching of friendly troops on the left, west slope of Knob 2, and could see enemy mortar fire inflicting casualties there. A check at this time showed that friendly heavy mortars, as first suspected, were not firing there. A large enemy grouping on the left side of Knob 3 could also be seen, though the number of troops could not be estimated from such a distance. Via radio, Co L was calling for artillery on this enemy concentration. Without orders, the tanks fired 25 HE rd at the crest of Knob 3. The infantry reported them successful, but, not knowing of the participation of the tanks, attributed this supporting fire to artillery. Observers in the saddle or on the forward slopes of Knob 1 could not have seen either the enemy grouping or the tanks firing. The corporal's log reports this second period of tank fire: "1330, we just finished firing 20 more rounds of HE and 7 of WP."

Tank personnel reported that the tanks marked the objective twice for air strikes; this is confirmed by the logged report of WP firing. It is not clear whether two separate air strikes actually occurred during the afternoon. The time of the final one of the day is fixed by the corporal's final entry: "Well, we've been waiting for over 2 hours while the Air Corps got busy again and now at 1445 our infantry has advanced to the top of the ridge. They don't have it all yet."

Operations of the 3d Plat, Co C, 70th Tk Bn on 12 September are summarized in the battalion's journal as reported above.

After the objective had been secured, an enemy counterattack seemed imminent. The tank platoon was therefore requested to advance and fire into the villages to the east and north where the enemy was thought to be concentrating. Two tanks with six supporting infantry troops advanced along the trail to the right of Hill Mass 314, this time reaching the coordinates 1157.1-1454.2. Here, in a defile formed by a 30-ft cliff on one side and masses of boulders on the other, the trail was found impassable because of a large crater made previously by friendly forces. This block could not be bypassed and the tanks had to back 300 yd to find a place wide enough to turn around. These facts about the crater were also reported by a member of the 3d Bn, 7th Cav P&A Plat. Beyond the site of the crater the trail narrowed to jeep width. At a late stage

of the battle a jeep-carried 75-mm recoilless rifle got as far on this trail as Phase Line 2.

On the afternoon of 13 September, after the crater had been filled in, armor personnel in a jeep proceeded further north on reconnaissance. The valley appeared to have been deserted by the enemy.

SUPPORT FROM THE AIR

A special study has been made of close air support operations in Korea during the period July 1950 - January 1951.²⁷ The comprehensive statistics presented afford a perspective of the support furnished the 1st Cav Div. The organization of the tactical air force at that time is thoroughly described and its typical operations are discussed. Operational data, however, are restricted mainly to the air side, and there is little basis for evaluating physical results or the ultimate effects of the air effort on the ground situation. Correlation of particular air strikes with the established picture of the ground situation in the zone of the 1st Cav Div may be of value. It is attempted below.

Further information on air operations was obtained from: (a) the TACP log of the 1st Cav Div; (b) air strike mission reports and mosquito reports;* (c) communications (in one case, an interview) with pilots and observers of strike-control aircraft who had been furnished with the reference material cited in (a) and (b); (d) statements by infantry and armor personnel; and (e) a few entries in the journals of infantry units. No contact was made with former personnel of the regimental or divisional TACPs, but it is thought that these did not operate close to the front lines.

Scale of Close Air Support in Korea

The data under this heading are drawn from the special study.²⁷

The level of air support in the defense of the Pusan perimeter was several times higher than in northwestern Europe in World War II. Then, the 30 to 40 US divisions in the line were supported by an average of about seven sorties per division per day. The over-all average in Korea was nineteen, and in September 1950 the 1st Cav Div received a daily average of about thirty.

For Air Force missions, the average time from request for a strike to attack on the target was 45 min, and the average time that the planes stayed in the target area was 30 min. The average distance from friendly troops to the point attacked was 3 to 4 miles. When contact was intense, 17 percent of targets were within 1000 yd of the friendly MLR. It is considered by the writer that these figures are in error due to lack of complete data in periods of intense action, such as the subject of this study, when ground troops were often given very close support.

The average munitions expenditure per sortie in Korea was 2.68 rockets, 0.083 tons of bombs, and 0.314 tanks of napalm. The total expenditure corresponding to the 30 sorties per day in support of the 1st Cav Div would then have been 80 rockets, 2.5 tons of bombs, and 10 tanks of napalm. Figures are not available on 50-cal ammunition.

* These were collected and microfilmed by an ORO field team in the Far East Command in 1950 and are otherwise no longer available.

General Situation

Now, several years after the operations in question, few detailed observations on the effects of air strikes or on other aspects of the ground situation are forthcoming from air personnel who made or directed ground-support strikes at that time. It is the result in part of a particular and temporary situation. Because of the acute emergency that had developed by September 1950, air operations were highly informal. Many men were working under great pressure in highly specialized jobs to which they had just been assigned without the training that would have been desirable. Only 14 of the 49 mosquito pilots and observers had had prior training. Air personnel were not in a position to be aware of the details of the situation on the ground. They had almost no occasion to meet men of the ground forces and often did not know what units, below division size, they were supporting.

Tactical air operations were controlled from the rear. After the evacuation of Taegu on or about 6 September, the 5th Air Force tactical air control center (Mellow) was located at Pusan, though strike aircraft and mosquito planes still operated from the Taegu airstrip. Almost all ground support missions were directed by mosquito aircraft, since the regimental TACP was usually located at regimental headquarters. The mosquito pilot was an Air Force officer and the observer either an Air Force or an Army officer. Usually one mosquito handled all missions within the boundaries of a division. When air traffic was especially heavy, a second might share the load. (In the 1st Cav Div the mosquito planes were designated Wildwest and Wildwest Special.) On a busy day, a mosquito pilot and observer would take off two or three times to direct the prebriefed or on-call flights allocated to a division. One 1st Cav controller stated that in one 3-hr period he directed 8 flights of 4 aircraft each at a particular hill in preparation for a friendly attack. The number of passes at the hill is not known. Sometimes a single mosquito directed two separate missions at the same time; between Hill Mass 570 and Hill Mass 314, for example, the mosquito could control planes flying a clockwise pattern around Hill Mass 314 and those flying a counterclockwise pattern around Hill Mass 570.

The US Army units were furnished close air support by the Air Force with propeller-driven F51's and F80 jet aircraft. Marine F4U's occasionally were vectored to targets in Army sectors. The B26's operated singly and usually at night on bombing and observation missions somewhat to the enemy rear.

When strike aircraft were put under control of a mosquito plane, they were usually held in stand-by orbits several miles back from the front. (Attacking troops therefore would not know that aircraft were on hand to back them up.) Priority in attack was given to the jet aircraft, because of their limited flying time. For this or other reasons, it was not uncommon for F51's to stand by as long as an hour or an hour and a half before attacking. The target was ordinarily marked for the mosquito by white phosphorus bursts fired by the ground forces. Air-recognition panels put out by the most forward friendly infantry troops were taken by the pilots of the strike aircraft as the basis for their aiming points. In September 1950, when the opposing forces were often in very close contact on opposite slopes of a ridge or knob, the aiming point would be only a few hundred yards beyond the most advanced friendly elements. It is not surprising that on one occasion troops on Hill 373 reported that they themselves were strafed, even though panels were displayed.

Each strike plane would make several passes, the last usually a swinging turn to hit enemy gun positions. Once ammunition was expended, the planes would return at once to the Taegu base. Pilots operating in the zone of the 1st Cav Div had to do little more than cut the throttle for the return trip. They sometimes took off again as soon as their planes could be refueled and reloaded. It would therefore appear that the 1st Cav Div actually or potentially had considerable air support, as long as the weather permitted air operations.

Weather exerted general control on air operations through its effect on the Taegu airfield, which was located in a troughlike valley. Sometimes the ground fog that flowed down the adjoining slopes did not clear off until the afternoon and so prevented all air operations until this time. Once the planes took off, they continued to operate despite low cloud strata, rain squalls, and partially concealed targets.

From the air, Korea appears to consist of hills and ridges in unending repetition. Targets were located by map coordinates. For strike aircraft and even perhaps the mosquitoes the terrain in view was not clearly related to the map or to the current ground situation. It was the responsibility of ground units to authorize air attack and mark the targets. Security demanded that personnel in the air be told a minimum about the ground units via radio. Sometimes there was no radio link at all with forward observers on the ground. It is understandable that in the period under study, Hill 373 and Taegu itself were strafed by friendly aircraft and that in the early fighting on Hill Mass 314 air support was refused as dangerous to friendly units in such close contact with the enemy.

As for observation from the air, enemy skill in using brush for camouflage was generally recognized. Strike aircraft on their attack runs flew low enough for observation of details but too fast for pilots to form much of a close-up picture. As a rule, the slow, vulnerable mosquito planes remained high to avoid the intense small-arms and automatic-weapons fire usually directed at them. From such altitudes, personnel and gun positions were very hard to make out. Sometimes, however, when low clouds forced them so low as to risk colliding with ridges, enemy and friendly troops could be clearly seen.

Though it is very difficult to report enemy behavior during particular air strikes, some reliable generalizations can be made. Enemy troops were usually emplaced around the wooded crowns of hills near the summit rather than up on the bald ridge. Napalm strikes were therefore usually directed at the slopes near the top. As a rule, several passes would cause the enemy to retreat to prepared positions further down the slopes. At this time the enemy had not learned to minimize casualties by retreating at right angles to the flight path. The flight path was predictable, since friendly aircraft always flew from south to north to minimize the danger to friendly infantry.

Air Strikes in Support at Tabu-dong and Hill Mass 570

According to the TACP log,¹⁷ the only air strike in the 8th Cav Regt area from 1 through 5 September was on enemy artillery northeast of Tabu-dong on 1 September. An unlisted strike against the same target was made by F4U's on 3 September. Mission reports are lacking for most of the strikes during

TABLE 11
AIR STRIKES ON HILL 570 ON 11 SEPTEMBER

Flight	Squadron	1st Cav Div TACP log				Mission reports				
		Planes, no. and type	Load	Report time	Target	Planes, no. and type	Time		Mosquito	Target, attack, results
							Take-off	Land		
Ratkiller A	Unknown	4 F51	Napalm [and rockets?]	0830	Hill 570	4 F51	0715	0915	Ballot	Contacted Ballot 14, went to pre-briefed ridge south of Walled City. Napalm and strafed town with good results.
Ratkiller B	Unknown	4	Napalm [and rockets]	0853	Hill 570	3 F51	0825	0910	—	Prebriefed to ridge one mile south of Walled City. Dropped napalm. Results excellent, strafing results fair, fired rockets at 20-mm gun and missed.
Ratkiller C	Unknown	4	Napalm [and rockets]	0905	Hill 570	3 F51	0915	0945	Wildwest	Napalmed and rocketed ridge south of Walled City 1155-1456 [Hill 570]. Good hits.
Dropkick L	77th RAAF	4 F51	Rockets, 50's	0847	Hill 570	4 F51	0645	0930	Wildwest	Rocketed and strafed ridge one mile southwest of Walled City 1155-1456. Results undetermined. One horse and cart destroyed.
Gasmask B	80th Ftr	4 F80	Rockets, 50's	1100	Hill 570	4 F80	1030	1200	Wildwest	Strafed troop concentrations on hill at 3603N-12833E in Tabu-dong area, results unknown. TOT 1115-1140. 16 rockets. [Note: Coordinates are 1 1/2 miles ENE of Tabu-dong.]
Ratkiller D	Unknown	-----	Not listed	-----	-----	4 F51	0925	1015	Wildwest	Bombed and strafed ridge east of highway 3 miles south of Tabu-dong, results unknown.

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the period 6-10 September, and the principal source of data is the TACP log. This was considered by air personnel as the most authoritative source of data on the identity of targets. Reports are available from the flights of ground-support aircraft that struck Hill 570 on 11 September. In Table 11 they are listed in parallel with the TACP entries, since the air effort on 11 September was of critical importance. These mission reports contain neither much information on the results of the strikes nor additional observations, but they do in general confirm the TACP log record that a given target was attacked. According to available records, no air strikes were directed at Hill 570 on 12 September.

On 6 September, at about 2000, two aircraft hit the ridge of Hill 570. This was perhaps the first time this hill was the target of friendly air. Around 0700 the next morning seven planes hit the same point. The results observed are not known, nor are the ultimate effects, since there was little or no contact between friendly and enemy ground forces on 7 September. Bad weather precluded any air effort at all on 8 September. The 8th Cav therefore had no air support for its first, unsuccessful attempt to take the hill. Air action was again meager on 9 September, when four planes dropped napalm at around 0930.

On 10 September air strikes were postponed by bad weather until late afternoon and then directed principally at the lucrative targets offered by the enemy build-up around Tabu-dong, though one or two flights attacked Hill 570 itself. Prisoner-of-war reaction to these strikes is reported earlier in this part in the section on enemy units.

The critical situation of the friendly forces holding Hill 373 on 11 September was described in Part I, and the 20 or 24 sorties against Hill 570 during the morning were listed there. The detailed data available on this air effort are presented in Table 11. The pilot of the Wildwest mosquito in the air at the time stated that the attacks thoroughly burnt out the ridge and caused enemy troops to flee down the western slopes toward the road. The mosquito observer, in a separate interview, stated that enemy troops also fled to the northeast. The 2d Platoon, Co. B, 70th Tank Battalion interpreted the movement of enemy troops towards its positions at this time as an attack. An unknown observer, according to a logged report, had previously observed enemy troops milling around in the saddle between the 570-m and 480-m peaks. The former S-3 of the 99th FA Battalion agreed that the movement probably was a rout and added that artillery fire chased the fleeing troops back up the hill. From these various reports it appears that the enemy on Hill 570 fled in complete disorder.

Air Strikes on Hill Mass 314 on 11 and 12 September

The pilot of a Wildwest mosquito stated in a recent interview that enemy troops were concentrated on Hill Mass 570, on Hill Mass 314, in the valley between them, and in the valley to the north. No distinct groupings were observed. He made the significant observations of the fighting on Hill Mass 314 which follow, but was not sure whether the date was 11 or 12 September. Though the weather appeared clear on the ground, it was not favorable to air operations, for there was a low, virtually continuous layer of haze (11 Sep: cloud conditions not known; 12 Sep: 9/10 cloud cover at Taegu at 1040 with base at 2500 ft, tops at 4500 ft). Visibility from the air was hardly impaired in the vertical direction, but horizontally it was very poor. The mosquito had to fly unusually low, and enemy and friendly troops therefore could be seen clearly. During the after-

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noon, the slow but steady progress of the attack could easily be followed through a period of several hours by the advance of the yellow (8th Cav?) air-recognition panels up to Knob 2. Friendly troops were not in any definite disposition but seemed to be in good order. Though they did not have the benefit of cover, they showed no tendency to disperse down the slopes. The air strikes were delivered atop the objective ridge. Their effect was clearly discernible—the enemy troops to the rear and on the flanks began to slip back. The main body of enemy troops was in foxholes on the ridge, and assaulting troops were exceedingly close to forward enemy elements. With continuing air attack, the enemy began to crumble. All but the troops pinned down at the front line in contact with US troops began to display restlessness. Finally, the breakpoint was reached, and the enemy troops abandoned their foxholes and ran to the rear. It is not known whether or not a thin enemy line still remained to oppose the friendly attack. Since the details of the attack on 11 September are not known, this account cannot be verified. It seems likely, however, because of the two missions recorded for this date in Table 12 and several other facts. As cited in the table, the mission report states: "Results not observed, but controller informed flight after first pass [that] NK troops started to give up positions and run."

It would seem that the situation on Hill Mass 314 on the afternoon of 11 September was similar to that on Hill Mass 570 during the morning: enemy troops fled en masse under US air attack, but some enemy units remained to hold the high ground. In the evening, the same mosquito pilot observed large, active groupings of enemy troops on the upper slopes of the Walled City.

According to the TACP log, the air preparation for the attack by the 3d Bn, 7th Cav on 12 September consisted of strikes by four flights of planes and lasted approximately an hour and a quarter (1000 to 1115). The mission reports attribute control of the first three flights to the mosquito Wildwest and the last to the Wildwest Special. This attribution may be correct in the case of the first two flights, but it hardly seems possible in the case of the third, which reported to the TACP at 1030, just 20 min before the Wildwest landed at Taegu. A second mosquito Wildwest had already taken off at 1015 but was not involved; the pilot in the air at that time reported in a recent communication that though he worked Hill 570 he never directed strikes against Hill Mass 314. The Wildwest Special could and may have handled all the flights. It took off at 0930, 20 min before the first flight, Ratkiller Able, reported to the TACP.

No mission reports are available for the third and fourth flights, which are listed as Ratkiller Charley and Dog. According to a Wildwest mosquito pilot, flights were designated "Ratkiller" instead of by the squadron code name when the loads included 5-in. rockets. The unlisted reports of the flights Wolfhound Charley and Dog match in every respect except name and are assumed to be the ones corresponding with the TACP entries.

The observer (Army) of the first mosquito Wildwest was supplied with maps and reference material and interviewed by the writer. He could supply no information about Hill Mass 314, although he did recall the attacks on Hill 570 on 11 September. The observer (Air Force) of the Wildwest Special could supply no specific data about Hill Mass 314 except that intense small-arms and machine-gun fire was received by attacking aircraft from emplacements at the base of the hill on the northeast, north, and northwest sides, and from

TABLE 12

AIR STRIKES ON HILL MASS 314 ON 11 AND 12 SEPTEMBER

Flight	Squadron	1st Cav Div TACP log				Mission reports				
		Planes, no. and type	Load	Report time	Target	Planes, no. and type	Time		Mosquito	Target, attack, results
							Take-off	Land		
11 September										
Admiration B	39th Ftr	4 F51	Rockets, napalm, 50's	1505	Hill 314 1156.5- 1455.5	----- No report available -----			TACP Log states: "Bodies seen blown in air, perfect results." [Note: This remark may refer to following strike.]	
Utah A	8th Ftr	4 F80	Rockets, 50's	1615	Hill 314 1156.5- 1455.5	4 F80	1520	1710	Wildwest Contacted at 1600 and was directed to Wildwest control, Taegu area. Contacted Mosquito Wildwest and had a ridge to be strafed at 3605-12835 [coordinates of Knob 2, Hill 314: 3600N-12835E] Fired 15 x 5 HVA rockets in troop positions and strafed area. Results not observed, but controller informed flight after first pass NK troops started to give up positions and run. In area from 1600 to 1635. 16 rockets.	
12 September										
Ratkiller A	Unknown	4 F51	Napalm, rockets, 50's	0950	Hill 314	4 F51	0835	1030	Wildwest Bombed bridge [sic] 3 miles southeast of Walled City. Rocketed and strafed ridge with good results. 6 napalm, 2 frags, 14 rockets.	
Ratkiller B	Unknown	4 F51	Napalm, rockets, 50's	1015	Hill 314	3 F51	0855	1045	Wildwest Bombed and strafed ridge 2 miles southeast of Walled City, results unknown.	

Wolfhound C ^a	40th Ftr	4 F51	Napalm, rockets, 50's	1030	Hill 314	4 F51	0910	1100	Wildwest	Strafed ridge of enemy troops. TOT 1030-1045. 4 napalm, 3 frags, 14 rockets.
Wolfhound D ^b	40th Ftr	4 F51	Napalm, rockets, 50's	1105	Hill 314	4 F51	0930	1120	Wildwest Special	Bombed and rocketed Tabu-dong. 11 rockets into Hill 570 [probably Hill 314]. 4 frags, 15 rockets.
Cousin B	36th Ftr	2 F51	Napalm, rockets, 50's	1215	Hill 314, N side	----- No report available -----				TACP Log states: "Area covered."
Wolfhound B	40th Ftr	3 F51	Rockets and 50's	1330	Hill 314, N side	----- No report available -----				TACP Log states: "Area covered."
Cousin W	36th Ftr	2 F51	Napalm, rockets, 50's	1410	[blank]	3 F51	1345- 1445		Wildwest	Bombed hill 2 miles SW [sic] of Tabu-dong [Hill 314 is 6 miles southeast of Tabu-dong]. 4 napalm, 4 GP, 11 rockets.

^aListed in TACP log as Ratkiller C. When load included 5-in. rockets, term "Ratkiller" was sometimes used instead of squadron code name.

^bListed in TACP log as Ratkiller D. See footnote a.

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the ridge (Walled City) further to the north. The pilot of the Wildwest mosquito of the afternoon of 12 September was the one whose remarks were reported above. He had no additional observations to report.

No reports of the air preparation on Hill Mass 314 are available from 8th Cav documents. Personnel of the 3d Bn, 7th Cav were not in a position to observe most of the air effort. The CP at the base of the hill was not opened until 1015, about the time the second flight was beginning its attacks. From then until about 1100 the battalion was making the long climb up the ridge on Hill Mass 314, out of view of the objective. Evidently only the last two flights, Wolfhound Charley and Wolfhound Dog, were observed. The former S-3 of the 3d Bn, who was on the hill, correctly recalled (without reference material) the napalm bombing, rocket runs, and strafing by these eight F51's (though attributing the effort to four F80's), and estimated seven or more runs as follows: (a) pass by mosquito plane, (b) four napalm bombs dropped by two planes while two other planes located target, observed, and covered, (c) rocket run(s), (d) several strafing passes, and (e) several dry passes. The former commander of Co I reported that when the assault reached Knob 2 for the first time napalm was still burning there.

The 3d Bn, 7th Cav had ground-support aircraft on call if needed. At 1220, when the battalion's second assault had been repulsed, the following telephone message was received at the division's headquarters:

121220. Telephone from Skirmish 3 [7th Cav S-3]: request air to come in on north slope of hill, staying just north of east-west grid line 55.5 [1455.5, the line passing through Knob 3]. Want napalm in draws running north, northeast and northwest. At 1300 hours, front lines will mark their positions with panels. We have advanced to east-west 55 grid line [Knob 2]. Skirmish 3 wants to know when this is set up. Located at Scrappy 3.¹

Reaction was prompt. As recorded in the preceding subsection on armor in support; tanks in support of the 3d Bn, 7th Cav marked the objective with white phosphorus bursts between 1215 and 1230. According to the TACP Log (Table 12) the flight Cousin Baker checked in at 1215, and soon afterward, presumably, attacked the north side of Hill Mass 314 and draws to the north as requested.

Around 1300, the attacking infantry had again been repulsed and required further air support. A logged message states: "121303. From Liaison Officer, 7th Cavalry Regiment: Blue waiting on 55 grid line for airstrike north of objective..."¹

Again the reaction was prompt. Before 1330 the tanks had again marked the objective with white phosphorus, and at 1330 the flight Wolfhound Baker reported to the TACP that it would attack the north side of Hill Mass 314, presumably soon after.

Assault troops knew of neither of these strikes. Very likely the reason is that contrary to general practice, as with the preattack strikes, the aircraft did not follow a south-to-north course up the ridgeline. With intense enemy mortar fire falling continually in the saddle, and with friendly artillery and mortar fire falling on the objective ridge, such an approach would have been most hazardous. In attacking the north side of the hill mass on these two strikes, the planes probably, but not necessarily, approached from the south-

east along the valley north of Hill 660. Their fire would then have been concentrated on the northeast base and slopes of the hill mass, and on the known troop and supply concentrations in the nearby villages. Such a flight path would not have allowed the planes to reach the 82-mm mortar position now known to have been in defilade on the northern slope. It is presumed that it was the aircraft of flight Wolfhound Baker (which were armed only with rockets and machine guns, not napalm) that are referred to in the observation from the air quoted below, to the effect that some time prior to 1445 friendly aircraft were seen "shooting down in the valley."

The only evidence confirming the fact that more than one air strike was directed at Hill Mass 314 during the afternoon is the following afterbattle report:

121820. From Liaison Officer, 7th Cavalry Regiment: 3d Battalion, 7th Cavalry jumped off at 1115 hours, after an airstrike which was extremely effective.... They called for an airstrike at 1300 hours which was delayed until 1330 hours. An airstrike was given again at 1400 hours....¹

The one air strike reported by the infantry was the one that turned the tide of the battle, when the assault units were still held up at Knob 2. Two F51's appeared before 1445, perhaps as early as 1410. Whatever the hazards, they attacked up the ridgeline and at an unusually low altitude. The most forward friendly personnel were gathered in the peculiar semicircular depression called "the shallow," just short of the crest of Knob 2, and the aircraft began strafing 75 or 100 yd beyond this point. The command officer of Co I stated that the airwash of the planes blew the helmet off the head of the CO of Co L, who was standing by his side. The artillery liaison officer had also moved up to this position. In a recent communication he drew a sketch of the area attacked and showed strafing along the ridge from just beyond Knob 2 to Knob 3. Two napalm tanks were dropped. One of them went over the northeast slope and the other landed squarely among a group of enemy soldiers assembled behind a small knoll on the ridge between Knob 2 and Knob 3 (see Fig. 3). This square hit with the napalm is mentioned in various infantry documents as the decisive stroke that led to the following final successful assault of the objective.

The fact that this air strike occurred before 1445 is established by an observation, logged by one of the tank personnel, that at this time the air attack was over, and that friendly troops had advanced up onto the ridge but had not yet captured all of it. Also, the following message was recorded in an official log:

121445. From General Allen [Asst Cmdr, 1st Cav Div]: the line of the 3d Battalion, 7th Cavalry looked as it was before on the 55 line [the grid line 1455, which passes through Knob 2]. That is the highest peak there. As I was flying, the air dropped a 500-pound bomb about 200 yards in front of the panels. The rest of the air was shooting down in the valley. Our troops were receiving mortar fire.¹

The photograph Fig. 3, made two and one-half years after the action, still clearly shows a crater squarely in the declivity midway between Knob 2 and Knob 3 on the western side of the ridge, i.e., about 250 yd forward of the point where the panels must have been displayed. This bomb-burst fits all the de-

scriptions of the successful napalm drop. Friendly observers in the shallow could not have seen the burst itself, merely the cloud of smoke. The existence of a bomb crater at the point shown on the picture was confirmed by the CO of Co I, who described it as a large bomb crater (diameter in photograph about 30 yd) and related how he and several others in it became casualties from a single mortar round. As to the enemy concentration of troops, however, he reported negatively. As observation of the dip in the ridge from the shallow was at best limited, it would seem that the reported concentration was exaggerated.

The identity of the planes that made the last air strike is not definitely known. They would seem to have been the three F51's of the Cousin William flight. As shown in Table 12, the TACP log listed the flight as having reported on station at 1410, but the target is not specified. The corresponding mission report is available and is also given in the table. The only inconsistency is the specification of the target as a hill 2 miles southwest of Tabu-dong, which would have the planes attacking Hill 714, 2 miles to the rear of that critical point north of Hill 401 known to be under air attack at this time. Although Hill Mass 314 is 6 miles southeast of Tabu-dong, the well-known gross errors in the identification of ground locations by fighter pilots could easily account for the discrepancy. Also, there was no reason to attack anywhere in the vicinity of Hill 714 on an emergency basis.

The Cousin William flight was in the air for a very short time, just 1 hr from take-off to landing. If the usual 20 min is allotted for travel from Taegu airfield to the target area, etc., the flight would have arrived at the target area at 1405, 5 min before reporting to the TACP. Subtraction of the same interval from the landing time leaves the flight in the target area until 1425. The air strikes would then have lasted only 15 min. This short time suggests a special emergency strike.

It was the personal impression of the 3d Bn personnel that the final air strike was delayed for refueling. This is the reason given in the 7th Cav Regt war diary for the delay. As may be seen from Table 12, the final strike was by planes of that same squadron which had had an air strike on Hill Mass 314 earlier in the afternoon, the flight Cousin Baker, which had checked in with the TACP at 1215. If these planes stayed in the air the normal 2 hr, they would have landed at the airfield at about 1345. It is quite possible that they did in fact land shortly before this time, were refueled and reloaded, and then, at 1345, took off as flight Cousin William to return to Hill 314.

The load carried by the Cousin William flight agrees with the observations from the ground. The planes carried 4 general-purpose bombs, presumably 500-pounders, 4 napalm drums, and 11 rockets. The number and type of the planes also agree with the ground reports.

At 1635, after the objective had been secured, the 3d Bn, 7th Cav called for preventive air strikes on the village of Kisong-dong, just northeast of Hill Mass 314 at 1157.5-1456.0, and on Namch'ang, 3/4 mile to the north of 1156.9-1457.1. These strikes were to have been made if the aircraft were available. Though they were not made, no enemy counterattack materialized.

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Part III

SYNTHESIS AND INTERPRETATION

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**SYNTHESIS: THE TACTICAL PATTERN
IN GRAPHIC OUTLINE**

This section shows in graphic form the progression of move and countermove and blow and counterblow in the period 2 - 16 September, and indicates some of the essential factors involved. The data on friendly and enemy forces given earlier in the memorandum are brought together with some additional data in a space-time setting.

DAY-BY-DAY DIAGRAMS AND HOUR-BY-HOUR
ACCOUNTS OF THE ACTION
FOR 2 - 16 SEPTEMBER

The representation of terrain is based on the map presented as Fig. 2, which may be consulted for details. In the diagrams, the transcribed contours have been selected to emphasize significant features. Except for a few breaks for clarity, all 200-m index contours and all the higher 100-m contours are shown. The dotted contours at the bottom of some of the diagrams are 100-m lines. Some intermediate contours also appear dotted to indicate peaks. All ground over 500-m elevation is shaded.

The only weather data available is the meager amount heading each right-hand column of text. It was often difficult to distinguish between a report and a forecast. Two conditions were typical: intermittent rain, and fog in the valleys in the morning. In the absence of low-hanging clouds, visibility between showers was generally good during the day. The effect of weather on friendly air operations was variable and highly dependent on locality. As a crude generalization of precipitation and visibility, close- or wide-spaced black cross-hatching or none at all appears at the upper right-hand corner of each diagram to represent, respectively, bad, poor or good conditions for observation from the air or on the ground. The daily range of temperature was roughly 68 to 85° F.

The location of forces is shown by the lines bounding forward units (blue for the friendly side, red for the enemy), or by the disposition of specified units. Roughly equivalent opposing units are plotted, since, with an average strength of 280 or less, an enemy battalion was about the size of a friendly company. The primary sources of information on the location of friendly companies were the available regimental operations overlays of 2, 4, 5, 11, 12 (two) and 13 - 16 September for the 8th Cav Regt and of 13 September for the 7th Cav Regt. Several overlays at the 77th FA Bn also were of use. With corrections or changes when appropriate, dispositions are given as of daybreak on the indicated date. Moves during the day are indicated by arrows. Locations on days not represented by an overlay have been plotted from miscellaneous information or filled in on the basis of continuity and simplicity. The sites of regimental and battalion headquarters are given when known. An enemy regiment only generally located is represented by the box symbol. The numerical designation of enemy units denotes the battalion (to the left of the slash) and regiment (to the right). Friendly companies are denoted similarly by letter and parent unit.

Friendly reserves behind the diagrammed area are listed at the head of the left-hand column of text. These were not always formally attached as such but were present and could have been used. Several companies of the 8th Engr Comb Bn were occupied with normal engineer duties during part of the time the Bn was carried in reserve. Adequate data do not exist on enemy reserves.

Friendly intentions are indicated by entries "Operations planned" and "Operations ordered" at the head of the left-hand column of text; unless otherwise indicated, these are from the operations reports of the 8th Cav Regt. Specific enemy intentions are only known for certain actions, and such information is included in the columnar text.









Tactical moves are summarized in chronological order in the left-hand column of text. An apparent response to a friendly or enemy move is shown

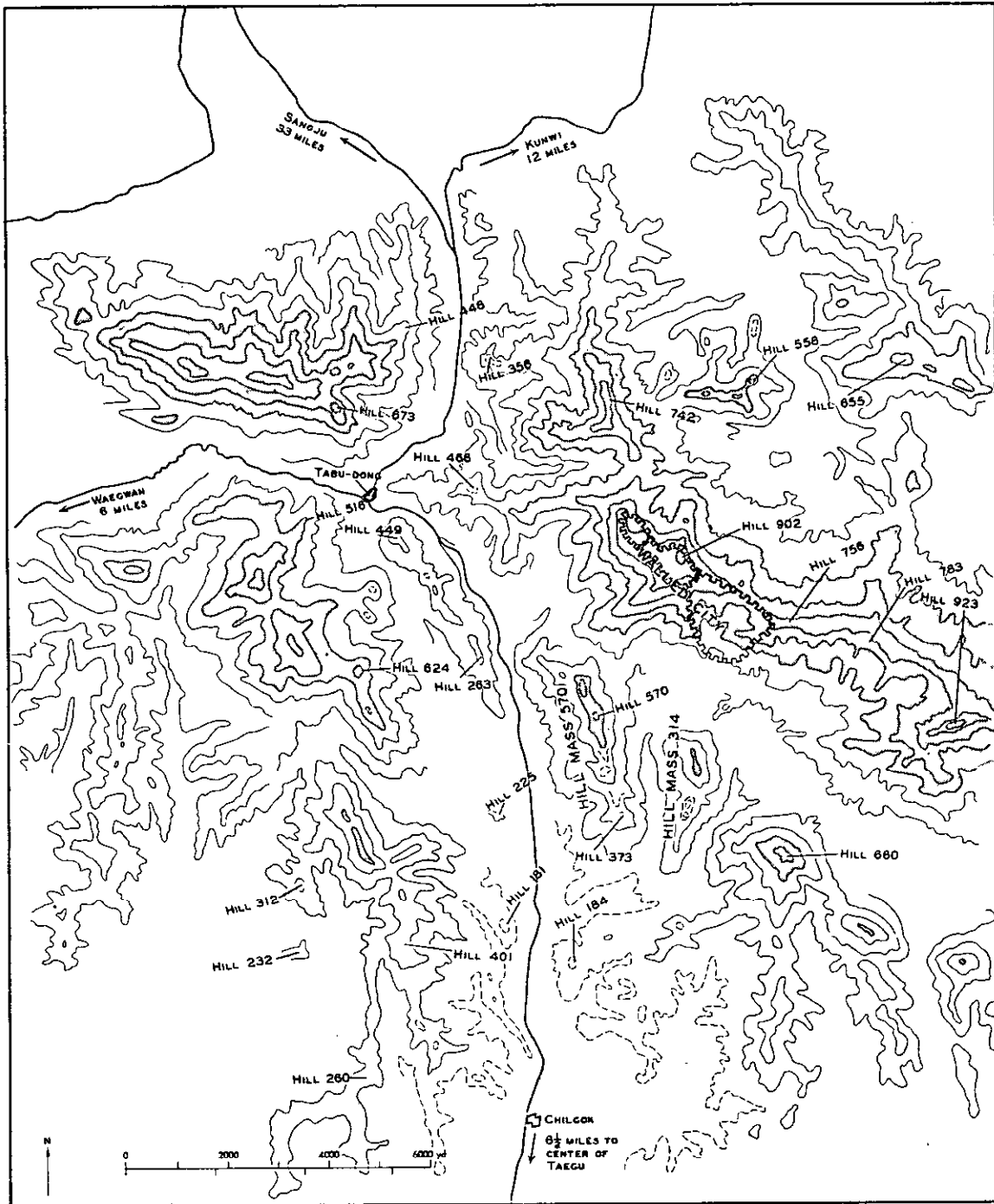
by a connecting arrow. In the diagrams, a planned attack or counterattack is represented by a broad, hollow arrow, all other movements by plain arrows. Time notations are added when necessary. The diagrams show the front line in the ROK sector on the right flank and in the 7th Cav Regt and subsequent 5th Cav Regt sector on the left flank, but the text is restricted to action in the central sector.

Fire is not covered comprehensively. Friendly air strikes and certain concentrations of friendly and enemy supporting fires are listed in the right-hand column of text. Where there is an apparent causal relation, the entry is linked with a tactical move by an arrow. In the diagram, mortar and artillery concentrations of particular note are indicated by small solid circles, an air strike (usually by four planes) by a large solid circle. Fire fights and close combat not associated with an overt attack are shown by zigzag arrows. As an indication of the available and actual ground-support effort, the right-hand heading gives the daily total of both plane strikes in the entire 1st Cav Div and those which were directed at targets in the 8th (and later the 7th as well) Cav Regt zone. These figures are derived from the 1st Cav Div TACP Log. They are sometimes considerably greater than official listings of daily sorties in the 1st Cav Div zone, perhaps because strikes at several targets were sometimes made on one sortie.

The intensity of combat is not indicated but may readily be inferred by comparing the diagram and text for any day with the comprehensive tabulations of casualties by company in App D.

For graphic effect certain nonstandard symbols are used in the diagrams. These appear below, among others of note.

	Tank group		Artillery concentration (vicinity)
	Individual tank		Air strike (vicinity)
	Mortars (four)		Fire fight
	Artillery or AT gun (four pieces)		Overt attack



The area of the battle

Reserves at Taegu: 16th Recon Co (minus organic tanks)
Companies A, C, and D, 8th Engr (Comb) Bn
5th ROK Spl Tng Bn

Operations planned: "Seize and hold Hill 290 in order to protect right flank of the 7th Cavalry Regiment."

Operations ordered: "B Company to attack and hold Hill 290. L Company to attack to the northwest and take Hill 400 (1142.5 - 1464.0)."

Weather observation: Operational for aircraft. In morning, intermittent light rain and overcast, with low clouds from 1500 to 2500 ft; in afternoon, clearing.

Ground-support plane strikes: 1st Cav Div—52
8th Cav Regt—0

F In morning Co B, Co L, and two platoons of the Hv Mort Co leave Tabu-dong area and move to west to support 7th Cav large-scale diversionary attack.

E Enemy build-up activity observed north of Co G.

F Tanks of 4th Plat, Co C, 70th Tk Bn (backing up 7th Cav right flank) displace to rear just before 1700.

F At 1700 forward units alerted when word received that prisoner captured by Co C on night of 1-2 September is S-3 of 19th Regt, 13th NK Div and states that the division is to attack at dusk on 2 September.

E The 13th Div is scheduled to attack after a 15-min artillery preparation which begins at 1800. In first drive the division is to advance 6 km down the road to Taegu.

E Around 1830 a first enemy thrust straight down the highway is stopped by Co G.

E Second thrust overruns one platoon of Co F. Enemy attacks repeatedly in waves. Company F pushed to right, Co G platoon on Hill 356 (right side of road) driven to left rear. Wedge driven into friendly front line.

E Around 2300, 1st Bn, 14th Regt, 1st NK Div leads attack on ROK force on Hill 558; ROKs repulse attack.

E The 14th NK Regt and 2d Bn, 2d NK Regt push through gap, 3d NK Regt moves up.

E At 0200, 3 September, enemy attack opens against units of 11th ROK Regt on Hill 655. Attack still under way at 0400 without loss of ground by ROKA.

F An air strike is called for on enemy build-up but is not delivered.

F The remaining 3d Plat, Hv Mort Co fires at enemy activity throughout day. The 99th FA Bn is continually active.

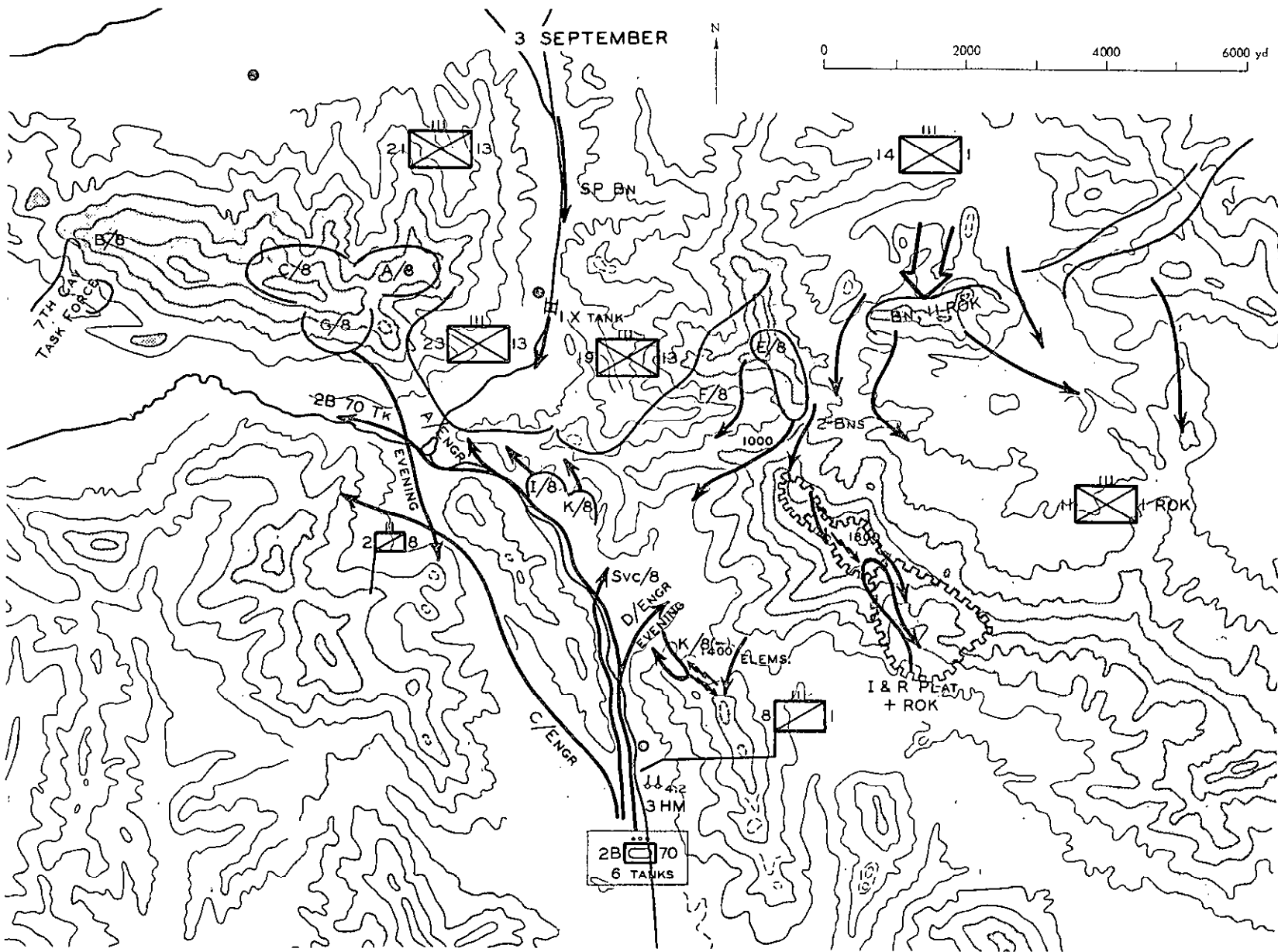
E The artillery preparation opens as scheduled at 1800. Among pieces firing are artillery and 120-mm mortars to northeast. Fire falls all across 8th Cav front, but only 1 rd every 2 min falls on regimental CP.

F Around 2000 an illuminating shell reveals an enemy battalion moving down ridge toward Co F.

F Position of 3d Plat, Hv Mort Co threatened. Platoon fires until about 2300, when ordered to displace to rear.

E During night an enemy tank moves toward Tabu-dong to reinforce penetration.

F At 0320, 3 September a special strike of two F4U's hits enemy artillery northeast of 8th Cav sector.



3 SEPTEMBER

0 2000 4000 6000 yd

Reserves at Taegu: 8th Engr (Comb) Bn
16th Recon Co
5th ROK Spl Tng Bn

Operations planned: "Regiment to hold present positions."

Operations ordered: "B Company and L Company to button up and hold their positions for the night."

E The 13th NK Div offensive down the highway loses momentum with penetration almost to Tabu-dong. Enemy troops dig in on high ground on both sides of road.

E The 1st Div SP-gun Bn moves toward Tabu-dong in support of the 13th Div.

E During the morning, a new attack by the 1st NK Div drives the 11th ROK Regt off Hill 558.

F Units of the 11th ROK Regt withdraw generally to the right rear by stages during the day.

E Units of the 1st NK Div advance rapidly toward and through the gap on the 8th Cav right flank. Advanced enemy elements move onto Hill Mass 570 and drive off a friendly sweep force.

F Regimental infantry reserves and armor move up to establish defense line east from Tabu-dong. The six medium tanks of the 2d Plat, Co B, 70th Tk Bn move through Tabu-dong to take up positions to the west on the Waegwan road.

F Company F withdraws to reorganize; Co E is virtually cut off and is ordered to withdraw at 1000. The 2d Bn takes up new defensive positions on the regiment's left flank.

F To reinforce the new line of defense, Companies A and C of the 8th Engr (Comb) Bn are attached as rifle companies and occupy the anchor positions at Tabu-dong. The 8th Cav Svc Co is also committed as a rifle company.

F Company D, 8th Engr is attached and given the mission of occupying the Walled City, moves up in the evening.

Weather observation: Operational for aircraft all day. Scattered low clouds from 2500 to 5000 ft; no precipitation.

Ground-support plane strikes: 1st Cav Div—20
8th Cav Regt—2 (F4U's at 0320, not in TACP log)

E Enemy counterbattery fire silences the 99th FA Bn.
F Counter-counterbattery fire of 9th FA Bn on enemy artillery in the vicinity 1155.6-1469.8 silences the counterbattery fire, permitting the 99th FA Bn to resume firing.

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Reserves at Taegu: 27th Brit Brig
 16th Recon Co
 Two provisional battalions, 1st Cav Div

Weather observation: Scattered showers. Night of 4-5 September rainy.

Ground-support plane strikes: 1st Cav Div—8
 8th Cav Regt—4

Operations planned: "To regain control of Walled City and high ground running from Hill 673 across the road to the high ground in the center of the grid square 1150-1460 and establish a line along Hill 466 and then along the high ground to the east of the Walled City."

Operations ordered: "Same as 'Operations planned.'"

F The 5th ROK Spl Tng Bn is moved up from Taegu to occupy backup positions in the 8th Cav rear.

E Attack at 0415 on Co A, 8th Engr is repulsed.

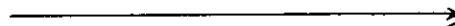
E Attack at 0800 pushes Co I off high ground east of Tabu-dong.

F Company I counterattacks four times but in the end fails to recapture the lost ground.


E Enemy elements slip through friendly line to set up a weak fire block across the Taegu road.


F The 16th Recon Co clears the road, observing only small scattered groups of enemy.

F During the morning, Co B rejoins the 1st Bn; Co L and attachments return from 7th Cav area and rejoin parent units.

E The enemy gains an OP on Hill 466.  **E** Mortar and artillery fire called down on 3d Bn, 8th Cav.


F The 3d Bn position becomes untenable, battalion withdraws a mile down the Taegu road and sets up a perimeter defense.


E The enemy attempts to haul artillery to Tabu-dong with tanks. 

F Company I knocks out two T34 tanks towing field pieces. 

F Company D, 8th Engr moves up toward Walled City.

E The enemy engages Co D, 8th Engr in a fire fight but fails to stop it from moving into the Walled City.

F Company E is augmented with ROK troops and is moved by truck to the southeast base of the Walled City. At 1530, Co E advances.  **E** A mortar and artillery barrage fails to stop Co E.

E Enemy small-arms and automatic-weapons fire pins down Co E on slope south of Walled City. Company remains here for the rest of the night. 

Reserves at Taegu: Two provisional battalions, 1st Cav Div

Operations planned: "E Company, 8th Cavalry and D Company, 8th Engineer Battalion withdrawn from Walled City at 1630 hours. Strength of E Company is 3 officers and 99 men."

Operations ordered: "Same as 'Operations planned.'"

Weather observation: Operational for aircraft. Scattered showers after 1300. At 1530 recon from air reported hindered by rain, low ceiling, extreme turbulence. Visibility bad at Walled City.

Ground-support plane strikes: 1st Cav Div—4
8th Cav Regt—0

F Company D, 8th Engr intensely engaged in Walled City during night of 4-5 September.

F At 0700, Co E fights up to the Walled City and joins Co D, 8th Engr. Both companies have severe ammunition and supply shortages.

F *The 8th Cav Regt is fully committed and there are no regular infantry units in reserve at Taegu.* The 1st Bn is ordered to pull into a perimeter defense, with Co B blocking the road to the west. The 2d Bn is ordered to form a line tying in with the 3d Bn. Through the day, the 16th Recon Co and the tanks of the 70th Tk Bn patrol the MSR from the 3d Bn back to the rear of the regimental CP.

E The 13th Div eases pressure on friendly units as replacements arrive from pools to the rear, manhandles artillery through Tabu-dong to south.

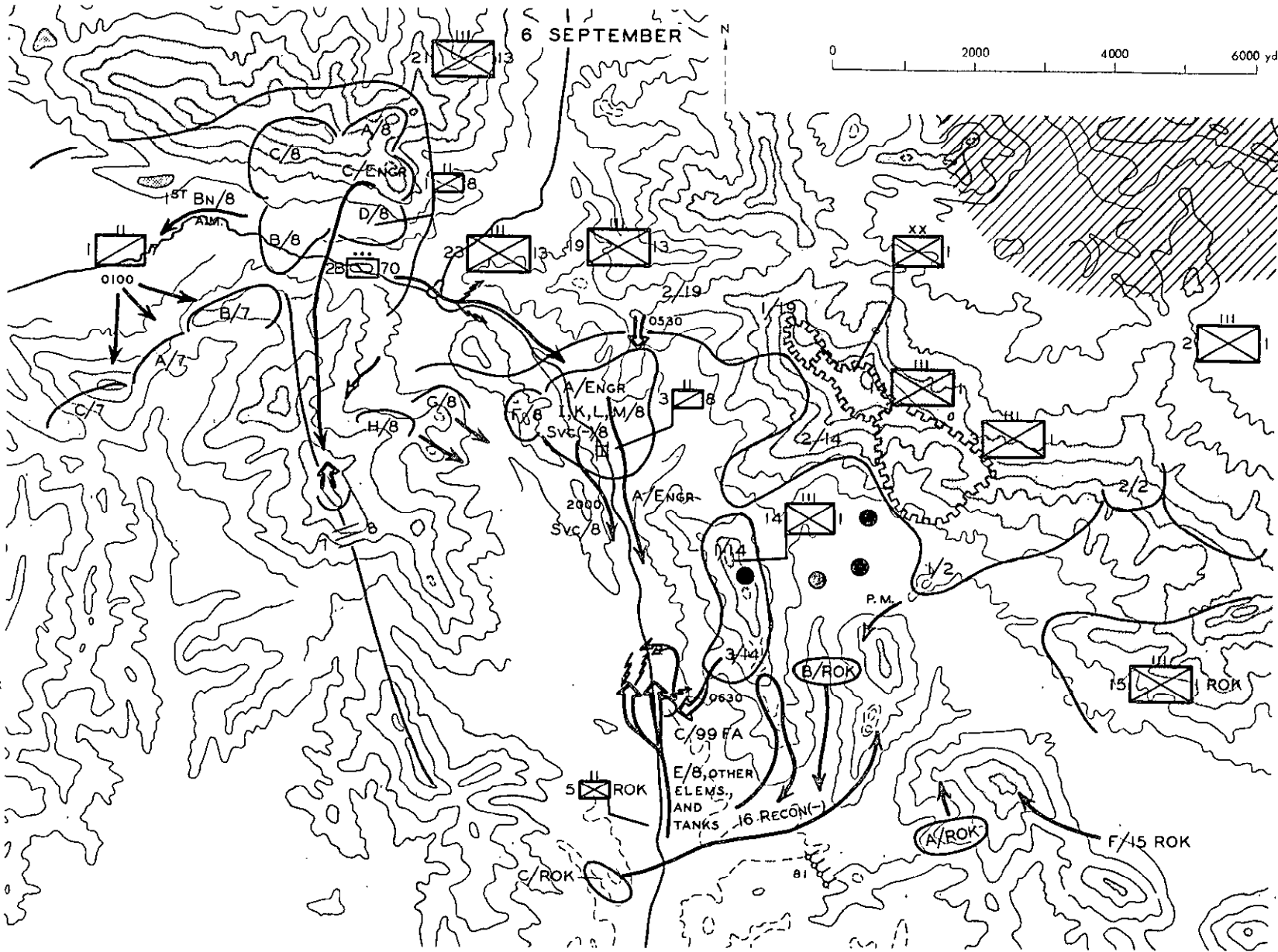
E The 1st Div continues to send units forward. Troops of the 3d Bn, 14th Regt fire from hill 570 on Btry A, 99th FA Bn.

F Attempts to resupply friendly forces in the Walled City by airdrop fail as drops land in enemy-held territory.

F Tanks of 2d Plat, 7th Tk Bn fire throughout day on enemy troops hauling artillery and ammunition through Tabu-dong.

6 SEPTEMBER

0 2000 4000 6000 yd



Reserves at Taegu: Two provisional battalions, 1st Cav Div.

Operations planned: "Move vehicles and heavy equipment to new area. After vehicles have cleared area, occupy new defensive positions."

Operations ordered: "Same as 'Operations planned.'"

- E The 13th Div remains generally unaggressive. A weak attack at 0530 on outposts of the 3d Bn, 8th Cav, is driven off.
- E The 1st Div becomes more aggressive. Two companies of the 3d Bn, 14th Regt come down from Hill 570 and attack Btry C, 99th FA Bn, but are driven off by machine-gun fire.
- E The two companies of the 3d Bn, 14th Regt, possibly with additional support, set up a fire block across the Taegu road.
- F A large tank-infantry task force moves out during the morning and, after a prolonged engagement, eliminates the block.
- F In a coordinated divisional withdrawal, the 1st Bn, 8th Cav withdraws to the west through the 7th Cav sector.
- E Advanced units of the 2d Regt, 1st Div move onto the northern end of Hill Mass 314.
- F Companies of the 5th ROK Tng Bn are placed on the southern part of Hill Mass 314.

Weather observation: Some rain. Visibility 15 miles.

Ground-support plane strikes: 1st Cav Div—42
8th Cav Regt—10

- F Around 0600 a flight of four F80's and two flights of two F80's each cover area between Walled City and Hill 314.

- F At 2000 an air strike by 2 F51's hits the top and east side of Hill Mass 570.

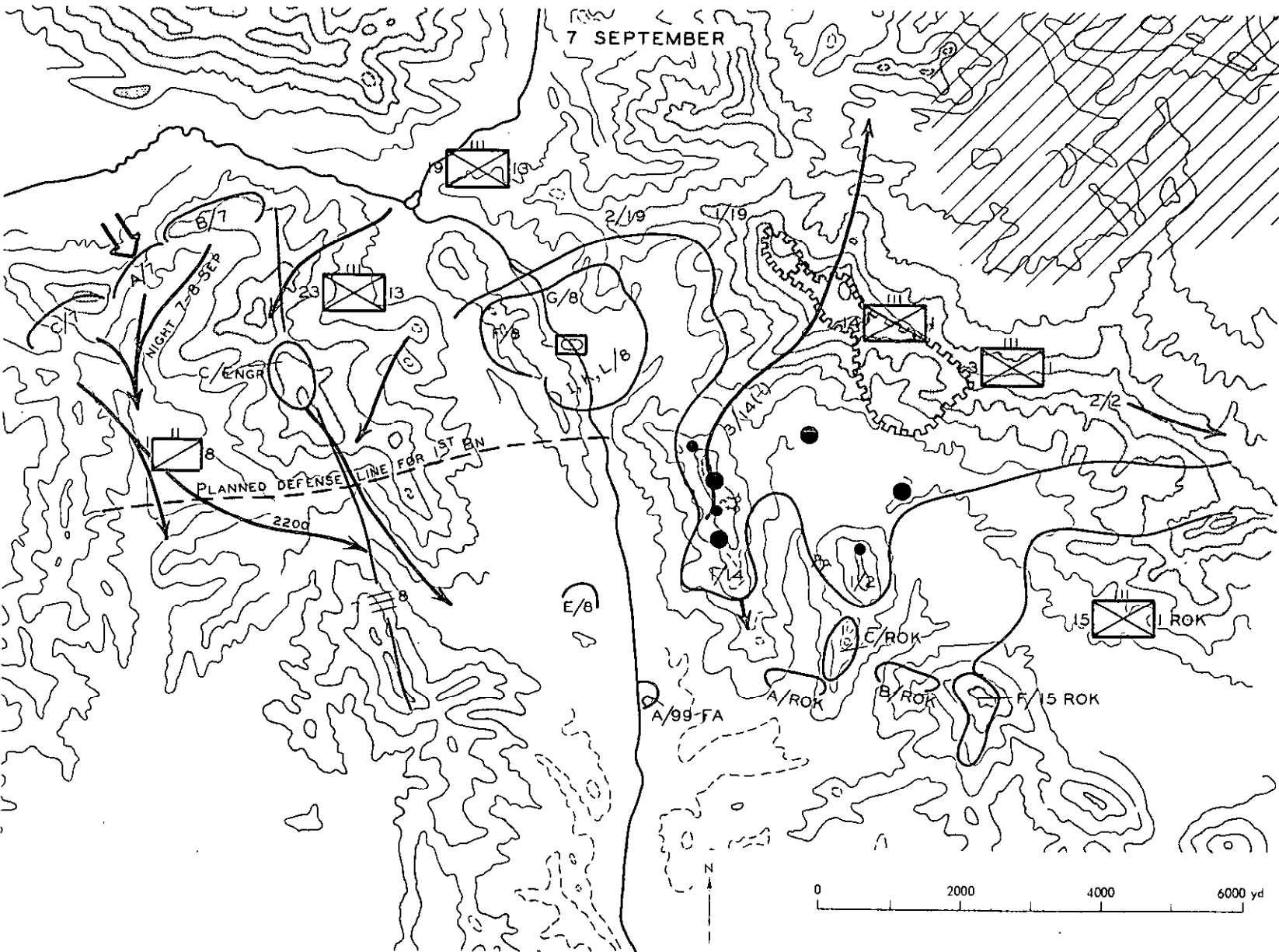
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7 SEPTEMBER



Reserves at Taegu: 3d Bn, 7th Cav
Companies A, B, and D, 8th Engr (Comb) Bn

Operations planned: "Continue on present mission."

Operations ordered: "Continue on present mission."

E The 13th NK Div remains unaggressive, but the 23d NK Regt advances, following the withdrawal of the 7th Cav and 1st Bn, 8th Cav.

E Two companies of the 3d Bn, 14th NK Regt which were hard hit in the fighting on 6 September withdraw from Hill 570 to receive replacements. The 1st Bn of the regiment advances toward Hill 373.

F The 1st Bn, 8th Cav swings around through the 7th Cav sector toward a new line of defense on the 8th Cav left flank.

Weather observation: Frequent showers. Operations at Taegu airport limited during morning hours.

Ground-support plane strikes: 1st Cav Div—54
8th Cav Regt—50

F At 0630, TACP net opened; at 0700 five flights hit Hill 570.

F At 0820, artillery fires on troops and mortars observed on Hill 570.

F Artillery fires on enemy troops observed on the northern part of Hill Mass 314.

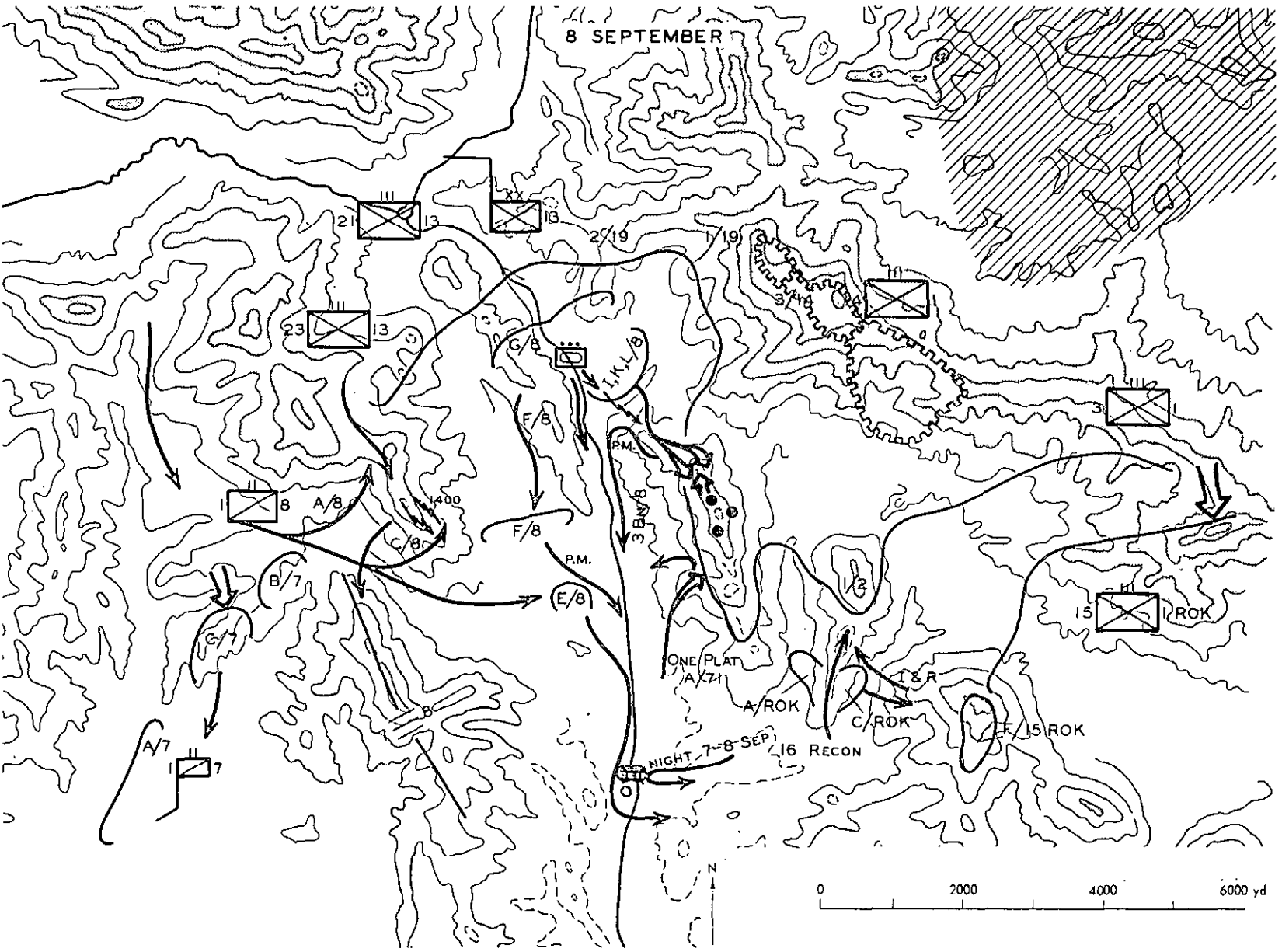
E At 1430, enemy artillery fires intensely on Btry A, 99th FA Bn at rate of 1 rd every 2 sec.

