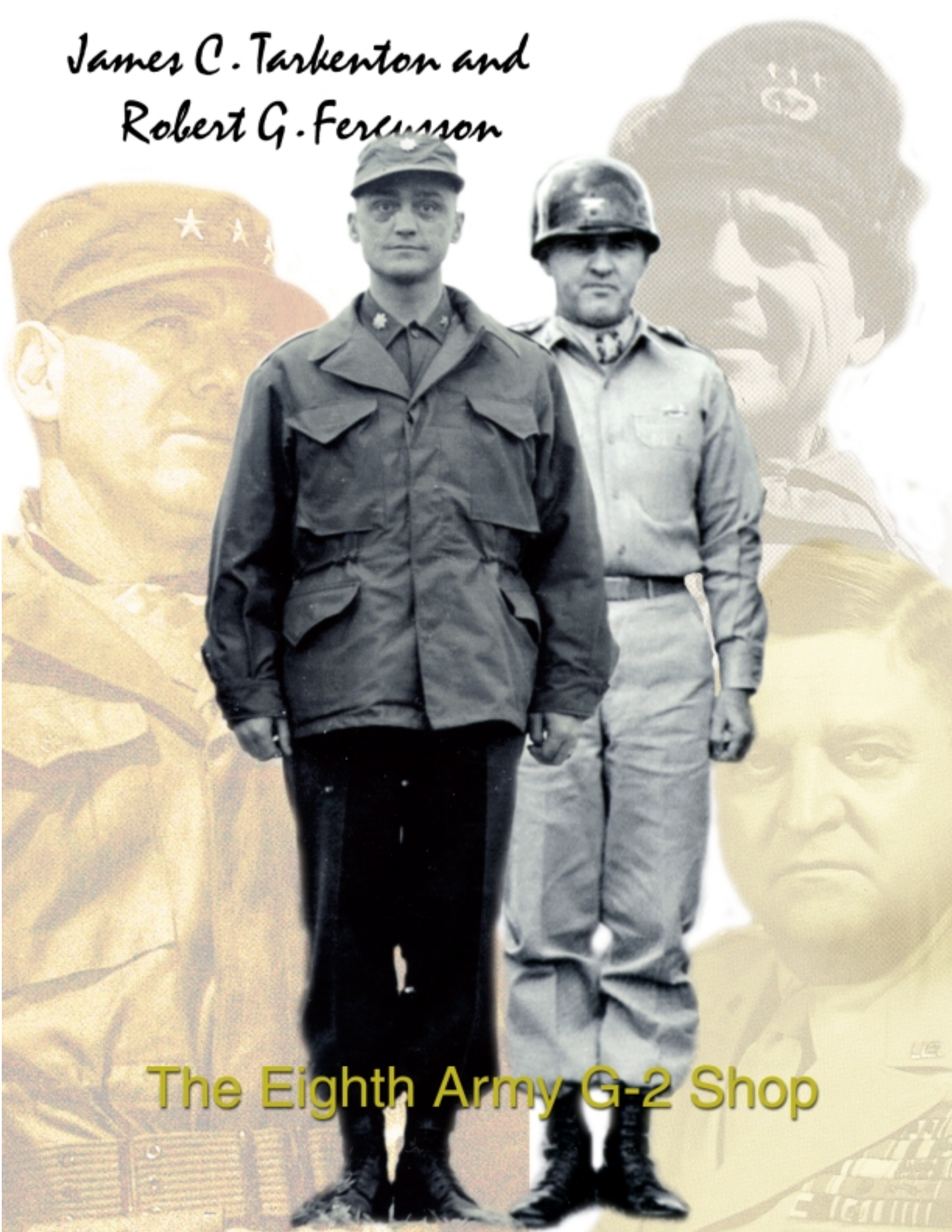
James C. Tarkenton and
Robert G. Ferguson



The Eighth Army G-2 Shop

Clint Tarkenton and Bob Fergusson: The Korean War G-2s

When North Korean forces rolled across the 38th parallel with its Soviet-made armor in June 1950, the Republic of Korea and its sponsor, the United States, were taken by surprise. A desperate perimeter set up around the southernmost city of Pusan just barely prevented the peninsula from being completely overrun. General Douglas MacArthur's brilliantly conceived left hook, landing United Nations forces at Inchon behind the enemy lines, succeeded in pushing the now disorganized North Korean Army to the northernmost reaches of their country. But the UN allies were surprised a second time by the Chinese intervention which drove UN/US forces, now under Gen. Matthew Ridgway, back south of Seoul. A UN offensive would regain a line roughly approximating the old 38th parallel border. Bitter fighting marked the stalemate over the next two years before a truce was concluded in July 1953.

Korea was another crisis for Army intelligence, as it was in fact for the entire post-World War II U.S. Army. General James Van Fleet, who commanded the Eighth U.S. Army from 1951 to 1953, remarked that since World War II "we have lost through neglect, disinterest, and possible jealousy, much of the effectiveness in intelligence work that we acquired so painfully in World War II." In his opinion, the Army had not "yet approached the standards we reached in the final year of the last war." The intelligence reputation would suffer. One intelligence officer who arrived in Korea in 1952 at the 25th Division G2 office said intelligence performance thus far in the war "had a lousy reputation." The problem, he thought, arose from the fact that the Army was dependent on the combat intelligence techniques of World War II, but just "didn't have the linguists and knowledge to go with it."[1]

With the dismantling of almost all of the Army's intelligence specialist training following World War II, the Korean War found the U.S. Army without order of battle specialists, photo interpreters, tech-

nical intelligence analysts, or even language-trained interrogators. The Intelligence Department, opened in 1947 at Fort Riley's Army Ground School was not graduating anywhere the numbers needed. It took over three months to get the 60th Signal Service Company, an ASA unit, to Korea to support the Eighth U.S. Army with communications intelligence.[2]

Detachments of MI specialists, CIC, and ASA personnel were attached to each division. As they were in World War II, 17-man CIC detachments were assigned to each division and they largely succeeded in protecting rear areas against enemy intelligence actions. As intelligence specialists were graduated from the Intelligence Department, they were shipped to Korea to MI units like the 500th MI Service Group and the 163d MI Service detachment which supported tactical units.

The commander's tools early in the Korea fighting were limited to prisoner interrogation and aerial reconnaissance. There was little in the way of SIGINT. Allied commanders were also hamstrung by the prohibition of overflights or agent penetrations beyond the Yalu, into Chinese territory. This blinded them to the size and imminence of the Chinese intervention.

Aerial reconnaissance played an important role in Korea, such as delivering photos of the Inchon area prior to the landing there. But the Air Force effort was hampered by the initial lack of Army photo interpreters. In 1953 S. L. A. Marshall, having been an Infantry Operations Analyst, with the G3, Eighth Army, published *The River and the Gauntlet*, a history of the Chinese intervention and the Battle of the Chong'chon River. In the first chapter he talks about the grave intelligence shortages, foremost of which was the lack of aerial reconnaissance, air crews, photo interpreters, and production apparatus, all "major casualties of the breakneck demobilization of 1945-46."

