

# Army Penetration Operations

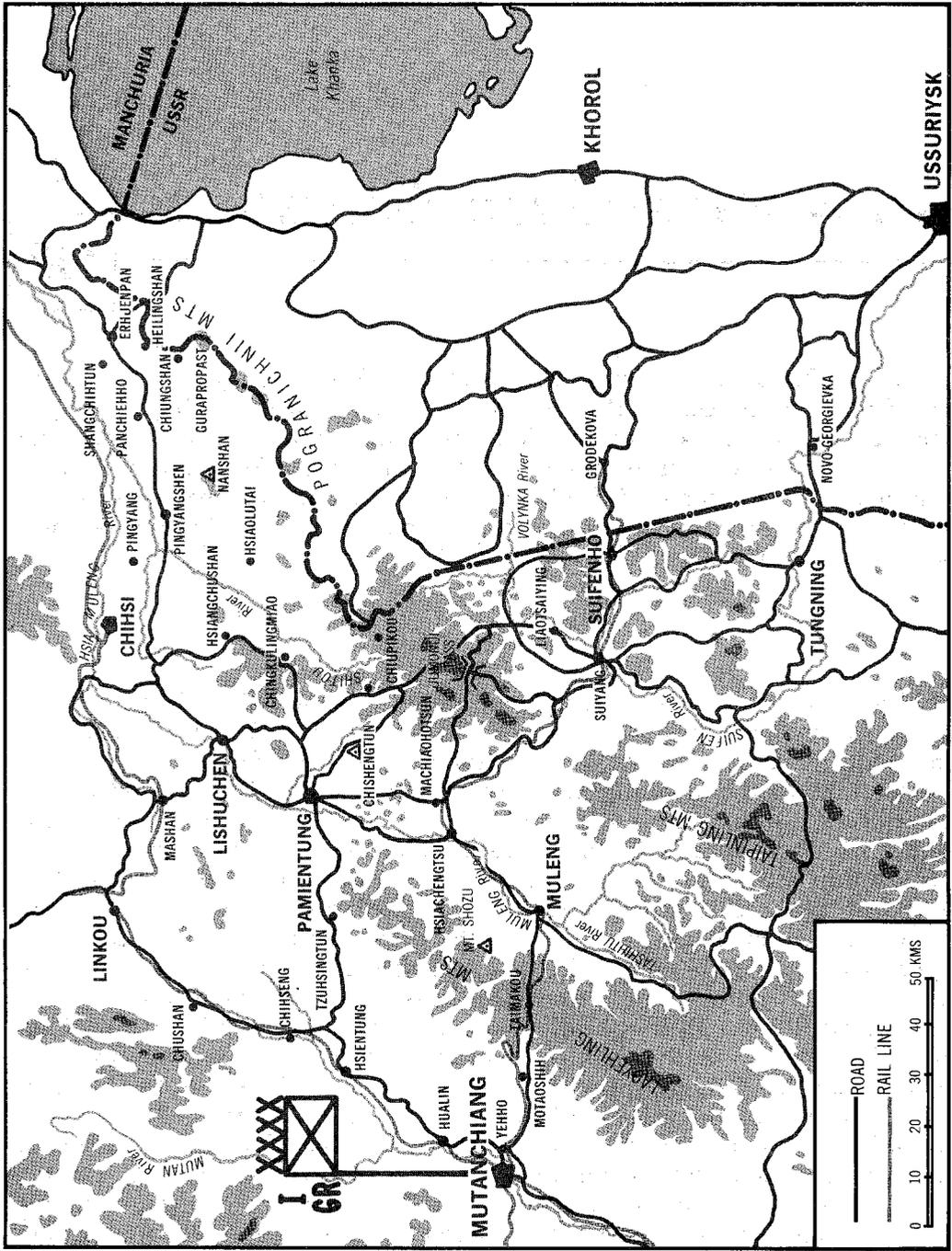
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In the Manchurian campaign of 1945, the Soviet Army faced a myriad of offensive tasks. One of the most difficult was that of piercing the imposing Japanese defenses in eastern Manchuria (see map 1—1). Under the best conditions, a penetration operation can be costly, but a Manchurian summer can make the task doubly difficult. Only intensive planning, meticulous preparation, and artful conduct of the offensive can produce positive results. Such was the challenge facing the Soviet 5th Army.

## The Route

The most direct avenue of approach from the Soviet Far East into eastern Manchuria was through the eastern Manchurian hills from Harbin in the central valley through Mutanchiang, across the Soviet Far Eastern border at Suifenho, and into the Ussuri River valley north of Vladivostok. The Eastern Manchurian Railroad followed this route, and the Japanese had fortified it with some of the most formidable defensive positions in Manchuria, attesting to the strategic value of this approach. Anchored at Suifenho, these Japanese fortifications dominated the approach into eastern Manchuria in much the same way as the Maginot Line canalized the main approaches to eastern France in 1940 (see map 1—2). On the flanks of this Manchurian fortified zone were dense forests and rugged mountains that the Japanese considered impenetrable by modern mobile armies and difficult even for infantry to traverse. Apparently, few Japanese military thinkers reflected on the French experience in similar terrain adjacent to the Maginot Line in 1940. The Soviets were better students of the Battle of France than the Japanese, and they emulated the German feat of 1940 by traversing the hindering Manchurian terrain and conducting an operational envelopment of Japanese forces in the border zones. Yet, for the Soviets, even this accomplishment was not sufficient. Contemplating deep operations against deep strategic objectives, they could not afford to leave large concentrations of Japanese forces astride communication and supply routes to their rear. So, the Soviets simultaneously conducted shallow tactical envelopment operations against the fortified regions in order to isolate and destroy them with minimum cost.



Map 1-1. Area of Operations: 5th Army and 1st Red Banner Army



## Missions and Tasks

The Far Eastern Command entrusted the task of penetrating Japanese defenses in eastern Manchuria to Marshal K. A. Meretskov's 1st Far Eastern Front. A *STAVKA* directive of 28 June 1945 spelled out the front's mission.<sup>1</sup> It would strike the main blow with two armies in the direction of Mutanchiang in order to penetrate the border fortified regions and to arrive on a line from Poli through Mutanchiang to Wangching by the fifteenth to eighteenth day of the operation. After consolidating its forces on the west bank of the Mutan River, as well as at Wangching and Yenchi, the front would continue the offensive toward Kirin, Changchun, and Harbin. Separate armies on each flank would support 5th Army's main attack.

Marshal Meretskov planned to deploy his front in a single echelon of armies. He designated General N. I. Krylov's 5th Army to make the main attack in coordination with General Beloborodov's 1st Red Banner Army. The 5th Army would attack in the direction of Mutanchiang, penetrate frontier defenses in a twelve-kilometer sector north of Grodekova, destroy the Japanese Volynsk (Kuanyuehtai) Center of Resistance of the Border Fortified Region, and advance forty kilometers to secure the Taipinling Pass and Suifenho by the fourth day. Meretskov expected 5th Army to advance sixty to eighty kilometers deep and to secure crossings over the Muleng River in the vicinity of Muleng by the eighth day of the operation. By the eighteenth day, the army was to have secured Mutanchiang on the Mutan River, this in conjunction with 1st Red Banner Army advancing on Mutanchiang from the northeast. Once Mutanchiang was secure, Marshal Meretskov planned to have the 10th Mechanized Corps (in the 5th Army's sector) develop the offensive to Kirin, where it would meet Trans-Baikal Front forces advancing across the Grand Khingan Mountains from the west.<sup>2</sup>

## Japanese Defenses

The mission assigned to 5th Army was ambitious and extensive. Success depended on the ability of Krylov's troops to overcome difficult terrain, strong in-depth fortifications, and a determined, though understrength and unsuspecting, enemy. The Japanese Border Fortified Region extended across a forty-kilometer frontage north and south of the main highway and railroad through Suifenho.<sup>3</sup> Though in most areas the fortified region was ten to fifteen kilometers deep, defenses along the highway stretched thirty to thirty-five kilometers deep. The Border Fortified Region consisted of four centers of resistance, with each center occupying a frontage of from 2.5 to 13 kilometers and a depth of 2.5 to 9 kilometers. The Northeast and Eastern Centers of Resistance (which the Japanese called the Suifenho Fortified Region) covered the approach to Suifenho from the east on a ten- to twelve-kilometer front north and south of the main eastern Manchurian rail line. Twenty kilometers to the north, the Volynsk Center of Resistance (Kuanyuehtai Zone) occupied the wooded, brush-covered hills north and south of the Volynka River. Ten kilometers south of Suifenho, the Southern Center of Resistance

(Lumintai) sat on dominant hills overlooking the Soviet Far Eastern Province. These four centers of resistance occupied twenty-five kilometers of the total frontage of forty kilometers. Smaller field works were interspersed between them. A fifth center of resistance, consisting of lighter field trenches, dominated the road junction of Suiyang, thirty kilometers west of Suifenhö. Grassy, brush-covered hills surrounded the Border Fortified Region and extended ten kilometers to the rear, finally merging into higher wooded mountains extending to the Muleng River.