F At 1530, surrender leaflets are dropped on Hill 570. Then two flights strike the hill mass.

F During the afternoon, the enemy assembly area north of Hill 314 is hit by an air strike.

F At 1700 a flight of two B26's strikes area between Walled City and Hill 314.

8 SEPTEMBER



Reserves at Taegu: 8th Engr Bn (entire)
3d Bn, 7th Cav
2d Bn, 7th Cav

Operations planned: "To continue present mission."

Operations ordered: "1st Battalion to attack to rear in order to take up new defensive position."

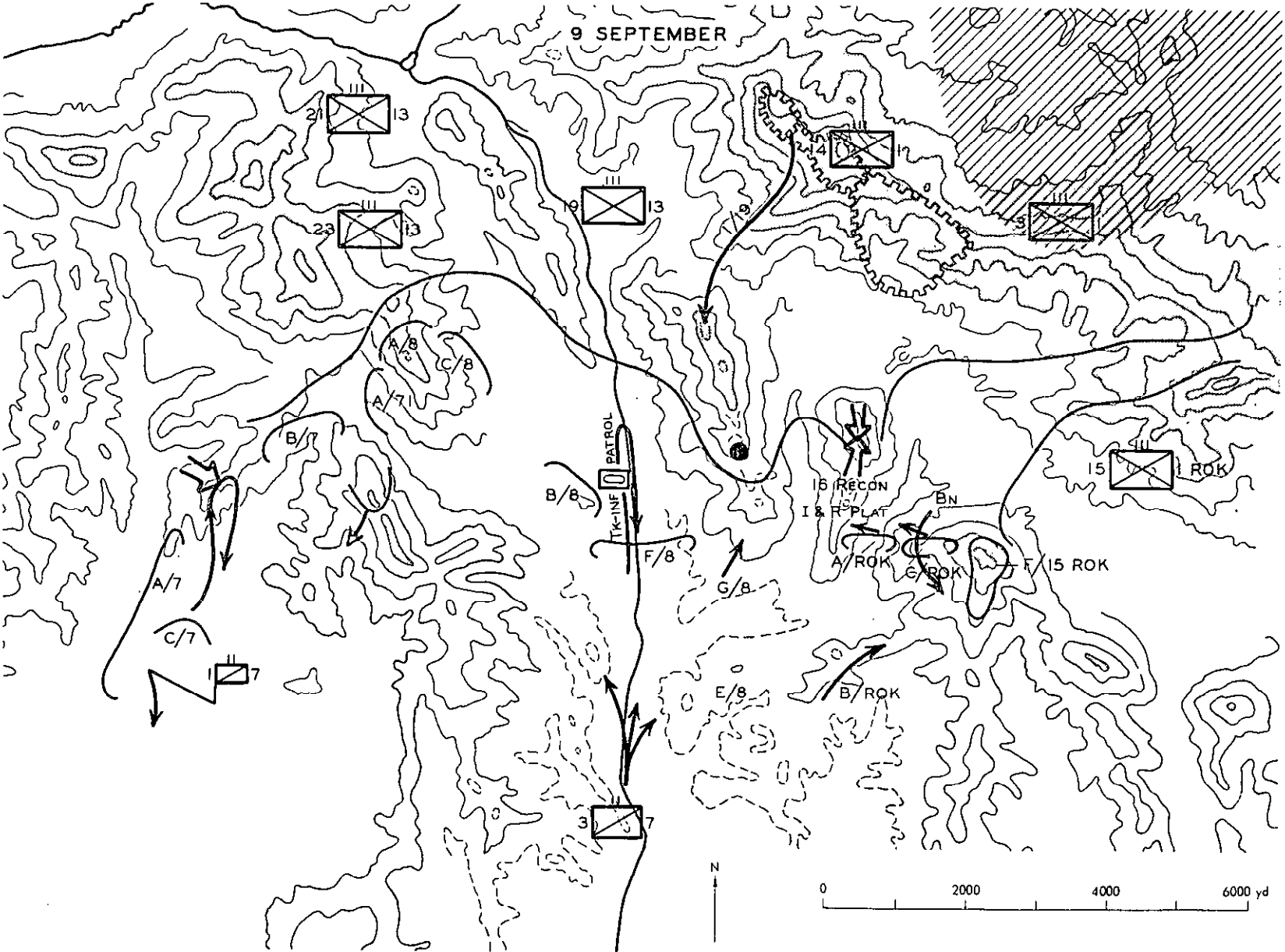
- E Night of 7-8 September: enemy force infiltrates from east, blows up culvert on Taegu road, and mines bypass.
- E The 13th Div remains generally unaggressive.
- F In the early morning, the 3d Bn, 8th Cav attacks Hill 570 and toward its own rear. One provisional rifle platoon of Co A, 71st Tk Bn attacks hill simultaneously from the south. The 3d Bn takes two peaks leading to main objective with little or no opposition.
- F Late in the morning, an enemy counterattack splits the forward two companies of the 3d Bn, causing it to withdraw from Hill Mass 570.
- F The 3d Bn, 8th Cav is withdrawn to constitute the regimental reserve. The 2d Bn then displaces rearward to new defensive positions.
- F The 16th Recon Co moves without opposition onto the southern part of Hill Mass 314.
- E Northeast of the 8th Cav sector, the 1st NK Div attacks the ROK Army.
- F The two ROK police companies on Hill Mass 314 are moved across to Hill 660.
- F The 1st Bn moves up to new defensive positions on the 8th Cav left flank.
- E Enemy forces engage Co C in a fire fight but do not stop it from moving up.

Weather observation: Light showers; rain through night of 8-9 September; fog. Visibility aloft unlimited, except in showers.

Ground-support plane strikes: 1st Cav Div—0
8th Cav Regt—0

- F No ground-support air activity throughout the day, presumably because of bad weather.
- F The attack is supported by the fires of the 9th and 99th FA Bns and of tanks of the 70th Tk Bn.
- E At 1630, 30 rd of enemy artillery fire fall on the unit attempting to repair the blown culvert southwest of Hill 373.

9 SEPTEMBER



Reserves at Taegu: 8th Engr Bn
2d Bn, 7th Cav
3d Bn, 7th Cav

Operations planned: "Continue on present mission."

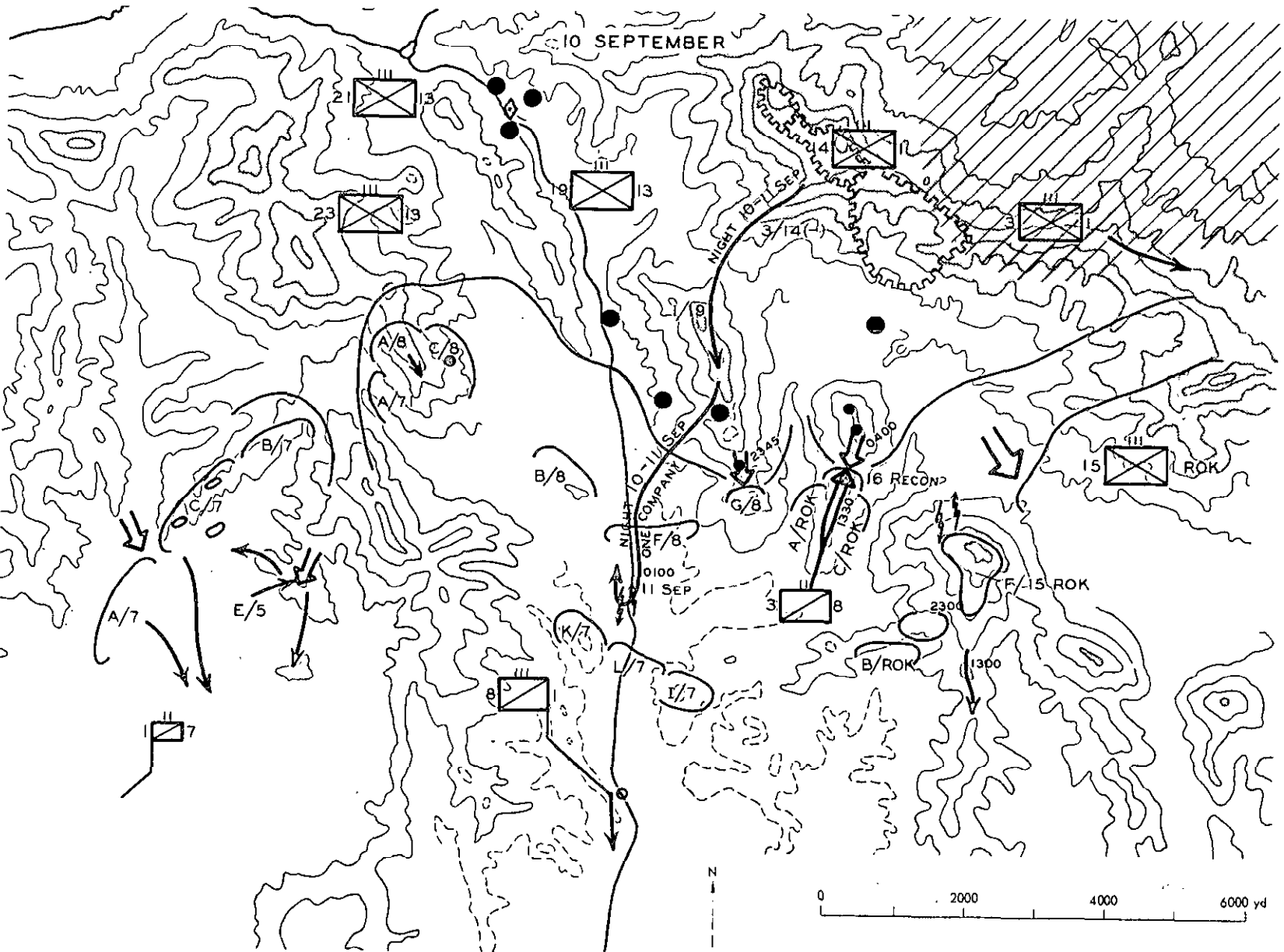
Operations ordered: "Same as 'Operations planned.'"

- E** Enemy units on Hill 314 engage the 16th Recon Co in fire fight during night of 8-9 September.
- E** At 0700, enemy units on Hill 314 attack the 16th Recon Co, pushing it back to the southern part of the hill mass.
- F** During the morning, the 3d Bn, 7th Cav moves up from Taegu to occupy blocking positions across the Taegu road.
- E** Enemy units on Hill 314 move back to the northern end of the hill mass, though out of contact with the 16th Recon Co.
- F** Around 1130, the 16th Recon Co reoccupies Knob 2 on Hill 314 without contacting enemy.
- F** At 1215, Co G is ordered to occupy Hill 373. The company does so without opposition.
- F** Late in the afternoon, a tank-infantry patrol moves up the road west of Hills 373 and 570. No enemy activity is observed here or elsewhere by the patrol.
- F** During the afternoon, the 16th Recon Co attempts to take all of Hill Mass 314, but is driven back from the northern end by enemy fire.
- E** The 1st Bn, 19th NK Regt moves onto the northern end of Hill Mass 570, the first time that a unit of the 13th Div is on the hill mass.
- F** ROK Companies A and C move back onto the southern part of Hill Mass 314 from Hill 660.
- E** An enemy group of battalion size infiltrates to the southern slope of Hill 660.
- F** ROK Co B is moved to a backup position to block the enemy infiltration on Hill 660.

Weather observation: Intermittent rain. Walled City covered with clouds at 1335. Visibility 10 to 15 miles, except 3 miles in early-morning ground fog and 1 to 3 miles in showers.

Ground-support plane strikes: 1st Cav Div—41
8th Cav Regt—4

- F** At 0930 there is an air strike with napalm on Hill 570.
- F** There is no more ground-support air activity throughout the day, presumably because the weather closes in.



Reserves at Taegu: 8th Engr Bn,
2d Bn, 7th Cav

Operations planned: "To take Hill 314 (1156.3-1453.8) and to prepare to capture and hold Hill 570 (1154.6-1456.1)."

Operations ordered: "To take Hill 314 (1156.3-1453.8) and to prepare to capture and hold Hill 570 (1154.6-1456.1)."

- E** Around 0400, enemy attacks 16th Recon Co on Hill Mass 314. Attack is repulsed.
- F** Around 1200, the 3d Bn, 8th Cav passes through the 16th Recon Co and attacks on Hill Mass 314.
- F** Attack on Hill Mass 314 is stopped by enemy small-arms and supporting fires.
- F** The second attempt by the 3d Bn, 8th Cav to assault the objective on Hill Mass 314 is stopped. Around 2000, the battalion digs in for the night.
- F** The 8th Cav CP displaces 1 mile to the rear.

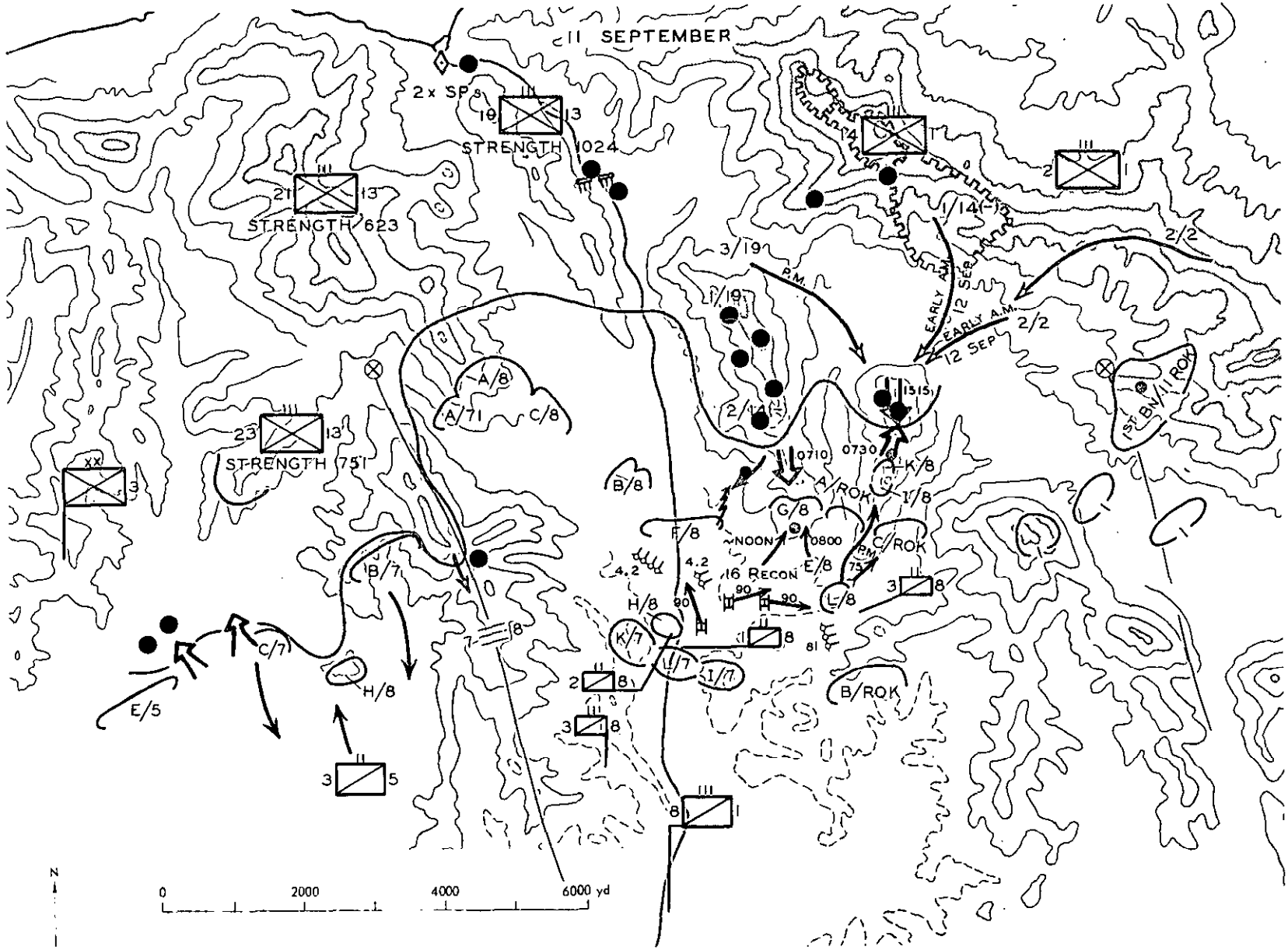
Weather observation: Occasional rain. Between 0600 and 1000, visibility 3 to 5 miles, due to haze and ground fog. At 1030, clouds prevent air strike on Hill 570. In afternoon, visibility unrestricted, except in intermittent showers.

Ground-support plane strikes: 1st Cav Div—54
8th Cav Regt—17

- F** Short artillery preparation on Hill Mass 314.
- F** At 1227 a B26 strafes and drops fragmentation bombs in vicinity of the Walled City.
- E** Enemy mortar fire on Hill Mass 314.
- F** Around 1400, friendly artillery fire hits enemy troops defending northern part of Hill Mass 314.
- E** High-velocity artillery fire is delivered for the first time down the Taegu road, lands in the vicinity of the 8th Cav CP.
- E** At 1630, 30 to 50 rd of mortar fire land on Co C positions, cause no casualties.
- F** At 1800 a flight of four aircraft and another flight of two planes strike at a tank south of Tabu-dong.
- F** At 1835 still another flight of two planes strikes at this tank and at artillery in the vicinity.
- F** At 1900, friendly air strike on the ridge of Hill Mass 570.
- F** At 1840, a flight strafes and rockets the road and adjoining slopes from nest of Hill Mass 570 to Tabu-dong.
- F** From 1902 to 1930 an F82 strafes and bombs in the area of the highway and south of Tabu-dong.

- E** At 2024, enemy patrols probe Co G positions on Hill 373. Prisoners warn of impending enemy attack.
- E** At 2335, the enemy attacks Co G in battalion strength, pushes the company back.
- F** Company G reestablishes original positions by 0210, 11 September.
- E** During night of 10-11 September, two companies of the 3d Bn, 14th NK Regt are recommitted to Hill Mass 570 for aggressive patrolling down Taegu road. First company is ambushed by friendly guards, remnants join second. Remaining enemy force then moves out, is also ambushed and hard hit.

F Fire of the 99th FA Bn north of Hill 373 helps stall the enemy attack.



Reserves at Taegu: 8th Engr Bn
2d Bn, 7th Cav

Operations planned: "No change." (See 10 September: "take Hill 314 and prepare to take and hold Hill 570.")

Operations ordered: "No change." (See 10 September: "take Hill 314 and prepare to take and hold Hill 570.")

Weather observation: No precipitation. Visibility 10 to 15 miles, but visibility 1 mile in early-morning fog in low places.

Ground-support plane strikes: 1st Cav Div—82
8th Cav Regt—47

E At 0710, the enemy attacks again on Hill 373 and overruns Co G forward positions.

F At 0730, Co I and Co K, 8th Cav, resume the attack on the northern part of Hill Mass 314.

F Co E moves onto Hill 373.

F At 0645, a flight of 3 F4U's hits Hill 307 on 8th Cav left flank with napalm and fragmentation bombs and rockets.

E Enemy mortar fire falls on Hill 314.

F From 0830 to 1140, twenty or more aircraft hit Hill 570.

F From 1045 to 1125 a flight of F80's strikes at two tanks at Tabu-dong and claims one destroyed.

E At 0900, enemy artillery on the road at the northwest end of Hill Mass 570 shells ROK forces to the east.

E Around 1000, enemy troops flushed on Hill 570 flee in disorder down to the Taegu road.

F Friendly tanks, artillery, and infantry fire on and disperse enemy troops on west slopes of Hill Mass 570.

F Around noon the 16th Recon Co moves up to reinforce Co E and Co G, who move out in limited advance to reoccupy the former friendly positions on Hill 373.

E Enemy mortar fire on Hill 373.

F From 1405 to 1435 a flight of F80's strikes at six to eight guns south of Tabu-dong at 1152.01 - 1458.50.

E An enemy counterattack in battalion strength on Hill Mass 314 at around 1515 drives Co I and Co K back to original positions of the 3d Bn.

F At 1540 a very effective air strike is placed on Hill 314.

E During the afternoon, the 3d Bn, 19th NK Regt moves from the rear of Hill Mass 570 to reinforce enemy units on Hill Mass 314. This is the first time a unit of the 13th Div is on Hill Mass 314.

F At 1640 another air strike hits Hill 314.

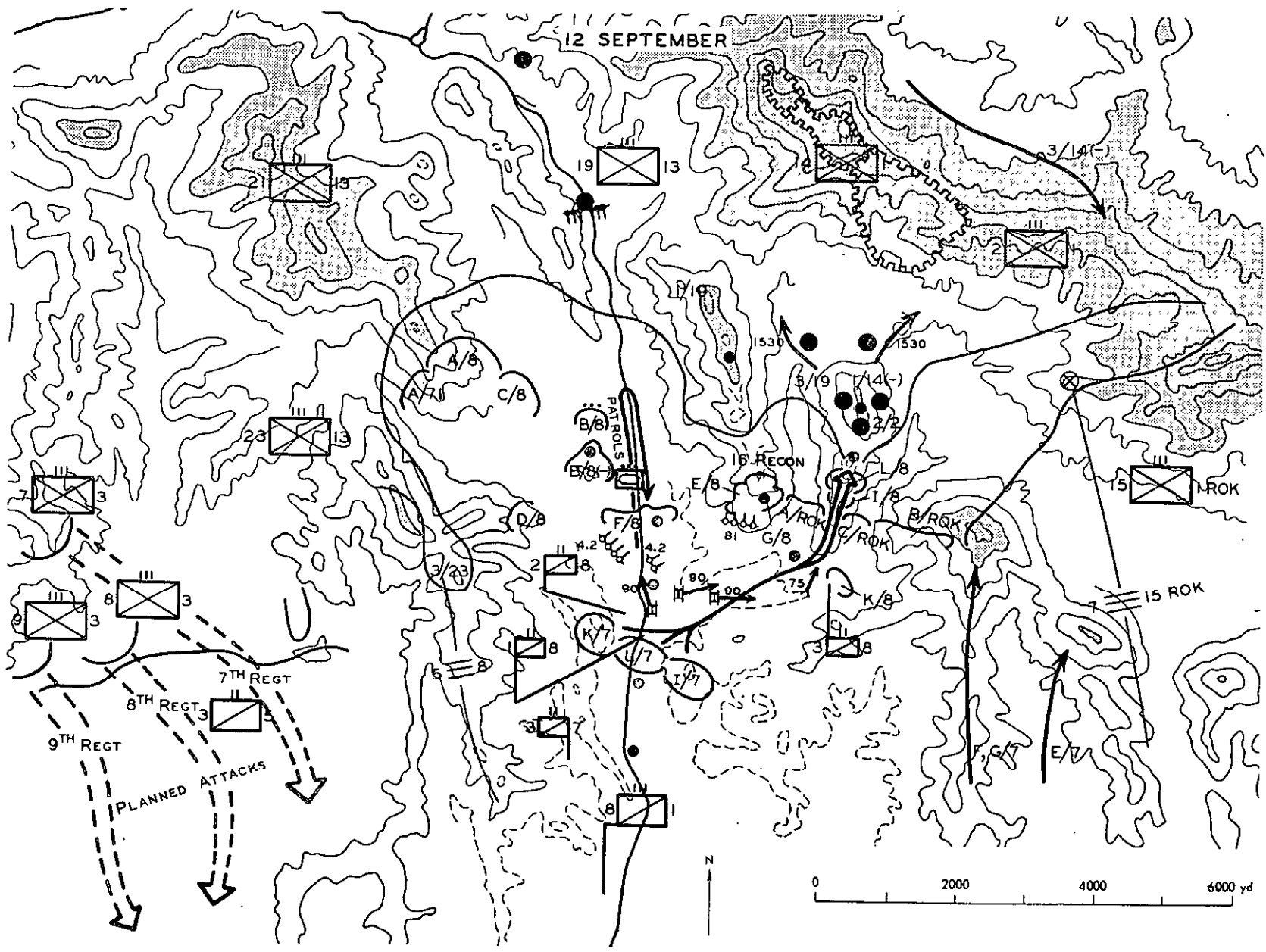
E In the early morning hours of 12 September, two companies of the 14th NK Regt and the 2d Bn of the 2d NK Regt further augment enemy forces on Hill Mass 314.

F At 1710 a flight of F51's drops two 500-lb bombs on Walled City.

F From 1820 to 1915 a flight of F4U's drops napalm and fragmentation bombs on artillery near Tabu-dong.

F From 1920 to 1935 an air strike hits the southwest slope of the Walled City.

12 SEPTEMBER



Reserves at Taegu: 8th Engr Bn
1st Bn, 7th Cav Regt

Operations planned: "8th Cavalry (less 1st Bn) to revert to Division Reserve in the vicinity of 1153-1442, 1st Battalion to remain in present position under control and logistical support of 7th Cavalry when objective one is secured."

Operations ordered: 8th Cavalry: "1st Battalion and 2d Battalion to remain in present positions, dig in and hold. The 3d Battalion, relieved by elements of the 7th Cavalry [3d Bn, 7th Cav], to be placed in assembly area in Regimental Reserve."

Weather observation: No precipitation. Visibility unrestricted, except in early-morning haze. Locally, at 1005, 10/10 cloud cover; at 1040, 9/10 cloud cover at 2500 ft.

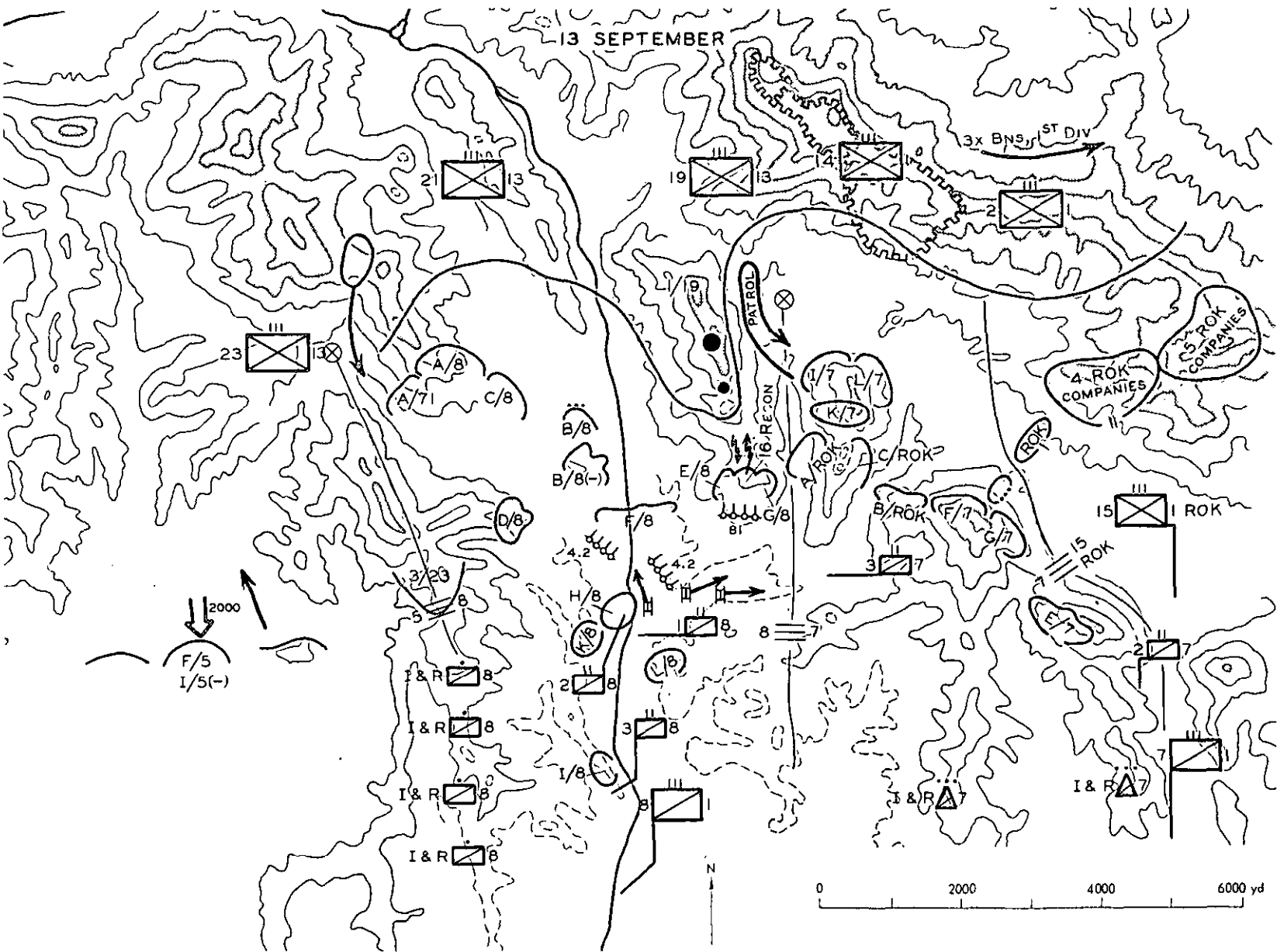
Ground-support plane strikes: 1st Cav Div—60
8th-7th Cav Regts—27

- F At 1110, the 3d Bn, 7th Cav crosses the LD in its major attack on Hill Mass 314. FOR A DETAILED ACCOUNT OF THIS ACTION, SEE THE NARRATIVE OF THE KEY ACTION, LATER IN THIS PAPER.
- F During the morning, the 2d Bn, 7th Cav moves up to relieve ROK units on and near Hill 660.

- F The 3d Bn, 7th Cav assaults objective on Hill Mass 314 for the third time and is successful.
- E Remaining enemy troops on Hill Mass 314 flee to the northeast and northwest.

- E Beginning at 0420, enemy artillery walks up the highway from the regimental CP at Chilgok to the front, hits Co G.
- E At 0607 mortar fire hits Hill 373.
- E At 0715 mortar fire hits Hill 225, causes many casualties in Co B.
- F At 0810 an air strike hits artillery pieces two miles south of Tabu-dong.
- E An SP gun fires down the highway.
- E At 0855 mortar fire falls at the southern base of Hill 314.
- F Around 0930 a flight of two F51's drops napalm on the hill east of Tabu-dong.
- F From 0930 to 1100, preparatory air strikes hit the northern part of Hill Mass 314, but there is no artillery preparation.
- E Extremely intense mortar fire and some SP fire fall on Hill Mass 314.
- F On two occasions between assaults, the 77th FA Bn fires concentrations on the objective on Hill Mass 314 and also fires to the rear and on Hill 570.
- F The 9th FA Bn fires on enemy mortars but fails to silence them.
- F During the early afternoon, two air strikes are delivered just north of Hill Mass 314.
- F At 1430 an unusually accurate and effective air strike is delivered on the northern part of Hill Mass 314 just ahead of the pinned-down friendly assault troops.
- E At 1640, artillery fire hits the 99th FA Bn.

13 SEPTEMBER



Reserves at Taegu: 8th Engr Bn
 1st Bn, 7th Cav
 3d Bn, 5th Infantry Regt (after 1300)

Operations planned: 8th Cavalry: "To move two platoons of E Company forward on Hill 373 with mission of advancing their positions."

7th Cavalry: Apparently none—2d and 3d Bns to remain in newly occupied positions.

Operations ordered: 8th Cavalry: "1st Battalion and 2d Battalion to remain in positions, dig in and hold, 3d Battalion to keep on as Regimental Reserve with no assigned mission at end of this period of report."

7th Cavalry: Apparently no new orders.

Weather observation: No precipitation. Visibility 8 to 10 miles. At 1102, Hill 570 clear, but at 1335 JOC reports weather nonoperational. At 1840 winds of 25 knots with gusts to 40 knots reported in Taegu area.

Ground-support plane strikes: 1st Cav Div—40
 3th - 7th Cav Regts—2

F At 0940 a flight of two F51's hits Hill 570 with napalm and rockets.

F At 1715, friendly patrols on Hill 373 eliminate a small enemy outpost and contact main enemy force.

E Two enemy companies concentrate on Hill Mass 570.

F A battalion-volley fired by the 99th FA Bn disperses enemy concentration on Hill Mass 570.

F During the night of 13-14 September, aggressive patrols from the 3d Bn, 7th Cav move out to Hill 570 and to the north.

Reserves at Taegu: Company D, 8th Engr Bn
 1st Bn, 7th Cav Regt
 3d Bn, 5th Inf Regt

Operations planned: 8th Cavalry: "(a) 1st Battalion to remain in present positions and maintain contact with the enemy by aggressive patrolling or by fire. (b) 2d Battalion to advance under covering support of our air and artillery to Hill 570, capture and hold the hill. (c) 3d Battalion to remain in Regimental Reserve and to be prepared to counterattack any sector of the Regimental zone, with emphasis placed on the left flank."

7th Cavalry: Apparently aggressive patrolling; 1st Bn to move up.

Operations ordered: 8th Cavalry: "Same as 'Operations planned.'"

7th Cavalry: Apparently none.

Weather observation: Intermittent rain. Visibility unlimited, except in rain, when reduced to 3 to 4 miles.

Ground-support plane strikes: 1st Cav Div—48
 8th - 7th Cav Regts—18

F Companies E and G and the 16th Recon Co jump off in attack, drive enemy back to 570-m peak.

E Enemy troops on Hill Mass 570 withdraw north of 570-m peak; many flee from the hill mass.

F A patrol from Co I, 8th Cav takes a prisoner of the 3d Bn, 23d NK Regt on Hill 401.

E From 0100 to 0300 unintense harassing fire is delivered on Hill Mass 314.

F At 1420 there is an air strike on Hill 570 with napalm, rockets and strafing; a second strike at 1430.

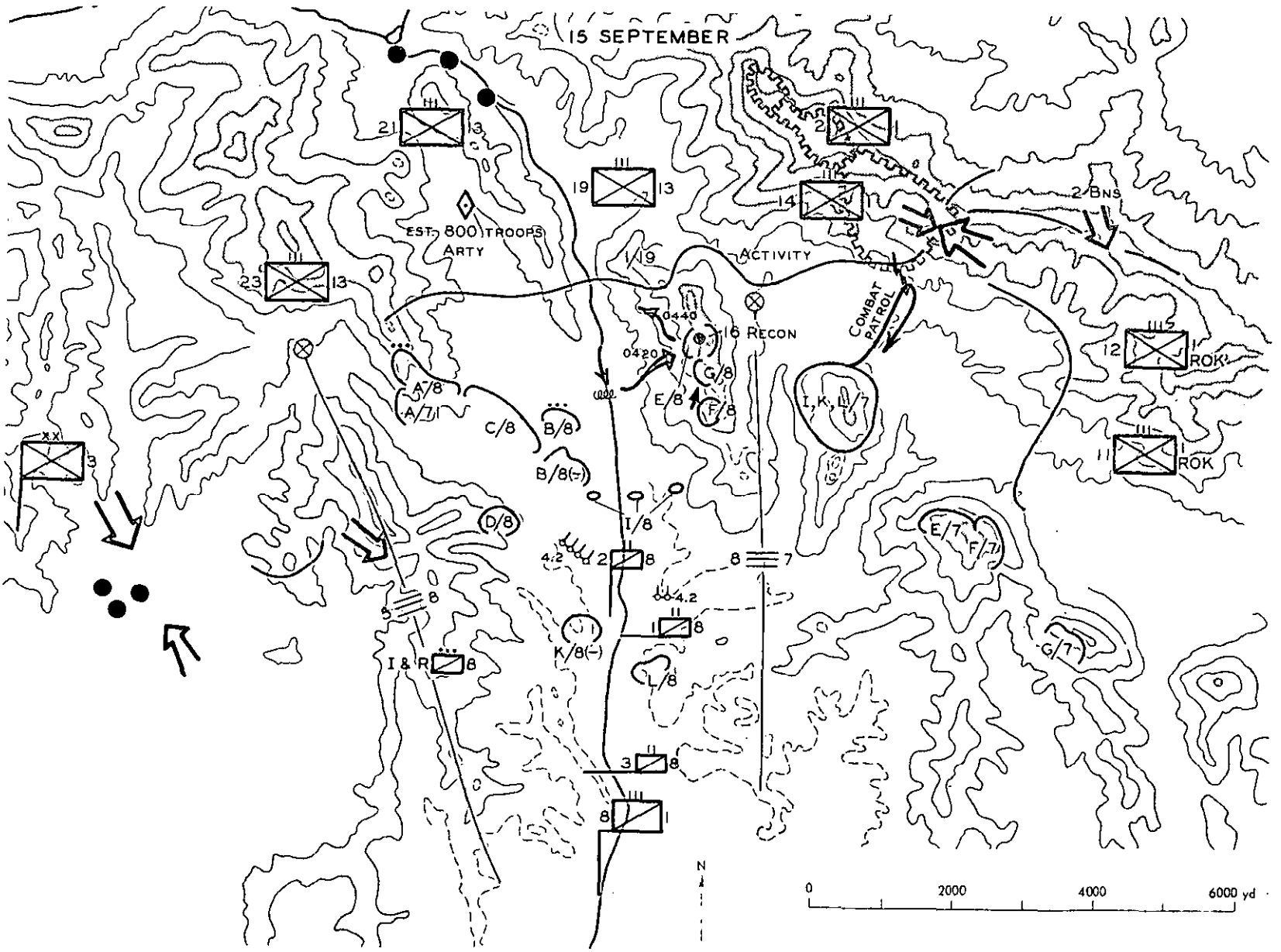
F The attack is supported by the fires of the 9th and 99th FA Bns.

F The 3d Bn, 7th Cav fires with automatic weapons and recoilless rifles from Hill Mass 314 on enemy troops fleeing from Hill Mass 570.

F At 1500 an air strike hits the Walled City area.

F At 1630 an air strike hits the Tabu-dong area.

F Battery C, 17th FA Bn fires first mission on Tabu-dong area.



Reserves at Taegu: 1st Bn, 7th Cav Regt
3d Bn, 5th Inf Regt
2d Bn, 5th Inf Regt (after 1300)

Operations planned: 8th Cavalry: "A Company, 71st Tank Battalion [minus tanks, two platoons] and A Company, 8th Cavalry to assist in securing Hill 350 and Hill 312. 3d Battalion will secure Hills 350 and 312. A Company, 7th Cavalry [attached to 8th Cavalry] will secure gap in main avenue of approach between B Company, 8th Cavalry and Headquarters Company, 2d Battalion."

7th Cavalry: Apparently 1st Bn to move up to positions across Taegu road, 3d Bn to remain on Hill Mass 314 and 2d Bn to be recommitted to west of Taegu road.

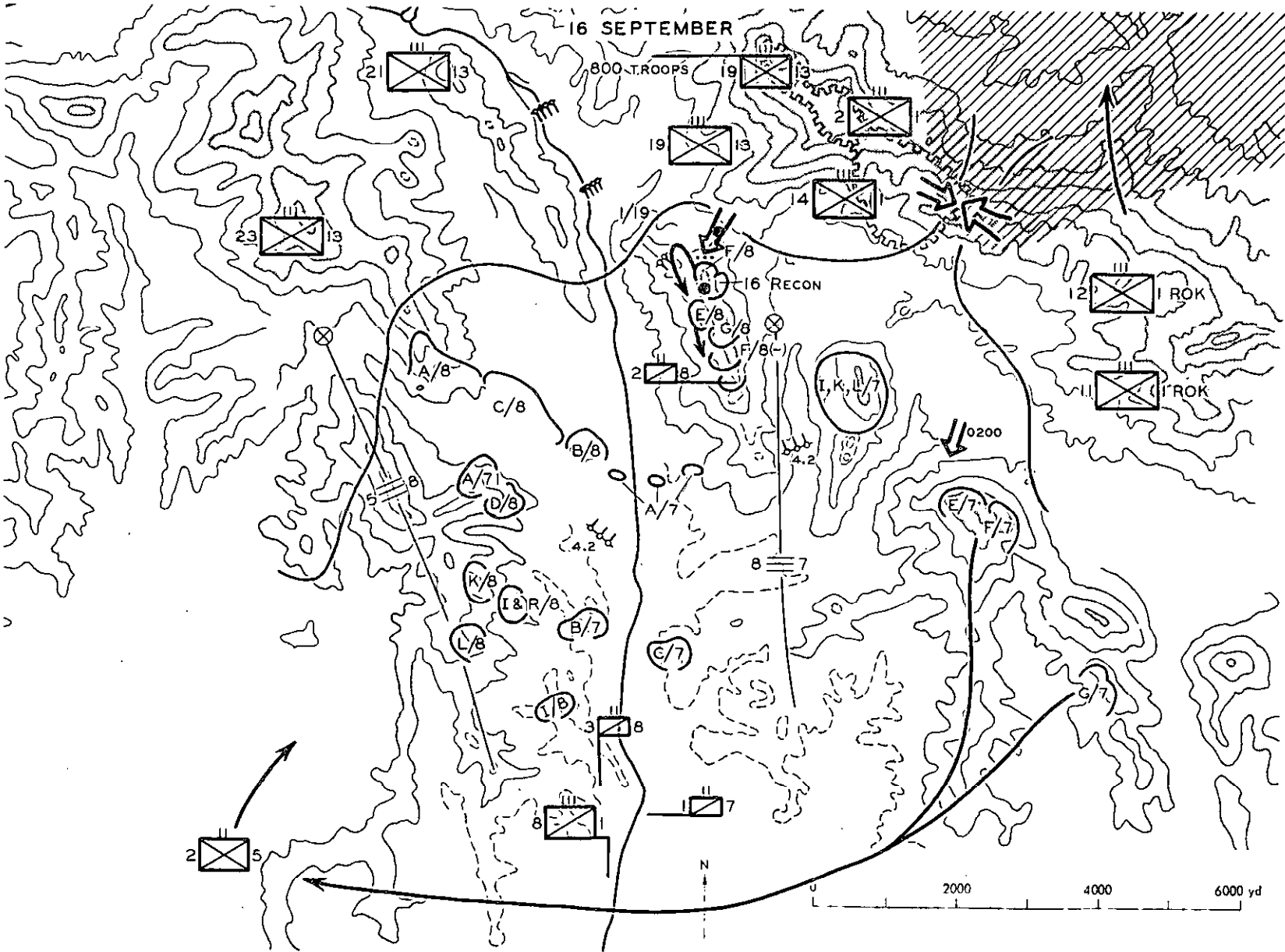
Operations ordered: 8th Cavalry: "Same as 'Operations planned.'"
7th Cavalry: If any, not known.

- E After midnight 14-15 September, an enemy force of 10 to 20 men sets up a block across the Taegu road, at 0420 attacks the 2d Bn, is driven off at 0440.
- F A combat patrol of the 3d Bn, 7th Cav draws fire and sustains casualties in a move to the northeast.

Weather observation: No precipitation. Visibility 15 miles, except for early-morning haze in valleys, when 3 to 5 miles.

Ground-support plane strikes: 1st Cav Div—59
8th-7th Cav Regts—12

- E At 1400 enemy mortar and SP fire falls on Hill 570.
- F Friendly counterbattery fire is ineffective.



Reserves at Taegu: 1st Bn, 5th Cav Regt
1st Bn, 5th Inf Regt
2d Bn, 5th Inf Regt
3d Bn, 5th Inf Regt

Operations planned: 8th Cavalry: "1st and 2d Battalions to remain in position and maintain contact by aggressive patrolling or by fire, 3d Battalion to secure Hill 312 and Hill 350."

7th Cavalry: Not determined.

Operations ordered: 8th Cavalry: "Same as 'Operations planned'."

7th Cavalry: Apparently, the 2d Bn to be relieved by ROK forces on Hill 660 and to displace to west, 1st Bn to move up to new positions astride Taegu road, 3d Bn to remain on Hill Mass 314.

E A platoon on a "suicide" mission attacks ROK forces on Hill 660.

F During the morning, a platoon from the 8th Bn, 8th Cav advances on Hill Mass 570.

E The enemy attacks Hill Mass 570 from the northeast.

F Enemy attack on Hill Mass 570 is dispersed by 100 rd of mortar fire. Friendly artillery cannot reach site.

F The friendly platoon on Hill Mass 570 withdraws to its former positions.

F The 2d Bn, 8th Cav withdraws south of the 570-m peak on Hill Mass 570.

Weather observation: Intermittent light rain. Visibility 3 to 6 miles in rain and haze. Locally, at 1020, ceiling less than 500 ft.

Ground-support plane strikes: 1st Cav Div—35
8th—7th Cav Regt—0

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INTERPRETATION: THE BATTLE NORTH
OF TAEGU IN SEPTEMBER 1950

This material which follows consists of an analysis of the general aspects of the battle north of Taegu, viewed on the time-space scale of the preceding sections of this memorandum, and a summary discussion outlining the operation of the essential factors considered to have been involved. More detailed aspects in the case of the key action are taken up in the same way in Part IV.

GENERAL SITUATION AND THE LOCAL SETTING

The small size of the total forces on each side in proportion to the amount of territory contested determined in large part the character of the campaign. On the UN side the perimeter defense was linear, thin, and not quite continuous. Very little strength was held in reserve at divisional and army levels, yet unit frontages were unusually wide. Through August 1950, the well-known "fire brigade" method was necessary to meet the enemy thrusts which came now in one sector and now in another. Improvised task forces and entire regimental combat teams would be dispatched from currently stable sectors to counter penetrations outside the areas of their parent units, sometimes far distant. Though the defense in September was characterized by stable divisional zones, these emergency methods persisted.*

The opening attacks of the new general offensive launched by the enemy at the beginning of September 1950 seem to have been phased to embarrass the Eighth Army command in shifting unengaged units to threatened points. The offensive began on the night of 31 August - 1 September with massive drives against the southern and central portions of the Naktong front, but the thrust toward Taegu from the north was delayed until the evening of 2 September. Further east along the northern front, the growing resistance to continuing limited friendly attacks only became apparent as a developing offensive on

*The 1st Cav Div was in a somewhat exceptional situation during the period under study in that none of its units were detached for special missions. All the battalions were present and, with the division's organic reconnaissance, engineer, and other companies operating as rifle units, continuously held a continuous segment of the front. The 23d Infantry's 3d Bn, the 27th Brit Brig, and the 5th RCT, all of which were attached at one time or another, took up positions on the division's left front. The close formation of 1st Cav Div units ended on 22 September when the 3d Bn, 7th Cav and attachments (Task Force Lynch) broke out of the perimeter at Tabu-dong to link up several days later and some 170 miles to the northwest with a force of the 7th Div moving down from Seoul.

the morning of 3 September or later. EUSAK could not afford to shift units already in the line, and so prepared to commit its few reserves. It was not done precipitously. Succeeding events demonstrated the wisdom of the delay made to weigh the danger of existing penetrations against possible emergencies, for some of the considered reinforcing moves that were made proved to be imperative.

As time passed, the defense lost resilience, while still under stress. Reinforcements, including the 3d US Inf Div, were to come from Japan, but their arrival was not imminent. The theater commander evidently deemed an amphibious invasion of the enemy rear necessary to relieve pressure on the perimeter and so facilitate a breakout. For this operation some of the force currently withstanding that pressure was to be withdrawn. As soon as it could be released from the line, the 1st Mar Brig was to move back to Pusan, embark, and lead the 7th US Inf Div in the Inchon landing. By 6 September the enemy offensive had been halted everywhere along the perimeter, and the Marines were being relieved. Activity, though still general, was gradually slackening. United States casualties were still being sustained at over half the peak rate of 2 September.* No forces were left to eliminate the menacing gaps and pockets which persisted, as all army reserves had been committed. The situation of the 2d Div, recently desperately engaged, was typical. Its commanding general was informed that after the return of the 3d Bn of its 23d Regt from the zone of the 1st Cav Div no further relief would be forthcoming, and he would have to get along with the forces on hand. Casualties in the 2d Div were still occurring at over half the previous very high peak rate.

The over-all defense had become by the second week of September simply the sum of a series of separate divisional battles. For brief periods, the fighting fragmented further to quasi-independent actions of regiments or battalions. The burden of tactical direction undoubtedly rested heavily on division commanders. Uncertain that reinforcements would be available, and perhaps operating minus certain normal elements of their command, they would naturally tend toward caution in employing local reserves. Until 13 September there was no corps echelon to coordinate operations between divisions, and control within divisions was greatly impeded by the frequent interruption of electrical communication. Conservative maneuver was to be expected.

The enemy was even more fully committed. There were no strategic reserves below the 38th Parallel, and tactical reserves were very short. Except for the security forces kept in the Seoul area and those divisions which had virtually been destroyed, all divisions were in the line. Divisions were often forced to use all three rifle regiments in attack abreast. As wheeled transport

*See Ref 25. Cumulative friendly battle casualties and daily casualty rates are plotted for each US division during September 1950. In the 25th Div, the peak rate occurred on 3 September, after which the rate fell off rapidly to the lowest and longest sustained range. In the 2d Div, decline was gradual from the peak of 1 September to the minimum of 11 September. The peak of the 1st Cav Div occurred on 3 September, its minimum on 7 September, with a sharp upswing thereafter while the division was still on the defensive. Data are not given for the 24th Div because of its split commitment. For all US Army combat troops in Korea, the rate declined gradually and remarkably smoothly from a high value at the beginning of the month to a minimum around 11 September. It had already begun to increase again when the general US offensive beginning on 16 September accelerated the rise. These variations demonstrate the shift in enemy pressure to the north and east, and suggest that a new offensive phase was starting when the UN went over to the offensive.

was lacking at the regimental level, large units could be shifted laterally only by suspending the offensive in a wide area. By September 1950 the enemy had spent almost a critical portion of his original capital of trained manpower. Tapping the hastily organized replacement pools of untrained or poorly trained impressed troops enabled him to fight on, but it further impeded lateral shifting of large units. To feed green replacements successfully into the fighting line, regiments and even battalions had to be kept in place while individual depleted subunits were progressively pulled back, padded out, and recommitted. Until combatworthy divisions could be supplied by the mobilization and training program in North Korea or by foreign intervention, time was working against the enemy.

Capture of territory was not a measure of enemy progress so long as the friendly line remained unbroken and a few key points such as Taegu stayed beyond his grasp. Advance was of increasing but only potential value to the extent that these ends were approached. Enemy progress had to satisfy a series of deadlines, and it was made at the cost of progressive decline of combat effectiveness. Shortening the line would increase the density of the friendly defense, enemy line would not thicken in proportion because of the higher casualty rate and the continuing loss of irreplaceable trained manpower. Success would not come from the attrition of balanced opposing forces, but from breaking the pattern—such apparently was the aim of the phased thrusts toward Pusan, Taegu, and Yongchon. In the case of Taegu, we know for certain that the concept was to stab deep, break through, “rush on,” and advance 15 to 20 km beyond the city before stopping to organize its defense.

At the end of August 1950 Taegu was still a key enemy objective. A pillar of the over-all UN perimeter (see Fig. 1), it had among the other assets of a large city the only major airport besides Pusan remaining in friendly hands in Korea. Though loss of the city would not necessarily have meant disaster to friendly forces, the consequent abandonment of the perimeter to a far shorter, if tighter, line would have greatly increased the difficulty of breakout and postponed the planned strategic counterattack at Inchon.*

Observed enemy activity and reports from agents and prisoners of war that enemy units were being reinforced led the EUSAK G-2 to estimate that a renewed drive on Taegu was more likely to come from the north than again from the northwest along the Kumchon-Waegwan axis, where in August the enemy had been beaten off in heavy fighting. Enemy strength was apparently overestimated and its center of gravity not appreciated. Periodic Intelligence Report Number 42 of the 1st Cav Div (27 Aug 50?) identified the 2d, 10th, and 15th NK Rifle Divisions as on the 1st Cav Div's front, as well as the 1st, 3d, and 13th NK Divisions, which are now known to have been still in contact there. In retrospect, it appears that the shift of enemy forces to the north and east during the lull at the end of August was realized, but the new alignment of the 3d, 13th, and 1st NK Divs across the Tabu-dong - Taegu axis had not yet been determined. Thus (moving clockwise on the map) the 3d NK Div was still thought

*If the seaborne operation had been abandoned, friendly forces could have achieved a formidable concentration around Pusan, if, of course, the line divisions withdrew in good order. The Marines would still have been on hand in a reserve position, and the 7th Inf Div could, of course, have been landed at Pusan instead of Inchon. Much later, at Hamhung, these two units together demonstrated their ability to hold while withdrawing before superior forces, and to finally successfully evacuate a port.

to be opposite both the thin line of the 5th Cav Regt along the east bank of the Nakdong River and the 7th Cav Regt, the 13th NK Div was also placed opposite the 7th Cav, and the 1st NK Div was carried as in contact with the 8th Cav Regt. It now appears definitely established that the 3d NK Div was confronting only the 7th Cav, the 13th NK Div was opposite only the 8th Cav, and the 1st NK Div was facing only the 11th and 12th ROK Regts. Very few enemy troops seem to have remained opposite the 5th Cav. It was subjected neither to the expected frontal drive nor to any pressure at all until 4 September, when enemy elements from the north slipped by the 7th Cav defenses to attack 5th Cav positions on the northeast slope of Hill 303 (1140.5-1456.0). The enemy attacked here again on 5 September, but then the action died down, and the 5th Cav did not become intensely engaged until it relieved the 7th Cav and absorbed the full force of the 3d NK Div continuing drive from the north. Furthermore, analysis of the effects of the massive carpet bombing by B29's on 3 September in the vicinity of 1127-1444 (west of the Nakdong at the latitude of Taegu) indicated that the presumed concentration of enemy reserves had not been in the target area.

With two of its regiments, the 7th and 8th, squarely lined up against the two enemy divisions in its sector, the 1st Cav Div was fairly well situated to meet a general attack. Having a combined front of about 16,000 yd, the two regiments were, however, thinly spread, and the third regiment, the 5th Cav, was of course not free to back them up. The 8th Cav front of 10,000 yd at the center of enemy concentration may be compared with a normal defensive regimental front of 2400 to 4800 yd (two battalions in the line).

Terrain exerted a controlling influence on the development of the battle north of Taegu. First, it canalized any sudden mass movement—the basic condition for breaking the tactical pattern—in the narrow valleys. Whoever possessed the adjacent high ground obviously could cover the valleys with the fires of organic infantry weapons. Perhaps more important, the high ground afforded the forward observation points necessary for calling in supporting fires and directing suitable tactical maneuvers. To an enemy lacking an air arm, adequate observation from the ground was indispensable. It was frequently also a necessity for the friendly side, when bad weather prevented or hampered observation from the air. The virtual ineffectiveness of US sound-flash-radar batteries has already been noted, and the character of the terrain was apparently in large part responsible.

As emphasized in the base map of Part III, the east-west ridges on both sides of Tabu-dong dominate the territory to the south. Their capture was a required preliminary for any enemy mass movement in this direction. As the diagram shows, the second line of lesser ridges, consisting mainly of Hill Mass 570, Hill Mass 314, and Hill 660, is broken by five north-south valleys, whereas the major ridge is cut only by the corridor at Tabu-dong. The second line was virtually the last ground north of Taegu on which a coherent defense with the existing forces could be based, for behind it to the south the corridors widen and the hills flatten out. To block the valleys, friendly forces had to hold the last high peaks; to make a massive penetration to Taegu, the enemy had first to take them. The stable pattern of the positional fighting that evolved here was the result of these facts: Hill Mass 570, Hill Mass 314, and Hill 660 are side-by-side; they are all over 500 m in elevation; the first two have several peaks affording defensible positions. Fought peak by peak by fully committed adversaries, the battle here became like a vast game of chess.

COMPOSITION OF THE OPPOSING FORCES

The opposing forces newly confronting each other in the general sector north and west of Taegu at the end of August 1950 were approximately equal in numbers. The 1st Cav Div had a strength of 15,867 (including 736 attached ROK troops) and the attached battalion of South Korean police increased its strength by about 650. It was opposed by the 3d and 13th NK Divs, which had a combined strength of about 16,000.* In particular, the 7th and 8th Cavalry Regts, with a combined strength of about 5500, faced enemy rifle regiments totaling about 5000. As noted above, there were few if any uncommitted friendly units in Korea, but reinforcements were on the way. Though the enemy had no strategic reserves, he did have large organized pools of raw manpower close to the front.

The rather full data on the 13th NK Div from the time it was first committed to action show that prior to contact with the 8th Cav Regt it had remained on the offensive until reduced to approximately 40 percent of TO strength. In the latter part of August the first infusion of replacements was received, but when the offensive against the 8th Cav was launched, on 2 September, the division's strength could not have been much more than 50 percent of the TO figure. However, the division had a pool of about 4000 recently impressed and almost untrained men, most of them South Koreans. This reserve was drawn on in the lull after the offensive bogged down early in September.

Data as complete as this are lacking for the 1st and 3d NK Divs, but fragmentary information supplied by prisoners of war on unit strengths and on the circumstances under which they joined their units indicates that the 13th Div manpower situation was typical.

The US manpower situation is well known. Suddenly committed to battle from occupation duty in Japan, units were understrength and underequipped. By the standards of a general war, combat efficiency was probably still not good at the beginning of this engagement, though as a result of the experience of the intense battles in August it was much improved over the original level of training. United States forces, like those of the enemy, included green Koreans. The ROK troops, integrated at squad level in the 7th and 8th Cav Regts, had recently been conscripted, and had had only a few days of training. They made up only 5 percent of the total strength of the 1st Cav Div at the beginning of September, but increased to 18 percent toward the end of the month. In the forward units the percentages were higher. On the critical date of 11 September, integrated ROK troops constituted 25 percent of the total combined strengths of the nine rifle companies of the 8th Cav Regt and the attached 16th Recon Co. The battalions of South Korean police attached as infantry units were at an intermediate level of training and combat experience.

In proportion to its strength, the 13th NK Div at the beginning of September had adequate supporting artillery, a little armor, and adequate stocks of ammunition. In these respects it was much better off than the 1st and 3d NK Divs. Of course, the enemy lack of air support and air observation must not be forgotten. Supporting artillery remained at a generally adequate level throughout the month. Ammunition shortage, however, became critical after the middle of the month.

*Assuming that an additional regiment, elements of the "15th" NK Div with a strength of 1000, was attached to the 3d Div (see Part II).

In comparison with the enemy, friendly forces were well supported by artillery, armor, and aircraft, though the volume of fire was low by US standards. Perhaps the best index of the amount of support is the average expenditure during the first two weeks of September of about three thousand rd per day by all artillery of the 1st Cav Div. The 99th FA Bn, in direct support of the 8th Cav Regt, contributed approximately five hundred 105-mm rd to this daily figure. Such limited expenditures reflect ammunition shortages which temporarily became serious at about the time that the enemy stocks of ammunition began to run out.

COURSE OF THE BATTLE

Friendly forces were explicitly informed of the location and intentions of the 13th NK Div when the disaffected S-3 of its 19th Regt gave himself up to the 8th Cav at 2040 on 1 September, and warned that the 13th Div was to attack at dusk the following day. His estimates of the strengths of the several regiments were misleading, in that they apparently included large numbers of green conscripted troops, received by the division and on paper assigned to the regiments, but not yet equipped and assimilated. At the time, there was of course no compelling reason for believing anything the prisoner said, except that some of the weapons positions he pinpointed on the map had already been observed. As confirmed by enemy documents captured 3 weeks later, the objective assigned the 13th Div by the commanding general of the 2d NK Corps was to "rush on six kilometers" toward Taegu in a first drive rather than to capture specified terrain. Before the offensive began, there was no particular information on the plans of the flanking divisions. In retrospect it is seen that the 1st NK Div was to attack simultaneously, and though definite information is lacking on the 3d NK Div, a similar mission can be inferred.

Since the 7th Cav diversionary attack was ordered because of the grave situation in the zone of the 2d Div, the EUSAK command had evidently assumed that the enemy either had strategic reserves near the front or was capable of rapidly shifting divisions already in the line. It is now known that neither was the case, and that the effect of the attack against the 3d NK Div on 2 September could only have been local. The immediate resistance and the prompt general counterattack on the night of 2 - 3 September suggest that in this sector too the enemy was prepared to drive ahead. Though the 7th Cav did not succeed in capturing Hills 518 and 490, and though it never got as far as Hill 346, it would seem that the attack had significant delaying value and even ultimate preventive effect. Instead of moving out to engage the 7th Cav in the vicinity of Hills 464 and 620, the last rugged ground before the corridors open up toward Taegu, the 3d NK Div was drawn into battle 3000 to 4000 yd beyond this inner ring of ridges and worn down before reaching it.* Also, the fact that the 3d Bn, 7th Cav saw its battle-hardening first action at Hill 518 must be credited.

*An undated enemy document taken from a dead soldier at 1141.3-1459.8 (southern foot of Hill 518) by Co G, 7th Cav on 3 September states that in an unspecified unit only 126 of the original 609 men were left; 112 had been killed, 268 wounded, and 103 were missing. If these and the accompanying figures on weapons were compiled in the previous lull, they would indicate that this unit of the 3d NK Div, with only 21 percent of its original personnel remaining, was in the same situation as 13th Div units, and must have received replacements before entering the further fighting.

If the diversionary attack forestalled a penetration between the 7th and 8th Cav Regts, it was probably at the expense of the 8th Cav ability to counter the penetration of its front and the advance along its right flank. It is not clear that the shift of the two rifle companies and supporting elements of the 8th Cav (especially the heavy mortars) to support the attacking 7th Cav was essential, though covering the 7th Cav right flank evidently seemed necessary. The detached units do not appear to have been significantly involved during the day or two they spent in the new sector. Their departure certainly embarrassed the 8th Cav Regt, which almost immediately afterward was attacked itself. The 8th Cav Regt organic heavy-mortar support had been reduced to one-third. Potential support at a vital point was also lost just before the enemy struck when the additional platoon of heavy tanks that had been sent to back up the 7th Cav from the 8th Cav left flank fortuitously withdrew. Furthermore, all the (considerable number of) air strikes within the zone of the 1st Cav Div during the day were delivered in support of the 7th Cav. It may be concluded that the diversionary attack amounted to a concentration of friendly force on the left for a limited, though major, effort at a time when the enemy had concentrated his resources (especially artillery and armor) for an all-out effort on the right.