The photo section in the division signal company had, in addition to their still and movie cameras, three K-20 aerial cameras and their own photo lab. At least one divisional shop found a way to skirt FEC prohibitions on film processing and early in the war used division L-19 spotter planes to take oblique aerial shots of enemy positions and ap-

proaches. According to Capt. Cass J. Joswiak, "The main problem with aerial photography through the normal Army-Air Force channels was that eight days elapsed between the time the 2d Infantry Division requested a photo and the time the prints were delivered. Usually the situation changed so radically during this period that the division either had no interest in the terrain photographed, or the enemy had changed his position." He addressed some of his own problems. "One was the demand for better photos than we could produce. We were frequently asked for mosaics with grid coordinates superimposed on the photo. This was far beyond our capability. We just took good obliques and pinpoint shots. Their value was in speed of delivery. The second problem was getting the liaison pilots to fly close to what we wanted to photograph. At times we urged the pilots to bring the plane down within a thousand feet of the ground or lower, but it was no use. They flew no lower than three thousand feet over enemy territory...."[3]

For military intelligence, the Korean War was fought in World War II terms. Little had changed in the intelligence arena in either technology or organization. According to one intelligence officer, "Aerial photography, tactical line-crossing operations and radio intercepts were really the three major sources of combat intelligence." [4]

Interrogation was a valuable source of intelligence early in the war, especially during the Chinese intervention. In Billy Mossman's history, *Ebb and Flow, November 1950-July 1951*, which covers only a nine-month slice of the war, there are no fewer than 29 citations for key intelligence being pulled from prisoner or defector interrogations. But after the fighting became stationary and the war entered its stalemate phase, it slacked off perceptibly.

German-born Gerd S. Grombacher was an experienced interrogator in Europe during World War II and, when the Korean War started, an instructor of interrogation at the Intelligence Department of the Army General School at Fort Riley. But, he could not fathom why he had been assigned as an interrogator to the 25th Infantry Division since he could not speak any Asian languages. In a 1985 interview, he described his first interrogation of a

Chinese prisoner of war. "The way that was done, a very significant thing, was that there was an American Nisei enlisted man who spoke Japanese and English, and then there was a Korean, a KATUSA (Korean Augmentation to the U.S. Army), who spoke Chinese and Japanese and so this interrogation of this one and only prisoner I had in Korea went from me to the Nisei to the Korean to the Chinaman and back. You know, the way I learned it, the best way to interrogate a prisoner is directly—to look him in the eye and do your thing, and that was the most frustrating experience I've ever had. I recall, and I've told this story a number of times, I recall telling the Nisei to ask this guy his name, and so the Nisei would talk to the Korean and they would jabber for about, what seemed to me, five minutes, and then the Korean would jabber with the prisoner for about five minutes and then on the way back the same thing. And it would seem to me 10 minutes later I got the very terse answer, "Lee." It didn't take but 10 minutes to realize that this was a totally useless exercise. When it was all over with, I had gleaned no useful information from the guy." Shortly afterward, Grombacher asked for a transfer to the Order of Battle Section.

Grombacher thought little of the interrogation effort in his division. "In Korea…it was useless [in 1952]. The situation was very stationary and there was minimal action, so the number of prisoners taken along the front was almost nil. When you'd have contact with the enemy, you'd either kill them or they would withdraw—you really wouldn't get any prisoners out of it. Once in awhile you did but when you did they didn't know anything." The interrogation team at the 25th Infantry Division had "a captain, several lieutenants and many enlisted people." But, in 1952, they had little to do. Grombacher, a lieutenant on the team, described sitting at the Prisoner of War cage in the division rear with a lot of MPs but no prisoners.

But Grombacher was more optimistic about line crossing operations, specific patrols into enemy territory to gather intelligence and prisoners. Tactical line-crossing operations were launched at Corps level to infiltrate enemy positions and return with intelligence, often in the form of prisoners. These patrols were described by the 25th Infantry Division

assistant G2 in 1952. " The counterintelligence people—if they got a hold of line crossers—became fairly good sources of intelligence. …The captain that was running that [Corps-level] team wouldn't do anything without coming in and discussing it with us first. He needed the division to cover his guys as they went out and came in. He had to let us know and we had to go down to battalion level and tell them what kind of operation we had going on and how many guys were moving across the line. The lincrossers stayed in a compound in the division sector. And they knew the sector. When the division moved to another sector, the TLO organization in the division sector stayed. They didn't go with us. We picked up some other fellows somewhere else. That was a pretty cooperative effort. We'd get the information."

In the Order of Battle Section of the 25th Division G2, a system was in place to update information on the enemy in front of them. It was described by the officer in charge: "We divided the division front—because it was a static situation—into grid squares. The job was to find out what things pertaining to the enemy were in the grid squares. We'd get that information from all kinds of sources—not from prisoners. We'd get it from aerial photographs, from radio intercepts—which was then just beginning to be used."

The assistant G2 of the 25th Infantry Division later remembered the problems with ASA secrecy. "There was a big struggle with the radio units that they used…. We had these ASA units assigned to the division but they were reporting to Corps. They were secret—you weren't even supposed to know where they were but there was no way of missing them. They didn't tell you what they were doing. If they'd get any information, they'd have to send it to Corps, then Corps would send it back down to division. It was dumb!"

Grombacher talked about the Periodic Intelligence Report or PIR. "We'd write a periodic intelligence report every day. We never did that in the European situation [in World War II]. The periodic intelligence reports were disseminated. I had soldiers [in the 25th Infantry Division] who did nothing but write the report. They would work on it all day long so it could be published by ten o'clock at

night."[5]

"Combat intelligence was done differently. There was obviously less use of prisoners because: a) they didn't know anything and b) we didn't have the capability to interrogate at division level because of language problems. Secondly, it was a much more stationary situation at that time and intelligence was pretty much gathered in two ways: One was surveillance—you know, airplane surveillance, both photography from the Air Force and the Army as well as observers flying the 38th parallel. The other way—and that to me was a very interesting thing and I kind of got involved in it in the periphery being in the division G2 section, was through what we called "low-level line crossers." There was an organization over there called TLO run by Americans and they had Koreans whom they would dispatch across the lines, but not more than 10 kilometers beyond the lines, and they would do some low-level spying and come back and bring us some intelligence of one type or another. The third thing that came to the forefront in Korea was low-level voice intercept, which was an ASA kind of operation, where we had Koreans and Chinese speakers, some of whom were Americans and most of whom were not, manning radios at division level, and getting intelligence information by electronic means and in many cases getting it on a real-time basis in to the division G2. …Those were the three main ways of getting information and the other means weren't as prevalent as they were during the second world war."[6]

In other corners of intelligence work on the Korean peninsula, there were inefficiencies reported. Lt. Arthur J. Cramer, who ran the 7th Signal Company's message center for the 7th Infantry Division, was proud of the work of his men who he found to be "excellent at coding, decoding and security." But he could not say the same for the abilities of the crypto staff at the next higher headquarters. In one instance involving a critical resupply request, the cryptographers at X Corps headquarters could not break their own code for several hours.[7]

Talking about communications security, one signal officer expressed his exasperation with the lax security. "I saw so many security violations and

made so many reports I finally turned my eyes the other way."[8]

In spite of the occasional junior cryptanalyst who could not break his own code, the highest ranking intelligence officer in the U.S. Army whose chief failing would seem to be knowing his boss' mind better than the enemy's, and all of the imperfect intelligence workforce in between, there were some bright spots in the amassing of intelligence for the Korean War.