The northern flank of the Border Fortified Region blended into the heavily wooded, brush-covered, and presumably impassable eastern Manchurian mountains north of the Volynka River. This lightly defended sector extended sixty kilometers from the northern edge of the Border Fortified Region to the Mishan Fortified Region northwest of Lake Khanka. The southern flank of the fortified region tied in loosely with the northern flank of the Tungning Fortified Region, twenty-five to thirty kilometers south.<sup>4</sup>

Japanese centers of resistance consisted of underground reinforced concrete fortifications, gun emplacements, power stations, and warehouses. Many of the reinforced concrete pillboxes had walls up to one and one-half meters thick, with armor plating or armored gun turrets. Some even came equipped with elevators for transporting the gun and its ammunition. In August 1945 the four main centers of resistance contained 295 concrete pillboxes, 145 earth and timber pillboxes, 58 concrete shelters, 69 armored turrets, 29 observation posts and command posts, and 55 artillery positions. These centers of resistance comprised three to six major strongpoints, each occupying 250,000-square meter sectors, up to two kilometers apart. Strongpoints, usually located on dominant heights, consisted of reinforced concrete positions or several timber and earth bunkers, as well as antitank, machine gun, and artillery firing positions. Machine gun bunkers were positioned every 250 to 350 meters; artillery positions with underground entrances, 500 to 700 meters or less.<sup>5</sup> The centers of resistance usually contained military settlements, complete with warehouses and a water supply. Communications trenches tied the entire complex of strongpoints together. The outer defenses of each strongpoint and the defenses of the center as a whole included multiple barbed wire barriers, mines, antitank ditches, and anti-infantry obstacles, usually covered by interlocking fields of machine gun fire.

Although the Japanese planned for a regiment to defend each center of resistance, a battalion could render credible defense because of the strength of the fortifications.\* Companies usually defended strongpoints; sections, squads, and platoons manned outposts and satellite bunkers. The Fortified Border Region formed the first important Japanese line of defense in Manchuria.

\*The Soviets considered each center of resistance the equivalent of a full infantry division.

Field works located eighty kilometers to the rear in the heavily wooded mountains west of the Muleng River composed a second Japanese line of defense. A third line of defense anchored at Mutanchiang, 150—180 kilometers to the rear, completed the defensive zone across which the Japanese hoped to delay and wear down advancing Soviet forces. For the Japanese defensive plan to function correctly, the Border Fortified Region had to take its toll of Soviet strength and time.

The Japanese 5th Army, which was responsible for the defense of much of eastern Manchuria, positioned its 124th Infantry Division to defend the Suifenho sector (see table 1—1). General Shiina, commander of the 124th Infantry Division, assigned one battalion from each of its three infantry regiments to defend the border region. The 1st Battalion, 273d Regiment, defended the Volynsk (Kuanyuehtai) Center of Resistance, the 1st Battalion, 271st Regiment, defended the Northeast and Eastern Center (Suifenho), and one company of the 1st Battalion, 272d Regiment, held the Southern Center (Lumintai).<sup>6</sup> Additional Japanese security, construction, and reserve units in the border region were available to reinforce the regular border garrison.

The bulk of the 124th Infantry Division was garrisoned at Muleng, Suiyang, and Hsiachengtzu, forty to eighty kilometers west of the border. Some of these units were building fortifications in the mountains west of Muleng in anticipation of a future conflict with the Soviet Union.<sup>7</sup>

**Table 1—1. Order of Battle, Japanese 124th Infantry Division**

124th Infantry Division, General Shiina

271st Infantry Regiment	1 battalion at Suifenho
272d Infantry Regiment	1 battalion at Lumintai
273d Infantry Regiment	1 company at Kuanyuehtai
124th Artillery Regiment	
124th Engineer Battalion	
Raiding Battalion, Hsiachengtzu	

Attached units:

31st Independent Antitank Battalion (minus 1 battery)
20th Heavy Field Artillery Regiment (minus 2 batteries)
1st Independent Heavy Artillery Battery (150-mm guns)
Tungning Heavy Artillery Regiment, 1 battalion (minus 1 battery)
Mutanchiang Heavy Artillery Regiment (8×240-mm howitzers)
13th Mortar Battalion
Two independent engineer battalions

Source: Headquarters, U.S. Army Forces Far East, Military History Section, Japanese Monograph no. 154: *Record of Operations Against Soviet Army on Eastern Front (August 1945)* (Tokyo, 1954), 181—83, 226—28.

The Japanese 126th Infantry Division, with headquarters at Pamientung, defended the 124th Infantry Division's left, while the 128th Infantry Division, headquartered at Lotzokou, defended its right flank. But both units occupied large sectors, and could thus provide little support to the 124th. Likewise, the 5th Army and First Area Army, with headquarters at Mutanchiang, could provide only minimal reinforcement from army and area army support troops and military school units.

### Operational Planning

The Soviet 1st Far Eastern Front commander, Marshal Meretskov, structured his forces to insure rapid reduction of this Japanese Fortified Region. Soviet 5th Army was large because Marshal Meretskov provided considerable reinforcement and thus had adequate forces to maneuver through the fortified region and, if need be, to crush the Japanese by sheer weight of numbers and firepower. Soviet 5th Army contained 4 rifle corps of 12 rifle divisions, 1 fortified region, 5 tank brigades, 6 heavy self-propelled artillery regiments, 22 artillery brigades, 4 engineer brigades, an antiaircraft division, and numerous supporting regiments, for a total of 692 tanks and self-propelled guns, 2,945 guns and mortars, and 432 rocket launchers (see table 1—2).<sup>8</sup> Marshal Meretskov tasked 9th Air Army to provide air support for 5th Army; 252d Assault Aviation Division and 250th Fighter Aviation Division were to do likewise for both 5th Army and 1st Red Banner Army during the penetration operation and its pursuit phase; and 34th Bomber Aviation Division and 19th Bomber Aviation Corps were to provide air support as required under air army control.<sup>9</sup> These bomber units would provide invaluable support in the reduction of heavily fortified zones.