It is a striking fact that battle casualties in the 7th and 8th Cav Regts accumulated at almost the same uniform rate during the first week of September, despite the initially differing missions and situations of the two regiments.*

A glance at the diagrams which precede this section will show that the critical penetration which led to the progressive deterioration of the over-all situation of the 1st Cav Div was made by the 1st NK Div through the 1st ROK Div. The line was breached only after ROK forces had repulsed frontal attacks at two points; they were then pushed back by a new attack on one of them. The gap evidently widened because neither the ROK Army nor the 8th Cav Regt had forces available to bring to bear. Whether or not the attack plan of the 2d NK Corps had included a feint, US strength was successfully, and (viewed narrowly) needlessly, tied up. The enemy command apparently gambled that the 8th Cav would not counterattack the 13th NK Div and perhaps stationed only the very weak 21st Regt across the front of the 8th Cav 1st Bn. After all the enemy probing in this area, no attack ever came. Though it now appears that the 1st Bn was well situated to make a telling counterattack to the east, there was of course little current information on the actual situation, and events to the left and right must have appeared highly disturbing. Here again it can be argued that had the detachments of 2 September not been made, not only might the gaps have been more adequately plugged but a counterattack might have been feasible to restore the friendly line at Tabu-dong in time for an effective defense of the Walled City.

*See Ref 25. Even though each of the battalions of the 7th Cav was for a brief time in division reserve during the period under study, while those of the 8th Cav never were, casualties kept pace in the two regiments. Casualties in the 5th Cav Regt built up in a different manner, but the cumulative totals for September on 19 September were almost identical for all three regiments. The regularity suggests a response of the divisional command, whether fully intentional or not, to a principle of equalized losses. At battalion level and lower, no such regularity is found. See also Part II with regard to this point.

The 13th Div penetration to Tabu-dong cannot be called successful when measured against the enemy intentions. Neither was it very deep; but it did unhinge the friendly defense. If the 8th Cav front had not been split, the enemy advance along the right flank would hardly have gone uncontested until the beleaguered battle at the Walled City. To the enemy, the cost of driving the wedge to Tabu-dong was temporary loss of the offensive capability of the 13th Div. Yet, as indicated by the analysis of friendly casualties in Part II, its casualties were not much more than double the number it inflicted on the 8th Cav. This perhaps surprisingly low ratio becomes more credible when it is noted that the initial enemy attacks and main gains were made at night, when close combat would be expected to increase in importance and the effectiveness of supporting fires to lessen. Also, the enemy had the formidable support of artillery, SP guns, and heavy mortars, at a time when the 8th Cav had only the support of its battalion of 105-mm howitzers, shared the support of an understrength battalion of 155-mm howitzers, and during a critical period was backed up by only one-third or none at all of its heavy mortars. The casualties that the regiment was able to inflict on the 13th NK Div were crippling simply because the division's units were already at such a low strength level.

Measures were promptly taken to stem the enemy advance toward Tabu-dong. Tanks as yet uncommitted were sent up to the threatened area with the regimental reserve as soon as daylight permitted. The companies of the combat engineer battalion constituting the main divisional reserve were committed almost as quickly. With no army reserves likely to reach the area for some time, plans were rapidly formulated to organize a new divisional reserve from noncombat troops. These efficient moves successfully countered the known main threat.

The inefficiency involved in the initial reaction to the enemy offensive and throughout succeeding operations apparently was due to lack of comprehensive, detailed, up-to-date tactical G-2 and G-3 information. Why, for example, was there such a long delay before occupying Hill Mass 570 with even a token force? A very important contributing factor was failure of electrical communication. Though this subject has not been analyzed systematically, it is clear from the contents of the message logs that it was usual for some or many of the main links to be out. The divisional and regimental commands often lost all contact with one or several forward battalions, and a battalion often had no information on what the situation was in the flanking battalions. Information was least available when most needed—during moves and from units intensely engaged—and reports frequently had to be relayed via a few overloaded roundabout pathways.

The enemy shifted tactics after frontal attack, at cost, had achieved the limited advances beyond Tabu-dong and the Walled City. By around 5 September the 13th NK Div was too depleted to mount new frontal attacks for some time. The 1st NK Div was still capable of massive efforts, but expended them against the ROK Army (see the prisoner's account of the attack of 10 September in Item 8, App A). To exploit the penetrations of the 8th Cav line, small groups from the 13th and 1st Divs attempted to infiltrate. Their attempts to put artillery batteries out of action failed, and no fire block across the MSR was maintained for long. The one determined attempt actually to cut off the 8th Cav battalions from their supporting units was made by 1st Div troops on 6 September from

their salient on Hill 570. In defeating this and previous blocks, friendly armor seems to have been invaluable. The enemy did continue to succeed in blowing culverts and mining bypasses, but as these roadblocks were not covered by fire they were quickly eliminated by US engineers.

In contrast to the enemy's original intention to "rush on" toward Taegu, the new phase of the offensive was based on taking high ground. The advantage of a hill salient must have become apparent when the penetration down the ridge of Hill Mass 570 enabled harassing the friendly rear at a time when enemy strength was insufficient to secure the entire hill mass or fan out across the friendly MSR. That enemy doctrine by this time was to advance on a hill-by-hill basis is clearly shown by the 3d NK Div attack order of 11 September (App B). All the specified objectives are hills, even though the friendly line (here that of the 5th Cav, on the 8th Cav left flank) was more or less correctly appraised as "...on a scattered hill basis... , an independent outpost type of defense." It is also of note that all three of the 3d Div rifle regiments were to attack abreast in taking the assigned hill objectives, i.e., the hills were not to be taken to cover a following thrust down a valley by a reserve regiment.

Priority in occupying a hill seems to have greatly increased the probability of holding it. Advance enemy elements were first in moving into the Walled City and onto the northern portions of Hill Masses 570 and 314, and these points were held in bitter battles, though the enemy was eventually outflanked or driven off. Conversely, small friendly groups were first on the southern portions of Hill Mass 570 (that is, Hill 373), Hill Mass 314, and on Hill 660, and the enemy was never able to push them off. It would seem that the advantage of first occupation resulted not only from the obvious defensive value of high ground but also from the fact that the opposing forces were roughly equal and thinly spread. To capture a hill required assault by at least as many men as were defending it, and with limited total forces a greater commitment could hardly be risked. The occupying force was similarly constrained, but could always risk increasing his strength on any hill just enough more to offset an increasing commitment by the opposing side to capture it.

The enemy's all-out bid to take all of Hill Mass 570 and gain access to the Bowling Alley was clearly made on the night of 10 - 11 September and the morning of 11 September. These attacks mainly involved close combat, and they almost succeeded. They seem to illustrate the differing tactical significance of casualties on the two sides. The analysis of friendly casualties in Part II shows that friendly units were sensitive to casualties. Whether or not a given engagement would end successfully tended to depend on how many friendly casualties had been sustained. Whatever the outcome, the integrity and combat effectiveness of the unit (company) was preserved. Filled out with replacements, it could continue the battle another day. Enemy units as groups were less sensitive to casualties because of the military system and the low concern for the individual. The private soldier was at least as fearful as one would expect, and he often had to be herded into battle at gun point. Up to the point that organizational discipline or coercion held, the unit could survive a high proportion of losses. Beyond this point, it might break completely. The enemy units that attacked and reattacked Hill 373 took many casualties without breaking and were evidently reorganizing on Hill 570 to attack again on the morning of 11 September. At this crucial time, they were hit by an unusually

intense round of air strikes—then, they broke. Fleeing, they were mowed down by artillery and tank fire. The combat effectiveness of 1st Div units on Hill Mass 570 was destroyed. The shattered units of course did not cease to exist but, if typical, were reorganized from their pulled-back remnants, padded out with more green replacements, and after some time sent back into the line, now more "brittle" than ever.

If it had been intended that the 1st Bn of the 19th Regt, 13th Div was to move up from its supporting position on Hill 570 and capture Hill 373, the attack was hardly likely to succeed at this time, for friendly forces on it had been trebled. To the east the enemy was also stalemated. Attacks against the 1st ROK Div had been repulsed. Though Hill 660, an anchor of the friendly line, was only lightly held, it was not a promising objective for frontal assault, because of its precipitous northern slopes. The one large enemy group which had succeeded in infiltrating to its southwesterly slope had been contained by friendly forces and presumably dispersed. Between Hill 660 and Hill 373 Hill Mass 314 lay like a keystone, outflanking them both if captured, leading down into the Bowling Alley. Until this time, the enemy had merely resisted friendly attempts to take the whole hill mass, or had reacted with limited counterattacks, increasing his local strength in proportion to the growing friendly commitment. On 11 September Hill Mass 314 seems to have been designated the primary enemy objective. During the latter part of that day and the early hours of 12 September, reinforcements were sent up from the 19th Regt on the west, and from the 2d Regt of the 1st Div on the east. There is no evidence that an attack was ordered for 12 September, but it seems likely, for on the morning of 12 September the 3d NK Div was to launch attacks toward the Bowling Alley against the 5th Cav Regt, and enemy artillery and mortar fire in the 8th Cav sector reached a new pitch of activity.

In delaying committing its striking reserve in a major counterattack until 12 September, the 1st Cav Div had again waited until the enemy was recommitted. Application of increased force was the price of increased assurance of enemy capabilities. The 3d Bn, 8th Cav had been attacking on Hill Mass 314 with only one of its companies forward at any time, the third backing up, and the ROK Tng Bn in reserve, but the 3d Bn, 7th Cav now necessarily attacked with two assault companies abreast and the third just behind them, the same ROK battalion backing up, and, initially, the relieved 3d Bn, 8th Cav in reserve.

The attack by the 3d Bn, 7th Cav on Hill Mass 314 was crucial. So to the enemy was its defense. The fighting consequently reached a new intensity. The 3d Bn was ordered to hold the gains won early in the action. To do so necessitated remaining organized and effective while enemy mortars inflicted casualties at a rate which might otherwise have justified withdrawal. The enemy casualty rate was somewhat more than double the friendly rate, as in the enemy attacks at Tabu-dong early in September. With substantially equal forces initially present, the ultimate result was a shift in the balance of forces in the friendly favor, yet the enemy did not break and flee until the end.

Sticking out a bad situation was the contest, for close combat was of lessened importance after the first assault. Small units in the forward positions, more or less isolated by small irregularities of terrain, and pinned down by a rain of friendly supporting fire, seemingly had the option of making limited withdrawals when fire or casualties were deemed excessive. The detailed

analysis of this action in Part IV shows that it proceeded by the point-by-point reaction of two forces sensitive to local pressures. Almost to the end, the outcome was in doubt at any one time. Stage by stage, the action tended to progress one way or the other under the control of factors intervening almost unpredictably. Among the determinants on the friendly side were outstanding acts of leaderships, certain particularly effective concentrations of mortar or artillery fire, and an unusually close and effective air strike. Factors which might have been thought to be of great effect, such as counterbattery fires, or preparatory or general-support air strikes, were without evident influence.

Though Hill Mass 314 was won with but a small margin of safety, its capture definitely marked the transfer of the initiative to the friendly side. Though the combat effectiveness of the 3d Bn, 7th Cav was severely reduced, that of the enemy in this area apparently was lost, for the enemy was not able to make any aggressive countermove for some days.* The positional advantage gained was made evident on 14 September when the 8th Cav attacked the now partially out-flanked enemy units on Hill Mass 570. After offering only weak to moderate resistance, the enemy withdrew, retaining only a toehold on the northwestern end of the hill mass. The 13th Div, however, was in no sense beaten. Bitter resistance to any further friendly advance was offered, with mortar and artillery fire, counterattacks, road blocks, and mines, up to the time the division was virtually enveloped on 21 September.

The 13th Div command seems to have decided to hold in the 8th and 7th Cav areas after the defeat on Hill Mass 314, and to use its few free forces in concert with the 3d Div's continuing attempts to penetrate toward Taegu through the gap of almost unoccupied high ground between the 5th and 8th Cav Regts. These attacks were checked in what must again be called a dynamic equilibrium. Here too the initiative passed to friendly forces, which took up the offensive on 17 September. The weight of the friendly effort to break out from the perimeter in the 1st Cav Div zone was increased by the redeployment of an additional regimental combat team and the arrival of other supporting units. Progress against tenacious enemy resistance was very slow, even though enemy food and ammunition shortages were now becoming critical. The maneuver of US and ROK forces set the stage for the final decisive actions. Their outcome—unqualified victory—must, however, be attributed essentially to the exhaustion of enemy manpower and materiel.

ESSENTIAL FACTORS DETERMINING THE COURSE OF THE BATTLE

Until the UN forces set up a coherent linear defense, there was no reason for the North Korean Army to abandon the tactics employed from the start of the war: penetrate deeply and rapidly in many places; when opposed, sidestep and continue to advance along unblocked parallel routes. For the enemy to realize his general intention of occupying all South Korea, it was not necessary to overcome all islands of friendly resistance, nor to push them back; mere isolation from the friendly rear would ensure the fall of territory. The tactics

*There may have been another reason. A prisoner from the 1st Div stated that he had heard that on 13 September the 1st Div was to send three battalions to reinforce the badly beaten 8th and 15th NK Divs.

employed by the UN forces were imperative: resist to delay the enemy as much as possible but only up to that point at which the integrity of major units was imperiled.

When compressed into the southeastern corner of Korea, UN forces gained command of almost all the corridors crossing the perimeter. North of Taegu, two major avenues leading to the south became one. Here the rapid enemy advance was now predictably canalized. Also, enemy mobility had already been seriously impaired. US air attack, in particular, had destroyed a large fraction of the enemy's tanks and vehicles. Few remained for continued thrusts straight ahead, and there were not at all enough for rapid, large-scale, lateral shifts. When the 2d NK Corps reached the mountain barrier north of Tabu-dong, it was forced to maintain the offensive with the means at hand. Subsequent progress depended on the maneuver of small infantry units.

Three basic factors shaped the battle north of Taegu: (a) the character of the terrain; (b) the numerical equality of friendly and enemy manpower; and (c) the necessity for each side to commit most of its strength in order to cover the front.

These factors exerted their influence soon after the battle was joined in the latter part of August 1950. As the battle progressed in the next weeks, the tactical choices open to each side became ever fewer. At the outset, for example, the enemy could have used his moderate quantity of armor to support rather than to lead the attacks, but in September he was forced to relegate his little remaining armor to a support role. Similarly, after the original free choice of drives along the highway as a suitable mode of infantry attack, the only direction for tactical change in the given terrain was to attack through the hills and along the ridges. On the friendly side, there was a corresponding shrinkage in possible courses of action. Whereas on 3 September there was the possibility of a strong tank-supported counterattack, there remained on 12 September hardly any choice but to make the all-out attack on Hill Mass 314.

As noted above, the setting and the original resources of both sides circumscribed the battle at the outset, and also, therefore, the way in which these resources were expended. It may be true that the outcome at each stage was then also in part predetermined. If this is correct, the demonstration may suggest some lessons to military students.

The timetable which follows is a summary outline of the battle from beginning to end including the action prior to the arrival of the 1st Cav Div. The moves and countermoves at each stage are sketched, along with notes on the outcome of each action and its effect on the battle. In the final column the interaction of what seem to have been the essential factors affecting each outcome is indicated.

One general conclusion is implicit in the various facts determined in this study: only a small fraction of any resource of either side was ever applied at the currently significant point.

THE COURSE OF AN ENTIRE BATTLE AND SOME ESSENTIAL FACTORS INVOLVED

Date	Moves	Counters	Outcome, effect	Interaction of the essential factors
18 Aug	Deep enemy penetration of ROKA. Tank-led motorized force keeps moving down valley toward Tabu-dong during early hours of darkness (13th NK Div).	Strong friendly infantry-tank force makes opposite advance, sets up massive block across valley north of Tabu-dong (27th RCT).	Enemy armored spearhead runs up against defense, is turned back.	US tanks spread in defense stop armored point of attack; US artillery and infantry hit main advancing body.
19 - 25 Aug	Enemy infantry deploys on hills along valley, masses behind tanks and follows them in night attacks down road.	Static defense coordinating infantry, armor, and artillery. (US air not significantly involved, since enemy attacks are made at night.)	Attacks turned back with high enemy troop losses (10 times friendly?); almost all enemy tanks and SP guns knocked out. Enemy (13th NK Div) temporarily loses offensive capability.	US artillery able to disrupt attacks because enemy concentrates in predictable area, approaches along predictable route. US tanks can set up ambush across certain route of approach, decisively stop enemy armored spearheads that achieve limited penetration.
2, 3 Sep	With armor almost gone, enemy deploys more widely across valley or ridges. Enemy (13th and 1st NK Divs) makes coordinated night attacks down main corridor to Tabu-dong and along adjacent ridges and valleys.	Linear defense with reduced armor and mortar support and no front-line tank defense (8th Cav). (US air not available for strikes at observed build-up or to hit positions taken by enemy.)	Initial enemy drive down corridor stopped, but enemy penetrates US positions on high ground, unhinging defense line and permitting advance down valley. Enemy losses relatively low (2 to 3 times friendly).	Enemy infantry attacking US troops in rough terrain at night. The multiple, diffuse attacks and confused situation give enemy limited success as US firepower is not brought fully to bear.
3, 4 Sep	Friendly counterattacks to reestablish line along high ground across Tabu-dong.	Enemy keeps up pressure, attacking to take high ground.	Attacks fail to dislodge enemy from the commanding high ground. With an originally low strength level, the 13th NK Div again temporarily loses offensive capability because of accumulated casualties, though casualty rate relatively low (see above).	Enemy troops spread out on high ground. Confused, fluid situation plus bad communications prevent friendly infantry, armor, artillery, and air from being effectively brought to bear.
5 Sep	Advanced enemy elements (1st NK Div) occupy dominating high ground (Walled City) to right front.	Friendly infantry task forces attempt to beat back enemy and hold high ground. (Not significantly supported by armor or artillery. Friendly air held off by bad weather.)	Seesaw fighting in which US infantry stands off enemy ends with enemy in possession of high ground.	US troops not significantly supported by fire, exhaust own supplies and ammunition. Bad weather foils resupply.
5 - 7 Sep	Enemy infantry on salient high ground attempts to cut friendly MSR.	US armored task forces operate along MSR.	Enemy road blocks eliminated.	Advanced enemy units do not have significant support. US tanks are unopposed by enemy armor or effective AT guns.
8 - 11 Sep	Enemy (1st NK Div) and friendly forces (8th Cav) progressively committed in attacks to take high ground controlling corridor (Hill Masses 570 and 314). Fire support somewhat increased on both sides. US air concentrates on forward targets when weather permits.	Each side on offensive-defensive. Friendly local reserves increased (by two battalions of 7th Cav and supporting artillery).	Seesaw fighting. Side originally in possession ends by holding position. Units of 1st NK Div lose offensive capability.	Infantry of either side defending high ground can be sufficiently reinforced from limited local reserves to hold off attack. Supporting artillery and mortars can concentrate on geographically fixed and observable assaulting troops.
12 Sep	Enemy shifts primary offensive effort to Hill Mass 314 by reinforcing units already there with 13th Div troops.	Friendly all-out attack on Hill Mass 314.	Hill Mass 314 captured by US. Enemy (1st and 13th NK Divs) again loses offensive capability due to casualties.	Opposing infantry troops extremely vulnerable to artillery and mortar fire. Outcome depends on which holds out longest. Unusually close air strike decides action.
13 - 20 Sep	Limited friendly advances (Hill Mass 570), limited enemy counterattacks with effective artillery and mortar fire on occasion by both sides.	Each side exerting pressure. Friendly infantry strength in area reduced (7th Cav redeployed elsewhere). Loss of close-support artillery (105-mm) battalion partially compensated by arrival of long-range artillery (8-in., 90-mm). Enemy organizes active positional defense.	Stalemate.	Net reduction in friendly assault capability in area tends to restore balance of opposing forces. Further advance of friendly infantry exposes it to well-sited enemy weapons. Operations of US armor hindered by road blocks, mines and fire.
21 Sep	Enemy still holding front enveloped by ROKA from northeast and flanking sweep of 7th Cav from west.	Continued enemy resistance.	Enemy defense crumbles under attack from all sides. Section of front wide open.	Details not determined. Exhaustion of enemy personnel and material probably responsible in large part.

~~SECRET~~ UNCLASSIFIED

Part IV

THE KEY ACTION

~~SECRET~~ UNCLASSIFIED

NARRATIVE OF THE CAPTURE OF HILL MASS 314 BY THE
3D BATTALION, 7TH CAVALRY REGIMENT

Information in this section has been obtained from: a brief report on the action included in the 1st Cav Div command report, parts of which are reproduced in App E; an unpublished account written by the former S-3 of the 3d Bn, 7th Cav Regt; all available logs of units involved; and, particularly, recent interviews and communications with officers and enlisted men formerly of the 3d Bn, 7th Cav and the various supporting arms. No one of these sources or individuals, though providing useful data, afforded an essentially complete or qualitatively accurate account of the battle. (One of the most accurate summary reports is reproduced in App E.) In the narrative that follows, these various independent viewpoints have been reconciled to the fullest extent possible with each other and with the objective data of the other sections of this memorandum on friendly casualties, enemy weapons, artillery support, air support, and armor support. For the assault phases in particular, synthesis was difficult. Some additional remarks on the method employed here are given at the head of the section "Assaults on the Objective and Its Capture." From the information presented here, and from some additional interpretation and assumptions, a graphic timetable of the attack has been constructed to show the phases of movements of enemy groups and friendly platoons and friendly and enemy fires. This reconstruction necessarily remains incomplete and questionable as to certain details. A fuller and more reliable account might have been obtained by a comprehensive program of interviews at a time not so long after the action, and by research on documents no longer available.

BACKGROUND OF THE BATTALION

The 3d Bn, 7th Cav Regt was composed principally of former personnel of the 30th Inf Regt at Fort Benning, Ga. Though not many of the officers or enlisted men were veterans of World War II, a considerable fraction had participated in infantry problems as members of the 2d Bn of Infantry School troops. To bring the battalion more nearly up to strength for duty in Korea, noncombat specialists at Fort Benning, such as bakers and truck drivers, were reassigned as riflemen. The newly constituted 2d Provisional Bn was assigned to fill out the 7th Cav Regt, which on occupation duty in Japan had had only two battalions. Though scheduled to land in Japan, the battalion did not debark on arrival at Yokohama; because of the grave situation in Korea it was sent directly on to Pusan, arriving there on or about 30 Aug 50. Now designated the 3d Bn, 7th Cav, it was at once committed to battle.

The battalion's first mission was to participate in the 7th Cav attack on Hill 518 on 2 September 1950. After continued enemy counterattacks and a disorganizing night action, the 3d Bn withdrew on 4 September. Though casualties had not been high, morale was shaken, and large amounts of materiel had been lost. In a foot march the battalion moved back 14 miles to Taegu to be re-equipped. Soon after, the 2d Bn, 7th Cav was also pulled back, and the two battalions constituted the 1st Cav Div reserve.

Around the end of August 1950, US Army units were augmented with attached KATUSA troops, or soldiers of the Army of the Republic of Korea (ROKA). In the 7th and 8th Cav Regts they were "integrated," i.e., distributed among the individual squads; other methods of augmentation were tried in other regiments. Most of the ROKA personnel had had only a few days of training, and could communicate verbally only with a few American Nisei who could speak Japanese. In spite of these difficult circumstances, some of the attached Koreans proved to be good soldiers. For tactical control, each of them was given an English nickname beginning with the letter of the appropriate company, and this name was stenciled on his helmet.

PREPARATORY PHASES OF THE ATTACK

Planning

On 9 September the 3d Bn, 7th Cav Regt was attached to the 8th Cav Regt and moved up to occupy blocking positions across the Taegu - Tabu-dong road 7 miles north of Taegu. As shown in Fig. 12, Co L was astride the highway, Co K to the west on Hill 181, and Co I to the east on Hill 184.

It was planned to use the battalion to take Hill Mass 570 and, if necessary as a preliminary objective, Hill 373. However, this mission was postponed and repostoned when attacks by the 8th Cav failed to dislodge the enemy from Hill Mass 314. It was apparently not until 11 September that it was decided to use the 3d Bn, 7th Cav on Hill 314 instead of Hill 570. Much of the existing plan of attack of course still applied. Reconnaissance both of the new objective and for a suitable route of march was necessary but could not be as thorough as might have been desired. Furthermore, in attacking Hill 314, the 3d Bn, was to be under the control of its own regiment and supported by its own field artillery, rather than, as already arranged, prepared to attack within the well-established organization of the 8th Cav in this area. Some of the lack of coordination of the infantry and supporting arms during the attack on 12 September must be attributed to the late change in plans.

The operations order of the 3d Bn, 7th Cav for the attack on Hill Mass 314 is reproduced in App E. In this complete form, it was most likely written after the action.

The Move-Up

According to plan, the 3d Bn, 7th Cav departed from its blocking positions at 0630 on 12 September. The route of the 2-mile march to the assembly area at the base of Hill Mass 314 is shown in Fig. 12.

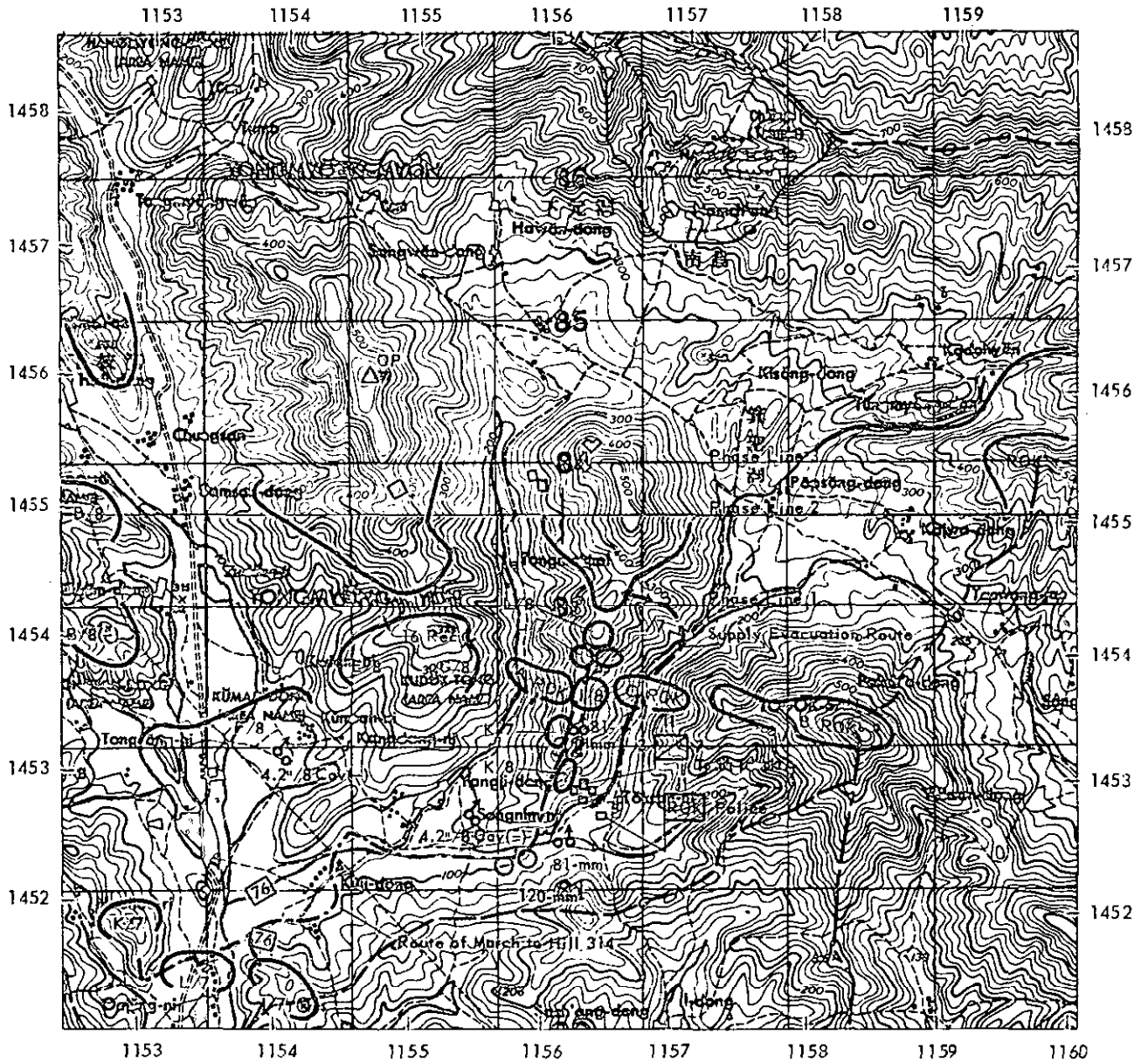


Fig. 12—Situation around Hill Mass 314 at time of attack by 3d Bn, 7th Cav Regt on 12 Sep 50. Figure shows initial blocking positions of 3d Bn, 7th Cav, route of march to Hill 314, and concentrations of enemy fire received. Positions held by 8th Cav units and ROK police battalion are also shown, as are enemy-held positions, enemy bunkers, and enemy observation point. 1000-yd grids are numbered; light lines indicate 1000-m grids.

For maximum concealment of the move from the enemy, the minimum number of vehicles required for communications and heavy weapons was used; also, these vehicles were sent up to Hill Mass 314 before daybreak, while vehicles for resupply and evacuation were held behind the old positions until after the attack had begun. From the map, it is seen that the move could have been observed in its initial stages by enemy forces on Hill 570 and at a later interval from the northern part of Hill Mass 314. The route of march therefore had been carefully planned to take advantage of concealment afforded by stream beds, irrigation ditches, etc. Since the battalion was in extended file, it could have been observed at any exposed point during the 20-min time of passage.

The only enemy fire drawn during the approach march was from what is believed to have been an SP gun that had moved from Tongmyongwon down the highway to a temporary position at Samsan-dong, under the nose of friendly forces on Hill 225. Perhaps to cover this move, Hill 225 was subjected to intense 120-mm mortar fire. As shown in Fig. 12, one of the two 76-mm concentrations straddled the 3d Bn march route. The failure of the SP gun to inflict casualties can be attributed to the combination of flat-trajectory fire on flat terrain, the restricted angle of fire due to the confining slopes, the fog that lay in the valley, and to the battalion's exploitation of what slight protection the terrain afforded.

It is considered highly significant that the 120-mm mortar fire shifted from Hill 225 to Hill 373 instead of to the 3d Bn approach march. If observed friendly movements prompted the SP gun's fire, they must have been interpreted either as routine traffic such as had been harassed at that point for several days or as a reinforcing move for Hill 373, the pressure point of the previous day.

The order of march of the companies of the 3d Bn was: I, L, H3, M, K. The assault companies, I and L, arrived at the assembly area at the south end of Hill Mass 314 somewhat ahead of schedule, around 0800, and started the climb up the ridge toward the line of departure soon after, arriving there, again somewhat ahead of schedule, around 1030. The assault companies therefore missed the concentrations of the 120-mm mortar fire plotted in Fig. 12 and reported as follows: "3d Battalion proceeding as planned. Receiving mortar fire at 120855."³

The battalion's command party also proceeded up the ridge, and reached the line of departure at 1015. Here, at the positions held on Knob 0 by Co L, 8th Cav, the battalion observation post was set up. Among the officers who occupied it were the battalion commander, the S-3, and the S-2. Ten yards to the right on Knob 0 the artillery observation post was set up, and this was occupied by the artillery liaison officer and others.

According to the plan, the supporting tanks were to arrive at the base of Hill Mass 314 before 0600, i.e., before daybreak. Emerging from the river bed south of Hill 373 at 1000, they very likely were observed by the enemy on Hill Mass 314. By this time the preparatory air strikes were already in progress, and the forward movement of the battalion troops along the ridge may have been observed, though perhaps not in detail because of the residual haze. The air strikes alone were not especially indicative of friendly intentions, as the intense round of strikes on Hill 570 the morning before had taken place without

concurrent movements of friendly infantry and armor and had turned out to be purely an active defense measure. The appearance of tanks for the first time at Hill Mass 314 may now have created suspicion that a major friendly effort was impending there. At 1018 the tanks caught up with the infantry, most likely with Co K, the battalion reserve, which had remained at the assembly area at the base of the hill. Accurate 120-mm mortar fire apparently still fell on the assembly area. Only one casualty is known to have resulted, and this was in Co K. The casualty report says "shell fragment" and gives the time as 1100. If this fire actually fell as late as 1100, the absence of more casualties would be explained by the fact that most of Co K had already followed the assault companies up onto the southern ridges of the hill mass.

The 3d Bn, 7th Cav took over the former command post of the 3d Bn, 8th Cav at the southeast tip of Hill Mass 314. As shown in Fig. 12, the battalion aid station and supply points were nearby. The aid station opened at 1100 on 12 September. The headquarters of the ROK police battalion were also in the vicinity. At the same time that the 3d Bn of the 7th Cav was to attack on Hill Mass 314, its 2d Bn was to relieve the ROK companies on Hill 660, and the ROK force was then to be attached to the 3d Bn for commitment in an emergency. The approach march of the 2d Bn to Hill 660 was over the hills from the south and in no way coincided with that of the 3d Bn described above.

So far as is known, none of the officers and men of the 3d Bn, 7th Cav Regt had been on Hill Mass 314 before the battalion moved onto it on the morning of 12 Sep 50. Of the 3d Bn, 8th Cav Regt, which had been fighting on the hill for two days, only Co L remained in position. It is not known to what extent the experience of this battalion was passed on to the battalion that relieved it. Certainly the time for conference on the hill itself was short. One point of information that should have been passed on was the fact that friendly forces had blown a large crater at a defile on the trail that skirts the hill on the right, and thus prevented the contemplated movement of tanks beyond this point.

As discussed in detail in Part II, the 3d Bn, 7th Cav was confronting a recently strengthened enemy force now totaling about six hundred and fifty men. It appears that units of the still potent 13th NK Div had, in the previous 24 hr, reinforced those of the rather exhausted 1st NK Div that had been fighting on the hill. Perhaps it was not realized that where before the enemy units on the hill had been backed up with only meager to moderate supporting fires, a formidable, if limited, apparatus of communication and supporting fire had now been brought to bear.

The ridgeline and western side of Hill Mass 314 were wide open to enemy observation from Hill 570. Figure 3 (given earlier) is a composite panoramic photograph of Hill Mass 314 taken from the then most forward enemy position on the unnumbered 480-m peak on Hill Mass 570. (East-west distances across the ridge on Hill Mass 314 are highly foreshortened.) Though this picture was taken in springtime 1953, the hill did not look much different in September 1950. Close-up views taken on the hill after its capture and shown as Figures E1 through E7 give the same impression—a steeply sloping undulating hill mass covered with rocks, low bushes, and scrubby trees.

Comparison of the photograph (Fig. 3) with the map (Fig. 2) reveals some errors in cartography; in the photo, for example, Knob 3 is lower than Knob 2. The map with which friendly forces had to work at the time of the action was even more inaccurate.

The main enemy force held the ridge from Knob 2 to Knob 3. Shallow foxholes dotted the bald top of the ridge, some of them perhaps covered with vegetation or logs. On the nose of Knob 2 there were about a dozen shallow foxholes; a few can be seen in Figs. E6 and E7. In addition, there were a few more substantial log-covered bunkers. One was back on the finger northwest of Knob 3 and may have been an OP or forward command post; another, which may have been a command post, was on the northwest side of the hill. Though in general these positions provided scant protection from air bursts, they did afford personnel concealment, and were characteristic of an enemy skillful at camouflage. Perhaps the larger part of the enemy force occupied the wooded crown around and just below the top of the ridge. Some units may have been at the base of the hill. Knob 1, several hundred yards from friendly positions across a dip in the ridgeline, was an enemy outpost.

The number and distribution of enemy weapons on Hill Mass 314 and in the surrounding area are considered in Part II, and the more important positions are plotted in Fig. 8. Enemy supporting fires could have come only from the north and west.

The task of the 3d Bn, 7th Cav was to capture Knob 0, move down a steep drop into the saddle, then up a long steep incline to assault the main enemy forward position at Knob 2. This advance through the saddle entailed, at least, a descent through a vertical distance of 40 m and a subsequent climb of 160 m through a horizontal distance of 500-600 yd. The actual distance traveled would be more nearly 700-800 yd. Though the northern slope of the saddle was not as steep as the reported 60 deg, it can be seen from Fig. 3 that the least steep climb would be several hundred yards up a slope of over 20 deg. Once the hurdle of Knob 2 was passed, the assault force would have to advance 450 yd further and take Knob 3 before the objective would be secured.

When the fog lifted on the morning of 12 September, the air was clear and the temperature warm. Cloud cover at Taegu airport (K2), 8 miles to the south, was reported as follows: "1005, 10/10; 1040, base 2500 feet, tops 4500 feet."

The footing was still slippery from recent rains, but not enough to make climbing difficult. Beneath its top layer, the soil was hard and resistant to digging.

Preparatory Fires

The preparatory air strikes began after the assault companies had begun the 2-hr climb up the ridgeline to the line of departure from the assembly area at the base of Hill Mass 314. Members of the assault and reserve companies, and command personnel and observers accompanying them on the way to the forward command post, could not have observed the main preparation, and appear not to have found out about it. The attack plan called for air strikes from 0930 to 1030. The data listed in Table 12 and discussed in Part II show that between 0950 and 1045 eleven F51's of three missions rocketed and strafed the objective and dropped napalm. The schedule may have been delayed somewhat by the haze. Not until 0930 had it lifted sufficiently to permit the artillery liaison officer to lay down registration fires of the 77th FA Bn on the objective and mark it with white phosphorus bursts for the mosquito plane. The artillery preparation was to have followed the air preparation at 1030 and was to have

lasted until the jump off at 1100; however, it had been canceled, due to ammunition shortage, or, rather, restriction. Perhaps as partial compensation, another flight of four F51's, which had bombed Tabu-dong, was led to the objective by a second mosquito plane, and rocketed and strafed the objective until 1100. The preparatory fires of the 3d Bn 81-mm mortars, which had been scheduled for H-10, could not begin until 1100. Jump off of the attack was therefore delayed 10 min, until 1110.

Contrary to some reports, the planes, after they had expended their ammunition, did not remain in the area to buzz the objective while the assault troops advanced. The last flight landed at Taegu airport at 1120, and must have left Hill Mass 314 promptly at 1100. The forward command and observation posts opened at approximately 1015. Their personnel, who had not learned of the regimental order of 0735 that canceled the artillery preparation, learned of it at this time via the newly established communication net. They apparently did not know that two flights had already hit the objective, for they waited anxiously for the two flights that materialized after 1030. In all, about five fragmentation bombs (500-lb?), 16 drums of napalm, 51 rockets, and an unknown number of .50-cal rounds were used in the preparatory air strikes.

For its own preparatory fire, the 3d Bn had the 81-mm mortars of Co M. As shown in Fig. 12, two of these were located at the base of Hill Mass 314 and two were situated part way up the ridge. The latter pair with several hundred rounds of ammunition, was taken over from the 8th Cav in an equal exchange to avoid needless transport up and down the ridge.

The battalion lacked the planned support of a platoon of heavy mortars attached from the 8th Cav (their position is shown in Fig. 12). The only available information on this point is from the 7th Cav side and may be biased. The log of the 3d Bn, 7th Cav states:

121130. Units in general support: one platoon of 4.2 mortars of 8th Cavalry Regiment; 3d Platoon, Company C, 70th Tank Battalion in general support. Comments: the 4.2 observer could not be located, when located was found to be ineffective in his job as an observer and therefore we failed to get critically needed support from this platoon.⁶

Though it was not intended that the tanks should participate in the preparatory fires, theoretically they might have helped make up for the canceled artillery fires by firing on forward slopes. However, the tanks only arrived at about the time of this news, when the battalion commander and several of his key staff officers were already at the forward command post. Until much later, the commander of the tanks lacked any orders, let alone revised instructions.

Four heavy machine guns of Co M were installed at the line of departure, a section of two on the left side of Knob 0 in support of Co L, and a section of two on the right side in support of Co I. While the 81-mm mortars were firing on the objective (from 1100 to 1110), these machine guns laid down intense fire on the enemy outpost at Knob 1.

The 75-mm recoilless rifles were brought up around the right side of the hill by jeep to fire on the objective at a late stage of the battle. The 57-mm recoilless rifles were up on the hill, but in the absence of exposed enemy bunkers, it would not appear that they were appropriate weapons for preparatory fire.

ASSAULTS ON THE OBJECTIVE AND ITS CAPTURE

There is no existing adequate account of the climactic phase of the action, and no individual, even of those who were present, appears to have an at all complete conception of the course of the fighting. From the battalion observation and forward command posts atop Knob 0, the staff officers could have seen little of the action on Knob 2, and nothing beyond. Furthermore, their electrical communication with the assault units was crippled early in the battle. Most of the officers of the assault units were not in a position to report afterwards. Of the officers of Co L and Co I, only the two commanding officers and one or two platoon leaders ever got beyond Knob 2. The CO of Co I was wounded late in the battle; Co L's CO survived unhurt but was killed ten days later; one platoon leader was hit at the same time as the Co I CO, and the other, if he was indeed present, has not been interviewed. Appendix E includes a report of an unknown interviewer's brief conversation with the CO of Co L shortly after the battle. A sequence of events outlined by an unknown staff officer of the 3d Bn and interviews with personnel of Co I were also prepared at that time, and they are given in App E. As attempts to give accounts of the assaults they are hardly coherent, but they do contain useful details.

In the narrative which follows, all available scraps of information have been considered and fitted together as far as possible in chronological order. Recent interviews with certain officers and enlisted men—most notably, the former CO of Co I and the former S-3 of the 3d Bn—have been especially valuable in establishing the continuity of events. Objective checks of the time-space pattern of the action are afforded by some data on friendly movements and in casualties and information on the supporting air, artillery and armor presented in the earlier section "Friendly Support."

Platoons acted as independent tactical units at several crucial points of the battle. Since the platoon is not an administrative unit, movement and deployment are not reported in any formal document, nor can they be inferred, from such information as the circumstances of individual casualties, as is possible for a company as a whole. In the narrative which follows, platoon experience is sketched from certain facts mentioned in the appendices, from information supplied by those interviewed, from reports about identifiable individuals, and finally, simply from what was possible and logical in the given circumstances.

In the original attack plan, the line of departure was to be the knob to the rear of Knob 0, and Knob 0 would be Phase Line 1. When on 12 September it was found that Co L, 8th Cav was still in possession of Knob 0, the LD was moved up to here, and the phase lines were moved up accordingly to the designations used in this section. Though regimental and all battalion personnel were notified of the change, the earlier designations seem to persist in certain reports, notably in the sequence of events and the interviews given in App E, but without consistent application. Interpretation is therefore required to decide even such a vital question as whether forward units reported to be on Phase Line 2 were actually on Knob 2 or Knob 1.

The redesignated phase lines are defined as follows: Phase Line 1, the meter-grid line that passes through Knob 1 on the map; Phase Line 2, the line of the edge of the map sheet crossing the objective just north of Knob 2; Phase Line 3, the meter-grid line that crosses the north end of Knob 3.

Initial Phases

The assault companies jumped off at about 1110 in parallel columns. Company L was on the left side of the ridgeline with its 2d Plat leading, followed in order by its 1st and 3d Plats. Company I was on the right side of the ridgeline with its 3d Plat in the lead, followed by the 2d and 1st Plats. Except for observers 100 yd down the ridgeline, each company front was about 50 yd.

It was soon proved that Knob 1 was held by 12 to 15 enemy troops equipped with 2 machine guns and 2 automatic rifles. The intensity of their fire during the friendly advance of 150 yd from Knob 0 has not been reported with any certainty, but few if any friendly casualties resulted. Evidence that active fighting had previously occurred between Knobs 0 and 1 was seen in the form of several enemy and three American bodies. By 1130, Knob 1 had been overrun, the enemy troops killed, and their bodies thrown out of the holes. An exception was an enemy soldier who jumped up during the advance and, without being shot at, ran back toward Knob 2. Whatever his motive was, he doubtless gave warning that the attack had begun.

There was a pause to reorganize. In the two assault companies, the two platoons previously leading became the support platoons and took up temporary positions on each side of Knob 1. The two following platoons passed through to take up flanking positions, and the two trailing platoons passed through to spearhead the next phase of the attack.

The first enemy reaction occurred at this time, when 120-mm mortar fire fell on the positions the assault companies had just vacated at the LD. This fire caused some casualties in Co L, 8th Cav. Company K, 7th Cav had remained further to the rear just to avoid such hazard. The enemy mortars had evidently been preaimed at Knob 0, but had received the word to fire rather late.

Jump off for the first assault on Knob 2 was at about 1135. The deployment of the assault companies is shown in the corresponding diagram in the succeeding section of this memorandum. As before, the ridgeline was the boundary between the two companies. Whether by design or because of the more difficult going off the top of the ridge, the two flanking platoons trailed somewhat, so that the entire battalion front was like a plowshare extending symmetrically across the saddle. Within each forward platoon, two squads were forward on a skirmish line and the third somewhat behind in wedge formation. As the assault platoons advanced, the two support platoons moved down off Knob 1, and one squad from each moved out to sweep the wooded slope well down on each side of the hill. The weapons platoons of Co L and Co I moved up to the rear of Knob 1. Down on a finger off to the right of the saddle, the sweep squad of Co I discovered an enemy automatic-weapon position and killed the crew.

Shortly after jump off, advancing troops of Co L noticed inaccurate hostile rifle fire coming from a group of rocks at the bottom of the saddle off to the left (see Fig. 3). It had caused no known casualties when silenced by the fire of a friendly squad, which also caused no casualties. Four enemy soldiers jumped up. Three of them ran directly to the rear, that is, toward Knob 2, and seem to have escaped; the fourth chose an illogical course across the saddle to the right, and was cut down by other friendly fire.

The commanding officers of Co L and Co I moved their men down into the saddle as rapidly as possible. Reaching its bottom—the line just vacated by the enemy outposts—at about 1143, friendly units were suddenly taken under concentrated fire, as if this were the enemy's final protective line. Enemy weapons involved were 120-mm and 82-mm mortars, 50-mm company mortars, machine guns, and captured US BARs. The two companies moved about two hundred yards on up the saddle. So far as is known, the mortar barrage did not follow then; they were stopped by casualties sustained and by the small-arms and automatic-weapons fire that continued to be directed at them from the top of Knob 2. This phase of the attack was reported as follows: "From 7th Cav. Jumped off on time, moved 300 yards [from Knob O] and were pinned down by sniper firing but attack is continuing."¹

This first, intense, enemy fire had several important effects. Because of a mortar hit, the command of Co I lost radio contact with the rear at the outset of the battle, and from undetermined fire it lost all walkie-talkie communication with its forward units. Company L also lost all walkie-talkie communication, though it retained the use of its radio throughout the battle. Communications are discussed more fully later in this section. At the outset of the main phase of the battle, Co I also lost the leader of its 2d Plat. The casualty report gives the time as 1130. The enemy fire responsible was proved by surgical removal to be a 0.25-cal Japanese bullet. One Japanese light machine gun was later found on the objective.

The first move to assault the objective is summarized in the 7th Cav Regt war diary as follows:

... The advance continued for 500 yards [measured from the LD—that is, 200 yards short of Knob 2] under sporadic machine gun and rifle fire and a 120-mm mortar concentration on the line of departure and reserve company assembly area. At this point, the entire battalion was pinned down by intense rifle and mortar fire and simultaneously observed about 400 enemy to the left preparing for a counterattack. An air strike was requested but was delayed because of refueling, as the counterattack was beaten off by infantry, artillery, and mortar fire.

The figure of 400 enemy troops was probably derived from one report after the battle that this number of enemy had been on the entire hill mass. Mention of an air strike and artillery support is somewhat premature. Only supporting mortar fire was involved. The log of the 3d Bn states: "121145. When it was impossible to obtain any other fire support, the 81mm mortar platoon delivered very effective fire in large quantities and broke up the first counterattack."

A rough estimate of the intensity of this mortar fire was recently made by the former unit administrator of Co M, who was at the battalion CP on the line of communication to the mortars. Co M brought about three hundred rd to the hill and took over several hundred from the 8th Cav up on the ridge. Perhaps four hundred fifty rd were expended during the battle, of which about one hundred twenty rd in all were fired on three occasions specifically to break up enemy troop concentrations. On each occasion, each of the four mortars fired about ten rounds at maximum rate to give a 40 rd concentration. If they fired at the standard maximum rate of 30 rd per min the concentration

would have been laid down in 20 sec. Though about fifteen bearers were carrying ammunition up to the ridge, there was a problem in keeping the two forward mortars supplied.

It is a moot question whether the enemy actually attempted to counter-attack or merely moved troops forward to fire the final protective line after the preparatory fires had forced them back. As shown in Figs. E6 and E7, shallow enemy foxholes were at the forward edge of the plateau-like nose of Knob 2; three machine guns and one automatic rifle are also thought to have been there. To fire down into the saddle, enemy defensive troops would have had to occupy these positions. If they delayed fire until the attackers were within 200 yd, they would have had to expose themselves above the edge to obtain any field of fire.

The first concentration of 81-mm mortar fire on observed enemy troops was called down directly onto Knob 2. It is considered that this fire chased the enemy down onto the wooded slopes without causing many casualties.

The First Assault

Authority to resume the attack rested with the platoon leaders, since communication with the company commanders at Knob 1 had been lost. At about 1155 friendly units again moved forward. This time the enemy mortar fire was distributed over the entire area of the saddle occupied by friendly troops, and began to fall on the supporting units as soon as they started down from Knob 1. For the first time, 76-mm artillery fire was received on Knob 1. The source is considered to have been an SP gun located at the cemetery to the north of Hill Mass 570. Its fire would necessarily have been restricted to Knob 1 and the western slopes of Knob 2. An unconfirmed report states that fire from the objective was again intense, but does not localize the source. It is surmised that the most forward enemy positions on the nose of the knob were not reoccupied, for the heavy machine guns of Co M had now moved up to Knob 1 and covered this assault with continuous overhead fire. Some friendly troops thought that this fire was enemy and required convincing to the contrary to move up.

Friendly units, believed to be elements of the 3d Plat of Co L, succeeded in reaching the enemy positions. From his post on Knob 1, the leader of the K Co Wpn Plat saw 12 to 15 friendly troops running around on the nose of the knob, and an occasional enemy soldier darting among the rocks nearby. The circumstances of a particular casualty at this time were also observed (No. 7, Table E1). The leader of an L Co MG squad ran forward and picked up the weapon after the gunner was killed. Finding it jammed, he kneeled right on the crest of Knob 2 to fix it and was almost cut in half by fire from an automatic weapon beyond. (The casualty report attributes this death to artillery fire, and a second witness thought this was the cause.)

Advance at least as far as the top of Knob 2 was reported in the following message: "121200. Now on Phase Line 2. Reorganizing and pushing on to Phase Line 3."⁶

The attack was turned back. Fire from the dense underbrush on the transverse ridge which overlooks from the left the shallow draw on the left side of Knob 2 was at least partly responsible. As the troops of Co L attempted to

move over the crest away from this fire they may also have encountered enemy troops assembled on the northeast reverse slope. When Co I was advancing on the right side of the saddle, enemy groups were seen to withdraw toward this spot. Whether an actual counterattack occurred has not been determined.

Enemy exploitation of the repulse of the first assault was prevented by friendly supporting fires. The second concentration of 81-mm mortar fire called for against an enemy grouping may well have been directed at this time toward the northeast side of Knob 2. In addition to the mortars, the first supporting artillery concentrations were now fired. As discussed in Part II and plotted in Fig. 8, the 77th FA Bn fired approximately eighteen rounds of VT-fuzed 105-mm rounds at Knob 2 and along the ridge to Knob 3. Since few enemy bodies were found up on the ridge later, it is inferred that any enemy troops who had moved onto the ridge to counterattack had returned to the wooded slopes before much of this fire had landed.

The situation forward was reported by runner to the CO of Co I shortly after 1200: Co L was in trouble and one of its platoons had been almost annihilated by fire from the underbrush to the left of Knob 2. With the walkie-talkies out and no idea where his 3d (support) Plat was located, the CO went up to the critical point. There he found the Co L commander crying, "They're killing all my men!"

Moving forward and into the draw to the left of Knob 2, the two company commanders found the troops "stunned." They were boxed in between the mortar fire falling behind them and the fire from the dense underbrush along the transverse finger ahead and to the left. The only visible evidence of the enemy was the continual flight of grenades from the bushes. The grenades were of the offensive, or concussion, type, producing blast but few effective fragments.* [Only one grenade casualty is attributable to this incident. See No. 3, Table E1. The casualty report states: "SWA. Shrapnel. Fragment wound (grenade) left shoulder, left forearm, laceration of face and scalp, 1130 hours, 12 Sep. . . Entire company was engaged in an attack against the enemy, when a hand grenade exploded near his position." The position of the individual at the time is evident.] To break the men's mental block, the two COs stood up and started throwing fragmentation grenades into the bushes over the finger. When each had thrown five or six, the men regained their initiative and did likewise. The enemy grenades stopped coming. It is inferred that surviving enemy troops withdrew from the first transverse finger at the left of Knob 2 back across the bare gully and up onto the wooded and more defensible finger beyond. (See Fig. 3.)

Action on the Right during the First and Second Assaults

From his original position at Knob 1, the commanding officer of Co I observed only one of two enemy soldiers, "obviously trying to get out." Several members of the 2d Plat, which was on the right flank, reported seeing three or four enemy groups of perhaps a dozen men withdrawing toward the northeast side of Knob 2 with very little defensive fire. It is inferred that around the time troops of Co L were being cut down on the nose of Knob 2 by fire from the underbrush to the left, the 1st Plat of Co I was stopped just short

*These were retained for friendly use. See photograph, Fig. E10.

of Knob 2 by fire from the underbrush to the right. This situation is suggested by the circumstances under which the 1st Plat leader (a lieutenant), and then the assistant platoon leader (a sergeant), became casualties. The platoon leader was peppered by a grenade at a time thought to be the height of the first assault, around 1200. (The casualty report states 1300, but the lieutenant, who refused early evacuation, was only brought back to the aid station twelve or more hours later.) The assistant platoon leader took command and apparently was wounded almost at once by "shrapnel." (The medical tag gives the time as 1400, but this was evidently the time at which the sergeant, who remained in action, finally collapsed.) Some indication of the action of the platoon in this interval is afforded by the report recommending the sergeant for an award:

...Sgt Lancaster was wounded and his platoon forced to seek cover by the heavy machine gun and small arms fire of a fierce counterattack. Despite his wounds, Sgt Lancaster refused to be evacuated and, remaining with his men, moved about exposed to a hail of enemy fire in order to organize and deploy his platoon in an effective defense position. So skillfully did he employ his small force, that they were able to withstand and fight off two enemy banzai attacks. Immediately seizing the initiative, Sgt Lancaster led his men forward in an attack to seize their objective, during which action he fell unconscious from loss of blood....

It is probable that the sergeant remained with his unit until the third assault at about 1430. An enemy counterattack is also mentioned in App E:

M/Sgt McCollum, the Weapons Platoon leader of Company I, was following the attack with his weapons platoon at the moment the enemy launched his fanatical counter-attack. M/Sgt McCollum rushed forward leading his men after he had organized them as riflemen and came to the assistance of the hard pressed rifle platoons....

According to the medical tag, the leader of the weapons platoon was wounded, by mortar fire, at 1645, i.e., when he was up on the objective.

Whether the reported counterattacks were more than groupings of enemy troops and concentrations of enemy fire is also questionable. When the CO of Co I moved up to his company's forward positions during the second assault, he found the 1st and 2d Plats, which he had sent around the right of Knob 2, held up without visible opposition. The two platoons were deployed along a ditch that strangely ran down from the right side of Knob 2 along the top of a finger. This ditch or gully was about six feet deep and eight feet wide at the top, and about fifteen feet wide and fifteen feet deep further down the slope. On the friendly side there was little or no cover; on the enemy side there was dense scrub growth. Enemy fire was being received; according to one of the sergeants, this panicked the men so that they would fall back "like a wave" into the mortar fire, and would have to be urged forward. Company I's CO, who was forward at this time could not say whether small-arms fire was being generally received, but he saw dust spurt from the back of the jacket of a man who was hit "like a stone wall" and killed. On the right side of the saddle the situation was very much like that on the left.

The CO of Co L, a captain, was the senior officer of the two assault companies. After the repulse of the first assault, he radioed the battalion commander that his company was disorganized. He was told to hold up the attack in anticipation of an air strike, and to have the men dig in. Because of the hardness of the ground, the latter could not be done.

Seeing the repulse of the 3d Plat, Co L, and lacking communication with his commanding officer, the leader of the 3d Plat, Co I had moved his platoon from the right side of the saddle forward and to the left. When the platoon now reached the forward location of the two company commanders, it was attached to Co L and directed to move to the left to retrieve the more deteriorated situation there. The presence of the two 3d Plats at about the same spot at about 1215 is established by the following event involving the two platoon leaders: while standing, the leader of the 3d Plat, Co L was hit by a mortar burst. The leader of the 3d Plat, Co I, who was his friend, ran over, saw that he was dead, turned away, and dropped his hands—at this moment, he was himself killed by the next round.

Since enemy troops, as it seems, were no longer in the most forward defensive positions, the enemy mortar fire walked right up onto the assault units, stopping just short of the crest of Knob 2. It was no longer spread out over the saddle but concentrated at this time in the two areas on the northern side of the saddle designated as "1" and "3" in the graphic timetable of this action which follows. Some 76-mm fire was also received as shown; it is thought to have come from the SP gun plotted in Fig. 8. The location of this gun and the flat trajectory of its fire allowed it to reach only a small fraction of the pinned-down friendly troops.

There was little cover. The right side of the saddle was naturally less exposed than the left, but on the left there was the shallow draw to offer some concealment, if little protection. From Hill 570, men in the draw could be seen only while standing. In Co L some men moved down the wooded slopes to avoid the fire, while the 3d Sqd of its 1st Plat moved over to the Co I sector.

As shown in Part II, the message requesting the on-call air strike was received at division at 1220. Though the assault troops may have hoped for closer support, this request—presumably in this form from the regimental level—called for attack north of Knob 3. This attack was delivered promptly and as specified, and apparently without the knowledge of friendly forward units. Though enemy reinforcements on the northeast slopes of the hill mass and in the nearby villages may have been hard hit, it is difficult to see how such a strike could have reduced either the opposition of the enemy troops confronting the assault units or the mortar fire falling on them. The tanks, however, which marked the objective with white phosphorus bursts for the air strike, also fired onto the western slopes of the objective around 1215, with what might have been telling effect.

The Second Assault

At about this time supporting artillery was augmented with some of the 155-mm howitzers of the 9th FA Bn. The artillery air observer reported that the enemy mortars had been located, and these were taken under counterbattery fire. The site reported from the air is not known, but the mortars and the counterbattery concentrations are plotted in Fig. 8. No evident diminution of enemy mortar fire was noted, however, until late in the battle.

After reorganization down the slope, toward the right, the second assault was ordered, at about 1230. The two 1st Plats were to advance up the backbone of the saddle to establish a base of fire while the 2d Plat of Co L worked around the left flank and the 2d Plat of Co I worked around the right flank. Whatever

its tactical design, this maneuver would tend to take the companies out of the mortar-fire concentrations. The action to the right of the saddle—how the 1st and 2d Plats of Co I were stopped by enemy fire from concealment and perhaps by actual counterattacks—has already been sketched.

The movement of the 2d Plat, Co L in the second assault is reported in App E, on the basis of information supplied by the CO of Co L, as follows:

Captain Walker ordered Sgt Mitchell [the platoon leader] around to the left of the 1st Platoon with the mission of attacking and moving over the crest of Hill 314. As the 2d Platoon moved over the crest, it came under very heavy time fire, small arms fire and grenades, which caused very heavy casualties among personnel of the platoon and pinning it to the slope of Hill 314. . . .

The so-called "time" fire has been otherwise reported as 76-mm direct fire, impact-fuzed. It was plotted by the artillery liaison officer as concentrated in the area through which the 2d Plat passed. Additional information on the advance of the 2d Plat is to be had from affidavits describing the circumstances under which its leader was lost. One of these states:

During the hottest part of the fighting when the enemy mortar and small arms fire was the heaviest, I saw M/Sgt Mitchell moving around among the platoon when everyone else was down in position. He moved up to each man and told him where to fire and to move forward. He remained exposed to this fire all the way up the steep slopes of the hill. As we neared the top of the hill, someone said that Sgt Mitchell had been wounded, and I saw him and he was wounded in the chest and was bleeding very much, but kept the platoon and himself going up to the top of the hill. He was one of the first to reach the top of the hill despite his condition, and the rest of the men went with him. When the enemy had been driven from the hill [much later], Sgt Mitchell asked for the medic to get treatment, and I saw him start down the trail. A little later he was killed by an enemy mortar round.

A second affidavit also states specifically that the unit had been in a covered position and that the platoon leader was first wounded by small-arms fire when he was almost at the top of the hill.

It would seem that the 2d Plat moved onto and up the wooded finger that runs up to Knob 2 to the left of the draw, the commanding position from which enemy opposition had come during the first assault. It may be supposed that the enemy had moved back to a line on and beyond the higher transverse finger just across the gully (see Fig. 3) and repeated the earlier tactic of resisting with grenades and small-arms fire and then withdrawing to let the mortar fire move back still further. Though the platoon evidently was hard hit and could not go on, this move placed friendly forces in possession of Knob 2 up to a transverse line running across its crest. Simultaneously with this flanking action, two squads of the 1st Plat of Co L moved up the draw to occupy the left side of the nose, while the 3d Sqd moved around onto the right side. Command and observer personnel were thus enabled to move up the draw to where it ended in a curious depression called "the shallow" on top of the knob just short of the crest. The commanding officers of Co L and Co I, the Co L radio operator, an artillery liaison officer, one artillery forward observer, the two 81-mm mortar forward observers, and some messengers moved into it.

