7. *On to the Yalu*

1. "A Feeling of Elation and of High and Successful Purpose"

"There was at this fateful hour," wrote United Nations Secretary General Trygve Lie of events in early October 1950, "a feeling of elation and of high and successful purpose which the United Nations experienced only rarely." For several months fearful diplomats who sympathized with the United Nations cause had asked each other: "Can we hold the Korean bridgehead?" Now, following the overwhelming victory of United Nations arms against the aggressor in South Korea, the point of debate had become: "Should the United Nations forces pursue the aggressor into North Korea?"[1]

Unknown to American journalists and to many of the lower ranked military men in the Far East, who deplored the "indecision" as to whether United Nations forces would cross the 38th parallel, the United States had already decided that General MacArthur's troops possessed an authority to enter North Korea. The Security Council's resolution of 27 June 1950, which empowered the United Nations commander to repel the North Korean invasion and to restore international peace and security in the area, was broad enough to encompass military operations against remnants of the Communist regime in North Korea. "We regarded that there was no, you might say, legal prohibition against passing the 38th parallel," stated Secretary of Defense George C. Marshall.[2] Before the landing at Inchon the U.S. National Security Council had recommended that action, or lack of it, on the part of Soviet Russia or Communist China would determine the future course of military operations in Korea. If the Russians or Chinese gave no indication of intervening, the Security Council recommended that General MacArthur would extend his operations into North Korea. But in the event of Communist intervention, no ground operations should be conducted north of the 38th parallel. With President Truman's approval, the Joint Chiefs of Staff prepared a directive based upon the Security Council paper, and this directive went to General MacArthur on 15 September—the day of the landing at Inchon. When the Communist hierarchy made no efforts to prevent the defeat of the North Korean People's Army, the Joint Chiefs of Staff sent new instructions to General MacArthur on 27 September. This order told MacArthur that his military objective was "the destruction of the North Korean Armed Forces." It authorized him to conduct military operations in North Korea, provided there was no threat or actual intervention of Russian or Chinese forces. Under no circumstances would United Nations forces cross the Manchurian or Siberian borders, and, as a matter of policy, no non-Korean ground forces would be used in the provinces adjacent to the Manchurian or Siberian border.[3]

Within the United Nations Secretary General Trygve Lie sponsored a solution for the Korean problem which was somewhat different from that favored by the United States. On 30 September Lie and his advisers prepared and circulated a draft working paper which suggested that the General Assembly would demand that the

North Korean government agree to a withdrawal of its forces, a cease-fire, a demilitarization, and a free election to unite Korea. If the North Korean regime accepted these conditions, it would continue as a *de facto* government until the United Nations elections, which would be held within a year. If the Red Koreans refused, the General Assembly would recommend military operations north of the 38th parallel.[4] Already, on 28 September, the Joint Chiefs had directed MacArthur to offer surrender terms to the Korean Reds, and at noon on 1 October Radio Seoul and Radio Tokyo began to broadcast a demand that North Korean forces lay down their arms and cease hostilities.[5] But the North Korean government did not respond to this cease-fire call, and, in fact, its propaganda broadcasts stressed the claim that the Red retreat was temporary and "strategic." The strident assertion that Communist troops would strike again left the United Nations General Assembly no alternative but to accept a military advance north of the 38th parallel. On 7 October the General Assembly accordingly approved the American-sponsored resolution which recommended that "all necessary steps be taken to ensure conditions of stability throughout Korea."[6]

The success or failure of the newly stated mission of United Nations forces would depend upon the warlike intentions of the Chinese Communists and Russians. All summer long both the United States Central Intelligence Agency and the Far East Command intelligence officers had been posting the movements of Chinese troops into Manchuria. "That the enemy was shifting his forces northward," stated MacArthur, "I know thoroughly."[7] According to the best American intelligence estimate, the Chinese Communists had about 116,000 regular troops in Manchuria on 8 July, 217,000 on 8 August, 246,000 on 30 August, and, by 21 September, transfers from southern and central China had augmented the Manchurian garrisons to an estimated 450,000 men. Many of these troops belonged to Communist General Lin Piao's Fourth Field Army, which was normally stationed in Manchuria, but which had been transferred south to participate in operations against Hainan and Formosa, and, following the postponement of this aggression, might merely be returning to its home stations.[8] On 5 October General MacArthur's intelligence reported 18 Chinese divisions along the Yalu, while a total of 38 divisions was said to be in Manchuria.[9] At this time Washington warned MacArthur that "the potential exists for Chinese Communist forces to openly intervene in the Korean war if United Nations forces cross the 38th parallel."[10]

American intelligence knew that the Chinese Communists were able to intervene in Korea, but determining whether or not they meant to do so was a more complex matter. Up until 26 September intelligence estimates rated Communist intervention in Korea as improbable, barring a Soviet decision to precipitate general war. Toward the end of September, however, India's diplomatic representatives in Peking began to report that Chinese officials were threatening intervention if United Nations forces crossed the 38th parallel. On 3 October Chou En-lai, the Chinese Communist foreign minister, informed the Indian ambassador to Peking that China would send troops to the Korean frontier to defend North Korea if United States or United Nations forces crossed the 38th parallel. Chou En-lai said, however, that this action would not be taken if only South

Korean troops crossed the parallel.[11] Similar reports came in from Moscow and Stockholm, but evaluation of Chou's cryptic statement was difficult. At the moment the resolution recommending all appropriate steps to insure stability throughout Korea was pending in the General Assembly, and to President Truman "it appeared quite likely that Chou En-lai's 'message' was a bold attempt to blackmail the United Nations by threats of intervention in Korea."[12] On 10 October, after the General Assembly had passed the resolution, however, Chou En-lai stated that the Chinese people "would not stand supinely by while their neighbor was being invaded."[13] Since Chinese Communist interference in Korea was at least possible, President Truman approved an amplifying directive which the Joint Chiefs dispatched to General MacArthur on 9 October. "Hereafter in the event of the open or covert employment anywhere in Korea of major Chinese Communist units, without prior announcement," the Joint Chiefs stated, "you should continue the action as long as, in your judgment, action by forces now under your control offers a reasonable chance of success. In any case you will obtain authorization from Washington prior to taking any military action against objectives in Chinese territory."[14]

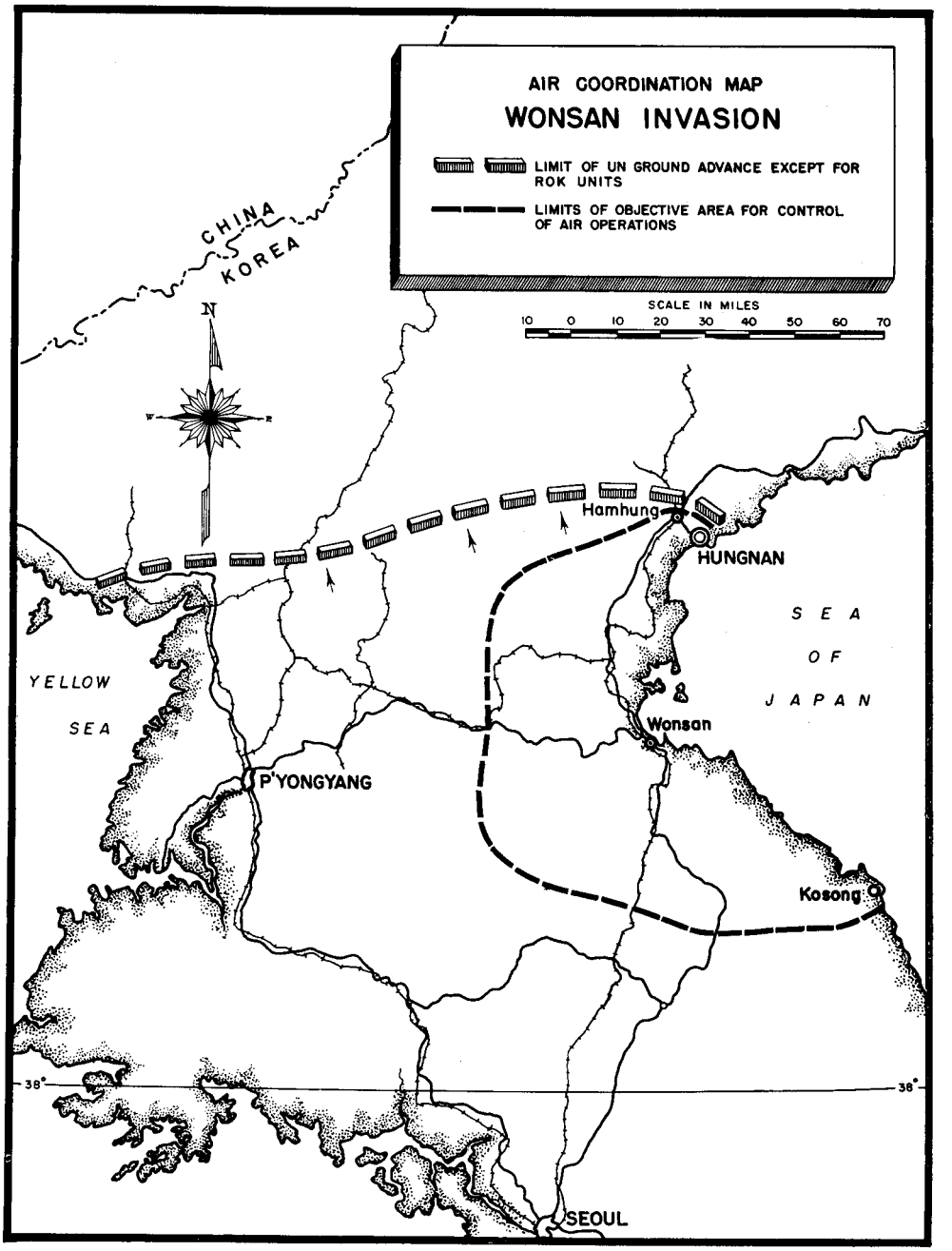
In Washington a general view prevailed that Chinese Communist intervention in Korea was a "possibility" but "not...a probability."[15] General MacArthur apparently held this same view, and at Wake Island on 15 October he explained to President Truman that he did not anticipate great difficulty in ending military operations in Korea, perhaps as early as Thanksgiving Day. "In North Korea, unfortunately," said MacArthur, "they [the Red Koreans] are pursuing a forlorn hope. They have about 100,000 men who were trained as replacements. They are poorly trained, led, and equipped, but they are obstinate and it goes against my grain to have to destroy them." President Truman asked a blunt question: "What are the chances for Chinese or Soviet interference?" "Very little," replied MacArthur. "Had they interfered in the first or second months it would have been decisive. We are no longer fearful of their intervention. We no longer stand hat in hand. The Chinese have 300,000 men in Manchuria. Of these probably not more than 100,000 to 125,000 are distributed along the Yalu River. Only 50,000 to 60,000 could be gotten across the Yalu River. They have no air force. Now that we have bases for our Air Force in Korea, if the Chinese tried to get down to Pyongyang there would be the greatest slaughter."[16] General MacArthur's remark that the Chinese Communists had "no air force" was at variance with FEAF estimates that the Chinese possessed at least 300 combat aircraft. Citing repeated reports of enemy aircraft sightings, including reports of jet aircraft, General Stratemeyer had cautioned General Partridge on 1 October that "Maintenance of absolute air superiority continues to be the highest priority mission for Fifth Air Force area."[17]

The United Nations Command operations plan issued on 2 October reflected more consideration for terrain and transportation than for enemy opposition in North Korea. MacArthur's planned maneuver was what Maj. Gen. Charles A. Willoughby, the theater intelligence chief and an author on military movement, described as "the classical one made famous by Von Moltke: action by separated forces off the enemy's axis of movement."[18] Under General Walker

the Eighth Army was to attack northward overland along the Kaesong-Sariwon axis to secure Pyongyang, where it would effect a juncture with the X Corps, establish a defensive line across the Korean peninsula at Chongju-Kunmori-Yongwon-Hamhung-Hungnam, and destroy encircled North Korean forces. The U.S. X Corps, commanded by General Almond, was to load aboard ship at Inchon and Pusan and make another amphibious assault at Wonsan, the port city on Korea's east coast. Once ashore, the X Corps would attack westward to join the Eighth Army. At Wonsan D-day was set for 20 October, but the Eighth Army would not await the landing for its push northward. Pending additional orders, no United Nations forces, other than those of the Republic of Korea, were to advance north of the defensive line between Chongju and Hungnam.[19]

Several of MacArthur's subordinate commanders viewed this strategy with some concern. "We objected to Wonsan as being unnecessary," explained Rear Adm. Arleigh A. Burke, chief of staff of the Naval Forces Far East, as reported by Navy historian Capt. Walter Karig. "It took a lot of troops out of action for a long time when the enemy was already on the run. We felt the same objective could be achieved by marching the X Corps up a road leading from Seoul to Wonsan." Air Force officers objected to the congestion of the limited port facilities at Inchon and made an issue of the fact that the combat capability of both the Eighth Army and Fifth Air Force was being jeopardized by the outloading of the X Corps through this restricted harbor before essential supplies had been brought ashore. At least one Army general—Maj. Gen. David G. Barr, commander of the X Corps' 7th Infantry Division—wanted to move overland from Seoul to Wonsan. But General Almond argued that "Going overland is simply out of the question. Half of our heavy equipment...would be left in ditches by the side of the road."[20] Despite the possibility of Chinese Communist intervention, General MacArthur chose to divide the command of the ground forces in Korea. General Almond would be independent of General Walker. There were those who would report General Walker's discontent with the arrangement and who would say that there was inadequate liaison between the Eighth Army and X Corps.[21] General MacArthur, however, would testify that there was "complete coordination under my own immediate command."[22]

During the execution of the amphibious operation at Inchon, United Nations air capabilities had been compartmented: the Far East Air Forces had supported the Eighth Army and the X Corps had possessed the 1st Marine Air Wing as an integral supporting air arm. General MacArthur apparently looked with favor upon such a division of air capabilities in context with the ground mission; he reported, in fact, that the two ground forces in Korea were "completely self-sustaining."[23] The United Nations operation order for the Wonsan landing established the same arrangement for the command of airpower as had been employed at Inchon. Beginning on D minus 5 day and continuing until the amphibious phase of the operation was terminated, Admiral Joy would possess "coordination control" authority over air operations within a 50-mile circle around Wonsan. Task Force 77's fast carriers would provide air support and air defense for the initial phase of the Wonsan landing, but Maj. Gen. Field Harris was designated X Corps tactical air commander and his 1st Marine Air


AIR COORDINATION MAP
WONSAN INVASION
LIMIT OF UN GROUND ADVANCE EXCEPT FOR ROK UNITS
LIMITS OF OBJECTIVE AREA FOR CONTROL OF AIR OPERATIONS
SCALE IN MILES
10 0 10 20 30 40 50 60 70
CHINA
KOREA
N
Hamhung
HUNGNAN
SEA OF JAPAN
YELLOW SEA
Wonsan
P'YONGYANG
Kosong
38°
38°
SEOUL

Wing would provide close support to the X Corps, at first from escort carriers and then from Wonsan airfield. Except for air-transport and courier missions, FEAF planes would not enter the amphibious objective area unless on the request of the X Corps tactical air commander. As its part of the advance into North Korea, FEAF would continue its current missions, support the advance of the Eighth Army, and support the landing and subsequent operations of the X Corps as directed. It would prepare to transport and drop the 187th Airborne Regimental Combat Team where and when it might be needed.[24] At a conference concerning the preparation of an air annex to the Wonsan operations order, which he attended with Generals Hickey and Wright on 2 October, General Weyland secured agreement that General Stratemeyer would regain "coordination control" over all air operations over Korea at the disestablishment of the Wonsan amphibious objective area. Weyland also argued that Stratemeyer must possess coordination control over all air operations outside the amphibious objective area during the Wonsan landing, but General Hickey indicated that General MacArthur wanted to exercise this authority himself.[25] Informed of these developments, General Stratemeyer conferred at length with MacArthur during the afternoon of 2 October. In the course of these discussions General MacArthur went on the record with a statement that he was 100 percent in favor of having General Stratemeyer as the controlling head of all air operations, but he observed that the defense forces were just not organized that way. Nevertheless, General MacArthur agreed that General Stratemeyer would be responsible for coordinating all air operations over Korea outside the

Maj. Gen. Edward M. Almond, 26 Nov. 1950.

Wonsan objective area. General MacArthur also gave Stratemeyer the impression that the Wonsan amphibious area would be disestablished fairly soon after the landings at that place.[26] Although airpower would be divided during the amphibious landing, General Stratemeyer had at least secured some semblance of unity of air action over Korea.

Following the temporary settlement of air-command relationships at the theater level, General Stratemeyer suballocated FEAF's mission to Generals Partridge, O'Donnell, and Tunner. The Fifth Air Force was to provide maximum air support for the Eighth Army, maintain air superiority in Korea (except in the Wonsan objective area), develop Wonsan airfield for transports and fighters, be prepared to take over coordination control at Wonsan, and to rehabilitate the airfields at Pyongyang. Bomber Command was to continue its current

missions and it would be ready to execute area-bombardment strikes in support of the Eighth Army or X Corps. Combat Cargo Command was made responsible for the airborne operation, air evacuation of casualties, and for emergency airlift to Pyongyang and Wonsan. The Fifth Air Force and Bomber Command were jointly responsible for photography, interdiction, and armed reconnaissance and for other special air missions.[27]

2. General O'Donnell Runs Out of Targets

As General O'Donnell examined the United Nations Command orders for operations in North Korea he doubtless noted that the mission assigned to the FEAF Bomber Command was quite vague. And, had O'Donnell asked the question, General Stratemeyer would probably have admitted that FEAF planners were having difficulty finding a profitable employment for five groups of medium bombers. On 27 September, when MacArthur was first definitely authorized to conduct military operations north of the 38th parallel, General Stratemeyer suggested to him that FEAF could perhaps hasten the collapse of North Korean resistance by dispatching the full strength of Bomber Command against Pyongyang. The medium bombers would attack nothing but legitimate military targets and they would use nothing but demolition bombs, but Stratemeyer thought that 100 B-29's massed against the Red capital city might be impressive to the defunct North Korean government. General MacArthur saw no reason to refer the matter to the Joint Chiefs, as Stratemeyer suggested he might want to do, but he asked Stratemeyer to hold up the attack until he had offered surrender terms to the Reds. Somehow the Joint Chiefs learned of the impending mission and signaled MacArthur, on 30 September: "Because of the serious political implications involved, it is desired that you advise the Joint Chiefs of Staff, for clearance with higher authority, of any plans you may have before you order or authorize such an attack or attacks of a similar nature."[28] General Stratemeyer consequently authorized O'Donnell to attack the military targets in Pyongyang but to dismiss the possibility of a massed air attack against the Red capital.[29]

According to intelligence reports, the North Koreans were attempting to mobilize six divisions of trainee soldiers for a last-ditch defense, and FEAF planners determined that medium-bomber attacks against the enemy's replacement training centers would possess tactical utility. Most of these centers were identified in prisoner-of-war interrogation reports. On 20 September the B-29's destroyed three separate barracks areas comprising the "North Korean Military Academy" at Pyongyang. On 23 September the Superfortresses knocked out 90 percent of the buildings at a troop training center in Hamhung. On 2 October the B-29's destroyed 75 percent of the training station at Nanam. And on 12 October ten B-29's bombed a training center at Hungnam (Konan) with excellent results. These

Bridge-busting activities on the Han River.

attacks sought to inflict personnel casualties, to destroy facilities, and to weaken the morale of troops in training. At this juncture, when only half of the known training installations had been attacked, FEAF received a report that United Nations prisoners of war were being held at many of the North Korean training camps. To play it safe, FEAF operations directed that no further air attacks would be made against the training areas.[30]

Rapid advances of United Nations ground forces during October greatly complicated the FEAF Bomber Command's efforts against bridge targets in North Korea. On 6 October FEAF sent Bomber Command a list of 33 bridges, all north of Pyongyang and Wonsan and selected to isolate these two areas. ROK troops advanced so rapidly up the east coast, however, that FEAF had to delete ten of the bridge targets within the week.[31] In context with the Eighth Army's advance on the western front, medium bombers were forbidden to operate south of Sinanju after 18 October, and FEAF again revised its

list of bridges needing destruction.[32] Inasmuch as all FEAF aircraft were operating under stringent orders to "remain well clear" of the Manchurian and Siberian borders and were permitted to attack targets lying within 50 miles of the borders only on special order from FEAF and under visual flight conditions, air operations were being squeezed into a very restricted strip of terrain.[33]

Because of the lack of targets for medium bombers, General Weyland on 10 October instructed Bomber Command to reduce its sorties to 25 per day, a figure which would increase Bomber Command's aircraft serviceability in case it was needed for all-out ground support.[34] But the ground forces needed no medium-bomber support. Anticipating that the idle B-29 crews were going to lose interest in the war, General O'Donnell visited and talked to each of the squadrons in mid-October,[35] but most of the combat crews were frank to tell anyone who would listen that they thought that their job was done in Korea.[36] Finding nothing better to bomb, one 92d Group crew recorded that it chased an enemy soldier on a motorcycle down a road, dropping bombs until one hit the hapless fellow.[37] Since no employment became available, General Stratemeyer further reduced Bomber Command to 15 sorties a day on 22 October, and on this same day General MacArthur authorized Stratemeyer to release the 22d and 92d Bombardment Groups for return to the Zone of Interior. These two pioneer groups began to depart for the United States on 27 October.[38] On this day General Stratemeyer stood down the whole B-29 command: only three of the bridge targets assigned to Bomber Command for destruction were still usable and it had begun to look as if these bridges might be of more value to United Nations forces than to the defeated Reds.[39]

3. Air Umbrella for the Eighth Army

On the defensive lines north of Seoul on 7 October the Eighth Army's I Corps relieved X Corps troops. Since the IX Corps was still eliminating pockets of enemy resistance in South Korea, General Walker had designated the I Corps as his assault force. Again, on 9 October, General MacArthur called upon the North Koreans to lay down their arms and cease hostilities,[40] and, without really waiting for an answer that would not be forthcoming, Eighth Army troops captured Kaesong and forged across the 38th parallel this same day. During the next several days North Korean remnants fought to hold the hills overlooking the roads northward from Kaesong, but the Eighth Army had a plethora of air support. On 12 October, for example, the Fifth Air Force gave the I Corps 81 close-support sorties, all that were needed to put 11 enemy fieldpieces out of action.[41] Although the North Koreans fought bitterly, the enemy's defenses had no depth, and by 15 October General Walker was able to launch tank and truck columns of the 1st Cavalry Division in a race to Pyongyang.[42]

As the main Eighth Army drive

rolled against Sariwon, airborne Mosquito controllers flew reconnaissance patrols from Haeju, east to Kaesong, back to Haeju, thence to Chaeryong and Sinwon-ni. These Mosquitoes guarded the Eighth Army's left flank, and when they located hostile targets they called in fighters to destroy them. On 17 October, between Sariwon and Miryok, for example, Mosquito "Hammer" spotted an enemy train pulled by three locomotives and loaded with troops. Four F-80's promptly smashed the train and dispersed the North Korean soldiers. That same day three other flights of fighters worked over another enemy troop concentration on the road north of Sinwon-ni.[43]

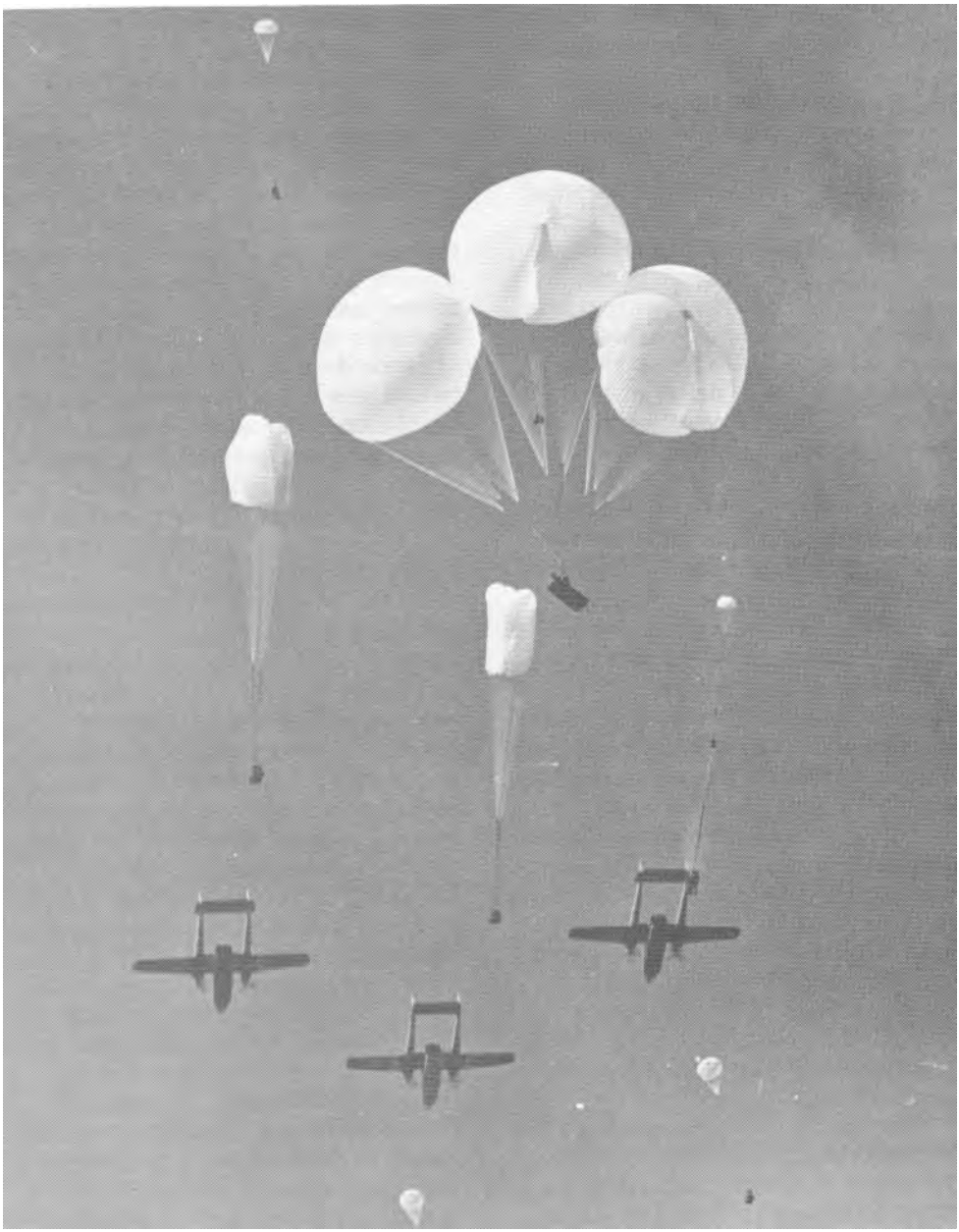
Driving northward at a rate of ten miles a day, more troubled by mountain roads than by enemy resistance, the 1st Cavalry Division met no more serious enemy opposition until it reached Hukkyori, a village about ten miles south of Pyongyang. In obedience to Premier Kim Il Sung's departing exhortation as he fled Pyongyang, the North Koreans had collected a scratch force of troops, supported by about 25 tanks, eight self-propelled guns, and several heavy mortars for a last stand in front of the North Korean capital. In an all-day fire fight eight fighter-bomber strikes and friendly tank and artillery fire destroyed the collection of Red weapons.[44] On 19 October the 1st Cavalry Division, reinforced by the Commonwealth 27th Brigade, entered the sprawling city of Pyongyang, which, except for a few snipers, was virtually undefended. "The breakthrough at Hukkyori and the subsequent capture of Pyongyang," wrote the 1st Cavalry's commander, "was made possible only by the magnificent close air support given by the Fifth Air Force."[45]

The taking of the city which up until a few days before had been the seat of the Red government was a signal victory, but General MacArthur wanted to trap as many Red officials and troops as possible. The 187th Airborne Regimental Combat Team was at Kimpo awaiting employment, and on 16 October General MacArthur issued orders for an airborne operation north of Pyongyang. The drop zones were to be near the towns of Sukchon and Sunchon, both about 30 miles from Pyongyang up the arms of the "V" formed by the main road and rail routes which converge at the capital city. Initially, 21 October was the date established for the airborne maneuver, but the Eighth Army sped ahead so rapidly that the paratroop employment was moved up to 20 October.[46] As far as Combat Cargo Command was concerned, Kimpo Airfield was not a good location for lifting the 187th; it was still a forward airstrip, which had to serve combat planes as well as troop carriers. But the command nevertheless airlifted about half of the 2348th Quartermaster Air Supply and Packaging Company from Ashiya to Kimpo to prepare for the assault. Two days before the drop date General Tunner canceled all transport commitments of the 314th Troop Carrier Group's C-119's and of the 21st Troop Carrier Squadron's C-47's in order that they could receive intensive maintenance. When Fifth Air Force planes moved from Kimpo to make room for the huge fleet of transports, the Combat Cargo air task force quickly flew in from Japan.[47] As its contribution to the operation, the Fifth Air Force scheduled softening-up attacks in the drop zones, fighter escort for the transports, and Mosquito-control procedures for handling close support, once the paratroopers were on the ground.[48]

Shortly after dawn aircrews and paratroopers stood by their designated aircraft at Kimpo, but the rain was falling in sheets and the operation would be delayed. Toward noon, however, the rain began to let up and the paratroopers got aboard for what would be a delayed afternoon jump. Shortly after noon Fifth Air Force fighters and light bombers began to search out and destroy enemy strong points in the Sukchon-Sunchon drop zones. Other Fifth Air Force Mustangs escorted the airlift fleet as it took off at Kimpo, flew tight formation out over the Yellow Sea, and then suddenly turned inland and headed for the dropping grounds. General Tunner flew alongside the formation and served as airborne commander, and from his personal plane General MacArthur viewed the airborne attack at close range. Promptly at 1400 hours the parachutes of the first wave of troopers blossomed out of the Flying Boxcars over Sukchon, and a few minutes later other paratroopers jumped at Sunchon. Within the hour 71 C-119's and 40 C-47's delivered 2,860 paratroopers and 301.2 tons of equipment to the drop zones. Many of the paratroopers landed on or near a high-tension power line which had not been spotted in aerial reconnaissance photographs, but jump casualties were light in comparison with other combat jumps: only one man was killed and only 36 troopers received injuries.[49]

Although the airborne operation had been executed under difficult staging conditions on short notice, Brig. Gen. Frank S. Bowen, commander of the 187th, stated that "there has not been any better combat jump." Bowen called the formation and timing "perfect," and he particularly commended the C-47 crews, men of the 21st Squadron augmented by crews and planes drawn from the Fifth Air Force's combat wings. Bowen did suggest that future formations for heavy-equipment drops should not be so tight since the huge 100-foot parachutes tended to steal air from smaller parachutes, causing the latter to stream. Aside from that, Bowen thought the only difficulties with the mission arose from faulty materiel or inexperience on the part of his packers. Statistics on equipment serviceability after the drop were good. Only two of twelve howitzers were not immediately usable: one was completely lost when its parachutes streamed, and the other, with a broken axle, was repaired on the field. Four out of 28 jeeps and two of four three-quarter ton trucks were lost in the drop.[50]

On the ground the airborne operation was equally successful. Preliminary fighter attacks and the sudden paradrop so startled North Korean troops that they abandoned strong defensive positions, leaving guns with ammunition alongside. In the preliminary assault and in subsequent air support flown during the afternoon under the direction of Mosquito "Nightmare," the Fifth Air Force employed 75 F-51's, 62 F-80's, and 5 B-26's. These pilots claimed the destruction of 53 vehicles, 5 fuel and ammunition dumps, 23 ox-carts, 4 tanks, and a field artillery gun.[51] General Tunner called the tactical air support "aggressive and completely adequate." "I feel," he informed General Partridge, "that the excellent result of the drop...was in very large measure attributable to the well-planned and superbly executed support your people gave us."[52] Meeting moderate opposition on the ground, the paratroop assault elements quickly secured the high ground overlooking both drop zones, and at 1000 hours on 21 October 40 C-119's



C-119 Flying Boxcars spill out their load of heavy equipment during maneuvers in Korea.

delivered 1,093 additional troopers and 106.8 tons of supplies. On the next two days the Flying Boxcars provided more resupply—184 tons dropped by 31 C-119 sorties.[53] Late on 20 October elements of the ROK 6th Division bypassed Pyongyang to link up with the paratroopers, and on 22 October troops of the 1st Cavalry Division broke through from Pyongyang. In three days of operations the 187th Airborne Regimental Combat Team engaged about 6,000 North Korean troops, killed an estimated 2,764 of them, and took some 3,000 prisoners. The paratroopers also captured large stores of winter clothing and ammunition in the towns of Sukchon and Sunchon. Through no fault of their own, the paratroopers were less successful on one other score, that of rescuing American prisoners who were being moved northward from Pyongyang. On 21 October a paratroop patrol located a prisoner-of-war train hidden in a tunnel near Myongucham, but the Korean guards had already murdered 75 of the Americans. Fifteen wounded men were saved, and next day these casualties were flown to Ashiya on Combat Cargo planes which were now landing at the newly captured Pyongyang airfields.[54]

4. The X Corps Struggles Ashore

According to the concept of the operation outlined in General MacArthur's order of 2 October, the U.S. X Corps was supposed to make an amphibious landing at Wonsan and attack westward in time to help the Eighth Army capture Pyongyang. But this plan had not reckoned with the Eighth Army's speed of movement nor with the fact that the North Koreans had liberally salted Wonsan's harbor with hair-triggered contact mines. While 50,000 X Corps troops sat aboard Admiral Struble's 250-ship armada off Wonsan, the hard-driving ROK I Corps captured the port city on the east coast.

On 7 October, the day on which the Eighth Army relieved the X Corps at Seoul and the latter unit began to stage aboard ship for Wonsan, the ROK I Corps was only 10 miles south of Wonsan. Remaining elements of three North Korean divisions sought to check the progress of the ROK I Corps, but the South Korean columns received reconnaissance reports from Mosquito controllers, who paced the advancing ground troops and called in Fifth Air Force and Marine fighters to overcome enemy roadblocks. On 7 October, for example, Mosquito "Antidote" located hostile antitank positions forward of the ROK 3d Division, and, although unable to establish workable communications with the South Korean troops, he called in flights of F-51's and F-80's to blast out the gun emplacements. By 10 October ROK forces were battling through the streets of Wonsan, and that day Mosquito "Polygon" worked with the ROK Capital Divison, spotting hostile positions and directing Marine and Air Force pilots to them. In one attack a flight of Marine F4U's destroyed enemy positions on a ridge which were holding up the division's

advance. At the end of the day of 10 October, the ROK Capital Division secured Wonsan Airfield, and by the close of the week the ROK I Corps held positions 22 miles north and 12 miles west of Wonsan.[55]

Wonsan had fallen to ROK forces well before the D minus 5 date specified for the establishment of an amphibious objective area as provided in General MacArthur's operations order. But even before these orders had gone into effect, they were causing General Partridge some trouble. The X Corps, for example, wished to stage the 1st Marine Air Wing's control squadrons for amphibious movement beginning on 7 October, thus, as General Partridge saw it, immobilizing the Marine air group at Kimpo for some two weeks before Wonsan's invasion date. At this very time ROK forces were rapidly advancing up the east coast and needed all the air support they could obtain. In view of these circumstances, General Weyland persuaded Admiral Joy to leave the Marine airmen in operation at Kimpo until Wonsan Airfield was secured.[56] On 11 October General Partridge sent Colonel Joseph D. Lee, whom he designated to command the base, to look over the airfield at Wonsan, and Colonel Lee reported that the runways and facilities at this base were in good shape. Next day Combat Cargo Command flew 22 sorties with 131 tons of ROK supplies to Wonsan, and on 13 October the transports lifted Colonel Lee's 6151st Air Base Unit to Wonsan.[57] On this same day Generals Partridge and Harris got together at Taegu and worked out agreements relative to Wonsan. The Fifth Air Force would provide the Marines with base services, including weather and communications. Until the 1st Marine Air Wing based at Wonsan, the Fifth Air Force would support the ROK I Corps, but General Harris would begin to move his Marine air units to the east-coast base on 14 October and would assume the support of the ROK Corps as soon as he could.[58]

Someone in authority in Tokyo, however, evidently wanted to maintain the fiction that the X Corps would make an amphibious landing at Wonsan. Thus on 11 October General MacArthur's headquarters issued orders that: "Wonsan airfield will be utilized for land-based aircraft under control of Tactical Air Commander, effective on arrival elements of X Corps in the objective area."[59] Alarmed by the fact that command arrangements peculiar to an operation which would not take place were being perpetrated, General Weyland dispatched a memo to General Hickey on 12 October, asking whether the Wonsan operations order and the CINCFE coordination control directive would apply or whether two separate land-based air elements were going to operate in the constricted area of North Korea under separate command arrangements. Next day, in a conference with General Weyland, General Hickey explained that General MacArthur had decided to assign the ROK I Corps to General Almond and that he had apparently decided that a separate air command (the 1st Marine Air Wing) would support the X Corps. Weyland immediately remonstrated that such an order would be contrary to the official delineations of roles and missions for the United States Armed Forces, which charged USAF with the support of Army forces. Weyland suggested that the proper way to handle the air-command arrangement was to place the Marine Air Wing under General Partridge's coordination control, to make the Marine Air Wing primarily responsible for supporting the X Corps, to make Partridge responsible

for providing such additional support as the X Corps might require, and to maintain the fast carrier task force under FEAF's coordination control to be used in general support of ground operations in the same way as the FEAF Bomber Command was employed.[60]

Apparently General Weyland's cogent arguments won the day, for on 16 October General MacArthur provided the decision that FEAF would exercise coordination control over land-based Marine air units and over carrier-based aviation operating over Korea effective as soon as X Corps troops advanced beyond the Wonsan objective area.[61] General Stratemeyer promptly directed Partridge to prepare to assume coordination control over Marine air units at Wonsan, but he instructed Partridge to commit these units to the support of the X Corps. In case the X Corps required more support than the 1st Marine Air Wing could provide, General Partridge would use Fifth Air Force units to supply it.[62] On 21 October the ROK I Corps forged beyond the Wonsan objective area and the new coordination control arrangements took effect.[63]

"At long last," noted General Weyland, "it appears that principles advocated by FEAF from the very start of the Korean conflict have been recognized and put into effect."[64] General MacArthur had finally issued an unmistakable delineation of authority which recognized General Stratemeyer as "operational controller" of all land-based air operations in Korea and "coordination controller" of all carrier-based air operations over Korea. At first General Almond, who came ashore by helicopter on 20 October to assume command at Wonsan, stated that because of limited communications facilities the X Corps would direct the Marine Air Wing to furnish close-support missions, but General MacArthur promptly rejoined that Almond must coordinate all requests for close support with General Partridge.[65] These command arrangements centralized the control of air operations over Korea, but General Partridge's task was one which could have been embarrassing. Had air-support requirements emanated simultaneously from both the X Corps and the Eighth Army in excess of air capabilities, General Partridge would have been required to decide which would receive priority, a decision which more logically would have been the responsibility of a single Army commander in Korea.[66]

In good measure, moreover, the procedural relationships which the Fifth Air Force sought to establish for controlling the 1st Marine Air Wing were not completely realistic. General Partridge thought that the X Corps should establish G-2 and G-3 Air officers in the Joint Operations Center who would function in the same manner as did analogous Eighth Army officers. Except for liaison officers who sometimes visited Seoul, however, General Almond did not choose to be represented in the Joint Operations Center. The Fifth Air Force also required the X Corps to submit a daily list of air-support requests, and each day the Fifth Air Force issued operations orders directing the 1st Marine Air Wing to fulfill those requests. In view of the limited communications channels between Wonsan and Seoul, this was a burdensome procedure and represented an unrealistic compliance with accepted air-ground doctrine.[67]

General Partridge apparently did not recognize the awkwardness of these close-support procedures, probably because the 1st Marine Air Wing had ample strength to provide the X Corps

with all the support it required against scanty ground opposition. After waiting six days while naval minesweepers cleared a channel, the X Corps and the 1st Marine Division made an administrative landing at Wonsan on 26 October. Three days later, in a landing designed to lighten port requirements at Wonsan and to speed the occupation of eastern Korea, the U.S. 7th Division landed across the beaches at Iwon, about 90 nautical miles northeast of Wonsan. In the days that followed, the ROK I Corps followed coastal routes northward toward Chongjin; the 1st Marine Division marched toward Hamhung and the Choshin (Changjin) Reservoir; and the 7th Division pushed inland toward the Fusen (Pujon) Reservoir.[68]

5. A New Adversary: Chinese Communist "Volunteers"

Basing his action on an estimate that Chinese Communist intervention was unlikely and upon the fact that the Eighth Army would capture Pyongyang without assistance from the U.S. X Corps, General MacArthur issued new operations orders on 17 October. The two principal ground forces would continue to operate separately in two zones which divided along the mountain peaks of central Korea. Within its area of western Korea the Eighth Army would advance and secure the general line between Sunchon and Pyongwon. The U.S. X Corps would attack northward in eastern Korea to a general line between Toksil-li and Songjin. The new restraining lines were approximately 40 miles from Korea's northern borders, and, except on MacArthur's direct orders, none but ROK troops would progress north of the lines.[69]

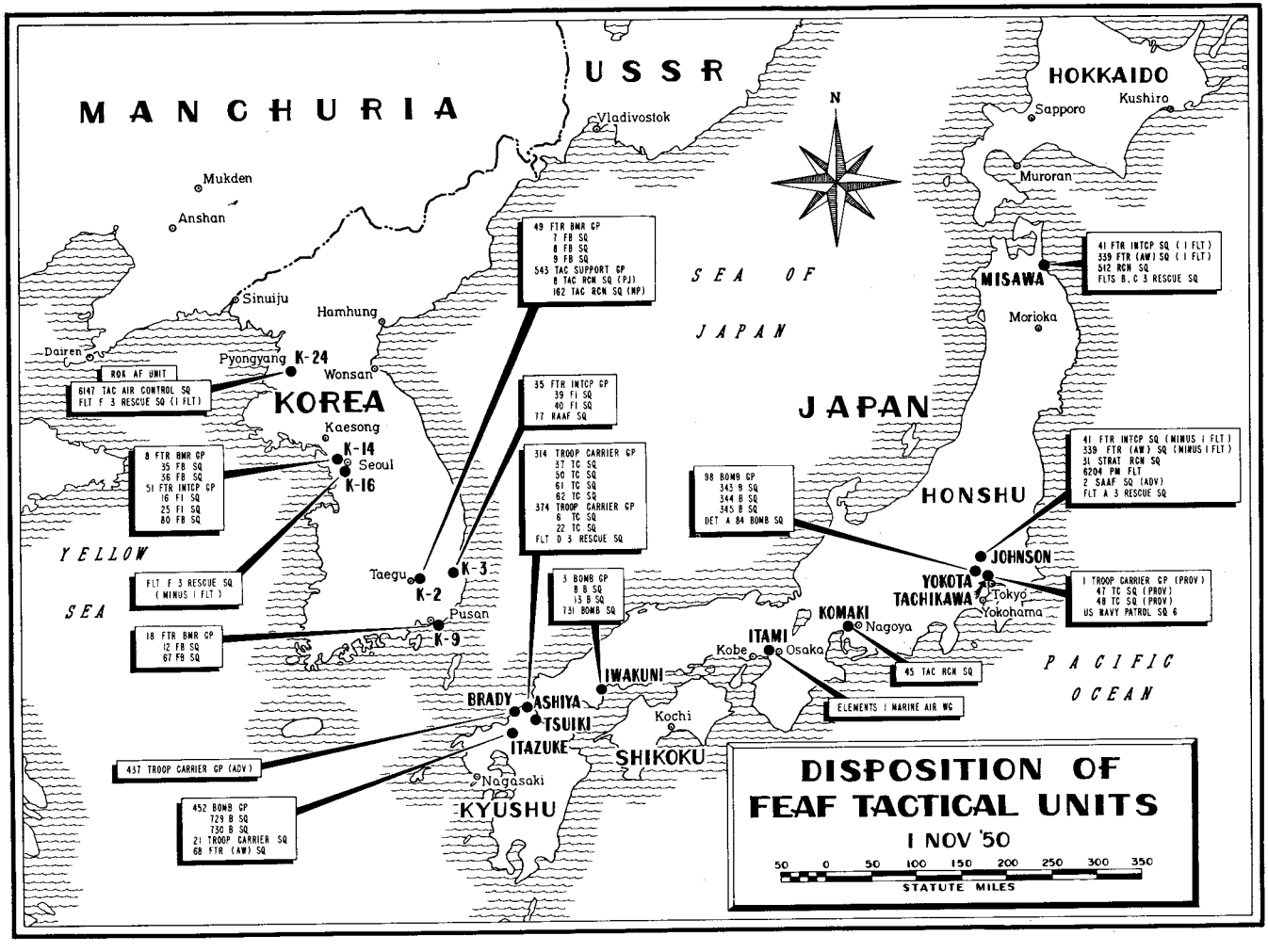
The new United Nations Command orders rendered obsolete General Stratemeyer's instructions which restricted air attacks against targets lying within 50 miles of Korea's borders. On 17 October General Stratemeyer therefore drew a "chop line" which connected the towns of Hwatan-dong, Kanggye, Oun-ni, Hapsu, Murung-dong, and Ka-tan, each of these towns being about 20 miles from the Korean border. Provided aircraft operated under visual flight rules and pilots positively identified their targets, General Partridge was authorized to schedule armed reconnaissance missions in the area between the 50-mile "VFR" line and the "chop line." Under emergency conditions and with a full report of each instance to FEAF, General Partridge was personally authorized to order visual attacks against targets north of the Hwatan-dong to Ka-tan "chop line."[70]