**Table 1—2. 5th Army Composition**

5th Army: Col. Gen. N. I. Krylov
17th Rifle Corps: Lt. Gen. N. A. Nikitin
187th Rifle Division
366th Rifle Division
45th Rifle Corps: Maj. Gen. N. I. Ivanov
157th Rifle Division
159th Rifle Division
184th Rifle Division
65th Rifle Corps: Maj. Gen. G. H. Perekrestov
97th Rifle Division
144th Rifle Division
190th Rifle Division
371st Rifle Division
72d Rifle Corps: Maj. Gen. A. I. Kazartsev
63d Rifle Division
215th Rifle Division
277th Rifle Division

105th Fortified Region  
72d Tank Brigade  
76th Tank Brigade  
208th Tank Brigade  
210th Tank Brigade  
218th Tank Brigade  
333d Guards SP Artillery Regiment  
378th Guards SP Artillery Regiment  
395th Guards SP Artillery Regiment  
478th Guards SP Artillery Regiment  
479th Guards SP Artillery Regiment  
480th Guards SP Artillery Regiment  
78th Separate Armored Train  
15th Guards Gun Artillery Brigade  
225th Gun Artillery Brigade  
226th Gun Artillery Brigade  
227th Gun Artillery Brigade  
236th Gun Artillery Brigade  
107th High Power Howitzer Artillery Brigade  
119th High Power Howitzer Artillery Brigade  
223d High Power Howitzer Artillery Brigade  
218th Corps Artillery Brigade  
219th Corps Artillery Brigade  
220th Corps Artillery Brigade  
222d Corps Artillery Brigade  
237th Howitzer Artillery Brigade  
238th Howitzer Artillery Brigade  
61st Tank Destroyer Artillery Brigade  
20th Special Power Gun Artillery Regiment  
32d Special Power Separate Artillery Battalion  
34th Special Power Separate Artillery Battalion  
696th Tank Destroyer Artillery Regiment  
53d Mortar Brigade  
55th Mortar Brigade  
56th Mortar Brigade  
57th Mortar Brigade  
283d Guards Mortar Regiment (nonrocket)  
17th Guards Mortar Brigade  
20th Guards Mortar Brigade  
26th Guards Mortar Brigade  
2d Guards Mortar Regiment  
26th Guards Mortar Regiment  
42d Guards Mortar Regiment  
72d Guards Mortar Regiment  
74th Guards Mortar Regiment  
307th Guards Mortar Regiment  
48th Antiaircraft Artillery Division  
231st Guards Antiaircraft Artillery Regiment

1277th Antiaircraft Artillery Regiment  
 1278th Antiaircraft Artillery Regiment  
 2011th Antiaircraft Artillery Regiment  
 726th Antiaircraft Artillery Regiment  
 129th Separate Antiaircraft Artillery Battalion  
 300th Separate Antiaircraft Artillery Battalion  
 461st Separate Antiaircraft Artillery Battalion  
 20th Motorized Assault Engineer Sapper Brigade  
 23d Engineer Sapper Brigade  
 63d Engineer Sapper Brigade  
 46th Motorized Engineer Brigade  
 55th Separate Ponton Bridge Battalion

**Weapons:**

692 tanks and SP guns  
 2,945 guns and mortars  
 432 rocket launchers

Source: M. V. Zakharov, ed., *Final: istoriko-memuarny ocherk o razgrome imperialisticheskoi iaponiy v 1945 godu* [Finale: A historical memoir survey about the rout of imperialistic Japan in 1945] (Moskva: Izdatel'stvo "Nauka," 1969), 401.

By July 1945, 5th Army forces had completed their long movement by rail from the Königsberg area of East Prussia and had occupied concentration areas in the Ussuryisk, Spass-Dalny, and Khorol areas, 100—120 kilometers from the Manchurian border. After about two weeks of reorganization and training, army forces began moving into waiting areas fifteen to twenty kilometers from the border. Because of the difficult, wooded terrain, the waiting areas of the 1st Far Eastern Front were closer to the border than waiting areas of other units assigned to the Far East Command. Movement into waiting areas, conducted primarily at night under stringent control to maintain secrecy, was completed by 25 July. Once in the waiting areas, 5th Army units continued training. The final movement of 5th Army to points of departure adjacent to the border took place during the nights of 1—6 August.<sup>10</sup>

Unit movement was according to the unit training plan, and each unit occupied positions prepared by engineers. Army artillery units, in a single four- to five-hour period, also moved at night into prepared positions. All movement by 5th Army into the sixty-five-kilometer zone along the border was highly screened to maintain secrecy and to achieve surprise. Soviet fortified regions stationed along the border carried on normal duties of defense and harvesting crops. Soviet troops were permitted normal leave. Officer control points manned by special groups of officers from front and army headquarters guided 5th Army units forward. Except for those associated with the signals traffic of normal border units, all radio networks maintained strict silence. The front's operational cover plan provided extensive

masking of movement by engineer units. Along roads and tracks under Japanese observation, engineers erected vertical masking walls and camouflaged overhead covers. The 5th Army zone alone contained eighteen kilometers of vertical walls and 1,515 overhead covers.<sup>11</sup>

During both the movement phase and the pauses in concentration and waiting areas, commanders and staffs conducted intensive training for the impending operation. The training plans of regiments and battalions included such subjects as operations over wooded, mountainous terrain, attacks on fortified positions, and overcoming water obstacles. Actual field training in such subjects occurred while units were on the move. Tank and self-propelled artillery units also trained on the difficult terrain over which they would operate. Artillery units completed firing practice in their concentration areas during July. At every level of command, staff war games and command post exercises were conducted to improve mutual coordination of units and to define the precise operational tasks required by each unit's mission. Groups of officers in 5th Army familiar with operations against fortified regions in eastern Europe shared their battlefield knowledge in classes with less experienced officers in 5th Army and other armies. Army headquarters also used officers with extensive Far Eastern experience to educate regiment, battalion, and company commanders on Japanese equipment, tactics, and fortifications.<sup>12</sup> By 6 August, 5th Army's deployment to points of departure along the border was complete.

To fulfill his assigned mission, General Krylov deployed his army in two echelons of rifle corps, concentrating the bulk of his force in a twelve-kilometer sector of his sixty-five-kilometer wide army zone, thus attaining overwhelming superiority over the Japanese defenders. The first echelon consisted of three rifle corps (65th, 72d, 17th) and one fortified region deployed from north to south across the army zone. The second echelon was one rifle corps (45th) positioned twenty-five to thirty kilometers to the rear. All rifle corps and divisions were in two-echelon formation except the 190th Rifle Division of 65th Rifle Corps, which deployed in one echelon in order to protect the heavily wooded, hilly right flank of 5th Army. Concentration of the bulk of 5th Army forces in the northern half of the army zone permitted units at all levels to attack in relatively narrow main attack sectors (army, 12 kilometers; rifle corps, 5—5.6 kilometers; rifle division, 2.5—2.8 kilometers; and rifle regiment, 1.0—1.8 kilometers). It also generated sufficient operational densities in penetration sectors to permit rapid penetration of the fortified region (one rifle division per 1.1 kilometer of front, 250 guns/mortars per kilometer, and thirty tanks/self-propelled guns per kilometer of front). The two-echelon army configuration placed thirty-nine rifle battalions in the first echelon of rifle divisions and sixty-nine battalions in the second echelons of rifle divisions, rifle corps, and army, thus providing sustaining strength for the offensive.<sup>13</sup>

Col. Gen. Krylov ordered Maj. Gen. A. I. Kazartsev's 72d Rifle Corps to conduct 5th Army's main attack, penetrate the Volynsk Center of Resistance in a zone five kilometers south of the Volynka River, destroy the defending enemy, and secure strongpoints *Ostraia* (Sharp) and *Grusha* (Pear)—a depth of three to five kilometers. The 72d Rifle Corps was expected, by the end of the first day, to have penetrated to a line eight kilometers deep. By the fourth day of the operation, the corps, in order to secure the passes through the Taipinling Mountains and Machiacho Station, a depth of forty kilometers, would develop the attack through Laiotsaiying and Suiyang northwest along the rail line. To sustain the attack of 72d Rifle Corps, General Krylov attached to the corps a vast array of supporting units; during the preparation, he also reinforced the corps with the 45th Rifle Corps's artillery. With this support the corps could mass 1,092 guns and mortars and 198 tanks and self-propelled guns against the main attack sector. This support provided operational densities of 5.4 rifle battalions, 218 guns and mortars, and 40 tanks and self-propelled guns per kilometer of front.<sup>14</sup>

General Kazartsev deployed the 72d Rifle Corps with the 215th and 63d Rifle Divisions in first echelon and the 277th Rifle Division in second echelon. The 63d Rifle Division on the corps's left would conduct the main attack to secure strongpoint Pear, while the 215th Rifle Division on the right would attack to seize strongpoint Sharp. By day's end, each division was supposed to have secured a lodgment eight kilometers deep in the enemy defense. The 277th Rifle Division in corps's second echelon would follow the attack of the 63d Rifle Division, and on the morning of the third day, from the Liaotsaiying area (eighteen kilometers deep), the 277th Rifle Division would lead the corps offensive to secure the road junction of Suiyang. All rifle divisions of the 72d Rifle Corps formed in two echelons of regiments, while rifle regiments formed in single echelon (except the 711th Rifle Regiment, which formed in two echelons in order to attack the north flank of strongpoint Sharp).