The shallow was the one good observation point on Knob 2. Perhaps a Korean burial site, it was a semicircular dish of earth about twenty feet in diameter and enclosed, rather like a revetment, with four-foot walls. From here for the first time the ridge beyond the crest could be observed, but the reverse slopes and declivities along the ridge, the flanks of the hill mass, and even much of the sides of the ridge, were still out of sight. Except for three or four wounded whose torsos projected above shallow foxholes, no enemy were in sight. These "sitting ducks" were fired at.

An incident at this time illustrates how much observation depended on position. A sergeant of the 2d Sqd, 1st Plat, just on the left side of the shallow, saw one of the men firing over Knob 2. When he asked if the man were sure the soldiers were enemy, he was told to come over to the right and see. On the reverse, northeast slope of the Knob were fifteen or twenty enemy. This observation of enemy troops on the right side fits in with the situation of Co I already reconstructed. The first man was hit by mortar fire at 1500, according to the casualty report.

After the second, partially successful assault, the artillery again worked over the objective ridge, this time with an estimated 36 rd of VT-fuzed 105-mm shells. In Fig. 11, given earlier, the hypothetical transverse distribution of this fire across Phase Line 2 is graphed. Very little of it would have reached enemy troops on the finger to the left of Knob 2, but it may have fallen somewhat to their rear at the steeper waist of the objective, prompting them to withdraw from the hill mass. It is assumed that the 81-mm mortars were continually active. Their second and third concentrations on observed enemy groupings may well have been on the northeast side of Knob 2 in support of Co I.

The following report appears in the division log: "1310. Blue at original [previous] positions waiting for airstrike."¹ Shortly after 1330 another air strike was directed at the northern or northeastern slopes of the hill mass, apparently again without the knowledge of the assault troops. With the issue of the battle still in doubt, it would seem that aircraft readily available on call had now been used.

With the inferred withdrawal of enemy forces on the left side of the objective, enemy mortar fire moved somewhat further up on the nose of Knob 2. As plotted by the artillery liaison officer (see the graphic timetable which follows this section), who was in the shallow at the time, the mortar fire fell in four distinct, adjacent areas, two on the right side of the ridgeline and two on the left. The fire on the right was thought to be 120 mm. The caliber of that on the left was not known. Most mortar casualties were thought to have occurred on the left.

The location of the mortar concentrations is confirmed by the circumstances of several casualties. A sergeant of the 2d Sqd, 1st Plat, Co L was hit at a time he thought was about 1400 (medical tag says 1500) just to the left of the shallow. A sergeant of the 3d Sqd, 1st Plat Co L was hit while pinned down by mortar fire in a small crater about twenty-five yards to the right of the shallow at a time he estimated to be 1330 (medical tag says 1400). He described the mortar fire as coming in salvos of three.

It is quite possible that each of the two concentrations on the right side of the ridgeline was fired by three of the battery of six 120-mm mortars northwest of Hill Mass 570, and that each of the two concentrations left of the ridgeline was from a pair of the group of four 82-mm mortars at the north end of Hill Mass 314.

The over-all intensity of mortar fire was judged to be less than during the first assault. From the battalion OP on Knob 0, it was noted as coming in sporadic sharp bursts, and some 120-mm fire fell on Knob 0 itself. The fire of three 120-mm mortars may well have been diverted for a time from Knob 2 to other targets.

There was a very long wait for aircraft to appear in close support. The pinned-down assault troops sustained casualties from the continuing mortar fire at an average rate of one every two minutes.

The men in the shallow fired at anything that moved within their limited field of observation. One incident is notable. Atop the ridge was a rectangular boulder about four feet high and eight or ten feet long. From behind it, an enemy soldier would periodically pop up his head, look around and then disappear again. The CO of Co I estimated the range as 300 yd but said he could easily discern the cap the man was wearing and the whites of his eyes. Though he always stuck his head up in the same spot, and though about a dozen men were firing at him, the enemy soldier was not hit until after about "fifteen minutes" when he fled to the rear and fell down from a shot in the leg. This was the fourth such incident known to have occurred during the battle. On this occasion, at least, the enemy soldier was very likely a forward observer, and of course he had to report to the rear in person. The contour of the ridgeline (see Fig. 3) suggests that the position was about one hundred and fifty yards from the shallow just forward of the declivity midway between Knobs 2 and 3. A body of enemy troops was apparently not far behind.

There was doubt that the final objective would be taken. The following delayed entry in the division log probably represents the 3d Bn situation around 1415:

121545. From 7th Cavalry (Colonel Nist) [the regiment's commanding officer]: I talked to Colonel Lynch [the battalion's commanding officer] about a half-hour ago. He was getting ready to jump off for his third phase line. He doesn't know whether or not he can make it. I am going to stop them at 1630 because he must get dug in for the night. He is having quite a few casualties. The ROK's with the 8th Cavalry are tied in with my 2d Battalion across the valley, but not with the 3d Battalion. They are on the best ground there.

The ROK police battalion which had been relieved on Hill 660 by the 2d Bn, 7th Cav evidently was not yet in position to back up the 3d Bn.

The urgency of the situation is reflected in orders thought to be from the division command. As reported in the 3d Bn journal (which is not a running log), the following message was received from the 8th Cav area, where divisional and Eighth Army observers had gone some time before 1445 to observe the attack:

121445: ... Call from Scrappy 6 [headquarters 8th Cav Regt]. Must hold objective. If unit stops, men must dig in. They must hold the present position even though they are going to get casualties. If you lose any ground, you have to retake it in the morning. Plan all prearranged fire of organic attack or supporting weapons. Wanted to know number of casualties. We have the use of the ROK Training Battalion but must treat them with care.⁶

The Third Assault

The long-awaited close air support finally appeared shortly after 1410. Until about 1425, three F51's dropped napalm and general-purpose bombs, rocketed, and strafed. This time the planes flew up the ridge over the heads of friendly troops and necessarily through the enemy mortar fire. They flew unusually low, to begin strafing the ridge only 75 or 100 yd beyond the shallow, where the Co L commander had his helmet blown off by the airwash. At least two tanks of napalm were dropped. One went over the northeast end of the hill; the other landed just over a little knoll about two-thirds of the way to Knob 3. It is thought that the scar showing at this point in the photograph taken two and one-half years later (Fig. 3) was burnt out by this hit. The spot was also plotted at about this point by the artillery liaison officer, who, from the shallow, watched the smoke cloud rise.

Various sources state that the napalm landed squarely amid a group of enemy troops, but actual observations are not reported. The CO of Co L subsequently did see enemy troops, but the Co I CO did not. It can be assumed that they had indeed been taking cover behind the knoll and were flushed to the left and rear. Firsthand reports on casualties caused by the bomb are lacking, but circumstantial evidence allows them to have occurred; though many enemy bodies were later found on top of the ridge, very few were found between Knob 2 and the point where the napalm landed.

Immediately after the air strike, the assault units were ordered to move up, but lacking their original platoon leaders, they did not respond. The CO of Co L then led the charge himself. He was accompanied by the CO of Co I and about a dozen others. The Co L commander is quoted as urging, "Come on up here where you can see them. There are lots of the bastards and you can kill them!" The troops at Knob 2 then moved up over the crest in a general advance.

It was a moment of emotional release. The yelling of the advancing friendly troops could be heard back at Knob 1. The only enemy soldiers close at hand were the wounded in the holes, and these were now killed. The Co I CO separated from the CO of Co L and moved over to the right hunting for the enemy, but found only about five enemy bodies. However, an intact prisoner was brought in by one of the Co I men, who was crying for permission to kill him. The prisoner was ordered taken to the rear. His interrogation appears as Item 10, App A; the following extract reports his observations on the battle:

121100. 2d Battalion shelled by US artillery and mortars. Strafed and bombed by US aircraft. Heaviest casualties from artillery, mortars. Number unknown. Air attack, least effective. POW, unarmed, hid between boulders during engagement. 2d Battalion units forced into disorganized retreat as a result of heavy US artillery and mortar shelling and small arms fire. POW captured immediately thereafter by US Army units.

The disorganized retreat mentioned by the prisoner does not seem to have occurred until Co I had finally broken enemy resistance and advanced in the third assault. Not having been hit by napalm,* the enemy down on the slope in Co I sector appears not to have been panicked by the final air strike, as witness the prisoners' statement that the air attack was less effective than the other supporting fires. While it was in progress, at least two men of Co I's 2d Plat, which was as far as 150 yd down from the ridgeline, were hit by small-arms fire. Furthermore, the enemy evidently offered active opposition, as noted in the following incident recorded in App E:

Sgt Manuel of Company I charged a fanatical North Korean who was holding up two squads of the 1st Platoon. Sgt Manuel killed the enemy soldier with a grenade, thus allowing the platoon to continue its advance. In this action Sgt Manuel received a wound in his right leg and right hip.

This action evidently occurred during the third assault, for the sergeant's medical tag states that he was wounded by mortar fire at 1500.

Friendly units continued to advance along the ridge at a moderate, steady pace. Company L moved toward the right with Co I to avoid the 76-mm artillery and (now, for the first time) automatic-weapons fire from Hill 570. Only meager information is available about Co L. Midway along the ridge (the forward slope of the little knoll is the probable site), the Co L CO and two others killed an enemy soldier armed with an automatic weapon. As for the general enemy reaction, the Co L CO later told the Co K CO that he saw the enemy slipping down the slopes in all directions. This observation must have been made from Knob 3. It is circumstantial evidence for the effect of the napalm hit. The Co I CO never saw any number of enemy because he never reached Knob 3.

Friendly forward elements were on Knob 3 at about 1530. Soon after, the following message was received: "121545. From Artillery Liaison Officer with Skirmish Blue: Objective hill (1156.5-1455.5) [Knob 3] ours."¹

For a period of fifteen or twenty minutes during the final advance, continual heavy explosions were heard from the northern or eastern slopes of the hill mass. No cause has been reported. The explosions might have resulted from fire by the jeep-mounted 75-mm recoilless rifles, which were moved along the trail at the right of the hill mass to a point midway between Phase Line 2 and Phase Line 3 late in the battle, and then brought up onto the objective when it had been taken. Enemy demolitions may just as well have been responsible.

When Co L and Co I advanced from Knob 2, the mortar fire did not follow them but continued to fall in concentrations on the southeast and southwest slopes of Knob 2. Moving up through this barrage to reinforce the advancing assault companies, two platoons of Co K were hard hit. A sergeant of the P&A Plat of the Bn Hq Co passed through the mortar fire at a late stage of the battle to take ammunition to the forward units. As he moved along the ridge, he could hear enemy mortars beyond the north end of the hill firing regularly. On the next trip up they were no longer to be heard. Later reconnaissance showed that these had been 82-mm mortars (See Part II).

*When personnel of Co I moved up onto the crest of Knob 2, they saw napalm from the preattack air strike still smoldering around several charred enemy bodies.

The 76-mm direct fire did follow the final advance, and at an undetermined time the 120-mm mortars shifted their fire to cover the entire ridge from Knob 2 to Knob 3 with sporadic fire. One notable burst of a round thought to be smaller than 120-mm wounded the CO of Co I and an officer of Co K, killed one enlisted man, and wounded two more. They were standing just north of the dip in the ridge between Knob 2 and Knob 3. It is thought that the mortar barrage on Knob 2 lifted after Co K had passed through it, probably shortly before 1515. As noted above, the 82-mm mortars stopped firing around this time and were later found to have been removed. Of the six 120-mm mortars at Site 4 (Fig. 8) which up to now had been firing at Knob 2, three now distributed their fire between Knob 2 and Knob 3, and the other three apparently sought targets elsewhere, for the 8th Cav reported the following observation: "121515. Scrappy Red 5 [Ex O, 1st Bn, 8th Cav] reports that all forward observers report 120mm mortars are located at 1152.6-1457.5. Further reports that all movement draws fire from these mortars."¹

As soon as the objective was secured, a check was made on the personnel of Co L and Co I. Only 80 men were present. Others then straggled in, a squad at a time, but it was an hour or more before all remaining effectives showed up.

Movement of the Support Company and Battalion OP

When Knob 1 was captured at the outset of the battle, the Co K 1st Plat moved up to this location, and the rest of the company, still strung out down the ridge in file, advanced accordingly. Although the Wpn Plat leader went forward to Knob 1, the platoon itself, which had been assigned the 60-mm mortars of Co L and Co I in addition to its own, presumably remained to the rear of Knob 0 to use without further transport the large stock of 60-mm mortar shells left by the 8th Cav.

During the later stages of the battle, the trailing platoons of Co K were brought further forward. After Co L and Co I had advanced from Knob 2 on the third assault, Co K was ordered to reinforce them on the objective. Its 2d Plat moved down and up the saddle to the left of the ridgeline, skirted Knob 2 to the left, and finally went up onto the ridge midway between Knobs 2 and 3. Advancing abreast, the 1st Plat moved rather far down from the ridgeline on the right, skirted the right side of Knob 2, and joined the 2d Plat up on the objective. The 3d Plat followed later.

Though the course of the two platoons took them somewhat out of the continuing mortar concentrations, and though they moved through the barrage as quickly as possible, casualties were high. As shown in the later subsection on friendly casualties in this attack, in terms of the number of men exposed, the rate was 50 or 60 percent of that of Co L and Co I, although the durations of exposure were in no way comparable. The reason is thought to be that most men were hit while standing up to move rather than when pinned to the ground.

With the advance of Co L and Co I in the third assault, the battalion OP was moved up to a position on the left side of the nose of Knob 2. It never actually was opened here, but, with the continued advance of forward elements, almost at once was moved further up onto the right side of the objective.

COMMUNICATION DURING COMBAT

No special study has been made of the system of electrical communication connecting the various units of the 3d Bn, 7th Cav Regt and linking it with its supporting units. This system is assumed to have been normal except for impairment sustained during the battle. In this section, information from various sources is brought together on the functioning of the communications system during the assault phases.

The initial enemy barrage at 1140 crippled the electrical communication of the assault companies. The Co I radio operator was wounded, and the company lost both its radio link with the rear and its walkie-talkie communication with its forward elements. Company L also lost all walkie-talkie linkage at this time, but retained radio communication throughout the battle. Loss of contact with forward units first made communication by runner necessary, and later, when direct control of the troops became essential, required the physical presence of the two company commanders at the front with the assault troops. Some observation and liaison personnel also had to move up.

At an unknown time early in the battle, Co M also lost radio contact with its forward observers. Calls for 81-mm mortar fire and target information had to be passed along a circuit consisting of three or four links.

Figure 13 is a diagram of available information on communication links. As indicated, the critical breaks were the connections with the most forward elements, as only they could have knowledge of enemy movements beyond the crest of Knob 2. Theoretically, the remaining open circuits to the several forward observers could have taken over, but as personnel in the saddle were pinned down by intense mortar fire, communication from group to group was presumably at a minimum. Furthermore, the intermingling of units fairly early in the battle, and the casualties sustained, confused both the lines of communication and the situation to be reported.

For fire support the battalion had to rely chiefly on its own 81-mm mortars and secondarily on the 105-mm howitzers of the 77th FA Bn. Ground-support aircraft were also to be on call. Technical or human failure to communicate information from the forward positions rendered the attached heavy mortars of the 8th Cav Regt ineffective. The massed 60-mm mortars of the attacking battalion were far enough forward (to the rear of Knob 1) to operate effectively with whatever channels of communication were open to them, and, by direct observation, even without them.

Why the Co M radio went out is not known. In place of direct radio contact with its forward observers, the relay circuit of one radio and two telephone links, as shown in Fig. 13, had to be used. Use of the telephone between the battalion OP and CP doubtless contributed to the overloading of this line. Locating one section of 81-mm mortars up on the ridge may have introduced still another telephone connection.

So far as is known, artillery communications remained unimpaired. The physical proximity of the artillery and battalion OPs permitted the artillery liaison officer to keep in touch with the battalion command and perhaps to inform it about forward infantry elements via the artillery observers. Since the liaison officer called in the fire of the 9th FA Bn as well as that of his own 77th FA Bn, it is assumed that both a direct link and one to division artillery

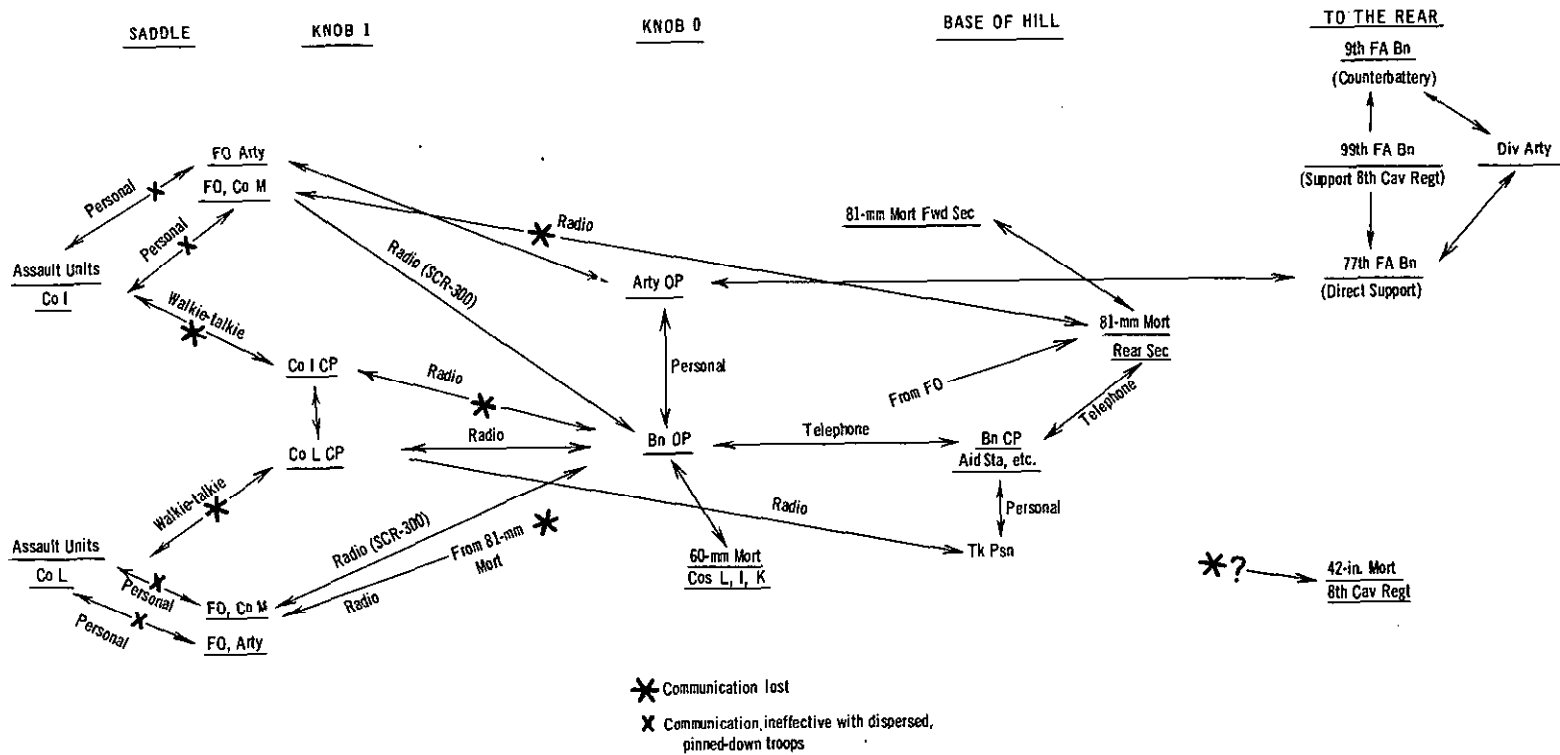


Fig. 13—Communication on Hill Mass 314 during assaults on Knob 2 (linkage to rear incompletely shown).

were involved. It cannot be assumed, however, that a channel was held open to the 99th FA Bn, which was at the time more or less active in support of the 8th Cav. Clearance with the 99th FA Bn was required for the 77th FA Bn to fire in the former's zone. It is known that after some delay this clearance was obtained, and that the 77th FA Bn did fire at targets on Hill 570. Whether roundabout communication was responsible for some of the delay can only be considered possible.

The request for an air strike had to go over the interbattalion telephone line. Some delay may have occurred here in addition to the inevitable series of delays in approving, arranging and dispatching a flight.

Even if most of the messages relayed by the tanks were routine calls for ammunition, litters, etc., it is clear that diversion of some of the message load from the battalion telephones must have expedited such emergency calls as requests for protective mortar fire at specified coordinates.

Reporting of the capture of Hill Mass 314 to the higher echelons was neither complete nor accurate. Broken lines of communication and the absence of a corps command level were doubtless contributing factors. While there is no reason to suspect lack of full information within the 1st Cav Div, it is curious that in all the entries about the 3d Bn, 7th Cav in the division journal¹ on 12 September, Hill 314 is never mentioned, nor is a north-south coordinate given which would identify the battalion's objective. The misinformation of Army headquarters may have begun with the following message received at EUSAK, G-3 Sec (now at Pusan): "0630 [12 Sep]. [from] 1st Cav. 7th Cav, 3d Battalion will attack at 1030, airstrike 0920. Objective to seize and hold area: 1153.9-1456.9, 1154.6-1456.0, 1154.8-1455.0."²¹

These coordinates define the enemy-held portion of Hill Mass 570, which the 3d Bn, 7th Cav was scheduled to attack (until plans were changed in the early hours of 12 September).

The next report to the Army G-3 section apparently represents the message from the artillery reproduced in App E. It states: "1620. From 1st Cav Div... 121615. We believe that the attack by the 3d Battalion, 7th Cavalry is successful. Reported by FO through arty channels. No confirmation from the ground as yet."²¹

The first of the two following reports is late, the second again wrongly identifies the hill mass.

1750...1700. 3d Battalion, 7th Cavalry attack on Hill 314 commenced at 121100 and reached a general line, grid line 55, at 1300. A counterattack held them up in this position.

1845. From 1st Cav... at 1845. The 3d Battalion, 7th Cavalry took its objective approximately 16001. Ammo and supplies are being sent up to them and they are holding well. Note: the objective is 1154-1457, 1155-1456, 1155-1455.²¹

No later reports were logged by the Army G-3 section. Repetition of the wrong coordinates of Hill Mass 314 appears with other errors ("moderate enemy resistance") in the summary of the operations in the period 1200-2400, 12 September given in EUSAK Periodic Operations Report No. 186. The formal summary prepared for the briefing of the commanding general at 0800, 13 September repeats the errors. No mention at all is made of the 7th or 8th Cav Regt in the Eighth Army War Diary for 12 Sep 50.

SYNTHESIS: GRAPHIC TIMETABLE OF ACTION
AT THE OBJECTIVE ON HILL MASS 314

This timetable presents a consistent picture at the platoon level of action at the objective throughout the battle. The fragmentary and often ambiguous evidence considered in the preceding narrative of the action has been joined in a pattern with the aid of the simplest likely assumptions that would account for the continuity of events. In detail, the table therefore represents hypothesis and interpretation as well as established fact. In general outline, its objectivity and reliability are much higher.

MINUTE-BY-MINUTE ACCOUNTS
OF THE ACTION FOR 1135 - 1530

The action is shown as the clear-cut sequence of phases that appears to have unfolded. The estimated time at which each phase began heads each section of the table, and a diagram is given that shows the approximate positions of friendly and enemy units at this time. Subsequent important movements are pointed out in the left-hand column of text and indicated in the diagram by a black arrow with each unit. Friendly units are circled in the diagrams, and given with the platoon to the left of a slanted line, the company to the right. The right-hand column of text lists important concentrations of fire, with occasional notations of the casualties they produced. Enemy fires are shown in red in the diagram, friendly in blue. Concentrations are indicated by cross-hatched rectangles, with the type of fire designated by the caliber. For the 120-mm and 82-mm mortars each rectangle represents the 90 percent dispersion pattern of rounds aimed at its center. Concerted small-arms fires and the throwing of grenades are symbolized by zigzag arrows. Scattered or sporadic fire and concentrations without a known definite target do not appear, even though these may have been important or had a significant cumulative effect. The intensity of fire is considered only qualitatively here. The symbols for the friendly platoons may be given quantitative meaning by the company strength and casualty figures presented elsewhere, but the enemy groupings shown imply no information whatsoever as to the number of men at any position.

The deployment of units sketched on the diagram and the areas covered by the indicated concentrations of fire are meant to be roughly to scale. The diagram is derived from the map used throughout this study (Fig. 2). Additional terrain features made known by various sources and important to the action have been taken into account. Some of these on the west side of the hill mass are visible in Fig. 3, but it must be remembered that east-west dimensions appear highly foreshortened. Close-up photographs of the east side of the hill around Knob 2 are given in App E. As small irregularities and variations in terrain were highly important, the axes of ridges and fingers have been drawn in, and these prominences and intervening draws are suggested by the shading of the contour lines, as if the sun were at the enemy observation post on Hill 570. The scale of the original map is 1:50,000, and the contour lines have lost their relative accuracy as a result of the great enlargement. This lack of topographic precision is a weakness of the present analysis. It should also be noted that only the battleground at the crown of the objective is included within the frame of the diagrams. Enemy units possibly down on the side or rear slopes do not appear, nor are the friendly air strikes on the northeast side of the hill during the battle represented.

In the table the time estimates previously derived by reconciling all available information have been checked in addition against the speeds of movement possible. Except for the intentionally rapid moves down into the saddle from Knob 1, at a speed here taken to be 2 mph, no advance or withdrawal plotted exceeds an average speed of 1 mph. The excessive back-and-forth movement noted in some reports and the frequently mentioned final rout and flight of the enemy have been ruled out as impossible, for this as well as other reasons.

The dotted arrows between the columns of text point out the effect of particular friendly or enemy moves in stimulating opposing fire; solid arrows point out moves following directly from fire received.

1135

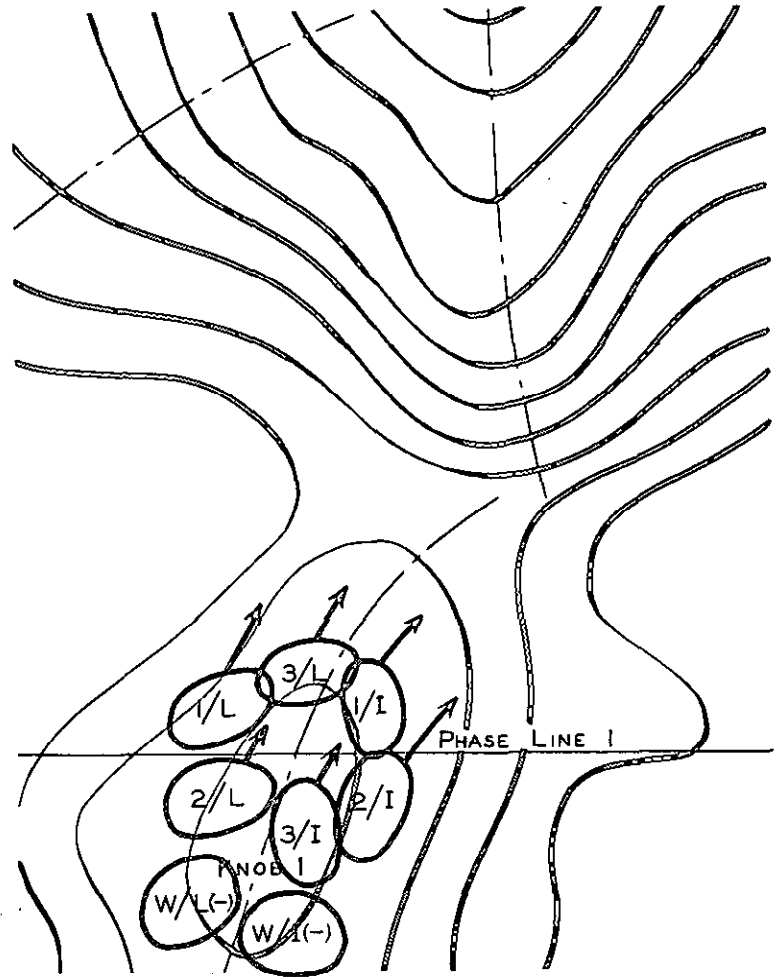
Situation: Preparatory fires, napalm hits have cleared enemy troops from nose and crest of Knob 2. After capture of Knob 1, Co L and Co I reorganize there for main assault. Though subjected to 81-mm mortar fire distributed over objective, enemy units on slopes prepare for defense.

Friendly units jump off. Forward platoons move down into saddle as rapidly as possible.

Enemy units move up on reverse slopes of fingers on either side of northern slope of saddle.

Friendly overhead covering fire from light machine guns. Possibly 81-mm and 60-mm mortar fire on objective.

Enemy outposts amid rocks in saddle deliver scattered rifle fire.



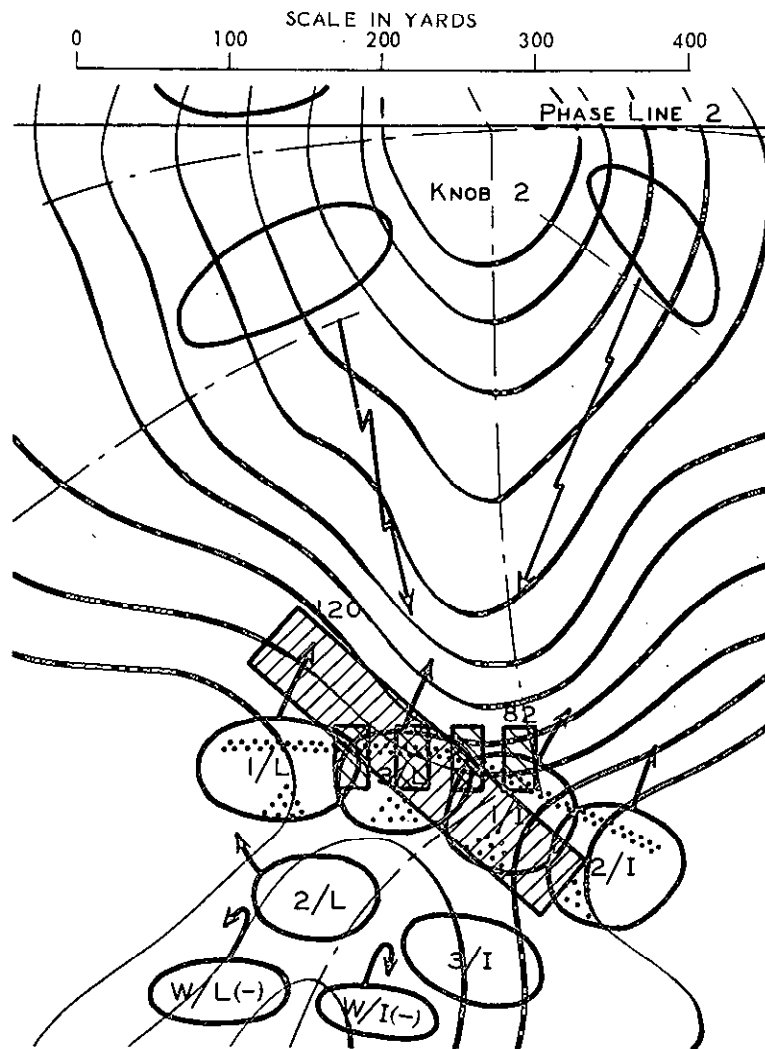
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1138

Friendly units advance. Deployment in forward platoons: two squads forward on skirmish line, third squad to rear in wedge formation. Attack front is 300 yd.

Enemy opens up with concentrated fire as friendly units reach bottom of saddle, as if this were final protective line—82-mm and 120-mm mortar fire, rifle and automatic-weapon fire. Radio and walkie-talkie communication lost in Co I; walkie-talkie communication lost in Co L.

Friendly units move forward rapidly to get out of mortar concentrations.



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1145

Enemy small-arms fire intensifies as range to friendly assault units closes. Leader of 2d Plat, Co I a casualty to enemy machine gun.

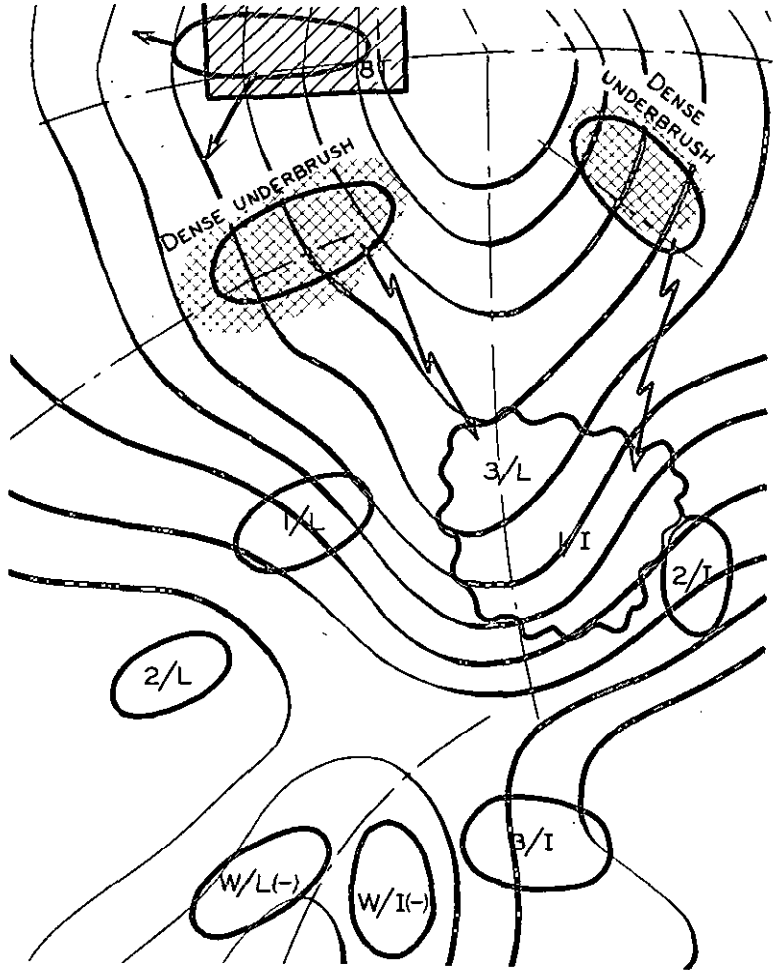
Friendly lead platoons, already somewhat disorganized by mortar barrage, now are stopped, move over toward the right to regroup.

Large enemy group moves to Knob 2 from reverse slope of finger to left.

Friendly 81-mm mortar concentration brought down on enemy grouping. Move had been observed from Knob 1.

Enemy group dispersed. Counter-attack forestalled.

Enemy groups firing from underbrush atop fingers on left and right of saddle pull back slightly to reverse slopes, losing fields of fire.



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1150

Friendly attack resumed on initiative of leaders of forward platoons.

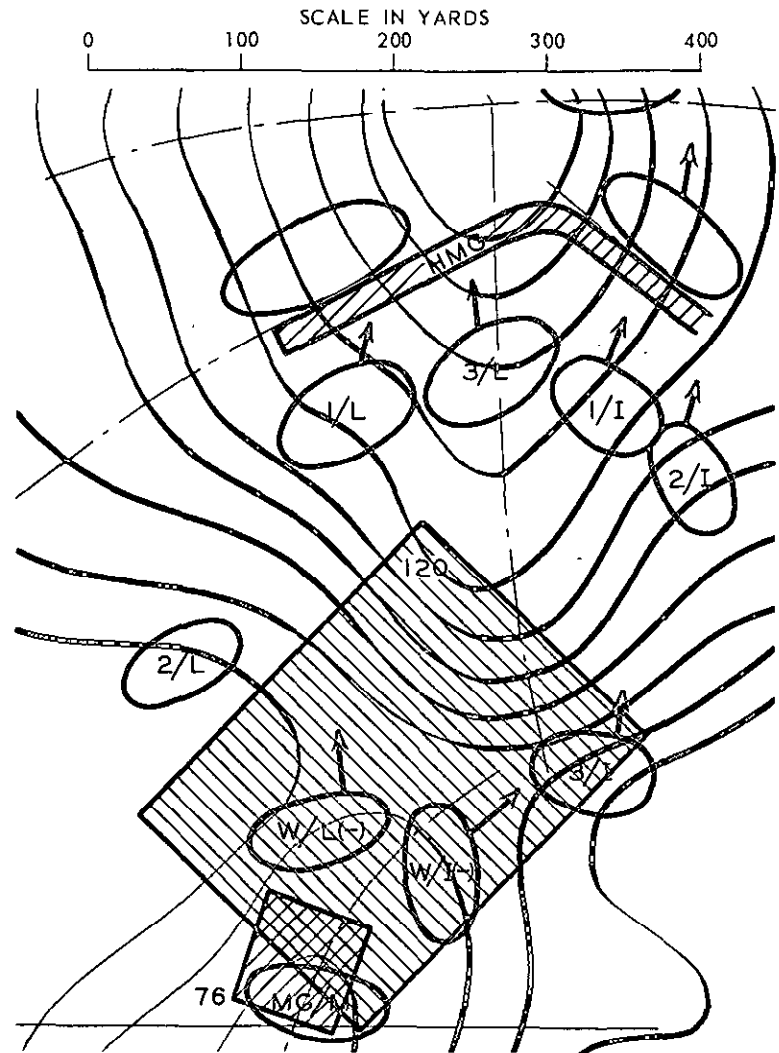
Enemy mortar concentration follows first friendly moves, this time is spread accurately over and within area of saddle crossed by attack, falls on support units moving down from Knob 1.

Enemy 76-mm direct fire from SP gun falls on west side of Knob 1.

Friendly heavy machine gun fire from Knob 1 for first time directed at crests of fingers ahead of assault.

Enemy group on left pinned down on reverse slope of finger.

Enemy group on finger at right seen withdrawing piecemeal toward northeast side of Knob 2 by Co I flank (2d) platoon.



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1155

Enemy group moves up onto northeast side of Knob 2 from slope on right side.

Friendly spearhead (3d Plat, L Co) moves into gap in center and onto nose of Knob 2.

Friendly assault units driven back disorganized.

Platoons to left pinned down, "stunned."

The 3d Plat of Co I moves over to back up disorganized 3d Plat of L Co.

The Wpn Plat, Co I moves up on right to back up withdrawing 1st Plat, Co I.

The COs of Co L and Co I move up from Knob 1 to units pinned down at left.

Enemy small-arms fire from close range, possible hand-to-hand combat. Leader of 1st Plat, Co I a casualty.

Enemy fire from dense underbrush on finger to left.

Enemy on finger to left throws concussion grenades from underbrush.

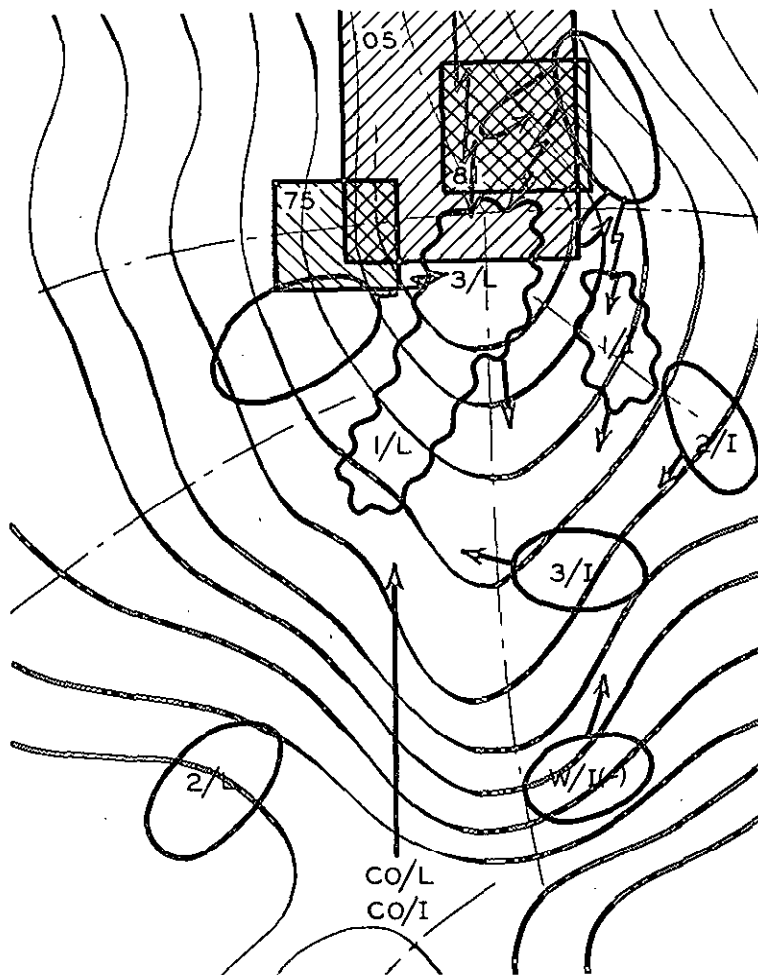
Friendly 81-mm mortar fire brought down on northeast side of Knob 2.

Enemy group pushed back down slope from northeast side of Knob 2. Casualties unknown.

Friendly 105-mm artillery fire hits objective ridge for first time.

Enemy units discouraged from moving back onto ridge and Knob 2.

Friendly high-explosive fire from tanks on western slopes of ridge north of Knob 2.



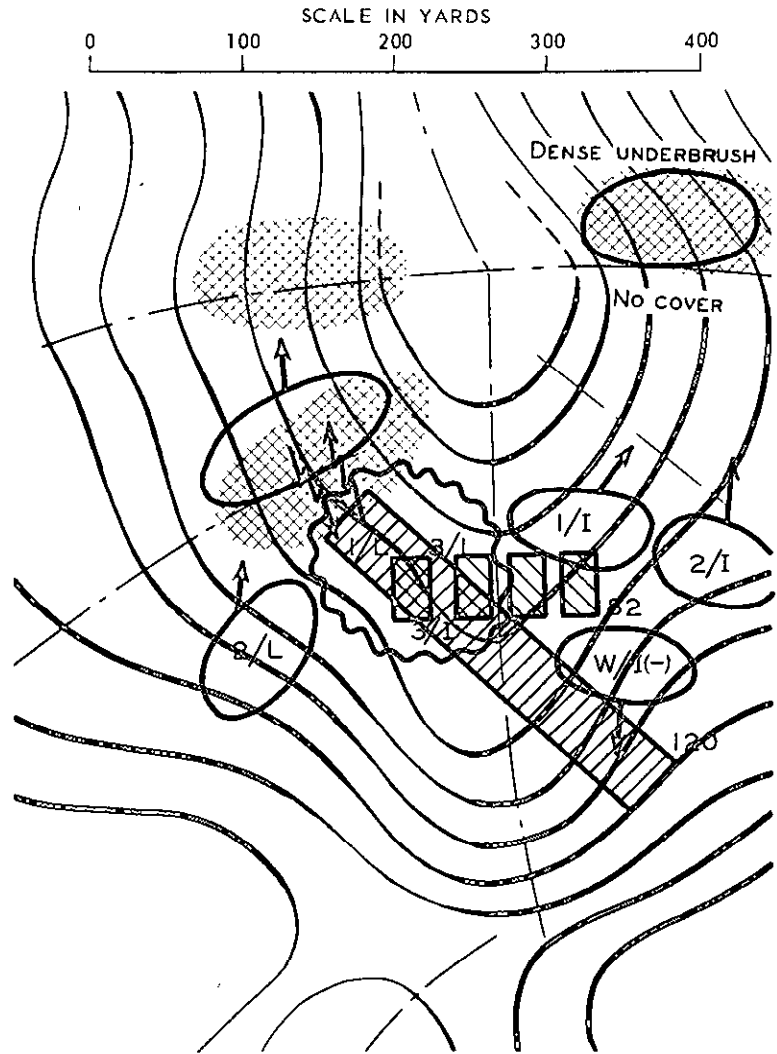
1215

Friendly troops pinned down on left follow example of COs, throw fragmentation grenades into underbrush to left.

Enemy group on finger to left withdraws to next finger.

Enemy mortar fire moves up saddle, kills leader of 3d Plat, Co L and leader of 3d Plat, Co I. Men of both companies somewhat panicked, tend to fall back into the saddle, must be urged forward.

Friendly units move forward out of mortar fire, resuming attack. The 2d Plat of Co L moves around left flank; 1st Plat, Co I in lead around the right flank.



1230

Friendly second assault on Knob 2. The 2d Plat, Co L moves up across finger to the left.

Enemy 76-mm direct fire from SP gun concentrated on north slope of finger crossed by 2d Plat.

Enemy troops on wooded, higher finger along Phase Line 2 to the left make limited move toward Knob 2.

Enemy small-arms and grenade fire.

The 2d Plat of Co L stopped short of nose of Knob 2 on left side.

Friendly 81-mm mortar concentration beyond Phase Line 2 on left side.

Enemy group chased down draw beyond Phase Line 2 to left and out of the battle. Casualties unknown.

Friendly 105-mm artillery works over objective ridge.

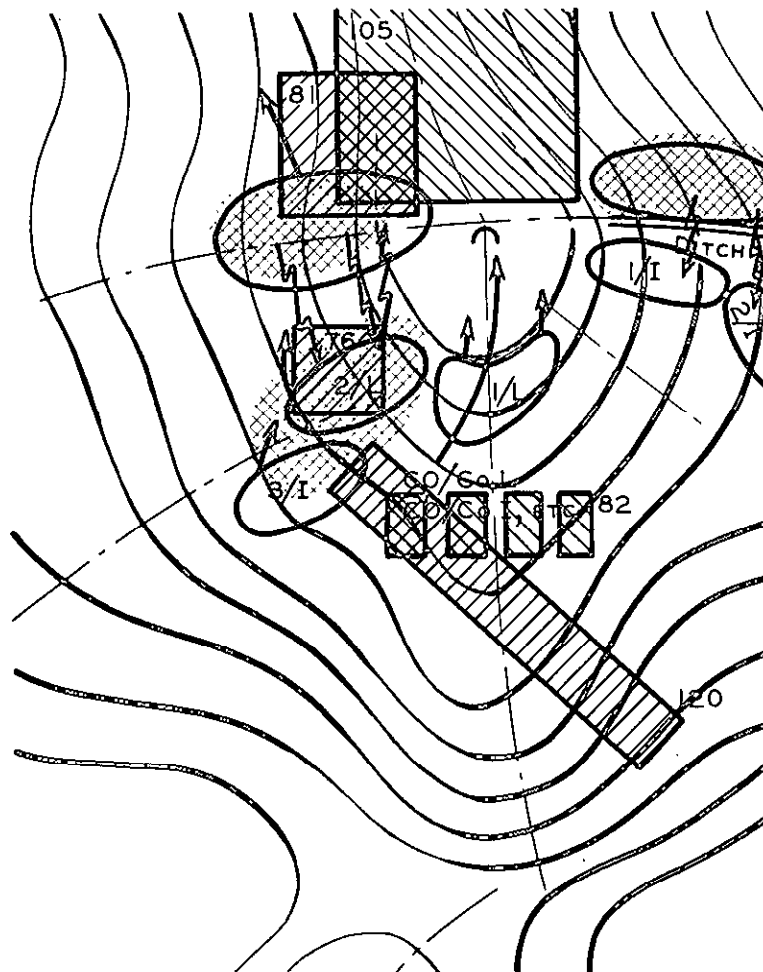
The 1st Plat of Co L moves up on nose of Knob 2 without opposition.

The COs of Co L and Co I and other personnel move into "the shallow," just short of the crest of Knob 2. From here for the first time there is observation of the top of the ridge beyond Knob 2, but not much more.

Friendly units on right side advance to finger along Phase Line 2.

Enemy fire from dense underbrush across ditch that runs down axis of finger. Leader of 2d Plat, Co L hit by small-arms fire, keeps fighting.

The 1st and 2d Plats of Co I pinned down. No cover on south side of ditch.



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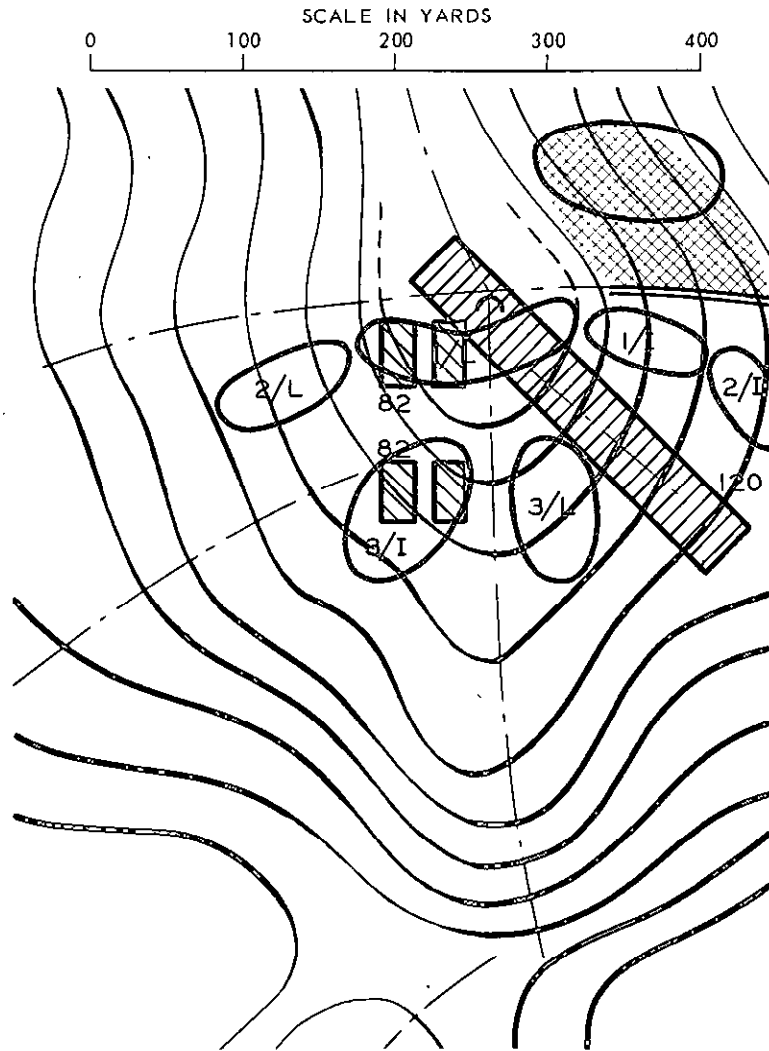
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1300

Enemy mortar fire moves further up but stays just short of crest of Knob 2 at Phase Line 2. Fire concentrated on nose in four areas: the two on the right receive 120-mm fire in 3-rd salvos each; the two on the left thought to receive 82-mm fire. Fire sporadic, responds to friendly movements, takes casualties at average rate of one every two minutes. Leader of 2d Plat, L Co, already wounded, killed by mortar fire as he walks back for treatment.

Friendly assault units pinned down. Expect and wait for close air support. Troops in draws on left side not visible from Hill 570 when down on ground, can be seen when standing to move.

Friendly rifle fire by dozen men in shallow at the few visible targets. Enemy observer down ridge hit while trying to get back to rear.



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1410

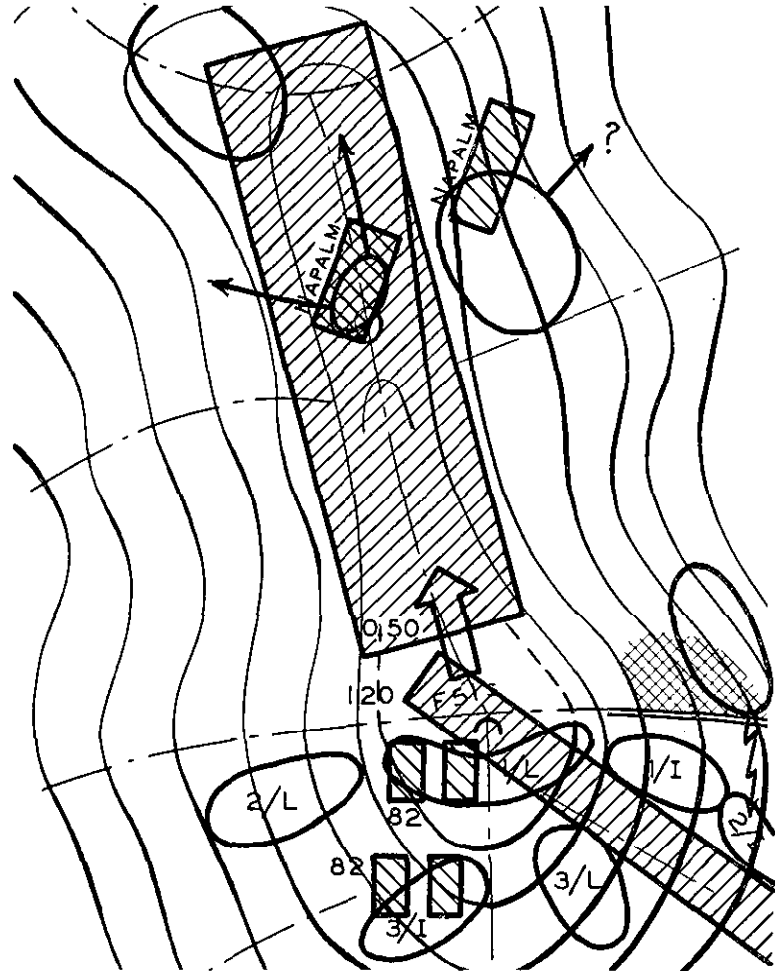
Friendly close-support air strike for first time on top of objective. Three F51's rocket, strafe, drop napalm and general-purpose bombs. Fly low and from south to north, start strafing 75 to 100 yd beyond friendly personnel in shallow. One napalm load goes over ridge, effect unknown; other napalm lands amid group of enemy behind knoll atop ridge.

Enemy units if present on far east slope may have been flushed by long napalm drop.

Enemy troops on top of ridge dispersed by simultaneous second napalm drop to rear and down left slopes.

Enemy sporadic small-arms fire from underbrush down right slope of Knob 2 causes some casualties in 2d Plat, Co I.

Enemy mortar fire continues on concentrations as before. Some 120-mm fire lengthens in range, hits some men already wounded and walking back down evacuation trail.



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1430

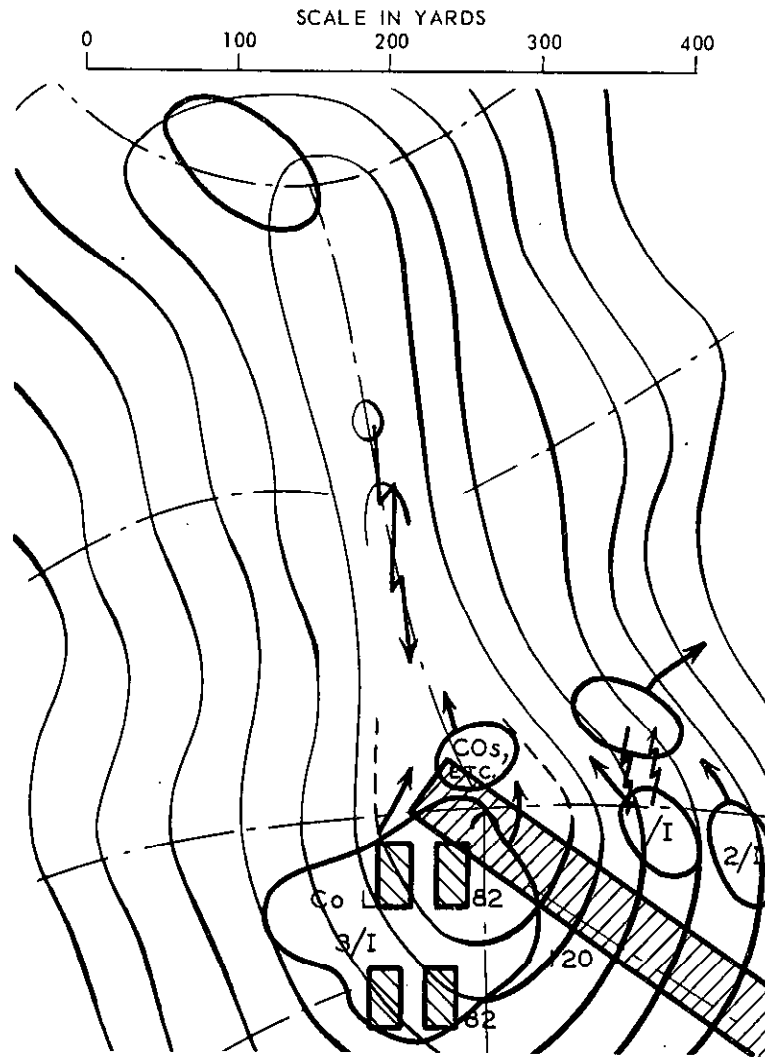
Friendly third assault ordered by CO, Co L; troops do not respond. *Situation:* units spread out of sight of each other, walkie-talkies out, company and platoon boundaries blurred and elements somewhat intermingled, four or five of original platoon leaders lost, many men of units now casualties, enemy mortar fire responds to movement. The COs of Companies L and I, with about a dozen men from around shallow, charge over crest of Knob 2 (Phase Line 2). Example and urging inspire general body of assault troops, who, greatly excited, follow leaders.

Enemy fire (?) from automatic weapon halfway to Knob 3 atop ridge.

Enemy small-arms fire or grenades offer some opposition to advancing 1st and 2d Plats, Co I.

Enemy mortar fire keeps up barrage on nose of Knob 2. Casualties inflicted during advance of friendly units not known.

The 1st and 2d Plats of Co K move out from Knob 1 to support advancing assault companies.



1500

Friendly units advance along ridge at steady, moderate rate (average forward movement about 1/2 mph).

Enemy 76-mm fire from SP gun falls along left side of ridge.

Advancing units of Co L move over to right side of ridge.

Enemy automatic-weapons fire received for first time from Hill 570.

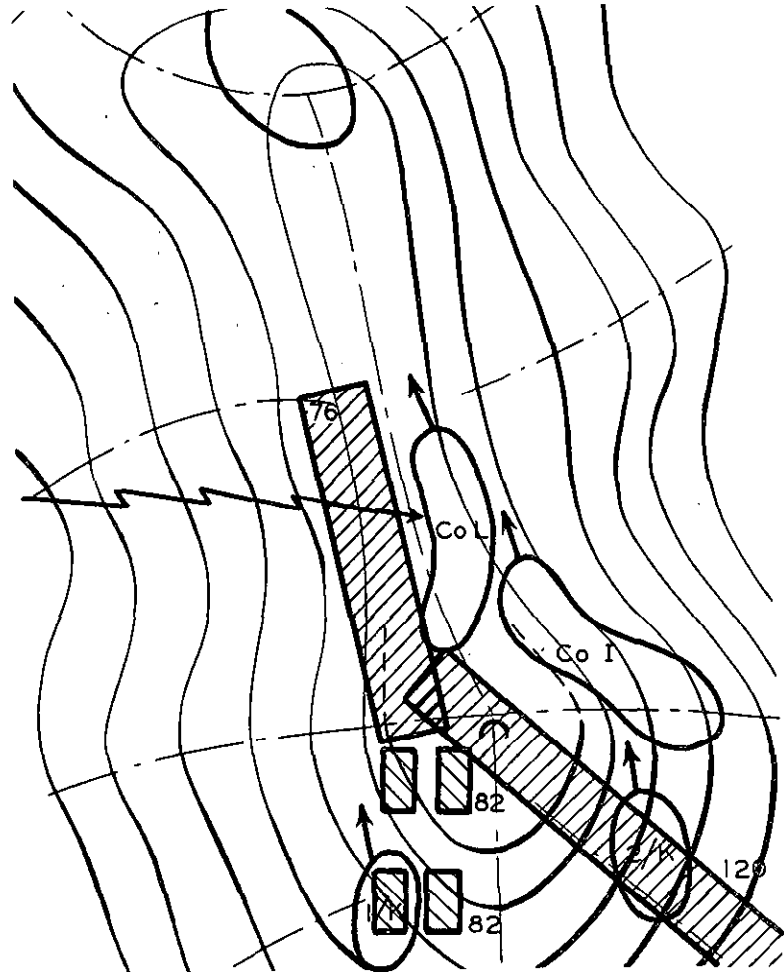
CO of Co I joins his units on right side.

Company I captures enemy soldier, unarmed and hiding among rocks.

1st and 2d Plats of Co K move around flanks of Knob 2 as rapidly as possible.

Enemy mortars maintain barrage on nose of Knob 2. The 82-mm mortars at base of Hill 314 to the north are still firing. Mortar fire inflicts relatively high casualties on Co K.

Continual heavy explosions down on northeastern slope of hill mass. Cause not determined. Might be effect of friendly jeep-mounted 75-mm recoilless rifles that had gone around trail on right side of hill.



1530

Friendly advance elements reach Knob 3.

Enemy troops withdraw toward CP on finger northwest of Knob 3 and beyond. The CO of Co L, at Knob 3, sees enemy soldiers "slipping down slopes in all directions." Roughly 40 percent of enemy troops originally on hill withdraw, with weapons in good order.

Enemy 82-mm mortars (four) at base of hill on north evacuated. About 600rd of ammunition left at position.