As soon as the Eighth Army captured and consolidated the area about Pyongyang, General MacArthur, on 24 October, again issued new operations instructions. These instructions abolished all restraining lines for the employment of American troops, restrictions which MacArthur explained had been "established initially in view of possible enemy capitulation." Both Walker and Almond were authorized to use any of their forces to secure all North Korea, but as soon as possible

any American troops along the border would be replaced with ROK troops. "All field commanders," MacArthur ordered, "are enjoined to drive forward with all speed and with the full utilization of all their forces."[71] Once again the Fifth Air Force needed new instructions, and General Stratemeyer gave them on 25 October: "Effective immediately," he stated, "close-support missions when under direct control of tactical air-control parties or airborne controllers, may go as close to the border as may be necessary for proper performance of mission." But Stratemeyer wanted no border violations and cautioned Partridge to choose none but "selected" pilots under "experienced leaders" for the close-support missions along the border.[72]

Although General Stratemeyer had issued orders which allowed Partridge to provide close support for the ground forces as they approached the northern borders of Korea, General Partridge was not finding much opportunity for the employment of the Fifth Air Force. The Eighth Army, in fact, frankly admitted that it was more interested in air transport than in air support. At first, because the port of Inchon was jammed with X Corps traffic, and then because the roads and railways north of Seoul were so badly damaged, the Eighth Army's drive to Pyongyang had been largely sustained by supplies airlifted directly from Japan. As Eighth Army troops advanced, the Combat Cargo Command laid down materiel as close as possible behind the groundmen. On 16 October Eighth Army soldiers captured the airstrip at Sinmak, little more than a meadow but about halfway to Pyongyang, and on the following day the Combat Cargo Command landed 235 tons of motor gasoline and rations there. On 20 October Pyongyang's airfields replaced Sinmak as the destination of Eighth Army supplies, but not before 625 tons had been laid down at Sinmak.[73] General Walker was highly complimentary concerning this combat support: "If it were not for airlift," he said, "the Eighth Army would be flat on its back and at a standstill, awaiting the opening of ports and rail facilities."[74]

Charged by the United Nations Command to drive forward with all speed, General Walker based his plans for operations north of Pyongyang "on a calculated logistical risk involving supply almost entirely by airlift."[75] Walker saw no other way to secure logistical support: the Reds had mined the muddy waters of the port of Chinnampo, through-highway traffic between Seoul and Pyongyang was "the exception rather than the rule," the railway line from Seoul to the south bank of the Taedong River at Pyongyang was not scheduled to be open before 10 November.[76] At a conference on 22 October Eighth Army staffmen brought their logistical problems to General Timberlake. The Eighth Army G-4 explained that to advance north of Pyongyang, the Eighth Army had to have a minimum of 1,000 tons of airlifted supplies each day—motor fuel, rations, and a limited quantity of ammunition. General Timberlake explained that the Fifth Air Force had been planning to move two Mustang wings to Pyongyang and that it would need 450 tons of airlifted supplies each day to support these wings. Since the Combat Cargo Command could lift only about 1,000 tons of supplies each day into northwestern Korea, it obviously could not meet both Army and Air Force requirements. The Eighth Army representatives insisted that the greatest obstacle facing them was not enemy opposition but want of supplies. Given the entire Combat Cargo Command


MANCHURIA
USSR
HOKKAIDO
Vladivostok
Sapporo
Kushiro
Muroran
Mukden
Anshan
Sinuiju
Hamhung
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Pyongyang
K-24
Wonsan
KOREA
Kaesong
K-14
Seoul
K-16
Taegu
K-3
K-2
Pusan
K-9
YELLOW SEA
SEA OF JAPAN
JAPAN
HONSHU
MISAWA
Morioka
JOHNSON
YOKOTA
TACHIKAWA
Tokyo
Yokohama
KOMAKI
Nagoya
ITAMI
Kobe
Osaka
IWAKUNI
BRADY
ASHIYA
TSUIKI
ITAZUKE
Kochi
SHIKOKU
Nagasaki
KYUSHU
PACIFIC OCEAN
N
49 FTR BMR GP
7 FB SQ
8 FB SQ
9 FB SQ
543 TAC SUPPORT GP
8 TAC RCN SQ (PJ)
162 TAC RCN SQ (NP)
ROK AF UNIT
6147 TAC AIR CONTROL SQ
FLT F 3 RESCUE SQ (1 FLT)
8 FTR BMR GP
35 FB SQ
36 FB SQ
51 FTR INTCP GP
16 FI SQ
25 FI SQ
80 FB SQ
FLT F 3 RESCUE SQ
(MINUS 1 FLT)
18 FTR BMR GP
12 FB SQ
67 FB SQ
437 TROOP CARRIER GP (ADV)
452 BOMB GP
729 B SQ
730 B SQ
21 TROOP CARRIER SQ
68 FTR (AW) SQ
35 FTR INTCP GP
39 FI SQ
40 FI SQ
77 RAAF SQ
314 TROOP CARRIER GP
37 TC SQ
50 TC SQ
61 TC SQ
62 TC SQ
374 TROOP CARRIER GP
6 TC SQ
22 TC SQ
FLT D 3 RESCUE SQ
3 BOMB GP
8 B SQ
13 B SQ
751 BOMB SQ
98 BOMB GP
343 B SQ
344 B SQ
345 B SQ
DET A 84 BOMB SQ
41 FTR INTCP SQ (1 FLT)
339 FTR (AW) SQ (1 FLT)
512 RCN SQ
FLTS B, C 3 RESCUE SQ
41 FTR INTCP SQ (MINUS 1 FLT)
339 FTR (AW) SQ (MINUS 1 FLT)
31 STRAT RCN SQ
6204 PM FLT
2 SAAF SQ (ADV)
FLT A 3 RESCUE SQ
1 TROOP CARRIER GP (PROV)
47 TC SQ (PROV)
48 TC SQ (PROV)
US NAVY PATROL SQ 6
45 TAC RCN SQ
ELEMENTS 1 MARINE AIR WG
DISPOSITION OF FEAF TACTICAL UNITS
1 NOV '50
50 0 50 100 150 200 250 300 350
STATUTE MILES

airlift, they believed that the Eighth Army could accomplish its ground tasks in a period of two weeks. On the basis of these estimates General Timberlake arrived at a bargain with the ground-force planners: provided General Walker would furnish enough port facilities at Inchon so that the 51st and 6131st Fighter Wings could get established at Kimpo and Suwon, the Fifth Air Force for a period of two weeks would reduce its airlift requirements to approximately 60 tons a day, an amount of supplies which would allow it to operate small base service units as several North Korean airfields and the Mosquito squadron and an air-rescue detachment at Pyongyang. Under such conditions General Timberlake emphasized that the Fifth Air Force's close-support capabilities would be limited to normal support from the two fighter groups at Suwon and Kimpo and limited support from other groups based farther to the rear. The conferees agreed that "this plan, although based on reduced air support, was the best possible solution to the present logistical problem and more nearly fitted Army requirements at this stage of the campaign."[77]

Both General Partridge and General Walker accepted the agreement substantially as it was made by their subordinates. Pursuant to the understanding, General Partridge was able to establish the 51st Fighter-Interceptor Wing at Kimpo. He also moved small base service units to Pyongyang (K-23), Pyongyang East (K-24), and Yonpo (K-27) airfields—the 6148th, 6146th, and 6151st Air Base Units, respectively. The 6147th Tactical Air Control Squadron and Detachment F, 3d Air Rescue Squadron, moved to Pyongyang East Airfield. By late October the FEAF Combat Cargo Command was delivering approximately 1,200 tons daily to Pyongyang. On two successive days—24 and 25 October—the Command broke its tonnage records by lifting 1,687 tons on the first day and 1,767 tons on the second. Almost 90 percent of this total tonnage was delivered to North Korea, the great bulk of it being rations and motor gasoline for the Eighth Army. In establishing these records, however, General Tunner's airlift command shuttled a good quantity of supplies to Kimpo Airfield, whence they were trans-shipped to Pyongyang. In short, Kimpo became an integral stop for a part of the airborne supplies proceeding from Ashiya to North Korean airfields.[78]

As United Nations ground forces moved forward to occupy all of North Korea, the Chinese Communists indicated that they intended to make some form of intervention in the battle zone. General Stratemeyer had predicted that Communist intervention in North Korea would first be manifest in the air, and he was right. At 0400 hours and again at 2110 hours on 14 October two hostile aircraft sneaked in at Kimpo Airfield and dropped several bombs.[79] The attacks did no damage, but four Mustangs, which were sent to search for the origin of the hostile air attacks at Sinuiju Airfield, drew heavy antiaircraft fire from across the Yalu on 15 October. The flak shot down one of the Mustangs. Having unlimbered their guns, the Chinese began to shoot at all planes that appeared along the Yalu, and, at the suggestion of Stratemeyer, General MacArthur strongly protested the "unwarranted attacks" to the United Nations.[80] Simultaneously with these hostile demonstrations came far graver reports of sightings of Communist aircraft. On 18 October an RB-29 crew of the 31st Strategic Reconnaissance Squadron looked across the Yalu and counted more than 75 fighters


MANCHURIA
CHINA
KOREA
YALU RIVER
MANPOJIN
KUUP-TONG
PYORHA-RI
CHINA
KOREA
NAMSAN-NI
BOMB LINE
24 OCT
HUICHON
X CORPS
Changjin Reservoir
24 NOV
CHONGJIN
BOMB LINE
HYESANJIN
HAMHUNG
BOUNDARY AS OF 24 NOV 1950
HUNGNAM
SEA OF JAPAN
SINANJU
K O R E A
EIGHTH ARMY
XXXX
WONSAN
PYONGYANG
Nan R.
SARIWON
SEOUL
INCHON
Han R.
UN ATTACK
TOWARD THE YALU
24 OCT-24 NOV 1950
LEGEND
HIGHWAYS
RAILROADS
0 10 20 30 40 50 60 70 80
STATUTE MILES

parked in neat rows at Antung Airfield. Early next morning the Communist planes were gone. General Stratemeyer thought that the Communists had displayed the planes to lend color and credence to their menacing statements.[81]

But the Communist airmen were not bluffing: they intended to intervene in the Korean fight. On the morning of 1 November, near Yangsi, about 15 miles south of Sinuiji, three Yak fighters bounced a Mosquito controller and a 730th Bombardment Squadron B-26, the latter aircraft belonging to the newly arriving 452d Wing. The B-26 crew shot down one of the Yaks, and two 18th Group Mustangs were hurriedly summoned to the scene to deal destruction to the other two Red aircraft.[82] At noon an FR-80 pilot flashed the word that 15 Yaks were parked in revetments on Sinuiju Airfield, and the Fifth Air Force sent three flights of F-80's to the scene. The Shooting Star pilots strafed the field, destroying one Yak and damaging six others, but the revetments opened toward the Yalu, and from across the river the F-80's drew Communist flak, which shot down one of the American jets. Later that afternoon a second F-80 strike returned to clean up the remainder of the enemy planes, but all of them that could be flown had departed.[83] The day, however, was not finished, for at 1345 hours the Communists revealed that they had something far more menacing than the old Yaks. At this time six swept-wing jet aircraft crossed the Yalu and opened fire on a Mosquito and a flight of Mustangs. The American pilots were lucky enough to evade and escape, and the Mosquito returned to Pyongyang to report a good look at one of the new jets. The plane was a Russian-built MIG-15.[84]

On the ground in the last week of October the Eighth Army had fanned out on a broad front in widely separated columns which were meant to pursue the North Koreans rather than to fight them. The American I Corps crossed the Chongchon River at Sinanju and pushed toward Sinuiju, and the ROK II Corps advanced northward on the right flank. One regiment of the ROK 6th Division reached the Yalu at Chosan on 26 October. As the Eighth Army columns advanced enemy resistance stiffened, and on 26 October an Army patrol captured a Chinese soldier. By the end of the month nine other Chinese prisoners had been captured, but these men were fighting with the North Koreans and presented "no concrete evidence of any outright commitment of Chinese Communist forces as such."[85] The going was getting rougher, and on the night of 28 October Communist ground troops launched strong counterattacks against the over-extended ROK II Corps. In the next several days the ROK II Corps collapsed and retreated into American positions. So far the U.S. I Corps had met no Chinese, but on the night of 2 November Chinese forces attacked and encircled elements of the 8th Cavalry Regiment near Unsan.[86]

Presented with increased Communist resistance which had collapsed his right flank and threatened to sever road communications to the advanced troops on the left flank, General Walker had to make some hurried decisions. One decided weakness was that the I Corps was operating on a logistical shoestring: it had only one day's firepower, a little more than a day's supply of gasoline, and three to four days' supplies of rations. On 3 November General Walker therefore ordered the Eighth Army to withdraw to the line of the Chongchon River where it would maintain a bridgehead until it could

regroup, accumulate additional supplies, and then renew the attack.[87] For the next three days the Communists attempted to pursue Eighth Army Forces, but Fifth Air Force crews helped relieve the pressure. In one notable air action on 4 November flights of B-26's kept a hostile troop concentration near Chongju under attack for more than thirty minutes and killed an estimated 500 enemy soldiers.[88] By 7 November Eighth Army troops were safely back at the Chongchon bridgehead, where they turned and countered Communist attacks with savage artillery barrages. In the face of this resistance the Communists broke off their attack.[89]

The Chinese Communists had definitely taken a hand in the Korean war, but the full extent of Chinese intervention puzzled the United Nations Command. General Stratemeyer doubted that the North Koreans had any pilots qualified to fly jet aircraft, but he had not yet determined whether his airmen faced a resurgent North Korean Air Force or a Communist "volunteer" air force.[90] Asked by the Joint Chiefs of Staff to submit an interim appreciation, General MacArthur said that he was unable to appraise the situation accurately on 4 November. MacArthur noted four possibilities: (1) that the Chinese Communist government intended to intervene with full military force at a time it deemed appropriate, (2) that it would give covert military assistance but conceal it for diplomatic reasons, (3) that it would permit and abet a flow of "volunteers" to aid the North Koreans, or (4) that the Chinese forces may have intervened in a mistaken belief that only Korean units would be sent to the Yalu, units which would have been weak opposition for the Chinese. The first contingency was a "possibility," but MacArthur thought that there were fundamental logical reasons against it and no evidence to justify it. The last three contingencies, or a combination of them, seemed more likely.[91] On 6 November, however, General MacArthur brought the hostile activities of the Chinese Communist forces, inside and outside of Korea, to the attention of the United Nations.[92]

6. Air Battle at the Yalu

In the months prior to November 1950 the United Nations air forces had been fighting "under wraps." From the beginning of the hostilities United Nations airmen had been enjoined to "stay clear of Manchurian and Soviet boundaries." At the end of September the Joint Chiefs of Staff had warned against massed Superfortress attacks against the city of Pyongyang because of the "serious political implications involved." Again, in mid-October, General Stratemeyer had proposed to eliminate military targets in the gateway city of Sinuiju with all-out air attacks, and General MacArthur's headquarters had replied that the "general policy enunciated from Washington negates such an attack unless the military situation required it."[93] Early in November United Nations air commanders were of an

opinion that the military situation demanded strong air action. Stating that antiaircraft fire received from flak positions dispersed throughout the city of Sinuiju had killed one of his pilots, General Partridge requested clearance to burn the city. Acknowledging full awareness of the delicate international situation, General Partridge twice requested permission to authorize his fighter pilots to pursue aggressor Communist pilots back to their bases on Manchurian soil and to destroy them in the air or on the ground.[94]

Throughout the weekend of 3 November United Nations airmen in Tokyo worked to regear an air effort which had all but lapsed into desuetude in late October. Admiral Struble came to the Meiji building to report that his fast carriers laying-to at Sasebo were available to assist General Partridge. Next day Seventh Fleet representatives went to Seoul, where they agreed to establish radio communications and other liaison with the Joint Operations Center.[95] The crisis would demand the utmost of air transport: even though the aircraft of the 437th Troop Carrier Wing were then departing Travis Air Force Base in California, General Stratemeyer signaled USAF that he could not allow the 314th Troop Carrier Group's C-119's to depart the theater as scheduled on 11 November.[96] General Stratemeyer and his staff also made immediate operational decisions. To General Partridge went an authority permitting him to order carefully briefed daytime armed reconnaissance missions anywhere in Korea.[97] A staccato series of operations orders flashed to General O'Donnell: attack Kanggye on 4 November, Sakchu and Pukchin on 5 November, and Sinuiju on 7 November. Each of these Korean cities was a virtual arsenal and an important communications center. For this reason, and because of the reduced number of B-29's now in the Far East, General O'Donnell was authorized to use incendiary munitions. Taking care to avoid hospitals, General O'Donnell was expected to burn the cities to the ground.[98]

When General Stratemeyer went to the Dai Ichi building to explain the bombing program, General MacArthur not only lent his authority for the use of incendiaries but he outlined a far more severe program of air effort than General Stratemeyer had visualized. In an order dated 5 November General MacArthur directed two weeks of maximum air efforts. If necessary, combat crews were to be flown to exhaustion. Stratemeyer's airmen were to destroy "the Korean end" of all international bridges on the Manchurian border, an instruction which the FEAF commander took to mean the first over-water span out from the Korean shore. Then, beginning at the Manchurian border, progressing southward to the battleline, and excepting only Rashin, the Sui-ho dam, and other electric power plants, FEAF was "to destroy every means of communication and every installation, factory, city, and village." General MacArthur especially cautioned, however, that "there must be no violation of the border." "The border," he repeated, "cannot and must not be violated."[99] On the day MacArthur issued these drastic orders the FEAF Bomber Command flew its first purposeful incendiary attack. On 4 November 98th Group B-29's had found Kanggye covered with clouds and had dumped their incendiaries at Chongjin. On 5 November 21 B-29's of the 19th Group, diverted from attacks planned against Sakchu and Pukchin, had excellent bombing weather over Kanggye and used 170 tons of incendiaries to destroy 65 percent of the

town's built-up area. "Entire city of Kanggye was virtual arsenal and tremendously important communications center," Stratemeyer explained to General Vandenberg, "hence decision to employ incendiaries for first time in Korea."[100]

Back in Washington the Joint Chiefs of Staff received an information copy of MacArthur's order to FEAF with some amazement. In his order to FEAF General MacArthur displayed far more concern over Chinese intervention than he had previously expressed to the Joint Chiefs. As a consequence, on 6 November, the Joint Chiefs on direction from President Truman instructed the United Nations commander to postpone any bombing attacks against objectives within five miles of the Korean border. Washington feared that such attacks might involve Manchuria, and the government wished time to study the matter more fully.[101] But General MacArthur fired back in immediate answer: "Men and materiel in large force," he said, "are pouring across all bridges over the Yalu from Manchuria." The only way to stop such reinforcement was to destroy the international bridges and other installations supporting the enemy's advance.[102] Promptly upon receipt of this explanation the Joint Chiefs, later in the day on 6 November, reversed themselves and authorized MacArthur to use his air forces against the Yalu bridges on the Manchurian frontier. There must be no violation of Manchurian territory, and the clearance held good only for the Manchurian border. In areas adjacent to the Siberian border United Nations airmen continued to be forbidden to attack targets closer to the border than a line between Musan and Chongjin.[103] General Stratemeyer promptly authorized Partridge and O'Donnell to conduct air operations up to the Yalu River, but under no condition would aircrews drop bombs or attack targets on Manchurian territory.[104]

When he had studied the circumstances under which the medium bombers were expected to attack the Yalu bridges, General Stratemeyer is said to have shaken his head and to have advised MacArthur: "It cannot be done—Washington must have known, it cannot be done."[105] Doubtless Stratemeyer did recognize that to attack the bridges without violating Manchurian territory would be a difficult to impossible task, for Communist pilots, using their sanctuary airfield at Antung, had been playing a "cat-and-mouse game" with American airmen during the previous week. As American planes appeared at the Yalu, the Red airmen took off from Antung, climbed to superior altitudes on their side of the river, crossed the border at about 30,000 feet, dived down in firing passes against the Americans, and then scampered back to safety beyond the Yalu, where, if they desired, they renewed the attack cycle. Both MIG and Yak pilots tried these same tactics. The Yaks were too slow, and during the first week of November seven of them were shot down in air-to-air combat. But the slower American planes were virtually helpless against hit-and-run passes made by the flashy MIG-15's.[106] After a particularly grueling day on 7 November—a day on which MIG's intercepted Mustangs in five engagements south of the Yalu—General MacArthur asked the Joint Chiefs for instructions on the problem, which, he said, was causing a loss of morale and effectiveness to both air and ground troops.[107] At Washington the Joint Chiefs, the State Department, and the President found good military and civilian precedents whereby United

Nations pilots could be granted "hot-pursuit" authority or a right to pursue an aggressor aircraft for "two or three minutes" flying time north of the border. But the matter was fraught with international complications, and on 13 November the Secretary of State informed other friendly nations whose forces were fighting in Korea that the United States might permit its airmen to defend themselves in the airspace over the Yalu River. By 24 November two of the friendly nations had provided strongly negative reactions, and, following the collapse of the United Nations ground campaign in northern Korea, the Department of Defense dropped all consideration of hot pursuit.[108]

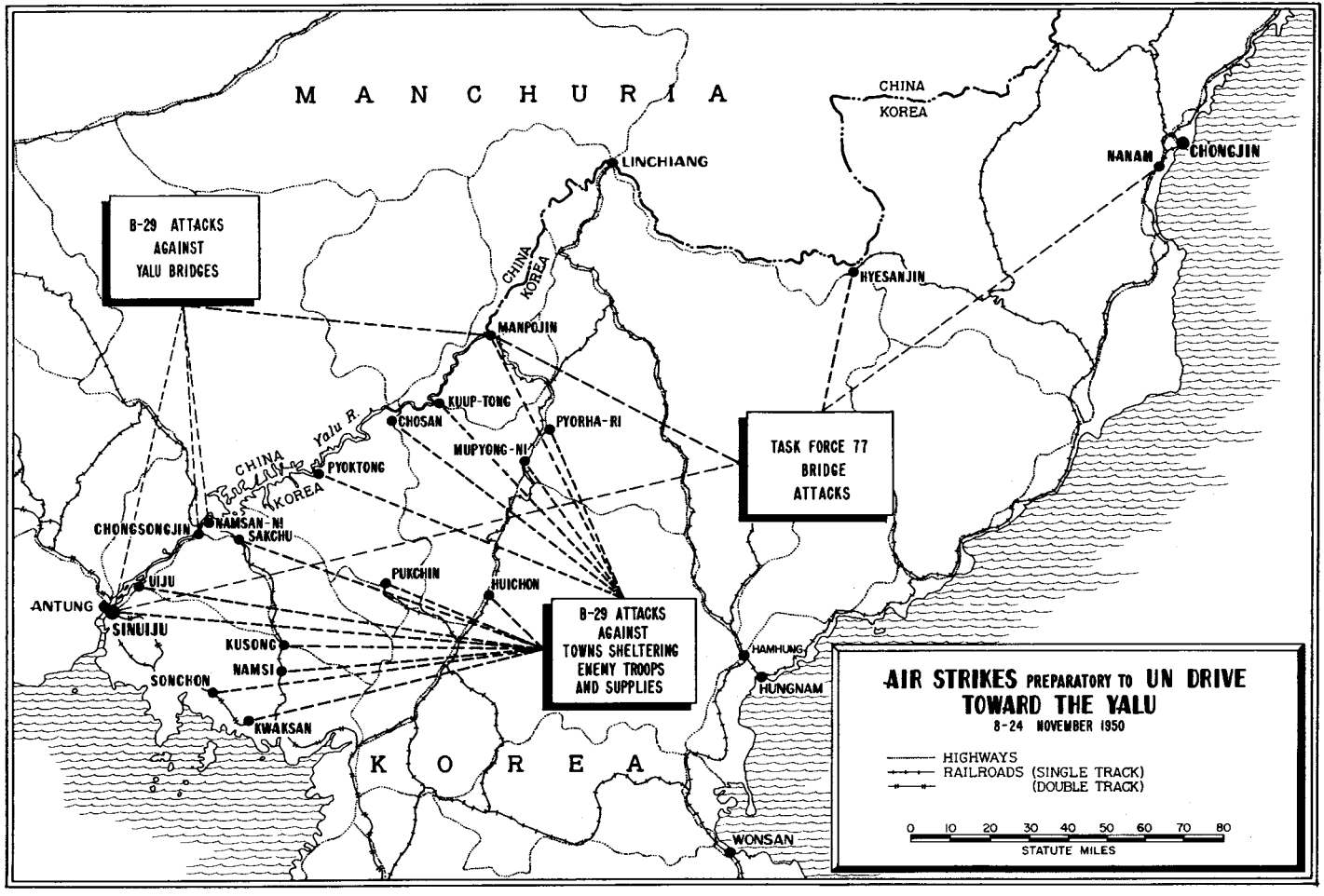
Although General Stratemeyer had scheduled the all-out strikes against Sinuiju before receiving General MacArthur's air-campaign directive, the city of Sinuiju was the foremost of the type of targets which General MacArthur wished FEAF to attack. It lay on the southern shore of the Yalu, directly across the river from the Manchurian city of Antung. Two three-quarter-mile-long bridges connected the two cities: one was a combination rail and highway bridge, the other was a double-track railway bridge. The city itself was the seat of Kim Il Sung's fugitive Korean government, and its warehouses and dwellings quite possibly sheltered Communist troops and supplies. Weather prevented the all-out attack planned for 7 November, but on the following day the Fifth Air Force and the FEAF Bomber Command executed maximum-strength strikes against Sinuiju. Before the B-29's arrived Fifth Air Force F-80 jets and F-51 fighters raked hostile antiaircraft artillery positions with machine guns, rockets, and napalm. As the fighter-bombers were suppressing flak, MIG-15's came up from Antung to engage top-cover flights which were flown by 51st Fighter-Interceptor Wing pilots. In history's first all-jet air battle the swept-wing MIG's proved clearly superior to the old F-80C's, but the MIG pilots showed their lack of combat experience. One of them foolishly attempted to dive away from Lt. Russell J. Brown, who put his heavier F-80 on the enemy's tail, held his machine-gun button down, and blasted the MIG pilot out of the air. Lieutenant Brown thus destroyed the first Communist jet aircraft to be shot down in Korea.[109] Shortly before noon 70 B-29's came over Sinuiju to drop 584.5 tons of 500-pound incendiary clusters. Under the cover of this assault nine other B-29's dropped 1,000-pound bombs upon the abutments and approaches of the two international bridges. As the mediums came over, Communist flak batteries from the Manchurian side of the river threw up a heavy volume of fire, but the bombers held altitudes above 18,000 feet and flew in squadrons in close trail, clearing the target in the shortest possible time. The MIG's did not appear, and the flak did no damage. Comparison of photographs taken before and after the holocaust revealed that the incendiary bombs burned out 60 percent of the two-square-mile built-up area of Sinuiju. But the spans of the international bridges were still standing: the 19th Group's B-29's had damaged the approaches to the bridges, but they had not closed the structures to Communist traffic.[110]

In an operations order issued on 6 November General Stratemeyer called upon FEAF Bomber Command to destroy six international bridges and ten cities. The most important bridges were the six in northwestern Korea: the two bridges at Sinuiju, a highway bridge at Chongsongjin, a railway

bridge at Namsan-ni, and a highway bridge and a railway bridge at Manpojin. Other international bridges, of lesser importance to the tactical situation, were the highway structures at Ongdmdong, Linchiang, Hyesanjin, Samanko, and Hoeryong.[111] Since his order gave the medium bombers more work than they could actually handle, General Stratemeyer asked Admiral Joy to employ naval aircraft against the bridges. When the Navy responded to the task with alacrity, Bomber Command was instructed to employ half of its sorties against bridges and the other half against the communications centers.[112]

In South Korea, bombing from medium altitudes with little or no enemy opposition, the airmen of Bomber Command and of Task Force 77 had developed great proficiency in destroying the usual-type bridge structures found in the area. The Yalu bridges, however, provided a more complex bombing problem. All of them were major structures, built by the Japanese to withstand great natural adversities. Antiaircraft fire and MIG interceptors hazarded bombing runs, and the orders which forbade violations to Manchurian airspace limited possible axes of attack. The railway bridge at Namsan-ni, for example, was so located in a bend of the river that neither the Superforts nor the Navy dive-bombers ever figured out a way to attack it without flying over Manchurian territory. The horizontal-bombing B-29's operated under severe disadvantages. To escape flak, they had to bomb from altitudes above 18,000 feet, and at such heights the B-29's were inherently unsuited for pinpoint work. To avoid border violations, the B-29's frequently had to bomb through cross winds, and high-level winds in excess of 120 knots were encountered.[113]

Following the failure of the Superfort attacks against the Sinuiju bridges on 8 November, Navy airmen from the *Valley Force, Philippine Sea,* and *Leyte* attacked the same targets in a three-day effort beginning on 9 November. The Sinuiju railway bridge proved as invulnerable to the naval dive-bombers as it had to the B-29 attack, but the Navy airmen dropped the highway bridge at Sinuiju and two lighter and less important bridges up the river at Hyesanjin.[114] As the carriers withdrew for replenishment, the 98th Group sent nine B-29's to walk 1,000-pound bombs across the Sinuiju bridges on 14 November. On the following day 21 B-29's of the 19th and 307th Groups teamed up against the bridges. After fighting off MIG fighters, which badly damaged two B-29's, the remainder of the Superfortress crews placed their bombs on the target but did little damage, probably because of the flak and a 95-mile-an-hour cross wind, neither of which made for good accuracy. At this juncture, General MacArthur agreed that Sinuiju was too strongly defended by fighters to permit Superfortress attacks, but he wished Bomber Command to continue the remainder of the bridge interdiction program as planned. During the next week heavy clouds hung over the Yalu, and the B-29's were unable to find the target visibility which they had to have to prevent possible border violations. On 24 November clearing weather returned all three B-29 groups to bridge assaults. Most of the attacks made in the next few days failed to accomplish their purpose, but on 25 November eight 19th Group B-29's dropped one span of the Manpojin railway bridge, and on 26 November eight 307th Group B-29's reported two spans of the Chongsongjin highway bridge destroyed.[115]


MANCHURIA
CHINA
KOREA
LINCHIANG
NANAM
CHONGJIN
HYESANJIN
MANPOJIN
B-29 ATTACKS AGAINST YALU BRIDGES
KUUP-TONG
CHOSAN
PYORHA-RI
MUPYONG-NI
Yalu R.
PYOKTONG
TASK FORCE 77 BRIDGE ATTACKS
CHONGSONGJIN
NAMSAN-NI
SAKCHU
PUKCHIN
HUICHON
UIJU
ANTUNG
SINUIJU
B-29 ATTACKS AGAINST TOWNS SHELTERING ENEMY TROOPS AND SUPPLIES
KUSONG
NAMSI
SONCHON
KWAKSAN
HAMHUNG
HUNGNAM
WONSAN
K O R E A
AIR STRIKES PREPARATORY TO UN DRIVE TOWARD THE YALU
8-24 NOVEMBER 1950
HIGHWAYS
RAILROADS (SINGLE TRACK)
(DOUBLE TRACK)
0 10 20 30 40 50 60 70 80
STATUTE MILES

The combined Navy and Air Force attacks had severed nearly half of Korea's international bridges and had damaged most of the other structures, but as November progressed it was increasingly evident that the returns were not commensurate with the effort being expended against these targets. Examination of aerial photographs taken while the bombing was in progress showed that the Chinese had thrown four new pontoon bridges across the Yalu at critical junctures in northwestern Korea. On 19 November, moreover, the Yalu was already frozen over between Sinuiju and Uiju and it was fast freezing across as far up as Manpojin. Japanese railway engineers told FEAF intelligence officers that the Yalu River ice could support great weights: on one occasion, they had laid railway track across the ice and had moved railway trains across it.[116] Because of the impossibility of attacking Namsan-ni and in deference to the build-up of hostile flak in defense of the Manpojin crossings, FEAF authorized Bomber Command on 21 November to knock out other bridges and communications lines south of the Yalu in a band of territory approximately 15 miles wide.[117]

While the Navy and Air Force attacks against the international bridges gave less than expected results, the Superfortresses were admirably suited for massed incendiary attacks against North Korean supply centers. After the attack on 8 November Bomber Command target planners scratched Sinuiju from the target list. In the next two weeks the medium bombers rained down incendiary bombs on the other nine cities named for destruction. In attacks against cities adjacent to the Yalu, the medium-bomber crews found hostile opposition sporadic but costly. The 307th Group lost a B-29 to MIG interceptors on 10 November, when their target was Uiju, a town a few miles up river from Sinuiju. Two days later, when the mediums were burning Manpojin, hostile flak from across the Yalu damaged a 98th Group B-29 so badly that it was forced to limp to an emergency landing in South Korea.[118] Except in the immediate vicinity of the Yalu, the medium bombers met no enemy opposition, but they nevertheless knew several serious operational problems. Proper target intelligence was lacking for a number of the cities, and icing conditions at the usual 8,000-foot cruising altitudes forced the B-29's up to the higher operating levels, causing engine failures and increasing gasoline consumption.[119] But the medium bombers did their work well, and as of 28 November they had effected heavy damages on the priority communications and supply centers: Manpojin—95 percent; Kanggye—75 percent; Hoeryong—90 percent; Namsi—90 percent; Chosan—85 percent; Sakchu—75 percent; Huichon—75 percent; Koindong—90 percent; Sinuiju—60 percent; and Uiju—20 percent.[120] Other smaller formations of B-29's attacked and destroyed such towns as Kwaksan and Kusong in northwestern Korea, Pyoktong and Kuup-tong on the Yalu in west-central Korea, and Mupyong-ni and Pyorha-ri in north-central Korea just below the 42d parallel. On 19 November 50 B-26's and the 3d and 452d Bombardment Groups flew from bases in southern Japan to drop incendiaries on enemy troop barracks at Masan in far northeastern Korea. This raid was the first massed light-bomber attack of the Korean war, and it successfully destroyed at least 75 percent of the barracks area.[121]

Although the medium bombers handled the destruction of the North

Navy crewmen check the braces of a napalm bomb on the flight deck of the USS *Philippine Sea* during the winter operations off North Korea *(Courtesy U.S. Navy).*

Korean communications and supply centers with relatively little difficulty, the effect of the destruction of these cities on the Communist cause was more difficult to assess. A number of Republic of Korea officials who were asked to comment on the matter viewed the destruction with a somewhat jaundiced eye. The North Koreans, they said, were no longer controlling the war, and other Communist nations welcomed destruction since it cost them nothing and gave them grist for their propaganda mills. Yet, in terms of the tactical situation, the destruction of the cities had utility. It deprived Communist troops of shelter, both for their personnel and for their supplies. Later on Chinese Communist troops would suffer many casualties, not from battle, but from the frigid winter weather.[122]

The all-out air campaign ordered by MacArthur against the Yalu bridges and other installations capable of supporting the enemy was as well executed as was possible under the circumstances, but it was largely designed to stop the movement of Chinese Communist troops into Korea. What was not known at the time was that the Chinese were already in Korea in great strength before the air campaign began. According to Chinese Communist records, captured much later, the Chinese had begun to slip troops across the Yalu as early as 14 October. By 26 October the 38th, 39th, 40th, and 42d Armies (Corps) of Communist General Lin Piao's Fourth Field Army had crossed the Yalu and were marching mostly at night toward positions in the mountains on the right flank of the American Eighth Army. Since the U.S. X Corps posed a threat to the Fourth Field Army, General Lin Piao detached the 42d Army to provide flank protection pending arrival of General Chen Yi's Third Field Army, with the 20th, 26th, and 27th Armies (Corps). Chinese Communist armies normally comprised headquarters troops and three divisions, each of 8,000 men. A full-strength Chinese "army" thus numbered approximately 30,000 men, and it was roughly comparable in size to an American "corps."[123]

Whether any amount of aerial reconnaissance could have penetrated the excellent camouflage discipline to locate Chinese troops in the heavily wooded mountainous terrain is problematical, but it is nonetheless true that neither air nor ground reconnaissance had fully measured the threat of Chinese Communist concentrations in north-central Korea.[124] From the beginning of Korean hostilities FEAF reconnaissance units had been operating under serious handicaps. In the years between 1946 and 1950 USAF "economy" programs had seriously curtailed the development of reconnaissance systems—aircraft, cameras, and skilled technicians. These reconnaissance systems had not kept pace with a jet air age.* Since July the 31st Strategic Reconnaissance Squadron (redesignated as the 91st Squadron on 16 November) had provided FEAF Bomber Command with target and bomb-damage assessment photography. But as the 31st Squadron sought to operate along the Yalu its obsolete RB-29's proved an easy mark for MIG interceptors. On 9 November two MIG's jumped a flak-damaged RB-29 over Sinuiju: in the aerial fight, Corporal Harry J. LaVene, the tail gunner, shot down one of the MIG's, but the

*See Chapter 17, pp. 545–556.

other hostile plane further crippled the RB-29, which limped home to Johnson Air Base, where a crash landing killed five crewmen. After this experience FEAF forbade the RB-29's to approach the Yalu, and the Fifth Air Force undertook to use its RF-80A photo planes to secure the needed reconnaissance in this area.[125]

The decision that it must cover strategic targets along the Yalu laid an additional burden upon the slight resources of the 543d Tactical Support Group, the provisional organization which controlled the 8th Tactical Reconnaissance Squadron, the 162d Tactical Reconnaissance Squadron (Night Photo), and the 363d Reconnaissance Technical Squadron. In an air-ground campaign involving an Army front, doctrine called for three day reconnaissance squadrons (one primarily photographic and two primarily visual), but other than an anachronistic use of Mosquito T-6 airborne control aircraft the Fifth Air Force still possessed no visual reconnaissance capability. The 8th Squadron, which flew RF-80A photo jets, had done an excellent job meeting demands made on it, but because of its limited ability both Army and Air Force intelligence staffs had been compelled drastically to screen their requests for photography. Most of the time, however, the 8th Squadron did not operate at its maximum capability, for neither the Fifth Air Force nor the Eighth Army had enough of the skilled photographic interpreters needed to examine and interpret such aerial photographs as were taken. In fact, because the Eighth Army had only a handful of photo technicians, the Fifth Air Force used its own scarce resources to provide the Army with quantity reproduction and interpretation of aerial photographs.[126]

Although FEAF's reconnaissance units possessed a limited potential, they might have done a better job if they had known what they were expected to discover. During the first three weeks of November the cameras of the reconnaissance units were closely focused upon the Yalu River crossings where air strikes were seeking to prevent the Chinese from entering Korea. The 8th Squadron did not entirely neglect the battle area, but its aircraft were so limited in number that they could infrequently reconnoiter any area other than that immediately adjacent to the main roads leading toward the Eighth Army and X Corps.[127] As far as possible the Communists avoided the main roads, but the road reconnaissance efforts not infrequently provided positive information of hostile activities. Thus on 7 November aerial reconnaissance reported many tracks in the snow which indicated heavy vehicular traffic south from Kanggye toward the Choshin (Changjin) reservoir area.[128] Earlier in November the 162d Reconnaissance Squadron (Night Photo) had been operating mostly by day and had been flying few sorties at night, but on 8 November reports that the enemy was moving under cover of darkness led the Fifth Air Force to require the squadron to fly eight sorties nightly over northwestern Korea. As a part of the increased night effort, the 162d Squadron sought to locate and illuminate targets for B-26 night intruders, but met little success. The severely restricted operating areas, extremely mountainous terrain, plus low-lying fog and haze at night, made both night photography and night attack extremely difficult.[129] Intelligence officers, moreover, did not view reports of an enemy build-up in the mountains south of Huichon with much concern. On 21 November FEAF finally directed the

Fifth Air Force to conduct close aerial reconnaissance of the area lying between the Eighth Army and X Corps,[130] but by this time the United Nations Command was already preparing its northward drive.

7. United Nations Attack and Communist Counterattack

"While the North Korean forces with which we were initially engaged have been destroyed or rendered impotent for military action," General MacArthur announced to the United Nations on 6 November, "a new and fresh army faces us, backed up by a possibility of large alien reserves and adequate supplies within easy reach of the enemy but beyond the limits of our present sphere of military action."[131] The extent of Chinese Communist intervention was by no means clear, but the Chinese advertised the fact that they were in Korea as "individuals and volunteers," and the Joint Chiefs of Staff had empowered the United Nations commander to continue operations as long as he had a reasonable chance of success. General MacArthur and his field commanders had no thought but to continue the attack northward. General Walker spoke of a need for "a regrouping of forces, an active defense, a build-up of supplies pending resumption of offensive and advance to the border."[132] General Partridge told Stratemeyer that he meant to prepare for "conflict of indefinite duration." He announced that he intended to institute air patrols over Sinuiju, to open a tactical air-direction center at Anju, and move his Mustang wings to North Korean airfields.[133] General MacArthur agreed with these offensive plans. If the Chinese were not coming to Korea, he reasoned, a United Nations drive would finish the Korean war. If the Chinese were coming in, the United Nations troops would be in a far better position in the attack than if they waited assault along an immobile line of too thin defense.[134]

During the fortnight following 6 November United Nations forces battled not so much with the enemy as with such logistical problems as impassable roads, battle-damaged railways, and mined ports. In fact, General MacArthur informed the Joint Chiefs that the delay in the United Nations campaign was "due entirely to logistical difficulties."[135] Early in November it was starkly evident that an over-dependence on essentially scarce air transportation had put the United Nations forces in Korea in a difficult logistical position. Benefiting from the loan of the Fifth Air Force's share of the approximately 1,000 tons per day that the FEAF Combat Cargo Command could airlift into Pyongyang, the Eighth Army had pushed the U.S. I Corps ahead on a logistical shoestring. Now, because of increased enemy resistance, General Walker intended to bring forward the U.S. IX Corps, with the 2d and 25th Infantry Divisions. Such a force of four American and four ROK divisions would need 1,500 short tons of logistical support each day. Before launching an offensive, moreover, General Walker wanted to build up a five-day reserve of supplies in the forward area. Until enemy mines were cleared from the port of Chinnampo and rail traffic was opened into Pyongyang, General Walker wanted to retain

the 1,000 tons of supply capability represented by Combat Cargo Command's airlift.[136] General Partridge, however, planned to move the 6002d and 6131st Tactical Support Wings to Pyongyang's two airfields and the 6150th Tactical Support Wing to Yonpo Airfield, the latter being on the east coast near Hamhung. To support these Mustangs, Partridge had to recapture the Fifth Air Force's normal share of Combat Cargo Command's capability—about 450 tons per day.[137] Another complication involved the air-transport operations into North Korea: Kimpo Airfield was an important shuttling point for air freight en route between Ashiya and Pyongyang, and a free use of this airfield had enabled General Tunner to promise to deliver the 1,000 tons a day to North Korea. After 2 November resurgent enemy air opposition forced General Partridge to make heavy use of Kimpo, with the result that the airfield was so congested with tactical air operations as to interfere with the airlift. On 6 November General Tunner therefore suggested that Partridge ought to move one group of his fighters from Kimpo back to Suwon so that the transports could have freer use of Kimpo.[138]

Until this time air transportation had been so generously furnished in Korea that it had been taken for granted and used for many tasks which should have been performed by cheaper modes of transportation. Informed of the ramifications of the airlift problem by a telephone call from General Tunner on the morning of 7 November, General Stratemeyer announced some fundamental decisions that afternoon. In view of the sudden increase in hostile air opposition, Stratemeyer ruled that General Partridge must have first claim on all air facilities in Korea. Reasoning that Walker and Almond ought to be making more use of surface transportation, Stratemeyer directed Tunner to lend all possible assistance to the forward movement of Fifth Air Force units, movements which could not be accomplished without air transportation. General Stratemeyer also directed Tunner to look at the freight his planes were hauling and to determine that none but emergency requirements which could not be moved by other means of transport were airlifted.[139]

In Korea the airlift commander did not ordinarily concern himself with the nature of the cargo that his planes were required to haul, but, in view of the November emergency, General Tunner evaluated the urgency of the supplies being carried by air. While the X Corps had opened ports at Wonsan and Iwon, Tunner discovered that the Cargo Command was still hauling large quantities of motor gasoline and aviation fuel to the X Corps. The 1st Marine Air Wing would continue to require airlifted fuel, but on General Tunner's suggestion the X Corps agreed to cancel its requirement for the airlift of motor gasoline.[140]

So far as he was able, General Tunner also made efforts to increase the capabilities of Combat Cargo Command—a difficult task, for more transport aircraft operating into Korea's congested airfields did not mean more airlift capability. Less than thirty-six hours after its C-46's reached Brady Field, Kyushu, on 8 November the 437th Troop Carrier Wing began to shuttle cargo into Korea. But the 437th's airlift capability little more than compensated for the declining capabilities of the 314th Troop Carrier Group's C-119 fleet—aircraft which had been flown hard and for which supply support had always been short. For the long haul into North Korea General Tunner needed C-54 transports, but

rather than crowd Korean airfields with more planes, Tunner and Stratemeyer first requested USAF to provide added supplies and personnel to permit them to achieve a C-54 utilization rate of eight hours per day per plane.[141] In the latter part of November arrival of 22 additional aircrews and 279 maintenance technicians enabled the 374th Wing to increase its airlift capability by 33 percent without additional aircraft. But airlift requirements continued to pyramid, and on 21 November General Stratemeyer had to ask USAF for another squadron of C-54's. "We are not panicky," he explained, "but we are desperate, and we are utilizing every cargo aircraft we own."[142] At once USAF directed the 4th Squadron, 62d Troop Carrier Group, to move from McChord Air Force Base, Tacoma, Washington, to Tachikawa Air Base in Japan.[143]

Although General Tunner's actions increased the theater airlift capability late in November, Generals Walker and Partridge both continued to have legitimate requirements for mid-November's airlift capability into North Korea, a capability which remained fixed at approximately 1,000 tons a day. These requirements appeared irreconcilable, but Generals Walker and Partridge had learned to respect each other's needs, and they began personally to allocate the airlift each day, thus, for the time being, superseding the regular JALCO procedure.[144] Early in November the Eighth Army continued to take most of the available airlift, but the port of Chinnampo opened on 9 November and rail transportation into Pyongyang began at about this same time.[145] As these means of surface transportation became available, the Eighth Army reduced its requirements for air transportation, and the Fifth Air Force began to deploy the main bodies of its Mustang wings to North Korea. By air and by road the 606th Aircraft Control and Warning Squadron went to a site near Sinanju Airfield (K-29) and began operating its radars on 21 November. Between 10 and 19 November the 6150th Tactical Support Wing moved from Pohang to Yonpo Airfield (K-27). The tactical elements—the 35th Fighter-Interceptor Group and 77th RAAF Squadron—stayed at Pohang until the wing was in place, and then, between 17 and 19 November, the Mustang pilots took off from Pohang, flew tactical air strikes, and landed at Yonpo.[146] By 22 November the 6002d Tactical Support Wing, the 18th Fighter-Bomber Group and the newly arrived 2d South African Air Force (SAAF) Squadron were in place in Pyongyang East Airfield (K-24), but for several days before this the 18th Group's Mustangs had been staging through the field.[147] The main body of the 6131st Tactical Support Wing began to move to Pyongyang Airfield (K-23) on 25 November, the same day on which the 8th Fighter-Bomber Group completed movement of its two Mustang squadrons to the forward airfield.[148]

The three Communist airfields which the Mustang wings occupied showed signs that they had once been prosperous air facilities. Most still had barracks and hangars, but these buildings were badly battered by aerial bombardment and by Red demolition squads. Flight surfaces at each airfield were lightly constructed and had already suffered damages from heavy transport traffic. They presented some challenge, even to the hardy Mustangs. The surfaced strip at Yonpo was a little more than 3,000 feet in length, while the sod flying field at Pyongyang East was alternately dusty or muddy. Dust was the greatest hazard, for on one day

two Mustangs were lost in landing accidents caused by swirling dust clouds. Although living conditions were crude and operating conditions were worse, the Mustang squadrons benefited from their closeness to the battle area. Flying from Pusan, the 18th Group's crews had been hard pressed to reach the bombline, find targets, and then get back home after missions lasting up to five hours. From Pyongyang, missions were much shorter, targets more easily identified in the greater time allowed, and external fuel tanks (in short supply) were no longer needed. Such favorable operational factors more than offset the primitive operating facilities at the Communist airfields.[149]

While the Eighth Army gathered strength during mid-November, its combat forces probed and felt out the enemy's strength. Except on the right flank, where the ROK II Corps fought some sharp engagements around Tokchon, Eighth Army troops encountered less and less opposition. At this same time the U.S. X Corps moved more rapidly in northeastern Korea. On 11 November General Almond opened his command post in Hungnam, and shortly afterward the U.S. 3d Infantry Division landed at Wonsan to reinforce the corps. To relieve pressure on the Eighth Army's right and to explore enemy strength in central Korea, General Almond sent regiments of the 1st Marine and 7th Infantry Division through the mountain trails to the Choshin (Changjin) and Fusen (Pujon) reservoirs.* By 13 November the 7th Marines reached the south end of the Choshin Reservoir, gaining control of the extensive power installations which had been dismantled and dispersed nearly a month earlier. On this same day the 7th Infantry Division launched its 17th Infantry on a drive which would reach the Yalu at Hyesanjin on 20 November. Far away up the east coast routes the ROK Capital Divison prepared to assault the city of Nanam.[150]

"The situation here," reported an observer in Korea, who probably did not realize the full significance of his remark, "might well be compared to that of the Allied Powers in the Ardennes offensive during the winter of 1944–45, when overwhelming the enemy was only half of the battle."[151] Although guerrilla forays in the rear were occupying fully 30 percent of United Nations troop strength, the Eighth Army and X Corps were more troubled by near-zero temperatures and by ice-glazed roads than by enemy resistance. Weather also had an increasingly negative influence on air operations; low clouds and snow flurries further hampered identification of ground targets already obscured by prevailing morning fogs. On the Eighth Army front, however, the Fifth Air Force had few calls for air-support missions, and its armed reconnaissance flights could find few lucrative targets of opportunity. On the east coast the 1st Marine Air Wing found little to do in support of the X Corps.[152]

"The air attack of the last ten days has been largely successful in isolating the battle area from added reinforcement," General MacArthur informed the Joint Chiefs on 18 November. The Eighth Army was also building its

*The Japanese, who had built them, called these dams and reservoirs "Choshin" and "Fusen," but their correct Korean names were "Changjin" and "Pujon." Alternate spellings of the first name give the most trouble: Far East Command intelligence summaries and press releases of December 1950 used the name "Choshin," but maps in the intelligence summaries called it "Chosin." Still other reports referred to the "Chosen" dam and reservoir.