Both first echelon rifle divisions formed assault groups tailored to attack individual fortified points. The 215th Rifle Division used assault groups of up to platoon size, formed from the rifle companies of first echelon regiments. In the 63d Rifle Division, reinforced rifle companies of first echelon regiments formed larger assault detachments. In addition, both first echelon rifle divisions used advanced battalions\* to initiate the night attack.<sup>15</sup>

On the right flank of the 72d Rifle Corps, Maj. Gen. G. H. Perekrestov's 65th Rifle Corps was to conduct a supporting attack with four rifle divisions. The objective was to penetrate the Volynsk Center of Resistance north of the Volynka River, to overcome strongpoint *Verblud* (Camel), and to advance to a depth of eight to ten kilometers by the end of the first day. Then the corps would develop the offensive, securing Machiacho Station by the third day. General Perekrestov deployed the 190th, the 97th, and the 144th Rifle

\*One advanced battalion per rifle division.

Divisions in first echelon and the 371st Rifle Division in second echelon. Concentrated on the corps's left flank, the 144th Rifle Division would directly assault strongpoint Camel. The 97th and 190th Rifle Divisions would sweep across the virtually undefended, but heavily wooded, sector to the north of Camel in order to envelop that position from the flank and to maintain loose contact with the 1st Red Banner Army, advancing on the right of 5th Army. First echelon rifle divisions formed assault groups and designated advanced battalions similar to those of the 72d Rifle Corps.

The 17th Rifle Corps of Lt. Gen. N. A. Nikitin, on the left of 72d Rifle Corps, was to cooperate with the 105th Fortified Region and border guard battalions in isolating the Northeast and East (Suifenho) Centers of Resistance. Approximately two regiments of the 187th Rifle Division, backed by the 366th Rifle Division in second echelon, were to attack into the gap between the Volynsk and Northeast Centers of Resistance and then swing southwestward around the rear of the Japanese defenses, ultimately to cut the rail line and highway running from Suifenho to Suiyang. One regiment of the 187th Rifle Division would cooperate with the 105th Fortified Region and the 20th Assault Engineer-Sapper Brigade in securing the critical railroad tunnels and highway leading across the border into Suifenho from the east. The 45th Rifle Corps of Maj. Gen. N. I. Ivanov, in army second echelon, would develop the success\* of 5th Army's two attacking corps. General Krylov planned to commit the corps on the morning of the fifth day of operations so that it might continue the offensive across the Muleng River.

Initial front directives for the attack of 5th Army mandated considerable artillery support formed in five distinct stages.<sup>16</sup> One day before the attack, special artillery groups would engage and destroy permanent Japanese fortifications. During a period of one and one-half hours to two hours on the night of the assault, artillery would fire in support of the advanced battalions. In addition, a four-hour artillery preparation on successive concentrations would precede the attack of main force units. To support the attack of main force units, artillery would fire a single barrage and consecutive concentrations. Finally, the artillery would provide fire support to accompany the advancing tank and infantry units to the depth of the defenses.

In order to perform these missions, the Soviets formed heavy artillery groups at every level of command. They created heavy gun and mortar groups in rifle regiments, rifle divisions, and rifle corps. In addition, each rifle corps formed an artillery destruction group and a long-range artillery group.\*\* The high density of artillery in support of 5th Army marked the first time the Soviets massed such extensive artillery concentrations on such hilly and brush-covered terrain.

\*Soviet terminology (*razvitie uspekh*) meaning to exploit gains made by attacking units.

\*\*The artillery destruction group engaged fortified point targets, and the long-range artillery group provided interdiction fire and fire on deep targets.

To insure adequate artillery support throughout the duration of the offensive, artillery movements guaranteed constant fire support by at least 50 percent of all weapons at all times. After completion of the penetration operation, Marshal Meretskov planned to resubordinate part of the reinforcing artillery to the adjacent 25th and 1st Red Banner Armies.

Front aviation assets dedicated to support 5th Army and 1st Red Banner Army prepared a two-phase air operation. As part of the initial preparation, echeloned short-range and long-range bombers and assault aircraft would carry out 1,578 sorties to destroy enemy targets. During the troop assault phase, 1,330 sorties would support the attack. In order to better support forward troops, Marshal Meretskov, from 4 to 9 August, relocated fighter aircraft from peacetime airfields deep in the rear to bases twenty-five to thirty kilometers from the border. Bombers moved to new bases sixty to seventy kilometers (34th Bomber Aviation Division) and 170—200 kilometers (19th Bomber Aviation Division) from the border.<sup>18</sup>

Despite these extensive preparations, General Krylov, on the eve of the attack, cancelled the first three periods of artillery fire and the air destruction missions. Explanations for the absence of any sort of artillery preparation vary.<sup>17</sup> Front commanders ultimately decided whether to fire the preparation. General Krylov claimed that insufficient intelligence concerning the precise location of Japanese positions negated the value of the advanced destruction fires. The necessity for achieving surprise outweighed the value of only partial destruction of enemy fortifications. Consequently, General Krylov decided to destroy enemy firing positions by a surprise night attack of advanced battalions. Only if the attack by advanced battalions failed would he fire a four-hour artillery preparation. In any event, on the evening of the attack, heavy rains deluged the area for six hours, lessening the potential effectiveness of an artillery preparation and hence reinforcing the argument for abandoning it. The same cancellation occurred in all areas of the 1st Far Eastern Front, except at Hutou, where artillery strikes went as planned.

One of the most difficult problems facing planners was the use of tanks in the difficult terrain of eastern Manchuria. Only armor could guarantee the rapid reduction of Japanese fortified positions and the high-speed advance that the operation demanded. Consequently, commanders tailored tank and self-propelled gun units to function over the terrain and adjusted their tactical roles to guarantee maximum effectiveness. The front commander reinforced the 5th Army with five tank brigades and six heavy self-propelled gun artillery regiments that could provide fire support for the infantry formations, thus increasing their mobility. Generally, each rifle division on a main attack axis was reinforced with one tank brigade and one heavy self-propelled gun regiment (eighty-six tanks/self-propelled guns), thereby establishing armor densities of thirty tanks/self-propelled guns per kilometer of front.

After penetration of the tactical zone of defense, the reinforced tank brigades formed forward detachments for rifle corps and rifle divisions and began high-speed exploitation into the operational depths. As the mobile group of the front, 10th Mechanized Corps, with 249 tanks and self-propelled guns, prepared to develop the success of 5th Army.<sup>19</sup>

Front headquarters lavished extensive engineer support on 5th Army to overcome the formidable terrain, to aid in conducting night battles, and to help reduce fortified positions. Engineers conducted engineer reconnaissance,\* installed camouflage, and repaired and constructed roads and bridges, defensive positions, and lines of departure. When the attack began, engineer-sapper units, as a part of the more than 100 assault groups formed in 5th Army, participated in reducing fortified positions. In order to supplement the work of assault units, 5th Army created two obstacle-clearing detachments in every first echelon rifle company. Road and bridge detachments composed of one rifle battalion and one to three sapper platoons formed in the rear of each rifle regiment to repair transport routes and to facilitate the movement of artillery.<sup>20</sup>

On the evening of 8 August, with preparations for the attack completed, the combat echelons of 5th Army, surrounded by the anonymity of darkness and soaked by August rains, rested in their jumping off positions and waited for the order to advance. Across the border, two or three kilometers away, the Japanese rested easily, manning only selected firing positions in their fortified zone, lulled perhaps as much by the security of the rain and the darkness and the hopes of deferred battle as by faulty intelligence. The intelligence picture painted by the 124th Japanese Infantry Division explains the complacency:

During July and August, the division received information from subordinate and lateral units indicating the gravity of the situation with regard to the USSR. This information was utterly inconsistent with the optimistic information received from higher command. The division was at a loss for the truth, and consequently was often apt to take an optimistic view.<sup>21</sup>

The events of the first few hours of 9 August would take advantage of that Japanese complacency. Farther to the Japanese rear, similar attitudes were apparent. Together with other 5th Army division commanding officers and chiefs of staff, the 124th Infantry Division commander was attending a five-day conference and tabletop maneuvers at Yehho, Japanese 5th Army headquarters.