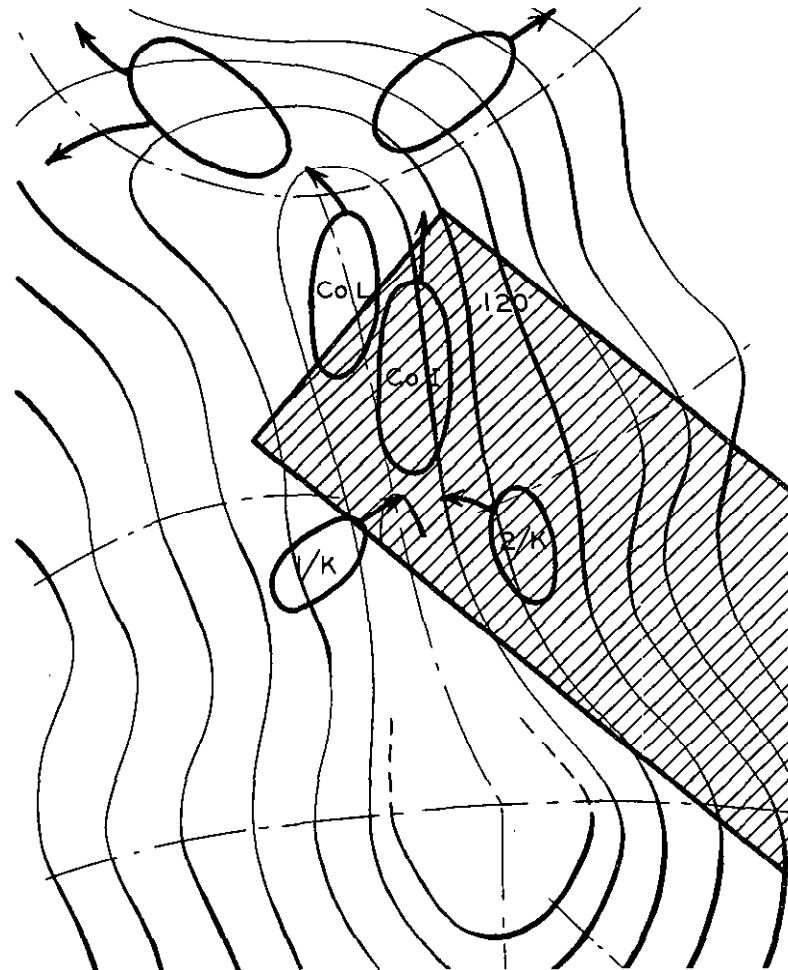
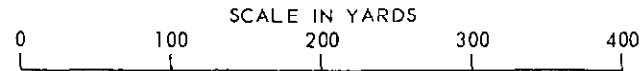
Enemy 82-mm mortar fire ceases.

Enemy 120-mm mortar fire leaves Knob 2, is now distributed along eastern side of ridge.

Enemy 60-mm (US) mortar fire received sporadically from Hill 570. One round lands on left side of ridge in drop midway between Knob 2 and Knob 3; CO of Co I and four others casualties.

Friendly 105-mm artillery fire beyond hill mass on retreating enemy.

Companies L, I and K organize perimeter defense. Count shows 80 effectives in Co L and I together. Squad-size groups straggle in from left slopes in next hour.



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FRIENDLY CASUALTIES AND THE EFFECTIVENESS OF ENEMY MORTAR FIRE IN THE CAPTURE OF HILL MASS 314

The simplicity of the enemy weapons system and the open exposure of friendly assault troops to enemy observation and fire invite an attempt to link friendly casualties with the weapons responsible. This section consists of a discussion and some relation of these two aspects of the battle on Hill Mass 314.

FRIENDLY CASUALTIES

The Master Casualty List

It was originally intended to use the data reported in a previous study²⁵ in establishing a master list of casualties sustained in the capture of Hill Mass 314. These data were based on a compilation run off by the Machine Records Unit in Tokyo in February 1951. Further research showed, however, that only about one-third of the total casualties were included. As a check on the record system, a new run was made two years later (February 1953) from the casualty cards on file in Washington, D. C. By using the results from both runs, a fairly complete list (about 90 percent, see below) of the casualties that occurred on 12 September in the fight for Hill 314 was obtained.* Information on the ultimate status of casualties was obtained from the new list.

Under the casualty-reporting system in use at the time of the action, the primary source of information on individual casualties was the morning report of each company.† Therefore, in the present study, a master list of casualties in the 3d Bn, 7th Cav on 12 September had to be based on entries in the morning reports of all its companies in a period including this date. The task was somewhat difficult because the battalion had been in intense combat and had suffered many casualties. The status of a number of men was established only some days after the battle, and was perhaps incompletely and inaccurately reported because of the loss of trained clerical personnel. Information was reported as it became known. For the first mention of casualties that occurred on 12 September one must consult morning reports dated as late as 28 September. Yet the final accounting seems substantially complete, since only a few names on the final master list are not to be found in some morning report.

*The following over-all comparison may be made for the 7th Cav Regt in the period 1-23 Sep 50: machine run of February 1951, total casualties 770; machine run of February 1953, total casualties 1012.

†From mid-September 1952 to the end of the fighting in 1953, detailed casualty reports by eyewitnesses were used on a comprehensive trial basis in addition to the morning reports.

After Hill Mass 314 had been captured, an enemy counterattack was considered imminent. There was initially little opportunity to search for the bodies of many of the KIA. The counterattack did not materialize, however, and by 15 September all bodies had been recovered and no men were any longer missing from the action. For lack of definite information, some men whose bodies had been picked up on 13, 14, or 15 September were listed as casualties on 13 September, and so carried in all official records. Each day after 12 September, the 3d Bn did sustain some casualties, almost all of them from mortar fire, though one man was killed by an enemy soldier who had been in hiding on the hill. Since little patrolling was done, it is likely that all the casualties during this period occurred in defensive positions and were observed by surviving eyewitnesses. For compiling the master list, the following rules were therefore arbitrarily adopted with regard to casualties reported for 13 September when there was no evidence for this or another date: (a) all WIA carried, as reported, on 13 September; (b) all KIA attributed to the attack on 12 September.

Examination of detailed casualty records necessitated some further corrections. One or two cases were simple mistakes, as in the transcription of the date from an original to a supplemental medical tag. More were the result of incorrect dating of what was obviously the battle on Hill Mass 314 by the casualty himself when, after the medical tag had apparently been lost, a casualty report was made out from his statements to medical personnel at a rear hospital.

No list was available of casualties among ROKA personnel integrated into the various companies of the 3d Bn. The morning reports of the 3d Bn Hq and Hq Co (Co H3) do list the K numbers of those Koreans assigned to the 3d Bn and those who subsequently became casualties. They do not, however, mention the companies to which these troops were assigned, nor, with several isolated exceptions, do the morning reports of the several companies. Additional research therefore had to be done on the medical records of the 1st Cav Div. At the aid station during the battle tags were made out for Korean personnel just as for US casualties. Though the tags were not available, data from them had been entered on the A&D sheets of the clearing company (15th Med Bn). In the few cases where the company affiliation was not given, it could be deduced from the K number, as described below.

Table E1 is the resulting master list of the 150 casualties considered to have been sustained by the 3d Bn in the capture of Hill 314. Name, serial number, rank, and additional casualty data are given for each man. The individuals are grouped by company; within each company they are ordered first chronologically for those casualties occurring at a known time and then alphabetically for those occurring at an unknown time. Casualties among integrated Korean personnel are included in the same way, to give a comprehensive table for the entire battalion.

Of the 129 US casualties listed in Table E1, 13 are not to be found in the later machine tabulation (February 1953) for any date in September 1950 (except one man listed a casualty on 2 September, apparently for a previous wound). All are mentioned in the morning reports. The order numbers of these individuals in Table E1 are: 8, 15, 48, 50, 52, 75, 78, 88, 103, 109, 114, 129, and 148. Three of them were killed and one died of wounds. Medical data available on some of the remaining nine cases indicate that these too were not, in general,

trivial cases. One of the men (No. 148) was interviewed. He said he had been rather badly wounded in the battle for Hill Mass 314.

One man who was killed (No. 62) was included in the later machine run but not in any morning report. One or two more cases of omission are suspected. Also, one mention in a morning report was found to be a typographical or other error, for no similar name and similar serial number could be found in Army records. As company rosters for August and September 1950 are missing from AG records, this case could not be corrected and included. If feasible, a check of US personnel on the master list against the A&D sheets of the 15th Med Bn Ctr Co and the casualty cards of the 1st Cav Div, as made for the far smaller sample of attached Korean personnel, would have been desirable.

Only one Korean casualty (K 1107187) listed in the A&D sheets of the clearing company is not mentioned in the morning reports. This soldier was hit in the ear by a mortar fragment at 1400 on 12 September. Since the disability may not have been incapacitating, even though the individual was sent to the clearing company for treatment, this casualty has not been included in the master list.

Table E1 is considered a nearly complete list of men who really became noneffective on the battlefield as a result of enemy action. The former surgeon of the 3d Bn, 7th Cav stated in a recent communication that an effort was made to report as casualties all men entitled to the Purple Heart. The analysis below indicates that all the reported casualties were treated at the aid station. A survey of the diagnoses reveals very few cases that would seem from the description to be trivial, as a finger wounded by a shell fragment. Self-treated wounds and those requiring only first aid therefore are not represented in any of the casualty data. According to the medical log of the 3d Bn, many men with wounds of a minor nature did not turn in for attention until after the battle. These additional unreported casualties could account for several estimates that place total casualties in the battalion as high as 190. The neuropsychiatric cases could also have contributed to these estimates.

The medical log states that in the 30-hr period after 1100 on 12 September a total of 120 casualties was treated. On the master list 113 US and ROKA personnel of the 3d Bn are carried as WIA after this hour on 12 September. Of these, a few, say 5, came back through the 8th Cav aid station, leaving about 108 as the number treated at the aid station of the 3d Bn, 7th Cav. The following additional casualties were sustained by the 3d Bn, during the 30-hr period: one man was hit by mortar fire on the 12th while reporting sick at the aid station on 13 September, one man was killed, and five men were wounded. In addition, three medical aidmen were wounded during the battle and one more was killed. From these figures, the total number of casualties treated at the 3d Bn aid station would be 122.

Casualties, Strengths, and Casualty Rates

Table 13 gives a breakdown of casualties in the capture of Hill 314 by company, nationality (US or attached ROKA personnel), and type (KIA or WIA). The distinction between SWA (seriously wounded in action) and LWA (slightly wounded in action) is not very meaningful from the operational standpoint and has been abandoned here in favor of the general term WIA (wounded in action).

It is of interest that in the battalion as a whole 25 percent (23 percent, if DOWs—died of wounds—are excluded) of total casualties were KIA. This percentage is somewhat higher than the prevailing average figure. The former surgeon of the 3d Bn reported that some men who could not be evacuated from

TABLE 13

CASUALTIES IN THE 3D BN, 7TH CAV REGT IN THE CAPTURE
OF HILL MASS 314, 12 SEP 50

Unit	US personnel			Integrated ROKA personnel			Entire company			
	KIA ^a	WIA	Total	KIA	WIA	Total	KIA	WIA	Total	% KIA
Co L	21	37	58	0	4	4	21	41	62	34
Co I	9	41	50	1	5	6	10	46	56	16
Co K	2	14	16	3	4	7	5	18	23	22
Co M	0	4	4	0	0	0	0	4	4	0
Co H3	0	1	1	2	2	4	2	3	5	40
Entire 3d Bn	32	97	129 ^b	6	15	21	38	112	150	25

^aThree cases of DOW included with KIA.

^bAdditional data, 129 US casualties:

	WIA	KIA (DOW)
Not listed in machine run	10	3
Listed in machine run	87	29
Of those listed:		
Eventually returned to duty	53 (61%)	—
Evacuated	34 (39%)	—

the hill were wounded again where they lay (one officer lay wounded 12 hr and was wounded a second time by mortar fire). Also, badly wounded men who might otherwise have been saved died during the long trip down the trail to the aid station. The percentage of fatalities therefore appears to be a significant indication of the validity of the casualty data. In interpreting the battle, the high percentage of KIA among the casualties of Co L should be considered.

TABLE 14

FRIENDLY STRENGTHS, CASUALTIES, AND CASUALTY RATES IN THE CAPTURE
OF HILL MASS 314 BY THE 3D BN, 7TH CAV REGT, 12 SEP 50

Unit	US personnel			Integrated ROKA personnel			Entire company		
	Strength ^a	Casualties	Cas rate, %	Strength	Casualties	Cas rate, %	Strength	Casualties	Cas rate, %
Co L	144	58	40.0	36	4	11.0	180	62	34.0
Co I	142	50	35.0	29	6	21.0	171	56	33.0
Co K	148	16	11.0	33	7	21.0	181	23	13.0
Co M	113	4	3.5	12	0	0.0	125	4	3.0
Co H3	93	1	1.0	35	4	11.0	128	5	4.0
Entire 3d Bn	640	129	20.2	145	21	14.5	785	150	19.1

^aPresent for duty at close of 11 September, as stated in morning reports covering that date.

TABLE 15
BALANCE SHEET OF ROKA PERSONNEL ATTACHED TO THE 3D BN,
7TH CAV REGT^a

Day covered by morning report	Additions	Losses			Balance, end of day		
		K number	Company	Type casualty	Present for duty	In hosp	Cum KIA
7 Sep	K 1105101 to K 1105200				100	0	0
9 Sep	K 1107151 to K 1107200 ^b	K 1107196	M ^c	NBC	149	1	0
11 Sep		K 1105155	K	SWA			
		K 1105173	K	SWA			
		K 1105193	I	LWA			
		K 1107190	M	LWA	145	5	0
12 Sep		K 1105117	H3	LWA			
		K 1105135	H3	LWA			
		K 1105137	K	LWA			
		K 1105146	K	LWA			
		K 1105164	K	LWA			
		K 1105167	K	LWA			
		K 1105175	I	LWA			
		K 1105182	I	LWA			
		K 1105185	I	LWA			
		K 1105187	I	LWA			
		K 1105198	I	LWA			
		K 1107171	L ^c	LWA			
		K 1107172	L ^c	LWA			
		K 1107185	L ^c	LWA			
		K 1107186	L	LWA	130	20	0
13 Sep		K 1105125	H3	KIA			
		K 1105127	H3	SWA			
		K 1105128	H3	SWA			
		K 1105140	K	KIA			
		K 1105147	K ^c	NBC			
		K 1105148	K	KIA			
		K 1105163	K	KIA			
		K 1105180	I	LIA			
		K 1105197	I	KIA			
		K 1107181	H3	KIA	120	24	6
14 Sep	K 1107196 (Returned to duty)	K1105122	H3 ^c	KIA			
		K 1105188	I ^c	KIA			
		K 1105148	K ^c	NBC	118	24	8
15 Sep		K 1105122(?)	I(?) ^c	KIA			
		K 1107163	L ^c	NBC			
		K 1107176	L ^c	NBC	115	26	9
16 Sep	K 1121151 to K 1121200				165	26	9
19 Sep	K 1123351 to K 1123400				215 ^d	26 ^d	9

^aData mainly from morning reports of Hq and Hq Co, 3d Bn. Dates of casualty not changed but several K numbers corrected.

^bDate of attachment not specified, must have been on or before 9 September.

^cCompany deduced from K number.

^dCheck of balance: Figures of 215 present for duty and 26 in hospital on 19 September check morning report statement that as of this date 241 ROKs, all enlisted men, were attached to the battalion.

The numbers of US personnel present for duty in each company on 12 September are readily available from the morning reports. The figures are given in Table 14. Since the 3d Bn had been in reserve, there is no reason to doubt the accuracy of the figures for the close of 11 September, and these are taken to represent strengths prior to the attack on Hill Mass 314. The 640 US personnel represent 92 percent of the battalion's assigned strength, the remainder being on the sick list or missing. The percentages for the several companies are about the same.

It is more difficult to establish the exact number of integrated ROKA personnel present on 12 September. Table 15 is a balance sheet on these troops constructed from various morning reports of the 3d Bn Hq and Hq Co. On or about 7 September, 150 ROKA enlisted men were attached, and later in the month 100 more followed. The daily attrition of these personnel is shown in the table and agrees with the count of 241 men remaining with the battalion on 19 September. The numbers of men present for duty and in the Korean hospital near Taegu on each day have been computed from the daily entries in the reports. As for US personnel, the dating is doubtful. No KIA are listed for 12 September. Under the rule stated above, all of the KIA listed for 13 September have been attributed to 12 September.

The ROKA personnel attached to the 8th Cav Regt were assigned directly to the companies according to their K numbers, usually in blocs of 5, 10, or 25 men, but sometimes not in round-number groups. Table 16 is an example of the distribution. It is to be noted that heavy weapons and headquarters companies were augmented, as well as the rifle companies.

TABLE 16

EXAMPLES OF ASSIGNMENT OF ATTACHED ROKA
PERSONNEL IN THE 7TH AND 8TH CAV REGTS

K numbers	Assignment
1105101-1105200	3d Bn, 7th Cav
1105201-1105250	Co E, 8th Cav
1105251-1105275	Co H3, 8th Cav
1105276-1105300	Co E, 8th Cav
1107151-1107200	3d Bn, 7th Cav
1107201-1107225	Co F, 8th Cav
1107226-1107250	Co H, 8th Cav
1107251-1107260	Co H3, 8th Cav
1107261-1107270	Co I, 8th Cav
1107271-1107280	Co K, 8th Cav
1107281-1107290	Co L, 8th Cav
1107291-1107300	Co M, 8th Cav

Within the 7th Cav Regt, Korean personnel apparently were assigned in blocs to each battalion headquarters and maintained under battalion accounting after further assignment to the various companies. In a personal interview the former S-1 of the 3d Bn, 7th Cav stated that the Korean troops were separated into groups for the several companies according to how they happened

to be standing in the field. Perhaps fortuitously, this grouping nevertheless seems to have been in blocs according to the K numbers on the individuals' dog tags. Such regularity has been assumed for attributing to particular companies several Korean casualties of unknown company affiliation and for estimating the number of ROKA personnel attached to each company. Any adjustments of the data are indicated in Table 15; the assumed grouping in blocs is shown in Table 17. The resulting distribution has 30 to 37 Koreans assigned to each of the rifle companies. Several officers of the 3d Bn recalled that 30 to 35 ROK troops were attached to each rifle company.

TABLE 17

ROUGH OUTLINE OF THE NUMBER OF US AND ATTACHED ROKA
PERSONNEL IN THE 3D BN, 7TH CAV REGT

Personnel	Company					Entire 3d Bn
	L	I	K	M	H3	
United States ^a						
Present for duty at close of:						
11 Sep	144	142	148	113	93	640
12 Sep	148	145	163	130	106	692
13 Sep	149	144	165	131	104	693
14 Sep	123	131	150	128	102	634
15 Sep	151	158	168	126	103	706
Integrated ROKA ^b						
Assumed assignment in blocs	K 1107151- K 1107187	K 1105171- K 1105200	K 1105136- K 1105170	K 1107188- K 1107200	K 1105101- K 1105135	(c)
No. assigned	37	30	35	13	35	150
No. present, close 11 Sep	36	29	33	12	35	145

^aData from morning reports. Entries for 12-14 September do not fully reflect casualties on 12 September.
^bData from morning reports Hq and Hq Co, 3d Bn.
^cSee Table 16.

Casualty rates for the Hill Mass 314 action have been computed from the strength and casualty figures, and entered in Table 14. The most striking feature of the table lies in the high and almost equal rates of Co L and Co I, which attacked abreast and became somewhat intermingled during the battle. Each company lost about one-third of its total personnel.

The casualty rates must be interpreted in the light of the number of men actually under fire at different stages of the battle. Often two unwounded men would carry one casualty to the rear. Various officers made a determined effort to stop the noncasualties and send them back forward. Nevertheless, a count immediately after the capture of the objective showed that there was a total of only 80 effectives in Co L and Co I together. As Table 14 shows, the initial combined strength of the two companies was 351, and their casualties

numbered 118. Therefore, at least 153 men who were not casualties were not on the objective when the count was made. The companies' two 60-mm mortar squads are thought to have been held back at Knob 0, and so far as is known the six flame-thrower teams (the equivalent of two squads) were never committed. Perhaps miscellaneous personnel equivalent to another squad from each company were legitimately absent on special duties. Thus about 90 men of the two assault companies were unaccountably missing when the objective was first secured.

It was reported that men continued to straggle in from the left, a squad at a time, for an hour after the objective was captured, yet later in the evening 41 men were reported missing. This number was far greater than the number of the bodies to be picked up in the next days, and eventually no men present at the outset of the battle were carried as MIA. Therefore it seems clear that during the battle a considerable number of men moved away from the scene of active combat. One man formerly in Co L stated that men sought to escape from the intense mortar fire by moving down the wooded slopes to the left. A former squad leader of Co I said that two ROKA soldiers attached to his squad disappeared at the start of the attack. That desertion was not the rule with the attached Korean troops is shown by their casualty rates and by the direct observation that the bodies of several ROK troops were on top of Knob 2. The five cases of combat shock also contributed to the missing unwounded.

If unwounded personnel did leave the center of action during the battle, the real casualty rates were higher than the values computed. For instance, if troops scattered at a constant rate amounting eventually to one-quarter of original strength, then the real casualty rate would be closer to 40 percent than to the calculated 33 percent. The upper limit of the real rate follows directly from the number of men who survived the entire battle intact, 80, and the number who became casualties, 118, and is equivalent to a rate of 60 percent. As a reasonable guess at the real casualty rate, perhaps 50 percent of the men of the assault companies which were exposed to enemy fire for more than a small interval of the battle were hit.

Sources of Detailed Casualty Data

Under the reporting system in use until September 1952, the basic source of detailed data on an individual casualty was the medical tag made out at the battalion aid station. When known, the time of the casualty and the missile and weapon responsible would be recorded along with the medical data. The former surgeon of the 3d Bn, 7th Cav Regt stated that especial care was taken to make out the tags fully and properly and, in general, to keep accurate medical records. This assertion agrees with the frequency with which detailed data on the casualties in the Hill Mass 314 action were found available, and is supported by both the accurate data maintained on the status of the attached ROKA personnel and the particular effort after the action to find and account for the large number of missing men.

In the previous investigation,²⁵ the individual casualty files of one-third of the US casualties in the battle for Hill Mass 314 were scrutinized at the Casualty Branch, AGO, FECOM. As stated above, the remaining files were not covered because of the incomplete index of names supplied by the machine records unit. The medical tags were not included in these files, but data from

them did appear often on the individual casualty and interment forms sent in from the division. Individual casualty reports from hospitals, but no clinical records, were also in these files. In consequence, the desired casualty data were available for a large part of the limited sample covered.

In 1953, further research was done to obtain recorded casualty information on all US casualties in the capture of Hill Mass 314. Personal ("201") files were obtained for (a) any man in the sample previously covered (one-third of the total) for whom data on the time of casualty and missile and weapon responsible had not already been discovered, and (b) all additional men on the new master casualty list (Table E1).

When the individuals concerned were in FECOM, their "201" files were kept within the 1st Cav Div. By 1953 they had all been either returned to one of several locations in Washington, D. C. or retired to the Demobilized Personnel Records Branch of the AGO at St. Louis.

The "201" files were often found to contain the original medical tags, usually made out in pencil and sometimes authenticated by bloodstains. It was the practice at the aid station of the 3d Bn, 7th Cav to type a new card, including any additional data, at the first opportunity. This fair copy was often found stapled to the original tag. Whether or not either was present, a medical tag made out at a field hospital was sometimes in the file. Data from these supplemental tags were used when necessary but regarded as less reliable on the circumstances of a casualty.

All material in the "201" file was scanned for casualty data. When the medical tag and field casualty report were lacking a useful notation might be found in the casualty section of the Service Record or Separation Form, as, for example, "12 Sep 50, SFW (G)" (shell fragment wound, grenade). Letters, affidavits, or transcripts of courtroom proceedings occasionally furnished bits of information. In general, however, the clinical records were the most valuable secondary source; these might include a description by the patient of how he was wounded or a surgeon's notation on the kind of missile he removed. Some further casualty data were obtained in the course of the interviews conducted for this study, sometimes from the man himself, sometimes from former fellow members of his unit. The various sources of detailed casualty data are indicated in Table E1; miscellaneous information from these sources is reported in the "Remarks" column of that table.

For the ROKA personnel attached to the 7th Cav Regt, data from the medical tags were recorded at the 15th Med Bn Clr Co in A&D sheets and a log book. Research on these records was done by current personnel of the 7th Cav Regt at the request of the writer.

Analysis of the Detailed Casualty Data

Table 18 shows the frequency of available data on time, type of missile, and type of weapon for casualties sustained by the several companies of the 3d Bn, 7th Cav Regt in the capture of Hill Mass 314.

The approximate time a man was hit is known for 107 out of the total of 150 casualties. In 96 of these cases the time was given by a medical tag or by a document quoting it. In the other 11 cases the time was estimated from information supplied by eyewitnesses. They could relate the time a certain man was hit either to some established event in the course of the battle, as the end of the

second air strike, or to the occurrence of another casualty (perhaps from the same shellburst) for which the time had been reported. Of the 96 cases, 2 required some correction as the result of such testimony. It appears that a comprehensive program of interviews shortly after the action could have established the time of almost all casualties.

TABLE 18

FREQUENCY OF AVAILABLE DATA ON TIME AND TYPE OF MISSILE
FOR CASUALTIES IN THE 3D BN, 7TH CAV REGT IN THE
CAPTURE OF HILL MASS 314, 12 SEP 50

Time or type of missile known or unknown	Number of casualties					
	Entire 3d Bn	Company				
		L	I	K	M	H3
Time known	107	41	46	14	3	3
Time unknown	43	21	10	9	1	2
Time, total	150	62	56	23	4	5
Missile type known	112	44	44	18	3	3
Fragments						
Mortar	73	25.5 ^a	30	11.5 ^b	3	3
Artillery	2	2	0	0	0	0
Grenade	3	2	1	0	0	0
Unknown	19.5	8	6.5 ^c	5	0	0
Total	97.5	37.5	37.5	16.5	3	3
Bullets						
Rifle or SA	11	4.5 ^a	5.5 ^c	1	0	0
Machine gun	1	0	1	0	0	0
Unknown	2.5	2	0	0.5 ^b	0	0
Total	14.5	6.5	6.5	0.5	0	0
Missile type unknown	38	18	12	5	1	2
Total, missile type	150	62	56	23	4	5

^aOne case both small-arms and mortar fragment.

^bOne case both unknown bullet and mortar fragment.

^cOne case both small-arms and unknown fragment.

As it is unlikely that aidmen up on the hill accompanied casualties to the aid station, the times recorded on the medical tags were presumably based on the time a wounded man arrived there, and on his statements as to where on the hill he had been hit and how long he had lain there. Since the route of evacuation down to the aid station was long and tortuous (see Fig. E1), the resulting estimates could not be very accurate, and could also just as well be too early as too late. Therefore, the trend in the accumulation of casualties with time, rather than the number that might happen to be reported at a given hour, is significant.

Accumulation curves are given in Fig. 14 for two groups, the assault units (Co L and Co I) and the supporting units (Co K and elements of Co M and Co H3). The combined curve for the entire battalion also appears. The data from which the curves were constructed are given by individual companies in Table 19, and the number of casualties at each reported or estimated time is stated. It would seem that at the aid station times were estimated to the nearest quarter or half hour.

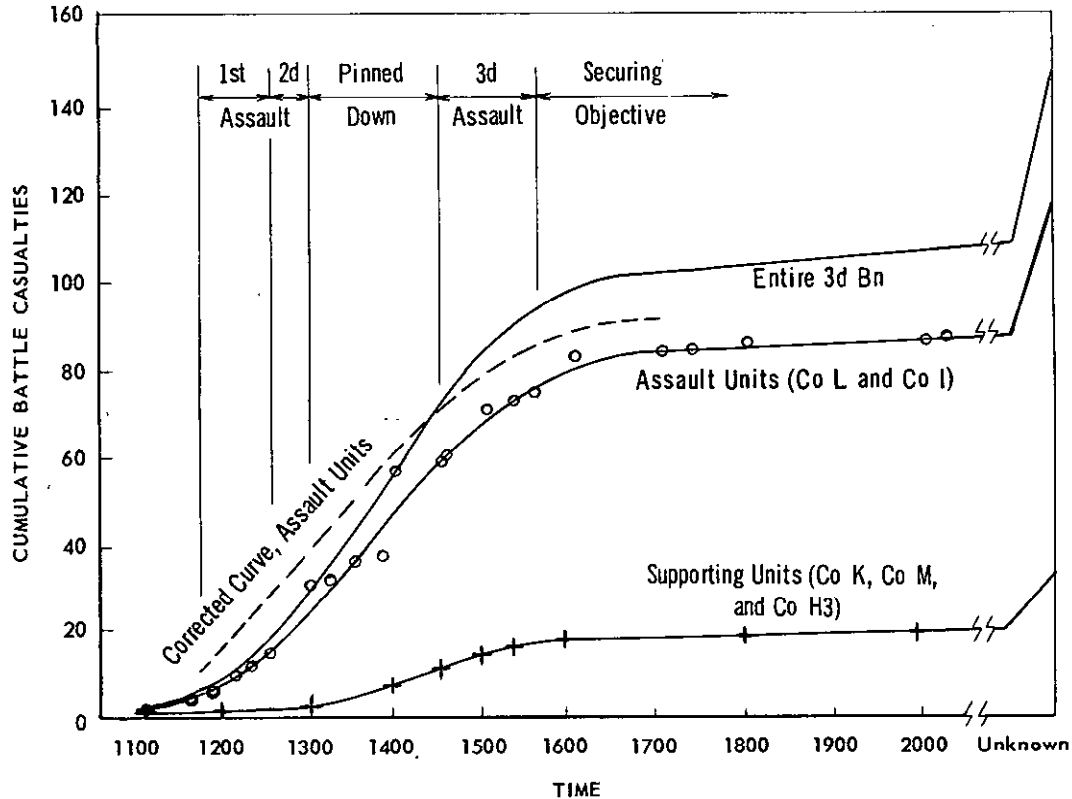


Fig. 14—Accumulation of casualties in the 3d Bn, 7th Cav Regt during the action on Hill Mass 314, 12 Sep 50.

The breakdown shown in Fig. 14 of the casualty data for the several phases of the battle follows the reconstruction of the battle as given in the two preceding sections of this paper. Grossly, the curves show that casualties increased in a rather regular way. In the initial phase of the battle, when friendly units were moving out toward the main enemy positions on Knob 2, casualties were sustained at an increasing rate. A maximum rate was then reached, and maintained for several hours. In absolute numbers, casualties then occurred at a decreasing rate. It is felt that this drop-off does not represent a slackening in the intensity of the action but rather a reduction in the number of troops exposed, as discussed earlier in this section. The probability that a surviving individual

would become a casualty probably remained at least as high as it had been until the break in the action around 1530. At this time assault units at last moved up onto Knob 3.

The relation of friendly casualties to the character of combat at different stages of the battle is discussed more fully in the succeeding interpretation of the action. It suffices here to point out that the accumulation curves do correlate with the graphic timetable of the battle. A possible bias must also be mentioned: the time the man was hit is known for very few of the KIA (5 out

TABLE 19

CASUALTIES IN THE 3D BN, 7TH CAV REGT IN THE CAPTURE
OF HILL MASS 314, 12 SEP 50, BY TIME AND COMPANY

Time	Company						
	Casualties at reported time					Cumulative casualties	
	L	I	K	M	H3	L & I	K, M, & H3
1100	2	—	1	—	—	2	1
1130	1	1	—	—	—	4	—
1145	1	—	—	—	—	5	—
1200	5	—	1	—	—	10	2
1215	1	1	—	—	—	12	—
1230	1	1	—	—	—	14	—
1300	8	9	1	—	—	31	3
1315	1	—	—	—	—	32	—
1330	3	1	—	—	—	36	—
1350	—	1	—	—	—	37	—
1400	7	13	3	—	2	57	8
1430	—	3	1	1	1	60	11
1435	—	1	—	—	—	61	—
1500	5	4	2	—	—	70	13
1515	1	2	3	—	—	73	16
1530	—	1	—	—	—	74	—
1600	3	5	—	2	—	82	18
1645	—	1	—	—	—	83	—
1700	1	—	—	—	—	84	—
1800	—	1	1	—	—	85	19
2000	1	—	1	—	—	86	20
2030	—	1	—	—	—	87	—
Total, time known	41	46	14	3	3	87	20
Time unknown	21	10	9	1	2	31	12
Total casualties	62	56	23	4	5	118	32

of 35). If men were more likely to be killed in close combat than when approaching through a barrage of shellfire or when pinned down by it, then the effect of such combat is not fully represented in the curves.

The attribution of casualties to different types of missiles and weapons has been described in previous reports (such as Ref. 25). In this study the former definitions and distinction between fragment and bullet ("F" and "B" in Table E1) have been retained. For the Hill Mass 314 action the object of this

classification is the resolution of two essential points: (a) the incidence of casualties in close combat (from enemy bullets and grenades) vs that of casualties from enemy supporting weapons, and (b) concerning casualties from the supporting weapons, the number from mortars vs the number from artillery. The second point will be considered first.

The former surgeon to the 3d Bn, 7th Cav Regt stated that when questioned at the aid station as to the type of missile that caused their wounds the men were rather definite in their replies. Their basis for differentiating artillery from mortar fire was the whistling or screaming of the artillery shell prior to exploding as compared to the complete lack of warning of the mortar shell. When the writer interviewed some of these men in 1953, they again volunteered the same reason. Not all of them would assign a cause for their wounds, even when offered a choice; several stated that they had been hit by fragments but simply didn't know from what type of shell these had come. Others confidently asserted their ability to distinguish mortar shells of different caliber from the sound of the explosion. Several individuals cited as evidence that a near burst had been a small-caliber mortar shell the fact that they had suffered blast effects, and even scorching, without other injury. Documentary evidence on this point was found in a number of clinical records and is reported in the "Remarks" column of Table E1. The writer believes, to the contrary, that prominence of blast effects would be evidence of large-caliber shells, and prefers the quite different explanation given in the later subsection on the effectiveness of enemy mortar fire. Aside from these fine points, the definite consensus of all personnel who had been on Hill Mass 314 was that most friendly casualties had been caused by mortars, few by artillery.

An entry in the 3d Bn medical log states that 80 percent of the WIA had been hit by mortar fire. The former surgeon of the battalion recently repeated this statement but added that he felt that among the fatalities a higher incidence was due to bullet and grenade wounds sustained in close combat than to wounds by shell fragments. On the other hand, the former S-1 of the battalion, who had occasion to view all the bodies brought in on the day of the battle, said it was his impression that most of these too had been hit by shell fragments.

The statement in the log is probably only a careful estimate. Also, it represents the few casualties outside the 3d Bn listed above. Nevertheless, the figure may be checked fairly closely by analysis of the WIA data in Table E1. Of 115 WIA (including 3 DOW), 15 were from missiles of unknown type. In the case of the WIA there is no reason to suspect a bias in favor either of fragments or bullets. Therefore, these 15 cases are distributed in the ratio of the knowns, that is, 87 fragments to 13 bullets, giving a total of 100 fragment casualties and 15 bullet casualties. Again from the ratios of the knowns—67.5 mortar, 3 grenade, 1 artillery—the 100 fragment cases are further distributed as follows: mortar 94.4, grenade 4.2, artillery 1.4. Of the 115 WIA, the 94.4 mortar casualties amount to 82 percent, thus confirming rather closely the 80-percent figure given in the medical log.

Of 35 KIA (excluding 3 DOW), 25 were hit by missiles of unknown type. The remaining 10 cases were distributed as follows: mortars 5.5, fragments of unknown type 3, artillery fragments 1, and bullets 0.5. This distribution is much the same as that of the WIA.

The fatalities from unknown causes may be distributed in two ways, the first to provide a lower limit of the incidence in close combat, the second a probable upper limit: (a) the unknowns are arbitrarily distributed in the same ratios as the knowns, and (b) possible numbers of casualties in close combat are arbitrarily assigned on the basis of knowledge of the tactical movements of the units.

For the lower limit, the 25 KIA resulting from unknown causes are divided in the ratio of 9.5 fragments to 0.5 bullets, giving 1.3 additional bullet casualties and 23.7 additional fragment cases. As 3 cases are already listed as killed by fragments of unknown type, there are 26.7 fragment fatalities to be distributed in the ratio of 5.5 mortar to 1 artillery, yielding 22.6 additional mortar casualties and 4.1 additional artillery casualties.

For the upper limit, additional individuals killed by bullets are estimated from the figures for the separate companies. Of the 14 KIA that resulted from unknown causes in Co L many, say 9, may have been due to enemy bullets fired at close quarters in the first assault. Fatalities in the grenade-throwing incident which followed are not to be attributed to the enemy grenades, because these grenades were of the concussion type and were not very likely to cause death. The ineffectiveness of the grenades was reported by the commander of Co I, who was present with his 3d Plat in this local fight. Perhaps four of the six KIA from unknown causes in Co I may also be assigned to bullets. Since Co K was never engaged in close combat during the battle, its three men killed from unknown missiles were almost certainly not hit by bullets, and since the elements of Hq Co that were on the hill were usually in protected positions, or at least behind the assault troops, the two Hq Co Korean personnel killed by unknown missiles were probably not hit by bullets. As the probable maximum, then, 14 additional KIA are credited to bullets, increasing the total bullet fatalities to 14.5. The remaining 11 cases, with the 3 deaths already listed as due to fragments of unknown type, are divided between mortars and artillery in the ratio of 5.5 to 1, giving 11.8 additional mortar casualties and 2.2 additional artillery casualties.

Casualties in close combat may now be computed from the several breakdowns above. At the lower limit, total casualties are 15.0 WIA by bullets, 4.2 WIA by grenades, and 1.8 KIA by bullets—a total of 21.0, or 14 percent of all 150 casualties. At the upper limit, total casualties are 15.0 WIA by bullets, 4.2 WIA by grenades, and 14.5 KIA by bullets—a total of 33.7, or 22.5 percent of all 150 casualties.

Casualties from mortar fire alone can also be computed. At the upper limit for bullets and grenades, total mortar casualties are 94.4 WIA and 17.3 KIA (15.5 percent of those hit KIA)—a total of 111.7, or 74 percent of all 150 casualties. At the lower limit for bullets and grenades, total mortar casualties are 94.4 WIA and 28.1 KIA (23 percent of those hit KIA)—a total of 122.5, or 82 percent of all 150 casualties.

Consideration of the calculated percentages of those men hit by mortar fire who died leads to the conclusion that the actual situation was probably about midway between the upper and lower limiting cases. In the medical log the battalion surgeon noted that most of the wounds were from mortar fire and were not serious. (But 39 percent of the wounded did not return to duty. See Table 13.) On the other hand, men who had been hit at all seriously were

immobilized on the spot, likely to be hit again, and once evacuated were very likely to die before reaching the aid station. Therefore, a fatality figure between 15 and 23 percent seems appropriate. Such a choice would lead to a reasonable, though high, fatality percentage for bullet hits. The following figures are therefore considered as most likely to represent the causal percentages of all casualties in the battle for Hill 314: 19 percent in close combat (bullets and grenades); 81 percent from supporting weapons (artillery, mortars); 79 percent from mortars.

TABLE 20

COMPARISON OF ACCUMULATION OF CASUALTIES FROM ENEMY SUPPORTING WEAPONS WITH ACCUMULATION IN CLOSE COMBAT FROM BULLETS AND GRENADES, 3D BN, 12 SEP 50

Time	Casualties from mortar, artillery and unknown fragments		Casualties from bullets and grenades	
	Number	Cumulative	Number	Cumulative
1100	2	2	1	1
1130	—	—	2	3
1200	5	7	—	—
1215	2	9	—	—
1230	1	10	1	4
1300	14	24	3	7
1315	—	—	1	8
1330	13	27	1	9
1400	21	48	4	13
1430	5	53	1	14
1435	1	54	—	—
1500	10	64	2	16
1515	6	70	—	—
1530	1	71	—	—
1600	7	78	—	—
1645	1	79	—	—
1700	1	80	—	—
1800	2	82	—	—
2000	1	83	—	—
2030	1	84	—	—
Total, time known	84	84	16	16
Time unknown	12	12	3	3
Total	96	96	19	19

^aTotal (115) casualties here greater than total (112) in Table 18 because 3 men were hit by 2 different types of missile.

For casualties from mortar fragments and fragments of unknown type an analysis has been made of the distribution of hits over the various regions of the body. The results of this analysis are presented in Table 23.

Casualties with a reported cause have been separated into two groups, those from bullets and grenades and those from mortars and artillery, for the construction of curves of accumulation with time. These are given in Fig. 15, and the data from which they were plotted are given in Table 20. With such a small statistical sample, the details of the curve for bullets and grenades may

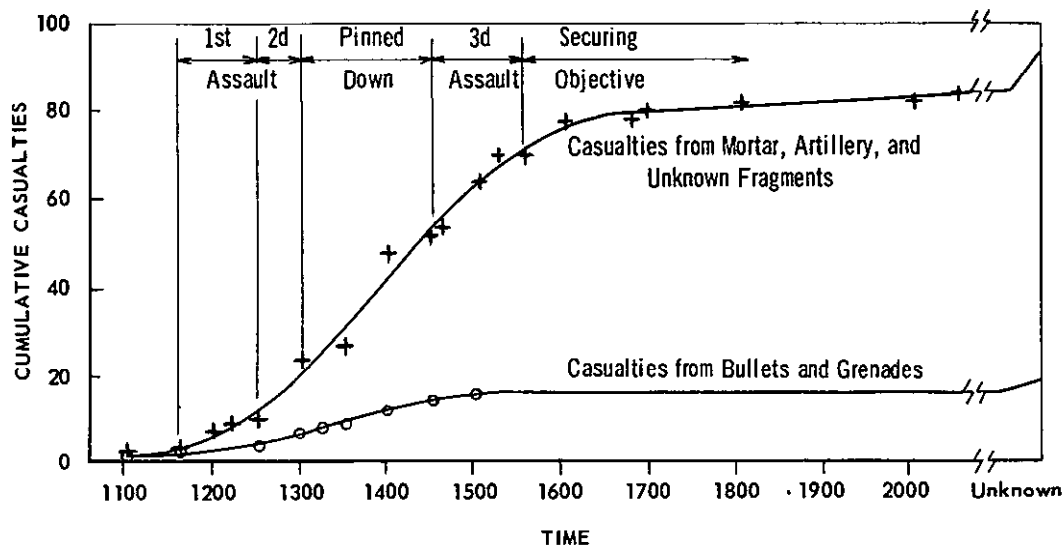


Fig. 15—Comparison of accumulation of casualties from enemy supporting weapons with accumulation in close combat from bullets and grenades, 3d Bn, 12 Sep 50.

not be significant, but it is of interest that the curve drops off sooner than that for the supporting weapons. It certainly is significant that no casualties from bullets or grenades were reported after 1500. If the defense had not already been broken by the time Knob 3 was finally overrun, at around 1530, one would expect casualties from these causes to rise to a maximum at this time. Since the assault was successful, any men hit would have been reported.

As mortars were responsible for almost all casualties inflicted by supporting weapons, separated accumulation curves for mortars have been constructed in Fig. 16. Fragments from unknown missiles are included here as probably almost entirely mortar fragments. The data from which the curves were constructed are given in Table 21.

The data on mortar casualties are analyzed more fully in the later subsection on the effectiveness of enemy mortar fire, where they are related to information on enemy weapons and fire. A point worth noting here is that the maximum slope of the curve for the supporting units is about 40 percent of that of the two assault companies, while perhaps 80 percent as many men were involved. Though they advanced some distance behind the assault companies and, according to the former commander of Co K, tried to move through the mortar barrage as fast as possible, the supporting units were apparently hit man for man about half as hard as the assault units, despite the seemingly

great difference in exposure. To put it somewhat differently, Co K, with two platoons moving through the mortar barrage as fast as possible, had 11.5 mortar casualties (Table 18), whereas Co I and Co L, with three or four platoons exposed, had, respectively, 25.5 and 30. This result suggests that the vulnerability of men standing up to move was an important factor.

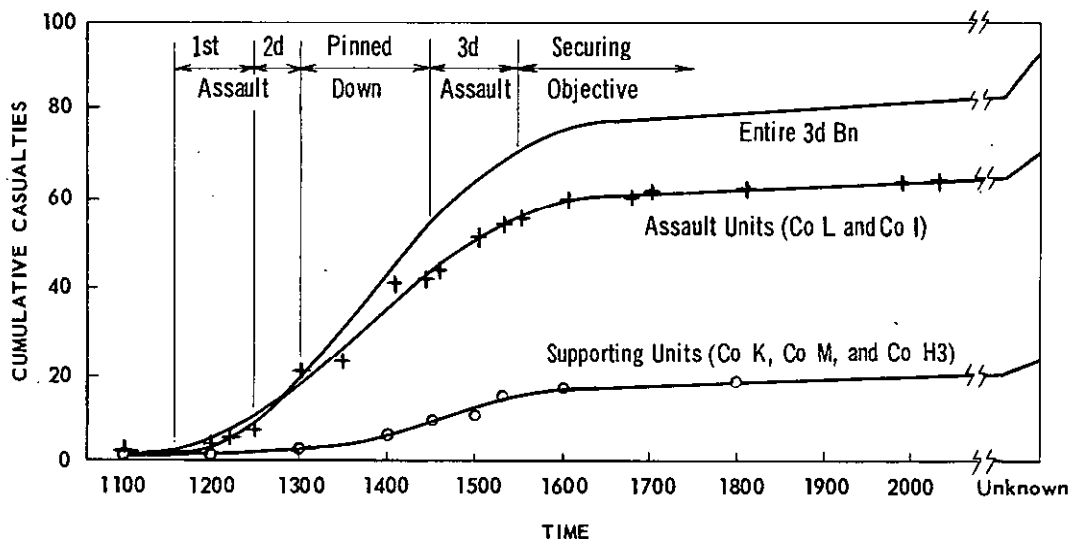


Fig. 16—Accumulation of casualties from mortar fragments and fragments of unknown type in the 3d Bn, 7th Cav Regt in the capture of Hill Mass 314, 12 Sep 50. 74% of sample consists of known mortar casualties, 26% of casualties from fragments of unknown type. Includes integrated ROKA personnel.

Casualties vs Rank

Table 22 gives a breakdown of casualties in the three rifle companies by rank. The distributions are seen to be similar in the two assault companies in the classes of private and corporal and different in the classes of sergeant and lieutenant. Company L initially had two fewer lieutenants than Co I. Its former executive officer had become the CO of Co I, and one of its platoons was led by a sergeant.

If officers and sergeants are regarded as leaders, corporals and privates as nonleaders, the following comparison may be made: leader casualties—Co L, 13, and Co I, 12; nonleader casualties—Co L, 49, and Co I, 43. If leaders are more exposed than the men they lead, one would expect a higher percentage of officers and sergeants to become casualties than corporals and privates. In the absence of a roster giving the composition of the battalion before the battle, this comparison cannot be made, but a somewhat different approach is possible.

In a battle in which assaults and combat occurred initially in quick succession, to be followed (at 1300) by a long pinned-down period during which many mortar casualties were sustained, one would expect that casualties among leaders would occur somewhat earlier, on the average, than casualties

TABLE 21

ACCUMULATION WITH TIME OF CASUALTIES FROM MORTAR FRAGMENTS AND
FRAGMENTS OF UNKNOWN TYPE IN THE COMPANIES OF THE 3D BN,
7TH CAV REGT IN THE CAPTURE OF HILL MASS 314, 12 SEP 50

Cause of casualty and time, known or unknown	Casualties at reported time					Cumulative casualties		
	Company					Co L & Co I	Co K, Co M, & Co H3	Entire 3d Bn
	L	I	K	M	H3			
Time known								
1100	1	-	1	-	-	1	1	2
1200	3	-	1	-	-	4	2	6
1215	1	1	-	-	-	6	-	8
1230	1	-	-	-	-	7	-	9
1300	7	6	1	-	-	20	3	23
1330	2	1	-	-	-	23	-	26
1400	6	11	2	-	2	40	7	47
1430	-	2	1	1	1	42	10	52
1435	-	1	-	-	-	43	-	53
1500	4	4	2	-	-	51	12	63
1515	1	2	3	-	-	54	15	69
1530	-	1	-	-	-	55	-	70
1600	-	4	-	2	-	59	17	76
1645	-	1	-	-	-	60	-	77
1700	1	-	-	-	-	61	-	78
1800	-	1	1	-	-	62	18	80
2000	1	-	-	-	-	63	-	81
2030	-	-	-	-	-	64	-	82
Total	28	36	12	3	3	64	18	82
Time unknown	6	1	5	0	0	7	5	12
Total, time	34	37	17	3	3	71	23	94 ^a
Frag, mortar	26	30	12	3	3	56	18	74
Frag, unknown	8	7	5	0	0	15	5	20
Total, mortar and unknown frag	34	37	17	3	3	71	23	94 ^a

^aGrand total of 94 is 1.5 greater than figure in Table 18 because three casualties to two causes are here rated as a full, instead of half, casualty from each cause.

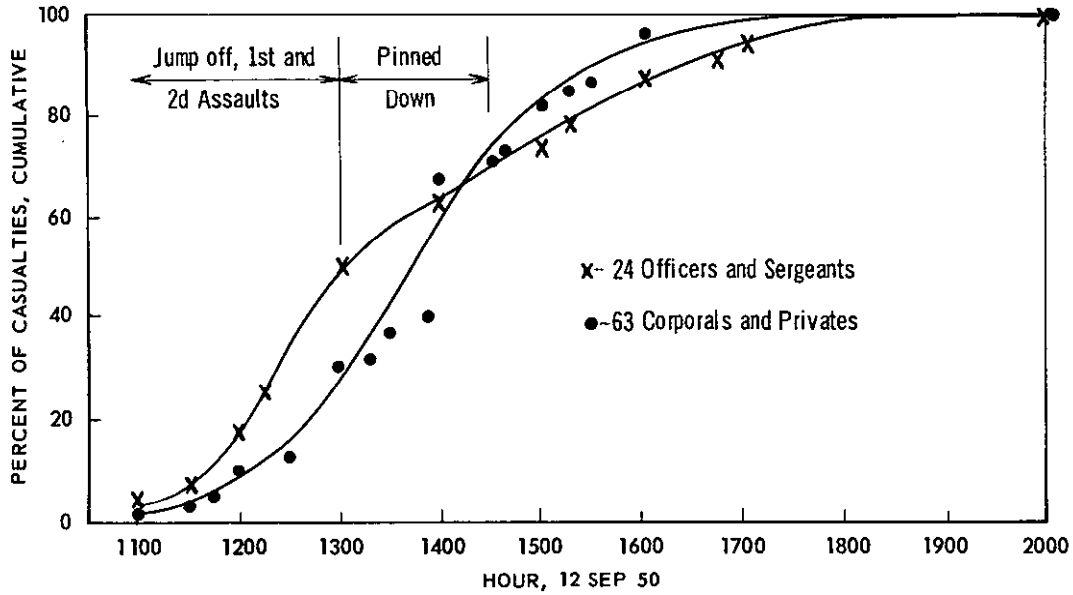


Fig. 17—Cumulative casualties differentiated as to rank, Co L and Co I.

among nonleaders. Figure 17 gives the results of the appropriate test; curves for Co L and Co I together, show the percentage distribution versus time of casualty for 24 lieutenants and sergeants and 63 corporals and privates. The difference appears to be significant: by 1300, 50 percent of all eventual casualties among leaders had been sustained, as compared to only 30 percent of those among nonleaders.

TABLE 22

CASUALTIES BY RANK IN THE CAPTURE OF HILL MASS 314

Rank	Company, 3d Bn, 7th Cav Regt		
	L	I	K
US privates	34	27	8
ROKA privates	4	6	7
Corporals	11	10	3
Sergeants	12	7	5
Lieutenants	1	5	0
Unknown	0	1	0

THE EFFECTIVENESS OF ENEMY MORTAR FIRE

As concluded above, almost all casualties from enemy supporting weapons are attributable to mortars; also, as worked out in Part II, only two mortar batteries were significantly involved: the six 120-mm mortars northwest of Hill Mass 570 at Tongmyongwon and the four 82-mm mortars at the foot of Hill Mass 314 to the north.

The 120-mm mortar battery unquestionably belonged to the 19th Regt of the 13th NK Div and was in telephonic contact with the observation post on the 570-m peak in the area of the 1st Bn, 19th Regt. Information on enemy practices in siting 120-mm mortars, as supplied by a prisoner from the 15th NK Div, is given in App C, Item 1.

There is no definite information on the organizational affiliation of the 82-mm mortar battery; it could have belonged either to the 1st or 13th NK Div. It is considered most likely that these mortars too belonged to the 19th Regt, since (a) there are no data to indicate another position for the 19th Regt's four mortars of this caliber (unless the mortars observed far forward on Hill 570 and considered to be 60-mm are taken to be 82-mm), and (b) the north end of Hill Mass 314 was the only suitable site. The latter point requires brief analysis.

The 19th Regt's battalion-support 82-mm mortars would certainly be required to reach the most forward friendly positions on Hill Mass 570, i.e., Hill 373 and its reverse slopes, and probably would also be required to cover Hill Mass 314 from Knob 2 to at least as far back as Knob 0. The only possible positions with proper defilade, etc., would be the northern foot of Hill Mass 570 and the northern foot of Hill Mass 314. For each position the required ranges of fire are:

Hill Mass	Distance, yd, from north end of:	
	Hill 570	Hill 314
570: 373-m peak and reverse slopes	3000-3700	2000-2600
314: Knob 2 to Knob 0	3200-3700	800-1600

As given by the enemy firing table,²⁸ the maximum range of the 82-mm mortar (with six increment charges) is 3324 yd. It is therefore concluded that the four 82-mm mortars of the 19th Regt were at Hill Mass 314, installed there when a battalion of this regiment made the presumed move onto the hill on 11 September to reinforce 1st Div units.

Telephone wire led from the 82-mm battery, but in which direction is not known. It is possible that it linked the position with a forward observer on Knob 2. If so, some other line of communication must be postulated to account for the continuing accuracy of fire after the enemy was driven from the knob. Since, at the outset of the battle, the 82-mm mortars fired the apparent final protective line simultaneously with the 120-mm mortars, and since both fires then moved back toward Knob 2, unified control is indicated. A possible and reasonable path of communication is suggested by the location of the few enemy

dugouts (Fig. 11), as follows: from the 82-mm mortar battery to the dugout (OP?) on the northwest finger of Hill Mass 314, from there to the dugout (CP?) at the northwest foot of the hill, and from there across the narrow valley up to the 570-m peak. For the 120-mm mortars the line would be: from the 570-m peak to the CP of the 1st Bn, 19th Regt on the north end of the ridge, and from there to Tongmyongwon. The total length of all these lines, about 6 km, is just that of the amount of telephone wire usually carried in a 120-mm regimental mortar company.

The responsiveness of the enemy mortar control system to friendly moves up to and on Hill Mass 314 is pointed out in the narrative of the action. It is concluded that the 120-mm mortars were active and in search of targets on the morning of 12 September, but the observers were unaware of the move-up for the attack, probably because of the haze, until it began.

Accuracy of Fire

A complete Soviet firing table is available for the 82-mm mortar,²⁸ but not for the 120-mm mortar. For 82-mm fire on Knob 2 at a range of about eight hundred yd, one to six increment charges could be used. With few charges, the effectiveness of fire would suffer because of the too-acute angle of impact on reverse slopes; with a greater number of charges, some accuracy would be lost and the time of flight would be increased unnecessarily. Charge No. 3 is taken as the likely compromise. The following data apply:

Range	800 m
Angle of elevation	77° 49'
Angle of fall	80°
Maximum ordinate	976 m
Time of flight	29 sec
Probable error in range	13 m
Probable error in azimuth	7.1 m

The quoted dispersion errors give the bracket of 50 percent of all shots. From the normal distribution curve it is then calculated that 90 percent of shots would fall within a rectangle measuring 34 m (range) by 19 m (azimuth) if fire is upon a horizontal plane.

According to the contours of Hill Mass 314 on the map, the ridgeline through the northern part of the saddle has an average inclination of about 27 deg. In Fig. 3 an apparent inclination of about 21 deg is seen. If 24 deg is taken as the likely value, the angle of fall upon this section of the ridgeline is reduced from 80 to 56 deg and the dispersion in range is lengthened accordingly. The 90 percent rectangle is then calculated to measure 39 by 19 m on the slope and 37 by 19 m (40 by 21 yd) in horizontal projection.

In the absence of data on the error of 120-mm fire the data for the 82-mm mortar is scaled up, using available angle and range data for the 120-mm mortar.^{29*}

*Insofar as the tube affects accuracy, one would expect the 82-mm mortar to be the more accurate. With shells of each caliber the ratio of over-all length to the span in contact with the tube (most forward ring on body to end of fin) is very nearly the same; however, in the 82-mm tube this span travels in contact with the tube wall a considerably greater distance in proportion to its length than in the 120-mm tube.

With six increment charges, giving a muzzle velocity of 810 fps, and an elevation angle of $61^{\circ} 30'$, the 120-mm mortar attains the required range of 4483 yd from Tongmyongwon to Hill Mass 314.

With six increment charges, giving a muzzle velocity of 691 fps, and an elevation angle of $60^{\circ} 30'$, the 82-mm mortar attains a range of 2734 yd, with the range error 45 m and azimuth error 9.9 m. Extrapolating the curve of range versus muzzle velocity at constant angle of elevation to a velocity of 810 fps gives a range of 3320 yd, with the range error 67 m, and azimuth error 11.3 m. Applying further proportional corrections to account for the range that the 120-mm shell would have attained at this elevation angle and muzzle velocity gives a range error of 90.5 m and azimuth error of 15.3 m. Using the normal curve with these 50 percent dispersions gives a 90 percent rectangle measuring 260 yd (range) by 44 yd (azimuth).

Data on angle of fall are not available for 120-mm shells. It is estimated that with an elevation angle of $61^{\circ} 39'$ the angle of fall would be about 65 deg. On the northeastern side of the saddle the contour lines are roughly normal to the line of fire and the slope inclines about 23 deg. The actual angle of impact here would then be about 42 deg. For fire aimed at the ridgeline, dispersion in range would then correspond to a 90 percent rectangle bounded on the right side by a line 144 m down the slope, or, in horizontal projection, 145 yd from the ridgeline.

For both the 82-mm and 120-mm mortars the 90 percent rectangles calculated above have been plotted in the diagrams of the graphic timetable of the Hill Mass 314 action. In all cases they represent single shots or volleys aimed at a single point near the center of the rectangle.

Slope and the Effectiveness of Mortar Fire

Enemy mortar shells were impact-fuzed. Test data on US fuzes of this type show that the mortar shell explodes while still oriented substantially at the angle of impact and before penetrating more than a few inches into the earth. US ballistic tests on captured Soviet 120-mm mortar shells³⁰ show that the fragments are concentrated in an exceedingly narrow spray. This property maximizes the lethality of the shell when the impact angle is near 90 deg, at the expense of effectiveness when impact is at acute angles.

During the battle for Hill Mass 314 most 120-mm mortar shells landed at very acute impact angles. As estimated above, the angle of fall was 65 deg, and the east slope of Knob 2 was inclined about 23 deg; impact was then at an angle of about 42 deg. In Fig. 18 this slope and the fall of a 120-mm shell upon it are plotted in a vertical cross section that includes the line of fire. The density of fragments versus angle of elevation around the point of burst is shown by the polar lobes superimposed on the plot. The dotted lobes represent fire actually absorbed by the earth.

The fragmentation data used in the construction of Fig. 18 were obtained by correcting the data of the static test-firings for velocity of fall. A velocity of 546 fps is consistent with the muzzle velocity and the values of range, time of flight, and angles of fall already assumed. Fragments are expelled in a 120-mm burst at an initial velocity of 3200 fps. The velocity of fall then flattens out the fragmentation cone so that each lobe is moved about 10 deg toward a straight line through the point of burst. This correction was made in the construction of Fig. 18.

It is obvious from the figure that the lethal area was greatly reduced. Most fragments either went directly into the earth or harmlessly into the air over the heads of men down the slope. Blast, of course, was not affected.

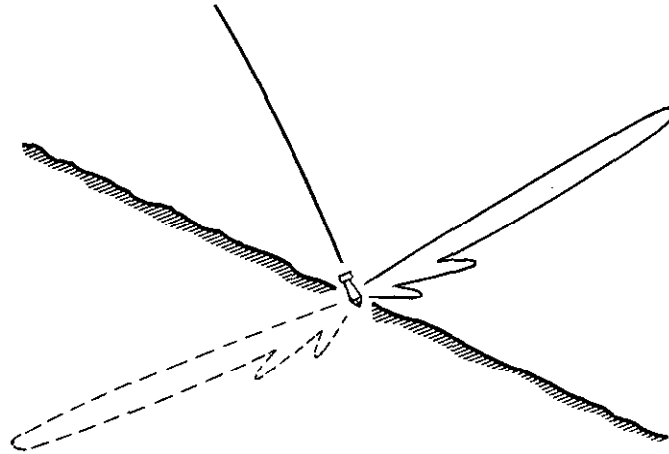


Fig. 18—Relative density of 120-mm mortar fragments in vertical plane of trajectory falling on east side of Knob 2.

Polar plot; density of fragments in any direction from point of burst proportional to radial distance to curve.

A surprising number of men suffered blast effects with little or no fragment injury. Figure 18 indicates how close to a burst they could have been to be knocked down without being hit. Six pertinent cases are to be found in Table E1. These cases just happened to be reported in clinical records available for research and in no way represent complete coverage of the 3d Bn, 7th Cav Regt. The data on each incident with the order number of the casualty in Table E1 are:

- No. 2: Mortar shell landed 6 ft away. Man knocked down a minute, then walked to aid station.
- No. 31: Contusion sustained when knocked down by blast from mortar shell.
- No. 91: Standing when mortar blast occurred, lost consciousness, came to further down the hill.
- No. 98: Lost memory for four days from mortar blast.
- No. 99: Standing on east slope of Knob 2. Mortar blast knocked man 10 - 12 ft down hill.
- No. 105: Knocked 20 - 30 ft down hill by mortar blast and unconscious for a few minutes.

Most, if not all, of these cases occurred on the right side of the saddle. Figures E1 through E11 show the steepness of the slopes down which these men rolled when blown off balance.

The commanding officer of Co I stated that an enemy mortar round fell amid the men of his mortar squad without inflicting any injury except scorching. He considered this ineffectiveness as evidence of a small-caliber round; this indeed may have been the case, and the explanation may be as given for the reduced effectiveness of 120-mm rounds.

If the typical situation was as shown in Fig. 18, one would predict more frequent wounding of the head and less frequent wounding of the lower extremities than would occur if men were oriented at random with respect to the flight of mortar fragments. Such is indeed the case, as is shown by the data of Table 23.

TABLE 23

BODILY DISTRIBUTION OF HITS BY MORTAR FRAGMENTS
AND FRAGMENTS OF UNKNOWN TYPE^a

Unit	Body region hit				Total areas hit	No. of cases	Ratio: areas hit/case
	Head & neck	Shoulders & arms	Chest, back, abdomen	Buttocks, legs, feet			
Company							
L	5	10	6	4	25	17	1.5
I	6	12	6	8	32	24	1.3
K	3	2	4	5	14	10	1.4
M, H3	0	4	0	3	7	5	1.4
Totals	14	28	16	20	78	56	1.4

^aSample consists of 56 cases with data on body area out of total of 93. Included are 3 KIA cases.