VAdm. C. Turner Joy, USN (left), is met at Wonsan by Maj. Gen. Field Harris, USMC.

logistical stocks up to scarce but acceptable levels. In the light of these two factors, General MacArthur specified 24 November as the tentative date for the Eighth Army's main attack.[153] Given completion of his build-up by this date, General Walker would possess 136,000 combat soldiers against an estimated Communist force of 95,000 troops, 55,000 of whom were believed to be Chinese.[154] In support of this last offensive General Walker

asked FEAF to fly an all-out effort between 23 and 28 November and normal sustained effort thereafter.[155] Back in Washington the Joint Chiefs of Staff were still seeking to find a meaning for the Chinese intervention in Korea, and as the days passed they mentioned the possibility that the Chinese might be seeking to secure a "cordon sanitaire" to protect their Yalu River boundary and electric-power resources south of the river.[156] At the last hour, on 24 November, the Joint Chiefs queried MacArthur as to whether it might not be well, after advancing near the border, to stop short in terrain dominating the approaches to the valley of the Yalu. General MacArthur immediately replied that it would be utterly impossible to halt his forces south of the international border. If peace and unity in Korea were to be restored, it would be necessary to destroy all enemy forces within the country.[157]

The Eighth Army began its renewed offensive promptly according to schedule at 1000 hours on 24 November. For two days the American I and IX Corps advanced without encountering particularly heavy resistance, but the ROK II Corps, which formed the right wing of the Eighth Army, reported strong opposition and was generally held to no gains. On the two days the Fifth Air Force flew 345 close-support sorties and reported good results against enemy troops found in the open a few miles beyond the line of the Eighth Army advance. The drive was progressing favorably, but the Communists evidently meant to make a fight of it. General MacArthur therefore ordered the X Corps to attack northwestward toward Mupyong-ni, thus beginning an envelopment calculated to squeeze the Reds between the advancing elements of the two United Nations commands.[158]

But the United Nations campaign plan had not correctly reckoned with the caliber of the Chinese Communist opposition, nor with the intentions of the Chinese. The Chinese were not seeking to defend a buffer zone along the border; their purpose was to outflank, attack, and defeat the United Nations forces. On 26 November Communist General Lin Piao sprang the trap. His Fourth Field Army forces launched strong counterattacks against the U.S. I and IX Corps, while a main body of Chinese troops poured down the central mountain ranges to drive the ROK II Corps from its anchor position at Tokchon. On 27 November the ROK II Corps collapsed and the Communists continued southward, apparently meaning to turn the flank of the Eighth Army and then to wheel west to join guerrillas and sever the Army's communications. Next day General Chen-Yi's Third Field Army struck along both sides of the Choshin reservoir, cutting off the regiments of the 1st Marine and 7th Infantry Divisions which had been advancing toward Mupyong-ni.[159] Information obtained from Red prisoners left no doubt that the Chinese incursion was the result of a prepared plan of aggression. On 7 December the United Nations Commission for the Unification and Rehabilitation of Korea identified Red China as the aggressor: "On the basis of existing evidence," UNCURK reported, "the commission has come to the conclusion that Chinese forces in great strength are attacking the United Nations forces in North Korea and that these Chinese forces form part of the armed forces of the People's Republic of China."[160]

Planes from the USS *Leyte* bomb the Sinuiju bridges over the Yalu River, 22 November 1950.

A rifleman of the 14th Infantry Regiment.

8. *Two Months of Defeat and Retreat*

1. A Time for New Decisions

"Enemy reactions developed in the course of our assault operations of the past four days," General MacArthur reported on 28 November, "disclose that a major segment of the Chinese continental armed forces...of an aggregate strength of over 200,000 men is now arrayed against the United Nations forces in Korea."[1] With the United Nations Command clearly confronting an overt Chinese Communist intervention, General MacArthur ordered the ground forces to change from the offensive to the defensive, an eventuality which had been foreseen in the original directives for the advance to the Yalu. Once again the Eighth Army began to fall back to a line south of the Chongchon River, while the X Corps sought to extricate its forward elements and to retreat toward Hamhung.[2] In order to oppose the Chinese Communists, General MacArthur's first thought was of ground reinforcements. At the start of the Korean war Chiang Kai-shek had offered 33,000 Chinese Nationalist troops for service in the battle zone. Then, General MacArthur had advised against any weakening of the defenses of Formosa, but on 29 November he asked for authority to negotiate for the Chinese Nationalist reinforcements.[3]

At first General Walker was reportedly not too happy about giving up ground his army had won in combat, but General MacArthur foresaw that the Eighth Army would have to withdraw toward Pyongyang and Seoul. On the east coast the U.S. X Corps would consolidate its strength around Hungnam and Wonsan, but General MacArthur wished to maintain General Almond's forces in those areas. From such positions on the eastern coast of Korea the X Corps could be supplied by sea and it would threaten the Communist line of attack through central Korea.[4] Secretly, on 28 November, Generals Walker and Almond flew back to Tokyo, where that night they joined Generals MacArthur and Stratemeyer, Admiral Joy, and other star-rank staff officers at a conference at MacArthur's residence in the American embassy. As one participant recollected, Generals Walker and Almond were more optimistic than had been expected. General Walker needed reinforcements but he believed that he could hold the Pyongyang area. General Almond, whose forces had not yet been subjected to full pressure of the enemy attack, was sanguine enough to feel that the 1st Marine Division could press through central Korea's mountains and strike the Reds in the rear.[5]

Back in Washington during November the Joint Chiefs of Staff had been fearful of the dispersion represented by the X Corps' detached position, and on 1 December they were unwilling to accept General MacArthur's strategy. They feared that the Reds would move large forces southward through the mountains in the gap between the two United Nations forces. They therefore urged MacArthur to extricate the X Corps from its exposed position and to bring it to join an Eighth Army battleline across the peninsula.[6] On 3 December, when he replied to the Joint Chiefs' message, General MacArthur noted that the X Corps was being withdrawn to a Hamhung perimeter as rapidly as possible. MacArthur said

that Walker no longer expected to hold Pyongyang, and under increasing pressure the Eighth Army would unquestionably be forced to withdraw to Seoul. Under such conditions General MacArthur could see no benefit from a union of the X Corps and the Eighth Army. At the narrowest, the Korean peninsula was 150 miles wide by road, which meant that the seven American divisions would be expected to defend 20-mile fronts against superior numbers of enemy troops. As MacArthur saw it, the United Nations Command was "facing the entire Chinese nation in an undeclared war." He called "for political decisions and strategic plans...adequate fully to meet the realities involved."[7] At the moment neither President Truman nor the Joint Chiefs of Staff had the new decisions that MacArthur needed. With the President's approval, the Joint Chiefs tersely informed the United Nations commander: "We consider that the preservation of your forces is now the primary consideration."[8]

If the evidence which presents itself is to be credited, General Walker had undergone a sudden change of opinion between 28 November, when he felt that the Eighth Army could hold Pyongyang, and 3 December, when he predicted that the Eighth Army would be forced to withdraw to the Seoul area. Aside from the hard ground fighting which was going on, General Walker was doubtless troubled by reported build-ups of Chinese strength in Korea. The main source of Eighth Army order-of-battle estimates of enemy strength was prisoner-of-war interrogations, and for some reason each Chinese prisoner willingly provided data regarding the location and identity of enemy units. According to these prisoner-of-war reports, Red Chinese troops in Korea in the first week of December numbered between 400,000 and 500,000 men. There was no way to verify these estimates, and the Eighth Army had no choice but to fall back as fast as possible to escape annihilation.[9] If the prisoners' reports were not correct, the Chinese had cleverly managed to gain time and space in which to build up their strength in Korea. The reports of preponderant Chinese strength in Korea were also accepted in Tokyo. During the middle of the first week of December General J. Lawton Collins, who flew to Tokyo on the President's order to get the latest facts, found General MacArthur gravely concerned by the superior numbers of Chinese troops facing his command. If the United Nations continued to fight a war limited in scope to Korea, MacArthur held little hope but that, sooner or later, his forces would be compelled to withdraw from the Korean peninsula. The best that he could expect was to fight a good delaying action.[10]

In messages to Washington and in conversations with General Collins, General MacArthur indicated that the United Nations Command ought to be permitted to bomb military targets in Manchuria. Later, during investigations in Washington, MacArthur was explicit as to what his intentions had been. He felt that he should have been permitted to bomb the concentrations of Chinese troops as they massed north of the Yalu. "If I had been permitted to bomb them before they crossed the Yalu, they never would have crossed," MacArthur said. Once the Chinese armies crossed the Yalu and entered combat in Korea, MacArthur would have bombed the enemy's Manchurian supply lines and the bases that contributed logistical support to the Red war effort in Korea.[11] At least one high-

ranking air officer held this same view. "I was all for the bombing of Manchuria," said General O'Donnell, "and I wanted very badly to do it as soon as we recognized the Chinese Communist forces...as bona-fide forces." General O'Donnell explained that the Chinese in November 1950 had very little good fighter cover and that their antiaircraft was not too formidable. "I think we could have gotten in and for very small cost in casualties we could have really hit them hard and perhaps even stopped them," General O'Donnell stated.[12]

Actually, General MacArthur regarded the bombing of Manchurian bases as only one phase of a broadened war effort against the Chinese Communist nation. At first, in early-December conversations with General Collins, and more fully in a long message to the Joint Chiefs on 30 December, General MacArthur indicated that the United Nations could recognize a state of war with Communist China and authorize the United Nations Command to blockade China's coasts, to destroy through naval gunfire and air bombardment China's industrial capacity to wage war, to secure reinforcements from the Nationalist garrison on Formosa, and to release existing restrictions upon the Formosan garrison so that it could undertake diversionary actions against vulnerable areas of the Chinese mainland. "I believe that by the foregoing measures," MacArthur stated, "we could severely cripple and largely neutralize China's capability to wage aggressive war and thus save Asia from the engulfment otherwise facing it."[13]

American authorities in Washington sympathized with MacArthur's position, but from the beginning of the Korean war the United States government was determined to work within the United Nations in halting aggression in Korea.[14] There was no doubt that the other nations whose forces fought alongside those of the United States opposed any extension of the Korean war. President Truman's remark of 30 November that the United States would take whatever steps necessary to meet the military situation in Korea, including the use of every weapon it possessed, caused profound repercussions in Europe and brought Great Britain's Prime Minister Clement R. Attlee to Washington on 4 December. At the conclusion of their talks President Truman stated "his hope that world conditions would never call for the use of the atomic bomb."[15] Inasmuch as the United States intended to pursue a course which would not rupture its relations with its friends in the United Nations—friends who opposed the extension of hostilities—the State Department opposed any bombing of Manchurian bases because, as Secretary Acheson expressed it, "to do so would, we believe, increase—and materially increase—the risk of general war in the Far East and general war throughout the world."[16]

Aside from these political reasons, American military leaders in Washington knew sound reasons why the United States could not, in the winter of 1950-51, undertake air operations against Manchuria or China. "It would be militarily foolhardy," stated a Joint Chiefs of Staff amendment on 3 January 1951 to a State Department circular intended for diplomatic dissemination, "to embark on a course that would require full-scale hostilities against great land armies controlled by the Peking regime, while the heart of aggressive Communist power remained untouched."[17] In the spring of 1951 General Vandenberg gave these same

thoughts to inquiring senators, but in more detail:

> Air power, and especially the application of strategic air power, should go to the heart of the industrial centers to become reasonably efficient. Now, the sources of the materiel that is coming to the Chinese Communists and the North Koreans is from Russia. Therefore, hitting across the Yalu, we could destroy or lay waste to all of Manchuria and the principal cities of China if we utilized the full power of the United States Air Force....In doing that, however, we are bound to get attrition. If we utilize less than the full power of the United States Air Force, in my opinion it might not and probably would not be conclusive.
>
> And even if we utilized it and laid waste to it there is a possibility that it would not be conclusive. But the effect on the United States Air Force, with our start from approximately 40 groups, would fix it so that, should we have to operate in any other area with full power of the United States Air Force, we would not be able to.
>
> The fact is that the United States is operating a shoestring air force in view of its global responsibilities....
>
> In my opinion, the United States Air Force is the single potential that has kept the balance of power in our favor. It is the one thing that has, up to date, kept the Russians from deciding to go to war....
>
> While we can lay the industrial potential of Russia today to waste, in my opinion, or we can lay the Manchurian countryside to waste, as well as the principal cities of China, we cannot do both, again because we have got a shoestring air force.

In short, General Vandenberg knew that the United States Air Force was powerful enough to devastate China and Manchuria, but in such a campaign it would inevitably suffer attrition, attrition which would leave the United States "naked for several years to come."[18]

During the cataclysmic month of December 1950 President Truman and his advisers were aware that any attempt to achieve the political objective of Korean unification solely by military means would be to incur an unacceptable risk of an Asiatic or general world war. Thinking so, the Joint Chiefs of Staff recommended that the most feasible solution to the military problem in Korea would be to secure a cease-fire agreement. Following this, the United Nations could proceed with the political, military, and economic stabilization of the Republic of Korea through political actions.[19] Early in December it seemed to some that the Chinese Communists might agree to a cease-fire, but Peking's special delegation which came to the United Nations Security Council soon revealed that the Reds wanted too high a price for such a cessation of hostilities. The chief Communist delegate brusquely insisted that his government had no interest in the Chinese "volunteer forces" fighting in Korea, and from Peking Chou En-lai insisted, as a basis for negotiating a peaceful settlement in Korea, that all foreign troops had to be withdrawn from the Korean peninsula, that American "aggressor forces" had to leave Formosa, and that representatives of the People's Republic of China had to be accorded a legitimate status in the United Nations.[20] At the United Nations a Soviet veto prevented action in the Security Council, but on 14 December the General Assembly adopted a resolution creating a Cease-Fire Committee and proposing that immediate steps be taken to end the

fighting in Korea and to settle existing issues there by peaceful means.[21] This resolution of 14 December separated the military and political objectives of the United Nations in reference to Korea. The political objective continued to be the unification of Korea under a freely representative government. The military objective was to secure a cease-fire agreement.

After the United Nations and United States had renewed their resolution to limit hostilities to Korea, President Truman had to give General MacArthur some word of instructions. MacArthur's messages indicated that he had little hope of defending Korea unless given reinforcements and authority to carry the war to the Chinese homeland. Fearing that Russia might strike Japan while that nation's defenses were down, the Joint Chiefs suggested that the United States might consider ways to withdraw from Korea. The State Department, however, was sensitive to world opinion, and it took the position that American forces should not leave Korea unless forced out. President Truman agreed that the United States could not voluntarily abandon Korea. Thus, with President Truman's approval, the Joint Chiefs informed MacArthur on 9 January that the United States would continue to limit hostilities to Korea but that MacArthur was expected to defend successive positions, inflicting as much damage on the enemy as possible, subject always to the safety of the forces under his command. If MacArthur should judge that evacuation was essential to avoid severe losses of men and materiel, then he was to withdraw to Japan.[22] This directive was seemingly clear enough to men in Washington, who knew the thinking behind it, but General MacArthur found it puzzling. Was he expected to maintain a military position in Korea indefinitely, for a limited time, or to minimize losses by withdrawing as soon as possible?[23] In response to MacArthur's request for clarification, President Truman personally addressed a frank statement of policy to him on 13 January. Truman explained that successful resistance in Korea would serve many important purposes. Only if continued resistance was no longer militarily possible was MacArthur to withdraw his forces, and, even then, he might, if he thought it practicable, continue to resist from islands off Korea's coasts. "In the worst case," said Truman, "it would be important that, if we must withdraw from Korea, it be clear to the world that that course is forced upon us by military necessity and that we shall not accept the result politically or militarily until the aggression has been rectified."[24]

2. Sabres to the Rescue

As the Eighth Army and X Corps began to retreat before the Chinese Communist onslaught, General Stratemeyer announced that the Far East Air Forces would continue to maintain air superiority, to furnish close support to ground units, and to provide air-transport operations as required. It would seek to interdict North Korean lines of communication, to destroy

North Korean supply centers and transportation facilities, and to attack Communist ground forces and other military targets which had an immediate effect on the current tactical situation.[25] In broad outline, this was the same mission which FEAF had so well accomplished for the several months past, but now a new uncertainty nagged at the minds of many of the airmen in the Far East. Would the Far East Air Forces be able to maintain friendly air superiority over Korea? Without air superiority, the Far East Forces could perform its missions only with great difficulty, or perhaps not at all.

During the first months of the Korean war, after the North Korean Air Force was destroyed, United Nations airmen had possessed a virtually complete air superiority. In these months military pundits at every echelon had debated whether conventional aircraft, such as the Air Force Mustang and the Marine Corsair, might not be "better" aircraft than the Air Force F-80C jets. Already, serving as fighter-bombers, the Shooting Star jets had shown themselves to be better all-round planes than their conventional competitors.[26] And on the afternoon of 1 November the appearance of Soviet-built MIG-15 fighters offered the final answer to the problem, for the Soviet fighter's performance rendered obsolete every American plane in the Far East. The Russian fighter hopelessly outclassed the Mustang, whose pilots had no hope for survival when attacked by a MIG except to keep turning inside, to hit the deck, and to head for home as fast as possible. In level flight the MIG was fully 100 miles an hour faster than the F-80C and it could climb away from the old Shooting Star as if it were anchored in the sky.[27] At midafternoon on 18 November the Navy's new F9F Pantherjets first tangled with MIG's over Sinuiju. In this engagement the MIG's proved faster, could outclimb, outdive, and turn inside the Panthers, but in the second of two encounters one Pantherjet pilot got on top of a MIG and shot him down.[28]

The MIG-15 jet fighters, which flashed past startled Mustang pilots near the Yalu on 1 November, were not new to the world of aviation, but this was the first definite proof that a Chinese Communist Air Force was receiving these latest and "hottest" Soviet jet fighters. The plane itself, first seen by western observers over Moscow's Tushino Airdrome on Soviet Aviation Day in 1948, was believed to be a product of the design team of Artem Mikoyan and Michael I. Gurevich, whence came the American-given "MIG-15" designation. Probably, however, Mikoyan was solely responsible for engineering the jet fighter, which represented both borrowing and original design. The MIG's swept-back wings were products of design data captured from the Germans, and the original model MIG was powered by a Russian copy of the British Rolls-Royce Nene engine. Low wing loading and a 5,000-pound thrust engine resulted in a plane with spectacular maneuverability and a level speed of about 660 miles per hour. Probably in production as early as December 1947 the MIG's were reportedly pouring off Russian assembly lines at a rate of 200 per month by the end of 1950.[29]

The arrangements whereby Communist China was receiving Russian aircraft were not known in late 1950, but American intelligence later secured documents purporting to tell the story. As early as 14 February 1950 a Sino-Soviet aviation agreement had visualized the "reconstruction" of the Chinese Communist Air Force. Ac-

Soviet-built MIG-15

cording to this agreement, Russia apparently undertook to sell China 3,000 training and combat aircraft, to provide China with advisory and technical assistance, and to deliver as many as one-fourth of the promised firstline aircraft by December 1950. The Chinese Communist Air Force was to become "one integral part of the Russian air force."[30] According to FEAF estimates of the Chinese air order of battle, the Soviet Union made good its promised deliveries, for in December 1950 the Chinese were believed to possess 650 combat aircraft, including 250 conventional and jet fighters, 175 ground-attack planes, 150 conventional twin-engine bombers, and 75 transports. In addition to the Red Chinese planes, some 400 to 500 Soviet Air Force planes at bases around Dairen were readily available for use in Korea.[31] Reconnaissance photographs taken in late November showed that the Chinese Reds were developing Antung Airfield at a rapid pace: previously the field had two gravel runways but now the Reds had constructed a 6,000-foot concrete runway and a hard-surfaced perimeter taxiway. In early December early-warning radar in the Antung area began to track FEAF bombers at a range of nearly 150 miles.[32] With surprising rapidity, the Chinese were building air defenses which lapped down over northwestern Korea. The MIG-15 interceptor, an all-weather airfield at Antung, and a radar warning net added up to an operational capability that spelled trouble for the United Nations.[33]

Since the MIG fighters were superior in most aspects to American aircraft, it was providential that the Chinese Communist Air Force had some serious limitations, for an all-out Communist air attack added to the powerful ground assault might well have turned the

United Nations retreat into a virtual holocaust. As an air force, the Chinese Communist Air Force was very young, and its pilots were not yet skilled enough to use their aircraft to its greatest advantage. For the most part, the MIG pilots hugged the Yalu and preferred to make their attacks from high and to the rear of American planes. Seldom, if ever, did a MIG flight make more than two passes before streaking away to break off combat at the border. Most MIG pilots, moreover, were inept gunners: they consistently fired while beyond effective range, failed to take proper lead, and, on at least one occasion, a MIG pilot lost an almost certain kill when he ceased fire while in effective striking distance.[34]

While the Communists did not make a maximum employment of their jet fighters, the Chinese air garrison at Antung greatly hampered United Nations air attacks in the strip of terrain along the Yalu. The MIG's took a toll of the FEAF Bomber Command's B-29's and RB-29's. Such RF-80's as went to the border had to be escorted by F-80 fighters, which were not at all adequate to the task. In a "hairy" engagement on 4 December a flight of MIG's boxed in an RF-80 photo plane and its F-80 escort (one MIG prosecuted tail attacks while other MIG's flew wing positions 50 yards out). Although both planes were sieved by 23-millimeter cannon bursts, the American pilots escaped the trap and got home safely.[35] No longer could a fighter-bomber pilot assume that the sky above and behind him was clear of enemy aircraft. Armed reconnaissance flights had to provide themselves with top cover: a lower element searched for enemy traffic while the upper element watched for MIG's. All pilots had to conserve fuel and ammunition against the possibility of enemy attack.[36] Such conservative tactics prevented the Fifth Air Force from losing aircraft in air-to-air combat during November, but the defensive measures reduced combat effectiveness.

Despite a continuing measure of success in air-to-air combat, the Fifth Air Force did not go entirely unscathed from Communist air attack. A little before daybreak on 19 November a single-engine plane bombed Sunchon and at about the same time another conventional aircraft strafed and bombed Eighth Army emplacements along the Chongchon River.[37] At about 0300 hours on 28 November a Communist "light liaison" plane (probably one of the little PO-2 biplanes which the Reds would later employ as night hecklers) dropped a string of fragmentation bombs across the 8th Fighter Bomber Group's parking ramp at Pyongyang Airfield. The bombs killed an Air Force sergeant and damaged eleven Mustangs, three so badly that the group would have to destroy them when it evacuated southward.[38] Something more than luck may have been involved in this attack against Pyongyang Airfield, for the Office of Special Investigation detachment at that base subsequently learned that six supposed laborers working there had Chinese Communist papers and that one of the men was a captain in the Chinese Communist Forces.[39]

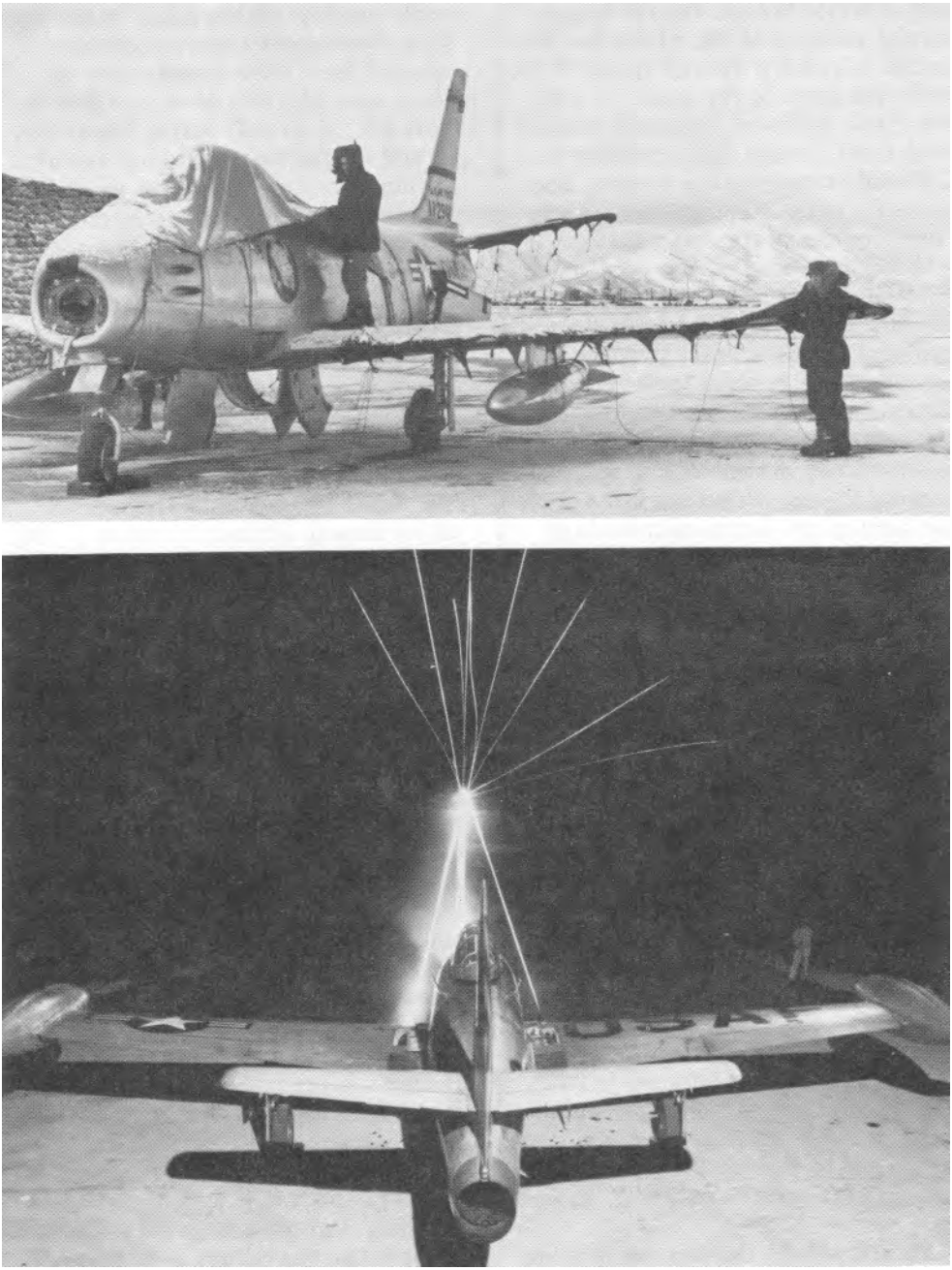
Through some good fortune the Chinese Communist Air Force made no determined bid to establish air superiority over northwestern Korea during the period in which the Fifth Air Force possessed no fighters which could battle on equal terms with the MIG's, and back in the United States the United States Air Force was bending every effort to get more modern jet fighters to Korea. On 8 November

Battle damage to the tail assembly of an F-80.

General Vandenberg offered to deploy an F-84E Thunderjet and an F-86A Sabre wing to Korea, provided General Partridge could prepare airfields for them in the combat area. Generals Partridge and Stratemeyer accepted the offer on the day it was made, and, still on 8 November, the USAF directed the 4th Fighter-Interceptor Wing and the 27th Fighter-Escort Wing to prepare for an immediate overseas movement.[40] These movement orders found the 4th Wing at New Castle County Airport, Wilmington, Delaware, where it was assigned to the Eastern Air Defense Force. Located at Bergstrom Air Force Base, near Austin, Texas, the 27th Wing was assigned to the Strategic Air Command. The aircraft of the two wings were flown to San Diego, California, where in the two weeks after 14 November they were deck loaded aboard aircraft carriers and a fast tanker. Advance personnel went to Japan by air, and the main contingents followed by rail and then by naval transport. Because of the urgency of the movement, the aircraft were loaded without really adequate waterproofing, and, as a result, most of the planes—especially those that were carried aboard the tanker—suffered substantial corrosion damages from salt spray during the trip across the Pacific. "Two or three days allowed in properly preparing the aircraft for shipment," wrote Colonel Ashley B. Packard, commander of the 27th Wing, "would probably have saved another week at this end."[41]

The deployment of two complete wings of new-model fighters to the Far East was accomplished in record time, but while they were on the water en route to Japan the war situation in Korea was worsening. General Partridge had planned to put combat echelons of the 4th Wing at Pyongyang Airfield and of the 27th Wing at Kimpo, but in early December, when the two wings assembled and were ready for service, such a deployment was no longer possible. Instead, the 27th Wing established a rear echelon at Itazuke and took its F-84 Thunderjets to Taegu Airfield, from which place the wing flew its first mission on 6 December. The crews of the 27th Wing were especially trained for long-range escort for medium bombers, but in view of the tactical situation they were immediately employed in an armed-reconnaissance and close-support mission.[42] The only Korean airfield which could possibly serve the 4th Wing was Kimpo, and because of the crowded conditions there only a part of the Sabre wing could go to Korea. Accordingly, Colonel George F. Smith, the wing commander, left a large rear echelon at Johnson Air Base, and took "Detachment A"—pilots and airmen from group headquarters and the three squadrons, but mostly from the 336th Fighter-Interceptor Squadron—to Korea. On 15 December the 4th Wing flew an orientation flight over North Korea which marked its entry into combat.[43] To the 4th Interceptor Wing General Partridge assigned a purely air-superiority mission: to fly combat air patrol over northwestern Korea and to meet, turn back, and, if possible, destroy MIG's.[44]

As they formed up on the runway at Kimpo and took off for combat at the Yalu on 17 December, the men who piloted the Sabres took confidence from the fact that they were flying the best fighter in the United Nations arsenal—the only plane on the friendly side of the Iron Curtain that could consistently slug it out with the MIG-15. The F-86A model Sabres which the 4th Wing took to Korea had been on the North American Aviation Company's drawing boards as a straight-wing fighter at the

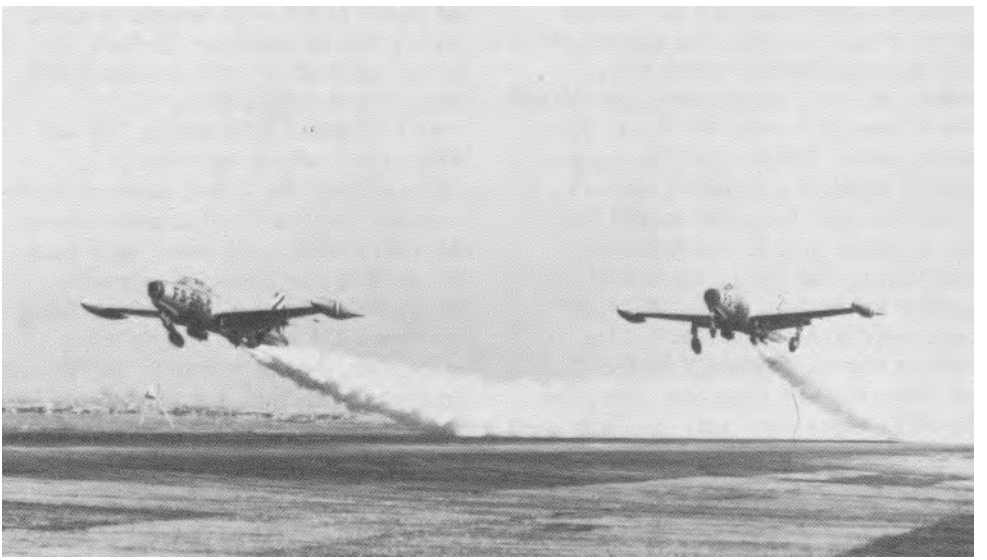


(top) Ground crew unwraps an F-86 Sabrejet for a combat mission.

(bottom) Maintenance men of the 49th Fighter Bomber Wing test the .50-caliber wing guns of an F-84.

end of World War II, but the experimental versions of the XF-86 had been unable to reach a desired speed of 600 miles per hour. In the spring of 1945 Air Force technical personnel brought back from Europe data regarding the Luftwaffe's swept-wing designs. The idea of a swept wing was not new to American designers, but what had puzzled them was how to get low landing speeds from a swept-wing aircraft. At North American's request a captured Messerschmitt swept-wing assembly was brought to the company for study. This wing had leading-edge slats which extended and retracted automatically in response to aerodynamical forces, permitting low speeds for landing and unprecedented high speeds for flight. North American added the fully-swept design version of the ME-262 wing to its F-86 Sabre, and the result was spectacular, even with the modest 5,200 pounds of thrust provided by the J-47-GE-13 jet engine.[45] At best, however, the Sabre was still not a mach-1 or a supersonic fighter, but its airframe was rugged enough to withstand transonic speeds on occasion. Other than the swept-wing design, the Sabre had few unconventional features. It carried six M-3 .50-caliber machine guns and a not too new K-18 gyroscopic computing gunsight with an electrical range-control system. One of the Sabre's chief limitations was its shortness of range. Carrying two 120-gallon wing tanks in addition to its internal fuel supply, the Sabre's combat range was 490 nautical miles, a distance which had to include the flight to the combat area and the return to the home base.[46]

Presented with the mission of flying combat air patrol along the Yalu from the air base at Kimpo, the men of the 4th Wing had given some serious thought as to the tactics which they would employ. All the pilots of the 4th Wing were highly experienced and many of them were already conventional aces who had destroyed five or more enemy aircraft during World War II, and for the most part they intended to employ tactics which had proved their worth in combat. In deference to time and space, flights of four aircraft would take off at five-minute intervals. Each flight would fly a "fingertip" formation which furnished the best possible defense against surprise attack, and on entering combat a flight could break down into elements of two, but in no case would an element leader and his wingman become separated. The Sabre flights would arrive in the patrol area at altitudes between 27,000 and 33,000 feet, just below the contrail level so that the Sabre pilots could locate hostile aircraft above them by their vapor trails. All these tactics were worth while and would be continued as standard practice, but in the first combat mission on 17 December the Sabre pilots made a mistake which might have cost them dearly had they opposed skilled adversaries. Since the distance of the round trip between Kimpo and the Yalu was 430 miles and the Sabres wanted to stay on patrol station as long as possible, they entered the area of combat at a leisurely, fuel-conserving speed of 0.62 mach. Thus, in the middle of the afternoon of 17 December, when Lt. Col. Bruce H. Hinton's Sabre flight sighted a battle formation of four MIG's, the F-86's were flying too slow to get their maximum effectiveness. Fortunately, however, the MIG's were below and climbing, and the Red pilots evidently thought that the Sabres were the old and slow F-80's, which had never given them any especial trouble. Gathering speed in their dive, the Sabre flight was on the startled MIG pilots before they



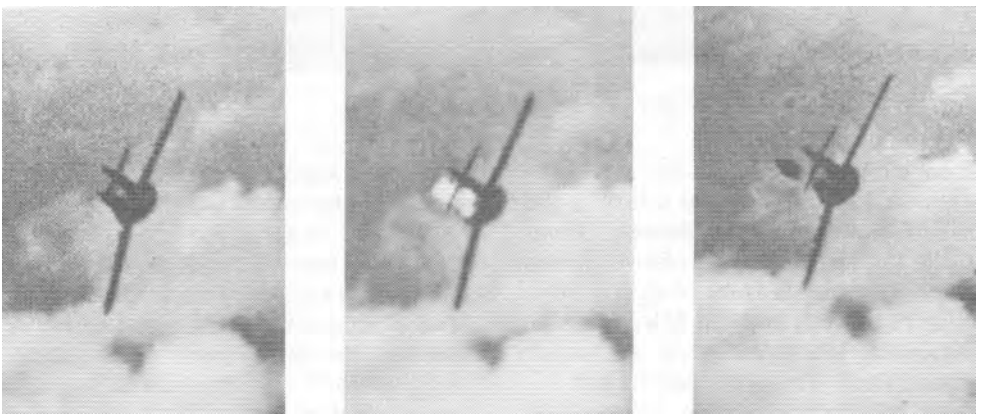
F-84's aided by JATO units take off carrying 500-pound bombs.

knew what hit them. As the MIG's attempted to dive toward safety at the Yalu, Colonel Hinton's element clung to the tail of the Red number-two man. Three long bursts from Hinton's .50-calibers scored, and the MIG burst into flames and spun slowly and awkwardly groundward. The other MIG's got away, but Colonel Hinton, commander of the 336th Squadron, had achieved the distinction as the first Sabre pilot to destroy a MIG-15 in air-to-air combat.[47]

During the next several days the Sabre flights continued to try to save fuel by cruising at slow air speeds until such time as they sighted hostile fighters. Although the MIG's came out to fight on several occasions, the Sabres scored no victories. The MIG pilots were learning that the Sabres were no ordinary adversaries: they now timed their attacks to catch the Sabres at the end of their periods of patrol, when the Sabres were short on fuel and could not stay to fight for any length of time. The MIG's also attacked from above and almost always at maximum speed. Under such circumstances the Sabres had to get up air speed before countering these attacks, and there was not enough time for this in the combat area. Recognizing their mistake after a nondecisive employment on 19 December, the 4th Wing forgot about its plans to save fuel in the combat area. Thereafter, when there was any danger of hostile air attack, the Sabre pilots entered the patrol area at air speeds of at least 0.85 mach, and preferably above 0.87 mach. The length of the patrol period was reduced to twenty minutes, which allowed the Sabres approximately ten minutes to stay and fight if the MIG's attacked while they were withdrawing. The strength of a Sabre patrol was standardized at 16 aircraft, or four flights of four aircraft which arrived at five-minute intervals at different altitudes. The soundness of the new high-speed cruising tactic was demonstrated on 22 December, when Lt. Col. John C. Meyer, the 4th

Group's commander, led two Sabre flights which encountered more than 15 MIG's. In a dogfight which lasted twenty minutes and ranged from 30,000 feet to treetop levels, the Sabre pilots destroyed six MIG's. In this engagement a MIG pilot caught Captain L. V. Bach in a tight turn and scored lucky hits to shoot him down. After this bloodletting the MIG's eschewed combat for several days, but on 30 December 36 MIG's came out for another engagement with 16 F-86's at the Yalu. On this occasion, however, the MIG pilots were very cautious, and the Sabre pilots were unable to score any significant damages. In fact, the Sabres claimed to have damaged only two of the hostile planes.[48]

As December 1950 ended, the 4th Wing could take some pride in its achievements, for it had demonstrated its ability to fly a combat patrol along the Yalu which could meet, turn back, and destroy the fastest Communist interceptors. Altogether, the 4th Wing had flown 234 sorties in counterair operations, during which 76 Sabres had engaged MIG's and had destroyed eight, probably destroyed two, and



Ejection of MIG pilot.

damaged seven others of the enemy's jet interceptors. In the period the 4th Wing had found its optimum tactics, which would be employed with slight variation during the remainder of the Korean war. The "jet stream," whereby Sabre flights arrived in patrol areas at five-minute intervals, provided a minimum of four separate high-speed forces within easy supporting distance in time and space. The first Sabre flight to spot MIG's called out their location, altitude, and heading, and when a fight developed all Sabre flights converged to the point of contact. The optimum flight composition was the "fluid-four," four Sabres spaced generally in finger-tip formation. The two element leaders carried the firepower, while the wingmen covered the rear—a significant thrust along the Yalu where the enemy could almost always get the first "bounce." Maintenance of a high cruising speed not only allowed the Sabres to give an immediate counter-attack to a MIG's "bounce," but it often forced the enemy to fly a cutoff if he intended to attack. These tactics ably exploited the outstanding characteristics of the Sabres.[49]

After the first fortnight of combat, however, Colonel Meyer reported that his pilots unanimously agreed that they had never before fought under such difficult circumstances. Deriving advantage from their propinquity to their home base at Antung, the MIG pilots could select the time and position for their attacks. Nearly all combat occurred at near-supersonic speeds, and the combination of high speeds and of G-forces permitted next-to-no deflection shooting. The way to kill was to get on an enemy's tail and shoot up his tailpipe, but few pilots ever got more than a single such opportunity in an engagement. After their first few engagements with the MIG's. the 4th Wing pilots could make some tentative comparisons of the relative performance of the two swept-wing jets. In speed, the F-86A and the basic model MIG-15 were fairly evenly matched. At higher altitudes the MIG had better climb and zoom characteristics, but in level flights at lower altitudes the F-86 seemed to enjoy a slight advantage. Other flight characteristics of the Sabre appeared to be slightly better than those of the MIG, but not enough

better to make any appreciable difference. For air-to-air combat the armament of the F-86 was superior to the mixed-caliber, low-cyclic rate of fire armament (two 23-millimeter and one 37-millimeter forward-firing automatic weapons) carried by the MIG's. But the Sabre pilots were not entirely satisfied with their combat scores: they had let too many damaged MIG's get away. In order to take advantage of the short periods in which they could fire at a MIG, they wanted heavier-caliber, equally fast-firing guns to replace their .50-caliber weapons. The Mark-18 gunsight carried by the Sabres, moreover, was much too stiff and erratic for accurate deflection shooting in encounters at indicated air speeds of more than 500 knots. Perhaps a radar-ranging gunsight would allow the Sabre pilots to take advantage of their few opportunities to bring their guns to bear on the elusive MIG's.[50] Although the problems were many, the Sabres had nevertheless restored United Nations air superiority over northwestern Korea.