"Military intelligence in the Korean War," –the phrase summons up images of a blinkered National Security apparatus unwilling to believe the North Koreans would do anything so unwise as to storm across a line carefully drawn by the brightest State Department officials; of an imperious Douglas MacArthur waving aside mounting evidence of Chinese intervention because it did not coincide with his vision of victory; and of a G-2, Charles Willoughby, too long at MacArthur's side to be able to form an objective assessment. The justice of these characterizations are discussed elsewhere. Behind these readily accepted conventions lies another story, one of good solid tactical intelligence work being performed at both the Far East Command in Tokyo and in the Eighth U.S. Army G-2 shop on the Korean peninsula.

In August 1950, Colonel T.F. Van Natta, an Instructor at the Command and General Staff College, was writing in *Military Review* that the intelligence system had been substantially improved and sound doctrine established. He urged commanders to learn how to use intelligence and to realize that it was their responsibility. He cautioned them not to expect the G-2 to know what the enemy intended to do, but to concentrate on capabilities. He said the results a commander gets from intelligence will depend on the "quality of the people he uses and the amount of personal attention he gives."

Two officers were at the pinnacle of the Eighth Army G-2 from the outset of hostilities to the beginning of the stalemate phase. They were Lt. Col. James C. Tarkenton, the boss, and his deputy Lt. Col. Robert G. Fergusson. They served three Eighth Army commanders during the most intense and fluid periods of the war.[9] Their service would underscore and affirm Colonel Natta's em-

phasis on quality people and the personal attention of the commander.

Tarkenton came to West Point in 1937 as an honor graduate of Oak Ridge Military Institute in North Carolina, but dropped out after his freshman year because of problems keeping up his grades. He went back to the state college in North Carolina for a year, there getting a Reserve Army commission. In 1940 he was called to active service and found himself in the intelligence field. He finished the war as a lieutenant colonel and the S-2 of the 13th Infantry Regiment of the 9th Infantry Division, European Theater of Operations. He applied for and received a Regular Army commission and went to the Command and General Staff School in 1948.[10]

Tarkenton would appear to have been a Willoughby protégé, having been appointed by the FEC G-2 as executive officer of the Operations Branch, Theater Intelligence Division in 1949. When the Korean War began, Willoughby nominated the 34-year-old lieutenant colonel from among the dozens of more experienced officers within his intelligence section to be the Eighth Army G-2, a senior position in the headquarters of Lt. Gen. Walton Walker.[11] Tarkenton was relatively inexperienced in intelligence work to hold such a responsible position, but he earned the respect of General Walker who came to rely upon him to a considerable degree, especially after having proved himself by good intelligence work during the Pusan Perimeter phase of the fighting. His older and more experienced deputy, Lt. Col. Robert G. Fergusson, when asked to evaluate his former boss during the war, called him "outstanding."[12]

When Ridgway took over in December 1950, he surrounded himself with a personal staff of smart young officers that visited the combat units, and assisted with planning and operations. One of the few members of the old Eighth Army staff admitted to Ridgway's inner circle was Tarkenton. This is indicative of the confidence the new Eighth Army commander placed in his top intelligence officer.[13] [14]

Tarkenton had been the top intelligence officer in Korea from the outset of the war which had begun on 25 June 1950 when North Korean Communist forces stormed the 38th parallel separating them from the Republic of Korea to the south.

This aggression in a heretofore little thought about part of the globe would become in American national defense circles a study in unpreparedness, both for the U.S. military and for the intelligence community. The communists overwhelmed the Republic of Korea Army which was little more than a border constabulary, took the South Korean capital of Seoul on 28 June, on 5 July swept aside Task Force Smith, a regiment-plus force hurried from Japan to slow their advance, and continued south in what surely appeared to be a decisive conquest of the entire peninsula. The United Nations Security Council met the aggression with the authorization for U.S. air and naval forces to support the devasted ROK Army and subsequently called for the introduction of ground troops, and the bombing of targets in North Korea. Gen. Douglas MacArthur was appointed Commander in Chief of the UN Command by president Truman, acting at the UN's behest.

UN forces, largely U.S. combat formations, were rushed to the southern port of Pusan and they fought desperately to hold on to a perimeter around the southeast tip of the peninsula. The U.S. 24th and 25th Infantry Divisions, the 1st Cavalry Division, the 29th Infantry Regimental Combat Team, the 5th Regimental Combat Team, the 2d Infantry Division, the 1st Provisional Marine Brigade and the British 27th Commonwealth Brigade all landed in July and August to become part of Eighth U.S. Army Korea or EUSAK. By mid-September they were entrenched in what was known as the Pusan Perimeter.

While the Eighth Army, commanded by Lt. Gen. Walton Walker, held on around Pusan, MacArthur conceived the stroke of the left hook at Inchon, an amphibious assault into the port of Inchon that would cut North Korean lines of supply and put UN forces squarely in the rear of communist forces. On 15 September the U.S. 1st Marine Division and the Seventh Infantry Division, led by Lt. Gen. Edward M. Almond commanding X Corps, hit the beaches and mud flats at Inchon. The following day, Walker's Eighth Army struck out from the Pusan perimeter. With pressure on their front and the UN forces in their rear, the NK forces fell back in a near panic. Seoul was back in friendly hands

on the 26 of September, and by the end of the month South Korea was cleared of communist forces, the North Korean Army having all but been destroyed. The U.S. 3rd Infantry Division, a Turkish brigade, and Filipino and Australian troops were added to the UN order of battle.

MacArthur sought to pursue the retreating enemy into North Korea and clear the entire peninsula of the communist threat. He was given UN authority to do so on 6 October and began his drive northward. Eighth Army's I Corps took the North Korean capital of Pyongyang on 19 October; the ROK I Corps moving up the east coast reached Chongjin, just 60 miles from Siberia; Eighth Army was consolidated along the Chongchon River; the 1st Marines were at the Chosin Reservoir, and some ROK units had reached the Yalu River. The UN forces were reinforced by the British 29th Commonwealth Brigade, a battalion from Thailand, and South African air units. MacArthur announced on 24 November that he was launching his final drive to the Yalu River which formed the border between Korea and China. Victory seemed within easy reach.