TABLE 24

RELATION OF BODILY DISTRIBUTION OF HITS BY MORTAR FRAGMENTS AND FRAGMENTS OF UNKNOWN TYPE TO TOTAL BODY SURFACE AND TOTAL HITS

Body region hit	56 cases with 78 hits ^a				Wound survey, Korea ³¹	
	% cases with hit in area	% body surface hit	% total areas hit	Ratio: % body surface hit/% total areas hit	% 387 mortar hits	Ratio
Head and neck	25	12	18	1.5	17.9	1.5
Shoulders and arms	50	22	36	1.6	30.0	1.4
Chest, abdomen, and back	29	27	21	0.8	10.8	0.5
Buttocks, general, legs, and feet	36	39	26	0.7	41.4	1.1
Percent totals	140	100	100		100	

^aSee Table 23.

Because of the miscellaneous sources of the detailed casualty data, as indicated in Table E1, data on the parts of the body affected were not available for each case although this information was recorded somewhere for all casualties as a matter of routine. Of 93 men considered to have been wounded in the battle on Hill Mass 314, by mortar fragments or fragments of unknown

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type (and most likely also mortar fragments), data on the body areas affected are at hand for 56 men, including 3 KIA. The hits have been classified according to a standard medical delimitation of body regions. Multiple hits within a region are not counted, but separate regions hit by fragments from one burst are. On the average, 1.4 regions were affected per casualty. Even though the total sample is small, it is apparent from the breakdowns for the individual companies that the distribution was remarkably uniform, and that as a rule the shoulders and arms were most frequently hit.

In Table 24, the percentage distribution of all hits in the battalion is compared with the relative areas of the various regions of the body. It is seen that the general region of head, neck, shoulders, and arms received more than its share of hits; the trunk and lower extremities, less. The ratio of imbalance between these two portions of the body was 2.0. Other studies have shown that in general the distribution of hits is not in proportion to body areas; the point of this comparison is to show the extent of the deviation in a fairly well-established tactical situation.

As another test of this result, parallel data are given in Table 24 on the bodily distribution of 381 mortar hits in Korea as determined by a medical survey team.³¹ The two sets of data evidently agree in that head and arms receive more than their share of wounds. They disagree in that the medical survey does not show a reduced frequency of wounding of the lower extremities.* Since the survey sample without doubt represents a variety of tactical situations, the low incidence of wounds of the lower extremities in the battle on Hill Mass 314 may reflect the known particular circumstances there, such as the steep slopes.

Volume of Fire

Basic loads of ammunition maintained in September 1950 are indicated by the statements of the 13th Div CofS as to the number of rounds on hand in the division on 25 August in preparation for a new offensive phase, as follows:

82-mm: 120 rd for each of 9 mortars
 120-mm: 80 rd for each of 7 mortars
 122-mm: 80 rd for each of 9 howitzers
 76-mm: 120 rd for each of 20 pieces
 Rifle: 200 rd per man

According to Soviet doctrine, the basic load is 120 rd per 82-mm mortar and 60 rd per 120-mm mortar, and one unit of fire is two-thirds the basic load.

According to the prisoner's report in Item 1, App C, in normal practice about 20 rd per 120-mm mortar were stacked near the battery, while 70 or 80 rd were left in trucks 200 m to the rear. As the 19th Regt had no vehicular transport in September and its mortars were emplaced at a road junction, it is likely that the entire basic load was stacked near the battery. Since the regiment was about to go actively on the offensive again, the quantity of 80 rd per piece is assumed. The battery at Tongmyongwon would then have had a total supply of 480 rd on the morning of 12 September.

*The same survey showed with a large statistical sample that wounds of the lower extremities from fragments of unknown type also occurred with greater frequency than on Hill Mass 314. Out of 2876 fragment hits, 44.1 percent occurred in the lower extremities, in contrast to the 26 percent on Hill Mass 314.

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In view of the importance of Hill Mass 314, it is assumed that from one-half to two-thirds the basic load, or 240 to 320 rd of 120-mm ammunition, were fired at the hill during the battle on 12 September. This is a very high expenditure, but men of the 3d Bn 7th Cav Regt said that in the succeeding nine months of action, including intense engagements with the Chinese army, they never experienced such intense mortar fire.

Again according to the prisoner (App C), as of 11 August the average daily expenditure had been 20 to 30 rd per piece, or 120 to 180 rd per battery, and no restriction had ever been placed on the amount of ammunition expended. Yet in his 6-mortar company the sustained rate of fire had exceeded 1 rd per min only on one occasion, when 120 rd were fired in 1 hr. The maximum rate per tube was then only 1/3 rd per min, even though the same prisoner stated that the most efficient rate of fire was 7 to 8 rd per min, presumably per piece. This was a trained unit.

In an interview several years after the battle, a former sergeant of the P&A Plat of the 3d Bn, 7th Cav said that after the battle he found about 600 rd of ammunition stacked in small piles around the battery of 82-mm mortars on the northern slope of Hill Mass 314. This seems to be contradicted by the documentary report after the battle that the P&A Plat on 16 September blew up one hundred twenty five 82-mm mortar rd at the coordinates 1156.5-1455.6 (north of Knob 3).

If the total recovered was 125 rd, and the basic load was 480 rd, then 355 rd must have been expended. If 600 rd remained at the end of the battle, it is evident that the 82-mm mortar battery had had an extraordinary supply. Toward the end of the battle, the same US sergeant cited above heard the 82-mm mortars firing regularly, so the quantity expended must have been high.

The extent to which 19th Regt units on Hill 570 supported the defense of Hill Mass 314 is indicated by information supplied by prisoners from the mortar company of the 1st Bn, 19th Regt (App A, Item 4). Between 11 and 14 September, a period when there was no infantry action on Hill Mass 570, one-third of a supply of 200 rd of ammunition for the one 60-mm (US) mortar of one platoon was expended, presumably at Hill 314. Such fire at maximum range is considered to have caused few casualties.

Distribution of 120-mm Fire

The single battery of six 120-mm mortars had to cover such key points in the 8th Cav area as Hills 373 and 225, as well as 314. While the battle was still in progress on Hill Mass 314, 8th Cav observers reported that any movement elsewhere would draw fire from this battery. It therefore appears that the enemy split the battery in half, and only three mortars fired on Hill Mass 314.

According to the prisoner's statements in App C, normally only one of the six tubes was used as the base of fire. Also, only the company commander, who was at the OP, had a firing table; the only other individual capable of computing fire was the leader of the Cmd Sqd, who was also at the OP. Perhaps this was the reason why the company was said to be incapable of delivering "massed fires" (volleys?).

With a general but not immediate ammunition shortage, and with the battery split as assumed, a reasonable and efficient firing procedure would be: in each group of three mortars one piece used as reference; this mortar fires first and the other two mortars follow in an invariable order; each burst is observed before the next mortar fires.

The necessity for accurate adjustment and readjustment of fire is shown by the dispersion in range estimated above: if the center of impact of each mortar's fire was always on the aiming point, the scattered bursts would have been just limited to the desired target area.

Observations of fire received on Hill Mass 314 fit in with such a procedure. At any time, 120-mm rounds were observed to fall at about the same range. At the outset of battle, fire overshot the hill mass, and to the tanks advancing on the right side of the hill seemed to walk along with them. Until the end of the battle, 120-mm fire always fell along the ridgeline or just beyond on the eastern slopes. During the different phases of the battle, however, it was spread out or concentrated. The relatively small dispersion in azimuth (as calculated above) allowed a choice as to whether fire should be spread out or concentrated in a narrow strip.

A US sergeant (No. 31, Table E1) said that fire at Knob 2 seemed to come in 3-rd salvos, and he reported an incident that suggests the time interval between bursts. While he and an aidman were occupying a shallow crater to the right of "the shallow" a man nearby was hit by mortar fire. The medic started to go to his aid, but then the next 120-mm round burst, killing the medic and knocking down the sergeant with its blast. An earlier incident suggests a similar interval. As described in the narrative of the key action, the leader of the 3d Plat, Co L was killed around 1215 by a mortar burst, and when the leader of the 3d Plat, Co I ran over to the spot he was killed by the next burst.

According to the mode of operation assumed above, the salvo interval is the sum of the time of flight of the projectile, and (since one man must do all these things) the time to observe the burst, calculate the correction to be applied, and transmit the new firing data for that mortar's round in the next salvo. For the 4500-yd range to Knob 2, the time of flight is estimated to be 39 sec. If an additional 21 sec is allowed for these operations, the interval is then 1 min. If a round was on target, of course, the next could have been fired in about 45 sec. An interval of 45 sec to 1 min agrees roughly with the two incidents cited above.

A 3-mortar rate of 1 rd per min, or 1/3 rd per tube per min, is just the maximum sustained rate reported by the prisoner from his experience in August. Although the ammunition shortage had become critical in September, so had the military situation, and this high rate of expenditure may well have been considered justified.

The only friendly assault troops on the northern slopes of the saddle visible to enemy observation from Hill 570 were those on top of the ridge and on the west side. For concealment they gathered in the shallow draw that runs down to the left from Knob 2. Here they were visible only when erect. The enemy was then presented with two situations: (a) friendly troops out of sight and deployed anywhere in the saddle, and (b) assaulting in line as indicated by troops standing to move on the left side.

In point of fact, the 120-mm fire into the saddle seems to have fallen mostly on the reverse, northeastern slope. The clue as to when it should be fired there was supplied by actions of friendly troops on the left side. The visible advances of Co L units in the first and second assaults were obvious occasions for intensified fire. With continual prior adjustment of individual mortars, as assumed above, there is no reason why they could not have then fired 3-rd volleys at the rate of 1 per min. Such is taken to be the case.

TABLE 25

ESTIMATED ENEMY EXPENDITURE OF 120-MM MORTAR ROUNDS
ON HILL MASS 314 ON 12 SEP 50

Phase of battle	Interval		3-Mort rate of fire, rd/min ^a	Rd fired
	Hr	Min		
Jump off	1135-1138	3	0	0
Advance from bottom of saddle (enemy FPL)	1138-1145	7	3	21
Reorganization	1145-1150	5	1	5
Assault 1	1150-1155	5	3	15
Close combat	1155-1215	20	0	0
Assault 2	1215-1230	15	3	45
Close contact	1230-1300	30	0	0
Pinned down	1300-1430	90	1	90
Assault 3, move over Knob 2	1430-1435	5	3	15
Advance toward Knob 3	1435-1500	25	1	25
Co K moves over Knob 2	1500-1510	10	3	20
Knob 3 occupied	1510-1530	20	1	20
Total, min & rd fired		235		266

^aAverage rate of fire 0.38 rd/Mort/min.

From the graphic timetable given earlier, and from the assumptions above, the volumes of fire in various phases of the battle can be estimated, with the results given in Table 25.

Calculated Effectiveness of 120-mm Fire

The lethal area of a mortar shell against men lying down and taking advantage of the cover afforded by slight irregularities of terrain may be as low as one-sixth the value against erect men. As shown above and as calculated below, the effect of slope in reducing the lethal area is also great. In a very crude way these combined effects may be computed from data on the battle for Hill Mass 314. It is necessary simply to multiply the number of rounds fired by the standard accepted value of the lethal area of the 120-mm mortar shell, (1400 sq yd*), and by the average density of troops, and then compare the resulting number of casualties with the number known to have occurred.

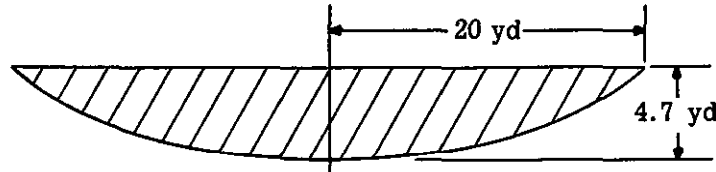
*The figure is based on the 58-lb criterion of wounding and a vulnerable area of 41.2 sq ft. Compare it to the values of "effective radius of fragmentation" of Soviet mortar shells given in the 1948 edition of the *Tactical-Technical Reference Book* of the Frunze Academy as follows: 120-mm shell—55 m against men standing, 25 m against men prone; 82-mm shell—30 m against men standing, 18 m against men prone. The lethal area corresponding to the 25-m radius is approximately 2300 yd.

Most of the 120-mm fire fell on the far, eastern slopes of the saddle, i.e., in the Co I area. To be sure, some elements of Co I had moved over to the left side, but elements of Co L made compensating moves to the right. For a rough calculation it is adequate to assume Co I casualties as the number that occurred on the right side. As Table 19 shows, from 1130 through 1435 this number was 30. These casualties apparently were not caused by 82-mm fire, since, so far as is known, this fire was restricted to the left side of the saddle.

A plot of the deployment of the assault companies at jump off from Knob 1 drawn by the former S-3 of the 3d Bn, 7th Cav and included in the diagrams of the graphic timetable, shows that two platoons, of, say, 80 men, initially occupied an area of about 10,000 sq yd. The density, then, was about 0.008 men per sq yd. By the time of the third assault, about 40 men (half of the two-company total of 80 counted on the objective) occupied an area of about 10,000 sq yd, so the density was about 0.004 men per sq yd. An average value of 0.006 is assumed.

As shown in Table 25, 176 rd are estimated to have fallen on the saddle between 1135 and 1430. The number of casualties among troops erect upon a flat surface is then computed as: $176 \times 1400 \times 0.006 = 1478$ casualties. The actual number of casualties, 30, is 2.0 percent of this fantastic number.

Another very crude calculation can be made upon a different basis to allow for the effect of slope in reducing lethal area. If the situation shown in Fig. 18 is assumed, the lethal area would be a parabolic section. Along a line at right angles to the trajectory and through the point of burst the standard lethal radius of 20 yd would obtain. Up the slope the area of effect would suddenly fall to near zero. Down the slope it would be reduced by the inclination of the lobes. With no fragments expelled in a vertical angle of about 16 deg above the slope, a semierect man with a projected height of 4 ft would have to be within 4.7 yd of the burst to be hit. The lethal area would then have the following simplified shape:



The magnitude of this lethal area is 124 sq yd. Use of this value of lethal area yields the following number of predicted casualties: $176 \times 124 \times 0.006 = 130$ casualties.

This value for erect men is only about four times the actual number of thirty casualties. Since the men on the right side of the saddle were prone most of the time, the magnitude of this discrepancy is what one would expect.

INTERPRETATION: THE CAPTURE OF HILL MASS 314

The discussion which follows carries the inductive process of reconstructing the battle from the fragmentary basic data still further in an effort to reveal the fundamental factors that determined the course and outcome of the action. At this stage of generalization, hindsight and speculation are necessarily prominent.

THE SITUATION AND THE SETTING

The general situation around Hill Mass 314 on 12 Sep 50 is discussed in the interpretation given earlier, in Part III. When the 3d Bn, 7th Cav Regt took over the mission of capturing the hill mass on 12 September, the enemy had just strengthened his forces on the northern, dominating portion and apparently was himself about to attack.

The course and outcome of the action were determined in large part by the combined effects of terrain, the particular enemy situation, and the character of enemy units. These aspects of the battle are outlined here for consideration in a later discussion of the course of the fighting.

Terrain

It would be expected that terrain influenced the fighting by reason of such gross and fine terrain features as the following:

A separate, simple, well-defined topographic feature, Hill Mass 314, was the focus of observation and fire from both sides.

The steep slopes limited the maneuvering ground to the region of the ridgetop, and this in turn limited the number of men that could be committed. Because of the long climbs up along the ridgelines, reinforcements from the rear could not be effectively committed during an active engagement. Assault troops were greatly hindered in attacking high points. The physical effectiveness of ground-burst mortar fire was greatly reduced (see preceding section). Combined with the steepness, the horizontal and vertical convexity of the slopes tended to isolate the units of an assault line and destroy the coordination of the attack.

The meager cover and concealment along the ridgetop diminished the value of dominating high points by exposing the occupying force to observation and support fires. The hardness of the ground and absence of large timber denied the possibility of quickly constructing fortifications. Combined, their factors would appear to make for fluid combat progressing slowly, in ripples, rather than rapidly, in tides.

Enemy Situation

The enemy situation on the hill mass on the morning of 12 September can be surmised. Much of current enemy strength had been present and involved in the back-and-forth fighting on the central portion for several days. The enemy must have learned that a prepared defense could not be set up on what otherwise would have been the best position from which to repel assault—the nose of Knob 2 and top of the ridge—and that his men could afford to move up here only when friendly attacking troops had drawn so near that friendly supporting fires could no longer be delivered. Until that time, it would be reasonable for the enemy to disperse his forward troops on the adjacent wooded slopes and plan for a mobile defense. This would require continual information from outposts, and control of the troops of the main line. The very low caliber of a large fraction of enemy strength would probably permit controlled aggressive maneuvers only in the early stages of an engagement, before the disorganizing effects of battle were felt.

Character of Enemy Units

Replacements arriving after 31 August made up almost two-thirds of the strength of the 19th Regt on 12 September, and its units were on Hill Mass 314. It is also known that in one of the 2d Regt companies on the hill two-thirds of the men were recent replacements. Most replacements at this time were virtually untrained, and an enemy device frequently used was that of placing them in forward positions where they could be driven into battle at the gun points of veterans.* The consequent "brittleness" of enemy units has already been discussed. In the conditions of fighting as visualized on Hill Mass 314 this would have been a significant characteristic, though it was of lesser importance in enemy attacks. So long as enemy troops remained in place and offered any resistance, they would have to be rooted out by friendly troops, which would have to move through the curtain of enemy supporting fire against the handicap of the slopes. Friendly supporting fire would be effective only if accurately brought down on the small, separate, enemy groups; dispersed fire would be of little effect. Eliminating enemy resistance would require breaking many small, brittle groups, that is, using some but not much fire in the right place at the right time. Precision of fire and coordination with observation and current tactical information would then have been especially important. It would be expected that artillery fire would be more effective than diffuse strafing, and fire during the battle more effective than preparatory fire.

The net effect of the various situational factors on the limited friendly offensive power can be taken as a requirement for nice application and coordination of the several arms and forces involved.

COMPOSITION OF THE OPPOSING FORCES

The identity and strength of enemy units considered to be on the hill mass are tabulated in Part II in the section on enemy forces. The enemy weapons on the hill mass are also tabulated in that part, under "Enemy Support," and plotted in Fig. 8, as are the enemy supporting weapons in the surrounding area.

*There is concrete evidence that this practice was in fact followed on Hill Mass 314, for the one prisoner captured during the battle on 12 September was not even armed. He had been instructed to pick up a rifle from a casualty, but instead hid among the rocks until captured.

Enemy strength on the hill was about 645 men; approximately the same number of friendly troops fought against them. Friendly forces had a considerable advantage in immediately available tactical reserves. Friendly light artillery and medium and heavy mortars were matched by about the same number of enemy counterparts. The platoon of heavy tanks supporting the friendly attack was hardly matched by the one enemy SP gun. Friendly air observation and air support were quite unmatched. There was a shortage of artillery ammunition on each side, but each had plenty of ammunition for medium and heavy mortars. It is perhaps significant that direct support of the attack by the 3d Bn, 7th Cav was to be furnished by the 77th FA Bn (which had not fired on Hill Mass 314 before), instead of by the 99th FA Bn, (which for several days had supported the 8th Cav in the fighting on the hill mass). There were no known recent changes in the dispositions and responsibilities of enemy supporting weapons, except that additional medium mortars may have been brought up.

COURSE OF THE ACTION

The preparatory air strikes seem to have been mainly preventive: forward enemy units were kept from moving up to the best defensive positions, and perhaps were demoralized to some degree. During the battle friendly assault troops found napalm still burning and several incinerated enemy soldiers on the nose of Knob 2. Few additional bodies, however, were found atop the ridge. An artillery preparation then, was, not necessary to disorganize a set defense. For this reason, at least, its cancellation was justified, as no reasonable expenditure could have covered all territory possibly occupied by the enemy.

In the conditions assumed and outlined above, the first phase of the battle must have been a race between defending and attacking forces, each trying to arrive at Knob 2 just before the other, in order to benefit by its commanding terrain in close combat. Moving up, each was very vulnerable to the supporting fires of the other side, but the advantage was all with the enemy, for friendly assault troops had to move a much greater distance and up far steeper slopes. The initial deployment adopted by the 3d Bn, 7th Cav was evidently best: a long thin line closing with the enemy as rapidly as possible. Unfortunately, the fires of the enemy's final protective line were intense enough to hold up and momentarily disorganize the attack. It is doubtful that enemy automatic weapons were effective here, for, to deliver grazing fire, enemy troops would have had to move over the topographic crest and expose themselves against the sky. Intensifying small-arms fire from scattered outposts down the slopes may have contributed to the total effect.

The fact that his fires were so successful in stopping the attack 200 or 250 yd short of Knob 2, instead of merely slowing it, apparently caused the enemy to blunder. He reacted too soon. The large enemy group approaching the knob from the left was observed, and, because of the still considerable separation of the opposing forces, could be fired on by friendly 81-mm mortars. The group was dispersed, and the first counterattack was aborted.

Other groups of enemy were moving up on the right side, and they were not observed. This was the time for a curtain of friendly artillery fire, if it had been on call.

The enemy reaction to the first assault on Knob 2 was timed correctly. Scattered enemy groups which had occupied forward positions on the side slopes of the saddle retreated to the northeast side of Knob 2 before Co I's advance on the right side. These troops then were in just the right spot to cut down Co L's men moving through fire from the left and coming up over the crest of the knob. It is doubtful that the assault was turned back in hand-to-hand combat. Enemy troops remaining back from the knob and somewhat off the ridge would have their fire reinforced by the grazing fire of automatic weapons at Knob 3.

The uncorrected graph of friendly casualties vs time (Fig. 14) does not adequately represent this first close combat of the battle because it fails to include the many men of Co L killed in the encounter and reported as casualties at an unknown time and under unknown circumstances. In the preceding section the estimate of nine is made. The correction is discussed below.

If Co L's move in the first assault had been accompanied by a similar advance on the right side by units of Co I, the assault might have succeeded. The presence of Co I short of the nose of the knob however, may, have forestalled an enemy attempt to rout Co L's repulsed elements. The counterattack might then have failed to be decisive for the same reason the attack so failed. The opportunity for enemy troops on the northeast side of the knob to exploit the situation was removed by the first friendly artillery and by mortar fire. Enemy units concealed in the underbrush along the finger to the left were so far forward that they still had every opportunity to attack the pinned-down and stunned remnants of the elements that had made the assault. Perhaps the concussion grenades which these enemy threw were a prelude to such an effort. If so, this opportunity was also taken away when the two company commanders, by their own example, aroused the men to make a decisive reply with fragmentation grenades.

These several encounters around the time of the first assault illustrate a feature characteristic of the battle after its opening: friendly and enemy groups reacted as much, or more, to local pressures as in accordance with a consistent general plan.

After the first assault, infantry move and countermove decreased in importance, and supporting fire became the dominating influence. Though still in fairly close contact, the opposing troops were hardly visible to each other. Some men reported going through the entire battle in forward elements without ever seeing more than a couple of enemy soldiers at a time. When the enemy troops fell back somewhat, the enemy mortar fire moved up accordingly. The direct effect was to make friendly troops seek the almost nonexistent cover and such concealment as was afforded by underbrush and irregularities of terrain. The indirect effect was to tend to immobilize them in a dangerous situation, for they could not dig in.

Figures 14, 15, and 16 show the accumulation of casualties in the several friendly units and from different causes through the various phases of the battle. In interpreting the curves, the reservations discussed in the preceding section of this memorandum must be kept in mind. To correct the significant omission of many KIAs because of lack of knowledge as to time, perhaps nine men of Co L may be taken as killed in the first assault, as noted above. Then, by 1300, after the second assault, Companies L and I would have lost 30 men as casualties, or about 9 percent of their initial strength. By the end of the period of inaction, at around 1430, casualties would then have increased to 69, or

about 20 percent of initial strength. The average casualty rate of those squads still under fire probably was approaching 50 percent.

When the correction for the first assault is made, the over-all cumulative casualty curve for the two assault companies becomes nearly straight during that period of time which runs from the beginning of the first assault to the beginning of the third. The corrected curve appears dotted in Fig. 14.

As casualties mounted under the enemy mortar fire, the problem of *maintaining control and initiative increased.* Platoon leaders had been lost, electrical communications were crippled, some elements were dispersed, and others were intermingled. Reports that the troops at times were panicked are quite understandable. For the individual, participation in a positive move meant leaving a spot where he had a fair chance of surviving the fire even though he was pinned down, and accepting a temporarily increased chance of being hit by intensified fire.

Leadership was vital. There were some old, veteran sergeants as squad leaders who urged their men forward whenever they tended to slip back into the fire, and there were platoon leaders, and later assistant platoon leaders, who reorganized their men and sometimes directed positive moves on their own initiative. The first occasion when the two company commanders acted to break the hypnotic inaction of the pinned-down men has been noted. They repeated this service again to get the third assault started. The presence of the battalion commander in a rather vulnerable forward position at the OP on Knob 0 also was a positive morale factor.

Without significant addition to friendly striking power it is doubtful that the objective would ever have been taken, for after the second assault the attack was definitely stalled and the inertia of the assault troops had become considerable. At regimental headquarters, the order to hold up the attack for continuation the next day was being considered. The 3d Bn, 8th Cav had stopped short of Knob 2 late on 10 September, only to be hit harder and forced back the next day. In view of the manpower situation of both sides, it seems very unlikely that the 3d Bn, 7th Cav would have been any more successful against the now greater enemy force. The battalion was already nearly crippled by casualties and would have gone on taking them at Knob 2. Although, with the almost intact Co K and the support of the ROK training battalion, it may well have been able to hold at Knob 1 or Knob 0, it seems unlikely that the battalion would have been able to again regain impetus at a later time to push up to and over the objective. The enemy infantry had also been hard hit. But the enemy had the ability to replace his losses fairly readily with more low-grade manpower. Given the advantages of situation and terrain and called on to make only limited maneuvers in defense of the objective, such troops might very well again have stood off friendly attack.

The necessary stimulus was provided by the unusually effective final air strike, the first close air support during the battle. Though the detailed circumstances surrounding this strike remain unknown, it must be assumed that the presence of the group of enemy flushed by napalm from behind a knoll down the ridge was not known to the company commanders and fire observers in "the shallow." Otherwise, artillery could just as well have been called in to do the same job. The dispersal of these enemy demonstrated that there were no longer any enemy troops on a commanding terrain feature north of Knob 2.

(Up to this time friendly advances had always been resisted from some commanding feature beyond.) For the first time, the way for a real advance was therefore shown clear. Yet another act of leadership was also necessary to restore momentum to the attack, and this was again supplied by the company commanders when they led the initial charge of a small group of men. Since this act was essential, it seems certain that if a mortar round had happened to fall in the shallow when enemy mortar fire was inflicting casualties just to the left and right, the third assault and capture of the objective would not have taken place, even with the aid of the air strike.

Throughout the battle, the enemy moved back reluctantly and just to the extent of friendly advance. By the late stages of the battle, whole units seem to have been eliminated, and shortages of some types of ammunition may have become critical. The enemy command appears to have prepared to desert the hill if sufficiently pressed, but in the same piecemeal, reluctant fashion, in accordance with the pressure at each point of contact. Atop the ridge, the napalm hit of the final air strike dispersed the spearhead of the last enemy defense. The support of automatic weapons, as considered below, appears already to have been lost, the heavy machine guns evacuated. Down on the right side, the units which had so long confronted Co I appear to have withdrawn suddenly, for sometime during the third assault the 120-mm mortar fire from beyond Hill Mass 570 finally shifted north of Knob 2 to cover the right side of the ridge, and word of withdrawal here must have been received. The continual heavy explosions occurring at the base of the hill at this time are unexplained and may have been enemy demolitions. However, at the base of the hill to the north, the 82-mm mortars continued to fire at Knob 2 while friendly forward elements were approaching Knob 3. The shift of the 120-mm fire, the evacuation of the mortars (with the exception of one baseplate), and the abandonment of some six hundred rounds of scarce ammunition combine to suggest a sudden and late but deliberate withdrawal here.

According to a prisoner of war, the enemy had five M1910 Maxim heavy machine guns, and all were retained by the machine gun company. The most likely location for these weapons is Knob 3. They must have been evacuated well before friendly units reached there around 1530, for these guns are heavy (145 lb, with tripod), and awkward to handle. They were supplied with only one box of ammunition per gun. If one belt of 250 rd was meant by the prisoner, the guns may well have run out of ammunition in repelling the first and second assaults, for the "practical" rate of fire is 250 to 300 rd per min, the cyclical rate 500 rd per min. Aside from these machine guns, friendly units were not opposed with effective fire in the third assault. It is hard to see how the CO of Co L and two others, who were in the lead, could have killed an enemy soldier who had an automatic weapon (the one DP light machine gun that was captured?) in a position halfway to Knob 3 along the ridgeline if this gun had been firing.

The number of enemy casualties in the battle on 12 September is not known. In the subsection on casualties on Hill Mass 314 under "Enemy Units" in Part II, a rough estimate is made of total casualties in the fighting from 8 through 12 September. During this period both sides built up strength at about the same rate, and they remained in tactical balance until almost the end of the final battle. There is, then, reason to assume that the ratio of the friendly and enemy casualty rates remained constant. Of total enemy casualties, the fraction sus-

tained on 12 September can then be computed from the known fraction for friendly casualties. Table D2 shows that 113 friendly casualties occurred before 12 September and that 153 occurred in the 3d Bn, 7th Cav on 12 September. (A few IIA are included here.) Applying the factor $153/(153 + 113)$ to the enemy totals gives the breakdown shown below. A comparison may be made of over-all strengths and casualties of the two sides:

Enemy	3d Bn, 7th Cav Regt
645 men on hill	610 men forward on hill ^a
95 KIA	
47 WIA, then KIA	
142 killed	38 killed
237 WIA, escape from hill	115 WIA, IIA
379 casualties on hill	153 casualties on hill
266 escape from hill unhit	
60% of initial strength casualties	25% of initial strength casualties
48% of remaining strength wounded	

^aThree rifle companies, one platoon each from Companies M and H3.

The ratio of enemy to friendly casualties, 2.5, is close to the figure for the first phase of the offensive at Tabu-dong.

As noted earlier, in the section on enemy units, enemy wounded at this stage of the war remained with their units for primitive treatment. If this was not adequate, they died. It is unlikely that seriously wounded enemy soldiers could have withdrawn with their units to the rear. If, as calculated, 77 percent of the enemy force escaped from the hill, and if 48 percent of these troops were wounded, attrition may well account for the failure of the enemy to counterattack.

If, as discussed above, the enemy did decide to withdraw late in the battle, this decision was made when over half the total initial enemy troops had become casualties.

In the preceding section of this memorandum it is concluded that the causes of friendly casualties break down as follows: 19 percent in close combat (bullets and grenades); 81 percent from enemy supporting weapons (artillery and mortars), of which, 2 percent of total casualties from artillery, and 79 percent of total casualties from mortars.

This breakdown includes a correction for men killed in the first assault. The rather low proportion of casualties in close combat is not surprising in view of the outline of the action given in the graphic timetable. After the first assault, there was little overt movement until the third assault, and neither side presented many targets. The enemy ammunition shortage may also have been involved. Individual soldiers went into the battle with 60 rd of rifle ammunition, an amount typical of this time, whereas in late August the amount was 200 rd per man. The same 7.62-mm rd were used by the light machine

guns, but no estimate can be made of the quantity per gun. The heavy machine guns, as pointed out above, had an inadequate ammunition supply.

Why did enemy artillery play such a negligible role? Information from various sources has located the Arty Regt of the 13th Div along the road north of Tabu-dong and about 8500 m from the saddle on Hill Mass 314. It is likely that the pieces were not emplaced to fire in this narrow corridor but were merely located here in anticipation of a general enemy advance. Theoretically, the 76-mm guns, with a maximum range of 12,500 m were able to fire on Hill Mass 314, though not with low-angle direct fire, as the intervening ridge subtended an angle of over 30 deg. The fire of the 122-mm howitzers would not, of course, have been restricted by terrain, but these weapons, with a maximum range of 8500 m, would have been firing at their utmost reach. Since only the 122-mm howitzer of all enemy artillery had time-fuzed ammunition (see App C) and there were a few reports of time fire received on Hill Mass 314, it is possible that a few 122-mm rounds were fired during the battle.

The supporting artillery of the 19th Regt has been located rather definitely at Site 2 in Fig. 8. Defiladed by Hill Mass 570 they were less exposed than the 13th Div Arty to friendly observation, counterbattery fire, and air attack. Since the 76-mm howitzers have a maximum range of 8500 m and Hill Mass 314 was little more than 4000 m distant, these weapons could very well have fired. The analysis of friendly casualties agrees with the consensus of observers' reports that they did not. Possible reasons for the apparent failure to fire are: (a) The howitzers had been moved into position only recently and were not yet ready to fire, perhaps because the telephonic link with the observation post had not yet been established. (According to the enemy source reported in App C, unobserved fire was very seldom used.) (b) There was a general ammunition shortage, and 76-mm ammunition was allotted to the two SP guns for direct fire from temporary forward positions, one to the west and one to the north of Hill Mass 570. (c) Friendly counterbattery fire was in this case effective.

None of these assumed reasons is very convincing. The CofS of the 13th Div stated that ammunition shortage rather than weapon shortage (except small arms) was a critical problem, and several captured enemy documents seem to support this assertion. Yet when the positions north of Tabu-dong were overrun around 21 September large amounts of ammunition were found with the artillery pieces along the road. There might, of course, have been very recent resupply.

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REFERENCES

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Appendix A

13TH AND 1ST NK DIV POW INTERROGATIONS

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EXTRACTS FROM REPORTS OF INTERROGATION OF PRISONERS
FROM THE 13TH AND 1ST NORTH KOREAN DIVISIONS (11 ITEMS)

ITEM 1

ATIS Interrogation Report No. 895 5 Sep 50
Field Report (ADVATIS 0700) 3 Sep 50

Name: Kim, Song Jun
Rank: Major (promoted 20 Aug 50 from Sr Lt)
Age: 25
Organization: 13th Div 19th Regt Hq
Duties with Unit: Regimental S-3
Education: Middle school for two years
Occupation: Farmer
Address: Hamyong Pukto, Hoeryong-gun, Hoeryong-myon, Il-dong #212
Date and Place Captured: Surrendered 2040, 1 Sep 50, 5 km SE Indong (1148.3-1464.8)
Interrogator: Sgt Hayashida (ATIS)

Evaluation:

Subject was very cooperative and is of average intelligence. Subject surrendered because he was scheduled to be courtmartialed, and is very bitter about his superiors. Subject seems to be very disgusted with the turn of affairs since he held a relatively high position with his unit. Reliability—good.

Military History:

Date inducted: Volunteered 20 Jun 46 at Chinnampo

Movements:

20 Apr 50—15 Jun 50: Asgd 19th Regt, 13th Div. Enter Div stationed in Sinuiju. Strength approx 12,000. 13th Div organized Mar 50 of recent conscripts.

15 Jun 50: Entire Div departed Sinuiju by rail.

23 Jun 50: Entire Div assembled Kumchon (940-1710) and marched east to Yongchon. Crossed 38° Parallel 26 Jun 50.

10 Jul 50: Entire Div arrived Seoul. No incidents en route.

10 Jul—17 Jul 50: Div engaged in search for South Korean officials and military police. No one was apprehended. 17 Jul 50, entire 13th Div departed Seoul, marched southeast to Chungju.

1 Aug 50: 13th Div arrived Chungju. No incidents en route. Upon arrival at city, subject observed rear elements of 1st Div leaving. 13th Div followed 1st Div to Sangju in an unknown direction on or about 10 Aug 50. 13th Div departed Sangju on or about 10 Aug 50 and arrived Naktong-ni on or about 15 2000 Aug 50. 13th Div had not been committed to battle until this date. Between Mungyong and Naktong-ni the Division sustained daily air attacks. Suffered losses of approximately 2,000 men. Strength of Div on 15 Aug 50, approx 10,000 men. 13th Div started to cross Naktong River at Naktong-ni 15 2000 Aug 50. Crossing spearheaded by 21st Regiment. 21st Regiment less artillery crossed under heavy artillery and small arms fire, sustained casualties of about 700 men. During initial phase of crossing, 13th Div Arty provided fire support but was soon forced to cease fire after disclosing its position. 2400 15 Aug 50, 19th Regt less artillery, crossed Naktong River. 23d Regiment and Div Arty remained in the hills north and south of Naktong-ni. 0400 16 Aug 50, last elements of 19th Regiment crossed river. Immediately after crossing river, POW met a few stragglers from the 15th Div who were seeking their unit. Location of 15th Div at this time, unknown. After crossing river, 21st Regiment advanced south in column on Sangju-Taegu Highway, followed by 19th Regiment approximately 2,500 men. One company of 1st Battalion, 21st Regiment marched 500 meters ahead of the main body of troops. At point 1 kilometer southeast of Togae-dong (1130-1480) 2400 16 Aug, leading company drew fire from ROK forces. The company left the road and occupied high ground immediately west of road, where it was joined by other elements of 1st Battalion (21st Regiment). 2d and 3d Battalions, 19th Regiment occupied valley between 21st and 19th Regiment. (23d Regiment and Div Arty still on west bank of Naktong River.) 1st Battalion fought south and occupied adjoining ridge at 0400 17 Aug 50. 2d and 3d Battalions, 21st Regiment advanced south to the bottom of a narrow valley. ROK forces held ridge immediately south of 2d and 3d Battalions, 21st Regiment. 1st Battalion, 19th Regiment bypassed main body 21st Regiment on left flank and advanced to the foot of the ridge facing 2d and 3d Battalions, 21st Regiment. 2d and 3d Battalions, 19th Regiment made no progress. At daybreak 17 Aug 50, all advances made on night of 16 Aug 50 were lost because of heavy artillery fire and air attacks. Consequently, the units withdrew to their original positions and took up defensive tactics. Until 2000, 17 Aug 50, the units were without artillery support and were subjected to constant artillery shelling and air attacks. At 2000 17 Aug 50, the units with Div Arty support went from the defensive to the attack. The units simultaneously advanced south and overcame the ROK forces. The engagement ended at 2300 17 Aug 50. In the engagement of 16 and 17 Aug 50, 21st Regiment suffered 800 casualties, 19th Regiment lost 700 men. After the engagement, the units marched south, led by 21st Regiment.

18 Aug 50: 23d Regiment joined 21st and 19th Regiments. At 0500, the Div engaged UN forces at point 5 kilometers southeast of Naksong-dong. Engagement lasted until 2100. 21st Regiment lost 400 men; 19th Regiment, 300 men; 23d Regiment, 400 men. Strength 21st Regiment, approximately 600 men; 19th Regiment, 1,500 men; 23d Regiment, 2,100 men. This was the first engagement for 23d Regiment.

19 Aug 50: 0001, 23d Regiment and 21st Regiment engaged UN forces. 19th Regiment held in reserve. Skirmish ended 0400. Total losses, approximately 100 men. 0400, 23d Regiment deployed northern slope of Yuhak-san at a point 1 kilometer southwest of principal road junction, 21st Regiment occupied high ground 1 kilometer southeast of road junction, and 19th Regiment was held in reserve in Sajang-dong [sic, Hajang-dong?] area.

20 Aug 50: 21st Regiment withdrew because of heavy artillery shelling to southeast slope of Yuhak-san. 23d Regiment remained in position. 19th Regiment deployed 1 kilometer east of road junction east of Yuhak-san. 0400 20 Aug 50, 45th Regiment, 15th Div arrived Yuhak-san and was deployed 1 kilometer west of 21st Regiment position. 13th Div Arty situated Sajang-dong.

21 Aug 50: Position unchanged. 2000 hours, 13th Div reinforced by 45th Regt, 15th Div started offensive. Objective, Tabu-dong. All units except 19th Regiment jumped off at 2000 hours. POW assumed command of 19th Regiment on that day. Also 2d Battalion, 19th Regiment had become disorganized under an artillery shelling and POW was still in process of reorganizing the battalion when the attack order came. Consequently, 19th Regiment started attack at 2130 hours. Objective of 19th Regiment was to neutralize artillery position 4 kilometers north-northeast of Tabu-dong. Because 19th Regiment was 1 hour and 30 minutes late, the division attack became disorganized and the units were forced to fall back to their original position. Attack supported by 5 x T-34/85 tanks. 4 destroyed.

24 Aug 50: 13th Div received 800 replacements. 400 brought their own weapons. Remaining 400 were issued weapons when assigned to regiment. 19th Regiment received 182 men, remaining 600 men assigned to 21st and 23d Regiments. Div strength with replacements, approximately 3,000 men. Subject investigated for failure to obey orders on 21 Aug 50.

24 Aug 50 - 31 Aug 50: 13th Div went on defensive. Position unchanged except for absence of 45th Regiment, which POW heard was deployed in Kunwi area. Units ordered to have 4 days rations on hand.

31 Aug 50: 4,000 replacements arrived 13th Div. Only 2,000 of the men arrived with weapons. Remaining 2,000 men equipped upon assignment to regiments. By 31 Aug 50, division strength was approximately 9,000 men. Replacements, stragglers, and wounded personnel discharged from field hospitals were absorbed. General preparation for offensive made. Each man issued 300 rounds ammunition. Each Regimental Artillery piece issued 120 rounds ammunition. Unit had in stock enough ration for 4 days. Subject heard 1st Div deployed on left flank at Kasan-myon. Subject heard a general offensive was to start. Details, unknown. Objective, Taegu. Division was expecting the arrival of an undetermined number of heavy tanks, type unknown.

31 Aug 50: Subject deserted because of the 21 Aug incident. He was accused of sabotaging the division's effort and was scheduled to be tried.

Enemy Intentions:

13th Div (other divisions' unknown) objective is Taegu. Route of march would be via Taegu-Sangju Highway. Subject heard that objective of 2d Corps, of which the 13th Div was a part, would start an offensive with Taegu as the objective. No information on plans.

Unit Capabilities: (13th Div)

a. Original Strength	Present Strength (31 Aug)
19th Regiment: 2,500 Men	1,800 Men
27 x 82mm Mortars	4 x 82mm Mortars

	4 x 76mm Howitzers	4 x 76mm Howitzers
	6 x 120mm Mortars	6 x 120mm Mortars
	12 x 45mm AT Guns	12 x 45mm AT Guns
21st Regiment:	2,500 Men	1,800 Men
	Equipment identical to 19th Regt	Same as 19th Regt
23d Regiment:	2,500	1,800
	No details	Hardly any heavy weapons
		No details

Div Arty: Strength, unknown. 31 Aug 50, 20 guns remaining. 10 x 122mm Howitzers and 10 x 76mm Guns.

b. Supply: Div unknown. 19th Regt was resupplied by 15 trucks. Div Supply trucks hauled food and ammunition to regimental supply dump (31 Aug 50, situated Songyo-dong under a 2.5 meter long bridge on main highway) which was in turn transported by 15 regimental vehicles to battalions. Amount and frequency depended upon situation. The Regiment was never short of ammunition. Standard unit of fire carried for each artillery piece was 60 rounds. 50% of regimental rations came from Div Supply, 50% was obtained locally.

c. Morale: Morale was high. Orders obeyed without question. Replacements were eager to enter battle. There was no friction among the officers.

d. Replacements: 13th Div replacements came from Seoul. Majority of troops had at least one month training. Usually, 50% of troops came armed with rifles. Replacement Depot, unknown.

Armor:

Observed 21 Aug 50, 5 x T-34/85 tanks. 4 destroyed on 21 Aug 50. One tank remained. Location, road junction east of Yuhak-san. 31 Aug 50—Hearsay, 13th Div expecting arrival of undetermined number of heavy tanks, type unknown.

ITEM 2

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Headquarters 1st Cavalry Division
Office of the ACofS, G-2
Interrogation of Prisoner of War Report

Report No.: 0085

12 Sep 50

Map: Tactical Map of Korea, 1:50,000

HT

1. Prisoner and Unit Identification

<i>Personal Details</i>	<i>Unit</i>	<i>Place of Capture</i>
Name: Cheh, Song Sam	2d Plat, 3d Co,	Captured by F Co.
Rank: Pvt •	1st Bn, 19th Regt,	8th Cav in vic
Length of Sv: Inducted 19 Aug	13th Div	(1153.9-1453.8) on
Duty: Rifleman		12 Sep 50
Temp. POW No.: CD-216		

2. Organization, Strength and Disposition

A. Own Unit: PW stated that he was inducted on 19 Aug, and was told that he would be returned home after a 40 day training period at Hason. However, after three days of training PW was sent to the front with approx. 1,000 men. The 1,000 men

traveled by rail to Seoul, arr there on or about 25 Aug. At Seoul the group was joined by 1,000 trained troops from Chinampo and marched towards the front. On or about 28 Aug, the two groups arr at Wonju and here the groups separated again. However, where the other group went is unknown to POW. On 28 Aug, the group of 1,000 continued its march and on 3 Sep arr at pt 2 hills [sic, must be miles] N of Kasan (Hill 901) (TN: Believed to be Hill 742). There POW was assigned to the 3d Co and on the same day the entire Bn left for Mt Kasan. POW stated he was told that the 3d Co had approx 70 men when it left. However, he did not know how the 1,000 repls were distributed. POW stated on or abt 9 Sep the 1st Bn arr at the Walled City and continued on to hill a little lower in height than Mt Kasan located to S of Mt Kasan. (TN: Believed to be N of Hill 570.2). POW stated that his unit arr here on 9 Sep with an estimated strength of 200. However, POW did not know whether this was the Bn or Regt's strength. POW stated during the day of 10 Sep the unit received heavy arty shelling and aircraft strafing. Therefore, on the night of 10 Sep he and POW CD-213 left the unit position and started down the mountain to escape death. Upon getting to the foot of the mountain, due to a fierce rifle firing in the vic he and his buddy went into a house in a nearby village. While at the village they noticed NK troops in the vic engaged in a fire fight with the en. Therefore, they remained hid in the house until after the NK troops withdrew and on the morning of 12 Sep he and his buddy walked toward the American line unarmed with intentions of surrendering. Upon the American line POW is not certain who had shot, but his buddy was shot through the chest. POW stated that 1st Bn HQ is located on hill at (1154.3-1456.7).

- B. Other Units: POW stated that while he was hiding in village at (1154.1-1453.8) an NK soldier of the 1st Div found them and asked him what unit he was from. Therefore he told him he was from the 13th Div. POW stated that he saw approx 30 1st Div troops [Hill 570] withdrawing for the village into hill to the N on evening of 11 Sep. POW could not identify the regt to which they belonged or the location of their main force.

POW stated that his sqd ldr intormed them that the 13th and the 1st Div were engaged in a coordinated operation.

3. Mission: POW stated that the men were not told what their mission was. All he had heard was that they were advancing to Taegu.
4. Enemy Supplies and Equipment
- A. Supply
1. Ration: POW stated that no food is supplied for the rear and it is not out of ordinary to go without food for 2 and 3 days. POW further stated that they are able to get barley in the nearby villages. However, if this is exhausted it will mean going without food or forage fr distant villages.
 2. Ammo: POW stated that each man had approx 50 rds of rifle ammo on the average and two hand grenades. POW stated there are some individuals with 5 or 6 hand grenades but on the whole each man carries two.
- B. Equipment
1. Weapons: POW stated that each Co had 1 LMG and 2 HMGs and the rest had bolt action rifles. POW stated his Co did not have any Sub MGs. POW stated that he had never seen any mortars or arty pieces.
 2. Communication: POW stated that telephone wires were laid between Co and Bn, and communication done by wire.
 3. Armor: POW stated that he observed approx 10 tks (TN: believed to be T-34) travelling S while at Wonju. However, POW had not seen any tanks after coming to the front.

4. Transportation: POW stated that he saw numerous trucks transporting ration, ammo and other supply as far S as the road fork at (1151.9-1464.0). However, he had not seen trucks S of this pt due to heavy arty shelling throughout the area. Fr this pt, supplies are transported by civilian and troop carrier parties.
5. Enemy Losses
 - A. Personnel: POW stated that his unit suffered heavy casualties through enemy artillery but was unable to give percentage or number of casualties due to repls received.
 - B. Supplies: No information.
 - C. Equipment: POW stated he had not seen any losses in organizational equipment.
6. Replacement of Personnel and Materiel
 - A. POW stated that upon arr at his unit, due to small amount of troops he asked the reason for it and was told that more recruits like himself would be arriving. However, POW stated he had not seen any further arr of repls. POW stated that although he was given his uniform upon induction into the service he did not receive his rifle until arrival at Kunwi.
 - B. Weapon: POW stated that no repl of weapon was made.
7. Miscellaneous
 - A. Enemy Methods: POW stated that due to shortage of officer repls, Sqd Ldrs are made Plt and Co Commanders, Co commanders made Bn commanders, and so on. The same is true for the troops and the majority of the troops consists of men who were thrown into the line without training.
 - B. Enemy Intentions: No info.
 - C. Morale: POW stated that due to the shortage of food he believes the morale of the men to be very low. He further stated that there were many men reported missing in action but he believes these were all deserters. POW stated the officers are well fed, therefore of high morale.
 - D. Personalities: POW stated they were not told the names of the commanders.
8. Remarks: POW, although his military knowledge was nil, was of average intelligence and very cooperative. Therefore, information given by him is considered fairly reliable. Further interrogation due to his recent departure fr North Korea is recommended.

S. Yamada
Capt Inf

ITEM 3

ATIS Interrogation Report No. 1158
Field Report (164-LDI-0868)

17 Sep 50
15 Sep 50

1. Personal Details:

POW Name: Che, Song Sam
POW Number: 63 NK 926
Rank: Pvt
Age: 30
Duties: Rifleman
Organization: 13th Div, 19th Regt, 1st Bn, 3d Co, 2d Plat, 3d Sqd

Education: Primary school (6 years)

Occupation: Farmer

Date and Place Captured: 12 0900 K [120800 I] Sep 50. Approximately 16 km NW of Taegu (1153.9-1153.8) by "F" Company, 8th Cavalry Regiment

2. Assessment: POW was cooperative. Information limited due to short period of military service. However, it seems reliable.

He was a deserter, stating he felt safer being a US Prisoner than with NK Army.

3. Tactical Information:

TO&E of POW's Unit:

13th Div, 19th Regt, 1st Bn, 3d Co, 2d Plat, 3d Sqd

3d Platoon [2d Platoon, see above and Item 2]

A. Personnel

1. 3 squads
2. 5 men per squad
3. Total of 17 men

B. Equipment and Ammunition

1. 17 x M-1891/30 rifles, 50 rounds per rifle
2. 2 x grenades per man

3d Company

A. Personnel

1. 3 platoons
2. Total of approximately 70 men

B. Equipment

1. 1 x HMG (ammo unknown)
2. 2 x SMG (ammo unknown)

NOTE: Above mentioned information as of 3 Sep 50. No further information.

Disposition of above Unit:

3d Bn Hq, 19th Regt, 13th Division, was located on a mountain approximately 18 km NW of Taegu at the time of his capture on 12 Sep 50. Disposition of others units was unknown.

Estimated strength of above Units: (as of 12 Sep 50) [10 Sep]

Unit: 3d Platoon

Original Strength: 17 men

Present Strength: 10 men

Unit: 3d Co 19th Regt

Original Strength: 70 men

Present Strength: Unknown

Higher echelon unknown.

Personal and Unit History:

The 3d Battalion advanced southward from Kunwi and arrived on a mountain (location unknown) on 10 Sep.

On 11 Sep 50, POW with another man deserted and was captured by US troops approximately 16 km NW of Taegu on 12 Sep 50.

... POW had only 10 rounds of ammo left when captured on 12 Sep 50.

ITEM 4

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Headquarters 1st Cavalry Division
Office of the ACofS, G-2
Interrogation of Prisoner of War Report

Report No.: 0088
Map: Tactical Map of Korea, 1:50,000

15 Sep 50
MW

1. Prisoner and Unit Identification

Personal Details

Personal Details	Unit	Place of Capture
Name: Ko, Yoon Gook	1st Plat, Mortar Co	Captured at Hill 570
Rank: Pvt	1st Bn, 19th Regt,	(1154.6-1456.1 by G Co,
Temp POW No.: CD-242	13th Div	8th Cav on 14 Sep
Name: Wan, Yong Sun	Ditto	Ditto-
Rank: Pvt		
Temp POW No.: CD-240 (sic) [241?]		
Name: Ahn, Un Soon	Ditto	Ditto
Rank: Pvt		
Temp POW No.: CD-240		

2. Organization, Strength and Disposition

A. Own Unit: POWs stated that they were forced to join the NK army on or abt 22 Aug 50, at Wonju (SK). On or abt 29 Aug 50, POWs group of 1,000 men were told they were to haul ammo and supplies in vic of Andong but they were deceived and brought to vic of Sangyo-dong(1149.5-1468.5), which they heard was the Regt'1 Hq for the 19th Regt, on 7 Sep 50. POWs stated they were repls for the 19th Regt. Out of the 1,000 men, 300 were slated to join the 1st Bn, 19th Regt as repls and separated fr the group and went to Hill 570 arr there at sunset, 10 Sep. The men were assigned to various companies, but the POWs with 27 others were assigned to Mortar Co, bringing the strength of the Co to 60 men. The Mortar Co had 3 Plats and POW plat was the 1st Plat with 1 mortar and 20 men. After being assigned to 1st Plat, they took positions on Hill 570 and the 2d and 3d Plat took the left and right flank positions abt 100 m apart. POWs stated that the 1st, 2d and 3d Bns of the 19th Regt were in the vic of Hill 570 and the strength was about 1,000 men including the 300 replacements. POWs stated that they worked for 2 days cleaning the dust off 200 mortar shells for their plat. POWs stated that Hill 570 was shelled by Arty on 141600 I Sep and the 19th Regt retreated to village 1 km N of Hill 570. POWs took shelter in a trench and were captured. Prior to capture, POWs hauled 2 WIA to a mine 4 km N of Hill 570.

B. Other Units: No information.

3. Mission: POWs stated that the unit's mission was to push toward Taegu.

4. Enemy Supply and Equipment

A. Supply:

1. Ration: POWs stated that they were fed only wheat and ate irregularly, whereas Officers and NCOs ate rice and 3 meals a day. They further stated that food was foraged fr nearby villages and the civilians cooked and hauled the food for the troops.
2. Ammo: POWs' 1st Plat was equipped w/1 mortar and 200 rds of mortar ammo, of which $\frac{1}{3}$ was utilized before the shelling on 14 Sep. Each man carried 3-4 hand grenades, but never had the chance to use them.

POWs stated that an ammo dump is located in vic of abt 12 km N of Hill 570.
The ammo is transported by civilians on their back.

- B. Equipment
 - 1. 1st Plat had only 1 mortar (60mm).
 - 2. Comm: The Plat had 1 portable telephone
- 5. Enemy Losses
 - A. Personnel: POWs stated the 30 KIA and undetermined number of WIA on 14 Sep by Arty. POWs stated the loss was very heavy.
- 6. Replacement of Personnel and Equipment
 - A. Personnel: POWs stated that the 1,000 men came to the 19th Regt as repls but what happened to the remaining 700 men is unk to POWs. The 1,000 men were all untrained and had no intentions of fighting this war.
 - B. Equipment: No information
- 7. Miscellaneous
 - A. Enemy Methods: POWs stated that the sqd ldrs encourage the troops by saying that the US force will retreat if NK soldiers yell and rush forward.
POWs stated that the civilian people prepare the food for the troops and haul the food to the soldiers. Furthermore the civilians are used to haul ammo.
 - B. Morale: POWs stated that morale of the draftees is low because they believe that they have been deceived. Also the fact that rations are not sufficient further lowers the morale.
- 8. Remarks: POWs knowledge of military matters was small but [they] were very co-operative. Information contained herein is considered to be fairly reliable.

S. Yamada
Capt Inf

ITEM 5

ATIS Interrogation Report No. 1418
Field Report (ADVATIS-0888)

27 Sep 50
23 Sep 50

- 1. Personal Details
 - POW Name: Pak Uk Tong
 - POW Number: 63 NK 3694
 - Rank: Pvt
 - Age: 28
 - Duty: Ammunition Carrier
 - Unit: 1st Div, 14th Regt, 1st Bn, 1st Co, 2d Plat, 2d Sqd
 - Education: 6 years
 - Place of Capture: Namsan-dong [1162-1458], 16 km N of Taegu
 - Date of Capture: 19 Sep 50.
- 2. Assessment: Physical condition of POW was good. POW's military information was limited. He is not recommended for further interrogation.
- 3. Tactical Information:
 - 12 Sep 50: 1st and 2d Co's advanced to a point 16 km north of Taegu and took up positions on a high hill. The hill was attacked by US troops with MG and mortar fire, and the two (2) companies fled from the hill towards the north. POW deserted and hid in a village at the foot of the hill for a period of a week.
 - 19 Sep 50: POW surrendered to ROK forces.

ITEM 6

ATIS Interrogation Report No. 1155
Field Report (164-LDI 0 0865)

17 Sep 50

15 Sep 50

1. Personal Details

POW Name: Kim, Han Tae

POW Number: 63 NK 936

Rank: Pvt

Age: 19

Duties: Rifleman

Organization: 1st Div, 14th Regt, 3d Bn, 7th Co, 3d Plat, 2d Sqd

Education: 3 years

Occupation: Farmer

Date and Place of Capture: 12 1830 K [121730 I] Sep 50, 4 km S of Sunsang-san (1155.2-1454.5) [i.e., at 1155.5-1454.5, 4 km S of Sansong]

2. Assessment: POW was cooperative. Information limited due to limited service.

3. Estimated Strength (as of 12 Sep)

Unit

2d Plat

(1) 4 squads

(2) 6 men per squad

(3) total of 25 men

Equipment and Ammunition

1 x HMG, two ammo boxes

1 x LMG, two magazines

4 x PPsh SMGs, two magazines per gun

20 x M 1891/30 rifles, 20-25 rounds

7th Company

a. Personnel

(1) Total of 75 men

b. Equipment and ammunition

(1) 2 x HMGs, 2 ammo boxes per gun

(2) 3 x LMGs, 2 magazines per gun

(3) 12 x PPsh SMGs, 2 magazines per gun

4. Personal and Unit History: [Marched from Kunwi on 11 Sep 50 to Sunsang-san on 12 Sep]...

POW surrendered voluntarily on 12 1830 K Sep 50 at Sunsang-san (1155.2-1454.5)

[Says above 4 km south of this]

5. Food and Ammo Supplies:

On 11 Sep, POW and 50 men received M1891/30 rifles, 20-25 rounds per man which had been taken from dead or wounded 1 km N of Sunsang-san.

6. Enemy Intentions:...Objective of 1st Division was Taegu via Chilgok.

ITEM 7

ATIS Interrogation Report No. 1149
Field Report (ADVATIS-0787)

17 Sep 50

16 Sep 50

1. Personal Details

POW Name: Im, Chin Sun

POW Number: None
Rank: Pvt
Age: 17
Duty: Rifleman
Unit: 1st Div, 1st Regt, [redesignated the 14th Regt] 3d Bn, 1st Co, 1st Plat, 1st Sqd
Education: None
Occupation: Farmer
Place of Capture: 4 km S of Kasan Castle (1150.9-1451.4) [coordinates of Hill 402]
Date of Capture: 14 Sep 50 (sic) [date given below as 12th]
Home Address: Hwanghae-do, Yonpack-gun, Kumsan-myon, Taeha-ri #3009
Interrogator: Sgt Hayashida (ATIS)

2. Assessment

Subject was cooperative but is extremely unintelligent. Subject is illiterate and cannot carry on an intelligent conversation. Subject has a slight wound on his forehead and it is possible that it has affected his mental capacity. Not recommended for further interrogation. Reliability poor.

3. Tactical Information:

Chronology

1 Aug 50. Inducted into NKPA at Sariwon. Approx 1,000 men were inducted

2 Aug 50. 700 men issued uniforms. Departed Sariwon by rail. Disposition of 300 men unknown. The 700 men were unarmed.

5 Aug 50: Enroute, at Namch'on o/a 056000 Aug 50, the train was strafed by 8 US aircraft and about 100 men were killed or wounded. The attack occurred about 2 km NW of Namch'on. During the attack subject observed destruction of an ammunition dump situated in the hills approx 2 km SW of the Namch'on Station. Amount of ammunition destroyed unknown.

9 Aug 50: 600 men arrived at Seoul, detained, and marched south. The men were unarmed and were escorted by 5 armed NKPA troops. POW did not see any NKPA troops in Seoul. The troops did not carry any rations or other supplies.

o/a 10 Sep* 50: Approx 500 men arrived 2 km N of the Kasan Castle where they were all assigned to the 1st Regt, 1st Div. Enroute from Seoul, the group did not sustain any air attacks but suffered a loss of about 80 men through desertion. POW does not remember route of march from Seoul but vaguely remembers the place names Chungju, Mungyong and Hamchang. Upon assignment to the 1st Regt, the men were issued used but serviceable weapons. The entire 1st Regt was assembled at the above locations. The strength of the Regt including the 500 replacements was approx 800 men.

o/a 11 Sep 50: 1st and 2d Companies, 3d Bn were ordered to march South, objective unknown. Remaining units of the 1st Regt remained at the above location. The 1st and 2d Companies marched South through the Castle enclosure to a ridge approx 2 km south of the castle. At this point at about 2000 hrs, the 2d Company was ordered to proceed further south while the 1st Co remained at the position. The 2d Co proceeded south to a point approx 5 km S of the castle and was ambushed by UN forces. In the ensuing battle the strength of the 2d Co was reduced from 60 to 14 men. The remaining 14 men retreated to the position of the 1st Co. At about 2200 hrs, the 1st Co, with the 14 men from the 2d Co, proceeded southeast from its position to a point about 5 km SSE of the castle, where it was also ambushed. The engagement lasted for two hours until about 2400 hrs. At the end of the engagement, the combined strength of the 1st and 2d Co was about 50 men. Prior to the

*Dates from here on are given as August, but are obviously September. Thus corrected, the chronology agrees fairly well with that of other prisoners in the same movement.