3. Aerial Support for the Ground Retreat

As the Eighth Army broke away from combat north of the Chongchon River late in November, the Fifth Air Force sought to blunt the force of the Chinese attack and to clear out the roadblocks which hostile infiltrators put up behind friendly front-line positions. To the embattled ground troops the immediateness and finesse of the supporting fighters and light bombers often spelled the difference between destruction and survival. At 0130 hours on 28 November, for example, the 25th Infantry Division was so hard pressed by Chinese assault that General Kean asked for B-26 support, an unusual requirement since up to that time direct support of the friendly battleline during a night engagement had not often been attempted and then only when the forward positions were clearly identifiable by some terrain features. The light bombers arrived within thirty minutes and poured round after round of machine-gun fire into targets within fifty yards of friendly positions identified to the bombers by white phosphorous smoke shells fired by infantry mortars. "The surprise and extreme accuracy of the fire had a marked effect on the Chinese," read a ground narrative describing the episode, "for it came right at the crisis of the fight, when it seemed doubtful...that any part of the company could survive."[51]

Although it was far from niggardly in allocating air support to the other Eighth Army divisions, the Joint Operations Center gave priority to air-support requests received from the U.S. 2d Infantry Division, whose holding action was permitting other units to withdraw southward. In one day the 38th Regiment received 72 supporting air sorties. One of these support strikes sealed a mine shaft which sheltered enemy troops, and the 38th Regiment estimated that this strike probably killed 600 Chinese soldiers. Another air strike caught 50 Chinese soldiers crossing an open field and burned them to a crisp with napalm. But the most valiant air support for the 2d Division was yet to come. For nearly a week the division slowly withdrew toward Kunu-ri, stubbornly bearing the brunt of the Chinese offensive. By 2 December the division's rear guard was done, and it hurriedly loaded for what was supposed to be a speedy motor march southward to Sunchon. Unknown to General Keiser, who still commanded the veteran organization, a Chinese Communist division had established a massive five-mile-long roadblock on the road to Sunchon. The enemy's strongest positions paralleled the Kunu-ri to Sunchon road at its highest point, where the road ran through "The Pass"—a quarter-mile-long defile surmounted on either side by embankments of dirt and loose rock. As the 2d Division's motor columns got within the ambuscade they met a withering fire from many machine-gun emplacements. Under the circumstances, the motor columns had no choice but to try to run the gauntlet, and each man fought back according to his own fashion. For his own part, General Keiser sent off an urgent call to the Fifth Air Force for air support, which, as recorded by the division, "was given without stint until darkness closed on the scene." According to ground witnesses' reports, relays of fighter-bombers bored into "The Pass" so low that it seemed that some of them must certainly crash. Napalm spilled down

off the cliffs onto the road; rock fragments chipped off by .50-caliber bullets flew about everywhere; several friendly personnel sustained concussions from rocket blasts; but no friendly troops were known to have been killed by the air strikes. The air support was not only close, but it was effective. Ground observers said that the strikes knocked out many more enemy positions than did any defense mustered by the troop columns. General Keiser later expressed his highest praise for the effective air support and stated that his division might never have weathered the Chinese fire without the air support.[52]

After the evacuation of the 2d Division on 2 December, the Eighth Army was largely out of contact with the Chinese for several weeks. Initially, General Walker had hoped to hold defensive positions along the transpeninsula road crossing Korea between Pyongyang and Wonsan, but the Chinese armies were marching too fast for the Eighth Army to form its defenses. The city of Pyongyang was therefore abandoned on 5 December, and by mid-December the Eighth Army was massing in a group of positions extending from the Kumpo peninsula on the west to Choksong near the Imjin River north of Seoul, thence east across Korea to the Sea of Japan. Along this line General Walker meant to fight a delaying action in defense of Seoul, but his limited troop strength was too inadequate to permit him to hope to hold against a Chinese assault down through the mountains of central Korea.[53]

As the Eighth Army was completing its evacuation, the U.S. X Corps was beginning to feel the full force of enemy assault in eastern Korea. Recognizing that the overextended troop columns in the mountains of eastern Korea faced hazardous prospects for survival, General Partridge was determined to provide them all assistance that the air could give. On 1 December he ordered the 1st Marine Air Wing to assume direct responsibility for supporting the X Corps, without making any accounting for its actions to the Joint Operations Center. If the X Corps needed more support than the Marine airmen could provide, the Marine Air Wing was directed to refer these requests to the Fifth Air Force for performance.[54] Under one such circumstance General Partridge ordered the Yonpo-based 35th Fighter-Interceptor Group to aid X Corps on 28 November. Informed that bad weather on 1 December promised to keep Marine and Navy aircraft out of action, Partridge extended Fifth Air Force support to the ground troops in eastern Korea. Finally, following a personal visit to Hungnam on 3 December, General Partridge placed his entire light bomber capability at the disposition of X Corps. From Tokyo General Stratemeyer signaled that the entire medium-bomber force was available to support the X Corps in any manner it desired.[55]

Although the entire Far East Air Forces stood ready to support the ground troops in eastern Korea, the 1st Marine Air Wing and Task Force 77 actually provided more than enough close air support for the X Corps. In the several days following the initial Chinese assault most of the X Corps withdrew to Hungnam without serious incident. But a part of the corps remained in trouble. In the snow-covered mountains in the vicinity of the Choshin reservoir six divisions of the Chinese Communist Third Field Army had begun to cut off the escape routes behind the 1st Marine Division's 5th and 7th Regiments and behind elements of the 7th Infantry Division's 31st

These embattled marines dig at a command post in preparation for setting up communications.

Regiment. Short of supplies, battling in subzero temperatures, the besieged troops found air-supply support not less vital than the firepower of United Nations tactical aviation. Operating from Wonsan, a C-47 detachment of the 21st Troop Carrier Squadron had been dropping supplies to the advanced columns of the X Corps all during November,[56] and on 28 November this detachment flew overtime to drop ten tons of ammunition to the 5th and 7th Marines at Yudam-ni and 16 tons to the 31st Infantry at Sinhung-ni. By noon on 29 November, however, General Almond had placed requests for the delivery of more than 400 tons of air supply to the cut-off regiments, and the 21st Squadron's detachment could not handle so large an assignment. In fact, the FEAF Combat Cargo Command's whole airdrop system was geared to handle only 70 tons a day, the key to the matter being the capability of the Army to package and load airborne supplies. Back at Ashiya the 2348th Quartermaster Airborne Air Supply and Packaging Company augmented its strength with Japanese employees and began round-the-clock packaging of supplies, including rations, ammunition, petroleum products, clothing, and weapons. To Yonpo Airfield General Tunner sent a C-119 detachment and a detachment of Quartermaster supply packers, and on 4 December General Stratemeyer instructed Tunner to use all of his C-46's, C-47's, and C-119's in support of the X Corps.[57]

During the two days which the FEAF Combat Cargo Command required to gear its dropping capability up to 250 tons per day, the limited-scale drops were continued at Yudam-ni and Sinhung-ni. On 1 December, however, the airdrop machine was in full sway, and on that day, having accumulated sufficient airborne support to make the move, the Marine and Army units began to fight their way back to a concentration point at Hagaru-ri, an insignificant village in the valley just south of the Choshin reservoir. The Marine regiments and surviving members of the 31st Infantry reached Hagaru-ri on 3 December. Meanwhile, in an effort to open an escape route, the 1st Marine Regiment had moved out from Hungnam, but when this regiment reached the village of Koto-ri, seven miles down the valley from Hagaru-ri, the Chinese cut it off to its front and rear. Now, Cargo Command had to drop supplies at both Hagaru-ri and Koto-ri. Although airdrops were providing the bulk of the food, ammunition, and supplies which the encircled ground troops required, other light transports soon added to the airlift support. Within the defensive perimeter at Hagaru-ri the Marines smoothed the surface of the icy ground and prepared a rocky airstrip, barely wide enough to accommodate a C-47. On 7 December another such strip was hewn out at Koto-ri. By 10 December 240 sorties, most of them flown by the 21st Troop Carrier Squadron, brought into the crude airfields 273.9 tons of supplies, and, even more important, flew out 4,689 sick and wounded troops. Planes of the 1st Marine Air Wing shared 56 sorties of the total, while the C-47's of the Royal Hellenic Air Force detachment, new to the theater and attached to the 21st Squadron, flew 30 sorties carrying cargo but no evacuees. The 801st Medical Air Evacuation Squadron provided medical care for the evacuation cases. Although fraught with dangers of the rocky strips and harassed by hostile fire, these evacuation sorties not only saved the lives of men who would have died in the frigid weather but boosted the morale and

combat effectiveness of the 1st Marine Division.[58]

On the morning of 5 December General Tunner flew into Hagaru-ri with the proposition that the FEAF Combat Cargo Command would evacuate all the encircled Marines by air. Of course the offer applied only to people, for the cargo planes could not be expected to take out the equipment. Maj. Gen. Oliver P. Smith, commanding the 1st Marine Division, instead asked Tunner to continue the airdrops and even to fly in able-bodied Marine replacements. The 1st Marine Division, Smith said, intended to fight its way to safety.[59] Two days later the Marines were able to break out of Hagaru-ri and meet the 1st Regiment pushing from Koto-ri, but even with this concentration success was still not yet in sight, for about four miles south of Koto-ri the Chinese had blown out an apron bridge directly above the facing of a 1,500-foot-deep gorge. Unless this bridge could be replaced, the Marines would have to abandon their vehicles, tanks, and artillery, and make it out on foot. General Smith now made a rather remarkable request that eight spans of an M-2 treadway bridge, complete with plywood planking, should be dropped to his forces. Actually, four spans would do the job, but General Smith wanted some margin for error. When packaged, each of the bridge spans weighed an even two tons, and no one was quite sure whether such heavy, bulky objects could be dropped. The C-119 detachment at Yonpo made one unsuccessful test drop, employing six G-1 parachutes attached to the single span. No more time could be given to experiments, so the eight spans were each loaded into a C-119, and, instead of the smaller chutes, two huge G-5 parachutes were hitched to the ends of each span. On the morning of 7 December the C-119's took off from Yonpo and flew to Koto-ri, where they let down among the mountains to 800 feet and spilled the spans into an unmarked drop zone. One of the spans fell into an area held by the Chinese and another was damaged, but the other six spans were serviceable.[60]

Late on the afternoon of 8 December a 3d Infantry Division task force from Hungnam broke into Koto-ri, and with a little more airdropped supply for the road and thanks to the only airdropped bridge in history, the 1st Marine Division was soon out of trouble. After thirteen days of isolation the Marines and remnants of the 31st Infantry escaped the enemy, the Marines coming out as units with the bulk of their heavy equipment, despite the most adverse terrain, weather, and combat conditions. This they were able to do because of airdropped supply, the sole source of supplies for a unit exceeding division strength for a period of nearly two weeks. Altogether, 313 C-119's and 37 C-47's had dropped 1,580.3 tons of supplies and equipment.[61] The breakage rates of the supplies were high, a major contributing cause being the hardness of the frozen ground upon which they landed. As was inevitable, some pilots had missed the proper drop zones, and the Chinese got some part of the supplies dropped. But the Marines considered that the airdrops had been successful. "Without the extra ammunition," said General Smith, "many more of the friendly troops would have been killed." "There can be no doubt," he continued, "that the supplies received by this method proved to be the margin necessary to sustain adequately the operations of the division during this period."[62] For the part they played in the successful evacuation of the ground troops from the Choshin reservoir, the

314th Troop Carrier Group, the 21st Troop Carrier Squadron, and the 801st Medical Air Evacuation Squadron were simultaneously awarded Distinguished Unit Citations, the first such awards to Air Force units in the Korean war.[63]

When the Marines were back in the Hungnam-Hamhung perimeter on 11 December, General Almond got seriously down to the task of planning the wholesale evacuation of the X Corps. Even though water lift could evacuate the corps in ten days' time, there was no assurance that the Chinese would allow this much time before launching massive attacks. General Almond therefore desired to use air evacuation to the maximum. Yonpo Airfield was available for transport traffic, but, to be safe in case the Chinese broke through the perimeter, an emergency airstrip was graded on the beach at Hungnam.[64] The maximum-effort air evacuation from Yonpo began on 14 December and ended at 0900 hours on 17 December, when the X Corps could no longer secure the airfield against Chinese infiltrators. During these four days Combat Cargo Command plied a twenty-four-hour day operation, in which planes took off at five-minute intervals. Using nearly all its strength, the command flew 393 sorties from Yonpo, lifting 228 patients, 3,891 passengers, and 2,088.6 tons of cargo.[65] While it was efficiently managed, the transport operation was not without its hectic moments. Aircrews got very little rest in what was usually bad-weather flying. More often than not the crews had to assist with the loading of their planes in order to speed their turnarounds. Fatigue and tension developed into illnesses, requiring the ultimate hospitalization of a number of pilots of the 1st Troop Carrier Group (Provisional).[66] On the ground at Yonpo maintenance crews worked desperately on four C-119's which were grounded for mechanical difficulties, planes that would have to be destroyed if they were not prepared for flight before the field was closed. A broken elevator was replaced on the first of these planes; another was flown back to Ashiya even though its fuel pump was out of order; two entire engine assemblies were pulled from a plane at Ashiya and flown to Yonpo in time to save the third; and only the fourth C-119, which encountered a scavenger-pump failure at the last moment, had to be destroyed.[67] On 17 November the 314th Troop Carrier Group could report with an understandable degree of pride: "As the air evacuation ended, every request for airlift had been fulfilled."[68]

Outloaded at Hungnam, Songjin, and Wonsan, the bulk of the troops and equipment of the X Corps was evacuated by surface vessel. As the perimeter shrank, naval gunfire and carrier aircraft laid down a continuous barrage to hold the enemy at bay, while Fifth Air Force B-26's supported the defensive effort at night. Finally, at 1436 hours on 24 December, the evacuation was completed. Through control of the air and of the sea, the United Nations Command was able to withdraw its forces from their exposed beachhead in northeast Korea.[69] As the last ground units left Hungnam, the first of the X Corps troops were already moving toward reserve positions behind the Eighth Army's battleline. A number of ROK troops were landed at Samchok and Ulsan, whence they moved to take positions in the mountains of South Korea. The American divisions of the X Corps landed at Masan and Pusan and moved northward to take up blocking positions behind the Korean divisions at the center of the Eighth Army.[70]

4. Air Attack Lacerates the Advancing Chinese

As soon as the Eighth Army and X Corps broke contact and retreated southward to form new defensive lines, the Far East Air Forces launched a determined air campaign designed to slow the forward progress of the Chinese Communist armies and to destroy their personnel, supplies, and equipment. For more than three weeks of December the United Nations air forces posed the only opposition to the enemy's forward progress, and in these weeks the Chinese met the full fury of an aroused air attack. The results scored by the air campaign were spectacular.

During the first week of December the Fifth Air Force did not neglect armed reconnaissance, for air strikes at the rear of the Chinese lightened the pressure on the Eighth Army. After the first several days of the month, however, the Eighth Army was out of trouble, and General Partridge was able to fill the air with armed reconnaissance and interdiction sorties. The full magnitude of the effort was indicated by the fact that FEAF aircraft flew 7,654 armed reconnaissance and interdiction sorties in December.[71] A few days after the Fifth Air Force launched intensive armed reconnaissance strikes General Weyland ordered the FEAF Bomber Command to devote its main efforts to the interdiction of enemy rail lines in North Korea. Effective on 15 December, FEAF formally instituted Interdiction Campaign No. 4, a well-conceived plan of operations which divided Korea north of the 37th parallel into eleven zones which followed the main transportation routes. The plan named for destruction 172 distinct targets—45 railway bridges, 12 highway bridges, 13 tunnels, 39 marshaling yards, and 63 supply centers—and FEAF promised to designate additional targets in accordance with the tactical situation. By mutual consent the Naval Forces Far East assumed responsibility for destroying targets in the three interdiction zones on the eastern coast of Korea—zones that ran north from Wonsan to the Siberian border.[72] Among its other purposes the interdiction plan was so conceived that if all rail bridges named were kept unserviceable the enemy would not be able to use any stretch of rail line longer than 30 miles in length.[73]

The Chinese military forces—which the Reds liked to call the "People's Liberation Army," but which Americans in Korea knew as the "Communist Chinese Forces"—were essentially an Asiatic guerrilla army whose peasant soldiers could make long daily marches on rations which were minuscule by western standards. In long years of fighting in China, the highly-disciplined coolie soldiers had grown used to marching and fighting at night and hiding by day. The Chinese logistical problem was essentially simple, especially during the initial hostilities in Korea. As he crossed the Yalu, the Chinese soldier was given a supply of ammunition and several days' supply of food—rice, millet, or soybeans—which he carried on his person. When they exhausted their food, the Chinese units were expected to forage from the countryside or capture food from the enemy. Many Chinese prisoners said that they liked to fight Americans because they could capture greater quantities of supplies from Americans. When a unit exhausted its ammunition, it was ordinarily replaced by another fresh unit, and the first unit

was pulled back to receive replacements and fresh bandoliers of ammunition. Inured to hardship, masters of stealth, highly disciplined, and frugal in their wants, the Chinese were difficult adversaries to the ground and air forces of the United Nations Command.[74]

Whatever they were, however, the Chinese were not supermen, and for more than two weeks at the beginning of December the Chinese forgot their guerrilla training and laid themselves wide open to air attack. According to General Peng Te-huai, commander of the Joint North Korean Army-Chinese Communist Forces in Korea, General Lin Piao's Fourth Field Army intended to come to grips with the Eighth Army north of the Chongchon River, if possible, but in all events north of the Taedong River, which flows past Pyongyang.[75] Failing to achieve victory north of the Chongchon, the Chinese threw their usual caution to the wind and marched as quickly as possible in pursuit of the Eighth Army. Such rapidity of pursuit was foreign to coolie troops, who were trained to exploit the stealthy approach, the surreptitious infiltration, and the ambush of enemy forces. As had been the case with the Red Koreans before them, moreover, the Chinese armies had never fought against an enemy who possessed a major air force, and, like the Red Koreans, the Chinese armies had to learn that they could not ignore the might of the Fifth Air Force.

Eager to score a victory which would end the Korean hostilities, the Chinese moved southward over main and secondary roads and very seldom used the mountain paths and trails which they had frequented in October and November.[76] Masses of Chinese jammed the roads in bold daylight movements. Even under air attack, the Chinese columns continued to march forward, apparently ignoring the casualties inflicted upon them by attacking planes. At night vehicle columns often refused to extinguish their lights, even when they were being strafed and bombed. Such stoic determination on the part of the enemy greatly disturbed American pilots, but Fifth Air Force fighter and light bomber missions nevertheless inflicted heavy casualties upon the Chinese.[77] When the Reds were crossing the Chongchon at Sinanju and Kunu-ri, 49th Group flight commanders returned from missions with claims of hundreds of troops destroyed.[78] Virtually every armed reconnaissance mission claimed the destruction of Chinese personnel and equipment, and it was obvious that the Far East Air Forces pilots were wreaking heavy casualties on the enemy. On the basis of accumulative combat claims, General Stratemeyer estimated that as of 16 December his airmen had killed or wounded 33,000 troops—the equivalent of four full-strength Chinese Communist divisions.[79]

After sustaining two weeks of aerial punishment the Chinese Communists began to realize that they could not afford to travel by day. An assistant platoon leader of the CCF 112th Division, for example, told interrogators that his division traveled by day until air attacks destroyed most of its trucks, after which the division moved solely by night.[80] By middle December, moreover, the Chinese must have recognized that they could not bring the Eighth Army to bay north of Pyongyang. Quite suddenly at this time, as if acting in accordance with orders from above, the Chinese armies returned to their accustomed practices of concealment and camouflage. Troops moved mostly at night, or, if absolutely necessary, by day, under rigid camou-

flage discipline. Each day at dawn the Chinese concealed their mobile equipment in ravines, under bridges, and in other carefully hidden positions along the main supply routes. Such targets were exceedingly difficult to locate and harder to destroy. Under such circumstances armed reconnaissance missions achieved slighter results, but they were still worth while. In the latter half of December FEAF crews estimated that they killed another 6,694 enemy troops, a slightly less number than the strength of another Chinese division.[81]

As the FEAF Bomber Command instituted Interdiction Campaign No. 4, the Superfortress crews soon perceived that the tasks required of them would not be so easy as similar undertakings had previously been. Because of the dangers from hostile fighters, the medium bombers which attacked targets in northwestern Korea were no longer able to make leisurely, single-bomber attacks against bridges. Instead, the bombers had to attack targets in enough strength to provide mutual support, or else they had to have fighter escort. Nor was the FEAF Bomber Command able solely to concern itself with the interdiction campaign. When tactical aircrews noted significant enemy troop concentrations, the Fifth Air Force requested diversion of medium bombers to such area targets. Thus the towns of Tokchon, Anju, and Pukchang-ni were bombed by B-29's on 4 December, and Sunchon, Songchon, and Sukchon were attacked on 5 December. On 10 December the B-29's postholed the two airfields at Pyongyang with high-explosive bombs, and four days later the 19th Group bombed Pyongyang's marshaling yards and nearby storage areas in order to destroy American equipment abandoned there. But the B-29's did not entirely neglect interdiction, for they made numerous attacks against marshaling yards and supply areas along North Korea's railroads. On 21 and 22 December Bomber Command employed its entire force in four-plane formation attacks against North Korean bridges.[82] On 23 December, however, General MacArthur asked that approximately two-thirds of the B-29 effort be normally expended against towns and villages suspected to be sheltering hostile troops. General Weyland promptly directed the change, with the result that only one-third of the FEAF Bomber Command's effort could be used for interdiction.[83] As the result of diversions of medium-bomber effort to other target systems, FEAF made little progress in implementing Interdiction Campaign No. 4 during December 1950.

During the weeks of December in which the United Nations ground forces were largely out of contact with the enemy, FEAF airmen were estimated to have killed or wounded enemy personnel equivalent in number to the aggregrate strength of five Chinese divisions. Evidence indicated that the Chinese Communist troops, who initially ignored air attack, had begun to respect airpower. On 28 December, for example, four 67th Fighter-Bomber Squadron Mustangs bombed and strafed enemy positions 80 yards beyond friendly lines near the Hwachon reservoir, and when the strike was over more than a hundred Chinese soldiers surrendered. These men explained that they had suffered enough from air attack.[84] Other air attacks, which destroyed potential or actual billeting areas, contributed indirectly to Chinese casualties sustained as a result of frigid weather. Apparently the Chinese feared air attacks against towns and villages and, as a result, suffered intensely from

Korean civilians board an LST during the Hungnam evacuation, 19 December 1950.

want of shelter. A Far East Command intelligence source reported that large bodies of enemy casualties moved northward during the last week of December. Fully half of these men had frozen hands and feet, and they seemed "to have been cut off from their command headquarters, and apparently had no regular supply lines, largely as the result of United Nations air action."[85]

5. The Fifth Air Force Reorganizes and Retreats

Early in July 1950, when he wanted to take an Air Force headquarters and tactical air wings to Korea, General Partridge had been unable to cut himself free from continuing responsibilities in Japan. For want of an ability to do anything else, General Partridge had accordingly divided the Fifth Air Force's headquarters. Fifth Air Force in Korea managed the tactical air war, while Fifth Air Force (Rear) remained behind in the old buildings at Nagoya and took charge of Japan's air defense, airfield construction programs, and other kindred duties in Japan. When time came to move tactical air units to Korean airfields, General Partridge made another improvisation. The wing structures were so inextricably involved in the Japan air-defense organi-

zation that they could not be displaced for movement to Korea. Instead, General Partridge organized provisional tactical air-support wings to accompany and support the combat groups in Korea.

Neither of these administrative improvisations worked to complete satisfaction. Although his vice-commander at Nagoya helped him, General Partridge was nonetheless directly responsible for air activites in Japan. By November 1950, moreover, the commanders of 11 combat wings, a reconnaissance group, a tactical control group, and numerous smaller separate units reported directly to General Partridge. He also controlled the activities of 25 air bases. The divided headquarters structure worked after a fashion, but it was productive of no little confusion, poor administration, and loss of efficiency. The staff officers in Korea and at Nagoya were never quite sure what their counterparts might be doing at the other headquarters. Similarly, the provisional wings in Korea were fighting a war without any of the advantages of regular status, including such matters as authorizations for personnel and equipment and for promotions.[86]

Seeking to reduce General Partridge's excessively large span of control to more manageable proportions, General Stratemeyer, on 18 November, asked authority to organize an air-division headquarters at Nagoya, with the understanding that the air division would be a subordinate command to the Fifth Air Force. When approval from USAF arrived, General Partridge activated the 314th Air Division at Nagoya, effective 1 December 1950. Under the command of Brig. Gen. Delmar T. Spivey, the 314th Air Division assumed three principal duties: the air defense of Japan, logistical support as necessary for tactical air efforts in Korea and regularly for assigned or attached units in Japan, and the Japanese airfield construction programs.[87] Simultaneously, Headquarters and Headquarters Squadron, Fifth Air Force, was transferred without equipment or personnel to Seoul, where it absorbed the personnel and equipment of the discontinued Headquarters and Headquarters Squadron, Fifth Air Force in Korea.[88] Since the Fifth Air Force staff engineer officer would now be able to give his full attention to Korea, the I Construction Command (Provisional) was discontinued on 1 December.[89] To complete the reorganization, the Fifth Air Force ordered a series of paper transactions designed to give the supporting wings in Korea regular Air Force status. Effective on 1 December, the 18th Fighter-Bomber Wing replaced the 6002d Tactical Support Wing, the 8th Fighter-Bomber Wing replaced the 6131st Tactical Support Wing, the 49th Fighter-Bomber Wing replaced the 6149th Tactical Support Wing, the 35th Fighter-Interceptor Wing replaced the 6150th Tactical Support Wing, and the 3d Bombardment Wing (Light) replaced the 6133d Tactical Support Wing. New table-of-distribution air-base wings were organized to operate Itazuke, Johnson, Yokota, Misawa, and Clark Air Bases.[90]

Actually, the Fifth Air Force reorganization was in the mill and would have taken place even if the Chinese Communists had not intervened in Korea, but, coming as it did on 1 December, it had the added salutary effect of serving notice to all concerned that the Korean war was no longer thought to be a temporary matter, to be met by improvised organization. While the wings and supporting squadrons assumed their new designations according to plan, the

reorganization, for the moment at least, received far less attention than did the Fifth Air Force's crash plans to redeploy its units to airfields beyond the reach of the advancing Chinese Communist Forces.

In the closing days of November the three Mustang wings and the aircraft control and warning squadron which the Fifth Air Force had so laboriously moved into North Korea earlier in the month stood in grave danger of being captured by the Chinese Communists. In the week that it had operated at a site near Sinanju Airfield, the 606th Aircraft Control Squadron had in a manner paid for itself, since the squadron's radars had not only provided early warning of Communist air activities but had positioned night-flying B-26's for the support of friendly ground troops during hours of darkness. Like other members of the 502d Tactical Control Group, the 606th Squadron had been deployed to Korea without organizational vehicles, and only after much scrounging and borrowing of vehicles the squadron had managed its move to Sinanju with great difficulty. Without advance notice, toward the middle of the afternoon of 29 November, the commander of the 606th Squadron received orders to evacuate southward within three hours. In view of the time permitted, the squadron commander knew no choice but to destroy his radars and camp equipment and to save his personnel. As Colonel Gilbert Meyers, Fifth Air Force deputy for operations, expressed it: "A million and a half dollars' worth of equipment...was lost for the lack of a few trucks."[91]

As the Chinese Communists poured down upon Pyongyang, the 8th and 18th Fighter-Bomber Wings and the 822d Engineer Aviation Battalion, which had come northward a few days before to work at Pyongyang's airfields, were to be permitted five days for their withdrawal. Utilizing air transport, the combat echelons of the 8th and 18th Wings managed hurried but orderly movements to Seoul Airfield and to Suwon Airfield in the four days following 30 November. The Mustangs, in fact, never missed a single day's operations.[92] Moving the heavier items of Air Force and engineer equipment on such short notice was a virtually impossible task. Some of this equipment was evacuated from Chinnampo aboard two LST's. Other equipment was loaded aboard trucks and sent southward by road, where a not-inconsiderable amount of it was lost on the way. From Pyongyang southward to Seoul the mountain roads were jammed by solid columns of Army and Air Force vehicles. If a vehicle stalled, it was pushed to the side of the road and set afire. "They just can't afford to hold up a whole column of vehicles that are solid, bumper to bumper, to save one piece," explained Colonel Meyers.[93] The 822d Engineer Aviation Battalion secured flatcars and got most of its equipment loaded, but before its trains could move the explosion of an ammunition car in Pyongyang's main rail yards abruptly terminated all further rail lift. Approximately 185 carloads of engineer equipment and supplies—some 75 percent of the battalion's property—had to be abandoned for destruction.[94] Although the evacuation from Pyongyang was costly to the Fifth Air Force in terms of supplies and equipment, nearly all of its personnel came out unscathed. "We had plenty of sweat and tears," reported the 822d Battalion's historian, "but no blood."[95]

Over on the eastern coast of Korea, in the X Corps area of operations, Air Force and Marine air units had ade-

Superforts on their way to attack the important supply and communications center of Anju, 4 December 1950.

quate time to evacuate and sustained few losses of any kind. On 3 November the 35th Fighter-Interceptor Wing received orders to move from Yonpo to Pusan East Airfield. As usual, the combat echelon of the wing moved by air, and within a few days the wing's Mustangs were reported to be operating from Pusan "as smoothly as ever." The bulk of the 35th Wing's troops and property was uneventfully transported southward aboard LST's.[96] The 6151st Air Base Unit, which provided services for 1st Marine Air Wing squadrons at Yonpo Airfield, evacuated the forward area on 17 December and went to Pohang Airfield (K-3), where most of the Marine air units were locating. Marine Air Squadron VMF-311, the first Marine jet squadron to fly in combat, flew interdiction missions from Yonpo for four days beginning on 10 December and then joined the 35th Fighter-Interceptor Wing at Pusan East Airfield. Here, the Marine F9F squadron drew logistical support from the 35th Wing but remained under the operational control of the 1st Marine Air Wing.[97] Most of the Marine Corsair squadrons shifted aboard escort carriers and continued to render close support to the X Corps. Later in the month a part of the Corsair squadrons went to Pohang Airfield and the remainder went back to Itami Air Base in Japan. To get the entire Marine Air Wing into operations, General Harris needed to use Pusan Airfield (K-1), but, as he explained to General Partridge, he had no construction troops or contracting authority and he estimated that it would take at least six months to obtain a Navy construction battalion from the United States. Although the Fifth Air Force could have well used its engineers elsewhere, General Partridge felt that he had a "moral obligation" to provide the Marines with air facilities, and, as a result, he sent the 811th and 822d Engineer Aviation Battalions to perform the necessary construction work at Pusan Airfield.[98]

At Seoul on 6 December, with General Timberlake presiding, a Fifth Air Force staff conference began to discuss future air-force deployments in Korea. The meeting arrived at no firm conclusions, for General Timberlake reported that the Eighth Army had not

yet decided whether it would plan to hold a beachhead in the Seoul area or in the Taegu-Pusan area. If the beachhead was going to be at Seoul, the air units at Taegu, Pohang, and Pusan would have to be evacuated. Conversely, if the Eighth Army held Taegu and Pusan, everything at Seoul and Kimpo would have to move elsewhere.[99] Within the next two days, however, the Eighth Army announced that it intended to hold Seoul as long as possible before retreating southward toward the lines of the old Pusan perimeter. With this information, the Fifth Air Force began to prepare for the loss of the airfields at Seoul, Kimpo, and Suwon. Already slated to convert to F-80C fighter-bombers, the 8th Wing gave its flyable Mustangs to the wings which could still use them, and on 10 December began to move from Seoul Airfield to Itazuke Air Base. Shortly afterward the 8th Wing was rejoined by its 80th Squadron (which had never given up its F-80's and had been attached to the 51st Wing), and before the end of December the 8th Wing was again operational with Shooting Star fighter-bombers.[100] Also on 10 December the 51st Fighter-Interceptor Wing began to organize a combat echelon similar to that of the 4th Fighter-Interceptor Wing which would remain behind at Kimpo. Having done this, the 51st Wing used air and water transportation to move its main strength back to Itazuke Air Base.[101] At mid-December the 18th Fighter-Bomber Wing, leaving a servicing detachment behind at Suwon to serve Mustangs staging forward, began a leisurely motor, rail, and air movement back to the southern coast of Korea, where it established itself at an old Japanese-built airfield at Chinhae (K-10).[102] As long as the Eighth Army headquarters remained in Seoul General Partridge kept the Fifth Air Force command post there, but on 20 December both organizations, together with the Joint Operations Center, departed Seoul and went to Taegu City, where they occupied the same buildings which they had tenanted during the previous summer.[103] By the end of December the Fifth Air Force was prepared to abandon the Seoul area on very short notice.

Except for the "airlift in reverse" made available to General Partridge by the FEAF Combat Cargo Command during December, the Fifth Air Force would doubtless have sustained grave losses of irreplaceable personnel and equipment. Despite the fact that the Command's C-46, C-47, and C-119 aircraft were heavily engaged in support of the X Corps on Korea's east coast during the month, General Tunner continued to give the Fifth Air Force 35 percent of his airlift capability. For the Fifth Air Force, Cargo Command lifted 5,069.3 tons of cargo in the first half of December and 2,885 tons of cargo in the latter half of the month. Since the C-54's filled most Fifth Air Force requests for transportation while other planes were busy in eastern Korea, the 374th Wing strained every sinew to perform the lift, especially until mid-December, when two squadrons of the 61st Troop Carrier Group arrived at Ashiya from the United States to join Combat Cargo Command.[104]

In the midst of the grim war for survival General Tunner was able to find some time for humanitarian purposes. During the autumn Fifth Air Force Chaplain (Col.) Wallace I. Wolverton and Chaplain (Lt. Col.) Russell L. Blaisdell had struggled to relieve the suffering of Korean children made homeless by the war. In Seoul Chaplain Blaisdell secured shelter for

Korean laborers load rations as U.N. troops prepare to evacuate Kimpo airfield.

many children in improvised orphanages, but fearing that the children would die when the Reds took the city, the orphanage directors took their wards to Inchon where they waited fruitlessly for a ship. Knowing of the plight of the children, Chaplain Blaisdell appealed for airlift. On 20 December General Tunner dispatched 12 61st Group C-54's to Kimpo, where, in a driving snowstorm, as many as 128 of the tiny children were loaded aboard some of the planes, and a total of 989 of the orphans was lifted to safety at Cheju-do Island, off Korea's southern coast. The incident in the airlift—called "Operation Christmas Kidlift" by those who participated—was a heart-warming episode in an otherwise cheerless month.[105]

Christmas on Cheju-do Island.

6. *Final Thoughts on Defending Korea*

"I must say, in all frankness," recollected Lt. Gen. Matthew B. Ridgway, who came to Korea from Washington on 26 December to replace General Walker, killed two days earlier in a vehicle accident, "that the spirit of the Eighth Army...gave me great concern." As he surveyed his ground troops, Ridgway noted "a definite air of nervousness, of gloomy foreboding, of uncertainty, a spirit of apprehension as to what the future held."[106] Before his untimely death General Walker had drawn up the Eighth Army's plans to accomplish the mission assigned by General MacArthur: to defend South Korea as long as possible, withdrawing in successive steps to escape destruction.[107] Originally, General Walker had drawn four defensive lines: "Able," north of Pyongyang; "Baker," along the Imjin River and 38th parallel; "Charlie," around Seoul in a crescent-shaped bridgehead and thence through Hongchon to the east coast; and "Dog," traversing Korea through Pyongtaek, Wonju, and Samchok.[108]

Early in December the Reds had breached the "Able" line before the Eighth Army could take positions on it, and at his death General Walker had been inspecting the emplacements his forces were establishing on the 135-mile-long "Baker" line. Above Seoul, south of the Imjin River, the American I Corps held the left sector of the battleline, while to the right the American IX Corps held the center of the Eighth Army's defenses. From there on through the mountains of central Korea were deployed the combat-depleted ROK II Corps, the new and untried ROK III Corps, and the battle-seasoned ROK I Corps. Altogether, United Nations ground forces in Korea numbered some 350,000 men, but the whole force was not immediately available for combat. On 26 December only three of seven American divisions were in the combat area. The 24th and 25th Infantry Divisions were north of Seoul, while the 1st Cavalry Division was in position to block at the rear of the two infantry divisions. Having suffered severely in the retreat from North Korea, the 2d Infantry Division was reorganizing and refitting. The American X Corps, which officially joined the Eighth Army on 26 December, was still out of combat. The 1st Marine Division had just closed at the port of Masan in southeastern Korea, and the 3d and 7th Infantry Divisions were moving south by sea to Pusan.[109]

Troop morale in the Fifth Air Force had sagged so appreciably at the time of the Chinese Communist attack that the Air Surgeon undertook to secure psychiatric assistance, which would enable him to identify and treat morale cases before they became acute.[110] But December's all-out air operations had kept most airmen so busy that they had little time to worry. Early in December, however, the Fifth Air Force saw so little cause for optimism that it began making plans for the evacuation of all its units from Korea. At this time all air garrisons in the Seoul-Kimpo-Suwon triangle were reduced to the minimum, and, acting on the estimate of Colonel Boyd Hubbard, the Air Intelligence Officer, that the Reds could reach Taegu within a week if they broke through at Seoul,[111] the Fifth Air Force made schedules to deploy its wings even from the southernmost Korean airfields. The Fifth Air Force headquarters planned to move from Taegu to Pusan (where interim facilities were

An H-5 helicopter of the 3d Air Rescue Squadron answers a call for aerial evacuation.

established for the Joint Operations Center) and thence to Itazuke Air Base in Japan. On 5 January General Partridge approved this general plan for redeploying the entire Fifth Air Force to Japan.[112]

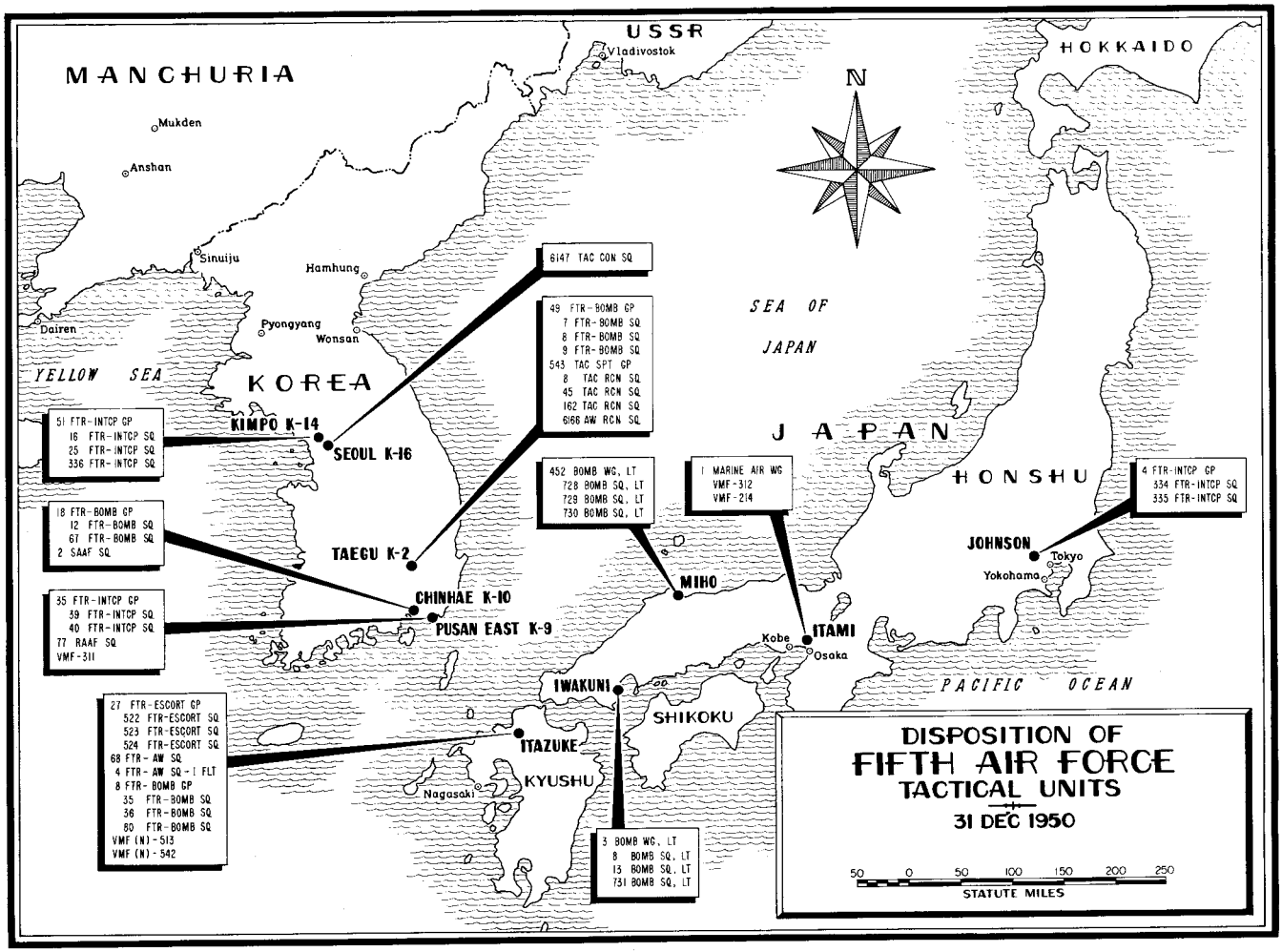
During December 1950, the United Nations commanders held little hope for a defeat of the Chinese Communists. No small cause for this defeatist attitude was the prevailing estimate that mammoth numbers of Red Chinese troops were in Korea. According to press reports, General MacArthur announced that more than a million Chinese Communists were in action against United Nations forces in Korea.[113] Moreover, after early December, when the Eighth Army broke contact and retreated southward, Far East Command intelligence officers were unable to plot the whereabouts of the Communist armies. As he arrived at his new command post, General Ridgway was shown a "big red goose egg" on the Eighth Army's situation map which represented all that was known about the size and location of the Red armies. At this same time Ridgway noticed that the Eighth Army had all but ceased sending out patrols to discover the location of enemy troops.[114] Over in Tokyo, on 20 December, General Stratemeyer had expressed concern that no one knew the exact location of the Chinese armies, and he personally ordered General Partridge to use his entire reconnaissance force "to find out where these Communists are." In ten days of unspared effort Fifth Air Force reconnaissance squadrons each day photographed the 40-mile-deep zone beyond the Eighth Army's lines. At Taegu photographic interpreters

examined the mountain-high stack of 27,643 photographs which the reconnaissance squadrons turned in, but the all-out reconnaissance effort achieved few results. Troops of the Fourth Field Army were masters of camouflage, and the Fifth Air Force's photo interpreters, who worked in solitary isolation at Taegu without any other intelligence sources which would give them an inkling of where to look for enemy activities,* were unable to establish the locations of the Chinese Communist armies.[115]

Toward the end of December Communist activities and increased Eighth Army patroling enabled Far East Command intelligence officers to get a fairly accurate estimate of Red strength and intentions. The Chinese Fourth Field Army, comprising the 38th, 39th, 40th, 42d, 50th, and 66th Armies (Corps), and numbering approximately 177,018 troops, opposed the Eighth Army. The Chinese, however, were not the sole adversary, for the North Korean army had been remarkably rejuvenated. The Red Koreans had assembled survivors from the battles in South Korea and recruits from training centers along the Yalu into understrength rifle divisions which would fight as corps. The North Korean I Corps, with about 14,139 men, lay at the extreme left of the Chinese Fourth Field Army, while the North Korean II and V Corps, with an aggregate strength of about 24,305 men, opposed ROK troops in central Korea.[116] Probing attacks launched by the North Korean II Corps on 27 December gave away the Communist ground battle plan. The North Koreans would aim a sharp thrust southwestward from central Korea designed to trap the Eighth Army in the Seoul area. With the Eighth Army so contained, the Chinese Fourth Field Army would launch a crushing attack toward Seoul.[117] This much of the order of battle and estimate of Communist intentions was realistic, but Far East Command intelligence nevertheless knew a great fear that the Communists would not depend upon the North Koreans for the flanking thrust but would bring the Chinese Third Field Army's 20th, 26th, and 27th Armies (Corps) southward from Hungnam. According to estimates, the Third Field Army numbered 101,561 men, and Far East Command intelligence computed that the bulk of the Hungnam forces could reach central Korean assembly areas by 3 January 1951.[118]

If Chinese Communist air capabilities were added to those of the Red ground forces, the United Nations Command appeared to have a very doubtful prospect for survival. With a minimum of 650 combat aircraft in China and Manchuria, and an additional 400 to 500 Russian planes around Dairen, FEAF could only conclude that "the enemy obviously possesses the capability to mount a major and sustained air effort at any time." If they threw their aircraft into battle, the Reds could divert a substantial proportion of the United Nations air effort away from direct support of ground action, hinder the airlift into Korea, strike United Nations naval vessels and installations both in Korea and in southern Japan,

*A USAF evaluation board, after examining the circumstances and procedures of the reconnaissance project, was not surprised that it failed. "Photographic interpreters," stated the board, "must be kept briefed up to the minute on the status of areas within which they work. They should be used to confirm, deny, or enlarge upon existing intelligence concerning those areas. They cannot be expected to furnish complete intelligence of any area if they are required to discover anew the information which has already been gathered from other sources." *See* Barcus Bd. Rpt., Vol. I, Bk. 2, p. 190.