\*Engineer reconnaissance determines enemy engineering efforts, terrain obstacles, and the condition of enemy engineer forces.

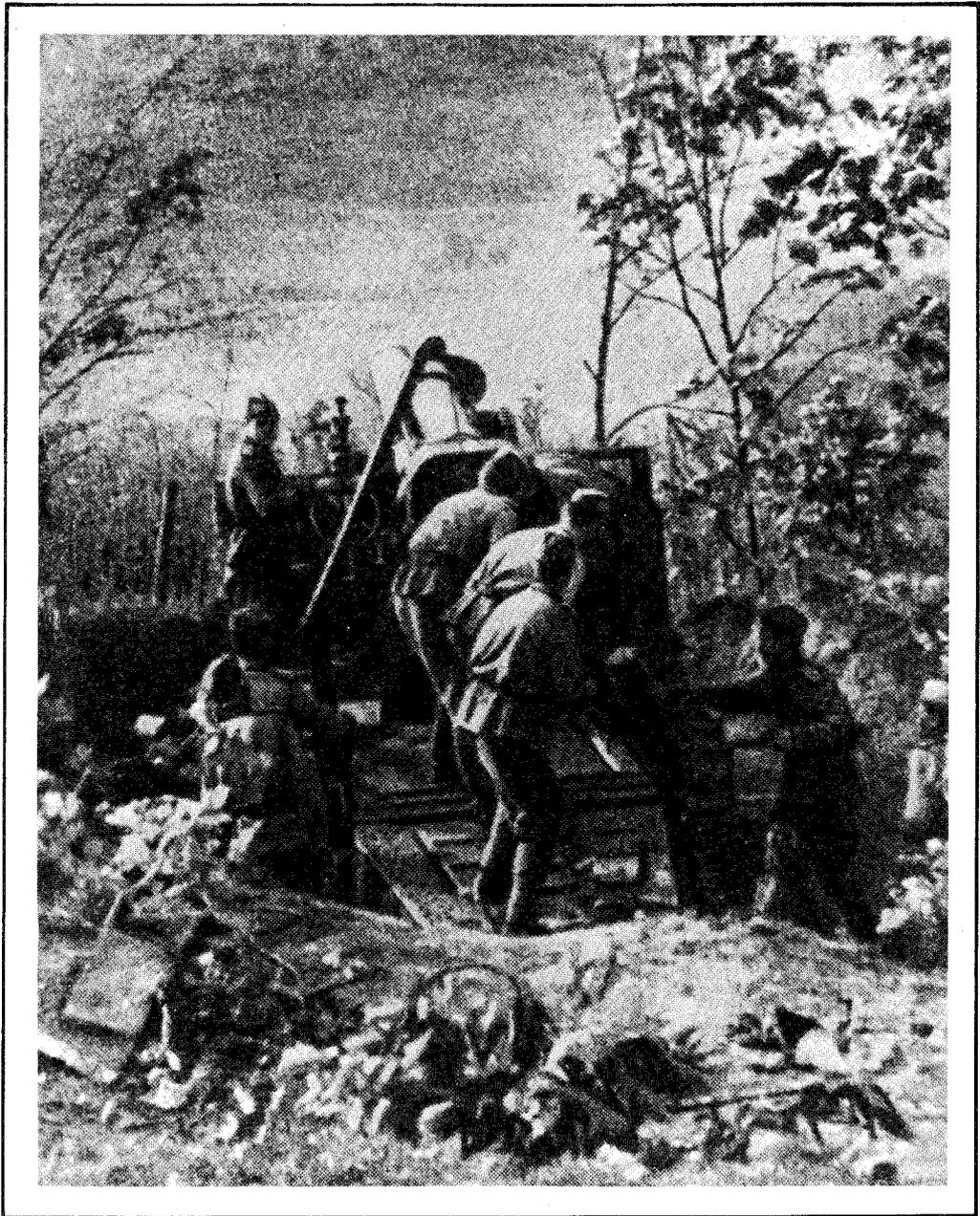
## 5th Army Attack

At 0100 on 9 August, the Soviet 5th Army advanced battalions with supporting tanks and self-propelled guns crossed the border and, in darkness and heavy rain, slowly made their way toward Japanese positions (see map 1—3). They advanced without an artillery preparation, in near silence, as the driving rain muffled the sounds of their movements. During the first hours of their advance, only scattered machine gun fire and exploding grenades punctuated that silence, as the Soviet assault units overran many Japanese positions caught unaware. The advanced battalions spread out in assault group configuration to destroy individual Japanese positions. When possible, they infiltrated through gaps in the Japanese defenses to threaten the vulnerable flanks of individual defensive positions and to gain the rear of the defenses. These advanced battalions seized many positions before the Japanese could occupy them; they took others by surprise after short, intense fights. In a few of the major strongpoints, the Japanese reacted quickly, occupied all defensive positions, and offered strong opposition.



Soviet assault group advances

In the 65th Rifle Corps sector, on the right flank of 5th Army, the advanced battalions of the 190th and 97th Rifle Divisions moved forward over heavily wooded, hilly terrain to envelop strongpoint Camel from the north. By 0400 they had penetrated the forest to a depth of four to six



Soviet artillery in direct fire on a Japanese fortified position

kilometers, crossed the Shunlienchuan River, and occupied positions to the rear of Camel. Simultaneously, the advanced battalion of the 144th Rifle Division (785th Rifle Regiment), commanded by Major Glazunov, struck the front of strongpoint Camel. The Japanese were able to occupy all positions within Camel and successfully repulse Major Glazunov's initial attack. By

0700, the advanced battalion, with tanks and 152-mm self-propelled guns in support, was ready to resume the attack. After an intense ten-minute artillery preparation, Major Glazunov sent his 4th and 5th Companies against the front of Camel, while the direct fire from his tanks and self-propelled guns covered the assault. The 6th Company attacked Camel from the south. The simultaneous assault seized four pillboxes, killed one hundred Japanese, and paved the way for the advance of the main force of the 144th Rifle Division.<sup>22</sup>



Soviet infantry advances near Grodekova (5th Army)

South of the Volynka River, the advanced battalions of the 215th and 63d Rifle Divisions of 72d Rifle Corps moved forward against strongpoints Sharp, *Ofiterskaia* (Officer), and Pear. The 3d Battalion, 707th Rifle Regiment, 215th Rifle Division, moved out at 0100 as an advanced battalion to secure the Japanese positions on Sharp. Captain Shcherbakov's company of the 3d Battalion, 707th Rifle Regiment, would strike the primary Japanese defensive position on Sharp. Throughout 8 August, Shcherbakov's company officers studied the terrain and defenses and worked out a plan for approaching and reducing the strongpoint. They determined that careful movement

to the strongpoint would require two hours. So, at 0100 reconnaissance units of the company advanced through the darkness, using a compass azimuth to guide them. As they advanced they laid telephone cable for the lead platoon to follow. Other platoons followed in column. Each soldier carried an automatic weapon with three hundred rounds, a knife, and six to eight hand grenades. They advanced linked hand-in-hand to avoid being lost in the darkness and rain. About 0300, while sappers cut and marked lanes



5th Army forces advance

through the barbed wire and minefield, the company approached the strongpoint. By 0315 Captain Shcherbakov's platoons had surrounded the strongpoint, and other companies of Captain Moskalev's battalion were in position to assault Sharp. That coordinated assault began shortly after 0315 without the support of self-propelled guns or tanks, whose movement forward was hindered by swampy soil. Using explosives, backpacked flamethrowers, gasoline bottles, and hand grenades, the advanced battalion secured about half of the pillboxes and firing positions at Sharp by 0500.<sup>23</sup> By 0500, the advanced battalion of 63d Rifle Division had occupied strongpoint Officer, immediately adjacent to Sharp, and was preparing the way for main elements of the division to move through the gap between strongpoints Sharp and Pear.