SECRET

engagement, the strength of the 1st Co was approx 70 men. When the engagement ended, subject remained concealed. He then became separated from his unit.

12 (sic) Sep 50: Subject taken prisoner by Americans.

Morale:

Morale of the troops was very low. The men were aware that the majority of them were untrained and that the units were understrength. Consequently, the men were very reluctant to become involved in aggressive warfare. Some of the men refused to advance while the unit was under fire and subject saw three men of his plat being killed by his platoon leader for this reason. The unit commander has much difficulty in controlling the troops under fire because the inexperienced men were panicky.

Equipment:

Subject did not see any tanks, artillery or mortars. The only equipment POW has seen during his service with the 1st Regt were rifle, SMG's, LMG's and HMG's.

Supply:

No information is available on source or method of supply. Upon assignment to the 1st Regt, each man was issued 2 grenades and 70 rounds. Much of the ammunition was taken from casualties.

Currency Information:

Extent of usage: The people of N Korea had unquestioned faith in the value of their currency and it was used as the standard medium of exchange. Some of the prices as of 1 Sep 50 were as follows:

- 1 kilogram of beef - 90 won
- 1 pair of cotton trousers - 900-1000 won

For the Commanding Officer:

Weeldreyer
Executive

ITEM 8

ATIS Interrogation Report No. 1103
Field Report (ADVATIS-0762)

16 Sep 50
14 Sep 50

1. Personal Details:

POW Name: Kim Yong Gi
POW Number: 63 NK 2775
Rank: Pvt

Age: 26

Unit: 1st Div, 2d Regt, 2d Bn, 6th Co, 3d Plat, 2d Sqd

Duty: Rifleman

Occupation: Farmer

Education: None

Place of Capture: P'algong-san (1160-1450) [stated coordinates give general area of capture: actual coordinates of P'algong-san: 1167-1457]

Date of Capture: 10 Sep 50.

2. Assessment: Subject was cooperative but not very intelligent. Subject was in good physical condition. His short period of service prevented him from knowing more about his unit. Subject is not a communist. Reliability fair.

3. Tactical Information:

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Chronology

8 Sep 50: 200 men arrived on hill approx 8 km NNW of P'algong-san and joined the 2d Regt, 1st Div. The strength of the 2d Regt was about 1,000 men. The replacements were all issued arms at this point. The entire Regt rested until 091000 Sep 50.

10 Sep 50: Entire 2d Regt marched south and occupied the summit of P'algong-san at 100500 Sep 50. Strength of 2d Regt was approx 1,200 men. At about 0530 first contact with ROK forces was made. 100 of the 200 replacements were ordered to spearhead the advance with a suicidal frontal attack. The men were told that they would be shot if they did not make the attack. Consequently the 100 men, without anyone to lead them, made a wild charge toward the ROK positions on the southern summits of P'algong-san. 50 NKPA regulars followed the 100. Conscripts at a distance of 50 meters carrying PPsh submachine guns. The ROK forces met the attack with effective small arms fire. By 0900, the fight was over and about one hundred men of the 2d Regt (sic) were either killed or wounded. The remaining 50 men [of the total 150 attacking] deserted or were taken prisoners. POW was among those taken prisoner.

Strength:

Present strength of the 2d Regt is approx 1,100 men, of which 70 percent were replacements. Only 30 percent of the men were original members of the regiment. With the exception of the 200 replacements which the Regt received on 8 Sep 50, all of the troops were from N Korea. The majority of the men had no training before being committed to battle.

Equipment:

Replacements were issued rifles taken from casualties. The rifles were in good condition. Subject heard guns and mortars so assumes that the regiment still had some pieces.

Morale:

The morale of the troops from N Korea was extremely high but the replacements from S Korea had no will to fight because they had been discriminated against since they joined the unit. Subject believes that had they received better treatment, they would have fought better.

Vehicles: . . .

Supplies:

10 Sep 50, each rifleman had an average of 120 rounds of ammunition.

ITEM 9

~~CONFIDENTIAL~~

Headquarters 1st Cavalry Division
Office of the ACoS, G-2
Interrogation of Prisoner of War Report

Report No. 0086

Map: Tactical Map of Korea, 1:50,000

13 Sep 50

MW

1. Prisoner and Unit Identification:

Personal Details	Unit	Place of Capture
Name: Cheh, Yong Sum	2d Plat, 5th Co,	Captured by I Co,
Rank: Pvt	2d Bn, 2d Regt,	7th Cav. in vic 314

8. Remarks: POW was cooperative and sincere. Therefore the information obtained is considered fairly reliable. Because of the fact that he has recently travelled through NK on the way to his unit, further investigation may prove fruitful.

Dist:
G-2 - 2
File - 1

S. Yamada
Capt Inf

ITEM 10

ATIS Interrogation Report No. 1142
Field Report (ADVATIS-0780)

17 Sep 50
16 Sep 50

1. Personal Details:

POW Name: Ch'oe, Yong Sam
POW Number: 63 NK 933
Rank: Pvt
Age: 22
Duty: Rifleman
Unit: 1st Div, 2d Inf Regt, 2d Bn, 5th Co, 2d Plat, 2d Sqd
Education: Primary school (6 years)
Occupation: Liaison Employee, Democratic Party, Sinuiju
Place of Capture: Wooded Hill 14 km WNW of Taegu [actually Hill 314, 14 km N of Taegu]
Date of Capture: 121400 K [121300I] Sep 50
Place of Birth: P'yongan-pukto, Sakju-gun, Sakju-myon, So Bu-ni #164
Home Address: Same as place of birth
Interrogator: Sgt Hamasaka (ATIS)

2. Assessment:

POW appeared to be fairly intelligent. He was cooperative, however ignorant on military terms and units due to short term of military service. POW considered fairly reliable by interrogator.

3. Tactical Information:**Chronology**

10 Aug 50: Conscripted into NKPA, South Sinuiju. 450 conscripts (mostly merchants ages 17-37; average age 25) received 9 days basic training.
19 Aug 50: 450 conscripts designated as replacements. Activated into 1st Bn comprised of four (4) companies. POW assigned to 3d Co. 1st Bn left South Sinuiju by rail, unarmed.
20 Aug 50: 1st Bn arrived at Sinuiju. Travel only during night. Left Sinuiju immediately.
20-23 Aug 50: 1st Bn continued in southerly direction by rail and foot.
23 Aug 50: 1st Bn arrived at P'yongyang. Left P'yongyang immediately.
25 Aug 50: 1st Bn arrived at Kaesong. Travel by rail and foot. Left Kaesong on foot.
29 Aug 50: 1st Bn arrived at Seoul.
30 Aug 50: 1st Bn left Seoul on foot, still unarmed.
8 Sep 50: 1st Bn arrived at north bank of Naktong. River at point south of Andong via Suwon, Wonju, Yongju, Andong. Crossed river same night over repaired concrete bridge (see Bridges). No opposition encountered during crossing.

8-11 Sep 50: 1st Bn continued march south from Naktong River over mountain road. Travel by night only. 1st Bn still unarmed.

110400 Sep 50: 1st Bn arrived in 1st Div Area in wooded hill 8 km ENE of Taegu (location uncertain). Of 560 replacements in 1st Bn 30 troops deserted unit during travel from Sinuiju to 1st Div Area. 1st Bn replacements assigned to various units, 1st Div. POW and 2 assigned to 2d Plat, 5th Co, 2d Bn, 2d Inf Regt. M1891/30 rifle, 100 rounds available for only 2 or 3 replacements assigned to 2d Plat. POW unarmed. 2d Bn remained deployed in hill remainder of day. Other 1st Div Unit disposition, unknown.

111800 Sep 50: 2d Bn left hill positions (8 km ENE of Taegu) for wooded mountain approximately 4 km E (12 km ENE of Taegu).

120500 Sep 50: 2d Bn arrived at wooded mountain. [This was Hill 314]. Deployed in wide area.

121100 Sep 50: 2d Bn shelled by US artillery and mortars. Strafed and bombed by US aircraft. Heaviest casualties from artillery, mortars. Number unknown. Air attack, least effective. POW unarmed, hid between boulders during engagement. 2d Bn units forced into disorganized retreat as a result of heavy US artillery and mortar shelling and small arms fire. POW captured immediately thereafter by US Army units.

Weapons and Personnel:

1st Rifle Div-Strength unknown.

2d Inf Regt-Strength unknown.

2d Bn (3 x inf companies, mortar company, HMG Co). Strength 100. [?]

5th Co-Strength 6. [?]

Remarks: During engagements 2 x mortars similar to 82mm M1937 Medium Mortars distributed to each company. Returned to mortar company after engagement. In 5th Co 1 x mortar destroyed, remaining mortars, unknown (believed destroyed).

Unit Morale:

During 1st Bn (replacement unit) march from Sinuiju to 1st Div area (8 km ENE of Taegu). POW noticed low morale among troops in unit. Troops (formerly merchants in N Korea) were bitter over compulsory conscription and possessed no desire to fight for North Korean Government.

Although troops were warned by unit officers that NKPA troops would be killed by US Army if they surrendered, rumors by S Koreans in occupied areas circulated among troops that NKPA POWs in hands of US Army would receive good treatment. POW believes most North Korean replacement troops will surrender to US Army at first opportunity.

Sociological:

POW believes at least 80% of North Korean population dislike their government because of strict control and regulation of individuals.

Economical:

In Sobu, 240 km SE of Sinuiju, 8 Aug 50, following prices of commodities prevailed:
 rice, 1 sung-40 won
 work trousers, 1 pair-800 won
 work shirt-1 to 5 to 600 won

Semi-skilled workers in nearby carbide plant received 40 won plus three meals a day.

In Seoul, 29-30 Aug 50, S Korean currency was still being used. Exchange rate at bank was 100 N Korean won for 800 S Korean won.

Following price prevailed:

Leather dress shoes, a pair-2,000 S Korean won.

For the Commanding Officer:

Weeldreyer
Executive

[All this, to the end, is still under Tactical Information]

ITEM 11

HEADQUARTERS EUSAK
Office of the Assistant Chief of Staff, G-2
(164th Mil Intel Suc Det)
APO 301

AMS L 551 1:250,000

164-MISDI-0890
18 Sep 1950

Prisoner of War Preliminary Interrogation Report

POW Name: Lee, Chong O
Rank: Pvt
POW Number: 63 NK 4040
Organization: 14th Div, 2d Regt, 2d Bn, 4th Co, 1st Plat, 1st Sqd [Probably 1st Div, 2d Regt, 2d Bn, etc.]
Duties: Rifleman
Education: Middle school, 3 years
Age: 21
Occupation: Student
Address: Hwanghae-do, Changyon-gun, Nakto-myon, Samchon-ni
Date and Place of Capture: 140700 K [140600 I] Sep 50 (1150-1450) by Co "I", 7th Cav.
Interrogator: T. H.
Interrogator's Assessment: POW was very cooperative; however, information seems limited due to his limited service.
TO&E and Strength of: 4th Co, 2d Bn, 2d Regt, 14th Div (as of 14 Sep 50). The 4th Company composed of three (3) Inf Platoons. Each Inf Platoon composed of four (4) squads.

1st Platoon

a. Personnel	Original [11 Sep?]	Present [14 Sep]
(1) EM	40	15
(2) Officers	1	1
(3) Total	41	16

b. Equipment and ammo:		
(1) M1891/30 rifles	36 (60 rds per)	13
(2) PPsm SMG	4	2
(3) Grenades	2 per man	Unknown
4th Company		
a. Personnel		
(1) EM	120	45
(2) Officers	4	4
(3) Total	124	49
b. Equipment and ammo:		
(1) M1891/30 rifles	108 (60 rds per)	39
(2) PPsm SMG	12	6
(3) Grenades	2 per man	Unknown
HMG Company		
a. Personnel		
(1) EM	40	17
(2) Officers	1	1
(3) Total	41	18
b. Equipment:		
(1) MAXIM HMG	5 (1 ammo box per)	5

Location and Activities of Units:

2d Bn, 2d Regt, 14th Div was on offensive (location unknown)

Personal and Unit History:

POW and 1200 men were inducted on 8 Jul at Sariwon. He worked in a mess hall as KP until 15 Aug 50. 1200 men were trained as riflemen with wooden rifles until 15 Aug 50. POW and 1200 men, unarmed, left Sariwon on 15 Aug.

POW and 250 men assigned to 2d Bn, 2d Regt, 14th Div on 11 Sep at vicinity of Kasan. POW and 80 men who were assigned to 4th Co, received old rifles and 60 rounds per men, which had been taken from dead bodies and wounded men.

After being attacked by US forces, POW voluntarily surrendered to Co "I", 7th Cav at 1150-1450 on 14 Sep 50.

Morale:

Morale of the 4th Company was low because they lacked sufficient training.

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Appendix B

3D NK DIV ATTACK ORDER

ORO-T-261

309

SECRET

UNCLASSIFIED

ATTACK ORDER OF 11 SEP 50 FOR THE 3D NORTH KOREAN DIVISION
(OPPOSING THE 5TH US CAVALRY REGIMENT)

Note: This document is probably typical of the operations of the adjacent 13th NK Div, which is mentioned explicitly once, as well as of the subject 3d Div.
Source: Regimental History, 5th Cav Regt. Document believed captured at 1146.4-1447.5.

"TRANSLATION OF A CAPTURED ORDER. THE NKs WILL PROBABLY
CONTINUE TO FOLLOW THIS SCHEME OF MANEUVER"

Battle Order No.
3d Inf Div Staff Section

1150 11 Sep 50

Changwon-bong
Map 5000
(Note: Hill 371
at 1145-1453)

1. The enemy intends to defend the Taegu border along the line Taepyong-dong (1145.0-1446.9), Hill 188 (1146.4-1447.4), Hill 246.6 (1148.9-1448.3), Hill 260 (1150.2-1448.9). That defense is on a scattered hill basis. It is an independent outpost type of defense. The main defense points are at the unnamed hill (1146-1450), Hill 203 (1146-1451), Hill 174 (1147-1451), Hill 232 (1146-1453).
2. The division will attack these partial defenses and as the first assignment will secure the line from the south slope of Hill 188, Hill 246.6 and Hill 260. When this line is secured, continue attack toward Taegu area.
3. The motorized artillery regt will attack the right flank. The 13th Div will attack the left flank.
4. Continue to pursue the enemy, who oppose in groups, and attack in the direction of Taegu.
5. The 7th Regt will attack from the present position (Hill 371, 1145-1453) in the direction of Hill 174 (1147-1452) and Hill 203 (1146-1451). The first objective will be to take Hill 203, then to secure Hill 246 (1148.9-1448.3) by 0500 hours tomorrow morning.
The 8th Regt will attack on the right flank. The sector line will be from Hill 371 (1144-1451) to Hill 174 (1147-1451) to Sang-dong (1148.7-1449.1) to Hill 246.6 (1148.9-1448.3). All the points along the sector line will be the responsibility of the 7th Regt.
6. The 8th Regt will attack toward the line from Hill 203 (1146-1451) to Ha-dong (1147.8-1450.1) to unnamed hill (1147-1448). This line will be secured by 0500 hours in the morning.

The 9th Regt will attack on the right flank. The sector border line (between the 8th and 9th Regts) will be from Songmun-dong(1146.5-1451.5) to unnamed hill 1147-1448. The above-named places are the responsibility of the 8th Regt.

7. The 9th Regt will attack in the direction of Hill 203 (1146-1451) by Todang-dong (1145.3-1451.0), Sin-dong (1146.1-1449.3), Hill 188 (1146.4-1447.4). The south slope of Hill 188 will be secured by 0500 hours tomorrow. The 9th Regt will be responsible for the security of its right flank.

8. The artillery will be the Corps Arty and Regtl Arty Bn, and they will lay down 10 minutes of fire.

Preparation fire: Destroy the observation points in front of the enemy's defensive front. For attack support and final support: Protect the infantry with continuous fire until the end of an attack.

9. As for defense against tanks and aircraft, the present weapons will be organized. In order to fortify the secured position, dig trenches and completely camouflage. The Division CP is at Changwon-bong (1144.9-1453.2). Future move of Division CP will be in direction of the movement of 9th Regt.

10. Reports will be:

For completion of preparation - by telephone or by Ln officer.

When the attack commences - by telephone or wireless.

After the attack - by phone or WT on the hour.

When important position is secured - by flare or WT.

When pursuing next objective - written message, phone or WT.

11. Signals will be as designated before.

12. Alternate commander - 1st Chief of Staff.

Lee Yon Ho (signed)
Div Commander

Chu Teh Sen (signed)
Chief of Staff

Appendix C

PRISONER-OF-WAR INFORMATION
ON ENEMY USE OF MORTARS AND ARTILLERY

CONTENTS

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ITEM 1: ENEMY USE OF 120-mm MORTARS

Extracts from ADVATIS Interrogation Report No. 0755 and Supplement No. 1

POW Name: Kim, Chong Sop

POW No.: 63 NK 2576

Rank: Pvt

Age: 19

Duty: Rifleman (formerly mortarman)

Unit: 15th Div, 45th Regt, 3d Bn, 9th Co, 2d Plat, 1st Sqd (formerly 45th Regt, 120mm Mortar Company)

Place of Capture: Imkodong (10 km N of Yongch'on) (1190-1450) by ROK Army

Date of Capture: 7 Sep 50

POW and 23 others were transferred to the infantry because of large losses in the 45th Regt. All NCOs remained in unit [120mm Mortar Company], supposedly to train new crews from replacements....

Equipment of Mortar Company

6 x 120mm Mortars M1943. These mortars were manufactured in 1948, 1949 or 1950. The dates were stamped on the mortar tubes. Two binoculars, power unknown. One instrument similar to BC scope used for observation of fire. 4 x TAM field telephones. 6 km of field wire with reels.

Mortars were drawn by GAZ-51 trucks on a carriage similar to the 120mm tubular-type carriage. Ammunition was fuzed with GVM-2 impact fuze. One type fuze has a triangular fuze setting which may be used to obtain time fire, hearsay. POW never saw this type fuze. POW knew how to set fuze for impact or delay but his unit always used impact setting in combat. POW stated minimum elevation of piece was 45°, maximum elevation 80. Range 5,700 meters. Maximum rate of fire 12-13 rounds per minute. Most efficient rate of fire was 7 to 8 rounds per minute.

General Tactics, Preparation of Position

During displacements by vehicles the command squad rode in the first vehicle. The entire unit could be and was transported in organic transportation. POW does not know when or by whom the firing positions were selected. Mortars were generally emplaced at the base of a reverse slope. Company front was straight or slightly curved, covering a distance of approx 60 meters and permitting of 10 meters distance between pieces. Pieces were never staggered appreciably. The base was dug in from 12 to 15 inches. Ammunition (approx 20 rounds per mortar) was piled on top of the ground 10 meters to the rear of the emplacement. Personnel and ammunition was never dug in. The remainder of the ammunition supply (approx 70-80 rounds per piece, according to POW) was left in the trucks, which, depending on the terrain, are normally placed approx 200 meters to the rear (never left or right) of the mortar positions. If possible, trucks were separ-

ated by at least 50 meters. Vehicles were always camouflaged with grass and/or tree branches and placed under cover of trees to lessen possibility of observation from the air. POW's unit carried camouflage nets about the size of a truck. Generally camouflage was laid on top of nets and not intertwined. These nets could be lowered during firing.

The mortars are usually emplaced less than 4 km from the front lines. For this reason, the unit has no organic security weapons such as MGs, rocket launchers, AT guns or mines.

The Command Squad lays wire from the CP to the OP. One TAM field telephone [of total of four] is used to each location. The remaining two telephones were kept as reserve. Unit was originally supplied with wire of Russian manufacture. Number of steel and copper strands unknown. At Ch'unchon the unit captured some US wire and discarded the Russian wire. A telephone operator told POW that US wire is superior but POW doesn't know why. Only one line is laid between CP and OP. This line is constantly patrolled by members of the Command Squad. If this line becomes inoperative, no other means of communication is available. Lines are not buried at the mortar position.

The Co CO occupies the OP with members of the Command Squad, who act as assistants and telephone operators. In case of emergency, the Command Squad leader can adjust fire. Initial data for direction is telephoned to the mortar positions as a base azimuth. Range is converted to elevation setting by a firing table dept by the CO. According to POW, the Co CO is the only man who carries a firing table. CO adjusts fire and gives commands based on calculations made with the mil relation formula. This adjustment is made with the base pier, i.e. the piece located on the left flank of the mortar positions. All pieces follow commands and are brought in on fire for effect. Companies of mortars cannot give massed fires. POW heard that his CO effected liaison with supported units but does not know methods employed. In the mortar position fire commands are relayed to the pieces by the telephone operator. Duty of platoon leaders is to check operations of crew and to keep records on ammunition expended. No restriction was ever placed on firing. Ammunition was plentiful until the Han River crossing operation, after which resupply was sporadic. Average daily expenditure was 20 to 30 rounds per piece. At time of POW's transfer to the infantry his unit had 25 rounds per piece.

Rate of fire exceeded 1 round per minute on one occasion only. O/a 11 Aug 50, POW's unit fired sustained fire for 1 hour (1600-1700) to support a Naktong River crossing operation. His crew expended 120 rounds.

POW's unit had no smoke or incendiary shells. POW had never heard of gas shells.

POW's unit never fired specific counterbattery missions to his knowledge. However, he heard that other units had done so.

POW's unit received counterbattery fire on 3 or 4 occasions, but it is uncertain whether it was artillery or mortar. POW's unit displaced after 8 to 10 rounds of counterbattery fire. Displacements were always lateral, usually about 400 meters. No prior reconnaissance was made for selection of alternate or dummy positions on initial occupation. POW's unit sustained 1 killed in action and no W/A from counterbattery fire.

POW's unit never engaged in night firing.

ITEM 2: ENEMY ARTILLERY

Extracts from ADVATIS Interrogation Report No. 0958

POW Name: Lee, Yon Gun

Rank: Maj

Age: 27
Duty: Ass't Regt'l Commander
Unit: 15th Div, 45th Regt
Place of Capture: 8 km N of Kigye (1210-1460)
Date of Capture: 27 Sep 50

NKPA Artillery Information

76mm AT Gun (M1942) used in Div Arty. Used as an all-purpose gun. Maximum range: 12.5 km. Impact fuze (only type of fuze used).

76mm Howitzer (M1927) used for Regimental support. Maximum range 8,500 meters. Impact fuze only.

122mm Howitzer (M1938) used in Div Arty. Maximum range 8,500 meters. Semi-fixed projectiles used. Fuze: time fuze and impact fuze.

45mm AT Gun (M1942) used in the Regiment and in the Division Independent AT Gun Battalion. Maximum range: effective range against tank 400 meters. Penetrates steel plate 2 centimeters thick at 400 meters. This piece was often used as a field gun. Generally for machine gun positions against personnel. Projectiles and fuze: (a) armor piercing by heat (a lead head on the projectile which creates heat up to 3000°C upon impact), (b) impact fuze.

Artillery Communication Equipment

Four x wireless telephone to each Battalion. Wireless telephone used only when telephone lines could not be used between OP and battery positions. The infantry Battalion kept liaison with the Artillery by radio for artillery support. Predesignated flare signals were used by respective Battalions to ask for more Artillery support or for cease fire request.

Miscellaneous Artillery Information

Guns were emplaced during the night at least 2 kilometers to the rear of a hill. Pits 2 meters deep were dug for the pieces and camouflaged by vegetation. The OP was placed on the hilltop and was required to find the range. Maps of 1/50,000 with 1000-meter grid were the only one used. 1/25,000-grid maps were scarce and never used. Mass fire by Battalion was conducted but mass fire by Division Artillery was seldom used. Usually such mass fire was just to harass the enemy and its effectiveness is not known.

In the 122mm semi-fixed round the cartridge already had a fixed charge, but to increase the range 3 to 4 additional charges were added. The 122mm projectile used impact fuze and time fuze. PW had never heard of a proximity fuze. He did not even know of its existence.

Unobserved firing was mainly conducted by Division Artillery but seldom by Battalion. A Survey Recon Platoon of 15 men acted as advance observation party and computed direction, range and prearranged positions for gun batteries. Grid sheets were used. However, more often than not there was no time for unobserved fire. No aerial photographs were available. Ricochet artillery firing was practiced in training but never used in actual battle. The NKPA troops did not know how to properly set the fuze. Besides, Korean terrain was not suited for such firing.

Appendix C

PRISONER-OF-WAR INFORMATION
ON ENEMY USE OF MORTARS AND ARTILLERY

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ITEM 1: ENEMY USE OF 120-mm MORTARS

Extracts from ADVATIS Interrogation Report No. 0755 and Supplement No. 1

POW Name: Kim, Chong Sop

POW No.: 63 NK 2576

Rank: Pvt

Age: 19

Duty: Rifleman (formerly mortarman)

Unit: 15th Div, 45th Regt, 3d Bn, 9th Co, 2d Plat, 1st Sqd (formerly 45th Regt, 120mm Mortar Company)

Place of Capture: Imkodong (10 km N of Yongch'on) (1190-1450) by ROK Army

Date of Capture: 7 Sep 50

POW and 23 others were transferred to the infantry because of large losses in the 45th Regt. All NCOs remained in unit [120mm Mortar Company], supposedly to train new crews from replacements....

Equipment of Mortar Company

6 x 120mm Mortars M1943. These mortars were manufactured in 1948, 1949 or 1950. The dates were stamped on the mortar tubes. Two binoculars, power unknown. One instrument similar to BC scope used for observation of fire. 4 x TAM field telephones. 6 km of field wire with reels.

Mortars were drawn by GAZ-51 trucks on a carriage similar to the 120mm tubular-type carriage. Ammunition was fuzed with GVM-2 impact fuze. One type fuze has a triangular fuze setting which may be used to obtain time fire, hearsay. POW never saw this type fuze. POW knew how to set fuze for impact or delay but his unit always used impact setting in combat. POW stated minimum elevation of piece was 45°, maximum elevation 80. Range 5,700 meters. Maximum rate of fire 12-13 rounds per minute. Most efficient rate of fire was 7 to 8 rounds per minute.

General Tactics, Preparation of Position

During displacements by vehicles the command squad rode in the first vehicle. The entire unit could be and was transported in organic transportation. POW does not know when or by whom the firing positions were selected. Mortars were generally emplaced at the base of a reverse slope. Company front was straight or slightly curved, covering a distance of approx 60 meters and permitting of 10 meters distance between pieces. Pieces were never staggered appreciably. The base was dug in from 12 to 15 inches. Ammunition (approx 20 rounds per mortar) was piled on top of the ground 10 meters to the rear of the emplacement. Personnel and ammunition was never dug in. The remainder of the ammunition supply (approx 70-80 rounds per piece, according to POW) was left in the trucks, which, depending on the terrain, are normally placed approx 200 meters to the rear (never left or right) of the mortar positions. If possible, trucks were separ-

ated by at least 50 meters. Vehicles were always camouflaged with grass and/or tree branches and placed under cover of trees to lessen possibility of observation from the air. POW's unit carried camouflage nets about the size of a truck. Generally camouflage was laid on top of nets and not intertwined. These nets could be lowered during firing.

The mortars are usually emplaced less than 4 km from the front lines. For this reason, the unit has no organic security weapons such as MGs, rocket launchers, AT guns or mines.

The Command Squad lays wire from the CP to the OP. One TAM field telephone [of total of four] is used to each location. The remaining two telephones were kept as reserve. Unit was originally supplied with wire of Russian manufacture. Number of steel and copper strands unknown. At Ch'unchon the unit captured some US wire and discarded the Russian wire. A telephone operator told POW that US wire is superior but POW doesn't know why. Only one line is laid between CP and OP. This line is constantly patrolled by members of the Command Squad. If this line becomes inoperative, no other means of communication is available. Lines are not buried at the mortar position.

The Co CO occupies the OP with members of the Command Squad, who act as assistants and telephone operators. In case of emergency, the Command Squad leader can adjust fire. Initial data for direction is telephoned to the mortar positions as a base azimuth. Range is converted to elevation setting by a firing table dept by the CO. According to POW, the Co CO is the only man who carries a firing table. CO adjusts fire and gives commands based on calculations made with the mil relation formula. This adjustment is made with the base pier, i.e. the piece located on the left flank of the mortar positions. All pieces follow commands and are brought in on fire for effect. Companies of mortars cannot give massed fires. POW heard that his CO effected liaison with supported units but does not know methods employed. In the mortar position fire commands are relayed to the pieces by the telephone operator. Duty of platoon leaders is to check operations of crew and to keep records on ammunition expended. No restriction was ever placed on firing. Ammunition was plentiful until the Han River crossing operation, after which resupply was sporadic. Average daily expenditure was 20 to 30 rounds per piece. At time of POW's transfer to the infantry his unit had 25 rounds per piece.

Rate of fire exceeded 1 round per minute on one occasion only. O/a 11 Aug 50, POW's unit fired sustained fire for 1 hour (1600-1700) to support a Naktong River crossing operation. His crew expended 120 rounds.

POW's unit had no smoke or incendiary shells. POW had never heard of gas shells.

POW's unit never fired specific counterbattery missions to his knowledge. However, he heard that other units had done so.

POW's unit received counterbattery fire on 3 or 4 occasions, but it is uncertain whether it was artillery or mortar. POW's unit displaced after 8 to 10 rounds of counterbattery fire. Displacements were always lateral, usually about 400 meters. No prior reconnaissance was made for selection of alternate or dummy positions on initial occupation. POW's unit sustained 1 killed in action and no W/A from counterbattery fire.

POW's unit never engaged in night firing.

ITEM 2: ENEMY ARTILLERY

Extracts from ADVATIS Interrogation Report No. 0958

POW Name: Lee, Yon Gun

Rank: Maj

Age: 27
Duty: Ass't Regt'l Commander
Unit: 15th Div, 45th Regt
Place of Capture: 8 km N of Kigye (1210-1460)
Date of Capture: 27 Sep 50

NKPA Artillery Information

76mm AT Gun (M1942) used in Div Arty. Used as an all-purpose gun. Maximum range: 12.5 km. Impact fuze (only type of fuze used).

76mm Howitzer (M1927) used for Regimental support. Maximum range 8,500 meters. Impact fuze only.

122mm Howitzer (M1938) used in Div Arty. Maximum range 8,500 meters. Semi-fixed projectiles used. Fuze: time fuze and impact fuze.

45mm AT Gun (M1942) used in the Regiment and in the Division Independent AT Gun Battalion. Maximum range: effective range against tank 400 meters. Penetrates steel plate 2 centimeters thick at 400 meters. This piece was often used as a field gun. Generally for machine gun positions against personnel. Projectiles and fuze: (a) armor piercing by heat (a lead head on the projectile which creates heat up to 3000°C upon impact), (b) impact fuze.

Artillery Communication Equipment

Four x wireless telephone to each Battalion. Wireless telephone used only when telephone lines could not be used between OP and battery positions. The infantry Battalion kept liaison with the Artillery by radio for artillery support. Predesignated flare signals were used by respective Battalions to ask for more Artillery support or for cease fire request.

Miscellaneous Artillery Information

Guns were emplaced during the night at least 2 kilometers to the rear of a hill. Pits 2 meters deep were dug for the pieces and camouflaged by vegetation. The OP was placed on the hilltop and was required to find the range. Maps of 1/50,000 with 1000-meter grid were the only one used. 1/25,000-grid maps were scarce and never used. Mass fire by Battalion was conducted but mass fire by Division Artillery was seldom used. Usually such mass fire was just to harass the enemy and its effectiveness is not known.

In the 122mm semi-fixed round the cartridge already had a fixed charge, but to increase the range 3 to 4 additional charges were added. The 122mm projectile used impact fuze and time fuze. PW had never heard of a proximity fuze. He did not even know of its existence.

Unobserved firing was mainly conducted by Division Artillery but seldom by Battalion. A Survey Recon Platoon of 15 men acted as advance observation party and computed direction, range and prearranged positions for gun batteries. Grid sheets were used. However, more often than not there was no time for unobserved fire. No aerial photographs were available. Ricochet artillery firing was practiced in training but never used in actual battle. The NKPA troops did not know how to properly set the fuze. Besides, Korean terrain was not suited for such firing.

Appendix D

FRIENDLY STRENGTHS AND BATTLE CASUALTIES
IN THE SECTOR NORTH OF TAEGU

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D1. STRENGTHS 2 SEP 50 AND CASUALTIES 1-9 SEP 50 IN THE 8TH CAV REGT AND ATTACHED ENGINEER UNITS FIGHTING AS INFANTRY	321
D2. STATISTICAL BREAKDOWN OF FRIENDLY STRENGTHS AND BATTLE CASUALTIES IN THE SECTOR NORTH OF TAEGU, 6-16 SEP 50	322

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TABLE D1

STRENGTHS 2 SEP 50 AND CASUALTIES 1-9 SEP 50 IN THE 8TH CAV REGT
AND ATTACHED ENGINEER UNITS FIGHTING AS INFANTRY^a

Unit	Strengths, 2 Sep			Casualties among US and attached ROK troops (includes KIA, WIA, and MIA), by day ^b								
	US	ROK	Total ^c	1 Sep	2 Sep	3 Sep	4 Sep	5 Sep	6 Sep	7 Sep	8 Sep	9 Sep
8th Cav												
1st Bn												
Co A	142	25	167	<i>1</i>	<i>3</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>3</i>	<i>2</i>	<i>3</i>	<i>1</i>
Co B	147	25	172	<i>1</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>2</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>1</i>
Co C	143	25	168	<i>0</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>0</i>
Co D	129	0	129	<i>0</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>3</i>	<i>0</i>	<i>0</i>	<i>0</i>
Co H1	97	0	97	<i>0</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>0</i>
2d Bn												
Co E	133	22	155	<i>4</i>	<i>5</i>	<i>13</i>	<i>10</i>	<i>28^d</i>	<i>15^e</i>	<i>6</i>	<i>1</i>	<i>1</i>
Co F	146	14	160	<i>1</i>	<i>9</i>	<i>36^f</i>	<i>10</i>	<i>7</i>	<i>1</i>	<i>1</i>	<i>4</i>	<i>1</i>
Co G	136	24	160	<i>3</i>	<i>15</i>	<i>19^g</i>	<i>3</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Co H	136	11	147	<i>1</i>	<i>10</i>	<i>3</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>1</i>
Co H2	95	0	95	<i>0</i>	<i>2</i>	<i>3</i>	<i>6</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>
3d Bn												
Co I	166	0	166	<i>1</i>	<i>0</i>	<i>3</i>	<i>2</i>	<i>3</i>	<i>1</i>	<i>0</i>	<i>10</i>	<i>0</i>
Co K	162	10	172	<i>0</i>	<i>0</i>	<i>1</i>	<i>4</i>	<i>0</i>	<i>3</i>	<i>4</i>	<i>9</i>	<i>1</i>
Co L	165	10	175	<i>0</i>	<i>1</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>5</i>	<i>3</i>	<i>16</i>	<i>0</i>
Co M	124	9	133	<i>0</i>	<i>0</i>	<i>2</i>	<i>7</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Co H3	93	11	104	<i>0</i>	<i>0</i>	<i>0</i>	<i>3</i>	<i>0</i>	<i>4</i>	<i>0</i>	<i>0</i>	<i>0</i>
Regtl Units												
HM Co	141	0	141	<i>0</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2</i>	<i>1</i>	<i>2</i>	<i>0</i>
Svc Co	133	0	133	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>8</i>	<i>0</i>	<i>0</i>	<i>0</i>
Med Co	144	0	144	<i>0</i>	<i>2</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>3</i>	<i>1</i>	<i>1</i>	<i>1</i>
Hq & Hq	193	0	193	<i>0</i>	<i>0</i>	<i>3</i>	<i>2</i>	<i>10^h</i>	<i>1</i>	<i>2</i>	<i>1</i>	<i>0</i>
8th Engr Bn												
Co A	~ 175	—	—	<i>0</i>	<i>0</i>	<i>1</i>	<i>8</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>1</i>
Co C	~ 175	—	—	<i>0</i>	<i>0</i>	<i>9</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>
Co D	167	—	—	<i>0</i>	<i>0</i>	<i>0</i>	<i>24ⁱ</i>	<i>12</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Inf Cas												
thought infl. by 13th NK												
Div, total	—	—	—	<i>12</i>	<i>50</i>	<i>100</i>	<i>65</i>	<i>35</i>	<i>36</i>	<i>10</i>	<i>5</i>	<i>—</i>

^aData from machine run of January 1951. Table D2 gives later, corrected (but almost identical) data for 6-9 September.

^bInstances of more than two MIA per company per day are indicated by footnotes. Casualties considered sustained by friendly units in combat with the 13th NK Div are italicized.

^cThe grand total for all companies is thought to be 75 percent complete, but the figure for any one company on any one day may be less complete or in error.

^dIncludes 7 MIA.

^eIncludes 3 MIA.

^fIncludes 20 MIA.

^gIncludes 6 MIA.

^hIncludes 9 ROKs WIA.

ⁱIncludes 14 MIA.

TABLE D2

STATISTICAL BREAKDOWN OF FRIENDLY STRENGTHS AND BATTLE CASUALTIES
IN THE SECTOR NORTH OF TAEGU, 6-16 SEP 50

Unit	US personnel					Integrated ROKA personnel					Entire unit				
	Strength	Casualties				Strength	Casualties				Strength	Casualties			
		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total
6 September															
8th Cav															
1st Bn															
Co A	179	2	2	0	4	25	0	0	0	0	204	2	2	0	4
Co B	179	0	2	0	2	25	0	0	0	0	204	0	2	0	2
Co C	170	1	0	0	1	24	0	0	0	0	194	1	0	0	1
Co D	141	0	3	0	3	0	0	0	0	0	141	0	3	0	3
Co H1	97	0	1	0	1	0	0	0	0	0	97	0	1	0	1
Total	766	3	8	0	11	74	0	0	0	0	840	3	8	0	11
2d Bn															
Co E	169	1	13	2	16	14	0	0	0	0	183	1	13	2	16
Co F	131	0	1	0	1	12	0	0	0	0	143	0	1	0	1
Co G	130	0	0	0	0	19	0	0	0	0	149	0	0	0	0
Co H	137	0	1	1	2	11	0	0	0	0	148	0	1	1	2
Co H2	93	0	0	0	0	0	0	0	0	0	93	0	0	0	0
Total	660	1	15	3	19	56	0	0	0	0	716	1	15	3	19
3d Bn															
Co I	166	1	0	0	1	10	0	0	0	0	176	1	0	0	1
Co K	159	1	5	0	6	5	0	3	0	3	164	1	8	0	9
Co L	167	1	7	0	8	8	0	0	0	0	175	1	7	0	8
Co M	145	0	1	0	1	8	0	0	0	0	153	0	1	0	1
Co H3	86	1	7	0	8	34	0	2	0	2	120	1	9	0	10
Total	723	4	20	0	24	65	0	5	0	5	788	4	25	0	29

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Regtl units																
HM Co	135	1	1	0	2	0	0	0	0	0	0	135	1	1	0	2
Svc Co	141	1	7	0	8	0	0	0	0	0	0	141	1	7	0	8
Med Co	141	0	2	1	3	0	0	0	0	0	0	141	0	2	1	3
Hq & Hq Co	200	0	1	0	1	69	0	0	0	0	0	269	0	1	0	1
8th Cav, total	2766	10	54	4	68	264	0	5	0	5	5	3030	10	59	4	73
16th Recon Co	136	1	3	0	4	50	0	0	0	0	0	186	1	3	0	4
8th Cav & 16th Recon, total	2902	11	57	4	72	314	0	5	0	5	5	3210	11	62	4	77
7 September																
8th Cav																
1st Bn																
Co A	175	1	1	0	2	25	0	0	0	0	0	200	1	1	0	2
Co B	178	0	0	0	0	25	0	0	0	0	0	203	0	0	0	0
Co C	170	0	0	0	0	24	0	0	0	0	0	194	0	0	0	0
Co D	141	0	0	0	0	0	0	0	0	0	0	141	0	0	0	0
Co H1	97	0	1	0	1	0	0	0	0	0	0	97	0	1	0	1
Total	761	1	2	0	3	74	0	0	0	0	0	835	1	2	0	3
2d Bn																
Co E	146	2	3	0	5	14	0	0	0	0	0	160	2	3	0	5
Co F	118	0	1	0	1	37	0	0	0	0	0	155	0	1	0	1
Co G	130	0	0	0	0	18	0	0	0	0	0	148	0	0	0	0
Co H	136	0	0	0	0	11	0	0	0	0	0	147	0	0	0	0
Co H2	91	1	0	0	1	0	0	0	0	0	0	91	1	0	0	1
Total	621	3	4	0	7	80	0	0	0	0	0	701	3	4	0	7
3d Bn																
Co I	188	2	0	0	2	20	0	0	0	0	0	208	2	0	0	2
Co K	159	0	3	0	3	15	0	0	0	0	0	174	0	3	0	3
Co L	167	2	3	0	5	8	0	0	0	0	0	175	2	3	0	5
Co M	164	0	0	0	0	18	0	0	0	0	0	182	0	0	0	0
Co H3	86	0	0	0	0	44	0	0	0	0	0	130	0	0	0	0
Total	764	4	6	0	10	105	0	0	0	0	0	869	4	6	0	10

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TABLE D2 (continued)

Unit	US personnel					Integrated ROKA personnel					Entire unit				
	Strength	Casualties				Strength	Casualties				Strength	Casualties			
		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total
7 September (continued).															
Regtl units															
HM Co	137	0	1	0	1	0	0	0	0	0	137	0	1	0	1
Svc	134	0	0	0	0	0	0	0	0	0	134	0	0	0	0
Med	140	1	0	0	1	0	0	0	0	0	140	1	0	0	1
Hq & Hq Co	200	0	1	0	1	69	0	0	0	0	269	0	0	0	0
8th Cav, total	2757	9	14	0	23	328	0	0	0	0	3085	9	14	0	23
16th Recon Co	136	0	0	0	0	50	0	0	0	0	186	0	0	0	0
8th Cav & 16th Recon, total	2893	9	14	0	23	378	0	0	0	0	3271	9	14	0	23
8 September															
8th Cav															
1st Bn															
Co A	175	0	3	0	3	25	0	0	0	0	200	0	3	0	3
Co B	178	0	1	0	1	25	0	0	0	0	203	0	1	0	1
Co-C	170	1	0	0	1	23	0	1	0	1	193	1	1	0	2
Co D	141	0	0	0	0	0	0	0	0	0	141	0	0	0	0
Co H1	98	0	1	0	1	0	0	0	0	0	98	0	1	0	1
Total	762	1	5	0	6	73	0	1	0	1	835	1	6	0	7
2d Bn															
Co E	139	0	1	0	1	14	0	0	0	0	153	0	1	0	1
Co F	122	0	3	0	3	37	0	0	0	0	159	0	3	0	3
Co G	130	0	0	0	0	18	0	0	0	0	148	0	0	0	0
Co H	134	0	1	0	1	11	0	0	0	0	145	0	1	0	1
Co H2	88	0	1	0	1	0	0	0	0	0	88	0	1	0	1
Total	613	0	6	0	6	80	0	0	0	0	693	0	6	0	6

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3d Bn															
Co I	188	0	14	0	14	20	0	0	0	0	208	0	14	0	14
Co K	159	1	14	0	15	15	0	0	0	0	174	1	14	0	15
Co L	161	2	24	0	26	17	1	0	0	1	178	3	24	0	27
Co M	163	0	2	0	2	18	0	0	0	0	181	0	2	0	2
Co H3	86	0	0	0	0	43	0	1	0	1	129	0	1	0	1
Total	757	3	54	0	57	113	1	1	0	2	870	4	55	0	59
Regtl units															
HM Co	140	0	2	0	2	0	0	0	0	0	140	0	2	0	2
Svc	134	0	0	0	0	0	0	0	0	0	134	0	0	0	0
Med	140	0	1	0	1	0	0	0	0	0	140	0	1	0	1
Hq & Hq Co	200	0	1	0	1	69	0	0	0	0	269	0	1	0	1
8th Cav, total	2746	4	69	0	73	335	1	2	0	3	3081	5	71	0	76
16th Recon Co	136	0	1	0	1	50	0	0	0	0	186	0	1	0	1
8th Cav & 16th Recon, total	2882	4	70	0	74	385	1	2	0	3	3267	5	72	0	77
9th September															
8th Cav															
1st Bn															
Co A	175	0	2	0	2	25	0	0	0	0	200	0	2	0	2
Co B	178	0	0	0	0	25	0	0	0	0	203	0	0	0	0
Co C	170	0	0	0	0	23	0	0	0	0	193	0	0	0	0
Co D	141	0	0	0	0	0	0	0	0	0	141	0	0	0	0
Co H1	98	0	0	0	0	0	0	0	0	0	98	0	0	0	0
Total	762	0	2	0	2	73	0	0	0	0	835	0	2	0	2
2d Bn															
Co E	115	0	2	0	2	83	0	0	0	0	198	0	2	0	2
Co F	116	0	1	0	1	37	0	0	0	0	153	0	1	0	1
Co G	134	0	0	0	0	18	0	0	0	0	152	0	0	0	0
Co H	134	1	0	0	1	11	0	0	0	0	145	1	0	0	1
Co H2	87	0	0	0	0	0	0	0	0	0	87	0	0	0	0
Total	586	1	3	0	4	149	0	0	0	0	735	1	3	0	4

TABLE D2 (continued)

Unit	US personnel					Integrated ROKA personnel					Entire unit				
	Strength	Casualties				Strength	Casualties				Strength	Casualties			
		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total
9 September (continued)															
3d Bn															
Co I	172	0	1	0	1	20	0	0	0	0	192	0	1	0	1
Co K	159	0	1	0	1	15	0	0	0	0	174	0	1	0	1
Co L	161	0	1	0	1	17	0	0	0	0	178	0	1	0	1
Co M	163	0	1	0	1	18	0	0	0	0	181	0	1	0	1
Co H3	86	0	0	0	0	43	0	0	0	0	129	0	0	0	0
Total	741	0	4	0	4	113	0	0	0	0	854	0	4	0	4
Regtl units															
HM Co	136	0	0	0	0	0	0	0	0	0	136	0	0	0	0
Svc	134	0	0	0	0	0	0	0	0	0	134	0	0	0	0
Med	140	0	0	1	1	0	0	0	0	0	140	0	0	1	1
Hq & Hq Co	200	0	0	0	0	0	0	0	0	0	200	0	0	0	0
8th Cav, total	2699	1	9	1	11	335	0	0	0	0	3034	1	9	1	11
16th Recon Co	137	3	22	0	25	50	0	7	0	7	187	3	29	0	32
8th Cav & 16th Recon, total	2836	4	31	1	36	385	0	7	0	7	3221	4	38	1	43
10 September															
8th Cav															
1st Bn															
Co A	174	0	2	0	2	25	0	0	0	0	199	0	2	0	2
Co B	175	0	0	0	0	25	0	0	0	0	200	0	0	0	0
Co C	170	1	0	0	1	23	0	0	0	0	193	1	0	0	1
Co D	140	0	1	0	1	0	0	0	0	0	140	0	1	0	1
Co H1	97	0	2	0	2	0	0	0	0	0	97	0	2	0	2
Total	756	1	5	0	6	73	0	0	0	0	829	1	5	0	6

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2d Bn															
Co E	112	0	4	0	4	83	0	0	0	0	195	0	4	0	4
Co F	116	0	2	0	2	37	0	0	0	0	153	0	2	0	2
Co G	145	0	2	0	2	19	0	0	0	0	164	0	2	0	2
Co H	134	0	3	0	3	36	0	0	0	0	170	0	3	0	3
Co H2	86	0	0	0	0	0	0	0	0	0	86	0	0	0	0
Total	593	0	11	0	11	177	0	0	0	0	770	0	11	0	11
3d Bn															
Co I	172	1	5	0	6	20	0	0	0	0	192	1	5	0	6
Co K	156	1	16	0	17	15	0	1	0	1	171	1	17	0	18
Co L	161	0	1	0	1	17	0	0	0	0	178	0	1	0	1
Co M	163	0	2	0	2	18	0	0	0	0	181	0	2	0	2
Co H3	86	0	0	0	0	43	0	0	0	0	129	0	0	0	0
Total	738	2	24	0	26	113	0	1	0	1	851	2	25	0	27
Regtl units															
HM Co	133	0	0	0	0	0	0	0	0	0	133	0	0	0	0
Svc	134	0	0	0	0	0	0	0	0	0	134	0	0	0	0
Med	148	0	1	0	1	0	0	0	0	0	148	0	1	0	1
Hq & Hq Co	209	0	0	0	0	0	0	0	0	0	209	0	0	0	0
8th Cav, total	2711	3	41	0	44	363	0	1	0	1	3074	3	42	0	45
16th Recon	121	6	7	0	13	43	2	1	4	7	164	8	8	4	20
8th Cav & 16th Recon, total	2832	9	48	0	57	406	2	2	4	8	3238	11	50	4	65
7th Cav															
3d Bn															
Co I	142	0	3	0	3	30	0	0	0	0	172	0	3	0	3
Co K	151	0	0	0	0	35	0	0	0	0	186	0	0	0	0
Co L	154	0	0	0	0	36	0	0	0	0	190	0	0	0	0
Co M	113	0	0	0	0	13	0	0	0	0	126	0	0	0	0
Co H3	90	0	0	0	0	35	0	0	0	0	125	0	0	0	0
Total	650	0	3	0	3	149	0	0	0	0	799	0	3	0	3
Grand Total	3482	9	51	0	60	555	2	2	4	8	4037	11	50	4	68

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TABLE D2 (continued)

Unit	US personnel					Integrated ROKA personnel					Entire unit				
	Strength	Casualties				Strength	Casualties				Strength	Casualties			
		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total
11 September															
8th Cav															
1st Bn															
Co A	174	1	2	0	3	41	0	0	0	0	215	1	2	0	3
Co B	176	0	1	0	1	39	0	0	0	0	215	0	1	0	1
Co C	170	0	2	0	2	38	0	0	0	0	208	0	2	0	2
Co D	140	0	1	0	1	20	0	0	0	0	160	0	1	0	1
Co H1	97	0	0	0	0	8	0	0	0	0	105	0	0	0	0
Total	757	1	6	0	7	146	0	0	0	0	903	1	6	0	7
2d Bn															
Co E	110	3	9	0	12	74	1	9	0	10	184	4	18	0	22
Co F	118	0	7	0	7	36	0	2	0	2	154	0	9	0	9
Co G	145	1	29	4	34	20	0	2	0	2	165	1	31	4	36
Co H	135	0	7	0	7	33	0	4	0	4	168	0	11	0	11
Co H2	86	1	2	0	3	0	0	0	0	0	86	1	2	0	3
Total	594	5	54	4	63	163	1	17	0	18	757	6	71	4	81
3d Bn															
Co I	172	2	25	0	27	25	0	0	0	0	197	2	25	0	27
Co K	112	3	11	0	14	18	0	2	0	2	130	3	13	0	16
Co L	161	0	0	0	0	22	0	0	0	0	183	0	0	0	0
Co M	163	1	6	0	7	18	0	0	0	0	181	1	6	0	7
Co H3	86	0	0	0	0	47	0	1	0	1	133	0	1	0	1
Total	694	6	42	0	48	130	0	3	0	3	824	6	45	0	51
8th Cav															
1st Bn															
HM Co	134	0	0	0	0	0	0	0	0	0	134	0	0	0	0
Svc	135	0	0	0	0	0	0	0	0	0	135	0	0	0	0
Med	169	0	4	0	4	0	0	0	0	0	169	0	4	0	4

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Hq & Hq Co	209	0	3	0	3	0	0	0	0	0	209	0	3	0	3	
Total	2692	12	109	4	125	439	1	20	0	21	3131	13	129	4	146	
16th Recon Co	101	0	0	0	0	36	0	0	0	0	137	0	0	0	0	
8th Cav & 16th Recon, total	2793	12	109	4	125	475	1	20	0	21	3268	13	129	4	146	
7th Cav																
3rd Bn																
Co I	145	0	2	0	2	30	0	1	0	1	175	0	3	0	3	
Co K	148	0	0	0	0	35	0	2	0	2	183	0	2	0	2	
Co L	144	0	0	0	0	36	0	0	0	0	180	0	0	0	0	
Co M	113	0	0	0	0	13	0	1	0	1	126	0	1	0	1	
Co H3	93	0	1	0	1	35	0	0	0	0	128	0	1	0	1	
Total	643	0	2	0	2	149	0	4	0	4	792	0	6	0	6	
Grand Total	3436	12	111	4	127	624	1	24	0	25	4060	13	135	4	152	
12 September																
8th Cav																
1st Bn																
Co A	175	0	0	0	0	41	0	0	0	0	216	0	0	0	0	
Co B	177	4	13	0	17	38	0	1	0	1	215	4	14	0	18	
Co C	170	0	0	0	0	38	0	0	0	0	298	0	0	0	0	
Co D	140	0	0	0	0	20	0	0	0	0	140	0	0	0	0	
Co H1	96	0	3	0	3	8	0	0	0	0	104	0	3	0	3	
Total	758	4	16	0	20	145	0	1	0	1	903	4	17	0	21	
2d Bn																
Co E	136	0	2	0	2	74	0	0	0	0	210	0	2	0	2	
Co F	111	0	0	0	0	36	0	0	0	0	147	0	0	0	0	
Co G	133	2	2	0	4	20	0	0	0	0	153	2	2	0	4	
Co H	131	0	1	0	1	33	0	0	0	0	164	0	1	0	1	
Co H2	86	0	1	0	1	0	0	0	0	0	86	0	1	0	1	
Total	597	2	6	0	8	163	0	0	0	0	760	2	6	0	8	

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TABLE D2 (continued)

Unit	US personnel					Integrated ROKA personnel					Entire unit				
	Strength	Casualties				Strength	Casualties				Strength	Casualties			
		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total
12 September (continued)															
3d Bn															
Co I	172	3	1	0	4	25	0	0	0	0	197	3	1	0	4
Co K	112	0	2	0	2	18	0	0	0	0	130	0	2	0	2
Co L	161	0	0	0	0	22	0	0	0	0	183	0	0	0	0
Co M	163	0	1	0	1	18	0	0	0	0	181	0	1	0	1
Co H3	86	0	0	0	0	45	2	0	0	2	135	2	0	0	2
Total	694	3	4	0	7	128	2	0	0	2	822	5	4	0	9
Regt units															
HM Co	135	0	1	0	1	0	0	0	0	0	135	0	1	0	1
Svc	138	0	1	0	1	0	0	0	0	0	138	0	1	0	1
Med	170	1	1	0	2	0	0	0	0	0	170	1	1	0	2
Hq & Hq Co	209	0	1	0	1	0	0	0	0	0	209	0	1	0	1
8th Cav, total	2701	10	30	0	40	436	2	1	0	3	3137	12	31	0	43
16th Recon Co	98	0	0	0	0	36	0	1	0	1	134	0	1	0	1
8th Cav & 16th Recon, total	2799	10	30	0	40	472	2	2	0	4	3271	12	32	0	44
7th Cav															
3d Bn															
Co I	142	9	43	0	52	29	1	5	0	6	171	10	48	0	58
Co K	148	2	14	0	16	33	3	4	0	7	181	5	18	0	23
Co L	144	21	37	0	58	36	0	4	0	4	180	21	41	0	62
Co M	113	0	5	0	5	12	0	0	0	0	125	0	5	0	5
Co H3	93	0	1	0	1	35	2	2	0	4	128	2	3	0	5
Total	640	32	99	0	132	145	6	15	0	21	785	38	114	0	153
Grand Total	3439	42	129	0	172	617	8	17	0	25	4056	50	146	0	197

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13 September
8th Cav

1st Bn

Co A	175	0	0	0	0	41	0	1	0	1	216	0	1	0	1
Co B	177	3	7	0	10	38	0	1	0	1	215	3	8	0	11
Co C	170	0	0	0	0	38	0	0	0	0	208	0	0	0	0
Co D	140	0	0	0	0	20	0	0	0	0	160	0	0	0	0
Co H1	95	0	0	0	0	8	0	0	0	0	103	0	0	0	0
Total	757	3	7	0	10	145	0	2	0	2	902	3	9	0	12

2d Bn

Co E	156	0	0	0	0	74	0	1	0	1	230	0	1	0	1
Co F	104	1	4	0	5	34	2	0	0	2	138	3	4	0	7
Co G	100	0	1	0	1	20	0	0	0	0	120	0	1	0	1
Co H	122	0	0	0	0	32	1	0	0	1	154	1	0	0	1
Co H2	85	0	1	0	1	0	0	0	0	0	85	0	1	0	1
Total	567	1	6	0	7	160	3	1	0	4	727	4	7	0	11

3d Bn

Co I	172	0	2	0	2	25	0	0	0	0	197	0	2	0	2
Co K	114	0	0	0	0	18	0	0	0	0	132	0	0	0	0
Co L	160	0	0	0	0	22	0	0	0	0	182	0	0	0	0
Co M	163	1	0	0	1	18	0	0	0	0	181	1	0	0	1
Co H3	83	0	0	0	0	44	0	2	0	2	83	0	2	0	2
Total	692	1	2	0	3	127	0	2	0	2	819	1	4	0	5

Regtl units

HM Co	134	0	0	0	0	0	0	0	0	0	134	0	0	0	0
Svc	137	0	0	0	0	0	0	0	0	0	137	0	0	0	0
Med	181	0	1	0	1	0	0	0	0	0	181	0	1	0	1
Hq & Hq Co	208	0	3	0	3	0	0	0	0	0	208	0	3	0	3

8th Cav, total 2676 5 19 0 24 432 3 5 0 8 3108 8 24 0 32

16th Recon Co 97 0 0 0 0 38 0 0 0 0 0 135 0 0 0 0

8th Cav & 16th Recon, total 2773 5 19 0 24 470 3 5 0 8 3243 8 24 0 32

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TABLE D2 (continued)

Unit	US personnel						Integrated ROKA personnel						Entire unit					
	Strength	Casualties			Strength	Casualties			Strength	Casualties			Strength	Casualties				
		KIA	WIA, DOI	DOW, IIA		KIA	WIA, DOI	DOW, IIA		KIA	WIA, DOI	DOW, IIA		KIA	WIA, DOI	DOW, IIA	MIA	Total
13 September (continued)																		
7th Cav																		
3d Bn																		
Co I	145	0	0	0	23	0	1	0	0	1	0	0	1	168	0	1	0	
Co K	163	0	2	0	26	0	0	0	0	0	0	0	0	189	0	2	0	
Co L	148	1	1	0	32	0	0	0	0	0	0	0	0	180	1	1	0	
Co M	130	0	0	0	12	0	0	0	0	0	0	0	0	142	0	0	0	
Co H3	106	0	0	0	31	0	2	0	2	0	0	0	2	137	0	2	0	
Total	692	1	3	0	124	0	3	0	3	0	0	0	3	716	1	6	0	
Grand Total	3465	6	22	0	594	3	8	0	0	0	0	0	11	4059	9	30	0	
14 September																		
8th Cav																		
1st Bn																		
Co A	151	0	1	0	41	0	0	0	0	0	0	0	0	192	0	1	0	
Co B	142	0	0	0	38	0	0	0	0	0	0	0	0	180	0	0	0	
Co C	173	0	0	0	38	0	0	0	0	0	0	0	0	211	0	0	0	
Co D	140	0	0	0	20	0	0	0	0	0	0	0	0	160	0	0	0	
Co H1	89	0	1	0	8	0	0	0	0	0	0	0	0	97	0	1	0	
Total	695	0	2	0	145	0	0	0	0	0	0	0	0	840	0	2	0	
2d Bn																		
Co E	158	0	9	0	74	0	0	0	0	0	0	0	0	232	0	9	0	
Co F	98	0	1	0	34	0	0	0	0	0	0	0	0	132	0	1	0	
Co G	100	0	0	0	20	0	0	0	0	0	0	0	0	120	0	0	0	
Co H	121	0	2	0	32	0	0	0	0	0	0	0	0	153	0	2	0	
Co H2	82	0	0	0	0	0	0	0	0	0	0	0	0	82	0	0	0	
Total	559	0	12	0	160	0	0	0	0	0	0	0	0	719	0	12	0	

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3d Bn															
Co I	144	4	1	0	5	24	0	1	0	1	168	4	2	0	6
Co K	84	1	1	0	2	18	0	0	0	0	102	1	1	0	2
Co L	140	0	0	0	0	22	0	0	0	0	162	0	0	0	0
Co M	128	0	0	0	0	18	0	0	0	0	146	0	0	0	0
Co H3	81	0	0	0	0	44	0	0	0	0	125	0	0	0	0
Total	577	5	2	0	7	126	0	1	0	1	703	5	3	0	8
Regtl units															
HM Co	134	0	0	0	0	0	0	0	0	0	134	0	0	0	0
Svc	138	0	0	0	0	0	0	0	0	0	138	0	0	0	0
Med	174	0	1	0	1	0	0	0	0	0	174	0	1	0	1
Hq & Hq Co	211	0	0	0	0	0	0	0	0	0	211	0	0	0	0
8th Cav, total	2488	5	17	0	22	431	0	1	0	1	2919	5	18	0	23
16th Recon Co	98	0	5	0	5	38	0	0	0	0	136	0	5	0	5
8th Cav & 16th Recon, total	2586	5	22	0	27	469	0	1	0	1	3055	5	23	0	28
7th Cav															
3d Bn															
Co I	144	0	0	0	0	22	1	0	0	1	166	1	0	0	1
Co K	165	0	0	0	0	25	0	0	0	0	190	0	0	0	0
Co L	149	0	0	0	0	32	0	0	0	0	181	0	0	0	0
Co M	131	0	0	0	0	12	0	0	0	0	143	0	0	0	0
Co H3	104	0	0	0	0	29	1	0	0	1	133	1	0	0	1
Total	693	0	0	0	0	120	2	0	0	2	712	2	0	0	2
Grand Total	3279	5	22	0	27	589	2	1	0	3	3868	7	23	0	30
15 September															
8th Cav															
1st Bn															
Co A	154	0	1	0	1	50	0	2	0	2	204	0	3	0	3
Co B	140	0	0	0	0	50	0	0	0	0	190	0	0	0	0
Co C	173	1	1	0	2	43	0	1	0	1	216	1	2	0	3
Co D	140	0	1	0	1	20	0	0	0	0	160	0	1	0	1

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TABLE D2 (continued)

Unit	US personnel					Integrated ROKA personnel					Entire units					
	Strength	Casualties				Strength	Casualties				Strength	Casualties				
		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total	
15 September (continued)																
Co H1	90	0	0	0	0	8	0	0	0	0	98	0	0	0	0	
Total	697	1	3	0	4	171	0	3	0	3	868	1	6	0	7	
2d Bn																
Co E	143	2	14	0	16	84	0	0	0	0	227	2	14	0	16	
Co F	99	1	8	0	9	44	0	0	0	0	143	1	8	0	9	
Co G	100	0	0	0	0	20	0	0	0	0	120	0	0	0	0	
Co H	119	0	2	0	2	32	0	0	0	0	151	0	2	0	2	
Co H2	84	0	1	0	1	0	0	0	0	0	84	0	1	0	1	
Total	545	3	25	0	28	180	0	0	0	0	725	3	25	0	28	
3d Bn																
Co I	133	1	2	0	3	31	0	0	0	0	164	1	2	0	3	
Co K	84	0	4	0	4	25	0	0	0	0	119	0	4	0	4	
Co L	110	2	15	1	18	22	0	0	0	0	132	2	15	1	18	
Co M	128	1	1	0	2	18	0	0	0	0	146	1	1	0	2	
Co H3	81	0	0	0	0	44	0	0	0	0	125	0	0	0	0	
Total	536	4	22	1	27	140	0	0	0	0	676	4	22	1	27	
Regtl units																
HM Co	134	0	2	0	2	0	0	0	0	0	134	0	2	0	2	
Svc	138	0	0	0	0	0	0	0	0	0	138	0	0	0	0	
Med	174	2	5	0	7	0	0	0	0	0	174	2	5	0	7	
Hq & Hq Co	211	0	0	0	0	0	0	0	0	0	211	0	0	0	0	
8th Cav, total	2435	10	57	1	68	491	0	3	0	3	2926	10	60	1	71	
16th Recon	99	0	5	0	5	38	0	0	0	0	137	0	5	0	5	
8th Cav & 16th Recon, total	1534	10	62	1	73	529	0	3	0	3	3063	10	65	1	76	

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7th Cav															
3d Bn															
Co I	131	1	0	0	1	21	1	0	0	1	152	2	0	0	2
Co K	150	0	0	0	0	24	0	0	0	0	174	0	0	0	0
Co L	123	2	5	0	7	32	0	0	0	0	155	2	5	0	7
Co M	128	0	0	0	0	12	0	0	0	0	140	0	0	0	0
Co H3	102	0	0	0	0	28	0	0	0	0	130	0	0	0	0
Total	634	3	5	0	8	117	1	0	0	1	751	4	5	0	9
Grand Total	3168	13	67	1	81	646	1	3	0	4	3814	14	70	1	85
16 September															
8th Cav															
1st Bn															
Co A	151	0	0	0	0	50	0	0	0	0	201	0	0	0	0
Co B	140	0	0	0	0	49	0	1	0	1	189	0	1	0	1
Co C	172	0	2	0	2	43	0	0	0	0	215	0	2	0	2
Co D	140	0	1	0	1	20	0	0	0	0	160	0	1	0	1
Co H1	89	0	10	0	10	8	0	0	0	0	97	0	10	0	10
Total	692	0	13	0	13	170	0	1	0	1	862	0	14	0	14
2d Bn															
Co E	149	0	4	0	4	84	0	0	0	0	233	0	4	0	4
Co F	98	3	3	0	6	44	0	0	0	0	142	3	3	0	6
Co G	102	0	5	0	5	20	0	0	0	0	122	0	5	0	5
Co H	114	0	3	0	3	32	0	0	0	0	146	0	3	0	3
Co H2	86	0	0	0	0	0	0	0	0	0	86	0	0	0	0
Total	549	3	15	0	18	180	0	0	0	0	729	3	15	0	18
3d Bn															
Co I	131	1	7	0	8	31	0	0	0	0	162	1	7	0	8
Co K	84	0	1	0	1	25	0	0	0	0	109	0	1	0	1
Co L	100	1	3	0	4	29	0	0	0	0	129	1	3	0	4
Co M	128	1	1	0	2	18	0	0	0	0	146	1	1	0	2
Co H3	82	0	0	0	0	44	0	0	0	0	126	0	0	0	0
Total	525	3	12	0	15	147	0	0	0	0	672	3	12	0	15

TABLE D2 (continued)

Units	US personnel					Integrated ROKA personnel					Entire units				
	Strength	Casualties				Strength	Casualties				Strength	Casualties			
		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total		KIA	WIA, DOW IIA, DOI	MIA	Total
16 September (continued)															
Regtl units															
HM Co	133	1	0	0	1	0	0	0	0	0	133	1	0	0	1
Svc	138	0	0	0	0	0	0	0	0	0	138	0	0	0	0
Med	174	0	1	0	1	0	0	0	0	0	174	0	1	0	1
Hq & Hq Co	213	0	1	0	1	0	0	0	0	0	213	0	1	0	1
8th Cav, total	2424	7	42	0	49	497	0	1	0	1	2921	7	43	0	50
16th Recon Co	96	0	1	0	1	39	0	0	0	0	135	0	1	0	1
8th Cav & 16th Recon, total	2520	7	43	0	50	536	0	1	0	1	3056	7	44	0	51
7th Cav															
3d Bn															
Co I	158	0	0	0	0	20	0	0	0	0	178	0	0	0	0
Co K	168	0	0	0	0	24	0	0	0	0	192	0	0	0	0
Co L	151	0	0	0	0	30	0	0	0	0	181	0	0	0	0
Co M	126	0	0	0	0	12	0	0	0	0	138	0	0	0	0
Co H3	103	0	0	0	0	28	0	0	0	0	131	0	0	0	0
Total	706	0	0	0	0	114	0	0	0	0	820	0	0	0	0
Grand Total	3226	7	44	0	51	650	0	1	0	1	3876	7	45	0	52

Appendix E

SUPPLEMENTARY FRIENDLY DOCUMENTATION
ON THE CAPTURE OF HILL MASS 314

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**OPERATIONS ORDER FOR THE ATTACK ON THE NORTHERN PORTION OF
HILL MASS 314 BY THE 3D BATTALION, 7TH CAVALRY REGIMENT**

Note: Except for annotations in brackets, document appears in its original form, which was undated and apparently written after the action.