USSR
Vladivostok
MANCHURIA
Mukden
Anshan
Sinuiju
Hamhung
Dairen
Pyongyang
Wonsan
YELLOW SEA
KOREA
SEA OF JAPAN
HOKKAIDO
JAPAN
HONSHU
N
6147 TAC CON SQ
49 FTR-BOMB GP
7 FTR-BOMB SQ
8 FTR-BOMB SQ
9 FTR-BOMB SQ
543 TAC SPT GP
8 TAC RCN SQ
45 TAC RCN SQ
162 TAC RCN SQ
6166 AW RCN SQ
51 FTR-INTCP GP
16 FTR-INTCP SQ
25 FTR-INTCP SQ
336 FTR-INTCP SQ
KIMPO K-14
SEOUL K-16
452 BOMB WG, LT
728 BOMB SQ, LT
729 BOMB SQ, LT
730 BOMB SQ, LT
1 MARINE AIR WG
VMF-312
VMF-214
4 FTR-INTCP GP
334 FTR-INTCP SQ
335 FTR-INTCP SQ
JOHNSON
Tokyo
Yokohama
18 FTR-BOMB GP
12 FTR-BOMB SQ
67 FTR-BOMB SQ
2 SAAF SQ
TAEGU K-2
MIHO
35 FTR-INTCP GP
39 FTR-INTCP SQ
40 FTR-INTCP SQ
77 RAAF SQ
VMF-311
CHINHAE K-10
PUSAN EAST K-9
ITAMI
Kobe
Osaka
PACIFIC OCEAN
IWAKUNI
SHIKOKU
ITAZUKE
KYUSHU
Nagasaki
27 FTR-ESCORT GP
522 FTR-ESCORT SQ
523 FTR-ESCORT SQ
524 FTR-ESCORT SQ
68 FTR-AW SQ
4 FTR-AW SQ-1 FLT
8 FTR-BOMB GP
35 FTR-BOMB SQ
36 FTR-BOMB SQ
80 FTR-BOMB SQ
VMF(N)-513
VMF(N)-542
3 BOMB WG, LT
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13 BOMB SQ, LT
731 BOMB SQ, LT
DISPOSITION OF
FIFTH AIR FORCE
TACTICAL UNITS
31 DEC 1950
50 0 50 100 150 200 250
STATUTE MILES

and provide some support for Red ground troops.[119] This threat of a general Communist air attack was very real. General Stratemeyer feared that air attacks against Okinawa might destroy the two Superfortress groups based there.[120] General Ridgway asked General MacArthur to consider that, during a possible evacuation from Korea, the port of Pusan would be so jammed with men and materiel as to present a particularly inviting target for a Soviet or Chinese atomic bomb.[121]

The prospects facing the United Nations Command were bleak, but General Stratemeyer and Admiral Joy nevertheless resolved that their airmen would acquit themselves to the utmost. At the Meiji building on 27 December Rear Adm. A. K. Morehouse and General Weyland, together with other staffmen, discussed measures needed to improve Air Force and Navy cooperation. Admiral Morehouse agreed to assign permanent naval air liaison officers to the Joint Operations Center in Korea. Next day Admiral Joy notified FEAF that the carrier airmen of Task Force 77 would undertake to support the eastern end of the battleline as a normal effort. In emergencies the carrier pilots could be counted upon to provide close support in the Seoul area. If naval pilots could not secure close-support targets from Air Force controllers, they would go forward of the battleline and make prebriefed armed reconnaissance missions.[122] Except for an all-out Superfortress attack against Pyongyang, which was requested by Generals Ridgway and Partridge, General Weyland visualized that the FEAF Bomber Command would devote one-fourth to one-third of its capabilities to attacks against railway targets and the remainder to strikes upon towns near the front lines which contained concentrations of hostile troops and supplies.[123] Under these arrangements the Fifth Air Force's mission of air superiority, interdiction, and close support was unchanged. In recognition of the gravity of the situation, however, General Partridge dispatched a command message to his wing commanders on 31 December, telling them that the effort they put forth in the next few days might well determine the success or failure of the United Nations' cause in Korea.[124]

7. Lessons from the Communist "Third-Phase" Offensive

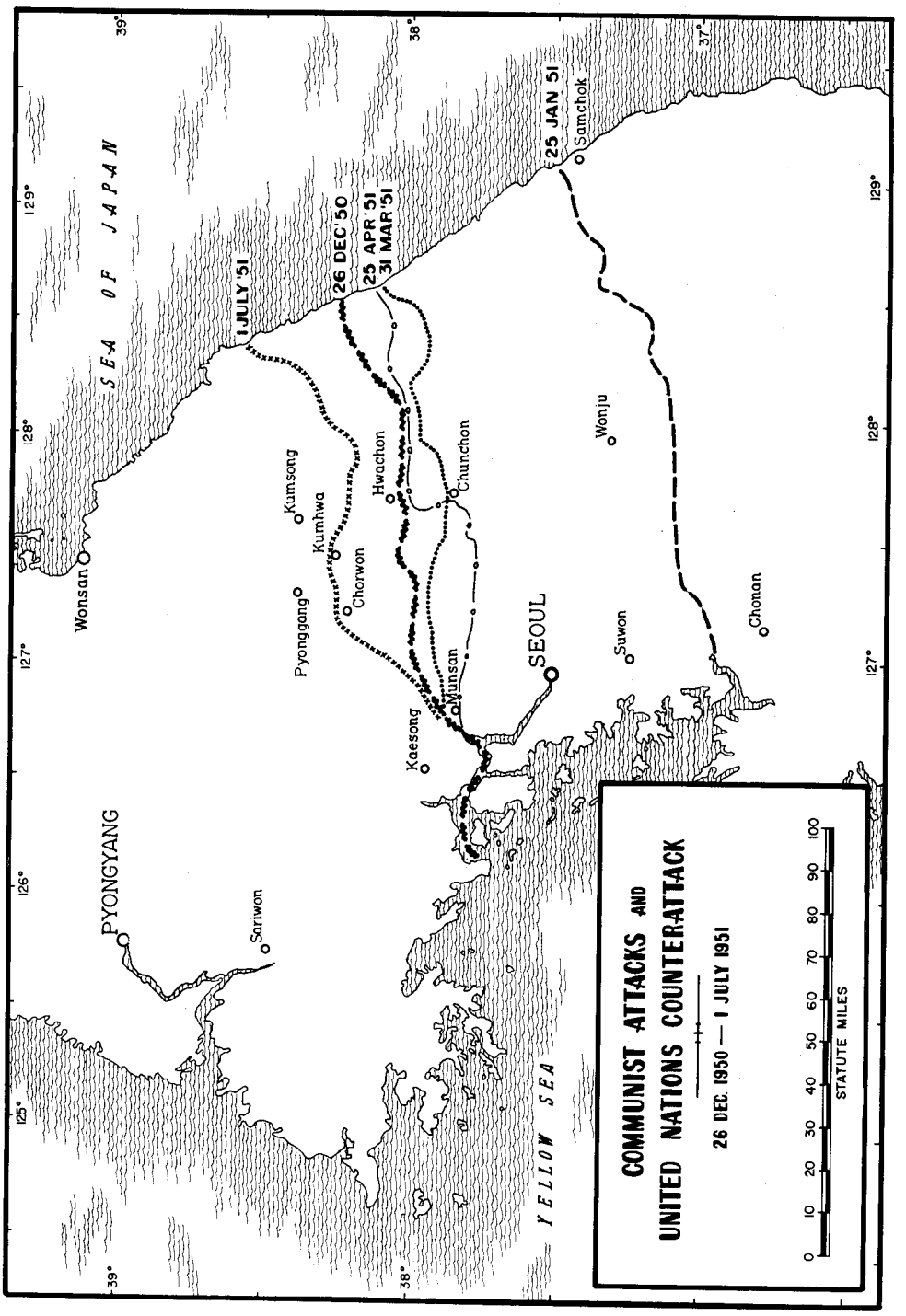
Up north of the 38th parallel, in the latter part of December, beetle-browed Communist General Lin Piao, commander of Red China's Fourth Field Army, doubtless surveyed the tactical situation and the combat potential of the forces he commanded. Unfortunately, Lin Piao never revealed his inmost thought to western reporters, but one would be safe to guess that the combat situation was not strictly to his liking. At an army conference in Manchuria in 1948 Lin Piao had asserted that the Chinese Communists had to forget guerrilla tactics and prepare to wage modern war. Yet in December 1950 the Communist armies were still essentially guerrilla forces of

peasant infantrymen. At best the Fourth Field Army was a polyglot organization. Many of its soldiers were "radishes"—former Nationalists who had switched to the Communist flag, men who were red outside but who might be white inside. The 50th Army was, in fact, the old Nationalist 60th Army and was still commanded by a general who had been highly praised by Americans in Burma.[125] According to an American officer who had known him in China, General Lin Piao had decided ideas as to how battles should be fought. Before giving battle Lin Piao liked to have "400 to 600 percent superiority." For a major campaign, he favored multiple short attacks along a front, to cut up the enemy. Such attacks prepared a hostile army for a final blow which should, in Lin Piao's estimation, travel in one giant wedge of main direction.[126]

General Lin Piao's style of battle had worked well in China, where Nationalist armies clung to cities, towns, and other fixed defenses and allowed themselves to be overwhelmed. But Korea was not China, and Lin Piao must have realized in December 1950 that he did not possess either the element of surprise or the overweening superiority of numbers which he needed for victory. Because of United Nations air-ground action and an additional toll of casualties caused by frigid weather, Third Field Army troops at Hamhung would require extensive reorganization and replenishment before they were again ready for battle. Moreover, according to prisoner-of-war testimony, General Lin Piao's own troops had suffered heavily from two months of aerial attack, and the Fourth Field Army's divisions had not received the replacements which they needed to make up for their losses.[127]

As Red China's foremost military tactician, General Lin Piao must have realized his limitations, but the situation was not entirely hopeless. General Liu Ya-lou, formerly Lin's chief of staff but now commander of the Chinese Communist Air Force, had promised to provide air support to the Fourth Field Army.[128] Fourth Field Army troops were short of supplies, but the Red commanders hoped to capture American supply dumps in the Seoul area. Although the Chinese Communist armies did not possess much mobility, the Eighth Army might be tempted to stand in place and fight for Seoul long enough to allow itself to be cut to pieces.[129] At any rate, Lin Piao committed his forces to a "Third-Phase" offensive. Over in central Korea, on 29 December, the North Korean II Corps commenced an envelopment along the Chunchon–Hongchon–Wonju axis on 29 December, and at the Imjin River, on the night of 31 December, the Fourth Field Army launched its troops into action. Following a night of incessant mortar fire, Chinese infantrymen poured southward in great strength against the Eighth Army at daybreak on 1 January 1951.[130]

On New Year's Eve, low-hanging clouds and snow showers along the front lines had hindered Fifth Air Force supporting strikes, and the Reds may well have hoped that this bad weather would continue to shroud their movements. If this were true, they had figured the weather wrong, for Monday, 1 January 1951, dawned crystal bright and bitter cold, heralding the first of five days of clear flying weather. For five consecutive record-breaking days the Fifth Air Force hurled its full fury against the mobs of Chinese troops found trekking southward toward Seoul along the highways from Kaesong and Yonchon. With all wings flying at or near their maximum effort, the Fifth


SEA OF JAPAN
YELLOW SEA
PYONGYANG
Sariwon
Wonsan
Pyonggang
Kumsong
Kumhwa
Chorwon
Hwachon
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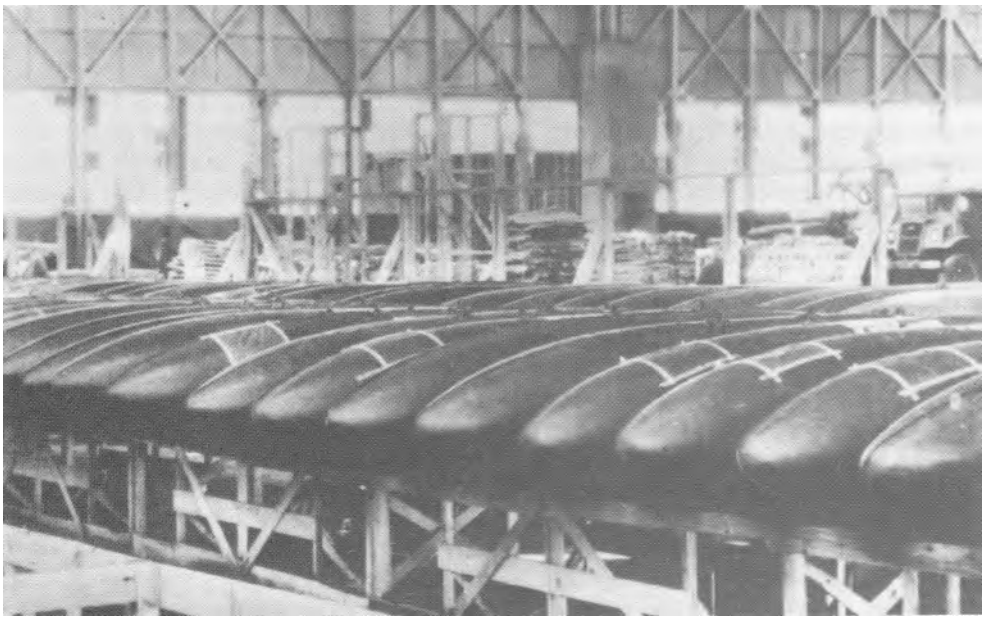
Munsan
SEOUL
Suwon
Wonju
Chonan
Samchok
1 JULY '51
26 DEC '50
25 APR '51
31 MAR '51
25 JAN 51
COMMUNIST ATTACKS AND
UNITED NATIONS COUNTERATTACK
26 DEC. 1950 — 1 JULY 1951
0 10 20 30 40 50 60 70 80 90 100
STATUTE MILES

Air Force scored with 564 sorties on 1 January, 531 on 2 January, 556 on 3 January, 498 on 4 January, and 447 on 5 January. On the first two days flights of fighter-bomber pilots reported to the Tactical Air Control Center at ten-minute intervals, and 60 percent of these missions successfully secured close-support targets. Thereafter the Eighth Army began to break contact and the majority of tactical air sorties flew armed-reconnaissance strikes north of the bombline. Virtually every fighter flight sighted and attacked aggregations of Chinese troops or buildings which sheltered them. By the close of the day on 5 January Fifth Air Force airmen estimated that they had killed nearly 8,000 Red soldiers and had destroyed or damaged some 6,400 enemy-occupied buildings. Each day the Eighth Army set the number of air-inflicted casualties at approximately double the figure claimed by the aircrews.[131]

In the initial stages of the Communist attack the FEAF Bomber Command found little opportunity to employ its planes along the front lines, but, instead, gave its maximum efforts to attacks against hostile supplies and personnel at Pyongyang. Sixty-three B-29's on 3 January and 60 B-29's on 5 January strewed incendiary bombs over the North Korean capital city. Snow-covered roofs checked the spread of the conflagration, and only 35 percent of the city's built-up area was destroyed, but the Red radio at Pyongyang bitterly reported that "the entire city burned like a furnace for two whole days."[132]

At the same time as the Fifth Air Force's fighter-bombers and the 452d Wing's light bombers lashed the Reds by day, the 3d Bombardment Wing—which liked to call itself "the other half of the Fifth Air Force"—stalked and attacked the enemy at night. Thus far in Korea the B-26 night-intruder crews had possessed no illuminants other than AN/M-26 paraflares, munitions from old stocks which, despite every conceivable corrective action, refused to work at least half of the time. At this juncture Colonel Reginald J. Clizbe, the 3d Wing's executive officer, came up with a new solution to the problem of night illumination. From the Navy Clizbe borrowed several Mark VIII flares, a type of pyrotechnic used by Navy flying-boat crews, who launched the lanyard-detonating flares through chutes in their planes. Following a successful test, Clizbe got permission to take a C-47 loaded with Mark VIII flares to Korea for combat tests on the night of 2 January. In five hours over the target area north of Seoul this "Lightning Bug" C-47 launched 129 Mark VIII flares, each of which detonated at about 5,500 feet and floated earthward, providing four to five minutes of near-daylight illumination. With such assistance the B-26 intruders were able to see virtually everything that was moving behind the enemy's lines, and they destroyed or damaged some 30 Red vehicles in the first night's work.[133] The flare illumination also proved beneficial to friendly ground troops. General Kean signaled that the flare missions were of "inestimable value" to the 25th Division. Prisoners captured by the division confessed that the flares (which were usually followed by air attacks) held their movements to about a fourth of a normal night's travel.[134] American soldiers, who soon observed that the Reds were reluctant to attack against illuminated front lines, affectionately called the C-47 used for the flare drops "The Old Lamplighter of the Korean Hills."[135]

Red China's Fourth Field Army was



Napalm tanks to be shipped to Korea from this factory in Japan.

suffering frightful losses from Fifth Air Force attacks and from Eighth Army ground fire, but it had enough strength to rout American ground forces defending Seoul. In coordination with ROK retirements in central Korea, the U.S. I and IX Corps first fell back to line "Charlie," the bridgehead defenses around Seoul. Almost at once the Reds began to cross the ice-covered Han River east and west of Seoul, and instead of inviting destruction General Ridgway ordered the Eighth Army southward to the "Dog" line. Starting on 3 January, when vehicle columns jammed the roads, the Eighth Army left the South Korean capital. On the day before the 4th Wing's Sabres flew from Kimpo back to Japan, where the wing reunited at Johnson Air Base. By noon on 4 January the 51st Wing's combat echelon loaded aboard transports and flew away to re-establish itself at Tsuiki Air Base on Kyushu. As the Air Force units departed, aviation engineers remained behind at Kimpo long enough to put the torch to remaining stocks of aviation gasoline, napalm, and to the airfield's buildings. Some miles southward Eighth Army troops maintained defense lines long enough to permit the removal of the great stocks of supplies stored at the Suwon airhead. On 5 January combat crews of the 18th Fighter-Bomber Wing took off for strikes from this advanced airfield, and at the conclusion of these missions they returned to the wing's main base at Chinhae. After this Suwon's buildings were burned. Having sheltered the Air Force retirement, the American I and IX Corps fell back to their prearranged defensive positions between Pyongtaek and Samchok.[136]

On the western front Chinese attacks tapered off to nothing as the U.S. I and IX Corps escaped from Seoul, but on the central front the ROK III Corps

and the U.S. X Corps, which assumed responsibility for the central sector on 2 January, found the North Koreans to be bitter adversaries. Inasmuch as the North Korean II and V Corps were heading toward Wonju, a key road-junction city nestled in a mountain basin of central Korea, General Almond ordered the U.S. 2d Infantry Division to cut short its rest and rush northward to defend this key link in the "Dog" line.[137] According to agreement, carrier airmen from the *Valley Forge, Philippine Sea,* and *Leyte* carried most of the air-support burden in central and eastern Korea, but the forces brought to defend Wonju soon had great need of assistance from the FEAF Combat Cargo Command. When Maj. Gen. Robert B. McClure reported that the 2d Division's snow-clogged and guerrilla-hazarded supply lines were virtually impassable, 21st Troop Carrier Squadron C-47's landed 115 tons of cargo at Wonju's icy airstrip and 314th Troop Carrier Group C-119's dropped 460 additional tons of supplies to the embattled ground troops. General McClure warmly commended both units for their assistance up to 6 January.[138]

On the afternoon of 6 January a storm front moving southward from Siberia began to work in favor of the Communists. Heavy snowstorms and low visibilities limited Fifth Air Force flying, and on the three days, 8 through 10 January, ice-covered flight decks forced Task Force 77 to cancel all flight operations.[139] Seizing the opportunity of a one-day break in the weather, Fifth Air Force Shooting Stars, Thunderjets, and Mustangs gave the X Corps 50 close-support sorties on 8 January, but the weather closed in again, and on 10 January most Fifth Air Force units were compelled to stand down completely from operations.[140] Several days before this the 2d Infantry Division had been no longer able to hold Wonju and had retreated to the hill line three miles south of the city. The loss of Wonju not only breached an important sector of the "Dog" line, but the North Koreans showed little inclination to rest on their laurels. Building up strength in the shelter afforded to them by the buildings of Wonju, they began to slip troops southward toward Chongju and Chechon. If they captured these cities they would sever the main lateral roads supplying ROK units on Korea's eastern coast.[141]

When the weather began to clear on 11 January, the Fifth Air Force and the FEAF Bomber Command came to the assistance of the X Corps. Flights of Fifth Air Force fighter-bombers attacked marching bodies of Red troops on the flanks of the 2d Division, while other armed reconnaissance flights hit enemy troops moving southward along the roads from Hongchon and Hoensong. At General Ridgway's request ten 98th Group B-29's flew a saturation strike against Wonju on 12 January. At this time the medium bombers made their first operational use of proximity-fuzed 500-pound general-purpose bombs, which burst in the air and showered thousands of steel fragments earthward. The medium-bomber crews, who had trouble identifying snow-covered Wonju, reported that their bombs blanketed the target area. Continued fighter-bomber support, plus a staunch ground defense against "Banzai-type" Communist attacks, soon took the power out of the Red assault. As yet the X Corps was not strong enough to recapture Wonju, but on 15 January it successfully established and defended a new sector defense line running between Wonchon and Yongwol.[142]

United Nations ground and air forces

in Korea depended heavily upon air supply during January 1951, for their surface supply lines were disrupted by weather and clogged by retreating troops. With the loss of the old airheads at Kimpo, Seoul, and Suwon, however, only Taegu and Pusan East airfields could accommodate heavier transports. Since Cargo Command's capability to lift supplies now exceeded the landing opportunities in Korea, General Tunner had to exercise ingenuity and take many chances of loss, the latter being acceptable in view of the dire combat situation. The old airfield at Taejon was able to support larger transports as long as the ground was frozen, but when a ground thaw caused a serious C-54 accident this field had to be closed to anything heavier than a C-46. First at Wonju and then at Chungju and Andong, X Corps troops scraped out or repaired old airstrips, and, balancing hazard against urgency, General Tunner plied C-46's and C-47's into these crude landing grounds. Using improvised and existing airfields, Cargo Command in the first twenty-four days of January lifted 5,041 tons of men and materiel for the Fifth Air Force and 7,445 tons for the Eighth Army. On their return trips from Korea the transports evacuated 10,489 combat casualties to rear-area hospitals. Even such amounts of airlanded supplies were not sufficient to meet the emergency, and by 24 January 406 C-119 sorties had dropped 2,007 tons of gasoline, rations, ammunition, and unit equipment, most of it to the troops of the X Corps.[143]

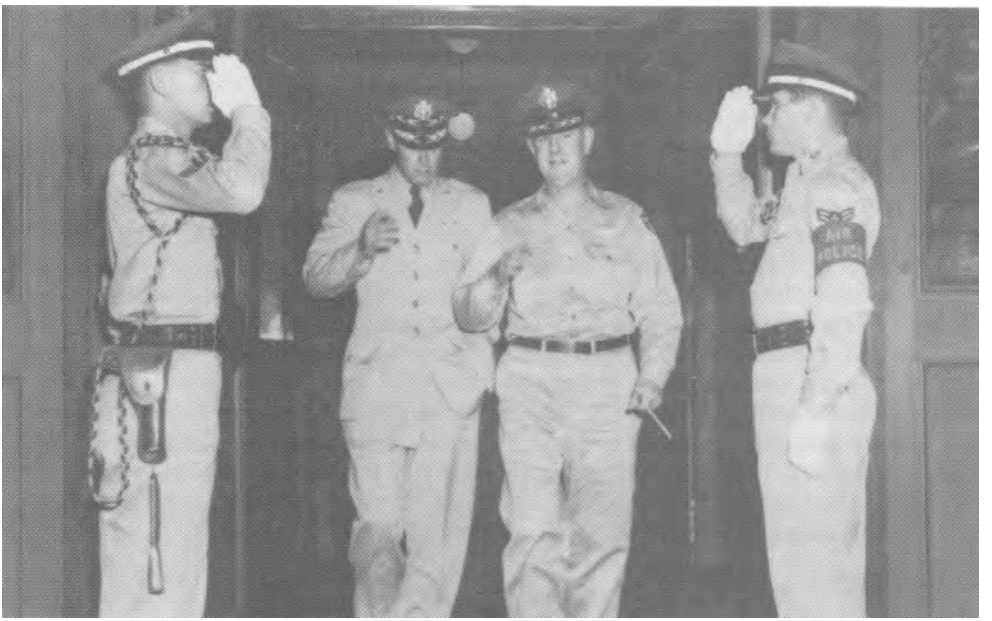
When the new year had dawned in Korea and Chinese ground troops had launched across the Imjin, FEAF had braced itself to resist a "major and sustained air effort" which its intelligence officers had predicted might come "at any time."[144] But to the surprise of everyone the Chinese air force not only made no effort to support the ground offensive but the MIG's actually stood down during the first week of January.[145] Evidently of stiffer mettle than the Red Chinese, a few North Korean airmen sought to assist their compatriots on the central front with small night attacks, flown in light airplanes, against ROK troops at Yongwol and Kyongpo.[146] On 10 January the Chinese Communist Air Force returned to action when 15 MIG's ventured to Sinanju to make a half-hearted attack against a lone-flying B-29. The MIG's departed quickly when the bomber crew opened fire. In the next several nights North Korean pilots heckled United Nations ground troops on nine occasions, again without inflicting much damage. Up near Pyongyang on 15 January a Yak fighter attacked a flight of 452d Wing B-26's. The Reds had clearly defaulted in the air, but even their small efforts were exploited by Communist propaganda. A Communist commentator on the Pyongyang radio saluted the activities of "Hero" Ong and "Hero" Kim—two Korean airmen who took their Yak fighters into the air each day "to chase American aircraft away from Pyongyang."[147]

The strident voice of Radio Peking told the world that the Communist New Year's offensive was "successfully concluded" on 14 January with the capture of Wonju.[148] Yet with each passing day it was more evident that the United Nations air and ground actions had exploded the myth of Chinese Communist invincibility. Preserving themselves through maneuver, United Nations air and ground forces had inflicted heavy casualties upon the Reds. Eighth Army headquarters estimated that the Communists lost 38,000 men during the first twenty-six

days of January. Of this total, FEAF airmen claimed to have inflicted 18,820 casualties, an estimate that jibed with prisoner-of-war estimates that air attacks had inflicted approximately half of the casualties sustained by their units.[149] Because of logistical shortcomings, compounded by air attacks upon their lines of supply, the Chinese Communists were unable to sustain an overwhelming force in combat or to follow up their initial victories. On 15 January, when no enemy troops appeared at the "Dog" line, General Ridgway sent a regimental combat team northward to feel out the enemy's strength. This task force "Wolfhound" probed to Osan before it exchanged shots with a fleeting detachment of hostile troops, and on the following day "Wolfhound" got almost to Suwon before it was finally halted by enemy emplacements. The tactical aircrewmen who supported "Wolfhound" returned from missions with strange reports: they claimed to have inflicted heavy casualties upon bodies of enemy troops moving northward out of Suwon.[150] Evidently the Reds had overreached their grasp and were withdrawing from extended positions to regroup, resupply, and rearm.[151]

Morale soared in the United Nations Command as its people began to realize that the best of the Chinese armies had been bled and beaten. Soldiers who had stood in mortal terror of Chinese "hordes" a month earlier now laughed about their earlier apprehensions. A widely circulated joke quoted an infantryman as saying "I was attacked by two hordes and killed both of them." In a variation, another soldier asked: "How many hordes to a platoon?"[152] In the course of a mid-January inspection trip to the Far East General Collins visited the Eighth Army's corps and divisions. General Vandenberg visited the airfields and before leaving Korea landed from a helicoptor near the front lines and joined a ground patrol for a firsthand view of the combat situation. Both officers informed Washington that the Eighth Army was in good shape.[153]

Although the Eighth Army had successfully retreated southward, General Ridgway did not wish to wait passively for the Communists to renew the battle at the "Dog" line. On 20 January he told his ground commanders that they must maintain pressure on the Reds. Taking and holding ground was not important, he said. The main objective was to destroy the Red armies. To this end Ridgway instructed his corps commanders to inflict maximum losses on the enemy consistent with the maintenance of the integrity of friendly units.[154] When air and ground reconnaissance reported that Chinese strength on the western front was mushy, Eighth Army planners outlined "Operation Thunderbolt," a limited objective attack to be mounted by the American I and IX Corps with the design of clearing the Reds out of the area south of the Han River. General Ridgway favored such offensive strategy, but he feared that the Reds might be leading his forces into a trap. To retreat and then to lie in wait and ambush pursuers was a known Red stratagem. To explore the possibilities of such a trap, Generals Ridgway and Partridge personally reconnoitered the enemy's front lines in a T-6 trainer plane for more than two hours on 24 January. Neither commander saw much trace of enemy activity on the snowy landscape, and Ridgway no longer feared that he might be risking the lives of American soldiers. At dawn on 25 January the American I and IX Corps launched task forces northward against the Reds.[155]



Gen. Vandenberg (left) and Gen. Stratemeyer leaving the Meiji building, FEAF headquarters in Japan.

Despite the propaganda line to the effect that the Communist offensive had achieved its objectives, General Lin Piao was enough of a realist to recognize that the Fourth Field Army's third-phase offensive had been a dismal failure. A series of intelligence reports of meetings and messages sent to and from Lin Piao's headquarters, which reached Tokyo from "fairly reliable sources," were so generally confirmed by subsequent events that they may be taken to be representative of the thoughts and actions of the Chinese general. Those who knew Lin Piao as an able soldier also knew him to be a conceited and bitter man, who was outspoken enough to voice his mind without fear of consequence. Now, Lin Piao was deeply rankled.[156] According to report, Lin Piao heatedly informed a visiting delegation that he wanted it "clearly understood that the failure of the Chinese offensive...was due to the failure of the Chinese Central Government to furnish air and tank support as promised."[157] In another report Lin Piao warned that the Chinese could not compete against United Nations forces "because of the air superiority against them."[158] A detailed study of the combat situation, made by a Special Aviation Inspection Group of the Chinese Communist General Staff, officially confirmed Lin Piao's diagnosis of the causes of the failure of the third-phase offensive. "If we had had a strong air support," this group reported, "we could have driven the enemy into the sea."[159]

With the failure of the New Year's offensive General Lin Piao had no choice but to fall back and engage United Nations forces in what the Reds described as "protracted defensive battles." At some date, either in late January or early February, General Lin

Piao ordered his commanders to begin withdrawals to strong defensive positions close to the 38th parallel. Here, screened by the 50th Army, which would expend its troops in rear guard actions, the main body of the Fourth Field Army would rest and prepare for renewed ground operations.[160] This may well have been Lin Piao's last combat order, for sometime in early February General Peng Teh-huai, deputy commander of the People's Liberation Army, assumed command of a Joint North Korean Army-Chinese Communist Forces headquarters, and early in March Peng Teh-huai took over active control of the Chinese "volunteers" in Korea, relieving Lin Piao, who was incapacitated either by wounds or by illness.[161] According to information received in Tokyo, General Peng Teh-huai on 16 February directed the Fourth Field Army to defend the 38th parallel at all costs until May 1951. At this time, given the "adequate support" which Soviet Russia had promised to provide, General Peng Teh-huai expected the Communist forces to launch a major offensive which would sweep United Nations troops out of Korea. General Peng Teh-huai warned his commanders that the major offensive might have to be launched earlier than May, if United Nations forces approached too closely to the 38th parallel.[162]

9. *Air Superiority—Key to Victory*

1. The Red Air Force Casts a Darkening Shadow

"If we had had a strong air support," stated the Red Chinese Special Aviation Group, which came from Peking to assess the demerits of the Chinese Communist Air Force, "we could have driven the enemy into the sea and the protracted defensive battles raging from 25 January to 22 April...should have been avoided."[1] The Chinese recognized that they had failed on the ground in January 1951 because they had failed in the air, and a series of intelligence reports kept the United Nations Command aware that the Reds meant to profit from their mistake. Perhaps the most alarming of these intelligence reports concerned a growing Red air order of battle in China and Manchuria. Month after month China's air force grew from the 650 combat aircraft it had possessed in December 1950 to the 1,050 combat aircraft it would have on hand in June 1951. Each month Red China took delivery of more bat-wing MIG-15 fighters, so that she would possess 445 of these first-line aircraft by June 1951.[2]

Other intelligence information received in Tokyo let the United Nations Command know that the Chinese Communist Air Force was going to attempt to intervene in the Korean fighting. A Chinese staff officer captured in February, for example, told his interrogators that each regiment of the Fourth Field Army had sent staff officers to attend a special air-ground training conference in Mukden. Some of these officers were already returning to their commands and they were bringing panel kits with them so that they could identify their units to Red aircraft overhead.[3] Taken by itself, this report could mean that the Chinese were attempting to buck up the morale of their ground troops by leading them to expect air support, but in March FEAF received reliable information that two air regiments, equipped with Ilyushin IL-10 ground-attack planes, were training at an airfield near Kaiyuan in Manchuria.[4] Any number of other intelligence reports strengthened the conclusion that the Reds were building a powerful air force in Manchuria which they intended to employ against United Nations forces in Korea.

Both in Tokyo and in Washington Air Force leaders viewed the growing combat capabilities of the Communist air forces in Manchuria with a feeling approaching dismay. Because of the politico-military restrictions which limited combat to Korea, the Communists held the initiative: they could attack or refuse combat according to their own purpose. United Nations airmen could do no more than maintain an alert defensive posture and attempt to counter Communist air actions as they were manifest in the skies over North Korea. Early in 1951, however, the United States attached one significant qualification to the political rule which forbade United Nations airmen to violate the sanctity of Manchuria's borders. In view of the build-up of Communist air strength in Manchuria, the United States government accepted the Air Force position that, in case of massed Red air attacks against United Nations forces in Korea, American airmen would be authorized

to attack the airfields at which such attacks originated. The United States delegation at the United Nations quietly informed delegates from member nations whose troops were in Korea of this contemplated retaliation.[5]

2. General Liu Ya-lou's Air War Plan

Up north of the Yalu at the numerous airfields available to him in Manchuria, principally the complex of fields clustering Mukden and the forward fighter base at Antung, General Liu Ya-lou, commander-in-chief of the Chinese Communist Air Force, was working hard to prepare his airmen for combat and to devise a plan which would support the Communist ground offensives scheduled for the spring of 1951. Late in this year FEAF would secure a copy of the report of the Special Aviation Group which summarized General Liu Ya-lou's planning, but even before this, FEAF intelligence officers had guessed what the plan was. Like any good military planner, Liu Ya-lou was forced to consider several factors bearing on the situation. First of all, Red China feared American air retaliation, and Peking was unwilling to allow General Liu to use Manchurian air bases for mounting attacks against United Nations personnel and installations in Korea. "The conservative policy adopted by China," fumed the Red Chinese aviation inspectors, "has apparently ensued from the high-handed policy of threats of the enemy." A second major factor bearing on Liu's problem was the fact that Soviet Russia had equipped the Chinese Communist Air Force more for defense than for offense. China's most numerous aircraft was the relatively short-ranged MIG-15, which the Chinese said could not attack tactical targets lying more than 100 miles distant from its home base. In view of its limited range, the Red Chinese Aviation Inspection Group concluded that the MIG-15 was "not suitable for use in Korea or Indo-China and of even less value against Taiwan."[6] Not noted in the aviation group's report but emphasized in intelligence information purporting to summarize conversations between General Liu and Chinese ground officers was the fact that Red China's pilots needed additional training in the newly arrived jet aircraft before they could hope to mount an offensive in Korea.[7]

Recognizing the limitations and capabilities of the Chinese Communist Air Force, General Liu Ya-lou drew up a forward-looking air war plan which outlined several phases for accomplishment prior to the initiation of an air offensive against the United Nations. Using bases at Antung and MIG fighters, the Reds intended to effect a zone of air superiority over northwestern Korea. During this phase the Reds would give their pilots badly needed combat training. Having established a working air superiority, the Communists meant to repair and to construct airfields in the defended area. They would also seek to build or repair many other "secret" airfields immediately north of the 38th parallel. As work progressed, the Reds would move in

automatic weapons and flak batteries to protect the new airfields. When the forward airfields were operational, the Chinese Communist Air Force would garrison them with MIG's and ground-attack planes and commence the full-scale air offensive against the United Nations. According to report, Red Chinese ground commanders—most notably General Lin Piao—criticized this air war plan as "too easy going," but General Liu Ya-lou possibly expected to be ready to commence offensive air strikes in coordination with the major Red ground offensive scheduled for May 1951.[8]

3. Two Months of Indecisive Air Combat

Naturally enough, neither General Stratemeyer nor General Partridge could understand the full extent of the Chinese Communist air war plan in January 1951, but both officers knew the importance of air superiority and labored to meet each Red air threat as it was developing. After abstaining from combat early in January, the MIG forces bounced back more boldly later in the month. Now that the Sabres no longer came to the Yalu, but were out of combat back in Japan, the MIG's probably felt that they could try their wings with less danger of punishment. Whatever their reasoning, 12 MIG's "boxed" four F-80's south of Sinuiju on 21 January and shot down one of the slower American planes. Reaching farther southward than customary and revealing unusual aggressiveness, 16 other MIG's on this same day launched a surprise attack against two flights of F-84 Thunderjets which were dive-bombing a bridge across the Chongchon River. In the aerial fight which developed the MIG's destroyed one Thunderjet, but Lt. Col. William E. Bertram, commander of the 523d Squadron, sent a MIG flaming to the ground and thereby became the first Thunderjet pilot to down a MIG in Korea.[9]

On the ground in January the Reds began to repair the air facilities at Sinuiju and Pyongyang. In the Sinuiju area the Communists repaired Sinuiju, Sinuiju Northeast, and Uiju Airfields and built revetments designed to shelter aircraft against bombing attacks. In the Sinuiju area the Reds were protected by the MIG garrison at nearby Antung and by flak emplacements on both sides of the Yalu. Pyongyang was too far from Antung to be sheltered by the MIG umbrella, and, probably for this reason, the Reds steadily increased their antiaircraft artillery there to 53 heavy guns and 63 automatic weapons as they began to refill the bomb craters on the runways at Pyongyang Main Airfield.[10]

From the Fifth Air Force Command post in Taegu General Partridge viewed these Red air activities with a perplexity growing from a recognition of the fact that it would be difficult to counter them. Although a detachment of Sabres returned to Taegu on 14 January to test their potential for ground support, General Partridge had no airfield near enough to the Yalu to allow the Sabres to return to counterair work.[11] Once in December the Fifth Air Force had asked FEAF to send a Superfortress strike to Sinuiju Airfield, but FEAF

had ruled that such a strike was temporarily out of the question.[12] On 20 January General Partridge asked Brig. Gen. James E. Briggs, who had assumed Command of the FEAF Bomber Command on 10 January, when General O'Donnell had rotated to the United States, to make a B-29 attack against Pyongyang. General Briggs was willing to lay on the strike, provided the Fifth Air Force would send fighter-bombers to neutralize Pyongyang's flak batteries.[13] While the Pyongyang strike was being planned, Colonel Ashley B. Packard apparently came forward with the proposition that his 27th Fighter-Escort Wing would like to have a go at Sinuiju Airfield. The 27th Wing proposed to send out eight flights of Thunderjets, all loaded with maximum ammunition but no external ordnance. Two of the flights would go down and strafe Sinuiju Airfield, while the other six flights stayed overhead to fly top cover. The Fifth Air Force approved this mission for execution on 23 January, the same day as Bomber Command would be hitting Pyongyang.[14]

Early on the morning of 23 January 33 Thunderjets of the 27th Fighter-Escort Wing roared off the steel plank runway at Taegu and headed northward in combat formation. When they arrived over Sinuiju the F-84's evidently took the Reds by surprise, for the eight strafers made a pass across the airdrome before swirling clouds of dust across the Yalu signaled that the MIG's were taking off from Antung. As quickly as possible the strafer flights joined their top cover, and for the next thirty minutes the Thunderjets engaged 30 MIG's in a furious air battle. The MIG's showed definite speed and acceleration advantages, but the Thunderjets gained kills when they caught the Red planes in turns, something they were able to do at the less than 20,000-feet altitudes where the fight was waged. In a period of less than two minutes Lieutenant Jacob Kratt shot down two MIG's,* and before the fight was finished Captains Allen McGuire and William W. Slaughter each destroyed a MIG fighter. After all the Thunderjets returned safely to base the 27th Wing posted a claim for four MIG's destroyed, three probably destroyed, and four damaged. General Partridge warmly commended Colonel Packard for the Thunderjet victory, scored at extreme range over the enemy's finest jet fighters.[15] Later on the same morning, over Pyongyang, the other airfield attack was equally successful. The 49th Fighter-Bomber Wing sent 46 F-80's to suppress Pyongyang's flak with guns, bombs, and rockets, and when this work was done 21 B-29's of the 19th and 307th Bombardment Groups arrived from Okinawa to place 90 percent of their bombs squarely on Pyongyang Main Airfield. Despite the intensity of flak-suppression effort, the medium bombers drew a little fire from the ground, but none of the American planes were in any way damaged during the mission.[16]

After this high point of air action on 23 January, the margin of air superiority which FEAF could expect to exercise over northwestern Korea was

*On 26 January, near Pyongyang, Lieutenant Kratt shot down a single Yak fighter, which foolishly attacked his Thunderjet flight. The Yak pilot must have been either "Hero" Ong or "Hero" Kim, and FEAF monitors listened intently to see whether "Radio Pingpong" would announce that one of its "heroes" was missing. It did not. Lieutenant Kratt's activities gave Colonel Packard still another reason for a good chuckle. In gunnery training, back at Matagorda Island in the United States, Kratt had flown into a tow target, and Packard had spent several anxious moments convincing General LeMay that the young lieutenant should not be grounded. (FEAF Release No. 514, 27 Jan. 1951; Ltr.; Packard to Maj. Gen. S. E. Anderson, CG Eighth AF, 25 Jan. 1951.)

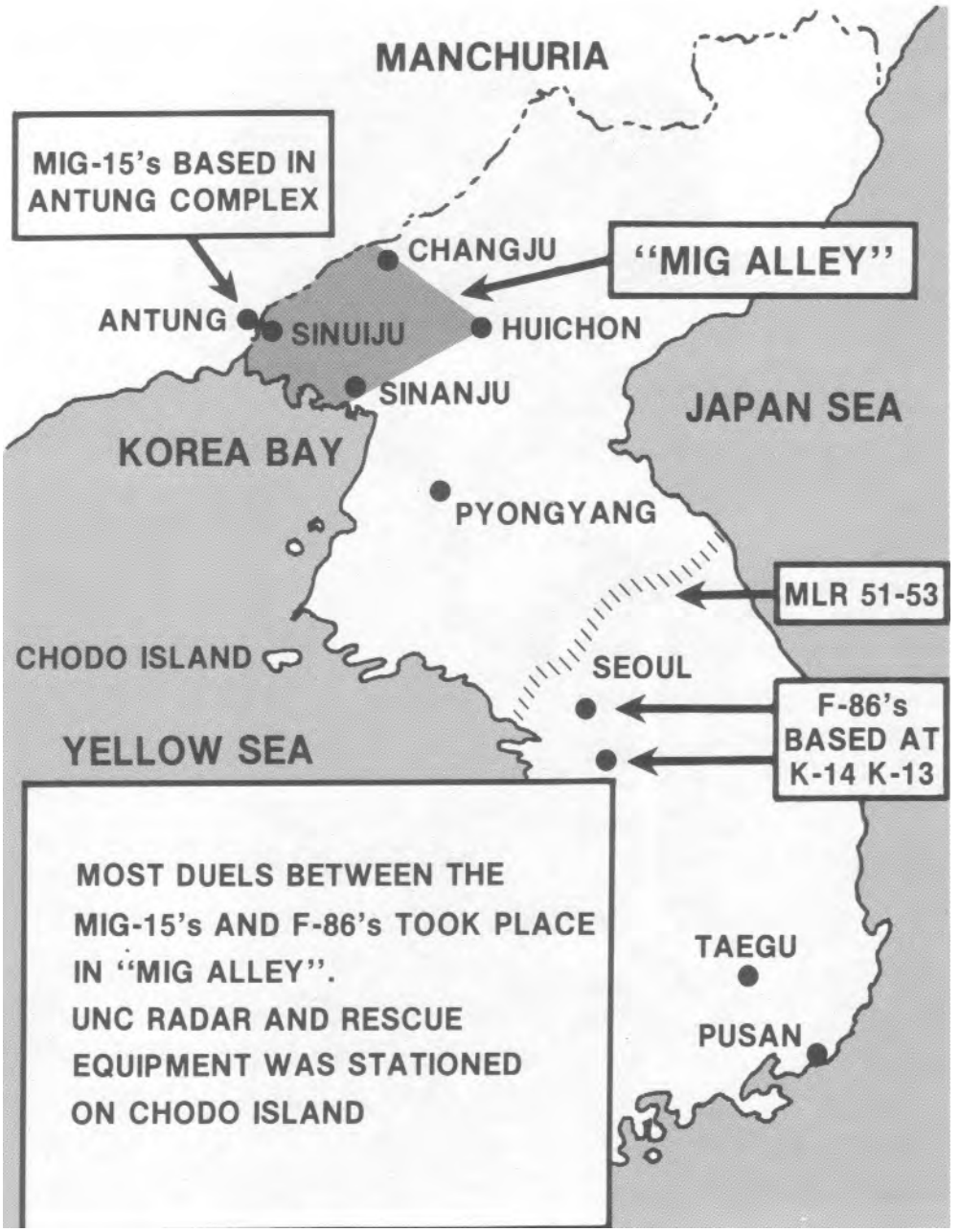
Wreckage of railroad yard at Pyongyang following attacks on the airfields and city.

steadily reduced. As yet no one could say whether the Eighth Army's ground offensive would succeed, and General Partridge wanted to get his jet air wings out of Korea. Accordingly, the Fifth Air Force's plan for redeployment to Japan continued in effect, and Colonel Aaron Tyer, commander of the 49th Wing, began to close down Taegu Airfield. On 26 January the 49th Wing withdrew to Tsuiki, leaving behind at Taegu a refueling and rearming detachment which would service F-80's staged through on combat missions. Before the month's end Colonel Packard withdrew all 27th Wing units from Taegu and concentrated the Thunderjets at Itazuke.[17] Following the deployment of the jets to southern Japan, the Fifth Air Force had to notify FEAF that it could not easily expect to provide escort to medium bombers in far northwestern Korea.[18]

The Fifth Air Force generally avoided air combat over northwestern Korea during February, and in the area between the Chongchon and Yalu Rivers Communist pilots reigned so nearly supreme that Fifth Air Force men called the area "MIG Alley," a name it would bear through the Korean war. Sometimes alone, and sometimes with F-80 escort, RF-80 photo planes continued to dash to the Yalu to secure pictures of Communist activity, but on at least four harrowing occasions in February MIG formations swarmed over the reconnaissance planes. Each time the intrepid reconnaissance pilots narrowly escaped destruction.[19] Cautious tactics coupled with the fact that only about a fourth of the MIG's sighted actually tried to attack prevented FEAF from losing planes in air combat during February,[20] but the only

An airport maintenance mechanic checks a landing strip light which enables planes to operate around-the-clock.