The day following MacArthur's announcement of the final stage of the war, the Chinese intervened in massive force and precipitated an entirely new war. They smashed the ROK II Corps on the right of the Eighth Army line, looked to encircle the X Corps around the Chosin Reservoir, and threatened the isolation of the Eighth Army south of the Chongchon River by driving south and getting on their right flank.

In postwar hearings, MacArthur addressed the problem of missing the Chinese intention to intervene. It was a failure of "political intelligence…to penetrate the iron curtain." He reiterated the handicaps faced by his own field intelligence organization, particularly the prohibition on conducting aerial reconnaissance north of the Yalu. His only alternative was to conduct a "reconnaissance-in-force" which alone "was the final test of Chinese intentions." In other words, only by moving the Eighth Army north beyond its lines of communication into the shadow of a Chinese counterattack, could the fact of Chinese intentions to intervene in the conflict be learned.[15]

In November 1950, the Chinese Armies

streaming into North Korea avoided observation simply by staying off main roads, moving at night, and adhering to a march and bivouac discipline. They had another fortuitous advantage. There was little in the way of U.S. aerial reconnaissance to spot them. The only aerial recon unit in the theater was the Fifth Air Force's 45th Squadron which was not committed to Korea until early 1951. The Bomber Command's B-29s were not used for photo missions along the Yalu because they were vulnerable to MIG-15 attack. This left Mosquito control aircraft flying along the front and a limited number of planes committed to visual recon between the front and the Yalu River. They seldom flew at night and were too few in number to cover anything more than the main roads. During this crucial period of the war, an important shaft was missing from the intelligence quiver.[16]

The Chinese camouflaged their order of battle by deceptive designations, such as calling a division a battalion. Prisoner of war information eventually corrected unit sizes, but not until conservative intelligence officers put the number of Chinese infantry divisions at twelve when in fact there were nine armies with thirty infantry divisions.[17]

On 25 October the 1st ROK Division captured a Chinese soldier near Unsan and sent him back to I US Corps for interrogation. I Corps in turn passed this first Chinese prisoner back to Eighth Army where the effort began in earnest to compile an Order of Battle on the Chinese Communist Forces (CCF) on the Korean peninsula. The number of Chinese prisoners reached 96 by 23 November. Lie detectors were employed during some interrogations, the first use of this new technology developed during the late 1940s. As subsequent prisoners added to the data bank, Eighth Army G2 was able to identify six different Chinese armies (with three divisions each). But without any corroborating intelligence, the interrogations alone were not enough to convince the Eighth Army analysts that the Chinese had entered the war in any large numbers. Rather, they believed that Chinese forces were reinforcing North Korean units in an effort to bolster defenses along the border with China. A EUSAK PIR 106, dated 26 October 1950, concluded that there were "no indications of open intervention on the part of

Chinese Communist Forces in Korea."[18]

As evidence of a Chinese presence mounted, Eighth Army G2 was on 2 November allowing for "possibly at least two Chinese units of regimental size." That was revised upwards on 4 November to "three divisional sized Task Units totaling some 27,000 men." By 20 November, just before Eighth Army was to resume their offensive to the Yalu, the estimate had reached 60,000 Chinese troops.[19]

Lt. Col. Tarkenton believed that only a few Chinese volunteer divisions were in Korea and that there were not any organized CCF armies in place. He did not think that China would enter the war. This position was probably influenced by the opinion of the Far East Command, General MacArthur and his G2 Maj. Gen. Charles Willoughby, which steadfastly held that the Chinese would not intervene in Korea in any major way. The Eighth Army commander, Walton Walker, subscribed to the view of his G2, Tarkenton.[20]

Not immune to the scrutiny of history, especially of the often fallible intelligence art, Tarkenton was criticized by historians Appleman and Blair, who relied in some part on the testimony of the Eighth Army G-3 officers at the time, Colonels John Dabney and William F. Train. They charge him with being too much under the influence of Willoughby on the question of Chinese intervention, his views being "unduly influenced" and "colored" by the views of the FEC G-2. Like his mentor, Tarkenton believed on October 26th that there was "no indication of open intervention on the part of Chinese Communist Forces in Korea."[21]

However, the Eighth Army G2 was not totally blind to the possibility of Chinese intervention. "It was," said Marshall, "viewed not as a remote possibility but as the major contingency." The chapter, written before any unclassified sources were available to official historians, is a lucid view of the intelligence picture and one wonders how much Marshall owed to his friend in the G2 section, Robert Fergusson, for the background.[22]

The Chinese were in the war with two Army Groups, the XIII and the IX, but they had taken positions beyond the range of Eighth U.S. Army patrols and screening units, leaving Eighth Army commander Lt. Gen. Walton H. Walker in the dark

about their numbers and their positions. When the Eighth Army, with its integrated United Nations and Republic of Korea (ROK) combat troops, began to move north on 24 November 1950, Walker depended on his G-2, Lt. Col. James C. Tarkenton for information about the enemy's strength and whereabouts. Based on his study of aerial photos, air sightings and prisoner of war interrogations, Tarkenton was able to postulate two possible Chinese and North Korean lines of defense. He told Walker that he could expect to encounter 48,000 men along one or the other of these two lines extending across the Korean peninsula and that they would defend important road junctions along these lines. On the 25th Tarkenton revised his estimate of Chinese and North Korean strength to 54,000 and added the possibility that the Chinese would not only assume defensive positions but would counterattack under the right conditions. The Eighth Army encountered the Chinese along the nearer of Tarkenton's two possible lines resulting in the Battle of Ch'ongch'on wherein the enemy launched full-scale attacks all along the United Nations front on the 25th and 26th stopping the Eighth Army advance dead in its tracks and collapsing the ROK II Corps. The Eighth Army G-2 staff now placed their estimate of Chinese numbers between 54,000 and 101,000 but continued to believe that the enemy intended to take a largely defensive stance, using only local counterattacks when the opportunity presented itself. A 26 November PIR said that the Chinese would most likely "conduct an active defense in depth along present line employing strong local counterattack." Maj. Gen. Charles A. Willoughby, the G-2 in the Far East Command in Tokyo lent the force of his opinion to the Eighth Army estimate when he reported to Washington on the 26th, "should the enemy elect to fight in the interior valleys, a slowing down of the United Nations offensive may result." The Chinese were in fact preparing to launch their "Second Phase Offensive."