Farther south, in the 17th Rifle Corps sector, heavy fighting erupted for control of the railroad tunnels east of Suifenho. An advanced battalion of the 187th Rifle Division moved forward to seize the concrete blockhouses and defensive positions covering the tunnels. While the advanced battalion attacked along the railroad, a battalion of the 20th Assault Engineer Sapper Brigade cut lanes through minefields and, with the support of tanks, attacked Japanese positions from the flank and rear. The 20th Assault Engineer Sapper Brigade destroyed five pillboxes and enabled the advanced battalion to secure the rail tunnels by 0600 on 9 August.<sup>24</sup>



Soviet infantry in the assault

The initial attack of army advanced battalions achieved its goal. By surprise, maneuver, and well-coordinated attacks, the battalions had seized several strongpoints and gained footholds in the remaining strongpoints. Their successful action permitted the main force to advance as planned at 0830 on 9 August and to move according to schedule through and beyond the Japanese fortified line. The success of the advanced battalions also negated the need for an extensive artillery preparation. Thereafter, only the direct fire of tanks and self-propelled guns and on-call artillery and aviation strikes supported the advance of the main force.

The Soviet night assault totally surprised the Japanese. Because the timing of the attack (at night), the climatic conditions (rain), and the infiltration style of the assault caused a general paralysis among the Japanese, the Soviets quickly severed enemy communications in many important defense sectors. Thus Japanese commanders at all levels had at best an inaccurate picture of the fighting. The Japanese never recovered from this initial shock, and their paralysis and inability to respond effectively to Soviet attacks persisted throughout the remainder of the campaign. Attesting to that confusion, the Japanese 3d Army chief of staff stated that the offensive of Soviet forces was so unexpected that the staff of the army in the course of the night of 8—9 August up to 1200 9 August did not know, and could not obtain, any news about what was happening on the border and what was the position of units.<sup>25</sup>

Japanese 5th Army received notification of the attack by phone shortly after 0100. Initial reports from the border sectors mentioned overflights of the border region and Soviet shelling of Japanese positions at Hutou. The 5th Army reported the incidents to First Area Army and summoned chiefs of staff and division commanders to a meeting. At 0300 in the Yehho Officers Club, the 5th Army commander told his assembled commanders that artillery shelling was underway and that “an element of their [Soviet] infantry seems to have broken through the border.”<sup>26</sup> He then issued the following initial orders:

The plan of the army for meeting the situation is that border elements will delay the advance of the attacking enemy by taking advantage of terrain and established border positions, while the main force will destroy the enemy's fighting power by putting up stubborn resistance in depth in our main defensive positions. . . .

Elements of the 124th Infantry Division will occupy the established border positions at Lumintai, Suifenho, and Kuanyuehtai in an effort to stem the hostile advance, while the division's main force will immediately take up MLR [main line of resistance] positions west of Muleng and will destroy the enemy fighting power by opposing him in our defensive positions disposed in depth.<sup>27</sup>

Each division commander passed the orders by phone to his staff and then departed Yehho for his headquarters. General Shiina of the 124th Infantry Division traveled by car to Muleng, where he arrived near dawn shortly after a Soviet air attack on the city. Shiina went to his headquarters and issued initial orders to his divisional units to occupy main line of resistance (MLR) positions, intercept the advance of the Soviets, and destroy it. He ordered the Suifenho and Kuanyuehtai garrisons to delay the advance of the enemy and sent Colonel Asu, commander of the 271st Infantry Regiment, to Suiyang to supervise evacuation of military stores, military personnel, and Japanese residents. Other orders authorized the use of support personnel to augment tactical units on the Muleng defense line, mandated shipment of supplies forward from Mutanchiang depot, and instituted a

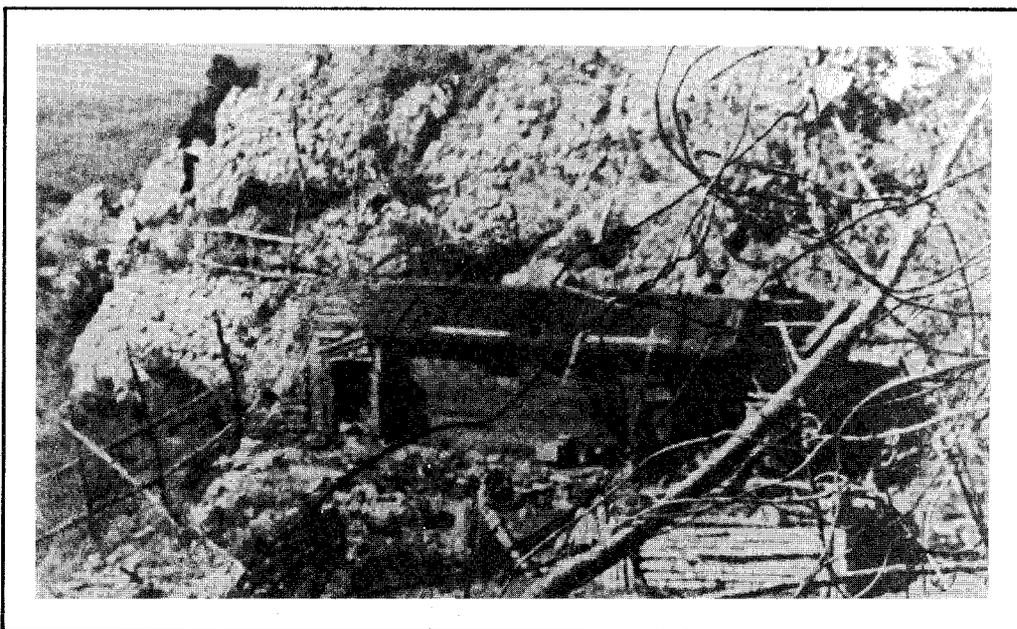
demolition plan for bridges, roads, barracks, and government buildings. After notifying the civil government of the attack, General Shiina ordered his headquarters to prepare positions on Mount Ikkoko, west of the Muleng River.<sup>28</sup> Wherever possible, the orders were carried out, but in an uncoordinated and piecemeal fashion. Implementation of the demolition plan, for example in which bridges were destroyed prematurely, severely hindered the withdrawal of Japanese forces and equipment from the forward defensive area.



A heavy SP gun unit advances through eastern Manchuria

While the Japanese reacted to the events of the early morning hours of 9 August, the Soviet offensive accelerated. Advanced battalions completed the process of cutting corridors through the Japanese fortified positions even while main force units began moving forward. Second echelon rifle divisions prepared to detach forces in order to complete the reduction of isolated, but as yet unconquered, Japanese strongpoints. At 0930, in the 65th Rifle Corps sector, advanced battalions of the 190th and 97th Rifle Divisions attacked and destroyed the military settlements on the west slope of Camel strongpoint. An hour earlier, the main forces of the 97th Rifle Division and 144th