Crewmen boresight the wing gun of an F-84.


MANCHURIA
MIG-15's BASED IN ANTUNG COMPLEX
CHANGJU
"MIG ALLEY"
ANTUNG
SINUIJU
HUICHON
SINANJU
JAPAN SEA
KOREA BAY
PYONGYANG
MLR 51-53
CHODO ISLAND
SEOUL
F-86's BASED AT K-14 K-13
YELLOW SEA
MOST DUELS BETWEEN THE MIG-15's AND F-86's TOOK PLACE IN "MIG ALLEY".
UNC RADAR AND RESCUE EQUIPMENT WAS STATIONED ON CHODO ISLAND
TAEGU
PUSAN

combat victory of the month occurred on 5 February when Maj. Arnold Mullins, of the 67th Fighter-Bomber Squadron, pulled his Mustang up from a strafing pass near Pyongyang just in time to sight and shoot down a Yak fighter.[21] In the air the Reds did not make the most of their opportunities for aerial combat, but they were nonetheless busy with airfield rehabilitation. At Sinuiju, Sinanju, Sunan, Pyongyang, Yonpo, Wonsan, Ongjin, Anak, Sinmak, and Kangdong, the Reds were repairing the runways and builting protective revetments for aircraft.[22]

4. All-Out Air Battles in MIG Alley

Considering the fact that United Nations aircraft were unable to battle over northwestern Korea on anything approaching equal terms in February, the Far East Air Forces had shown good discretion in avoiding the area called MIG Alley as much as possible. Such a policy, however, tacitly admitted that the Communists possessed air superiority in this key area. Important interdiction targets were not attacked, and the Communist air force was growing stronger. In order to renew the air battle over northwestern Korea, the Fifth Air Force had to return its jet fighters to Korea, preferably to the old bases at Suwon and Kimpo.

If the Communists had maintained stronger ground defenses in the country south of the Han River they might have kept the Fifth Air Force operating ineffectively at long range. Fortunately for the United Nations, however, the Eighth Army's limited offensive progressed rapidly from its beginning on 26 January. Suwon Airfield was recaptured in a few days, and on 30 January transports of the 61st Troop Carrier Group began to lay down supplies there. After overcoming stiffening enemy resistance, the U.S. I Corps recaptured the bomb-pocked runways at Kimpo on 10 February.[23] General Partridge lost no time informing his staff that he wanted Suwon, Kimpo, and Seoul Airfields put back into operation, one of them to serve the 4th Fighter-Interceptor Wing. Even as he gave these orders, however, General Partridge must have known that the Fifth Air Force's aviation engineer resources were so scant and the facilities so completely demolished that the airfields would not soon be serviceable for jet fighters.[24]

In the expectation that Suwon could be used as a staging base, Colonel John C. Meyer sent a refueling and rearming detachment there on 22 February and simultaneously brought the 4th Wing's 334th Fighter-Interceptor Squadron to Taegu.[25] On 26 February the Fifth Air Force informed FEAF that it was again prepared to escort B-29's into northwestern Korea, and FEAF directed Bomber Command to return to attacks on interdiction targets in northwestern Korea beginning on 1 March.[26] The decision to send the Superfortresses back into MIG Alley beginning on 1 March seemed lightly given in view of the increased Communist air activity in

Destroyed hangar and maintenance shop at Kimpo AB.

the area. It was defective on another count, for Suwon Airfield was too badly destroyed to permit its use as a Sabre staging base. Although the Sabres had begun to fly combat air patrols from Taegu on 22 February, they could not as yet reach any farther northward than Pyongyang.[27] A minor tragedy was in the making.

Anxious to get back into action against bridge targets in northwestern Korea, Brig. Gen. James E. Briggs scheduled Bomber Command's 98th Bombardment Group for attacks in MIG Alley on 1 March, and the Fifth Air Force undertook to escort the bombers with 22 F-80's. On the morning of 1 March the Shooting Star pilots reached the assigned rendezvous station on time, but the 18 B-29's from Japan ran into unexpected head winds and were so late making rendezvous that the jets soon had to break off their escort and return to base. As a result the Superfortresses had no escort, when, shortly after they dropped their bombs on the bridge target at Kogunyong (near Chongju), they were taken under attack by nine MIG interceptors. The bombers closed into a tight defensive formation and headed for home, but they were no match for the speedy jets. Although Superfortress gunners shot down one Red jet and damaged two others, the aggressive MIG pilots damaged ten of the B-29's, three so badly that their crews had to make emergency landings in South Korea.[28] As they watched the crippled B-29's stagger in to land at Taegu, Fifth

Korean women aid the U.S. Far East Air Forces in putting Kimpo AB into serviceable condition.

Air Force officers knew better than ever that they had to take stronger measures to restore air superiority over northwestern Korea.[29]

As of the first week of March Suwon Airfield was nothing more than a waterlogged, bomb-pitted, concrete runway in the middle of a sea of mud. For want of a taxiway the Sabres would have to taxi back along the runway while other planes were landing. The unobstructed flight surface was so narrow that the Sabres would have to land in trail, with consequent dangers from the turbulence of jet air wash. But the tactical situation demanded that the Sabres go forward to Suwon, and they did so. The 334th Squadron began to stage Yalu patrols through Suwon on 6 March, and four days later, following the completion of a modicum of parking space and a tent camp, the 334th Squadron moved to Suwon. At this time the 336th Squadron came from Japan to Taegu, and each day it staged Sabres up to Suwon to join the Yalu patrols.[30]

When the Sabres began to operate from Suwon, Colonel Meyer and Lt. Col. Glenn T. Eagleston, commander of the 334th Squadron, were permitted to devise their own tactics. Fifth Air Force fragmentary field orders simply charged the Sabres to fly combat air patrols over northwestern Korea at those hours of the day when other aircraft were attacking targets in MIG-hazarded areas. The Sabre screen was intended to turn back Communist aircraft, and it was not primarily

designed to destroy Red aircraft, though of course no one objected to the latter activity if opportunities presented themselves. As they had learned to do in December, the Sabre leaders dispatched flights of four Sabres at periodic intervals, and the flights took stations over various landmarks in MIG Alley. The lead flight generally went to Sinuiju to stir up the MIG's, and if swirling dust at Antung revealed MIG's taking off, the lead flight called out: "Dust on the runway at target area." Then the other Sabre flights closed in to join the fight. If a Sabre flight met more MIG's than it could handle, it called out "Hey Rube" and headed toward Sinanju, where all flights assembled to fight the MIG's. With some reduction of reserve fuel, the length of the Sabre patrol in MIG Alley was about the same twenty-five minutes that it had been when the Sabres were flying from Kimpo. The Sabre tactics varied some from day to day, but the 4th Wing continued to exploit high-speed cruising in the target area, the "jet-stream" patrols of flights staggered in time and space, and, at the moment, the "fluid-four" flight in fingertip formation.[31]

Although the swept-wing Sabres were again flying patrols along the Yalu, the 4th Wing was forced to enter combat on terms which generally favored the enemy. At a time when the 4th Wing was not operating at anything near maximum effectiveness, the Chinese had at least an air division with 75 MIG's based at Antung. The 4th Wing had only two squadrons in Korea, and, flying from separate airfields, the 334th and 336th Squadrons found it hard to unite their efforts over MIG Alley. On nearly every patrol, moreover, a few Sabre pilots were unable to jettison their wing tanks when combat was imminent, and such pilots and their element companions had to abort and return to base.[32] Under such circumstances the Sabre screen was by no means airtight. On the afternoon of 12 March, while Sabre pilots watched a formation of MIG's gyrate across the Yalu, 12 other MIG's bounced four 8th Group F-80's near Namsi. These Red pilots were mediocre fliers: each F-80 pilot claimed some hits, and in the air battle two MIG's collided and fell to earth.[33] On 17 March, near Sonchon, three MIG's again engaged an 8th Group flight in a battle which ranged in and out of the overcast and ended when a MIG and an F-80 collided head-on, destroying both aircraft.[34] So far in the month the MIG's were reluctant to do anything more than attempt fleeting passes on the Sabres, and while the F-86 pilots claimed some damages they had no kills. But the Sabre screen was improving. On 23 March, while 45 Sabres fought MIG's at the Yalu, 22 B-29's of the 19th and 307th Groups returned to MIG Alley to destroy the rail bridges at Kogunyong and Chongju. On this day the medium-bomber crews met no air opposition of any kind.[35]

Late in March the big air battles which would determine who owned the air over northwestern Korea were shaping up. Although attacks against these targets had been postponed while the Yalu River was frozen, the FEAF Bomber Command remained responsible for destroying the international bridges across the Yalu, and reconnaissance planes brought the news that the winter ice in the river was breaking up. The most important of these bridges crossed the Yalu at Sinuiju, in full view of the MIG force based at Antung. If the slow and vulnerable B-29's were to come through in the face of Communist counterair capabilities, they would require the strongest cover and escort

that the Fifth Air Force could provide. Accordingly, the Fifth Air Force directed the 4th Wing to provide high cover for the bombers and the 8th and 49th Wings to supply close escort in the target area. The first major strike of the spring series against the Yalu bridges took place on 30 March, and, all things considered, it came off very well. Bomber formations of the 19th, 98th, and 307th Groups—each with 12 B-29's—bombed the bridges at Chongsongjin, Manpojin, and Namsan-ni (Chongsu-ri). Eight flights of Sabres patrolled the Yalu and covered the three bomber formations but found little to do, for the MIG's did not come up to their patrol altitudes. In fact, only the 19th Group drew any seriously pressed MIG opposition, and its gunners claimed the destruction of two MIG's. In this flight one bomber sustained major damage and had to unload wounded crewmen at Itazuke. In their mission reports the medium-bomber crews mentioned "excellent fighter cover," but the F-80 pilots had little illusion about their usefulness for escort. At 25,000 feet MIG's were fully 100 miles per hour faster than the F-80's and were able to fly through the bomber formations before the old Shooting Stars could engage them.[36]

Cloudy weather along the Yalu diverted Superfortress attacks away from the international bridges for more than a week, but the Sabre patrols found the MIG force to be stirred up, noticeably aggressive, and determined to press home attacks. The MIG pilots, however, continued to be poor gunners, and in spirited engagements on 3 and 4 April Sabre airmen shot down four MIG's at no cost to themselves.[37] In the week that the Superforts waited favorable target weather General Stratemeyer gave some new thought to the matter of their fighter support. From the United States General Curtis E. LeMay, commander of the Strategic Air Command, suggested that the 27th Fighter-Escort Wing ought to get as many escort assignments as possible so that it could maintain its proficiency. General Stratemeyer passed the suggestion on to General Partridge with the request that the Thunderjets be staged through Korean bases and used for escort whenever possible.[38] Accordingly, General Partridge tapped the 27th Wing for escort duties on the medium-bomber mission scheduled for 7 April. On this morning, Itazuke was weathered in by a 400-foot ceiling and less than a mile visibility, but the 27th Wing nevertheless launched 48 F-84's in fifteen minutes, and the Thunderjet formation made rendezvous with the medium bombers within a minute of the stipulated time, 500 miles away from Itazuke. In the vicinity of the Yalu, as the Sabres screened and covered above, the Thunderjets flew parallel to the bomber boxes of the 98th and 307th Groups as they attacked the railway bridge at Sinuiju and a newly-built highway bridge at Uiju. Out of 30 MIG's which attempted to attack, only one Red plane got through the escorting Thunderjets, but this sole MIG damaged a 307th Group bomber so badly that it went down in enemy territory. In the engagement the Thunderjets claimed one enemy plane destroyed, while upstairs the Sabres again scored no kills. Despite the loss of a bomber, General Briggs called the fighter protection "well-nigh perfect."[39]

Aerial photographs showed that Sinuiju's massive railway bridge was battered but still standing, and in a final effort to take it down General Briggs ordered all three medium-bomber groups to attack the bridge on 12 April. According to plan, 4th Wing Sabres screened and flew high cover, and 27th

An H-19 of the 3d Air Rescue Group hoists an airman to safety.

Wing Thunderjets flew from Itazuke to escort the bombers. Not according to plan was a high rate of bomber aborts, which reduced the bomber force to 39 instead of 48 aircraft. The three bomber formations, moreover, strung out in the target area, compelling the Thunderjets to split up, and permitting the MIG's to concentrate their attacks against the weaker formations. Three minutes before they reached the target, the 19th Group's eight B-29's were attacked by 40 to 50 MIG's. One B-29 crashed in flames and five others were damaged. Next, about 20 MIG's jumped the 307th Group's twelve B-29's. One of the bombers crashed in enemy territory and another badly damaged ship barely got back to Suwon. Last over the target with 19 bombers, the 98th Group met a few wary MIG's and sustained no damage. The Thunderjets were not only badly outnumbered but the MIG tactics denied them any advantages. Braving the Sabre top cover (which destroyed four enemy planes and damaged six others), the MIG's dived through the Superfortress formations from above, virtually ignoring the slower Thunderjets, whose bewildered pilots shot at anything with swept wings—MIG's and Sabres alike. In the combat the MIG's did not escape unscathed: in addition to the Sabre score, B-29 gunners claimed to have destroyed ten hostile planes, and the Thunderjet pilots reported three MIG's as probably destroyed. Still the loss of three medium bombers was a prohibitive loss, and General Stratemeyer

SSgt. Dominic Pettinari, crew chief of the 3d ARS, looks at the cockpit ornament which serves as a reminder of the consequences of a simple mistake.

Another rescue is logged by the Crash Boat Detachment of the 6160th Air Base Wing.

directed that B-29 attacks in the Sinuiju area would be discontinued until some way could be found to protect them. General Stratemeyer also revised his opinion of the Thunderjets which, he stated, were much too slow to cope with the swept-wing MIG's. General Stratemeyer promised General LeMay that he would continue to use the Thunderjets for escort "whenever conditions justify their employment," but he noted that "forward-based F-86 aircraft are better suited to perform counterair and escort missions."[40]

5. FEAF Struggles to Keep the Communist Air Force at Bay

In the air and on the ground all signs indicated that April 1951 was to be the month of destiny in the Korean conflict. For his own part, General Partridge feared an all-out Red air attack at any time. "Present world tension," he warned all his wing commanders on 31 March, "indicates that all possible action be taken in preparation for air attack without warning."[41] Events transpiring in the first fortnight of April gave little reason for optimism. In the air battle at the Yalu on 12 April the MIG's demonstrated their growing proficiency. In the next several days Sabre pilots commented that the MIG pilots were improving. They were aggressive and determined in pressing

home attacks. They displayed good unit discipline and an increasing mastery of the four-ship flight in formations of up to 16 aircraft. The Red airmen covered each other so well in aerial fights on 16 and 18 April that the Sabre pilots were unable to claim any hostile planes destroyed.[42] But the Red air threat had another even more sinister manifestation. Since February FEAF reconnaissance airmen had been watching the Reds repair and rehabilitate airfields through North Korea, and as April began FEAF photographic interpreters attested that the Reds were almost ready to move aircraft to the North Korean airfields. To Generals Stratemeyer and Partridge the Red airfield construction program had only one logical meaning: the Communists intended to use these airfields to launch an air attack in coordination with their impending ground offensive.

Although the Fifth Air Force was primarily responsible for maintaining air superiority in Korea and would necessarily participate in attacks against enemy airfields, General Stratemeyer had informed General Briggs that the FEAF Bomber Command had to be prepared to attack North Korea's airfields. In view of their large bomb-carrying capacity, the Superfortress bombers would be the work horses of the airfield neutralization effort. Counting on periodic reconnaissance coverage of the North Korean airfields, which would alert him for action in adequate time, General Briggs had devised a shrewd plan for the neutralization of these airfields. The Reds controlled such unlimited quantities of impressed labor that General Briggs reasoned that the Superfortresses could not expect to destroy the North Korean fields. The Communists, for example, would be able to repair a hundred bomb craters in approximately the same time that it would take them to repair a single bomb crater. Reasoning thus, General Briggs secured permission to wait his attacks until the Reds were almost ready to operate their airfields and then to neutralize them and keep them out of action with relatively small air attacks flown just often enough to disrupt and delay Red repair work.[43] Bomber Command's plan was well conceived, but the execution of the plan was going to require uninterrupted Superfortress attacks. If the MIG's put up strong resistance, they might prevent the Superfortresses from attacking the airfields. At any rate, however, the soundness of the airfield neutralization plan soon had to be tested, for on 16 April FEAF photo interpreters said that the time had come for airfield attacks. General Stratemeyer ordered Bomber Command to put the majority of its effort into airfield strikes beginning on 17 April.[44]

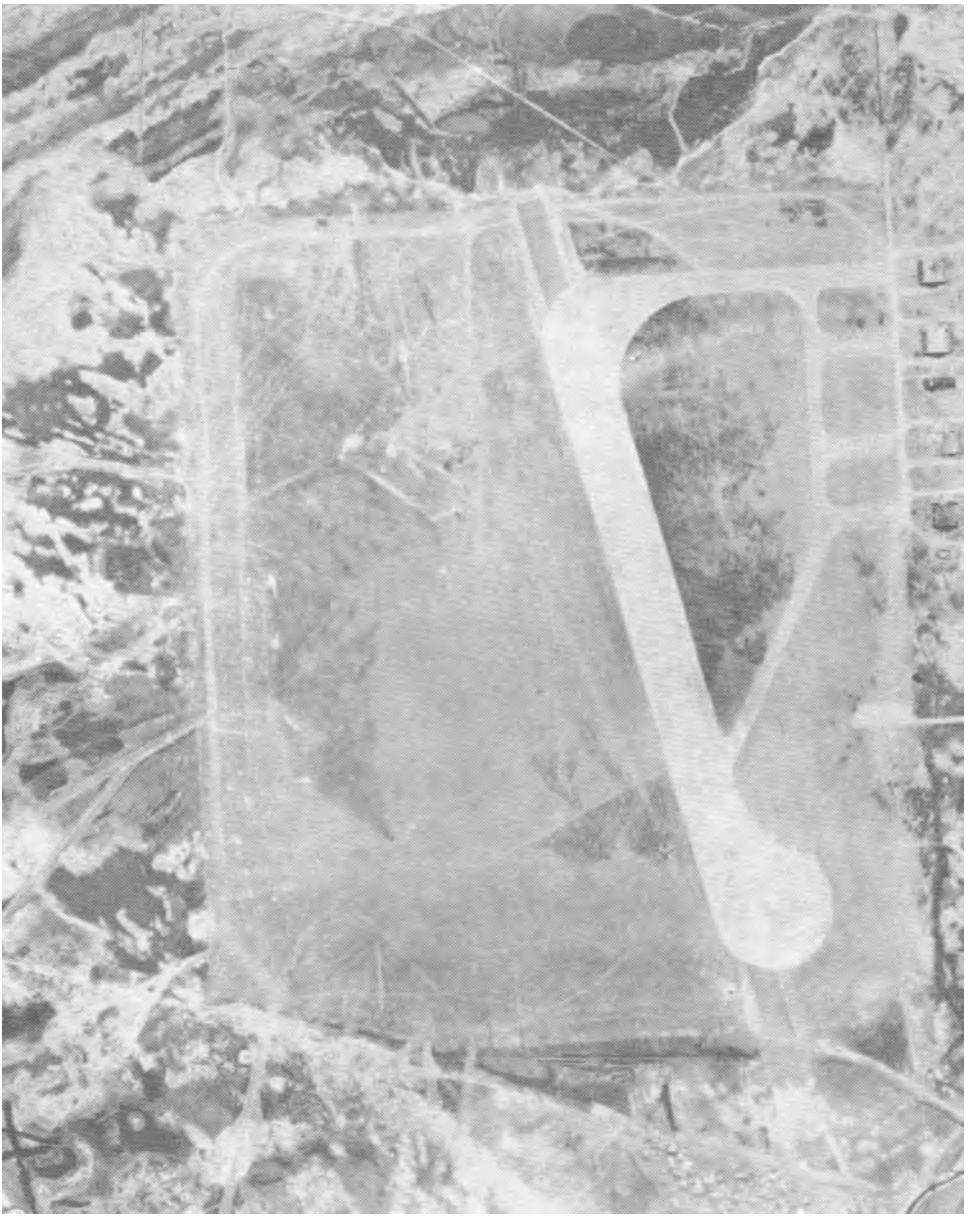
As was the case with most other air actions against North Korea, the success or failure of the FEAF airfield neutralization effort would depend upon the success with which the Sabres maintained control of the air at the Yalu. In view of the fact that the MIG airmen were showing good aptitudes with four-ship flights and 16-aircraft formations, the 4th Fighter-Interceptor Wing knew that it had to increase the size of its Yalu River patrols. With the 334th Squadron based at Suwon and the 336th Squadron at Taegu, the 4th Wing was not always able to mass its Sabres in MIG Alley. With the improvement of the facilities at Suwon, however, the 336th Squadron began to move northward on 6 April, and by 22 April both squadrons were together at Suwon. The 4th Wing also devised what seemed to be the answer for the four-MIG flights which invariably split into pairs, one climbing and the other

diving. Sabre flights were increased to six aircraft, so that four F-86's could follow the climbing MIG element and two could chase the diving MIG element. Elements of two Sabres would continue to pursue as the MIG elements broke down into singles, as they almost always did.[45] Benefiting from the closer timing between patrols and the six-Sabre flights, the 4th Wing soundly thrashed the MIG's on 22 April. Obviously picking their time of attack on the afternoon of this day, 36 MIG's swarmed across the Yalu to assault 12 Sabres which were completing their patrol and were starting to return home. The hapless MIG's, however, ran headlong into another formation of 12 fresh Sabres, which soon shot down four of the startled Communists and damaged four other MIG aircraft.[46]

Since the Sabres continued to manifest their mastery of the air at the Yalu, FEAF's airfield neutralization program progressed without much hindrance. Scheduling an average of 12 bombers daily for the work between 17 and 23 April, Bomber Command cratered the runways and strewed delayed-action bombs at Pyongyang Main, Pyongyang East, Anak, Sariwon, Kangdong, Yonpo, Hamhung, Sinmak, and Sunan Airfields. The Superfortresses made repeat raids against several of these fields in the period, and Fifth Air Force fighter-bombers further postholed many of the same airfields. Day-flying light bombers also worked against airfield targets, and B-26 night-intruders visited the targets to discourage the enemy's persistent repair efforts. On one occasion a flight of Sabres returning from MIG Alley dropped down and strafed Red repair workers at Pyongyang. Conducted under circumstances of complete freedom from enemy air opposition, FEAF airmen remarked that the airfield strikes were rather much like shooting sitting ducks. Although the Communists patiently continued to make repairs at the airfields, the FEAF Bomber Command's work had progressed so favorably that it returned to interdiction tasks after 23 April.[47]

The degree of United Nations air superiority which had been won over North Korea was measured best by the fact that the Communist ground offensive begun on the night of 22 April received no support from the Red air forces. All seemed to be going well, but General Partridge had reason to be apprehensive about a mischievous project which the Reds were about to get in operation at Sinuiju Airfield. Covered by a bristling array of antiaircraft artillery and by Antung's MIG's, the Communists apparently felt secure at Sinuiju. At the fringes of the airfield the Reds built new fuel, supply, and ammunition dumps, and they dispersed 38 Yak-9's, IL-10's, and LA-5's in revetments at the field. Early in May Fifth Air Force reconnaissance crews reported a frenzy of activity at Sinuiju. What use the Reds meant to make of the airfield and air garrison General Partridge did not know, but at the end of the first week of May he judged that Sinuiju Airfield was ripe for a massive Fifth Air Force attack.[48]

According to order and with careful attention to scheduled times of attack, beginning promptly at 1400 hours on 9 May, 312 Fifth Air Force and 1st Marine Air Wing fighter pilots attacked Sinuiju Airfield. Relays of 4th Wing Sabres, 27th Wing Thunderjets, and Marine Air Wing Pantherjets covered overhead but found little activity. About 50 MIG's took off from Antung, but only 18 of them made flitting passes across the Yalu. Most of the MIG's showed no desire to fight. The pilots of one Sabre flight reported that for a



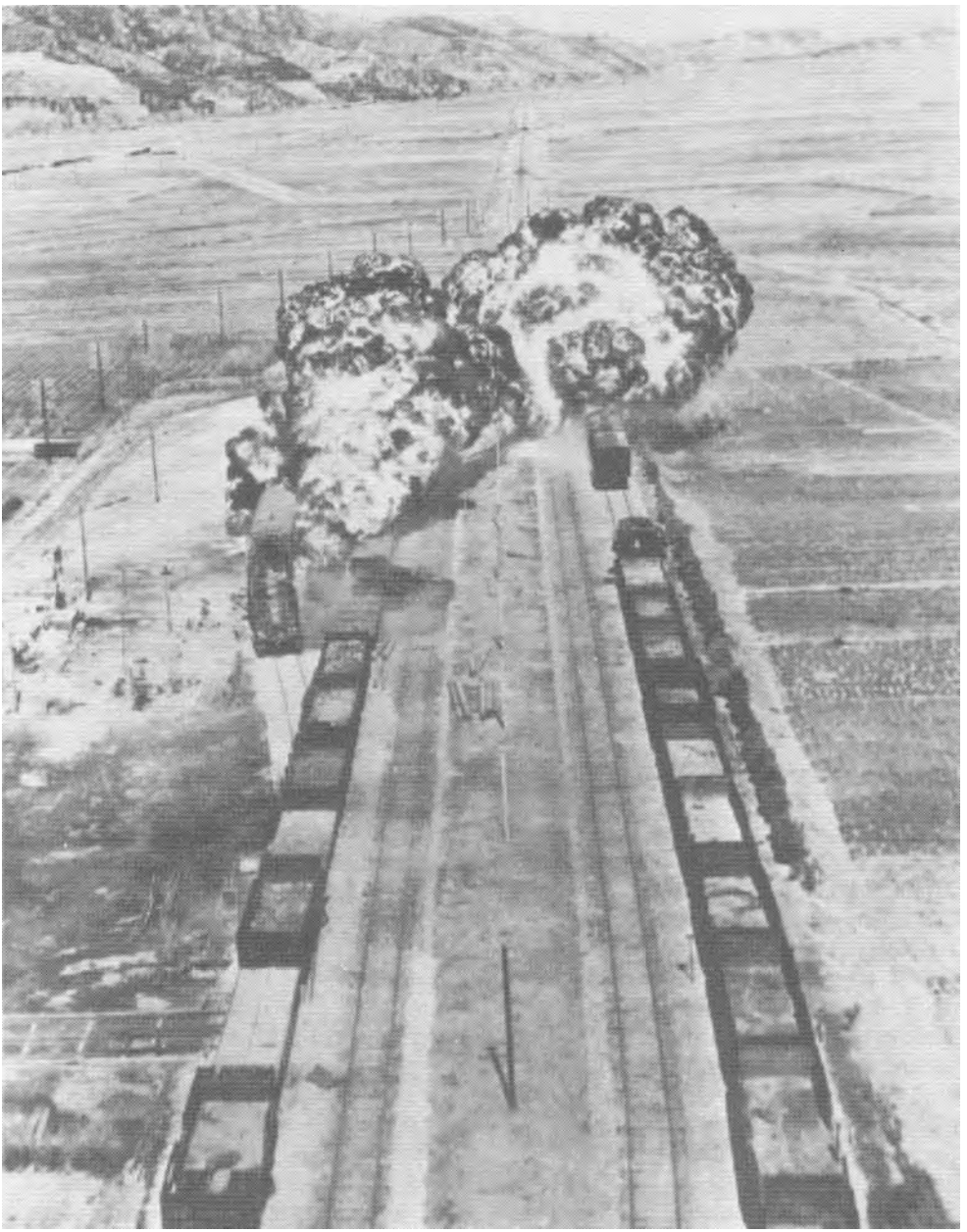
Communist-held airstrip at Yonpo, 23 April 1951.

B-26 rockets, napalm bombs, and .50-caliber machinegun fire explode on an enemy marshalling yard at Masan-ni.

Path of destruction made by B-26 bombers on enemy warehouses near Munchon.

short while they flew alongside a similar flight of eight MIG's, with only the width of the Yalu separating them. Under such circumstances air-to-air scores were slender: one Sabre pilot marked damages on a single MIG and a Thunderjet pilot scored similar results on another MIG. Meanwhile, waves of 8th, 49th, and 51st Wing Shooting Star jets suppressed flak with proximity-fuzed bombs and rockets, while 1st Marine Air Wing Corsairs and 18th Wing Mustangs launched bombs, rockets, and napalm against prebriefed targets in the ten-square mile airfield area. The smashing air attack knocked out all the Red aircraft on the field, destroyed 106 buildings, fired an unusually large aviation fuel dump, exploded 26 other ammunition and supply dumps, and undoubtedly inflicted heavy casualties among the ranks of the enemy personnel who streamed out of the buildings into the open. Only one Thunderjet was damaged, and it returned safely to base, as did all American planes.[49]

It is possible that the Reds intended to employ the Sinuiju air garrison in support of their ground troops who were to initiate the second impulse of their vaunted spring ground offensive on the night of 15 May. If this was the plan, the Reds had again miscalculated, and at any rate the Red ground forces would obtain no assistance from the Chinese Communist Air Force. Carefully keeping on their own side of the



Fiery napalm marks direct hits on a rail junction at Munchon, deep in North Korea.

Yalu, the MIG's marked time and refused to fight.[50] Repair work on North Korean airfields dragged on lethargically, and a few well-timed FEAF strikes checked such progress as was made.[51] To one young Sabre pilot, Captain James Jabara, the refusal of the Red jets to come out and fight was aggravating. Strictly speaking, Captain Jabara should have returned to Japan on 7 May, when the 334th Squadron traded stations with the 335th Squadron, but Jabara's case was unique: he had destroyed four MIG's and needed one more aerial victory to make him history's first jet air ace. Finally, late on the afternoon of 20 May, two Sabre flights closed into MIG Alley and found that the Red airmen were willing to fight. Hearing the news by radio, two other Sabre flights, one of which included Jabara, arrived within fifteen minutes and shared the combat. As the fight progressed, the 36 Sabres battled some 50 MIG's and emerged with three victories, one probable destruction, and five claims of damage. Even at the last moment fate had seemed to frown on Captain Jabara because one of his wing tanks would not jettison. Under such circumstances, Sabre pilots usually went home, but Jabara plunged into the fight and destroyed not one but two of the Red MIG's, thus establishing himself as the first jet air ace in aviation history.[52]

Following the bloodletting on 20 May, the Red pilots were inactive until 31 May, when 12 MIG's surprised two 19th Group B-29's while the bombers were waiting for their Sabre escorts 75 miles southeast of Sinuiju. The MIG pilots had ventured far from the Yalu, but they did not appear to know how to make a successful pass against the bombers. The Superfortress gunners shot one MIG down, and the Sabre escorts arrived in time to destroy two more of the Red planes, whose pilots became so rattled that they shot at each other far more than at the Sabres.[53] On the next day—1 June—four 98th Group B-29's attempted a second run over a railway bridge northwest of Sinanju. Short on fuel, the escorting Sabres had to go home, and a few minutes later 25 MIG's swarmed down from out of the sun. The Red airmen shot the wing off one bomber and damaged two others, but they paid heavily, for the medium-bomber gunners claimed one MIG destroyed and a flight of Sabres heeded a call for help in time to down two more of the MIG's.[54]

6. The Reds Implement a Revised Air War Plan

The general lethargy of the Chinese Communist Air Force throughout May doubtless reflected indecision on the part of the Communist air commanders, who were actively seeking some course of action looking toward victory in Korea. Intelligence data received in Tokyo, purporting to be a summary of high-level military conversations between Chinese and Russian officers in Mukden, indicated that the Reds attributed the failure of their ground campaigns to their inability to control the air over Korea. According to this

report, General Liu Ya-lou was roundly criticized for the ineffective employment of the Chinese Communist Air Force, but Liu rebutted the criticism with explanations that "incomplete preparations" and insufficiently trained air crews had prevented any all-out air offensives.[55] Sometime in May, probably after 10 May, when the Mukden conference was said to have been held, the Communists revised their air war plan for Korea. The details of the revised plan were mentioned in the report of the Red Chinese Aviation Inspection Group and were also manifest in the course of events in Korea. Since insufficiently trained Chinese pilots had been unable to take control of the air over northwestern Korea, a new "International Communist Volunteer Air Force" would lend a hand. Under cover of MIG sorties flown by the best Chinese pilots and "volunteer" airmen, the Reds would redouble their efforts to repair and rehabilitate airfields in North Korea. Members of the Special Aviation Inspection Group would supervise this intensified program. As quickly as any airfield could sustain the operations of light aircraft, North Korean pilots would institute night-heckling raids against United Nations positions. At an opportune time—depending on the success of the plan's other phases—the Reds would bring forward the more formidable Ilyushin ground-attack units which a Russian air general had been training in Manchuria.[56] At mid-June 1951, when the Reds began to implement the revised air war plan, Communist ground armies were in disorderly retreat along the 38th parallel, but the Communist commanders may have hoped that an air victory might yet save their cause in Korea.

According to Fifth Air Force photo interpretation reports, the FEAF airfield attacks flown in April had rendered all North Korean airfields "unserviceable," the major criterion for "serviceability" being an unobstructed 3,000-foot runway. Except for the once-substantial airfields at Pyongyang, Sinuiju, and Yonpo, however, most North Korean air facilities were dirt or sod airstrips, so simple in structure as to be easily repaired. In fact, the Fifth Air Force figured that the Reds, given a week of uninterrupted labor, could restore any airfield to serviceability. Overnight repairs, moreover, could enable some of the airfields to serve light aircraft.[57] As the Reds worked, Fifth Air Force reconnaissance teams watched. One Communist project which whetted the curiosity of the photo interpreters was under way in Pyongyang City, and early in May these photo scanners grasped the meaning of the peculiar activity. Within the North Korean capital the Reds demolished buildings along a straight stretch of paved street, giving themselves a hard-surfaced runway 7,000 feet long and 375 feet wide. Old intersecting streets substituted for taxiways, and the whole city could shelter dispersed airplanes. Fifth Air Force airmen sent to crater the "runway" named the unique facility "Pyongyang Downtown Airfield."[58] Recognizing that the Reds might be using some of their dirt strips after dark, the Fifth Air Force routinely dispatched 3d Wing night-intruder B-26's to maintain nocturnal surveillance and to harass Red labor troops. On the night of 24/25 May this classic intruder work bore first fruit, for a B-26 crew sighted an unidentified aircraft taking off from Yongyu Airfield, 25 miles northwest of Pyongyang. Both Pyongyang Downtown and Yongyu had been attacked before, but, to see the job well done, Bomber Command sent the 19th and 307th Groups to crater

them on 28 May.[59]

A survey of aerial photographic cover flown on 6 June showed that the North Korean airfields were unserviceable, but bad weather during the next several days held up routine airfield strikes and evidently allowed the Reds a long enough time to repair at least one of their airfields. Unknown to the Fifth Air Force, but revealed much later in the captured diary of a North Korean pilot, a handful of North Korean airmen assembled at Sariwon Airfield and galvanized into action.[60] Down in the Seoul area, in the early-morning hours of 14 June, 606th Aircraft Control and Warning Squadron observers marked two low and slow-flying "blips" emerge from the ground clutter on their radar scopes and head southward. Several minutes later, at about 0315 hours, one of the Red raiders dropped two bombs on Suwon Airfield, barely missing a squad of aviation engineers who were repairing the runway. The other raider cruised over Inchon and launched his bombs at an Eighth Army motor park. Both planes escaped northward, and, on the basis of numerous sightings, Fifth Air Force intelligence officers identified the little planes as Polikarpov PO-2 biplanes, little canvas-covered, open-cockpit trainers, which were probably among the oldest Soviet aircraft. On the night of 15/16 June an equally strange plane, identified as a Blochavidan MBE-2 pusher-type seaplane, made a strafing pass across Kimpo Airfield with no results other than some near misses against a jeepload of air policemen.[61]

These first heckling attacks should have warned the Fifth Air Force that the Reds were bent on mischief. Actually, North Koreans were employing tactics that the Russians had exploited in World War II, when Soviet pilots had used the little PO-2's in night attacks against the Germans. On the third night, when Comrade La Woon Yung and another North Korean pilot arrived over Suwon, they evidently found the field well lighted and ready to be attacked. As the 4th Wing officer of the day subsequently pointed out, a steady flow of lighted vehicles on the perimeter road around the airfield fairly well outlined the target for the North Korean raiders. Each of the PO-2's dropped a pair of small bombs. One bomb damaged equipment in the 802d Engineer Aviation Battalion's motor pool, and another scored a direct hit on the 335th Squadron's aircraft parking ramp, completely destroying one Sabre and damaging eight others, four of them seriously. "I saw with my own eyes that many of the enemy aircraft had been destroyed by my bombing," recorded the North Korean pilot in his diary.[62] One little PO-2 biplane, which directed a well-aimed blow against planes on the ground, where aircraft are always most vulnerable, had done more damage to the Sabres than had all combat with the MIG's up to this time.