That offensive was fully underway with simultaneous attacks all along the Eighth Army front on the 27th and by nightfall Colonel Tarkenton was ready to concede that it had the "appearance" of a planned enemy offensive. The UN forces were pulling along the line, and with the II ROK Corps reel-

ing back to the east, Lt. Gen. Walker had to worry now about possible envelopment from the east. Tarkenton was giving Walker information, that had been developed by aerial reconnaissance, about a strong Chinese advance on Sunch'on. His analysis concluded that the Chinese would keep up their pressure against Kunu-ri and try to fall on the Eighth Army exposed flank from the direction of the Sunch'on road. He even allowed for the possibility of a deeper strike at P'yong-yang through Songch'on. These possible enemy moves were given more credibility by the aerial sighting of Chinese troops streaming south along every possible trail, ridgeline and gully. The enemy commander was indeed exploiting his gains on the Eighth Army's right and converging on Sunch'on and Kunu-ri. Tarkenton had been dead on. Walker had no choice but to pull back and straighten his line belting the peninsula around the 38th parallel. If the UN forces had been caught somewhat unawares about the size and timing of the Chinese intervention, and some of their units were overwhelmed by the Chinese attacks in what has been called the Battle of the Ch'ongch'on River, subsequent intelligence analysis about movements and intentions was commendable and avoided the isolation of the Eighth Army.[23]

The Eighth Army's chief sources of intelligence at this time were reconnaissance patrols, agents and aerial observers.[24] It was from these sources that Walker learned around the 23d of December of a large concentration of Chinese forces massing on Eighth Army's center. Estimates placed the force at 180,000. Additionally, these forces could be reinforced from P'yongyang within days. These signs pointed to an attack on Seoul around Christmas, according to Tarkenton's thinking. The timing was crucial, since Walker depended on the shifting of the X Corps from northeastern Korea to the Ch'unch'on sector to replace the untested III ROK Corps. The defense of Seoul hung in the balance.[25]

When Lt. Gen. Matthew B. Ridgway took command of Eighth Army in late December, he was briefed by his G-2 on the enemy situation. North of the Eighth Army lines on the map was the figure 174,000 with a circle drawn around it. While the graphic did not impress Ridgway with its precision, Tarkenton filled in the details. The number stood

for the estimated strength of the Chinese XIII Army Group, having six armies, each with a strength of 29,000. To this was added three North Korean corps with a total of 65,800 men, and another NK corps was on the way. The bulk of the enemy forces seemed to be poised to strike down the Wonsan-Seoul corridor and a secondary attack was deemed probable to the east down the Ch'unch'un-Seoul route, or down to Wonju to get on the Eighth Army's flank. As the attack to the east began to take shape, Ridgway, acting on Tarkenton's predictions, hurried the 2d US Division into the path of the Communist flanking attack.[26]

Christmas having passed without event, Eighth Army intelligence was now looking at January 1st as a date that would appeal to enemy planners to launch their attack, since it too was a holiday and might find the UN forces with their guard down. Anticipating the enemy attack on New Year's Day, Ridgway returned to Seoul from Tokyo on the afternoon of 31 December and conferred with his staff.[27] Tarkenton reported that the Communists were fully deployed, supported by artillery, and that all indications continued to point to the capital of Seoul as the main target. The Chinese Third Phase Offensive began to unfold just hours later. By the time it was spent, it would have pushed the UN line well south of Seoul.[28]

Ridgway wrote that he felt it was his responsibility as commander to confirm or disprove Tarkenton's intelligence estimate, and so he took to the air, with Lt. Gen. Earl E. Partridge, Fifth Air Force Commander at the controls of a two-seater, and flew 20 miles into enemy territory on his personal reconnaissance. He saw little in the way of enemy activity but enough to convince him that he was not committing his Eighth Army to a costly trap.[29]

Tarkenton and staff had given Ridgway a good idea of the probably direction of the main attack. Ridgway remembered that he thought "the Chinese would drive straight south down the age-old invasion routes from Uijongbu to Seoul. A strong secondary smash, by North Korean forces, would move from the Hwachon area toward the road center at Chunchon."[30] In expectation of a major Chinese attack, defensive positions were built by Ko-

rean laborers both north and south of the Han River for the Eighth Army to fall back on. Plans were drawn up and coordinated for an orderly withdrawal that would achieve maximum delay and inflict heavy casualties on the attacking force.[31]

When Matthew B. Ridgway took command of Eighth Army in December 1950, one of his first priorities was to improve the intelligence briefings and the front line intelligence work. At an early briefing he was dismayed by the vagueness of the information. He found combat intelligence "pitifully inadequate." He wrote in his memoirs published in 1956, "There are two kinds of information that no commander can do without—information pertaining to the enemy, which we call combat intelligence, and information on the terrain. Both are vital. I told these commanders that I had learned in my military primer, and I supposed that they had learned the same, that the first rule in war is to make contact with your enemy at the earliest possible moment. Once you get that physical contact, you never lose it. You hang on to it with a bulldog grip. Here the enemy was leaning right up against us, but we did not know his strength, and we did not have his location pinpointed on a map. All Intelligence could show me was a big red goose egg out in front of us, with '174,000' scrawled in the middle of it. I immediately ordered vigorous and aggressive patrolling all along that thinly held 135-mile line."[32]

Lt. Col. Robert G. Fergusson was 39 and a lieutenant colonel when he was named Deputy G-2 for Eighth Army at the opening of the war. He was a West Pointer, class of 1936 and had extensive intelligence experience during World War II and after. He was the G-2 of the 7th Infantry Division in the Pacific theater, G-2 of the Central Pacific Base Command, and Deputy G-2 of the U.S. Army Pacific Command. After the war he was the Chief, G-2 Dissemination Branch, Department of the Army, a high level Washington post that brought him in contact with the Army's best intelligence officers.[33] [34]

Historian S. L. A. Marshall had been in Korea in 1951 as an operations analyst in the Eighth Army G-3 section. He wrote a classified "Korean report" at the behest of the Pentagon and had been aided in getting access by his old World War II friend

Fergusson. Marshall and Fergusson had been on Kwajalein together in 1943,[35] a time about Marshall remarked, "I enjoyed my service with you as much as I have ever enjoyed anything, and I never had a more gracious boss."[36] He wrote to Fergusson at the Army War College in November 1951. "When I briefed Secretary Pace and his staff and, in fact, when I made any of my briefings at the Pentagon following return from Korea, I said it as straight as I could that what I managed to accomplish over there was due to the fact that one Col. Bob Fergusson was sitting at the right desk at the right time and put all of his weight behind me. I have said this over and over to many other people. It was just my good fortune that you happened to be there and were willing to vouch for me. Otherwise, many things that we needed to know would have been lost to the Army."[37] Two months later, Marshall was again crediting Fergusson, writing that he was free to use any of the material in the report "without any crediting the source, since you played such a strong hand in its initial preparation."[38]

On 10 February 1951 Col. Robert G. Fergusson, who in Tarkenton's absence was the acting G-2, prepared what was by all accounts one of the best intelligence estimates to come out of Eighth Army during the war. Ridgway had called upon Fergusson to produce an analysis that would cover enemy strategic capabilities, as well as possible tactical moves. It was unusual for a field army to speculate on strategic questions; that usually came from a higher level agency.