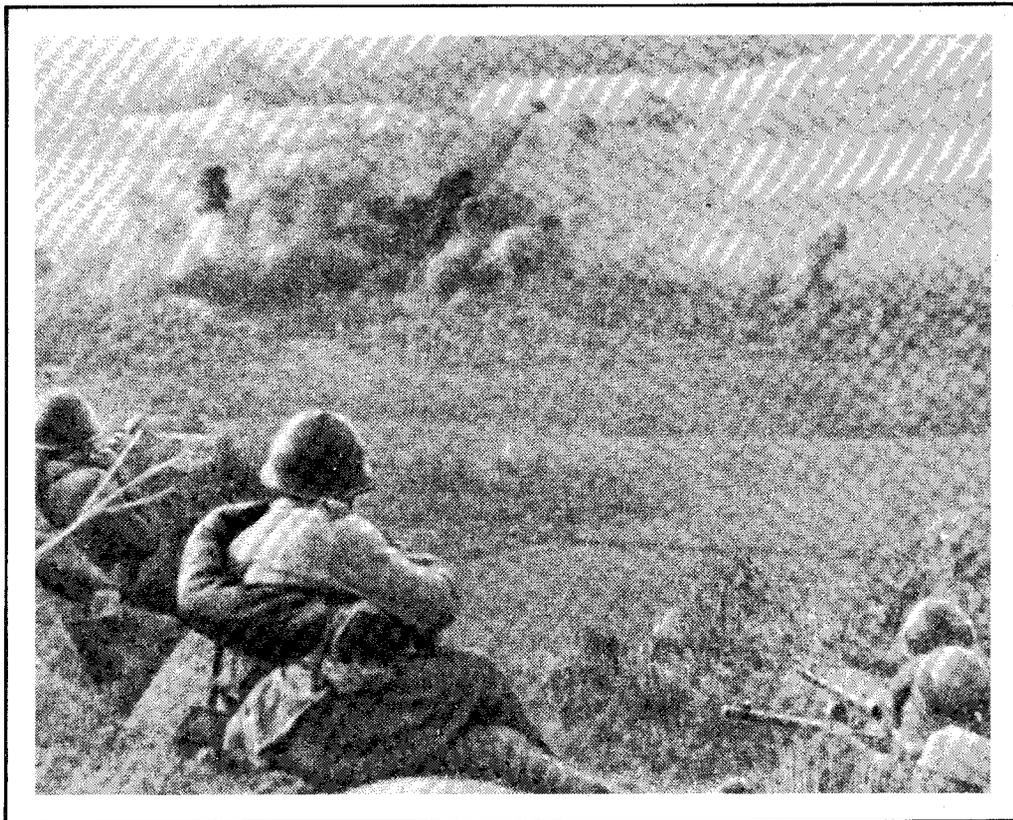
Rifle Division had attacked past Camel. A forward detachment consisting of a tank brigade and a heavy self-propelled artillery regiment and a battalion or regiment of infantry had spearheaded the advance of both divisions. By nightfall on the ninth, the 97th Rifle Division had advanced twenty kilometers via Jumonji Pass toward Machiacho Station. The 144th Rifle Division had penetrated sixteen kilometers and reached Liaotsaiying. Elements of the second echelon in 65th Rifle Corps continued to isolate the remaining Japanese positions on Camel.



Japanese fortified position in eastern Manchuria destroyed by Soviet artillery fire

South of the Volynka River, the advanced battalion of 72d Rifle Corps continued to reduce Japanese strongpoints Sharp and Pear. By 1200 on 9 August, the 215th Rifle Division had secured control of the Japanese military settlement on the western slopes of Sharp and had cut the vital military road running north and south, five kilometers inside the border. The advanced battalion of 63d Rifle Division also continued its operations against strongpoint Pear. Exploiting the success of the advanced battalions, the forward detachment of 215th Rifle Division, consisting of the 210th Tank Brigade and the 333d Heavy Self-Propelled Artillery Regiment with infantry support, advanced westward toward Suiyang at 1500 on 9 August. Another corps forward detachment led the advance of 63d Rifle Division on a path parallel to that of 215th Rifle Division. By evening, the 72d Rifle Corps

forward detachments had pushed fifteen to eighteen kilometers into the Japanese rear area. The 852d Rifle Regiment of the 277th Rifle Division in corps second echelon received the task of reducing remaining Japanese positions in strongpoint Sharp.<sup>29</sup>



Assault troops await the signal to advance

Thus, by nightfall of 9 August, lead elements of 5th Army had thrust sixteen to twenty-two kilometers into the Japanese rear area on a frontage of thirty-five kilometers, fulfilling missions not supposed to be accomplished until the second and third days of the attack. The speed of the Soviet advance—by thoroughly disrupting the timing of Japanese contingency plans—preempted all effective Japanese resistance. The forward detachments maintained that speedy advance. In the rear, second echelon forces undertook the arduous and sometimes gruesome task of reducing remaining Japanese strongpoints, which often held out to the last man. Supported by the direct fire of heavy self-propelled guns (152-mm), infantry companies and sappers used high explosives and flamethrowers to reduce each Japanese position, a three-day process.

On 9 August, the Japanese command tried to restore its defensive positions and to establish new defenses. That afternoon, Imperial General Headquarters issued to commanders of all theaters emergency orders that read, "The Soviet Union declared war on Japan and launched attacks at several places along the Soviet-Japanese and Soviet-Manchukuoan border at 0000 9 August. However, the scale of these attacks is not large."<sup>30</sup> The initial Kwantung Army estimate of the situation issued that evening echoed the unrealistic tone of this order: "The main force of the enemy on the eastern border [is] attacking between Pingyangchen and Tungning . . . [The estimated force is] three infantry Divisions and between two and three armored brigades."<sup>31</sup> In reality, fifteen Soviet rifle divisions and eight tank brigades were assaulting Japanese positions at that time in that sector. Also on the ninth, First Area Army acknowledged that Soviet forces had broken through the border at Suifenho and Kuanyuehtai in the 124th Infantry Division zone and at Jumonji Pass near the divisional boundary of the 124th and 126th Infantry Divisions.<sup>32</sup> Soviet armor also threatened the Suifenho-Mutanchiang railroad and highway. The Japanese 5th Army, in turn, ordered its units to take up planned positions and, on the afternoon of the ninth, reinforced the 124th Infantry Division with two battalions from the 135th Infantry Division.

In the 124th Infantry Division sector, Colonel Asu of the 271st Regiment arrived at Suiyang at 1200 and proceeded to evacuate supplies and personnel. He organized a convoy of trucks that left that evening and arrived the next day at the Muleng River. He was, however, unable to cross the river, because the bridge had been destroyed in accordance with General Shiina's demolition plan. The Japanese appeared to be working at cross purposes. An attempt to move the vehicles across the river by fording and ferrying failed. Hardpressed by advancing Soviet units, Japanese troops escaped down the river and left most of the irreplaceable equipment behind. The abandoned equipment included several new Model 90 75-mm howitzers sorely needed by the division for fire support.<sup>33</sup>

A similar instance occurred in the 124th Infantry Division zone. On the ninth, Japanese 5th Army assigned the Mutanchiang Heavy Artillery Regiment to 124th Infantry Division control. The artillery unit (located at Hsienchangtsu), however, had no tractors to move its guns. To prevent them from falling into Soviet hands, the Japanese had to destroy all six of the valuable howitzers. While evacuation of the forward area continued at 1400 on 9 August, General Shiina and part of his staff moved to positions west of the Muleng River. Reports to his headquarters on the evening of the ninth indicated that heavy fighting was taking place on the border but that Japanese morale was still high.<sup>34</sup>

On 10 August, Soviet forces capitalized on the confusion in Japanese ranks by beginning rapid exploitation into the depths of the Japanese defense. The 65th Rifle Corps advanced on two axes across the Taipinling Mountains through Jumonji Pass in the north and along the main rail line in

the south, converging on Machiacho Station. The 72d Rifle Corps marched through Suiyang, sending one division on a sweep south and west toward Muleng and sending its other division along the rail line toward Machiacho. The 17th Rifle Corps advanced south in the rear of Suifenho to link up with 25th Army units, completing the reduction of the Tungning Center of Resistance. Forward detachments, operating ten to fifteen kilometers ahead of the main force, led the advance of corps units on all major axes.



5th Army troops entering Muleng

This rapid Soviet advance preempted Japanese efforts to establish new defensive lines (positions) or to withdraw in good order to planned defenses. Lead rifle regiments of each rifle division followed forward detachments and liquidated isolated Japanese defenders. By the evening of the tenth, Soviet 5th Army had advanced eighteen to thirty kilometers and had widened its penetration to seventy-five kilometers. By the morning of the eleventh, Soviet units were eighty kilometers deep and across the Muleng River, forcing the Japanese to fall back into defenses in the mountains west of Muleng. By the evening of the same day, the Soviets had snuffed out resistance in the Border Fortified Region.