Whether it was by design or by circumstances, the Communists first displayed their "big-team" MIG's on the morning of 17 June, for 4th Wing Sabre pilots patrolling the Yalu met a formation of 25 unusually aggressive adversaries. Up until this time the Sabre pilots had occasionally encountered extremely able MIG pilots, who often flew alone and exuded confidence. These men were evidently Red instructor pilots, men whom the Sabre force came to call "honcho" pilots, the word "honcho" meaning "boss" in Japanese. Now, however, a whole unit of able MIG pilots had evidently been committed in Korea. The fight on 17 June favored the Sabres, who downed one enemy plane, and damaged six

others without sustaining loss or damage.[63] Far from discouraged, more than 40 MIG pilots swarmed out to meet 32 Sabrejets on the morning of 18 June. In a furious air battle the Sabre pilots claimed the destruction of five MIG's, but one Sabre did not return from the combat—the second such loss in the Korean war.[64] For the third successive day Sabres tangled with MIG's over northwestern Korea on 19 June. In this engagement the Sabres damaged four MIG's, but again a Sabre pilot did not return to Suwon and was assumed to be lost.[65]

The vigorous action of the Communist jets quite probably marked a Red effort to set the stage for an initial employment of the Ilyushin ground-attack force against a Korean target. The MIG's had not subdued the Sabres, but the Communists nevertheless introduced their IL-10's for a limited test in combat on the morning of 20 June. For several days Communist ground troops had been trying to dislodge South Korean forces from the small island of Sinmi-do, which lay just off the Korean coast about 75 miles southeast of Sinuiju. Apparently the Reds deigned to give their ground troops some air support. Thus, early on the morning of 20 June, a flight of 18th Group Mustang pilots sweeping roads south of Sinuiju looked up to discover eight IL-10's on a beeline course for Sinmi-do. The Mustang pilots promptly pulled up and launched into the Ilyushin aircraft, destroying two and damaging three of the conventional ground-attack planes. Both adversaries evidently called for reinforcements, and another flight of Mustangs, which took station over Sinmi-do, soon met and worsted six Yak-9 fighters, shooting one of them down. A third Mustang flight, with Sabre cover, arrived at the scene at about the same time as MIG's first appeared there. In an aerial fight at jet altitudes the Sabres damaged four MIG's, but one MIG slipped through and literally shot the wing off of one of the slow-flying Mustangs. This ended the day's air actions in the Sinmi-do area. Although the Reds had managed to down a Mustang, the Ilyushin ground-attack force had clearly failed its initial test in combat. American pilots agreed that this Communist air offensive had been easily opposed. In fact, Lt. J. B. Harrison, the Mustang pilot who had downed the Yak with a beautiful deflection shot, was quoted to the effect that: "Them Yaks are flown by a bunch of Yuks and there ain't no sweat."[66]

While the major air battles were waging over MIG Alley the little North Korean PO-2 hecklers were arriving in the Seoul area so regularly after midnight that United Nations troops referred to them as "Bedcheck Charlies." Except for the destruction at Suwon on 17 June, the PO-2's accomplished very little, but they were admittedly "a small but very antagonizing thorn in the side of the United Nations force."[67] Geared to act against high-performance aircraft, Fifth Air Force air defenses were baffled by the 80-knot biplanes. Flying low down moon-illuminated valleys, the PO-2's did not appear on the 606th Aircraft Control and Warning Squadron's radar scopes until they were about 12 miles north of Seoul, and even then the little planes' wood frames and fabric covers offered poor electronics reflecting surfaces. Even when a raider was located and a night fighter of the 68th Fighter-Interceptor Squadron or of VMF(N)-513 was vectored to an interception, the PO-2's slow speed and extreme maneuverability often allowed it to escape. On several occasions Marine night fighters nearly rammed

the small planes and yet could not pick them up from amidst the ground clutter on efficiently operating airborne radar scopes.[68] But the little Red raiders did not always escape. On 23 June Captain Dick Heyman, an old fighter pilot who was flying an 8th Squadron B-26 intruder, responded to the Kimpo air direction center's call for help and throttled down slow enough to overhaul and shoot down a PO-2 north of Seoul.[69] On the night of 30 June, Captain E. B. Long, of VMF-513 Squadron, hovered his F7F night fighter behind one of the PO-2's and blasted it down on the banks of the Han River.[70]

The interception and destruction of the Bedcheck Charlie raiders over Seoul helped combat the menace, but the primary and most effective FEAF response to the night air attacks was an intensive neutralization of all possibly operational North Korean airfields, especially the complex of 15 fields up around the Pyongyang area. At the beginning of better weather, on 10 June, well before the first PO-2 attack, the Fifth Air Force had returned to its routine airfield strikes. And beginning on 17 June the FEAF Bomber Command placed the brawn of its medium bombers behind the airfield attack campaign. A gamut of air attacks kept most North Korean airfields under daily assault. Day-flying fighter-bombers, light-bombers, and Superfortresses postholed the airfields, while night-intruder B-26's made as many as five attacks across the more suspicious-looking airfields each night. A part of the airfields designated for attack were such obscure objectives that medium-bomber crews had trouble identifying them from the air, but intensive study of target photographs prior to missions helped the crews put their bombs on targets.[71]

For more than a week FEAF crews engaged in the airfield neutralization strikes met no enemy air resistance, but, effective on 22 June, the Communist air commanders evidently threw their MIG forces into the fray. On this day, as Shooting Star jet fighters swept Sinuiju Airfield unscathed, Sabres and MIG's tangled overhead, and at a cost of one F-86 the 4th Wing pilots destroyed two MIG's.[72] Given the mission of opposing the airfield neutralization strikes, the new breed of MIG pilots was quite willing to leave the sanctuary at the Yalu. Carrying wing tanks, which they dropped prior to combat, the MIG pilots overflew or evaded the Sabre patrols and penetrated as far southward as Pyongyang and Chinnampo. For the first time the MIG airmen exploited the advantages of their planes, especially the MIG's ability to fly and maneuver at high altitudes and outclimb the Sabres. The MIG airmen introduced a new maneuver which the 4th Wing described as the "Yo-Yo": 20 or more MIG's established orbits over United Nations air formations; then, preferably from up-sun and usually in elements of two, the MIG's dived downward and attacked United Nations aircraft from high astern; and, finally, the elements zoomed back up into the pool of orbiting MIG's overhead.[73]

The MIG pilots were so cool and canny that even FEAF intelligence could state that "more proficient pilots have recently been committed in Korea," but the Red airmen were nevertheless unable to have much effect upon United Nations pilots, even the fighter-bomber men who flew much slower aircraft. For one thing, the fighter-bomber pilots operated at lower altitudes, where the MIG's had fewer advantages. On 24 June a MIG formation jumped 51st Wing F-80's who were strafing Sinanju Airfield. In a running

fight at low level, where the Shooting Stars had all the advantages, the F-80 pilots damaged four MIG's and escaped unharmed.[74] On 26 June 12 "well-experienced" MIG pilots, who knew how to fly passes against bombers, penetrated the Sabre screen and attempted to attack four Superfortresses over Yongyu Airfield. Although relatively new to combat, Thunderjet pilots of the 136th Fighter-Bomber Wing successfully turned back the MIG's and shot down one of the Red planes.[75] In two separate instances, on 28 and 30 June, six MIG's attacked flights of F-51's near Sinanju and Songchon, and the Mustang pilots reported hearing a lot of radio chatter and even laughter on the Red communications channels, indicating that confident Communist pilots were getting pleasure from their work. But on each occasion the old Mustangs outmaneuvered the faster jets and fled home safely at treetop levels.[76]

With the beginning of July FEAF medium, light, and fighter-bombers continued day and night strikes against Communist airfields in northwestern Korea. Where enemy defenses warranted, the planes coordinated their attacks. Thus, on 3 July, 32 F-84 Thunderjets suppressed flak in Pyongyang City while six Superfortresses, escorted by 33 Sabrejets, dropped more than 850 x 100-pound bombs on the runway at Pyongyang Downtown Airfield.[77] Except on rare occasions, the MIG's did not show themselves, and when they did the Sabres made them suffer. Thus on 8 July 20 MIG's attacked a squadron of Mustangs which were returning from an airfield strike at Kangdong. The Mustangs scattered and called in 35 Sabres, who soon shot down three of the MIG's.[78] Again, on 9 July, a flight of MIG's intercepted six 19th Group B-29's as the bombers turned off their target run at Sinanju Airfield. Escorting Sabres shot down one MIG and Superfortress gunners destroyed another.[79] On 11 July 30 MIG's attacked 21 F-80's which had napalmed an enemy target south of Sinuiju. As the Shooting Stars counter-attacked, 34 Sabres joined the battle. One enemy plane was hit, caught fire, and exploded in midair. Another was hit, started burning, and the pilot bailed out. Still another MIG went into a spin all by itself and its pilot parachuted.[80] Near Uijongbu, before daybreak on 12 July, a Marine F4U pilot intercepted and shot down another PO-2 biplane.[81]

Quite suddenly, on 12 July, as if someone somewhere had given a controlling order, the Communist air offensive in Korea admitted its failure and came to a halt. At the North Korean airfields Communist laborers no longer attempted to fill the bomb craters placed there by FEAF airmen. After 12 July no more Bedcheck Charlies tried to come to the Seoul area. The report filed by Red China's Special Aviation Inspection Group left no doubt that the Communists knew that their revised air war plan had failed. The group noted that the Ilyushin ground-attack force had staged a single raid and had "failed." The group plaintively asserted that it had "spent two months on the battlefield supervising the repair of 69 airfields which in the end only helped facilitate the operations of 30 planes." Such a futile construction effort, stated the Red Aviation Group, "was far beyond the financial power of Red China to support."[82]

10. *Target Logistics*

1. An Appreciation of the Situation

"In a long-term war," stated General Weyland on 28 December 1950, "tactical airpower will contribute more to the success of the ground forces and to the over-all mission of a theater air commander through a well-planned interdiction campaign than by any other mission short of the attainment of air supremacy." From the beginning of the war in Korea Generals Stratemeyer and Weyland had argued that air attacks against the enemy's logistical support could create conditions whereby friendly ground troops could battle a numerically superior enemy on more favorable terms.[1] United Nations ground commanders had not grasped the value of aerial interdiction, and, as he looked back at 1950's operations, General Weyland could see that this lack of understanding of the value of air assault at the enemy's rear had been nearly fatal to the United Nations Command. In South Korea the North Korean People's Army had been lashed between the frontal battle of the Eighth Army and rearward United Nations air attacks and had lost its fighting effectiveness. But the Inchon invasion had obscured the role that airpower had played in the victory, and General MacArthur had launched a ground campaign toward the Yalu. As United Nations ground forces drove northward, United Nations airpower was unable to cross the political barrier at the Yalu and thus could not attack the Chinese Communist armies. As a result, the Chinese Communist ground armies had overwhelmed United Nations ground forces. When United Nations ground forces retreated southward, however, the United Nations air forces found the time and space they needed to repeat their pattern of destruction and interdiction. After two months of air attack the same Chinese Communist armies which had made such an auspicious beginning in Korea had been defeated in South Korea.[2]

The tremendous casualties inflicted on the enemy by air strikes and ground defenses had hurt him badly in January, but General Stratemeyer correctly perceived that the Fourth Field Army's "Third-Phase" offensive had collapsed for want of logistical support. After an initial victory the Red Chinese had been compelled to pause, fall back, regroup, and prepare for another forward lunge.[3] After the first week of January 1951, when the Communist ground offensive was dwindling, General Stratemeyer directed the Fifth Air Force and the FEAF Bomber Command to concentrate against the enemy's lifelines. The plan of attack was already outlined in the directive for FEAF Interdiction Campaign No. 4, which, issued on 15 December, divided North Korea into 11 zones and named for destruction 172 targets—45 railway bridges, 12 highway bridges, 13 tunnels, 39 marshaling yards, and 63 supply centers.[4]

The pattern of the January communications attacks shaped up quickly. Since most North Korean streams were in the low-water season and many of them were frozen solidly enough to permit troops and vehicles to cross them, even if road bridges were cut, Stratemeyer ordered Bomber Command to use its whole striking force against railway bridges and marshaling yards in

the upper reaches of northwestern and central Korea. The Fifth Air Force was expected to employ its light bombers and fighters against rail and highway bridges on the principal routes converging toward central Korea.[5] Wishing to make the transportation blockade tight from coast to coast, General Stratemeyer asked Admiral Joy, on 15 January, to launch carrier air attacks against east-coast rail routes between Hamhung and Susong. Admiral Joy replied, however, that Task Force 77 was devoting its primary effort to close support and that future interdiction capabilities would depend upon close-support requirements.[6]

As executed by the FEAF Bomber Command and Fifth Air Force against northwestern and central Korean targets between 19 and 31 January, the FEAF communications attack was described as the most massive and sustained air effort yet employed in Korea. On one day, 26 January, FEAF planes attacked 16 separate key bridges, and in the thirteen-day period intensified air attacks were mounted against more than 80 key rail and highway bridges as well as marshaling yards and other primary communications targets. Excellent flying weather contributed to the success of the attack program, and while MIG's attacked fighter-bombers at the Chongchon on 21 January, the enemy's counterair effort did not materially hamper the interdiction program.[7] Under the cover of the massive interdiction attacks the Eighth Army's drive toward the Han River progressed against enemy troops whose combat efficiency was definitely waning. "The most probable causes for such a condition," said the Far East Command intelligence journal, "can be attributed to a rising rate of attrition due to heavy losses from United Nations ground and air action, to ravages of disease, cold weather-casualties, and, as a vital basic cause, to his inability to logistically support any operations involving a long supply line which can be struck by an aggressive, efficient air force."[8]

The FEAF transportation attacks prevented the Reds from using their rail arteries in northwestern and central Korea, but the Communists were quick to take advantage of the road and rail routes open to them in eastern Korea. Northward off Hamhung Communist rail travel revived, and on 24 January air-reconnaissance crews counted more than 500 boxcars in east-coast marshaling yards, principally at Kilchu and Chongjin.[9] A steady stream of reports arrived in Tokyo in early February, all indicating heavy enemy troop movements in progress along the northeastern coast rail lines from Hoeryong to Chongjin to Hamhung to Wonsan. Seeking to sever these east-coast rail lines, the 307th Bombardment Group attacked and destroyed nine spans on the railway bridges at Chuuronjang, Hongwon, and Tanchon on 1 February, receiving General Stratemeyer's commendation for exceptional bombing accuracy.[10] On the next several days the Superfortresses continued to give some attention to the east-coast bridges and marshaling yards.

By 6 February, however, the Communists were so openly active in north-central and northeastern Korea that General MacArthur directed General Stratemeyer to concentrate the combined efforts of the Fifth Air Force and Bomber Command in those areas until further notice. FEAF promptly ordered Bomber Command to attack bridges, choke points, and tunnel entrances, and directed the Fifth Air Force to attack rolling stock.[11] According to order, Okinawa-based B-29's hit targets between Kanggye and Changjin and

knocked a span out of the key east-coast railway bridge near Cho-ri on 7 February, while Fifth Air Force light bombers destroyed four bridges and attacked boxcars on the northeastern coastal supply route. Beginning with intruder raids before daylight, all types of FEAF planes kept the northeastern routes under constant assault on 8 February. Superfortresses attacked the key bridges at Toksil-li, Komusan, and Chuuronjang and cratered the highway paralleling the east-coast rail route. Fifth Air Force B-26's, F-51's, and F-80's damaged seven bridges and 11 tunnels, most of them near Kilchu. Farther south, at Hamhung, B-26's attacked boxcars which were backed up in the marshaling yard.[12] General Stratemeyer had intended to continue these cooperative attacks for several more days, but bad flying weather kept all planes out of the area on 9 February, except for a formation of B-29's which bombed Hamhung's marshaling yard by radar.[13]

"It is evident that the enemy has lost his chance for achieving a decisive military decision in Korea," General MacArthur informed the Joint Chiefs of Staff on 11 February.[14] This statement came on the eve of a Chinese "Fourth-Phase" offensive in central Korea, but when this short but intense enemy drive ran down General MacArthur was still optimistic. His communiqué of 20 February revealed that he had accepted the Air Force position on interdiction. "Our field strategy, initiated upon Communist China's entry into the war, involving a rapid withdrawal to lengthen the enemy's supply lines with resultant pyramiding of his logistical difficulties and an almost astronomical increase in destructiveness of our air power, has worked well," MacArthur stated. "The enemy," he continued, "is finding it an entirely different problem fighting 350 miles from his base than when he had this 'sanctuary' in his immediate rear and our air and naval forces practically zeroed out."[15]

Early in 1951, as United Nations ground commanders began to appreciate airpower's ability to reduce the enemy's strength by assaulting his logistical support, Communist commanders were also acknowledging that their logistical shortcomings were threatening the success of their mission in Korea. Not too well organized to begin with, Communist supply systems had all but collapsed during the drive to South Korea. As has been seen, General Lin Piao ordered the Fourth Field Army to fall back to the 38th parallel in order to resupply and regroup.[16] General Peng Te-huai, who took command of the Chinese Communist volunteers sometime early in March, also recognized the logistical difficulties facing his command. In an address delivered a few days prior to the "Fourth-Phase" attack, General Peng Te-huai acknowledged that his troops were not ready to fight. "This battle begins under unfavorable conditions," he said. "Our period of rest is interrupted and now, when we are not yet ready to fight, the fourth phase is under way."[17]

Although General Peng Te-huai ordered the abortive mid-February offensive to check the Eighth Army's forward progress, the Communist plan for the war in Korea required the Fourth Field Army to defend the 38th parallel at all costs until May 1951, by which time it should have received the logistical support that it would need for mounting an overwhelming ground attack.[18] From mid-January onward the major strategic concern of the Chinese was to provide their armies with replacements and supplies. Once again

there was evidently some disagreement as to whether the Reds could hope to provide logistical support in the face of United Nations air attacks. The Red Chinese air commander, General Liu Ya-lou, and the absent but still influential Fourth Field Army commander, General Lin Piao, apparently shared the view that nothing short of the attainment of Communist air superiority could protect the Red supply lines in North Korea.[19] General Peng Te-huai, however, was a strange combination of an old-fashioned guerrilla who was also rated as Red China's foremost military logistician.[20] General Peng Te-huai apparently intended to build a logistical support system in North Korea which would support his front-line troops even if the Chinese Communist Air Force did not attain air superiority over northwestern Korea. As long as the United Nations Command continued to possess air superiority, all Communist transportation movements would be limited to hours of darkness or bad weather. The task, under such circumstances, would be difficult but not impossible. Chinese and North Korean divisions could engage in combat with 48 to 50 tons of daily supply—about one-tenth of the daily-supply requirements of an American division. This daily-supply requirement included about 8 tons of petroleum products (POL), 10 tons of food, and 30 tons of ammunition.[21] To get these supplies forward the Communists would take three actions: they would organize a simple but effective logistical system, an air-defense organization, and persistent and tenacious road and rail route repair programs.[22] The Communist logistical system would be extravagantly expensive in manpower, but Red soldiers at all echelons would be well indoctrinated in the importance of logistical support. "The achievement of final victory," the Chinese 68th Army commander told his subordinates, "lies in timely food and ammunition supply and successful transportation."[23]

"Our interdiction from the air of the main enemy resupply lines, plus our continued and systematic destruction of such supply caches as he had been able to build up in his immediate rear areas," said General Stratemeyer on 25 February, "not only prevented the Communist from exploiting his initial momentum but also enabled our ground forces to resume the offensive."[24] General Stratemeyer's assessment of the situation was undoubtedly correct, but the United Nations air forces were facing critical months in which the Reds would do their utmost to provide their combat forces with logistical support. If the Communists could manage to supply their vastly superior numbers of ground troops in combat in Korea, they would likely win their objectives. On the other hand, if United Nations interdiction strikes could destroy, disrupt, and delay the Communist logistical system, the United Nations objectives would likely prevail.

Gen. Liu Ya-lou

2. North Korea's Communications Lines Were Prime Targets

As issued by General Stratemeyer on 15 December 1950, the FEAF Interdiction Campaign No. 4 manifested a keen appreciation for North Korea's geography and existing lines of communication. It recognized that the Reds could move supplies to the battle area either through northwestern Korea or through northeastern Korea. In northwest Korea the Reds possessed a complex and extensive double-tracked railway system and a well-developed highway net. In northeast Korea a single-track railway and adjacent highway paralleled the coast for long stretches. The eastern routes were very vulnerable, but the "H"-shaped configuration of the western rail and highway routes would permit the Reds to bypass many interdiction points merely by rerouting traffic. Considering tonnages to be hauled and distances involved, the Reds would undoubtedly make maximum use of their railways. This was a matter of simple arithmetic, for a Russian-built GAZ truck had a load capacity of about two tons whereas a Korean freight car carried approximately 20 tons. Thus the Red Chinese divisions in Korea in December could be supplied by some 100 freight car loads per day, which could be transported on seven 15-car trains. The FEAF target committee planners who drew up the interdiction campaign also noted that North Korea's rail routes passed through an incredibly large number of tunnels, which, if destroyed, would serve as obstacles to rail movement. On the basis of such study the FEAF interdiction plan divided Korea north of the 37th parallel into 11 zones, including 172 distinct targets—45 railway bridges, 12 highway bridges, 13 tunnels, 39 marshaling yards, and 63 supply centers. The basic concept was that FEAF planes would destroy all targets in each zone in succession according to the alphabetical priority of the zones. Zone "A" was adjacent to Sinuiju. "B" covered the routes to Manpojin, and "C" centered at Pyongyang.[25]

The target planners who laid out FEAF Interdiction Campaign No. 4 grasped North Korea's geography soundly and nominated a valid basic list of interdiction targets, but they displayed far too little concern for the capabilities of United Nations aircraft to destroy interdiction targets and for the counter-measures which the Communists would employ to mitigate the effect of air attack. The highest priority interdiction targets, for example, lay north of the Chongchon River in an area hazarded by MIG fighters, and if the vulnerable B-29's were to attack in this zone they would have to have substantial fighter escort. Rather than to attempt to provide such escort, the Fifth Air Force suggested on 5 February that its fighter-bombers could interdict targets in zone "A."[26] In the weeks that followed the Fifth Air Force made a few attacks against the major bridges in northwestern Korea, but on 26 February Col. Gilbert Meyers, the Fifth's deputy for operations, telephoned General Crabb at FEAF and asked to be relieved of the task. Colonel Meyers explained that the Fifth Air Force was again prepared to escort B-29's into the area and also stated that "fighters were not very effective in attacks on bridges." General Crabb accordingly directed Bomber Command to schedule interdiction strikes into area "A" effective on 1 March 1951.[27]

The FEAF target planners had also proposed to destroy all interdiction targets in each zone in turn according to the importance of the zone, but the Reds, at the end of January, showed that they were quite willing to use less efficient east-coast traffic routes when routes in the higher-priority "A" and "B" zones were interdicted. In order to maintain an effective blockade United Nations aircraft would have to keep targets interdicted simultaneously in all of the interdiction zones. Since the Far East Air Forces did not have strength enough for such a task, it was fortunate that Admiral Joy agreed that his Naval Forces Far East would assume the responsibility for interdicting Red lines of communications in zones "F," "G," and "H"—the three zones which ran north from Wonsan to the Siberian border. Admiral Joy put the Seventh Fleet's principal air effort on interdiction on 16 February and followed this up with a plan to coordinate air and surface gunnery attacks against the east-coast rail route on 20 February. The Navy reported that it actually "got its interdiction line effective on about 8 March 1951."[28]

Even though the Naval Forces Far East assumed responsibility for three of the interdiction zones, the FEAF Bomber Command was eventually responsible for interdicting 60 bridges, 39 marshaling yards, and 35 supply and communications centers—a substantial target list for three groups of medium bombers. In the autumn of 1950 bombing from 10,000 feet with no fear of enemy air opposition, each B-29 had usually dropped four bombs per run over bridge targets, and Bomber Command had computed that 13.3 runs were required to destroy an "average" bridge.[29] Such bombing was not quite up to standards of accuracy to be expected from Norden bombsights, but with five groups of bombers, Bomber Command had run through its bridge targets lists so rapidly that no one had bothered too much about the matter. In the early months of 1951, however, General Briggs had to expect the utmost of each bomber crew. Now, Bomber Command had a daily sortie capability of 24 B-29's. The 98th Bombardment Group usually furnished 24 sorties one day, and the 19th and 307th Groups furnished 12 sorties each on the following two days. And the bombing problem was much more complex. Because of Communist gun batteries, the medium bombers often had to attack bridge targets from 21,000 feet, and because of the MIG-15 fighters the bombers could seldom make more than a single run on a target.[30]

As the best answer to the changed operating conditions, Bomber Command began to attack bridges with formations of three or four aircraft, which approached the target on an inside acute angle of from 28 to 37 degrees. Larger bombs were needed for bridge destruction. The 19th Group already had heavy-type bomb racks, and in February 1951 the 98th and 307th Groups also obtained them. These groups noted that they got better results from 2,000-pound bombs. In an experimental mission flown in March, one B-29 formation dropped 4,000-pound light-case bombs with proximity fuzing to determine whether bridges could be destroyed by blast effect, apparently without worthwhile results. The four-plane formation also became standard for most marshaling-yard attacks. Usually long and narrow, the marshaling yards presented perfect targets for the four-ship formation, if raked along their length.[31]

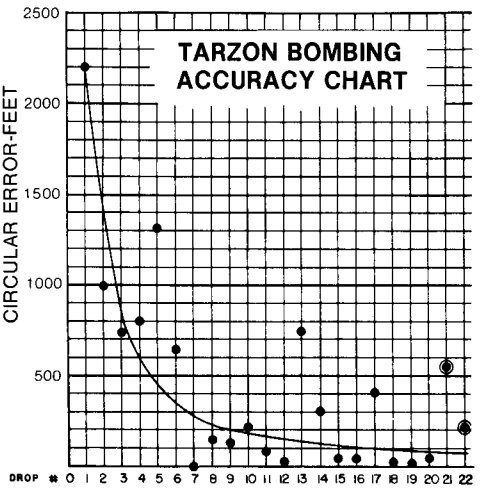
The four-plane formation with 1,000- or 2,000-pound bombs became the

(top) B-29 bombs hit this storage area at Munchon.

(left) The lead B-29 during the 150th combat mission of the 19th Bomber Group, February 1951

(right) SSgts. Eddie O'Brien and Joseph A. Sanders work quickly but carefully arming these bombs despite the bitter weather.

standard means of destroying bridges, but Bomber Command had long hoped that radio-controlled bombs would add precision to its bridge attacks. Especially designated for the work and assisted by an Air Proving Ground technical team, the 19th Bombardment Group had tested 1,000-pound razon bombs in the autumn of 1950. This World War II bomb had remotely controlled tail fins which responded to a bombardier's radio signals and permitted its guidance to a target with range and azimuth corrections. At first the 19th Group met many malfunctions, but out of a total of 489 razon bombs dropped 331 (67 percent) responded to control. The last 150 razon missiles had a control reliability of 96 percent, and razon bombing destroyed 15 bridges. The razon bomb was performing well, but about four of these 1,000-pound bombs were required to take out an average bridge. In December 1950 the 19th Group accordingly de-emphasized razon in favor of the newly developed 12,000-pound tarzon bomb, which had a similar guidance system but much greater destructive capabilities. The 19th Group's technical section had never seen these six-ton missiles before they arrived at Okinawa, and of ten tarzons dropped in December, only one scored a direct hit. Only a few tarzons were available in the next two months, but technical skill in handling them was improving, and on 13 January a single B-29 dropped a tarzon from 15,000 feet and neatly chopped two spans out of the important railway bridge at Kanggye. When a new shipment arrived on 3 March, the 19th Group employed the missiles more freely. In three attacks tarzon bombers twisted the girders on one bridge and cut spans out of two others. Tarzon seemed to be developing into a reliable and highly effective air weapon.[32]



Throughout March 1951 Bomber Command's bridge interdiction program progressed methodically everywhere except in MIG Alley. The medium bombers regularly attacked assigned targets on the key railway running southward from Manpojin. After sustaining damages from MIG fighters over Kogunyong on 1 March, however, the mediums did not again enter MIG Alley, or interdiction zone "A," until several weeks had passed. On 23 March the Sabres had the MIG's under better control, and three formations of 19th and 307th Group Superfortresses bombed the key rail bridges at Kogunyong, Kwaksan, and Chongju, thus severing the Sinuiju-Sinanju railway in three places. Next day these Okinawa-based groups hit two rail bridges immediately south of Manpojin and single bridges at Huichon, Kunu-ri, and Sukchon, thus again immobilizing through rail traffic on the Manpojin to Sinanju line.[33] Although the medium bombers were displaying prowess in bridge destruction, which, by definition, required one or more spans of a bridge to be dropped into the water, the Reds had begun to display an amazing

ability to repair bridges and to build bypasses to them. The 3,500-foot-long railway bridge across the Chongchon River at Sinanju provided a typical case study in Communist actions. While retreating southward, the Eighth Army had demolished spans of this bridge, but by 4 February the Reds had a bypass bridge carrying traffic. On 1 March B-29's bombed out the bypass, but on 12 March the Reds were repairing this bypass, and on 24 March they had started construction on a bypass to the bypass bridge. And bypass number one was back in service on 26 March.[34]

As long as the Yalu River remained frozen, General Stratemeyer had been willing to postpone attacks against the international bridges which Bomber Command had not completely destroyed in November and December. With the coming of the spring thaw, however, General Stratemeyer wanted these key bridges taken out. Looking toward an efficient accomplishment of this project, FEAF intelligence officers secured blueprints of the Sinuiju railway bridge from the Osaka Railway Construction Company, which had built it. They studied these designs and plotted the bridge's weakest spots, where well-aimed bombs might take it down.[35] On 27 March the Yalu was thawing well up toward Manpojin, and Stratemeyer flashed orders for General Briggs to lay on the international bridge attacks. Lest there be a violation to Manchurian soil, the bridges could be attacked only under visual bombing conditions. On 29 March General Briggs sent the 19th and 307th Groups winging northward to the Yalu. Most of the medium-bomber formations found their assigned targets obscured by clouds and diverted to bomb Pyongyang Airfield. Three 19th Group B-29's, however, were scheduled to bomb the Sinuiju bridges with tarzon missiles, and this area was open. But misfortune dogged the tarzon force: one bomber returned to base with mechanical trouble; the second bomber, carrying Colonel Payne Jennings, the 19th Group's commander, evidently ditched at sea and was lost with all aboard; and the third continued to Sinuiju only to have its tarzon miss its target. On 30 March the 19th, 98th, and 307th Groups all went to the Yalu, and the day's raids dropped two spans of the Chongsongjin highway bridge, covered the pontoon bridge at Chongsongjin with 1,000-pound bombs, and knocked spans out of the Manpojin railway bridge. Again, on 31 March, the 98th Group sent bombers to attack the highway bridge at Linchiang, but it attributed disappointing results to newly arrived replacement crews, who were just beginning to develop their skills.[36]

During the first week of April cloud cover along the Yalu prevented medium-bomber attacks against the international bridges. On 7 April General Briggs dispatched the three medium-bomber groups against the highway bridges at Linchiang and Uiju and the railway bridge at Sinuiju. Finding Linchiang obscured by haze, the 19th Group diverted to Korea's east coast and hit the rail bypass bridge at Cho-ri. The 307th Group reported that its bomb pattern rendered the Uiju bridge unserviceable. The 98th Group's bombs straddled the rail bridge at Sinuiju, but the massive structure remained standing. In one final burst of effort, flown on 12 April, General Briggs sent all three groups to batter the Sinuiju bridge with 2,000-pound bombs. Despite bitter aerial opposition, many of the bomber formations reported good bomb patterns and noted numerous direct hits, but the Sinuiju

rail bridge remained standing. Two days later, on 14 April, Shooting Star jet fighter-bombers ranged to the Yalu to hit a pontoon bridge southwest of Manpojin, but the medium bombers were through on 12 April, for General Stratemeyer announced that the MIG interceptions had made Sinuiju's bridge too costly a target for the medium bombers.[37] General Stratemeyer had hoped that more effective fighter cover might yet allow the B-29's to take out the Sinuiju bridge, but the Reds soon revealed that they had no idea of being denied a crossing at Sinuiju. Almost immediately they began to build no less than eight bypass bridges to the main railway bridge.[38]

Except for the massive Sinuiju railway bridge, which stubbornly refused to fall, the Superfortress attacks along the Yalu had severed most of the key bridges connecting the Communist armies with their logistical base in Manchuria. Altogether, as of 9 April, Bomber Command's box score under Interdiction Campaign No. 4 stood at a respectable total of 48 of 60 assigned bridges unserviceable and 27 of 39 listed marshaling yards out of action.[39] But Bomber Command had been paying heavily for its victories, for in the month prior to 14 April it had lost eight bombers and their crews from combat and operational causes. Counting planes out of commission from combat damage, Bomber Command had only 75 aircraft for operations on 14 April. As General Stratemeyer requested, General Vandenberg agreed to build Bomber Command back to an authorized strength of 99 aircraft, but Vandenberg cautioned that the Air Force could not support Bomber Command at combat sortie rate exceeding 12 sorties per day.[40] Upon receiving this information General Stratemeyer dutifully cut the FEAF Bomber Command back to 12 combat sorties a day, thus necessarily limiting its interdiction capabilities. Moreover, between 17 and 23 April General Stratemeyer had to order the medium bombers against the airfields which the Reds were trying to open in North Korea. The Eighth Army also needed medium-bomber close support. Closely after the beginning of the Communist "Fifth-Phase" offensive on 22 April, General Stratemeyer acted on his own authority to authorize Bomber Command to fly 18 combat sorties a day, and he specified that its target priorities would be airfields, ground support, and interdiction.[41]

Even with a reduced sortie rate and priority commitment to airfields and ground support, Bomber Command made efforts to continue in the interdiction business. The 19th Group still had a supply of tarzon missiles, and, even though one of them had failed to hit the Sinuiju bridge on 12 April, tarzon might yet work. In the month's second employment a B-29 took off from Okinawa with a tarzon on 20 April but soon encountered mechanical difficulties and had to jettison the huge bomb at sea. The missile exploded on contact with the water, and subsequent investigation showed that a tarzon could not be salvoed "safe," for its tail assembly would pull off on impact and arm the blockbuster. This information suggested that Colonel Jennings and his crew had been lost when they had attempted to jettison their tarzon missile from a low altitude prior to ditching their plane. On the basis of this information FEAF suspended the use of all tarzons pending development of safe-salvo features, and eventually (on 13 August) it discontinued the tarzon program. The combat results of the tarzon missile stood finally at 30 bombs dropped, six bridges destroyed, one damaged, three

duds, and 19 targets missed.[42]

In April and May, as Bomber Command had reduced capabilities for interdiction, the Communists displayed what FEAF grudgingly described as "a remarkable engineering ability." Using crude methods and large amounts of impressed labor, the Reds replaced bridge spans on key routes in a matter of days. Sometimes the Reds anticipated air attacks and began to build bypass bridges before an original bridge was attacked. In other instances they fabricated and stored repair materials nearby in order to get to repairs immediately after an attack. Again the history of the Chongchon railway bridge at Sinanju furnished a case study. On 1 April the medium bombers knocked out bypass number one, but on 15 April the bypass was again in use. On 24 April air attack knocked it out again, but crews reported that bypass number two was nearly completed. On 2 May the medium bombers put both bridges out of action, but the Reds immediately began to make repairs. Before the end of the year, moreover, the Reds would have a total of four rail bridges across the Chongchon at Sinanju.[43]

Early in May the interplay of a number of factors led General Stratemeyer to modify the FEAF Interdiction Campaign No. 4. In Washington General Vandenberg was vexed to discover that Stratemeyer had been flying the medium bombers at a rate of 16.5 combat sorties per day, instead of the 12 sorties per day that USAF could support with attrition aircraft and replacement crews. General Vandenberg was also displeased that the medium bombers were still flying in small formations which made them vulnerable to MIG interceptors. "I feel," he told Stratemeyer, "that your use of bombers in flights of small numbers against many small targets is an expensive and arduous method of achieving small results."[44] After middle May, moreover, the Communist spring attacks had failed, and the Reds were retreating northward before the Eighth Army's attack. According to intelligence reports, the Reds were no longer trying to bring supplies southward but were, instead, attempting to save those supplies stockpiled in their forward areas.[45] In the light of these circumstances General Stratemeyer made the Fifth Air Force primarily responsible for interdicting the enemy's highways and railroads and directed Bomber Command to destroy marshaling yards and supply and communications centers.[46]

In the months following February Generals Partridge and Timberlake had given much thought to a search for some manner in which the Fifth Air Force could employ its capabilities most effectively to interdict the enemy's lines of communications. In the zone south of the Wonsan-Pyongyang line the 452d Bombardment Wing's light bombers had made low-level parachute-demolition bomb attacks against lighter rail bridges. In March Fifth Air Force fighter-bombers made many attacks against the railway tunnels which abounded on the lateral rail routes across Korea. These attacks, together with tests flown by the 7th Fighter-Bomber Squadron, had shown that the Fifth Air Force had next to no ability to destroy tunnels with available munitions.* However, Fifth Air Force

*The Fifth Air Force experience against tunnels agreed with Air Force experience in Italy, where tests made in 1944 had demonstrated that tunnels were "poor bombing objectives." (*See* AAF Evaluation Bd. MTO Rpt., vol. V: The Relative Effectiveness of Various Type Bombs and Fuzes Against Strategic and Tactical Objectives, 20 Oct. 1944, pp. 123-24.)

pilots found that they could skip 500- or 1,000-pound delay-fuzed bombs into the entrances of tunnels and destroy the personnel, materiel, and equipment which the Reds customarily concealed in them.[47] During the winter months, when North Korea's streams were in low-water stages and were frozen, the Fifth Air Force had seen little utility in destroying highway bridges, but intelligence officers at Taegu had not lost interest in the North Korean highways, for with the arrival of the spring rains and thaws the roads would again become profitable interdiction objectives.[48]

Toward the end of May, when the Fifth Air Force received the primary responsibility for interdicting the enemy's lines of communications, General Timberlake ordered the execution of an operation which he called "Strangle"—the name being devised to glamorize the task for the benefit of ground officers who had never been charmed by "interdiction." Proposing to paralyze enemy transportation in the zone between the railheads at the 39th parallel and the front lines, the Fifth Air Force program divided the key north-south traffic arteries into three sections for intensive attack by units of the Fifth Air Force, the 1st Marine Air Wing, and Task Force 77. The Fifth Air Force intended systematically to exploit all means of interdiction: bridge attacks, tunnel attacks, cratered roadbeds, delayed-action bombs. In addition to the "Strangle" attacks, the Fifth Air Force and Task Force 77 intended to keep key rail and highway bridges unusable by appropriately timed fighter-bomber attacks.[49]

Beginning on 31 May, the "Strangle" attacks went much the same in the Air Force, Marine, and Navy sectors. In the west 18th Fighter-Bomber Wing Mustangs scouted out sections of roads and railways where repairs or bypasses would be difficult and postholed them with 500-pound bombs, some contact-fuzed and some fuzed for delayed explosions. The wing found that filled roadbeds, through low, wet ground (such as rice paddies), were particularly vulnerable to being cut by bombs. In an effort to establish roadblocks, 3d Bombardment Wing B-26's strewed M-83 butterfly bombs at prebriefed choke points on the enemy's main supply routes. On release from a plane, the M-83 bomb cluster broke down into a number of smaller packages which fluttered to the ground and lay inert until they were disturbed. As the Mustangs worked to the southward, the 49th and 51st Wings sent their F-80 fighter-bombers against rail bridges in northwestern Korea with such regularity that the men of the 49th feared that the Reds would capitalize on the "dangerous pattern" of attack.[50] Early in June the Superfortresses of the FEAF Bomber Command gave the fighter-bombers some assistance with rail bridge attacks, but after a few days Bomber Command devoted its efforts to attacks against airfields, marshaling yards, and supply centers.[51]

Designed to accompany the United Nations counterattack toward the 38th parallel, Operation Strangle was initially successful in its efforts to throw a noose around the retreating Communists. Early in June advancing United Nations troops overran supply dumps which the Reds were unable to extricate and captured large quantities of enemy booty.[52] But by mid-June the Eighth Army had attained its objectives and slackened its pressure on the Communist ground armies. No longer hard pressed, the Reds could resupply and regroup their front-line troops

more at their leisure, and the Strangle operations bore diminishing results. If United Nations aircraft blocked one main supply route, the Reds could take the time they needed to repair it or else they could divert traffic to other less efficient routes. The Communists also mobilized labor troops to repair the damages to their roads. In the forward areas Chinese army service troops apparently performed the maintenance on the roads serving them, and farther to the rear the North Korean department of military highway administration repaired damages to main supply routes. As it continued through July, Operation Strangle got poorer and poorer results, and FEAF's final analysis noted that "Operation Strangle was not successful...due to the flexibility of the Communist logistic system."[53]

3. Night Intruders Had a Difficult Task

"I believe that the paramount deficiency of the USAF today—certainly as regards air-ground operations—is our inability to effectively seek out and destroy the enemy at night." General Partridge had stated this before, but it was still his considered opinion on 15 April 1951.[54] As the North Koreans had done, the Chinese Communists sought to escape air attack by moving and fighting at night. Much was said about the Communist use of great numbers of human and animal transport bearers, but the prime movers of the Chinese logistical system were railway trains and trucks, which moved by night and remained in hiding during the day. To seek out and destroy Communist moving transport at night was a principal part of the mission assigned to the 3d Bombardment Group after August 1950. The group had performed the mission to the best of its ability, but a USAF evaluation board reporting in December had noted that night-intruder operations were successful only in harassing the enemy's movements.[55] During the autumn of 1950 Marine Squadron VMF(N)-513 had operated night-fighter versions of the old Navy Corsair (F4U) aircraft in night-intruder missions flown from Itazuke, Wonsan, and Yonpo. Like the 3d Group, which reported the B-26 to be a "marginal success" as an intruder, VMF(N)-513 called the old Corsair "most unsatisfactory for night operation."[56]

Viewed in terms of Communist movements after dark in North Korea, the Fifth Air Force's operational capabilities for night-intruder operations were extremely small. Based at Iwakuni Air Base on southern Honshu, the 3d Bombardment Wing and the attached 731st Bombardment Squadron (Light-Night Attack)* possessed an authorization for 64 B-26's, but it never had this many planes on hand. During the early months of 1951 the Fifth Air Force usually required the 3d Wing to

*Effective on 25 June 1951, the 731st Squadron was inactivated, and the 90th Bombardment Squadron (Light) was activated and assigned to the 3d Bombardment Wing (Light).

fly 38 combat sorties each night, an effort which could include ground-radar controlled strikes against fixed targets, ground-support missions, as well as intruder sorties. The 3d Wing staged all its missions through Taegu Airfield, a practice which was not entirely satisfactory since communications with Iwakuni were poor, gasoline and bombs were often in short supply at the forward base, and the deteriorating pierced-steel plank runway at Taegu shredded critically short B-26 tires. In the ground emergency, beginning on 23 April, the Fifth Air Force required the 3d Wing to fly 48 sorties each night, and the wing met the requirement by using each aircraft for two sorties a night from Taegu—one intruder and a second ground-support sortie.[57] Having secured a complement of Tigercat F7F-3N aircraft to replace a similar number of its old Corsairs, Marine Fighter Squadron VMF(N)-513 flew from Pusan Airfield (K-1) something on the order of 18 intruder and 6 combat air-patrol missions nightly.[58] After its initial success with Firefly C-47's in January 1951, the 3d Wing modified six C-47 transports for flare dropping and assigned them to the Tactical Flight Section, 3d Air Base Group. Several of these Fireflies customarily remained on the alert at Taegu. Early in May 1951, in recognition that the Firefly C-47's held importance for functions other than night attack, the Fifth Air Force transferred the tactical flight section to the recently activated 67th Tactical Reconnaissance Wing.[59]

Although the Fifth Air Force possessed few planes capable of night attack against moving targets, the Communists displayed more and more targets each month which were ripe for night assault. As they cruised over North Korean main supply routes in the dark of the moon, B-26 intruder, RB-26 night reconnaissance, and C-47 Firefly crews saw strings of lights moving below them. On moonlight nights these crews noted Communist trains speeding from tunnel to tunnel, hauling supplies over incredibly short stretches of open rail track. Each night's sightings were plotted and analyzed by the Joint Operations Center, but before dawn each day all Communist moving transport was halted and under cover. During daylight hours any sign of enemy movement was unusual, but sightings of three to five trains and as many as 2,000 vehicles moving at night were not unusual.[60]

"To find answers to certain problems which are peculiar to night-attack operations," stated Colonel Virgil L. Zoller, commander of the 3d Bombardment Wing, "we have often groped as we have operated in the darkness."[61] The tactics employed by the 3d Wing intruder crews were influenced by the rough and mountainous terrain of North Korea, where changes in weather made positive identification of landmarks difficult and low-level

B-26 Invader

attacks hazardous. Intruder tactics were also influenced by Communist actions, which varied according to their straits for supplies up forward. And, of course, intruder attack methods were different on moonlight nights, when Communist vehicles ran without lights but trains, which never used lights, could be spotted. The degree of natural illumination thus influenced intruder attack. In addition to all these factors, the night-intruder crews also experimented with "wild ideas" which might, or might not, pay off in terms of destruction to the enemy. Fundamental to any understanding of night-intruder tactics employed in Korea, however, is the recognition that the night-intruder crews, who flew alone in the dark, were unable exactly to determine what damage they were inflicting on the enemy. The Fifth Air Force counted automotive equipment destroyed if it exploded or burned violently or left the road at a high speed and collided with some other object. Railroad equipment could be claimed as destroyed if it exploded, burned intensely, or was derailed in an area where recovery was doubtful or improbable. But in the dark night-intruder crews were seldom able to score the results of their strikes in such positive fashion. Lacking an ability to assess, the night intruders could only hope that the tactics they used were the right ones.[62]

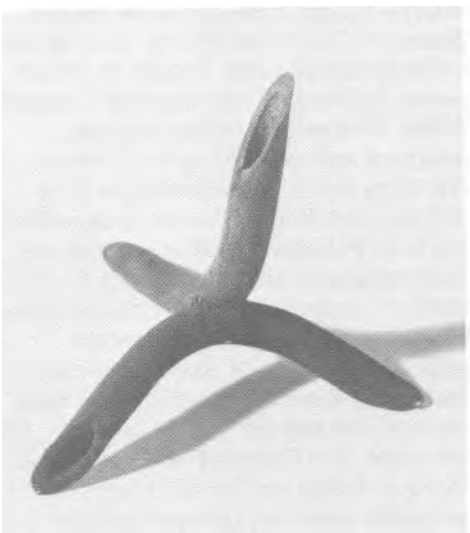
Damaged enemy rail bridge.

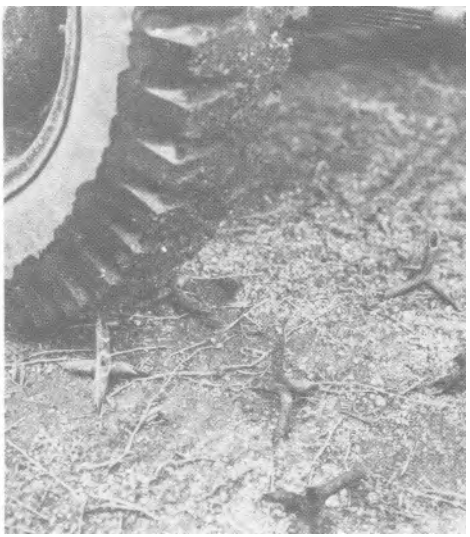
During February 1951 the 3d Bombardment Wing thought for a while that the "wild idea" which had given birth to the flare-dropping C-47 Firefly had at last provided the illumination which its night intruders needed to attack and destroy hostile transportation targets. Teams of C-47's and B-26's went as far north as Sinanju and Sinuiju to attack enemy trains and vehicles, but Colonel Zoller soon issued orders that the unarmed and slow-flying C-47's were not to go north of a line drawn at 39 degrees and 30 minutes north latitude.[63] Early in February someone in the 3d Wing proposed that night-flying C-47's ought to drop tacks on selected lengths of enemy roads. The tacks would puncture the tires of Red trucks, and early next morning fighters could seek out and destroy the stalled vehicles. On the night of 4 February several C-47's, flying at heights of 10 to 20 feet, scattered eight tons of roofing nails along four twisting highways south of Pyongyang. While flying his

C-47 along one of these routes, Maj. Robert V. Spencer almost collided with three Red tanks. Hurriedly pulling up, he called for B-26 attack bombers. When the B-26's appeared, Major Spencer flew over the flak-filled area twice more, once to draw fire and relocate the enemy, and again to drop a flare which allowed the bombers to see and destroy the hostile tanks. On the whole, Operation "Tack" was well executed, but the Fifth Air Force considered it only moderately successful, for the fighters subsequently discovered and destroyed only 28 stalled vehicles.[64] At the 3d Wing's request the Far East Air Materiel Command fabricated hollow tire-puncturing barbs, or tetrahedrons, and, on the night of 14 March, eighteen 3d Wing intruders scattered these barbs at several points along North Korea's roads. Adverse weather on the following morning thwarted fighter attack and prevented any assessment of the results of this unusual weapon, but the 3d Wing doubted that much success was achieved by this type of "wild-idea" operation.[65]

When it was evident that the C-47 Firefly planes could not safely go far beyond the battleline, the 3d Bombardment Wing began to seek some source of illumination which could be carried by the B-26 intruders. In February and March wing technicians obtained Navy adapters and installed them on the unused rocket rails of the B-26's, thus permitting each modified plane to carry either several Mark VI flares or 100-pound bombs. This expedient offered the best illumination yet achieved by the B-26's, but the intruder crews still reported a high percentage of dud flares.[66]

Despite its inability to obtain dependable illumination for night attack against moving targets deep within North Korea, the 3d Wing intensified its intruder operations in March. The intruder crews employed a variety of tactics depending upon the phase of the





The "wild idea" of the tetrahedron.

moon, the topography of the area they were operating in, and the configuration of their airplanes. Timed so the first wave of intruders reached the main supply routes at about dusk, the intruder crews took off from Taegu and spent approximately one hour and a half searching for and attacking targets of opportunity. On the few moonlight nights of a month the intruders flew low and searched for vehicles and trains. On the darker nights, the intruders searched for targets at altitudes of about 2,000 feet above the terrain, which meant that the searches were conducted at from 3,000 to 4,000 feet in the western half of Korea and from 5,000 to 6,000 feet in the mountainous regions of eastern Korea.[67] From these search altitudes the intruders seldom had difficulty spotting enemy convoys, especially on dark nights. Red truck drivers were supposedly instructed to travel without lights, but most of them used their headlights and depended upon guards stationed along the main supply routes to tell them when an aircraft was approaching. This warning system was evidently good, for Communist headlamps rarely remained illuminated to guide an attacking intruder for more than ten to fifteen seconds.[68]

In the fraction of a minute between the time that the intruder crew sighted and determined to attack a convoy and the time that the Red truck drivers switched off their lights, the intruder crew had to fix the location of the enemy vehicles in relation to some identifiable terrain check point. If the B-26 carried flares, its crew released one of them to burn at about 3,500 feet above the ground upwind of the target's location. Then the pilot made figure-eight turns to get in two and sometimes three strafing passes before the flare burned out. If visibility permitted, the strafing passes could be made down to as low as 200 feet. In western Korea, however, most pilots started firing from altitudes of 2,000 to 1,500 feet, and in eastern Korea pilots started their strafing passes from 6,000 to 5,000 feet and pulled up at a height of from 2,000 to 1,500 feet. Everyone recognized that these firing ranges were fairly long for much accuracy. The crews that flew the "hard-nose" B-26B strafer aircraft felt great need of flares for guiding their strafing attacks. On the other hand, the crews who flew "glass-nose" B-26C bombers saw little need for flares and preferred to make fixed-angle bombing attacks upon enemy convoys with 100-pound M-47 fire bombs or 260-pound M-81 fragmentation bombs. To set up a bombing pass in the ten to fifteen seconds that a convoy remained lighted required excellent coordination between a pilot and a bombardier, but by sighting directly through a reflex sight a bombardier could fix a target's location even after the lights went off by noting its relation to shadows on the ground.[69]

As the B-26 intruders sought their targets far to the northward, Marine Squadron VMF(N)-513 commenced a maximum interdiction campaign against the main supply routes closer to the front lines on 1 March. Almost invariably these Marine missions teamed together Firefly C-47's and attacking F4U's and F7F's. Flying in relays from Pusan Airfield, the Marine night fighters met C-47 flare-droppers over an assigned road, and both planes looked for enemy vehicles. When targets were located, the Marine crew requested the Firefly to light them with flares dropped upwind, well off to the side of the road. After orienting himself in the flare light, the Marine fighter went down and attacked the targets with rockets, napalm, fragmentation bombs, or proximity-fuzed 500-pound bombs, the

latter ordnance being used chiefly to suppress hostile antiaircraft fire. The ordnance load varied with target conditions, but the Marine airmen thought that their 20-millimeter cannons were their most effective weapons. After a Marine fighter stayed in the target area for about an hour and a half it was getting low on fuel and was customarily relieved on station by a fresh fighter. The cooperation between the Marine fighters and the Firefly was not simple, for the flare crew often had difficulty positioning itself over an invisible road and dropping its flares precisely in terms of wind and terrain.[70]

Even though the Air Force and Marine crews were frank to admit their inability exactly to report the results of their missions, General Partridge was pleased with March intruder operations. "There is every evidence," he stated, "that the enemy has been caused increasing difficulty by our concerted efforts in destroying his trains, trucks, and other equipment."[71] With the commander's approbation, the Marine and Air Force intruder crews continued to operate in much the same manner as in March. During the three months, which had begun on 1 March, the crews of VMF(N)-513 estimated that they attacked 11,980 enemy vehicles and destroyed 1,420 of them.[72] In April the 3d Wing claimed to have destroyed 16 locomotives and 227 vehicles, and in May it claimed 5 locomotives and 629 vehicles destroyed.[73] Concerning the effectiveness on one of its strikes, flown on the night of 8 May against road traffic north of Taegwangni, the 3d Wing secured a vivid on-the-spot description from an American airman who escaped his captors. "We came to the place where the B-26 had dumped his load," said this pilot. "The place was in an uproar. First we began meeting litter carts with wounded on them, then came hand-carried stretchers, and then handmade 'makeshift' stretchers, then men carrying others on their backs, and finally carts pulled by mules or Chinese soldiers with 10 to 15 dead bodies on each cart....I would estimate there were a minimum of 200 wounded and about 12 to 15 carts with the dead ones stacked solid on them. Probably 225 dead. I don't know how many B-26's had attacked, but it sure was a mess."[74]

In June the Fifth Air Force devoted its principal efforts to the "Strangle" attacks against the Communists' main supply routes and concurrently sought to increase its night-attack capabilities. In context with this latter objective, Colonel Brooks A. Lawhon moved the 452d Bombardment Wing to Pusan East Airfield (K-9) on 23 May, where, between 11 and 20 June, the wing converted to night operations.[75] Although neither the 3d nor the 452d Wing operated at maximum effectiveness during June, the Fifth Air Force intruder groups eagerly experimented with new methods of night attack against moving targets. On nearly every mission 3d Wing intruders carried some butterfly bombs, which they dropped to effect choke points before proceeding to their road sweeps.[76] The "Flying Nightmares" of VMF(N)-513 regularly utilized Firefly support to attack moving targets on four selected road routes south of Pyongyang, and on several nights used PB4Y flare support to attack enemy vehicles on the road south of Wonsan.[77] Employing tactics learned from the 3d Wing, the 452d Wing claimed 151 vehicles destroyed and 224 damaged in June. Operating throughout the month, the 3d Wing claimed 403 vehicles destroyed and 1,048 damaged.[78]

Once they had gotten the hang of flying at night, 452d Wing crews took

to intruding with a rare gusto, and in July a friendly rivalry with the 3d Wing did much to inspire the intruder forces to overcome adverse flying weather. Both the 3d and 452d Wings modified several of their B-26's to carry a full bomb-bay load of 52 flares, and the idea was that two attack B-26's would work with the B-26 flare plane.[79] Throughout July the 3d Wing worked its B-26's in teams of two, both aircraft fully loaded with armaments and wing-stowed flares. The two B-26's took turns illuminating and attacking targets. Such B-26 teamwork doubtless made for more effective attacks, but it necessarily limited the number of supply routes which could be covered.[80] Flying lone-wolf patrols in "glass-nose" B-26C's, which could either bomb or strafe, 452d Wing intruder crews not only covered more territory but claimed to have outstripped the more-experienced 3d Wing crews in the first full month of competitive operations. In one of the most spectacular night vehicular strikes of the war Captain William L. Ford and his 452d Wing crew met and attacked two enemy convoys north of Sinanju in the early morning hours of 14 July. The B-26 worked over the first convoy from end to end, destroying 13 trucks and damaging 15. Almost as soon as he returned to search altitudes, Captain Ford sighted another convoy of about 100 trucks "coming down the road with their lights blazing just like they owned the place." The B-26 attacked the second convoy from low altitude, strafing and placing frag clusters along its entire length. The crew estimated that 25 trucks were destroyed and that at least 15 were damaged.[81] At the end of July the 452d Wing claimed 471 vehicles destroyed and 880 damaged, while the 3d Wing claimed 240 vehicles destroyed and 693 damaged.[82] The B-26 night-intruder crews lacked much that they needed, but they were evidently causing the Communists plenty of trouble.