1. A. Elements of the 13th North Korean Division hold Hill 570 and Mountain Peak 500 [northern portion of Hill Mass 314]. Enemy units have infiltrated onto Hill 660. Enemy strength on Hill Mass 314 [the southern portion of the hill mass] and Mountain Peak 500 beyond is estimated at 700.

B. 7th Cavalry Regiment attacks 12 Sep 1950 to relieve ROK units on Hill 660 with 2d Bn and to seize Hill Mass 314 and high ground beyond with 3d Bn. 8th Cavalry Regiment defends from present position on west. 1st ROK Division attacks towards Walled City in the east.

2. A. 3d Battalion, 7th Cavalry Regiment (Inf) attacks at 121100 September 1950 from positions presently held by 3d Battalion, 8th Cavalry Regiment (Inf) to seize Hill Mass 314 and the high ground beyond and to defend same on seizure.

Attachments: 3d Plat Co C, 70th Tank Bn
1 Squad, Co C, Engr Bn
Support: Airstrike
77th FA Bn
HM Co [8th Cavalry, one platoon]
Co L, 8th Cav

B. See overlay. [contents included in Fig. 12]

3. A. Company "I":

Attached: 1st Sect HMG Plat, Co M
1 Squad, Co C, Engr Bn
FO Party 77 FA Bn
FO Party HM Co, 8th Cav
FO Party 81mm Plat Co M
3 Flame Thrower Teams
P&A Plat, Hq Co attacks on right 121100 Sep 50 to seize portion of Bn objective in zone and to prepare perimeter defense from 1200 to 0400 [o'clock angle], upon seizure. (See overlay)

B. Company "L":

Attached: 2d Sect HMG Plat, Co M
FO Party 77 FA Bn
FO Party HM Co, 8th Cav
FO Party 81mm Plat Co M
3 Flame Thrower Teams

P&A Plat, Hq Co attacks on left at 121100 Sep to seize portion of Bn objective in zone and to prepare perimeter defense from 0800 to 1200 [o'clock angle] on seizure. (See overlay.) Be prepared to be passed through by Co "K" on Phase Line 2 if so ordered.

- C. Company "K": Battalion reserve initially located on southeast portion of Hill Mass 314 near the LD. Be prepared to counterattack or move to successive phase lines on order. (See overlay.) Be prepared to pass through Company L on Phase Line 2 to continue attack and seize and defend Company L's portion of the battalion's objective.
- D. Company "M" (-HMG Plat): Support attack by fire. Prepare to move over all 75mm RR to the axis of attack on order. Coordinated 81mm fires of 3d Bn, 8th Cav in support of the attack.
- E. Battalion Headquarters Company: P&A Plat to man 3 flame throwers for Co I and 3 for Co L, during and subsequent to the attack. Remaining HQ personnel furnish logistical and administrative support. P&A Plat be prepared to install chain demolition and barbed wire on seizing the objective.
- F. 3d Plat, Co C, 70th Tank Bn: Initially in reserve positions in rear of Hill Mass 314, prepared to move up either draw on east or draw on west, to support attack by fire or to protect against counterattack.
- G. (1) Air preparation from 0930 to 1030 hours 12 Sep 1950. Arty preparation from 1045 to 1100 hours 12 Sep 1950. Display red panels.
 (2) HM Co, 8th Cav (- 1 Plat) in general support of 3d Battalion, 7th Cavalry until relieved by HM Co, 7th Cav.
 (3) Flame thrower to be included in the final defense.
 (4) 3d Bn, 7th Cav (Co L) responsible for draw to the west of Hill Mass 314.
 (5) Arty protective fires to be registered immediately on securing position.
 (6) Bn final objective and Hill 660 constitute the key to defense of Taegu and must be held at all cost.
 (7) Troops depart present area 120630 Sep 50 in order I-L-Hq-M-K, 400-yard interval between companies. 3d Bn, 8th Cav guide will be furnished to attack positions.
4. A. Supply will be pushed up to the front by Battalion.
 B. Initial ASP base of Hill 314
 C. Sufficient rations, water and ammo to hold final objective will be placed on final objective.
 D. 100 South Korean laborers pass to Bn control at Chilgok, coord () [blank. Coordinates are 1153.4-1448] at 120900 Sep 50. Each company to receive 20 laborers at base of Hill 314 prior to time of attack.
 E. Evacuation down ridge line to Fwd Supply Point, then by vehicle to Aid Station and ASP as applicable.
 F. MSR—road to east of final objective between Hill 314 and Hill 660.
5. A. Bn CP at base of Hill 314 opens 121000 Sep 50 at coord () [blank].
 B. Transfer to 7th Cav radio channels and call signs at 120600 Sep 50.
 C. Red smoke signifies friendly fire falling short.
 D. Purple smoke and violet streamers to mark front line elements.
 E. Carry and display red panels for air identification. Panel crews to be designated by each company.

OFFICIAL
 WEBEL (S-3)
 ANNEX: 1 Opn Overlay

LYNCH
 Lt Col

AFTERACTION REPORTS

SUMMARY ACCOUNT OF THE BATTLE REPORTED IMMEDIATELY
AFTERWARD, 12 SEP 50

Note: The following entry in the log of the 77th FA Bn is the only known outline of the battle as a whole that gives the facts as they were known just afterwards. It is considered that only this report correctly states several important points, though there are also inaccuracies.

"121820. From Liaison Officer, 7th Cavalry Regiment: 3d Battalion, 7th Cavalry Regiment jumped off at 1115 hours, after an airstrike which was extremely effective. The battalion had advanced about 500 yards by 1230 hours, Love Company on the left and Item Company on the right and K Company in reserve. At about 1230 hours the battalion was pinned down by intense rifle and mortar fire. At this time they also observed a concentration of North Koreans assembling to their left for a counterattack. They called for an airstrike at 1300 hours, which was delayed until 1330 hours. An airstrike was given again at 1400 hours. The battalion then assaulted the hill mass twice and was driven off by intense 60 [sic] and 82mm mortar fire, then by 120mm followed by artillery fire. On the third attempt our troops stormed over the hill, driving the enemy down the north slope. The enemy was then taken under artillery fire with good results. The estimated number of enemy troops on the hill was 500-800. The character of the defense was caves with machine guns emplaced in rocks and crevices and sniper fire from among jagged peaks and ravines. Our casualties are estimated to be about 35 percent of the two assaulting companies. The 57 and 75mm recoilless rifles were very effective. The hill was secured at 1545 hours. Coordination is being made to tie in with units on our right and left flanks."

SEQUENCE OF EVENTS IN THE CAPTURE AS GIVEN IN A PARTIAL OUTLINE
PREPARED SHORTLY AFTER THE ACTION

Note: This outline is given as prepared by an unknown staff officer of the 3d Bn, 7th Cav, except for the annotations in brackets.

Troops moved out on time at 120630 Sep 50, in proper order by covered route at extended interval. Due to advanced position of Co L, 8th Cav, our LD was changed to Phase Line 1 and all companies and Regt were notified. Co L was moved up parallel to Co I on Hill Mass 314 in view of this advanced LD. The guide for Co K got lost and another guide was arranged. Co's L and I were in position at 1030 ready to attack. Air strike started approximately 1000 and lasted until 1100 due to cancelation of arty preparation on Regt's order at 0735. Attack jumped off on time against moderated heavy small arms fire and under mortar fire. Phase Line 2 [Phase Line 1, as redefined with the

change in LD] was seized and reorganization was completed at 1245. At 1315 a counter-attack of 250 enemy was launched against Co I and was beaten off by that unit. At 1345 an additional air strike forward of Phase Line 2 [this designation correct by the present reckoning] furnished support for resumption of the attack at 1415 by Co's I and L. During the advance from Phase Line 2 to Phase Line 3 [1 to 2, or as given?], heavy mortar and arty fire was received, as well as small arms and grenade fire. Final objective was seized at 1530 hours and, due to the loss of Co I commander, was organized jointly by Co's L and I under command of Capt Walker, Co L CO.

Co K, reserve Co, was moved to original LD at 1030 due to advanced location of Co L, 8th Cav. At 1100 hours Co K was moved to Phase Line 2 [Phase Line 1] and [—much later—] began organization of rear portion of Bn objective.

Resupply of ammo, water and rations was instituted immediately, and ammo bearers functioned as litter bearers on the return trip. Evacuation of wounded extended from 121130 Sep to 131200 Sep 50. Evacuation of US dead began at 130600 and extended through 131700 Sep.

Evacuation of captured ammo, arms and equipment, as well as salvage items took place beginning 131200 Sep 50 and extended to 171700 Sep 50.

Enemy dead were buried beginning at 140600 Sep 50 in shallow graves in place, using lime as a sanitation measure. Approximately 200 enemy dead on position.

Bn supported the attack of 2d Bn, 8th Cav starting at 141400 against Hill 570, inflicting heavy casualties on enemy units 75 yards north of Hill 570 on east slope. Direct hits with 75mm RR obtained on troop concentrations. Support included 1-75mm RR, 1 of HMGs and 1 section of LMGs. Hill 570 was secured by 2d Bn, 8th Cav at 141645 hours. CO, 2d Bn stated our support was "extremely effective."

At 171000 Co L was moved to defensive positions vicinity of Phase Line 1 [the 12 Sep LD], due to necessity for movement of Co A, 1st ROK special Training Bn to relieve 2d Bn, 7th Cav on Hill 660. Co I assumed forward positions of Co L and Co K extended to fill in rear positions of Co L.

[Some further material is not reproduced here.]

INTERVIEW WITH THE COMMANDING OFFICER OF COMPANY L RECORDED SHORTLY AFTER THE CAPTURE

Notes: Interview and report by an unknown staff officer of the 3d Bn, 7th Cav.

Except for annotations in brackets, document appears in its original form.

Conversation with Commanding Officer of Company L (Captain Walker)

1st and 3d Platoons were leading the assault, 3d Platoon on the right and 2d Platoon in reserve. Company L moved out in the attack at 1100. 1st Platoon was commanded by Lt Holder, 3d Platoon by Lt Sheridan and 2d Platoon by M/Sgt Mitchell. Capt Walker ordered Sgt Mitchell to move 2d Platoon into draw behind the 1st Platoon, which was on the left. Phase Line 1 and Phase Line 2 [Line of Departure and Phase Line 1, respectively, as redefined before the attack] were occupied with negligible enemy opposition. Upon approaching Phase Line 3 [2], the 1st and 3d Platoons moved rapidly up the crest of Hill 314 in the face of intense and effective enemy small arms and mortar fire, which began to produce exceptionally heavy casualties among personnel of the company. The individual soldiers of the company continued to advance in the face of this fire even though units were intermingled and leaders had become casualties, until Phase Line 3 [2] was secured at about 1230 hours.

Captain Walker ordered Sgt Mitchell around to the left of the 1st Platoon with the mission of attacking and moving over the crest of Hill 314. As the 2d Platoon moved over the crest, it came under very heavy time fire, small arms fire and grenades, which caused very heavy casualties among personnel of the platoon and pinning it to the slope of Hill 314. Captain Walker, Company Commander of Company L, sized up the situation and requested an air strike, which was on call, that he felt was necessary to regain the momentum of his company's attack. The air strike was delivered and was very effective and in some cases seventy five to one hundred yards in front of Company L. At this time, the desperate and fanatical enemy launched a "banzai" attack which caused the men to waver as Sgt Mitchell and Lt Sheridan were killed. Company I and Company L were intermingled. Therefore, Captain Walker and Lt Fields (Company Commander of Company I) organized the remnants of both companies while exposed to the continuous enemy small arms, grenades and mortar fire and launched a counterattack which caused the enemy to break, discard his weapons and flee in utter riot.

INTERVIEWS WITH PERSONNEL OF COMPANY I REPORTED SHORTLY AFTER THE CAPTURE

Notes: Interviews and report by an unknown staff officer of the 3d Bn, 7th Cav.
Except for annotations in brackets, document appears in its original form.

Conversation with 1st Sgt and other EM of Company I, as no officers were available who took part in the attack.

Company I attacked the right portion of the battalion objective in the following formation: 2d Plat on the right, 1st Plat on the left, 3d Plat in reserve. Almost at the outset of the attack, the platoon leaders of the 1st and 2d Platoons were wounded in action, and the units became intermingled. However, the individual soldiers of the two platoons continued on their own initiative in the face of heavy small arms, grenades, and mortar fire, which caused heavy casualties among personnel of the platoon toward the objective. Upon lifting of the air strike, the fanatical enemy launched a "banzai" attack, which caused the men to waver and elements of Company L to be overrun. Lt Haynes Company I [leader of the 3d Platoon] noted this situation and organized a pickup group of men from Company I and Company L while in the face of the continuous enemy fire, which restored the situation just at the moment Lt Haynes was killed. Lt Fields, Company Commander of Company I, organized the remnants of his company and counterattacked the enemy up the crest of the hill, which was an estimated 60-degree slope. Lt Fields and his men continued the attack until the enemy discarded his weapons and fled in utter confusion. At approximately the time the objective was secured, Lt Fields was wounded in action, but he refused to be evacuated until the completion of the reorganization of his company on their portion of the battalion objective.

M/Sgt McCollum, the weapons platoon leader of Co I, was following the attack with his weapons platoon at the moment the enemy launched his fanatical counterattack. M/Sgt McCollum rushed forward leading his men after he had organized them as riflemen and came to the assistance of the hard pressed rifle platoons. M/Sgt McCollum continued to lead his men even though he was wounded four times. M/Sgt McCollum was wounded in both shoulders, his right arm and finally received a head wound before he allowed himself to be evacuated.

Sgt Manuel of Company I charged a fanatical North Korean who was holding up two squads of the first platoon. Sgt Manuel killed the enemy soldier with a grenade, thus allowing the platoon to continue its advance. In this action Sgt Manuel received a wound in his right leg and right hip.

Sgt Lancaster, Assistant Platoon Sgt, 1st Platoon, Company I, took command of his platoon when the platoon leader became a casualty and started leading his men toward the objective. Sgt Lancaster was wounded by shell fragments and continued to lead his platoon until he fainted from exhaustion and loss of blood.

AFTERACTION PHOTOGRAPHS

The photographs in this section were taken by the commanding officer of the 3d Bn, 7th Cav Regt on 13 September. The objective had necessarily already been cleared of much of the litter of battle, but these pictures do illustrate details of terrain, cover, enemy positions, etc. Since most of them were taken on the east side of the hill mass, they complement the photographs of the west side taken from Hill 570 and shown in panorama as Fig. 3. Unfortunately, no close-ups are available of the southern and western slopes of Knob 2, where the most intense action took place.

The pictures are arranged in the order in which the views might have unfolded to members of Co I during the battle, i.e., from south to north and from bottom to top.



Fig. E1—View an enemy outpost might have had from point near bottom of saddle on northeast slope looking southeast at finger that runs east from bottom of saddle. Sweep squad, Co I overran outpost AW position in this vicinity. Underbrush is typical of east side of hill mass. Trail was friendly supply-evacuation route during battle. A party of Korean bearers appears here. In lower right corner it is possible (with the aid of a glass) to make out a Korean body.



Fig. E2—East slope of Knob 2 short of Phase Line 2 and just below nose. Taken from point on southeast slope, looking due north. The Walled City is in background. The 1st Plat, Co I had this view.



Fig. E3—Closer view of east slope of Knob 2, showing rocky surface and lack of cover.



Fig. E4—Moving around the eastern slope of Knob 2 to Phase Line 2, members of Co I would now have been able to see Knob 3 and the dip in the ridgeline between Knob 2 and Knob 3. Early in the battle, enemy troops were seen withdrawing around this slope.



Fig. E5—Moving west along Phase Line 2, a soldier of Co I would have caught a glimpse of the crest of Knob 2 as he advanced within a few feet of the nose.



Fig. E6 (top) and Fig. E7 (bottom)—Two views of the nose of Knob 2 looking south across saddle. Knob 1 and Knob 0 apparently merge in the background. The lower ridge much beyond is also visible. Enemy materiel and "cat holes" can be seen on the almost bare nose of the knob. The neatly cut out bank of earth at the left faces south or east, origin unknown. During the battle, enemy rifles were stuck in the ground to mark the location of friendly wounded, etc.

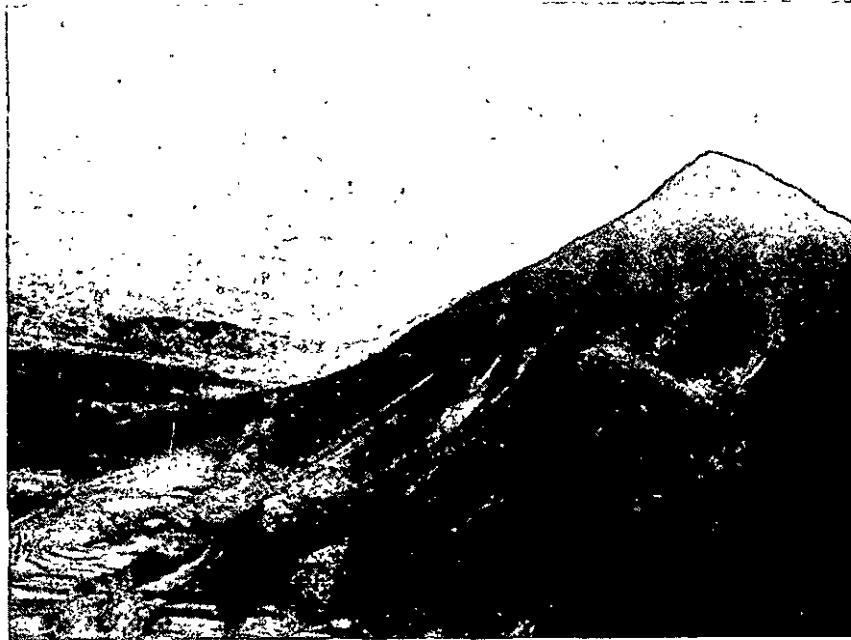


Fig. E8—Hill 660 and hills beyond as seen from east slope of Knob 2.



Fig. E9—View, from same position as in Fig. E8, of valley east of Hill 314 and north of Hill 660. This picture may be tied in with the previous one by the light colored patch at the foot of Hill 660.



Fig. E10—The CO, Co L, 3d Bn, 7th Cav Regt. Enemy concussion grenades ready for use.



Fig. E11—The CO, 3d Bn, 7th Cav Regt

TABLE E1

MASTER LIST OF ALL CASUALTIES IN THE 3D BN, 7TH CAV REGT
 CONSIDERED TO HAVE OCCURRED IN THE CAPTURE OF HILL MASS 314
 (Integrated ROKA personnel included)

Order No.	Co	Rank	Name	Serial No.	Type Cas	Time	Type of missile/ causative weapon	Source Cas data ^a			Remarks
								Cas Rept	Med tag	Other	
1	L	Pfc	McCurry, S. R.	RA 14322917	WIA	1100	B/Rifle	X	-	-	
2	L	SFC	Rowland, J. H.	RA 34868113	WIA	1100	F/Mortar	X	-	X	Cas reports state 13 Sep but subject's description in clinical records indicates 12 Sep action. Shell landed about six feet away; knocked out a minute, then walked to aid station.
3	L	Cpl	Joyce, R. H.	RA 13320244	WIA	1130	F/Grenade	X	-	-	
4	L	Pfc	Young, C. T.	RA 13332751	WIA	1145	-/-	-	X	-	
5	L	Pfc	Boucher, J. N.	RA 11199488	WIA	1200	F/Mortar	X	-	-	
6	L	Sgt	Dent, F. J.	RA 15205646	WIA	1200	F/Mortar	X	-	-	
7	L	Sgt	Jones, D. C.	RA 45018350	KIA	1200	F/Artillery	X	-	-	Time est. from account of this casualty by EM eyewitness.
8	L	Pfc	Martin, E.	RA 13397311	WIA	1200	-/-	X	-	-	
9	L	Pfc	Worm, J. T.	RA 13330961	WIA	1200	F/Mortar	X	-	-	
10	L	1st Lt	Sheridan, R. B.	O 963356	KIA	1215	F/Mortar	-	X	-	Time and cause from interviews with EM eyewitnesses.
11	L	Pfc	Slussear, A. M.	A 13315887	WIA	1230	F/Mortar	X	-	-	Type of fragment from EM eyewitnesses.
12	L	Pfc	Donoghue, D. J.	RA 12342502	WIA	1300	F/Mortar	X	-	-	
13	L	Pfc	Entrekin, R. E.	RA 24518670	WIA	1300	F/-	-	X	-	
14	L	Cpl	Grassmyer, R. P.	RA 33760985	WIA	1300	B/-	-	X	-	.31-cal bullet.
15	L	Pfc	Herdman, D. J.	RA 13317444	WIA	1300	F/Mortar	X	-	-	
16	L	SFC	Runnels, L. L.	RA 7009241	WIA	1300	F/Mortar	X	-	-	
17	L	Sgt	Ryan, D. J.	RA 16303418	WIA	1300	F/Mortar	X	-	-	

SECRET

SECRET

UNCLASSIFIED

UNCLASSIFIED

UNCLASSIFIED

UNCLASSIFIED

TABLE E1 (continued)

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Order No.	Co	Rank	Name	Serial No.	Type Cas	Time	Type of missile/ causative weapon	Source Cas data ^a			Remarks
								Cas Rept	Med tag	Other	
18	L	Pfc	Throckmorton, R. K.	RA 13305518	WIA	1300	F/Mortar	X	-	-	
19	L	Pfc	Zemar, Z.	RA 15278564	WIA	1300	F/-	X	-	-	
20	L	Pfc	Edwards, W. E.	RA 43056840	WIA	1315	B/Small Arms	X	-	-	Time est. from account of this casualty by company member.
21	L	Pfc	Hutcheson, J. L.	RA 14334749	WIA	1330	F/Grenade	X	-	-	
22	L	Cpl	O'Brien, James O.	RA 13316676	WIA	1330	F/Mortar	-	-	X	Cas data from clinical records.
23	L	Pfc	Sundo, R.	RA 13333835	WIA	1330	F/-	-	X	-	
24	L	Pfc	Fairchild, L. G.	RA 12324561	WIA	1400	F/Mortar	X	X	-	
25	L	SFC	Howell, Roy E.	RA 13332277	WIA	1400	F/Mortar	X	-	X	Type of fragment from Service Record.
26	L	Pfc	Johnson, B.	RA 15281721	WIA	1400	F/Mortar	X	-	-	
27	L	M/Sgt	Matthews, E. C.	RA 06842776	WIA	1400	F/Mortar	-	X	-	Subject interviewed at 1400. Wounded while in small crater on NE slope of Knob 2 at around 1330.
28	L	Pfc	Spencer, R. R.	RA 24269094	WIA	1400	B/Small Arms	X	-	-	
29	L	EM	Atch ROKA soldier	K 1107171	WIA	1400	F/Mortar	-	-	X	Attachment to Co L inferred from K number.
30	L	EM	Atch ROKA soldier	K 1107185	WIA	1400	F/Mortar	-	-	X	Attachment to Co L inferred from K number.
31	L	SFC	Clark, B. S.	RA 33663492	WIA	1500	F/Mortar	-	-	X	Data on type of missile from clinical records. Also, subject interviewed. Contusion sustained when subject knocked down by blast.
32	L	Pfc	James, H. H.	RA 14329111	WIA	1500	F/Mortar	-	X	X	Causative agent from hospital record.
33	L	Cpl	Jones, J. E.	RA 18294576	WIA	1500	F/Mortar	X	-	-	
34	L	M/Sgt	Mitchell, J. H.	RA 20212607	KIA	1500	B/Small Arms F/Mortar	-	-	-	Subject wounded by small-arms fire, then killed by mortar fire. Time est. from account in affidavits made out after action by company members.
35	L	Pfc	Stallman, R. G.	RA 13333554	WIA	1500	B/Rifle	X	-	-	
36	L	Pfc	McGary, R. M.	RA 16310534	WIA	1515	F/Mortar	X	-	-	
37	L	Cpl	Boyd, R. A.	RA 18338645	WIA	1600	F/Artillery	X	-	-	

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38	L	EM	Atch ROKA soldier	K 1107172	WIA	1600	-/-	-	-	X	Attachment to Co L inferred from K number.
39	L	EM	Atch ROKA soldier	K 1107186	WIA	1600	-/-	-	-	X	
40	L	Sgt	Nonog, A. F.	RA 39392116	WIA	1700	F/Mortar	-	-	X	Casualty data from clinical records.
41	L	SFC	Hohn, B. F.	RA 6964759	WIA	2000	F/Mortar	X	-	-	
42	L	Pfc	Buraczewski, W.	RA 13316047	KIA	-	F/-	-	X	-	Body picked up 14 Sep.
43	L	Cpl	Coleman, R. F.	RA 11176894	KIA	-	F/-	-	X	-	Body picked up 14 Sep.
44	L	Cpl	Contarro, J. E.	RA 18211610	KIA	-	-/-	-	X	-	Body picked up 14 Sep. GSW rt. side, rt. arm.
45	L	Pfc	Craine, B. W.	RA 18294363	KIA	-	-/-	-	X	-	Tag made out 14 Sep. GSW forehead.
46	L	Pfc	Davis, D. H.	RA 15251758	KIA	-	-/-	-	-	-	
47	L	Pfc	Gentry, T. L.	RA 14322994	KIA	-	-/-	-	-	-	Listed as casualty on 13 Sep. Arbitrarily included in 12 Sep.
48	L	Pvt	Hanshaw, W. H.	RA 13339743	KIA	-	F/-	-	X	-	Body picked up 14 Sep.
49	L	Pfc	Hunter, W. C.	RA 15278465	KIA	-	-/-	-	X	-	Body picked up 13 Sep. GSW, chest.
50	L	Cpl	Johnson, D.	RA 16303078	WIA	-	B/-	-	-	X	Casualty data from Separation Form.
51	L	Pfc	Lindsay, R. L.	RA 15277958	KIA	-	-/-	-	-	-	
52	L	Rct	Mabry, C. W.	RA 13330119	WIA	-	F/-	X	-	-	
53	L	Cpl	New, G. E.	RA 12107216	WIA	-	-/-	-	-	-	
54	L	Pfc	Owsley, B. F.	RA 15251725	KIA	-	-/-	-	X	-	Tag made out 14 Sep. GSW chest and abdomen.
55	L	Cpl	Palmer, H. P.	RA 13332886	KIA	-	-/-	-	-	-	
56	L	Pfc	Prescott, Sidney T.	RA 24522825	KIA	-	-/-	-	X	-	Shrapnel, lower extremities.
57	L	Cpl	Smith, J. R.	RA 14248885	KIA	-	-/-	-	-	-	
58	L	SFC	Taylor, J. H.	RA 38276411	KIA	-	-/-	-	X	-	Secondary tag says 14 Sep. GSW chest, rt. arm.
59	L	Pfc	Thompson, J. R.	RA 14339428	KIA	-	-/-	X	-	-	
60	L	Pfc	Trueblood, H. P.	RA 13331852	-KIA	-	F/Mortar	-	X	-	Body picked up on 13 Sep and tagged at 1215. Casualty listed as 13 Sep.
61	L	Pfc	Wade, T. H.	RA 13319792	KIA	-	-/-	-	X	-	Tag, made out 13 Sep, says casualty on 12 Sep. Casualty records give date as 13 Sep.
62	L	Pvt	Wortman	RA 15277345	KIA	-	-/-	-	-	-	
63	I	2d Lt	Weston, Marion E.	O 945876	WIA	1130	B/Rifle	-	-	X	Casualty data from clinical records. Date given as .10 Sep but evidence indicates 12 Sep. Bullet from .25-cal Jap. rifle.

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TABLE E1 (continued)

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Order No.	Co	Rank	Name	Serial No.	Type Cas	Time	Type of missile/ causative weapon	Source Cas data ^a			Remarks
								Cas Rept	Med tag	Other	
64	I	1st Lt	Haynes, Marvin N.	O 2017542	KIA	1215	F/Mortar	-	-	-	Casualty data from eyewitness accounts. Killed near Sheridan (No. 10, above) by next mortar burst.
65	I	Pfc	Johnson, J. C.	RA 18334046	WIA	1230	B/Small Arms	X	-	-	
66	I	Pfc	Engle, G. R.	RA 15291797	WIA	1300	F/Mortar	-	X	-	
67	I	2d Lt	Engle, Marshall G.	O 970018	WIA	1300	F/Grenade	X	-	-	
68	I	Cpl	LaRue, H. F.	RA 13293756	WIA	1300	F/Mortar	-	X	-	
69	I	SFC	Lyon, R. A.	RA 18328284	WIA	1300	F/-	-	-	X	Casualty data from clinical records.
70	I	SFC	Moncrief, C.	RA 6391018	WIA	1300	B/Small Arms F/-	-	-	-	Casualty data from interview with subject.
71	I	Pvt	Ryder, J. E.	US 57300205	WIA	1300	F/Mortar	X	-	-	
72	I	SFC	Williams, J. D.	RA 20455456	WIA	1300	-/-	-	X	-	Casualty data from original tag. GSW, H, arm, charging enemy.
73	I	EM	Atch ROKA soldier	K 1105187	WIA	1300	F/Mortar	-	-	X	
74	I	EM	Atch ROKA soldier	K 1105198	WIA	1300	F/Mortar	-	-	X	
75	II	Pvt	Heaton, B. T.	RA 14342915	WIA	1330	F/Mortar	-	X	-	
76	I	Cpl	Meadows, T. R.	RA 13332785	WIA	1350	-/-	-	X	-	Tags state: GSW, grazing, left shoulder.
77	I	Pvt	Brain, G. W.	HA 12348599	WIA	1400	F/Mortar	-	-	X	Casualty data from clinical records.
78	I	Pfc	Busho, W. G.	RA 17259764	WIA	1400	F/Mortar	X	-	-	
79	I	Pfc	Colbert, T. J.	RA 13273216	WIA	1400	F/Mortar	X	X	-	Cas. report said GSW; 1700.
80	I	SFC	Lancaster, N. B.	RA 6274279	WIA	1400	F/-	-	X	-	
81	I	Pvt	Mauldin, C.	RA 14324594	WIA	1400	B/Small Arms	X	-	-	
82	I	Pfc	Mulinex, D. E.	RA 15277341	KIA	1400	F/Mortar	-	X	-	Secondary tag, time corrected from 0400 because of specified location (vicinity of Hill 660).
83	I	Pvt	Scott, F. E.	RA 18333808	DOW	1400	F/Mortar	X	-	X	Timing from eyewitness report of place of this casualty. Morning and casualty reports give date as 13 Sep.

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84	I	Pvt	Smith, J. L.	RA 16310496	WIA	1400	F/Mortar	-	X	-	
85	I	Cpl	Stanfield, P. L.	RA 14327772	WIA	1400	F/Mortar	X	-	-	
86	I	Pvt	Walker, R. F.	RA 13332732	WIA	1400	F/Mortar	X	-	X	Type of fragment from entry in Service Record.
87	I	Pfc	Woodall, C. A.	US 57300189	WIA	1400	F/Mortar	X	X	-	
88	I	Pvt	Vance, D.	RA 14321609	WIA	1400	B/Rifle	X	-	-	
89	I	EM	Atch ROKA soldier	K 1105185	WIA	1400	-/-	-	-	-	GSW, left arm.
90	I	Pvt	Cooley, R. G.	RA 34925513	WIA	1430	F/Mortar	X	-	-	
91	I	Cpl	McCleery, C. T.	RA 17253580	WIA	1430	F/Mortar	X	-	X	Clinical record states subject lost consciousness with blast, came to further down hill, had been standing.
92	I	Cpl	Muniz, I. M.	RA 17256257	WIA	1430	B/Small Arms	X	-	-	
93	I	Pfc	Huitt, C. E.	RA 14326885	WIA	1435	F/Mortar	-	X	-	
94	I	Pfc	Conrad, G. S.	RA 11185692	WIA	1500	F/-	X	-	-	
95	I	Cpl	Griggs, W. C.	RA 17259940	WIA	1500	F/-	X	-	-	
96	I	Sgt	Mannel, J.	RA 18303856	WIA	1500	F/Mortar	-	-	X	Casualty data from clinical records.
97	I	Pvt	Wilson, J. C.	RA 16322760	WIA	1500	F/Mortar	X	-	X	Type of fragment from clinical records.
98	I	Cpl	Marsh, C. W.	RA 14314495	WIA	1515	F/Mortar	-	-	X	Timing from fact that eyewitness (No. 99, below) said he was hit at same time as subject. Clinical record states subject lost memory for four days from blast.
99	I	SFC	Sanders, W.	RA 14218227	WIA	1515	F/Mortar	X	-	-	In interview subject stated he was hit on NE slope of Knob 2 during air strike. Was standing, and blast knocked him 10-12 ft down the hill.
100	I	Pfc	Alva, J.	RA 17252439	WIA	1530	F/-	X	-	-	Morning report lists casualty as 13 Sep., other reports 12 Sep.
101	I	1st Lt	Fields, J. A.	O 1338329	WIA	1600	F/Mortar	X	-	-	Cas report gives time as 1400. In interview subject said he was hit late in action and at same time as Perez (No. 102).
102	I	2d Lt	Perez-Chiesa, J.	O 13288739	WIA	1600	F/Mortar	X	-	-	

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TABLE E1 (continued)

Order No.	Co	Rank	Name	Serial No.	Type Cas	Time	Type of missile/ causative weapon	Source Cas data ^a			Remarks
								Cas Rept	Med tag	Other	
103	I	Cpl	Sexton, S. A.	RA 6899202	WIA	1600	-/-	X	X	-	Tag states GSW, charging enemy.
104	I	Cpl	Subilosky, E. F.	RA 11078434	WIA	1600	F/-	-	X	-	Time from original tag, missile from secondary tag.
105	I	Pfc	Whitlock, H. C.	RA 14329836	WIA	1600	F/Mortar	X	-	X	Clinical record states subject knocked 20-30 ft down the hill and unconscious for a "few minutes."
106	I	M/Sgt	McCollum, C. E.	RA 34912827	WIA	1645	F/Mortar	-	X	-	
107	I	Pvt	Rogers, R. L.	RA 14323420	DOW	1800	F/Mortar	X	X	-	DOW 19 Sep.
108	I	EM	Atch ROKA soldier	K 1105175	WIA	2030	F/Mortar	-	-	X	
109	I	Pvt	Bicker, E. R.	RA 28772718	WIA	-	F/Mortar	-	X	-	Tag made out at 1830.
110	I		Brown, B. O.	RA 18341857	WIA	-	-/-	-	-	-	Letter from hospital says GSW left arm, chest.
111	I	Pfc	Burton, L. L.	RA 19341803	KIA	-	-/-	-	-	-	Records give date as 13 Sep. Casualty arbitrarily included in 12 Sep list.
112	I	Pfc	Cox, J. A.	RA 14294761	KIA	-	-/-	-	-	-	Casualty listed for 13 Sep, arbitrarily assigned here to 12 Sep.
113	I	Cpl	Heuss, P. F.	RA 16300143	KIA	-	-/-	-	X	-	Body picked up 14 Sep. Casualty listed for 13 Sep, arbitrarily reassigned here to 12 Sep. Tag states GSW, back.
114	I	Pfc	Neue, C. T.	RA 19347717	KIA	-	-/-	-	-	-	Casualty listed for 13 Sep, arbitrarily reassigned to 12 Sep.
115	I	Pfc	Upton, J. C.	RA 23484708	WIA	-	-/-	-	-	-	
116	I	Pfc	Whitson, R. N.	RA 14346097	KIA	-	-/-	-	-	-	Casualty listed for 13 Sep, arbitrarily reassigned to 12 Sep.
117	I	EM	Atch ROKA soldier	K 1105182	WIA	-	-/-	-	-	X	GSW rt. leg.
118	I	EM	Atch ROKA soldier	K 1105197	KIA	-	-/-	-	-	X	Casualty listed for 13 Sep, arbitrarily reassigned to 12 Sep.

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119	K	Pfc	Brockhans, W. O.	RA 16301378	WIA	1100	F/-	X	-	-	
120	K	Sgt	Mayo, P. S.	RA 36345487	WIA	1200	F/Mortar	X	-	-	
121	K	EM	Atch ROKA soldier	K 1105164	WIA	1300	F/Mortar	-	-	X	
122	K	Sgt	McBrayer, T. T.	RA 14347248	WIA	1400	B/Rifle	X	-	-	
123	K	Pfc	Seibert, R. F.	RA 17240232	WIA	1400	F/-	-	X	-	Original tag says grenade fragments, secondary tag shell fragments. At stated time Co not in position to receive grenades.
124	K	Pfc	Sockey, C. R.	RA 18334368	WIA	1400	F/-	X	-	-	
125	K	Cpl	Davis, J. A.	RA 14328961	WIA	1430	F/Mortar	X	-	-	
126	K	Sgt	Greene, B. H.	RA 34305738	WIA	1500	F/Mortar	-	X	-	In interviews an EM stated the subject was hit on Knob 1 at time of move out, the Co CO said he was hit on SE slope of Knob 2.
127	K	SFC	Gritta, P. B.	RA 06251755	WIA	1500	F/Mortar	X	X	-	In interview Co CO said subject hit on SE slope of Knob 2.
128	K	SFC	Ridings, R. F.	RA 20456924	DOW	1515	F/Mortar	-	-	X	Casualty data from Service Record and hospital report, which states GSW wounds penetrating chest and shell fragments penetrating face, chest, and arms. In interview, Co CO said subject was hit on NW slope of Knob 2.
129	K	Pvt	Stephens, D. L.	RA 19358991	KIA	1515	F/Mortar	-	-	X	All available records give date as 13 Sep, but EM eyewitnesses interviewed said he was hit by mortar fire on SE slope of Knob 2 in 12 Sep action. Time estimated from their accounts.
130	K	Pfc	Vanasco, F.	RA 13313997	WIA	1515	F/Mortar	-	-	X	Cause of casualty from Service Record. EM eyewitnesses said he was hit on SE slope of Knob 2. Time assigned accordingly.
131	K	Pvt	Dowdy, R. L.	RA 34088212	WIA	1800	F/Mortar	X	-	-	EM eyewitness said he was hit right on top of Knob 2.

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TABLE E1 (continued)

Order No.	Co	Rank	Name	Serial No.	Type Cas	Time	Type of missile/ causative weapon	Source Cas data ^a			Remarks
								Cas Rept	Med tag	Other	
132	K	EM	Atch ROKA soldier	K 1105167	WIA	2000	-/-	-	-	X	GSW neck, chest.
133	K	Cpl	Cauley, J. E.	RA 13315748	WIA	-	F/-	X	-	-	
134	K	Pfc	Riffle, J. F.	RA 15272262	WIA	-	F/-	X	-	-	
135	K	Cpl	Shrum, B. J.	RA 18344046	WIA	-	F/Mortar	X	-	X	Casualty report said only GSW. EM eyewitness interviewed said subject hit somewhere between Knobs 1 and 2 by mortar. This location does not specify a time.
136	K	Pfc	Warner, L. J.	RA 13311664	WIA	-	F/Mortar B/-	-	-	X	Separation Report stated mortar and bullet wound right hand and left leg, 13 Sep. Other reports give date 12 Sep.
137	K	EM	Atch ROKA soldier	K 1105137	WIA	-	-/-	-	-	X	
138	K	EM	Atch ROKA soldier	K 1105140	KIA	-	-/-	-	-	X	Casualty listed as 13 Sep. Arbitrarily reassigned to 12 Sep.
139	K	EM	Atch ROKA soldier	K 1105146	WIA	-	F/Mortar	-	-	X	
140	K	EM	Atch ROKA soldier	K 1105148	KIA	-	-/-	-	-	X	Casualty listed as 13 Sep. Arbitrarily reassigned to 12 Sep.
141	K	EM	Atch ROKA soldier	K 1105163	KIA	-	-/-	-	-	X	Casualty listed as 13 Sep. Arbitrarily reassigned to 12 Sep.
142	M	Cpl	Zunrga, A.	RA 19212303	WIA	1430	F/Mortar	-	X	-	
143	M	Sgt	Hook, R. J.	RA 13232791	WIA	1600	F/Mortar	X	-	-	
144	M	Pfc	Monroe, H. F.	RA 16313261	WIA	1600	F/Mortar	X	-	-	
145	M	Pfc	Dickson, R. E.	RA 13321163	WIA	-	-/-	-	-	-	
146	H3	EM	Atch ROKA soldier	K 1105117	WIA	1400	F/Mortar	-	-	X	
147	H3	EM	Atch ROKA soldier	K 1105135	WIA	1400	F/Mortar	-	-	X	

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148	H3	Sgt	Hayes, W. F.	RA 31190651	WIA	1430	F/Mortar	X	-	-	In interview subject said he was hit around 1600.
149	H3	EM	Atch ROKA soldier	K 1105125	KIA	-	-/-	-	-	X	Casualty listed as 13 Sep. Arbitrarily reassigned to 12 Sep.
150	H3	EM	Atch ROKA soldier	K 1107181	KIA	-	-/-	-	-	X	Casualty listed as 13 Sep. Arbitrarily reassigned to 12 Sep.

^aThe first column under this heading refers to individual casualty and interment reports made out in the field and to individual reports from hospitals, the second column to original or supplemental medical tags, and the third column ("Other") to miscellaneous material in the "201" files.

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Appendix F

ACTION NORTH OF TABU-DONG IN AUGUST 1950

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THE ACTION NORTH OF TABU-DONG IN AUGUST 1950 AS VIEWED FROM BOTH SIDES

Sources: Friendly side: Afteraction Report, 27th RCT,²³ paraphrased
 Enemy side: Interrogation Report, S-3, 19th NK Regiment (Item 1, Annex A), paraphrased

Date	Action of the 27th RCT	Date	Action of the 13th NK Div	Comments
182000 Aug	After preparatory artillery and tank fires, enemy attacks, tanks preceding an estimated infantry battalion in carriers or trucks. Fire of 8th FA Bn halts advance. Enemy infantry continues attacking until about 2130, attempting to penetrate positions of 1st and 2d Bns, 27th RCT astride road. Three enemy tanks supporting the infantry reach friendly forward positions and are destroyed by close-in artillery fire and bazooka fire of Co F. Enemy withdraws.	180500 Aug	The 19th, 21st and 23d Regts of the 13th NK Div engage the ROK Army approximately eight miles northwest of the road junction north of Tabu-dong and in heavy fighting lasting until 2100 advance to the vicinity of the road junction.	
180230 Aug	An unknown number of enemy supported by two tanks probe positions of 2d Bn, 27th Inf. Enemy force dispersed with artillery, mortar, and small-arms fire.	190001 Aug	The 21st and 23d NK Regts engage UN forces with the 19th NK Regt in reserve. The skirmish ends at 0400 with losses totaling approximately one hundred men. At this time, the 13th NK Div deploys 1 km south of the road junction with the 23d Regt on the hills on the west side of the road, the 21st Regt on the hills on the east, and the 19th Regt in reserve at Hajang-dong with the divisional artillery.	
20 Aug	The battalions of the 27th RCT improve their positions while friendly air and artillery hit the enemy positions. These fires are thought to have prevented an enemy build-up north of the 27th RCT.	20 Aug	The 23d Regt remains in position, but the 21st Regt joins it on west side of road because of intense shelling. The 19th Regt moves up to location 1 km east of the road junction.	Friendly artillery evidently did indeed disturb and hold off the enemy.
202130 Aug	The enemy attempts to penetrate the friendly MLR with an estimated battalion of infantry and an unknown number of tanks and self-propelled guns. The enemy armor is used for shock action, firing rapidly while the infantry deploys for the attack. Artillery and mortar fire is placed on the enemy. Friendly infantry holds fire with small arms until the enemy has approached to easy firing range. The tanks of Co C, 73d Tk Bn attached to the 1st Bn, 27th Inf engage enemy tanks at short range, but no hits are scored by either side.			The enemy source need not have known about this enemy attack, since his regiment was in reserve.
210745 Aug	A limited objective attack is launched by a platoon from Co B, a platoon from Co G, and a section of tanks of Co C, 73d Tk Bn in order to determine enemy losses and deceive the enemy as to friendly intentions. This force advances approximately fifteen hundred yards to the north and then withdraws on order when enemy SP-guns open fire. In this action the following materiel and personnel were destroyed or observed already destroyed: one disabled tank with crew, five disabled tanks (destroyed, apparently now, with thermite grenades), two SP guns, one 37-mm AT gun with crew, one 120-mm mortar, and twenty troops.			
212035 Aug	The enemy shells the entire 27th RCT area until 2235.	212000 Aug	From the positions of the previous day, the 13th NK Div launches an offensive with Tabu-dong the objective. All units except the 19th Regt jump off at 2000. The attack is supported by five T34/85 tanks, of which four are lost. The 19th Regt, whose objective was to neutralize artillery positions 4 km north-northeast of Tabu-dong (this was the position of the friendly front line; US artillery was back in the vicinity of Tabu-dong), jumped off 90 min late, at 2130. Its 2d Bn had been disorganized by friendly shelling, and its CO (the prisoner himself) had only assumed command that day. The delay of the 19th Regt was responsible for the disorganization of the division's attack. Enemy units were forced to fall back to their original positions.	
220137 Aug	The enemy attacks positions of the 1st and 2d Bns, 27th RCT with an estimated battalion and nine tanks. The RCT disrupts the attack with coordinated fires from artillery, mortars, small arms, and tanks. Three enemy tanks are destroyed just forward of the MLR, two by tank fire and one by a 3.5-in. bazooka rd fired by Co F. At daylight it is observed that six additional tanks have been destroyed, bringing the total for the period 17-22 August to eleven. A total of six SP guns and two trucks have been destroyed. [The reporting of these claims is muddled.]			
23 Aug	Tactical air hits the enemy north and east of the 27th RCT. Observers and POWs report that the enemy is withdrawing, evidently to redeploy.			
23-24 Aug	The enemy probes the front with groups estimated to be one hundred men in apparent attempt to locate friendly positions. The 27th Inf holds fire.	24 Aug	The 13th NK Div goes on defensive.	
24-25 Aug	Enemy artillery and mortar fire during the night is intermittently silenced by the fires of the 8th and 37th FA Bns.			
250100 Aug	The enemy attacks with an estimated two companies of infantry and an unknown number of tanks, after artillery- and SP-fire is concentrated on Companies B and C of the 27th RCT. The attack is repulsed by blocking the enemy rear with mortar and artillery fire and then drawing the enemy troops back into these concentrations with small-arms fire. Enemy forces withdraw at 0200 without penetrating. Two enemy tanks are destroyed by artillery. Total losses of enemy armor in the period 17-25 August are 13 tanks and 6 SP-guns. Many trucks and smaller vehicles destroyed. Total enemy casualties from all causes are estimated to number 3000.			Attack not confirmed by reports of artillery and tank battalions. Probably a patrol, with SP guns participating.
260350 Aug	The 1st and 2d Bns, 27th RCT are relieved by the 1st ROK Div.			

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Appendix G

ENEMY ARMOR

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TABLE G1

DATA ON ENEMY ARMOR NORTH OF TABU-DONG CLAIMED DESTROYED BY
COMPANY C, 73D TANK BATTALION²³

Day	Time	Location	Vehicle	Designation in Table G2 and Fig. 9	Circumstances	Range of friendly fire	Type of ammunition	Location of hits	Result of hits
18 Aug	1730 hrs	Vicinity Soi-ri	T34/85	I/7	Enemy tank advancing and firing on troops	500 yd	HE & HVAP	Bottom of gun shield; right front side	Portion of gun shield blown off, burned
19 Aug	-	Chonpyong-dong	SU-76	N/11	Gun had been disabled by US AT mine	600 yd	HE	Inside of vehicle	Vehicle burned
			T34/85	P/13	Tank parked in schoolyard, camouflaged	40 yd	HE & HVAP	Front slope above driver's hatch	Penetration, disabled
21 Aug	1030 hrs	Chonpyong-dong	T34/85	O/12	Tank parked in schoolyard, camouflaged	30 yd	HE & HVAP	Right side below turret	Penetration, disabled
			SU-76	M/10	Gun in pass near blown-out bridge	75 yd	HVAP	Front slope left of gun	Penetration, burned
22 Aug	0330 hrs	Vicinity Soi-ri	T34/85	J16	Tanks advancing toward us, speed 15 mph	75 yd	HVAP & APC	Front slope and driver's hatch [picture of J16 confirms such damage]	Penetration, burned
			T34/85	H/5					
			SU-76	K/8	Gun advancing in column behind preceding two tanks	100 yd	APC & WP	Left front side [picture of K/8 confirms such damage]	Penetration, burned

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TABLE G2

KNOCKED-OUT ENEMY TANKS FOUND AFTER THE BATTLE

Survey No. 1, 27 Sep 50, designation and description	Survey No. 5, 11 Oct 50, designation and description	Remarks	Evaluated cause	
			Survey 1	Survey 5
A SU-76. Has 60 liters of gas [equivalent to 7 miles of travel]; 1 rd left in gun; breech gone; a few small-arms penetrations, none vital; gun type 42M; had track knocked off by gun fire; repaired by US; final drive inoperative.	1 SP gun, NK. 8 miles N starting point in Taegu. Vehicle on right side of road near house. Damage: none. Means: none. Remarks: apparently abandoned intact.	Number "1324" stenciled on turret.	Sure, Arty	Sure, abandoned
	3 SP gun, NK. 1 mile N of No. 1 vehicle in draw on left side of road; gun covering road at 50-yd range. Damage: burned inside, ammo exploded; engine blown up. Means: exact cause not determined but artillery fire probably caused damage.			Probable, Arty
G SU-76. Direct hit by 500-lb bomb; completely demolished.	4 SP gun, NK. 1.6 miles N of No. 3 vehicle on left side of road in ditch. Damage: vehicle completely demolished and strewn around in several pieces at sides of road; gun and carriage blown off; left side of vehicle blown away. Means: artillery, direct hit of HE round.	Facing south.	Probable, bomb	Sure, Arty
H T34/85. Burned; turret blown up; muzzle split; combustion; credit to air-ground is questioned.	5 T34/85. 2.1 miles N of No. 4 vehicle on left side of road. Damage: gun tube split at muzzle; tank burned inside; ammo blown up; gun shield damaged. Means: rocket, 3.5; vehicle apparently abandoned and destroyed by NK forces.	"27th—" (no more visible) painted on turret. Tank presumably knocked out by 27th RCT on night 21-22 August. Tank and gun facing south.	Probable, abandoned	Sure, abandoned [notes say bazooka original cause]
J T34/85. Burned; holes in front armor; artillery (somewhat in question).	6 T34/85. 2.1 miles N of No. 4 vehicle on right side of road. Damage: one penetration on gun shield and three in front slope; tank burned; ammo blown up inside. Means: 90-mm AP.	Number "328" stenciled on turret. Tank and gun facing south. Tank considered knocked out on night 21-22 August by Co C, 73d Tk Bn, but possible by Co I, 8th Cav on 4 September.	Unknown, Arty (?)	Sure, tank 90-mm

I T34/85. Demolished; probably hit by air (in question).	7 T34/85. 2.1 miles N of No. 4 vehicle on left side of road; 15 yd from No. 6 and 10 yd to rear of No. 5 [8]. Damage: turret off; penetration of left front slope; tank burned and ammo blown up. Means: 90-mm AP.	Legend "C co 73 Δ" painted upside-down on turret. Tank presumably knocked out by Co C, 73d Tk Bn on night 18-19 August and later pushed or blown off road. Tank facing south.	Unknown, air (?)	Sure, tank 90-mm
K SU-76. Side penetration by flat-trajectory; an old sample; credit probably to tanks or artillery; some fire.	8 SP gun, NK. 2.1 miles N of No. 4 vehicle on left side of road 50 yd north of No. 7. Damage: penetrated hull at left front; tank burned and ammo blown up; completely destroyed. Means: 3.5 rocket.	Facing south. Considered knocked out on night 21-22 August.	Probable, tank	Sure, bazooka, 3.5-in
L T34/85. Badly burned; probably hit by air rocket.	9 T34/85. 500 yd N of No. 8, 10 yd off left side road at small bridge. Damage: road wheels burned; both tracks off; ammo exploded inside; two cal-50 holes through gun tube. Means: napalm and strafing. Remarks: napalm tank found 10 yd from vehicle; exterior burning; indicates napalm was cause of damage.	Number "308" stenciled on turret. Tank and gun facing north. This tank cannot be identified in reports by friendly infantry or armor.	Probable, rocket or Arty	Sure, napalm
M SU-76. Side penetration; flat-trajectory; but by artillery or tank; blew out back; fire on rubber bogies only.	10 SP gun, NK. 50 yd N of No. 9 on right side road. Damage: penetration of left side of fighting compartment; ammo exploded and burned tank. Means: 90-mm AP.	Number "13-" (partly obliterated) stenciled on turret. Facing south. Original cause of damage unknown. Considered to have been further damaged by short-range fire of friendly tanks on 21 August.	Probable, Arty or tank	Sure, tank 90-mm
N SU-76. Probably gun fire; several large-caliber holes.	11 SP gun, NK. 50 yd N No. 10 lying upside down on right side of road. Damage: penetrations on left side of gun and through gun shield; rounds passed completely through vehicles. Means: 90-mm AP.	Facing north. Considered to have been immobilized by US mine and destroyed by round fired by friendly tank on 19 August.	Probable, Arty or tank	Sure, tank 90-mm
O T34/85. Questionable; burned; penetrated at all angles; turret penetrated underneath; internal explosion; credit plus grand (sic), or air.	12 T34/85. 75 yd N No. 11 on left side of road in village. Damage: vehicle completely burned inside and out; turret cracked at left front, under gun shield; transmission had been removed prior to time vehicle burned. Means: napalm and strafing. Remarks: napalm tank near vehicle; vehicle was probably under repair at time it was destroyed.	Tank and gun facing south. Original cause of damage unknown. Probably further damaged by round fired at short range by friendly tank on 21 August.	Unknown, multiple	Sure, tank 90-mm
P T34/85. Multiple penetrations; but on right side; burned; could have been bazooka, artillery, or air rocket, cause in question.	13 T34/85. In courtyard on right side of road. Damage: penetration of left rear corner at hull, through engine compartment, into fighting compartment; tank burned and ammo blown up. Means: 90-mm AP.	Number "320" stenciled on turret. Original cause of damage unknown. Further damaged by round fired at short range by friendly tank on 21 August.	Unknown, multiple	Sure, napalm [notes say 90-mm AP]

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TABLE G2 (continued)

Survey No. 1, 27 Sep 50, designation and description	Survey No. 5, 11 Oct 50, designation and description	Remarks	Evaluated cause	
			Survey 1	Survey 5
Q SU-76. Right side blown out; some burn on blasted side; cause unknown.	14 SP gun, NK. Overturned on left side of road, 75 yd N of vehicle No. 13. Damage: vehicle completely demolished; blown into several pieces. Means: mortar or artillery. Remarks: mortar or artillery; craters near vehicle indicate vehicle was destroyed by one or the other.	Tank facing north, gun facing south. Possibly destroyed by friendly artillery on evening of 21 August.	Unknown, multiple	Probable, Mort or Arty
R SU-76. Hole in middle of right side; no burning; gun removed; credit to artillery or bazooka; jagged hole.	15 SP gun, NK. In ditch on left side road. Damage: gun removed, right track off; ammo removed. Remarks: vehicle apparently abandoned.	Facing road. Possibly destroyed by friendly artillery on evening of 21 August	Unknown, multiple	Sure, abandoned
S SU-76. 500-lb bomb hole; three small strafing holes; probably mechanical failure, or overrun; no other or fire.	16 SP gun, NK. On right edge of road. Damage: near end used as abutment for roadbed by US forces; no damage evident. Means: apparently abandoned.	Number "1326" stenciled on turret.	Probable, overrun	Sure, abandoned
T SU-76. Burned-out off road; internal explosion; definitely air, probably rocket.			Probable, rocket	
U			Sure, napalm	
V T34/85. Three tanks up the valley from Osang; all hit by napalm			Sure, napalm	
W			Sure, napalm	