After taking Seoul and Wonju in mid-January, the enemy offensive seemed to run out of gas. Ridgway wanted to know if this signaled a shift in the Communist objective of running the United Nations Command out of the Korean peninsula to one of containment. Fergusson's analysis concluded that the Chinese slowdown was simply a problem of supply and reloading. He believed that once the enemy forces were restocked, they would resume their offensive with the stated intention of driving the UNC from Korea, even if that meant sustaining heavy casualties and operating with insufficient supplies. From the movements and concentration of enemy forces, the acting G-2 deduced that the probable routes of advance would follow the Han valley to

Yoju and down the highway to Wonju. Both formations would then converge on Wonju. This move would likely be in conjunction with attempts to encircle the I and IX Corps to the southwest.

Fergusson reasoned that the Chinese, faced with increasingly long lines of supply, would not undertake a sustained offensive, but instead engage in a series of limited enveloping attacks that would allow for refitting in between. He put the time of the offensive at 15 February, figuring that reinforcements from the IX Army Group would need to be in place before the attack opened. The acting G-2 was wrong on this last point; the attack was launched on the night of 11 February. But he was right in every other respect, allowing Ridgway to react effectively.[39] Fergusson was awarded the Legion of Merit and the Purple Heart for his service in Korea.

After the February Chinese offensive which pushed the UNC to the Wonju line, Ridgway planned to regain the offensive and disrupt any preparations for further attacks. His own counterattack would be known as Operation KILLER, a codename that chilled public relations people in Washington. On 16 February 1951 his intelligence staff prepared an estimate of forces opposite the Eighth Army, but it was uncertain about units in reserve, those that were being reconstituted because of casualties, and reinforcements. Although Tarkenton had picked up seven new Chinese armies on the peninsula, there was no information on what formations might be moving south to reinforce and queries to Tokyo and the Far East Command failed to turn up the needed intelligence. But Tarkenton's Order of Battle information did break the enemy force to north into discrete units, specified their location, took into consideration the status of supply, and evaluated their morale.

His information was as up-to-date as could be expected and adhered to Ridgway's guidelines about the completeness and timeliness of intelligence. The Eighth Army commander had urged his intelligence people, both on the staff and in the field, to provide fast and comprehensive information upon which he could base his plans. The KILLER operation accomplished its limited objectives of clearing enemy forces from their positions east of the Han River and south of a line called line Arizona, which

was drawn from west to east through Yangp'yong, three miles north of Hoengsong, and six miles above P'youngch'ang. In 14 days, the IX and X U.S. Corps had reached line Arizona and inflicted upon the withdrawing Chinese large casualties.[40]

As the United Nations Command was finishing up Operation KILLER, Ridgway was at work on the plans for a successor operation to be called RIPPER. The objectives were to attrite enemy forces and supplies, disrupt any Chinese plans for an offensive, and to outflank the city of Seoul, driving as far north as the Imjin River in the process. Ridgway was ready to defer the RIPPER operation if it looked like the enemy was ready to launch an offensive of their own, for he was not interested in capturing real estate but in "inflicting maximum losses on the enemy at minimum cost while maintaining major units intact." Tarkenton reported that the enemy was digging in north of line ARIZONA, joining flanks with the units on line to the west and east, and adding army- and corps-sized formations to reinforce the line. Additionally, two Chinese armies were moved south from Hungnam-Wonsan to a reserve position north of Ch'unch'on near the 38th parallel. These moves, substantiated by POW interrogations and agent reports, led Tarkenton to conclude the enemy was planning an offensive in March. But he concluded the strike was not imminent since the reserve forces were too far north to reach the front soon.[41]

Based on the information received from his G-2, Ridgway ordered naval and amphibious demonstrations in the Yellow Sea to threaten the coast and freeze the reserves in place, and the Eighth Army surged north. As the enemy backed away, Ridgway prepared for the second phase of RIPPER, the advance to line IDAHO [with Ch'unch'on at its salient], by-passing Seoul which he thought would be defended strongly. Tarkenton warned that the enemy resistance would stiffen when the Eighth Army reached the Hongch'on River and counterattacks could be expected. The G-2 had reported new Chinese armies entering the peninsula, but these formations turned out to be North Korean corps returning from Manchuria where they had been reorganizing. While off the mark in identifying these new units, intelligence concerning an enemy buildup

was sound. By mid-March, Eighth Army G-2 had picked up only two divisions and a brigade in the North Korean reserve, and was not yet aware of the IV NK Corps.

The March reinforcement of the Chinese People's Volunteers amounted to four Army Groups consisting of 14 armies and 42 divisions, with 4 artillery divisions and 2 separate artillery regiments. Tarkenton was correct in assuming that the buildup was preliminary to a counter attack, but he misjudged the time it would take to get all of these new units in position. It would be after the 1st of April that the North Koreans and the Chinese would be ready. Until then they would offer token resistance and fall back beyond the lines that Eighth Army had set as objectives for RIPPER. Even more surprising to Tarkenton was the enemy withdrawal from Seoul. UN forces moved into the capitol city on 14 March without opposition. Ch'unch'on fell on 16 March. By the close of Operation RIPPER on 31 March, the United Nations forces had made impressive gains and all but reached the 38th parallel.[42]

Ridgway decided to continue the momentum of RIPPER with a successive advances named Operations RUGGED and DAUNTLESS (a limited attack by the I and IX Corps toward the Iron Triangle of P'yonggang at the apex and Ch'orwon and Kumhwa at the base). RUGGED would push north of line KANSAS to a new phase line called Line WYOMING, a bulge in the center of the peninsula that was just short of Chorwon and Kumwha. The UN forces moved out between 2 and 5 April to regain contact with the enemy in the vicinity of Line KANSAS.

Just when would the North Koreans and the Chinese begin their expected counteroffensive? On 4 April, Colonel Tarkenton was not expecting it to occur anytime soon. He reported, as Operation RUGGED got underway, "the pattern of enemy activity continues to reflect a defensive attitude with overtones of preparation for an offensive."[43] He predicted the enemy would put up a stiffer defense as UN forces approached the 38th parallel. His estimate was correct and the Eighth Army fought toward its objectives. It was during this time that MacArthur was relieved of command in Tokyo and Ridgway moved up to replace him. Taking com-

mand of Eighth Army on 11 April was Lt. Gen. James A. Van Fleet who would receive his fourth star a few months hence.