## Conclusions

In the course of two and one-half days, the Soviet 5th Army crushed Japanese resistance in the Border Fortified Region and pushed eighty kilometers into eastern Manchuria. Thorough Soviet planning, good coordination, and surprise stunned Japanese defenders. Japanese fortified positions on the border, which the Japanese had depended on so heavily, were bypassed, neutralized, isolated, and quickly destroyed, all at a minimum cost in terms of Soviet manpower. Led by forward detachments, the rapid Soviet advance through and beyond the fortified region had generated sufficient momentum to carry the Soviets to the Muleng River before the Japanese were fully aware of the gravity of the situation. Japanese commanders were unable to react to the Soviet initiative, and only on the eleventh were the Japanese able to establish a new defensive line in the mountains west of Muleng. They manned that defensive line, however, with troops severely shaken and disorganized by the events of the previous two days. Along the border, the 124th Infantry Division had lost three maneuver battalions and a major portion of its equipment during its hasty retrograde to new defensive positions.

Soviet 5th Army's performance exceeded the expectations of the 1st Far Eastern Front commander. Within sixty hours the army had attained objectives for which the Soviet timetable allotted eight days of combat. The Soviets accomplished this feat by detailed and secret operational planning, by a well-coordinated, timed application of combat power, by artful organization for combat, and by careful exploitation of terrain. Good planning rewarded the Soviets with surprise over the Japanese. The timed application of combat power by assault groups, advanced battalions, echeloned rifle regiments, rifle divisions, and forward detachments imparted momentum to the attack and sustained that momentum once it had built up. Units organized for precise combat tasks fulfilled these tasks with minimum losses. Thus assault groups relied on maneuver, firepower of tanks and self-propelled guns, and sapper skills to avoid costly frontal assaults. Specially tailored advanced battalions and forward detachments overcame "inhibiting" terrain and confounded the Japanese, who, until the end, remained convinced that no army could penetrate such "impassable" terrain. The surprise Soviet 5th Army achieved resulted from the timing, location, and manner of conducting the attack. Soviet success on 9–10 August was a measure of those achievements. With this success in hand, 5th Army continued to drive westward toward Mutanchiang.

## Notes

1. *Istoriia vtoroi mirovoi voiny 1939—1945* [History of the Second World War 1939–45] (Moskva: Voennoe Izdatel'stvo, 1980), 2:199–200 (hereafter cited as *IVMV*).
2. L. N. Vnotchenko, *Pobeda na dal'nem vostoke* [Victory in the Far East] (Moskva: Voennoe Izdatel'stvo, 1971), 96–98. The 1st Far Eastern Front commander explains his mission in K. A. Meretskoy, *Serving the People* (Moscow: Progress Publishers, 1971), 344–46.

3. N. I. Krylov, N. I. Alekseev, and I. G. Dragan, *Navstrechu pobede: boevoi put 5-i armii, oktiabr 1941g—avgust 1945g* [Toward victory: The combat path of the 5th Army, October 1941—August 1945] (Moskva: Izdatel'stvo "Nauka," 1970), 423.
4. Japanese border fortifications are described in U.S. Army Forces Far East, Military History Section, Japanese Studies on Manchuria, vol. 11, pt. 2, *Small Wars and Border Problems* (Tokyo, 1956).
5. Vnotchenko, *Pobeda*, 52—54.
6. U.S. Army Forces Far East, Military History Section, Japanese Monograph no. 154: *Record of Operations Against Soviet Army on Eastern Front (August 1945)* (Tokyo, 1954), 225—32 (hereafter cited as JM 154).
7. *Ibid.*, 181—83, 226—28.
8. P. Tsygankov, "Nekotorye osobennosti boevykh deistvii 5-i armii v Kharbino-Girinskoi operatsii" [Some characteristics of the combat action of 5th Army in the Harbin-Kirin operation], *Voенно-istoricheskii zhurnal* [Military history journal], August 1975:83 [hereafter cited as *VIZh*]. Originally, 5th Army had five tank brigades, six SP artillery regiments, and twelve separate SP artillery battalions, for a total of 692 tanks and SP guns. See V. Ezhakov, "Boevoe primeneniye tankov v gorno-taеzhnoi mestnosti po opytu l-go dal'nevostochnogo fronta" [Combat use of tanks in mountainous-taiga regions based on the experience of the 1st Far Eastern Front], *VIZh*, January 1974:78. Before the operation began, 1st Far Eastern Front transferred one of these brigades (72d Tank Brigade) to 25th Army, thus reducing 5th Army tank and SP gun strength to 607. See I. E. Krupchenko, ed., *Sovetskie tankovye voiska 1941—45* [Soviet tank forces, 1941—45] (Moskva: Voенное Izdatel'stvo, 1973), 323; Krylov, *Navstrechu*, 427.
9. Vnotchenko, *Pobeda*, 116—17.
10. Krylov, *Navstrechu*, 425; Vnotchenko, *Pobeda*, 79—80.
11. Krylov, *Navstrechu*, 429—30. Details on engineer support of 5th Army forward deployment are covered in A. F. Khrenov, "Wartime Operations: Engineer Operations in the Far East," *USSR Report: Military Affairs no. 1545* (21 November 1980):81—97, JPRS 76847, translated by the Foreign Broadcast Information Services from the Russian article in *Znamya* [Banner], August 1980.
12. Krylov, *Navstrechu*, 430—32; Meretskov, *Serving the People*, 334.
13. Tsygankov, "Nekotorye," 84; Krylov, *Navstrechu*, 428—30; Vnotchenko, *Pobeda*, 101—2. All three sources relate the combat missions of all 5th Army rifle corps.
14. Vnotchenko, *Pobeda*, 102; Krylov, *Navstrechu*, 436—37.
15. Vnotchenko, *Pobeda*, 103.
16. The original 5th Army artillery plans are in Vnotchenko, *Pobeda*, 106; Tsygankov, "Nekotorye," 84; Krylov, *Navstrechu*, 433—34. The scope of artillery support of 5th Army is described in M. Sidorov, "Boevoe primeneniye artillerii" [The combat use of artillery], *VIZh*, September 1975:15—17.
17. For the varying explanations as to why an artillery preparation was not fired, see Krylov, *Navstrechu*, 433—35; Vnotchenko, *Pobeda*, 108; Meretskov, *Serving the People*, 350.
18. Vnotchenko, *Pobeda*, 115—17.
19. Ezhakov, "Boevoe primeneniye," 78, credits the 10th Mechanized Corps with 371 tanks and SP guns. Vnotchenko, *Pobeda*, 95, gives the corps strength as 249 tanks and SPs. The difference reflects reassignment of one tank brigade and one SP artillery battalion from 5th Army to 25th Army and 10th Mechanized Corps.
20. Tsygankov, "Nekotorye," 86.
21. JM 154, 230.

22. V. Pavlov, "In the Hills of Manchuria," *Voennii Vestnik* [Military herald], August 1975: 30—32, translated into English by Office, Assistant Chief of Staff, Intelligence, U.S. Department of the Army; Krylov, *Navstrechu*, 436; Vnotchenko, *Pobeda*, 208.
23. Krylov, *Navstrechu*, 437—38; Vnotchenko, *Pobeda*, 200—202.
24. Khrenov, "Wartime Operations," 89; Krylov, *Navstrechu*, 438; Vnotchenko, *Pobeda*, 209.
25. Vnotchenko, *Pobeda*, 199.
26. JM 154, 59, 181.
27. Ibid., 181—82.
28. Ibid., 233—34.
29. Krylov, *Navstrechu*, 440—41; Tsygankov, "Nekotorye," 86—88; Vnotchenko, *Pobeda*, 208—11.
30. JM 154, 6.
31. Ibid., 8—9.
32. Ibid., 60—61.
33. Ibid., 185—86.
34. Ibid., 234.