Colonel Tarkenton told his new boss on 18 April that he had looked at all of his intelligence sources and expected the enemy to launch its counterattack between 20 April and 1 May, with special attention being drawn to May Day as "the most important day of the year to International Communism." Based upon the arrival of two fresh army groups in the Kumch'on-Kosan-Ich'on area, he thought the most likely direction for that attack to take place was south across the Imjin River, although all appeared to be quiet in the I US Corps area. Five days later, on the 21st, the G2 still did not have signs of an imminent attack, although he was quick to point out to Van Fleet that this did not mean that the Chinese were a long time away from being able to open an offensive. In the past they had shown their skill at concealing from U.S. intelligence movements of their forces and their intentions. On the 22d of April the Chinese began their Spring Offensive all along the front and its great weight during the first nine days sent the Eighth Army back on its heels to No Name line.[44] By the end of the month, the momentum of the enemy offensive had stalled. Intelligence gathered from prisoner interrogations indicated that rations were scarce, resupply was hampered by bombing of the enemy rear areas by the Far East Air Forces, and cohesion was deteriorating with high casualties among the political officers upon whom the Chinese Army depended for motivation at the company level.[45]

The Eighth Army had given up some 35 miles of terrain in the I and IX Corps sectors and about 20 miles in the X and ROK III Corps areas. In doing so, it had inflicted sizable losses on the enemy. From 22-30 April, Eighth Army reported 13,349 known enemy dead, another 23,829 estimated killed, and 246 captured. These numbers did not count the enemy casualties piled up by the ROK Army.[46]

The chances of a second offensive by the Chinese were good, since, according to Tarkenton's intelligence, they had 300,000 men in position to resume the attack, with totals of 542,000 Chinese and 197,000 North Korean soldiers in the theater.[47] Van Fleet decided to keep the pressure with a coun-

teroffensive to regain the terrain as far north as Line KANSAS. But the intelligence picture was changing, with five armies massing for attack in the west central sector. Van Fleet said he welcomed the attack and ordered more defensive fortifications built along No Name line. He said he wanted to "be strong enough in position and fire power to defeat him."[48] Although the UN forces were in light contact with the enemy in their front, reports from aerial reconnaissance, agents, civilians and prisoners combined to show a shifting of enemy forces to the east, or the right of the UN line.[49] The Chinese Spring Offensive resumed on 15 May with the enemy hurling back the UN right, and on 17 May striking against the UN left. Van Fleet punished the attackers with unprecedented artillery barrages, expending thousands of tons of ammunition in what became known as "the Van Fleet load." The front was stabilized by 19 May, and now the UN would hit back.

Acting on a recommendation by Gen. Ridgway, Van Fleet planned an attack at less defended positions west of Chunchon in order to take pressure off the eastern front. Intelligence showed the enemy to be stretched thin in that sector and reinforcing units were days away. The enemy force was spent and Eighth Army marched northward against little resistance. It was back on Line KANSAS by the end of May. As June began, Van Fleet was strengthening his positions along KANSAS and planning limited operations in the Iron Triangle in the central region and at the Punch Bowl in the east.

The UNC line across the peninsula on favorable terrain began to take on a permanent nature as the war entered a period of stalemate. Truce talks began at Kaesong on 10 July 1951 and the fighting became less intense and limited to small actions to improve positions, artillery duels, and patrolling to take prisoners. The armistice talks broke down in August after which the Battle of Heartbreak Ridge flared until 14 October. Negotiations resumed in late October.

Van Fleet was ordered by the commander in chief, Ridgway, to halt offensive operations on 12 November 1951 and the war settled down to patrols, raids, artillery barrages and the occasional limited attack. Two of these occurred in the final days of the armistice negotiations, in mid-June and again

in mid-July 1953 to eradicate salients that the North Koreans found threatening. Then, on 27 July, the armistice was signed.

The war in Korea had never approached the complexity and breadth of the World War II intelligence experience, with its masterful code-breaking, counterintelligence, and round-the-clock aerial reconnaissance missions in several theaters at once. Korea was a conflict on a smaller scale fought on terrain no larger than Illinois and Wisconsin against a foe that relied little on technology. The Chinese seldom used the ether to transmit its orders, preferring the time-honored bugle to move forces around the battlefield. They never had air superiority, nor did they have any extensive espionage nets in place [except in the Koje-Do POW camp]. What they did have was the ability to concentrate large forces, moving at night and avoiding the roads where they might be spotted. Once in place, they could exert massive pressure on the thin UN line or its tenuous, international flanks. That made intelligence analysis critical if the UN commander was to have any chance to parry Chinese offensive thrusts and counter with lunges of his own.

It was a war which, like all American wars before it, underscored the importance of inteligence work. Where intelligence failed, operations failed; and where intelligence succeeded so did the operational arm. Undispensable to three UN commanders during that first year of maneuver was the work of Clint Tarkenton and Bob Fergusson. Although no intelligence branch existed at the time, they both had careers up until 1950 that gave them uncommon exposure to the intelligence craft and they both responded with a professional commitment that went largely unrecognized in the postwar controversy swirling around MacArthur and Willoughby. Tarkenton was not promoted to full colonel until August 1953 and he retired in that rank 14 years later. Fergusson rose to rank of major general, retiring in 1970. They were not right 100 percent of the time, but they called the Chinese moves with an enviable acumen and their niche in the pantheon of U.S. Army military intelligence soldiers is assured.

[1] Interview, Capt. John Della Giustina, with Maj. Gen.

Gerd S. Grombacher, USA Ret, on 8 November 1993. German-born Gerd S. Grombacher entered the U.S. Army as an enlisted man in February 1943, serving with the Army Intelligence Service as an interrogator in the European Theater. He was commissioned in 1945 and worked in various capacities with the Military Intelligence Service. He entered the active reserve in 1946 and returned to active duty in 1950 with the 519th MI Platoon at Fort Riley where he worked as an instructor with the Intelligence Department of the Army General School until 1952. He was sent to Korea with an assignment as Assistant G2 of the 25th Infantry Division. In 1957 he transferred to the Signal Corps and, with his science education, became a distinguished leader in the Army's Communications Electronics efforts. Maj. Gen. Grombacher retired as the Commanding General, U.S. Army Communications Command, in 1982.

[2] By war's end the ASA's 501st Communication Reconnaissance Group was providing support with three battalions and five companies.

[3] Westover, John G., *Combat Support in Korea*, Center of Military History, 1987, pp. 102-04.

[4] Grombacher, Della Giustina interview.

[5] Grombacher, Della Giustina interview.

[6] Interview, Col. George W. Schultz, III, with Maj. Gen. (USA Retired) Gerd S. Grombacher, 1985, as part of the U.S. Army Military History Institute Senior Officer Oral History Program, Carlisle Barracks, PA, 17013-5008.

[7] Westover, John G., *Combat Support in Korea*, Center of Military History, 1987, p. 99.

[8] Westover, p. 99.

[9] First there was Lt. Gen. Walton Walker who was killed in a jeep accident on 23 December 1950. He was replaced by Gen. Matthew B. Ridgway who, on 14 April 1951 replaced Douglas MacArthur as Commander of Far East Forces and Commander in Chief of the United Nations Command. Ridgway was replaced by Gen. James A. Van Fleet on 14 April 1951, and Van Fleet was in command until 11 February 1953.

[10] Blair, Clay, *The Forgotten War, America in Korea, 1950-53,* Times Books, NY, 1987, pp. 377-378.

[11] The G-2 for the X Corps during the Inchon Landing was Lt. Col. William W. Quinn. In his memoirs *Buffalo Bill Remembers* [Wilderness Adventure Books, Fowlerville, Michigan, 1991, p. 276], he recalls that Willoughby objected to his appointment as X Corps G-2 because he had been chosen over Willoughby nominees, perhaps intentionally since his commander, Lt. Gen. Ned Almond, had an intense dislike for Willoughby. Quinn remembered, "Almond wanted anybody except Willoughby's "boys," and though Willoughby didn't know me from Adam, he worked like hell to get me replaced."

[12] Blair, 377-378.

[13] Blair, p. 715.

[14] Col. James Clinton ("Clint") Tarkenton, Jr., 033282, was born in North Carolina on 22 January 1916 and was admitted as a cadet to West Point in July 1936. A semester later he accepted a commission as a 2d lieutenant in the Infantry Reserve. He was promoted to colonel on 25 August 1953, the grade at which he retired in December 1967. He was a graduate of the Advanced Infantry Course, graduated in 1949 from the Command and General Staff College, and a 1953 graduate of the Armed Forces Staff College. He holds the Distinguished Service Medal, Silver Star, Bronze Star Medal with an Oak Leaf Cluster, and the Purple Heart. [*Army Register*, 1956].

[15] Mossman, Billy C., *Ebb and Flow, November 1950-July 1951*, Center of Military History, United States Army, Washington, D.C., 1990, pp. 175-176.

[16] Mossman, p. 55.

[17] Appleman, Roy E., *South to the Naktong, North to the Yalu*, Center of Military History, U.S. Army, Washington, D.C., 1961, pp. 752-54, 763.

[18] Appleman, pp. 751-752.

[19] Appleman, p. 754.

[20] Appleman, p. 755.

[21] Blair, pp. 378-379.

[22] Marshall, S. L. A., *The River and the Gauntlet: Defeat of the Eighth Army by the Chinese Communist Forces, November, 1950, in the Battle of the Chongchon River, Korea*, William Morrow & Company, New York, 1953.

[23] Mossman, pp.61-83.

[24] Mossman, p. 156.

[25] Mossman, pp. 164-165.

[26] Mossman, pp. 183-184.

[27] In a postwar interview, Ridgway is quoted as saying, "It is not enough [for a commander] to move in response to critical situations, they must be anticipated." It reveals his reliance upon good intelligence. [Mossman, p. 187n.]

[28] Mossman, p. 187.

[29] Ridgway, Matthew B., *Soldier: The Memoirs of Matthew B. Ridgway*, Harper & Brothers, New York, 1956, p. 216.

[30] Ridgway, p. 209.

[31] Ridgway, pp. 208.

[32] Ridgway, pp. 205-206.

[33] Blair, p. 378.

[34] Maj. Gen. Robert George Fergusson, 020267, was born in Illinois on 20 May 1911. He enlisted in the Army in 1930 and in 1932 he was appointed to the Military Academy from Wisconsin. A Cavalry officer, he attended the Command and General Staff College, graduated from the Armed Forces Staff College in 1948 and graduated from the Army War College in 1952. [*Army Register*, 1956.] He served as aide de camp to Maj. Gen. Henry T. Burgin, Territory of Hawaii, from 1941 to 1942; was with Headquarters,

Western Defense Command in 1942; G2, 7th Infantry Division, Pacific Theater, where he earned four Bronze Star Medals; was with the G2 Headquarters Central Pacific Base Command, Territory of Hawaii, from 1945 to 1946 and while there was awarded two Commendation Ribbons; was Deputy G2, Headquarters, Eighth Army, Korea from 1950-1951 where he earned a Legion of Merit and a Purple Heart; attended the Army War College in 1952; was assigned to the Office of the Secretary of Defense from 1952-1954. Fergusson took command of the 14th Infantry, 25th Infantry Division, in October 1955 and converted it to a Battle Group in January 1957. He left Hawaii in July of the same year for a posting at the Naval War College where he eventually became Chief, Army Advisory Group. During that time he took courses in his off-duty time and at his own expense with Boston University and was awarded a masters degree in International Relations in June 1959. [Letter, R. G. Fergusson to S.L.A. Marshall, dated 26 May 1959, S. L. A Marshall Papers, MS 186, The S.L.A. Marshall Military History Collection, Library of The University of Texas at El Paso, El Paso, TX 79968-0582.] He was Asst Commanding General of the 24th Infantry Division from 1961 to 1962; By 1963 Fergusson was a major general and the Chief of Staff of the Central Army Group, a NATO command that controlled the Seventh U.S. Army, First French Army, and two German Corps. General Paul Freeman commanded both the Central Army Group and the U.S. Army Europe. [Letter, R. G. Fergusson to S.L.A. Marshall, dated 26 February 1963, S. L. A Marshall Papers, MS 186, The S.L.A. Marshall Military History Collection, Library of The University of Texas at El Paso, El Paso, TX 79968-0582.]; Commanding General of the Army Training Command at Fort Ord, California, from 1965 to 1967; served as Commander of U.S. Forces Berlin from 1967 until his retirement as a major general in 1970. In that last assignment he was awarded the Distinguished Service Medal. [*1980 Register of Graduates and Former Cadets*, United States Military Academy, Association of Graduates, USMA, West Point, New York, 1980.]

[35] Letter, Thomas F. Burdett, Curator, S. L. A Marshall Papers, MS 186, The S.L.A. Marshall Military History Collection, Library of The University of Texas at El Paso, El Paso, TX, 79968-0582, to author, 26 May 2000, Army Intelligence Museum files.

[36] Letter, S. L. A. Marshall, Lt. Col. AUS, to Lt. Col. Robert Fergusson, Headquarters, 7th Division, dated 11 May 1944, S. L. A Marshall Papers, MS 186, The S.L.A. Marshall Military History Collection, Library of The University of Texas at El Paso, El Paso, TX 79968-0582.

[37] Letter, S. L. A. Marshall, to Col. Robert Fergusson, Army War Collect, dated 5 November 1951, S. L. A Marshall Papers, MS 186, The S.L.A. Marshall Military History Collection, Library of The University of Texas at El Paso, El Paso, TX 79968-0582.

[38] Letter, S. L. A. Marshall, to Col. Robert Fergusson,

Army War College, dated 21 January 1952, S. L. A Marshall Papers, MS 186, The S.L.A. Marshall Military History Collection, Library of The University of Texas at El Paso, El Paso, TX 79968-0582.

[39] Mossman, pp. 264-265.

[40] Mossman, pp. 302-304.

[41] Quoted in Mossman, p. 311.

[42] Mossman, p. 323, 327.

[43] Mossman, p. 351.

[44] Mossman, pp. 374-375.

[45] Mossman, pp. 535-436.

[46] Mossman, pp. 436-437.

[47] Mossman, p. 437.

[48] Mossman, pp. 440-441.

[49] Mossman, p. 443.