4. Fighter-Bombers Also Hunted Trucks

As a routine practice, General Partridge had always emphasized armed reconnaissance during these periods when slack ground attack signified that the Reds were regrouping and resupplying their forces. In January 1951, following the collapse of the Red offensive, General Partridge again loosed his fighters for attacks against the enemy's lines of communications. But the Chinese Communists were clever opponents, and before coming to Korea Chinese troops had received special training in camouflage. Even if tracks of men and vehicles in the snow sometimes gave away their locations, the Reds were hard to discover from the air.[83] Problems of range and ground fire also had ill effects upon Fifth Air Force armed reconnaissance. Flying from Itazuke, 27th Wing F-84 Thunderjets were limited to approximately thirty minutes of road route coverage in their usual armed-reconnaissance areas. Shooting Star fighter-bombers flying from Japan had even less endurance over the enemy's territory, for the F-80 was a shorter-range aircraft than

was the F-84.[84] In 1950 Mosquito control aircraft had often penetrated as far as 50 miles in advance of friendly lines, seeking targets for fuel-hungry jets, but the Chinese Communists put up enough ground fire to force the unarmed T-6's to limit their operations to the immediate vicinity of the friendly front lines.[85] Early in February General Timberlake told a Fifth Air Force planning conference that he was not at all happy with the results of recent armed reconnaissance strikes. Each night reconnaissance and intruder crews spotted streams of Communist vehicles, but the Reds were hiding their automotive equipment so well before dawn that the fighter-bombers could not find much to attack.[86]

In an effort to come to grips with the elusive Red truckers, the Fifth Air Force implemented a new plan of action in the second week of February. It established three armed reconnaissance areas covering the band of territory 50 miles north of the bombline, and it assigned one each of the areas to the 18th, 35th, and 1st Marine Air Wings. According to the concept of the operation, these three wings would keep relays of Mustangs or Corsairs constantly on air patrol over the areas, locating and attacking targets of opportunity. By assigning certain routes or areas to the same organizations for continuing operations, the Fifth Air Force hoped that pilots would become intimately familiar with a single zone and would more readily recognize camouflaged objects.[87] In order to help armed reconnaissance missions determine where they might hope to find enemy vehicles dispersed and hidden, the Joint Operations Center began to prepare and issue each morning a master overlay of all vehicle sightings turned in by night-flying intruder and reconnaissance crews.[88]

The new Fifth Air Force "truck-hunting" plan was an outstanding success. On 12 February, just as the new armed reconnaissance zones were being established, the Communists launched their "Fourth-Phase" offensive along the Hoengsong-Wonju axis, and, desperate to get supplies forward, the Reds moved by daylight. Quick to react, Fifth Air Force fighter-bombers on 13 February destroyed 236 enemy vehicles and damaged 83 more to set a new day's record for such endeavor. Conventional fighters got the best scores, but 49th Group F-80's destroyed 40 vehicles to prove that they, too, could "bird-dog" enemy transport.[89] All available fighters were thrown into the Hoengsong area on 13 February, but the 18th, 35th, and 1st Marine Air Wings soon settled down to highly effective "saturation" armed reconnaissance coverage of their assigned areas. The 18th and 35th Groups soon subdivided their areas into squadron sectors. Flying over the same terrain day after day, pairs of Mustang pilots were soon able to pick out small changes and to find more and more camouflaged equipment. Benefiting from the new techniques of armed reconnaissance, the 18th Group destroyed 728 and damaged 137 enemy vehicles in February.[90] Attributing the better results to the new search plan, the Fifth Air Force claimed 1,366 enemy vehicles destroyed and 812 damaged in February, a substantial increase from the 599 destroyed and 683 damaged in the preceding month.[91]

Early in March the Fifth Air Force devised a concomitant search technique designed to help the jet fighters whose rate of fuel consumption allowed them limited time in armed reconnaissance areas. On the basis of night sightings reported to the Joint Operations Center, the 45th Tactical Reconnaissance

Members of the 35th Fighter Interceptor Group and the RAAF are debriefed after a F-51 attack.

Squadron projected the probable locations where enemy vehicles could be expected to take cover before dawn and then dispatched its RF-51 pilots for "Circle 10" missions. In these missions the visual reconnaissance pilots intensively reconnoitered a circle of ten miles radius around a suspected location of enemy vehicles. When the RF-51 crews found enemy targets, they led F-80 and F-84 fighter-bombers to them.[92] Thunderjet pilots of the 27th Fighter-Escort Wing "enthusiastically agreed" that the "Circle 10" missions guided them quickly to profitable armed-reconnaissance targets.[93]

It was Colonel Turner C. Rogers' Mustang-flying 18th Fighter-Bomber Wing that made the ultimate developments in truck hunting which caused General Partridge to name its aircrews as the "Ace Truck Busters of the Fifth Air Force."[94] "Thoroughness," explained the 18th Group, "is the secret of the successful 'Truck Hunter.' " Before a day's mission Mustang intelligence officers analyzed the preceding night's vehicle sightings and, figuring enemy vehicle movement at 15 miles per hour, calculated the areas where enemy convoys would have to take cover before dawn. Wherever possible Mustang squadron operations officers assigned flights the same areas or routes for reconnaissance each day. The first flight of two Mustangs off in the morning swept areas of suspected enemy activity both to pick up any vehicles damaged by night intruders and to force the enemy to camouflage before daybreak. Subsequent flights took small sections of the assigned area or route and searched them methodically. "There is only one way to detect

camouflaged vehicles," reported the 18th Group, "and that is by flying low and slow and thoroughly searching every foot of ground. Every building, haystack, ravine, wooded area, and side road must be checked and then double checked." In the standard two-plane flight the leader flew 100 to 300 feet above the terrain, while the wingman covered from a height of about 1,000 feet. The standard truck-hunting armament load for the Mustangs was maximum rockets and .50-caliber machine guns, the former being useful for suppressing flak and the latter lethal against vehicles. The 18th Group truck hunters commonly spent up to two hours in the target area and suspected everything large enough to hold a vehicle.[95] Benefiting both from the intensive armed reconnaissance tactics and from more effective night-intruder operations, the Fifth Air Force claimed to have destroyed 2,261 vehicles and to have damaged 1,326 vehicles in March 1951.[96]

Given time to react, an enemy can almost always devise countermeasures to almost any given line of military action, and in February and March the Chinese Reds sought to protect their vehicles and troops against United Nations air attack. Especially while flying armed reconnaissance missions, Fifth Air Force crews picked up an increasing amount of ground fire. This ground fire was particularly effective at the low altitudes needed for effective napalm drops and strafing runs.[97] In deference to the fact that the Mustang's liquid-cooled engine was particularly vulnerable to ground fire, the 45th Tactical Reconnaissance Squadron began to dispatch two RF-51's on all missions after 15 April. This permitted one reconnaissance pilot to survey the ground while another flew higher and watched for ground fire.[98] Because of the marked increase in antiaircraft fire, the Mustang groups dispatched four-ship flights on all longer range interdiction missions. One element scouted from 300 feet, while the other maintained a 3,000-foot altitude from which it could watch for enemy aircraft and suppress flak which might endanger the lead element.[99] Thunderjet pilots attempted to vary their low-altitude attack patterns as much as possible.[100] These precautionary measures were necessary, but they reduced the effectiveness of armed reconnaissance.

Coincidental with the increase in hostile ground fire, the 18th Fighter-Bomber Group noted in late March that it was increasingly difficult to find vehicles hidden in villages, woods, or disguised as straw stacks. Instead, the Reds had begun to conceal many of their vehicles in tunnels, and, where no tunnels were available, the enemy was building log-reinforced bunkers in inaccessible ravines in order to shelter their vehicles against daylight air attack. The Reds had also worked out some effective trucking schedules. They began to drive their convoys from flak-protected areas in the north to the bunker zone in one night, to the front lines and return to the bunkers the next night, and back to the flak-surrounded areas the third night. "The time is not far off," speculated the 18th Group in late March, "when no trucks will be found in the open or protected by camouflage only."[101]

The Communists were meeting measurable success in protecting their rearward lines of communications against United Nations armed reconnaissance strikes, but their hurried preparations for an earlier than planned April offensive forced them to concentrate large numbers of vehicles in the Chorwon-Kumhwa-Pyonggang triangle, beginning in the last days of March. In

preparation for this build-up and for the ground attack, United Nations airmen noted, and intelligence confirmed, the fact that Chinese regiments had obtained automatic weapons air defense companies, armed with Soviet-made 12.7-millimeter machine guns.[102] Similar to American .50-caliber weapons, the Soviet 12.7-millimeter machine guns were most effective at low altitudes. Despite the added defenses, the Reds had so many vehicles forward that they could not effectively protect them against armed reconnaissance and night-intruder strikes. When the Communists launched the "first impulse" of their "Fifth-Phase" offensive on 22 April they bared their supply lines and road transport to United Nations daylight air attack. As a result of its night-and-day air strikes, the Fifth Air Force claimed 2,336 Red vehicles destroyed and 1,496 damaged during April 1951.[103]

Communist vehicle sightings during the first week of May 1951 strongly indicated that the enemy was making extreme efforts to alleviate the logistical limitations which had long plagued him.[104] Both in the forward areas and back along the main supply routes, moreover, the Reds were significantly increasing their flak batteries. In May, for example, FEAF intelligence officers plotted the locations of 252 flak guns and 673 automatic weapons.[105] The antiaircraft guns were mostly deployed in fixed defenses, but truck-towed Soviet 37-millimeter M-1939 automatic weapons, which were effective against planes at altitudes up to 4,500 feet, were now encountered along the main supply routes.[106] On the first sixteen days of May, as the Reds attempted to resupply and regroup for the "second impulse" of their "Fifth-Phase" offensive, FEAF aircraft flew an average of 287 interdiction sorties each day. Because of the increased antiaircraft defenses, however, Fifth Air Force armed reconnaissance flights flew with higher power settings. The Mustangs no longer made missions with less than a complete flight of four aircraft. The F-80's practiced evasive action and avoided flak-defended areas where possible.[107]

In view of the more circumspect armed reconnaissance tactics, the Fifth Air Force claimed only 1,245 vehicles destroyed and 1,624 damaged in May, and most of these results were scored by the night-flying 3d Bombardment Wing.[108] But especially in the period when the enemy's 15 May offensive was routed, and the Reds were streaming backward in great disorder, the fighter-bombers struck telling blows. On 25 May, for example, Lieutenant Leo A. Higgins led a flight of four 8th Group F-80's to Hwachon, where he sighted nine trucks, an assortment of pack animals, and a body of troops streaming northward. The F-80's released their napalm from 100 feet and sent the flaming liquid over four of the trucks and many of the troops. Criss-cross strafing passes finished off the other vehicles and some 200 of the troops.[109] Again, on 26 May, General Timberlake flashed a report to his wing commanders that the roads around Inje, in the mountains of eastern Korea, were clogged with enemy troops and equipment. Weather in the area was so marginal that Timberlake left attacks to the discretion of the wing commanders. From Itazuke, however, the 27th Fighter-Escort Wing responded to the call to action with four flights of F-84 Thunderjets, which successfully penetrated the weather to get to Inje, where they inflicted more than 700 casualties to enemy troops and destroyed some 50 enemy vehicles. Next day General Timberlake flew to Itazuke

and presented Distinguished Flying Crosses to the four flight leaders—Captains Eugene H. MacMurray, John P. Torland, and Edwin R. Dischinger, and Lieutenant Guy B. Razzeto—and Air Medals to each of the twelve wingmen who had flown this smashing attack.[110]

In the tactical emergency posed by the Communist "Fifth-Phase" attacks the Fifth Air Force had struck some heavy blows, but it had also taken some telling losses. In April and May FEAF lost 59 aircraft to enemy ground fire, and June losses, which were running heavy at the beginning of the month, would be 22 planes to enemy antiaircraft fire.[111] At the end of May and early in June, as the Fifth Air Force implemented the "Strangle" road-interdiction attacks, operations officers at every echelon looked for tactics which could reduce the effectiveness of Communist flak. The conventional Mustangs had suffered the heaviest losses from enemy ground fire, and the 18th Fighter-Bomber Group again modified its armed reconnaissance tactics. Tests flown against friendly flak batteries at Seoul Airfield showed the group that the trailing wingman in the low-level element of its armed-reconnaissance flights had been a "sitting duck" to enemy gunners. In a change of tactics, the 18th Group kept the flight leader on the deck to search for targets of opportunity, while the element leader flew at 4,000 feet and looked for flak areas and the number-two and number-four men followed the element leader and kept a sharp watch for enemy fighters. Now, three men were covering the one pilot who was flying armed reconnaissance.[112] The F-80's flew their armed reconnaissance missions at higher altitudes and speeds and avoided needless exposure on flak-defended supply routes.[113] At the same time as hostile flak forced United Nations fighters to operate at higher altitudes, the Chinese made progress building caves, revetments, and trenches, which permitted them to protect their vehicles against day-flying fighters. According to one intelligence report, the Chinese mobilized 400,000 laborers in Manchuria to build trenches and caves along the highway from Sinuiju to the front lines.[114] During June the Fifth Air Force claimed the destruction of only 827 enemy vehicles, and most of these victories were scored by the night intruders of the 3d and 452d Wings.[115] The Fifth Air Force would continue to fly enough armed-reconnaissance missions to prevent the Reds from traveling the roads by day, but it was all too evident that the old days of really lucrative truck hunting at tree top heights were over.

5. Communist Logistical Systems in Action

"It has frequently been stated by commanders in Korea," said Brig. Gen. Darr H. Alkire, the FEAF deputy for materiel, in June 1951, "that the one man they would like to meet when the war is over is the G-4 of the Communist forces." As an experienced logistician, General Alkire held a grudging admiration for the man who served as the Communist materiel

officer. "How he has kept supplies moving in the face of all the obstacles is a real mystery," Alkire stated. "He has done it against air superiority, fire superiority, guts, and brawn."[116] In the face of unrelenting air attacks the Communists managed to keep their front-line troops combat effective. In the course of this endeavor the Red high command skillfully linked an organized logistical supply system with an air-defense organization and an effective route-repair and maintenance program. Although plagued with insufficient equipment, which they supplemented by oxcarts, wagons, pack animals (including camels), and human porters, the Communists managed to move sufficient troop replacements, equipment, and supplies forward to support their armies in the field.

The Communist logistical system employed in Korea was based on the "delivery-forward" principle used by the Soviet army in World War II, a system whereby higher units supplied lower units. In this twofold effort rear-area logistical organizations provided supplies to the rear service departments of front-line troops. According to information secured from captured documents and prisoners of war, the Communist logistical organization was relatively new and was often changed in 1951. The Fourth Field Army Logistical Command, headed by General Tao Chu, was definitely located at Antung and supervised the flow of supplies and troops replacements into Korea. The Third Field Army Logistical Command, headed by General Wang Chien-An, had equivalent responsibilities toward this army's combat troops and was reportedly located at Chian, Manchuria, across the Yalu from Manpojin.[117]

In the early months of 1951 seven "Branch Units" or Logistical Commands held area responsibilites in Korea under direct subordination to General Peng Teh-huai, commander of the Chinese Communist Forces in Korea. Within their geographical areas these logistical commands were responsible for the movement of supplies to main depots, subdepots, and supply points. Each logistical command consisted of an ordnance section, a supply base with main and subdepots, a transportation section with four motor-transport regiments (each equipped with 120 GAZ-51 trucks), a porter battalion and an aircraft spotter unit of 1,200 troops. The main depots were organized into typical supply sections and possessed two motor companies, each with 65 trucks. The subdepots had a truck company and numerous porter teams. The logistical commands were responsible for the movement of supplies to forward depots and supply points. Movement from these points was the responsibility of the combat units, except that artillery and heavy mortar ammunition was delivered directly to the combat units. Whenever possible, the logistical commands employed railway transportation with auxiliary truck support as necessary. Vehicles carried supplies to the subdepots, the division and regimental supply points, and to artillery firing positions. Each Chinese army had organic truck companies in its rear service department. In addition to the truck organizations organic to the logistical bases and armies, at least seven other truck regiments were operational in Korea during the spring of 1951. As of July 1951 the Far East Command estimated that the Chinese and North Koreans were operating no less than 16,624 vehicles in Korea.[118]

At the same time that the Chinese were building a logistical organization

they made increasing efforts to protect their supply routes from United Nations air attack. As a first gesture, effective on 4 January, the Fourth Field Army organized special "Hunter Groups" whose volunteer members received special privileges and were promised "hero" decorations and furloughs for the destruction of three aircraft in any 90-day period.[119] Armed with infantry weapons, including heavy-caliber machine guns, the "Hunter Groups" frequently damaged low-flying United Nations aircraft. The Reds also employed clever flak traps, such as open parachutes hanging on trees, dummy troops made of straw, cables strung across valleys, and strings of lights at measured intervals along the sides of mountains, which, to night intruders, looked exactly like a convoy.[120] Aircraft warning sentries assigned to the logistical commands were stationed at intervals of 300 to 400 meters along main supply routes, serving both to keep night-traveling trucks warned of obstructions in the roads and of the approach of United Nations aircraft.[121] Notably in April and afterward the Chinese Communists rapidly augmented their flak establishment with regularly organized antiaircraft artillery regiments. By 1 July 1951 the Reds had 275 antiaircraft artillery guns and 600 automatic weapons emplaced in Korea.[122]

The Communists' ability to keep their supply lines open in the face of constant air attack showed a tenacity and determination which had been equaled by few armies. Rail transportation was so important to the Reds that they were willing to operate a train over as little distance as 11 miles of clear track and then unload and reload its cargo on another train waiting beyond whatever obstruction barred the right of way. Using organized recovery programs, Red engineers consistently met the physical destruction inflicted upon their supply routes. Road repairs were the province of the North Korean department of military highway administration, comprising 12 administrative regiments, each mustering three or more 550-man battalions. Each battalion was assigned to a sector of a main supply route, and platoons were stationed as close together as every three kilometers along important routes. The North Korean railroad bureau was responsible for the recovery and maintenance of rail lines. With headquarters in the outskirts of Pyongyang, this bureau controlled three brigades, each of 7,700 men. Units of 50 rail-repair troops were stationed at major rail stations, where they were immediately ready to move out and supervise repairs of damage inflicted by aircraft. Both highway and railway engineers commonly recruited by impressment the common labor they required in the immediate vicinity of a road or rail break.[123]

In much the same manner that they got supplies through the United Nations aerial blockade, the Communists provided troop replacements and additional combat units to their forces in Korea. According to prisoners of war, combat replacements were formed into regimental-sized units in Manchuria and marched southward, always at night. Reinforcement divisions also marched to the battle zone, for the Reds had no transportation to spare for personnel.[124] Most prisoners of war reported that they made the long trek to South Korea without experiencing a single night air attack. Of prisoners interrogated by Fifth Air Force analysts, 70 percent of the Chinese and 81 percent of the North Koreans reported that they were not attacked while marching at night. Most prisoners,

however, experienced at least one daytime air attack against their camp sites while marching southward, the proportion being 67 percent for Chinese and 62 percent for North Koreans. Although the enemy troops avoided the full measure of air attack, they nevertheless led the lives of hunted animals, with the result that they had suffered extraordinary deterioration of morale and physical well-being by the time they reached the front. The troops made long and hurried marches at night over difficult terrain and in bitter winter weather. Fearing to take cover in villages, the exhausted men commonly slept in trenches in daytime camp sites, thus falling prey to sickness caused by exposure. A report prepared by the political department of the Chinese 35th Division described the hectic march of this unit southward from the Yalu, beginning on 21 March. Apparently because of its accompanying equipment, which drew the attention of United Nations airmen, this division underwent "frequent air raids," each of which caused "consternation." Exhausted by forced marching and from digging air-raid shelters at every day's camp site, troops straggled and took sick. Meal hours were irregular at best, and the troops sometimes were unable to obtain any food for two or three days at a time. By the time this division reached the front lines, on 9 April, it was already suffering from combat fatigue.[125]

During months of defensive operations between February and April 1951 the Communists gathered an estimated 500,000 soldiers and civilians into a logistical system which served to support some 70 Red combat divisions echeloned in depth in Korea. The logistical system was effective but not efficient, for the tremendous size of the establishment generated requirements for its own support which reduced the effectiveness and the number of combat divisions which the Reds could employ at the front lines.[126] By the accretion of supplies in excess of reduced expenditures during defensive fighting, a process best described as "logistical osmosis," the Red supply system was able to concentrate logistic support stocks at depots, subdepots, and supply points ranging rearward behind the front lines. The Far East Air Forces well understood that the Reds were stockpiling, and, within context with its capabilities, FEAF attempted to locate and destroy Red supply dumps south of the Yalu. In almost daily strikes throughout the middle days of March Bomber Command crews attacked supply-storage areas at Hamhung, Yonghung, Chunchon, Pyongyang, Kumhwa, Chorwon, and Wonsan. Secondary explosions showed that the bombers got good results. Many of these targets had been hit before, but General Briggs discovered that the Reds liked to store supplies in buildings or villages which had already been attacked, probably on the theory that they would not be attacked again.[127] Increasingly in the rear areas and always in the forward areas the Reds prevented aerial destruction of their supply accumulations by literally sowing small dumps into the terrain, dispersing them in caves, tunnels, revetments, ditches, holes, ravines, houses, and under any possible cover or concealment. Such widely dispersed dumps were hard to discover and harder yet to destroy from the air.[128] The Fifth Air Force, for example, was never able to discover an air weapon practicable for destroying small caches of rice, the main staple in the Communist troop ration.[129] Although air attacks against Red supply dumps were probably not too effective in the spring

of 1951, the attacks forced the Reds to disperse their dumps, and this dispersal accomplished important results.

In spite of the fact that they were able to move 70 combat divisions into Korea and to supply them in defensive operations, the Communists were unable to mount effective offensive operations in April and May of 1951. Sapped of strength and of morale by months of continuous air attack, Communist troop units employed in the spring offensive were described as "appreciably inferior" to those United Nations troops had previously encountered.[130] Because of limitations of transport and of supplies in their forward areas, the Reds were unable to employ more than half of their combat divisions in offensive operations. In the fast-moving situations following initially successful penetrations of United Nations lines the Red logistical arrangements broke down. Rearward divisions lacked mobility to get forward. In the front lines, moreover, offensive actions rapidly depleted the seven to ten days' supplies at division supply points, and the widely dispersed, dug-in supply points and subdepots were virtually immobile. Carts, pack animals, and porters could move a great amount of tonnage in the front lines, but their efficiency was not great enough for a modern war of movement. As supplies forward were used up, the rearward logistical commands and depots were unable to speed up their deliveries forward. Thus in April and May, as in January and February, initially successful Communist offensives faltered and collapsed both from casualties sustained in the attack and for want of logistical support to continue on.[131]

In the early months of 1951 United Nations air attacks never completely interdicted the flow of logistical support to Communist front-line troops, but the pressure of air strikes to the rear of Communist lines prevented the Reds from developing the combat effectiveness and mobility they needed to win in Korea. In a message described as written on 10 May, General Cho El Ro, chief of staff of the Fourth Field Army, was reported to have named several causes for the Chinese defeat. "Chinese Communist forces," Cho stated, "had not been relieved from front-line duty since the outset of the war, and they were tired." The attacking forces had lacked air support and heavy equipment, and they had not known that United Nations airfields were so close to the front. "Food rations were inadequate," Cho stated, "and morale was low."[132] North Korean and Chinese prisoners of war captured during the spring offensives testified as to the low morale among their rank and file and to its causes. The majority complained of a lack of food and the remainder indicated that food was insufficient, improper, or poor. A second, and probably more realistic, cause for low morale was United Nations artillery and air bombardment. A third cause for troop inefficiency was the fatigue of long marches, night marches, poor physical condition, lack of rest, and long hours of work.[133] Both the testimony of the Communists and their actions in Korea demonstrated the truth of General Weyland's assessment sent to Washington on 10 June 1951. "Events since 25 June 1950," wrote Weyland, "have clearly indicated that air operations have been one of the most decisive elements in stopping the enemy's offensives and reducing his capacity to wage ground warfare."[134]

11. *Air-Ground Operations on the Field of Battle*

1. Attacks to the Han Exploit the Air-Ground Team

"I would say the support that our tactical air has given to our ground troops in Korea has perhaps never been equaled in the history of modern war," stated General MacArthur in the spring of 1951.[1] Such a statement from the august United Nations commander could not have been lightly given, for General MacArthur had known exceptionally fine air-ground cooperation during his campaigns of World War II. In March General Ridgway similarly voiced confidence in the air-ground team. "I have complete and unswerving confidence," he informed MacArthur, "in the battle-tested team of Army, Navy, and Air Force, bound together by mutual respect and confidence—a respect and confidence built upon steadfastness in battle and devotion to one common purpose."[2]

As they had done since the beginning of the Korean hostilities, Generals Partridge and Timberlake continued to seek to perfect the system whereby Air Force, Navy, and Marine air units might be instantly responsive to ground-force requirements for air support. In the spring of 1951, more than ever, the success of the strategy announced by General Ridgway on 20 January—to seek out and destroy Red troops and not to hold ground for its own sake—demanded constantly changing air-ground actions, calculated in terms of tactical opportunities, which posed an utmost challenge to air-ground cooperation. Early in the Korean war General Partridge had hoped that the Joint Operations Center would be a joint planning and operating agency where ground and air efforts cooperatively would plan and implement operations, but the Eighth Army had not wanted this arrangement.[3] Under General Ridgway the Joint Operations Center continued to be an operating agency where Army officers requested tactical air support and Air Force officers ordered it flown.

In view of the limited development of the Joint Operations Center, it was fortunate that the headquarters staffs of the Fifth Air Force and Eighth Army were able to effect the common purposes which were so essential to air-ground operations. The headquarters staffs occupied buildings in close proximity in Taegu City, where common purposes could be discussed with a minimum of travel. At an early morning staff conference, attended by Air Force officers, General Ridgway and his Eighth Army staff reviewed planned operations of friendly forces, together with known or anticipated moves of enemy forces, and estimated air-support requirements for the following day, including the ground units whom they wanted to receive priority air support. After lunch—at 1300 hours—the Fifth Air Force planning conference convened in the air-operations office to determine the exact allocations of air effort for the following day. Fighter, light bomber, and reconnaissance operations officers and other services' liaison officers attended the planning conference, and their decisions provided the basis for daily fragmentary operations orders issued to tactical units. Each tactical wing operations officer called Fifth Air Force operations at about 1600 hours each day to learn the number and type of sorties to be required of their wing

next day, information which was required for planning purposes. Later in the day, usually in the early evening hours, the Fifth Air Force transmitted its fragmentary operations orders to the tactical wings by teletype, and to ensure against any misunderstandings a Fifth Air Force courier delivered two copies of the mimeographed "ops order" to each tactical wing's base, usually around midnight. When some sudden change in the ground situation demanded changes in operations orders, the Air Force duty officer in the Joint Operations Center saw that the necessary decisions were made. Later on the Fifth Air Force named a senior operations duty officer who handled necessary changes in operations orders during the night.[4]

While the Fifth Air Force's tactical air wings furnished a large proportion of the air support extended to the Eighth Army, General Partridge recognized that Marine and Navy air capabilities had to be integrated into the control system. Operating as it did from South Korean airfields, the 1st Marine Air Wing's operations were smoothly and effectively integrated into the control system. Although the Fifth Air Force possessed "coordination control" over the land-based Marine airmen, General Partridge recognized that the 1st Marine Air Wing was actually an air task force, capable of independent action and needing to maintain that capability. General Partridge therefore allowed the Marine wing considerable latitude for planning and ordering its air operations. Almost always the Fifth Air Force assigned tasks to the Marine air wing through its commander. Each morning the Marine air wing forwarded its capabilities and intentions for the next day to its liaison officer in Taegu. At the Fifth Air Force planning conference the Marine liaison officer submitted these planned operations, and at this time Marine wing intentions were approved or altered to conform to the over-all tactical air plan. Later in the afternoon Marine orders for the following day were published as a Marine annex to the Fifth Air Force fragmentary operations order. Only in one unusual circumstance did Fifth Air Force operations officers deal directly with Marine air units. Because the Marine squadrons occupied separated airfields, the Joint Operations Center "scrambled" Marine strip-alert flights by "hot-line" telephone without going through the Marine wing commander.[5] In order to maintain their primary specialty, the Marine airmen customarily used most of their sorties for the support of ground troops.

Unfortunately, Navy carrier-based air operations of Task Force 77 were not so completely integrated into the air-support control system. Early in November 1950, and continuously thereafter, the Seventh Fleet established and maintained a naval liaison group at the Fifth Air Force. At this same time Task Force 77 established continuous-wave radio and very-high-frequency voice communications with the Joint Operations Center. By noon each day Task Force 77's air schedule for the succeeding day was passed to the Joint Operations Center. Knowing the numbers of aircraft scheduled and the times over the targets, the Joint Operations Center requested the assignment of some aircraft to predesignated tactical air-control parties and others to related missions, such as armed reconnaissance sweeps over certain road nets. Operating through liaison, Task Force 77's airmen furnished valuable air support in Korea, but the availability of carrier airmen for such effort was not always certain. The senior naval officer

in the Joint Operations Center had no authority to commit Task Force 77 to a desired action; instead, he passed requests to the fleet. The continuous-wave radio and the voice-communications channel between Task Force 77 and the Joint Operations Center were frequently uncertain, and at best the radio nets were unable to handle more than one-tenth the volume of traffic that was needed. As a result, the Joint Operations Center seldom received from the Navy the detailed operations reports it needed to be conversant with the tactical air situation.[6]

The high degree of cooperation between the Fifth Air Force and Eighth Army emanating from Taegu meant that air resources could be centered wherever General Ridgway desired and thought necessary. Thus, on 25 January 1951, as the American I and IX Corps initiated "Operation Thunderbolt," the reconnaissance in force designed to push through to the Han River, the Fifth Air Force's close-support effort was centered behind these two corps. To cover the advancing task forces, Mosquito controllers of the 6147th Tactical Air Control Squadron staged forward from Taegu West Airfield (K-37) through the old airstrip at Taejon (K-5). By such expedient the Mosquitoes could remain aloft over the ground troops for up to three hours. The little airborne control planes commonly patrolled in front of friendly ground columns, and as they located enemy strong points they flashed the word over SCR-300 infantry radios which they carried in their cockpits. Because of the interest of General Partridge, who flew a mission to test the equipment, all Mosquitoes were so equipped to communicate with ground patrols in January.[7] In preparation for the drive northward, the Mosquito squadron initiated another communications measure, which would prove to be of great value. In order to relay line-of-sight very-high-frequency transmissions from the front lines to the tactical air-control center, the 6147th Squadron had been keeping aloft one T-6 midway between the front lines and Taegu. This "Mellow Control" T-6, however, had possessed only two radio channels for relaying messages, which meant that it could be swamped with messages. Effective on 26 January, the 6147th Squadron solved this traffic bottleneck by putting aloft a C-47 airborne relay aircraft with 20 channels of VHF communications. This "Mosquito Mellow" aircraft normally maintained a station 20 miles behind the front lines, whence it passed messages between tactical air-control parties, airborne controllers, fighter-bombers, and the "Mellow" station of the tactical air-control center.[8]

As "Operations Thunderbolt" thrust northward against the Red screening force provided by two divisions of the Chinese 50th Army, the American I and IX Corps witnessed that the close support they received was most effective. Air strikes softened points of enemy resistance almost as fast as they developed, and as Eighth Army soldiers flushed enemy troops into the open United Nations aircraft swooped in to slaughter them.[9] Soon General Ridgway sent the U.S. 3d Infantry Division to join the attack force and converted the reconnaissance in force into a full-scale attack. Since this expanding ground attack needed increased supplies, the 315th Air Division (Combat Cargo), which had been activated as the successor to the old FEAF Combat Cargo Command on 25 January, came to the assistance of the Eighth Army. On 28 January, while fighting continued just beyond the snow-covered airstrip, 315th Air

Division transports, led by Lt. James F. Horton, whose C-46 transport first touched down, began to deliver cargo to Suwon Airfield. On 30 January, the first full day of air resupply, the 61st Troop Carrier Group unloaded 270 tons at the newly recaptured airfield.[10]

When American ground troops began to move north and northwest of Suwon on 30 January, Mosquito controllers sighted larger concentrations of enemy troops. On 3 February Captain Edwin W. LaVigne, flying "Mosquito Cobalt," located a large body of enemy troops opposing the forward progress of the U.S. 25th Division. In more than two hours Captain LaVigne received and directed ten flights of fighter-bombers against the enemy's positions in the Anyang-Inchon-Yongdungpo area. Again, on 6 February, Captain Dorrence E. Wilkinson, flying "Mosquito Cobalt" in support of the U.S. 24th Division, located large numbers of hostile troops in the vicinity of Yangpyong, on the Han River east of Seoul. This Mosquito controller received and directed four F-84's, six F-4U's, and six B-26's, and in one area he estimated that the air strikes inflicted at least 300 casualties.[11] Survivors of the Chinese 50th Army continued to resist until 9 February, but then the Red defenses broke, and U.S. I Corps task forces raced northward to the Han. By dusk on 10 February Kimpo Airfield and the port of Inchon again belonged to United Nations forces.[12] In a visit to the U.S. I Corps at about this time General Timberlake noted that everyone he talked with seemed well satisfied with the air support they were getting. Some ground officers believed, however, that the forward air controllers were not becoming adequately skilled during the twenty-one-day tours that they served with tactical air-control parties. General Timberlake personally favored the short tours because they prepared a maximum number of pilots to fly more effective ground-support missions. General Partridge, however, agreed with the ground-force suggestion, and in mid-February the pilots nominated by the tactical air wings for the duty began to serve sixty-day tours as forward air controllers.[13]

Heartened by success in the west at the end of January, General Ridgway ordered the U.S. X Corps to move northward in central Korea. Although opposed by the North Korean II and V Corps, the X Corps troops captured Hoengsong on 2 February. Three days later General Ridgway ordered the X Corps to implement "Operation Roundup," an advance toward Hongchon. Now, however, United Nations forces were pressing the Communists too hard, and General Peng Teh-huai, commander of the Chinese "volunteers," felt compelled to counterattack. Designing to reduce the pressure on Seoul, General Peng Teh-huai launched the Chinese 40th and 66th Armies and the North Korean V Corps in an attack along the Hoengsong-Wonju axis, beginning after nightfall on 11 February. The Chinese general noted that the battle began under "unfavorable circumstances." "Our period of rest is interrupted," he said, "and now, when we are not yet ready to fight, the fourth phase [offensive] is under way."[14]

The Communist attack toward Hoengsong did not come as a surprise to the Eighth Army, since the X Corps had been battling stiff resistance and Fifth Air Force tactical reconnaissance pilots had noted the Red troops moving toward a line of departure. To meet the attack, General Ridgway assigned the U.S. X Corps the highest priorities for close air support. Fighter-bomber pilots

who had been assisting the U.S. I and IX Corps in the west now found themselves aiding the U.S. X Corps in central Korea. On 12 February, when the Reds attacked ROK troops north of Hoengsong, "Mosquito Liberator" flights were overhead to direct a close-support effort which, in large measure, would determine whether the friendly troops would be able to withdraw. During the morning the initial "Mosquito Liberator," piloted by Lt. Aubrey C. Edinburgh, found bands of up to 400 enemy soldiers moving by daylight. Five flights of F4U's, F-80's, F-84's, and F-51's came to Hoengsong to lash the Reds with napalm and rockets. Later in the day the relief "Mosquito Liberator," flown by Lt. Charles R. Wilkins, found a battalion of ROK's cut off by enemy roadblocks. This controller directed three flights of fighter-bombers, whose attacks allowed the friendly battalion to break out of the encirclement.[15]

When the Reds had captured Hoengsong on 13 February, Communist attack centered against another mountain-surrounded village—Chipyong-ni—lying northwest of Wonju and held by elements of the U.S. 2d Infantry Division. If the Reds captured Chipyong-ni, at the hinge of the sector defense lines manned by the U.S. IX and X Corps, they would endanger the whole Eighth Army front. Recognizing the hazardous situation at Chipyong-ni, where the U.S. 23d Infantry Regiment and the French battalion were soon surrounded, General Ridgway and General Partridge gave General Clark L. Ruffner's 2d Division the highest priorities for air support. Each day, from 14 through 16 February, ten flights of "Mosquito Cottonseed" control aircraft maintained constant daylight air patrols over the 2d Division, receiving and directing fighter aircraft of all kinds. The air support was not only generous but it was highly effective. General Ruffner subsequently told General Stratemeyer that, following one napalm strike against the reverse slope of a hill leading up to Chipyong-ni's defense perimeter, he had seen more enemy bodies than he had ever seen before.[16] Other FEAF airmen also assisted the embattled 2d Division. In the days when United Nations troops were surrounded in the village, 314th Troop Carrier Group C-119's dropped them 87 loads of ammunition, gasoline, and rations.[17] Crews of the 3d Air Rescue Squadron flew fragile H-5 helicopters through high winds and snowstorms to deliver blood plasma and medicines and to evacuate 52 badly wounded soldiers from the beleaguered village.[18] When the battle was over, General Almond, the X Corps commander, acknowledged that at Chipyong-ni "our air support and our flying ammunition into that circle [of defenses], about a half mile in diameter, sustained those men in that position, and they held it."[19]

Concurrently with the main assault along the Hoengsong-Wonju axis, the Communists made probing attacks which sought to dislodge United Nations troops from their gains in the west. Against these night attacks the U.S. I Corps reported that the services of C-47 Firefly aircraft proved invaluable. On the night of 20/21 February, for example, the U.S. I Corps used a flare ship to light six areas along its front. In each case friendly artillery registered on groups of up to 200 enemy soldiers caught in the open trying to cross the ice-covered Han River.[20] In the week before their "Fourth-Phase" offensive collapsed, the Communists were unable to budge the main portions of the United Nations lines in western and central Korea, but they were more

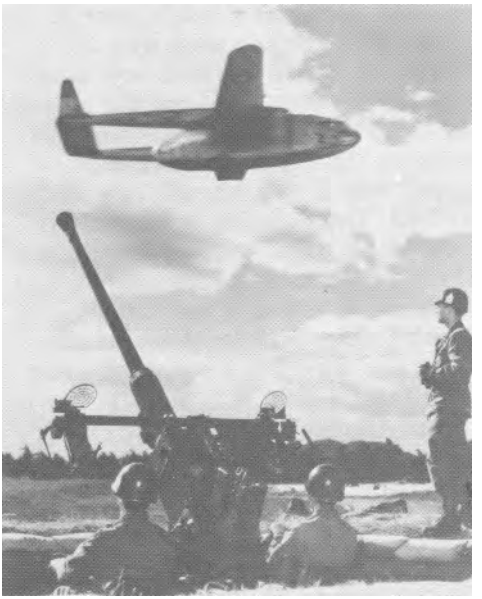
Combat rescue. *(Courtesy Air Force Art Collection)*

successful in the mountains of eastern Korea, where they drove a salient deep down toward Chechon.

When the initiative passed to the United Nations on 21 February, General Ridgway ordered the U.S. IX and X Corps to swing eastward and execute "Operation Killer," a maneuver designed to cut off and destroy the enemy troops who had penetrated into South Korea. The smartly mounted United Nations ground attack took the Reds off-balance, and supporting air strikes wrought heavy casualties on the overextended Communist forces. On 22 February, for example, "Mosquito Lawsuit," working with the 25th Infantry Division east of Seoul, brought 11 flights of fighters down below a solid overcast to attack and destroy some 1,000 Red troops. On 25 February "Mosquito Townsend" located large bodies of enemy troops dug in around Hoengsong. Since one enemy battalion was holding up the progress of the ROK 6th Division, the Mosquito called for and received seven flights of fighter-bombers at forty-five-minute intervals. A conservative estimate counted Communist casualties at 200 killed and 300 wounded. During the three-day period from 24 to 26 February 15 Mosquito missions worked with the U.S. 7th Infantry Division as these ground troops advanced to Pyongchang in the eastern mountains. Maj. Gen.

Claude B. Ferenbaugh, commander of the 7th Division, wired General Partridge: "Close air support given this division...outstanding. Excellent results of air strikes enabled taking objectives with minimum casualties."[21] Everywhere "Operations Killer" registered steady gains, but early spring rains and thawing ground began to muck the lines of communication supporting the U.S. IX and X Corps. The 314th Troop Carrier Group accordingly strained itself to support the troops in central Korea. Between 23 and 28 February this group dropped 256 C-119 loads or 1,358 tons of supplies to ground troops north of Wonju.[22]

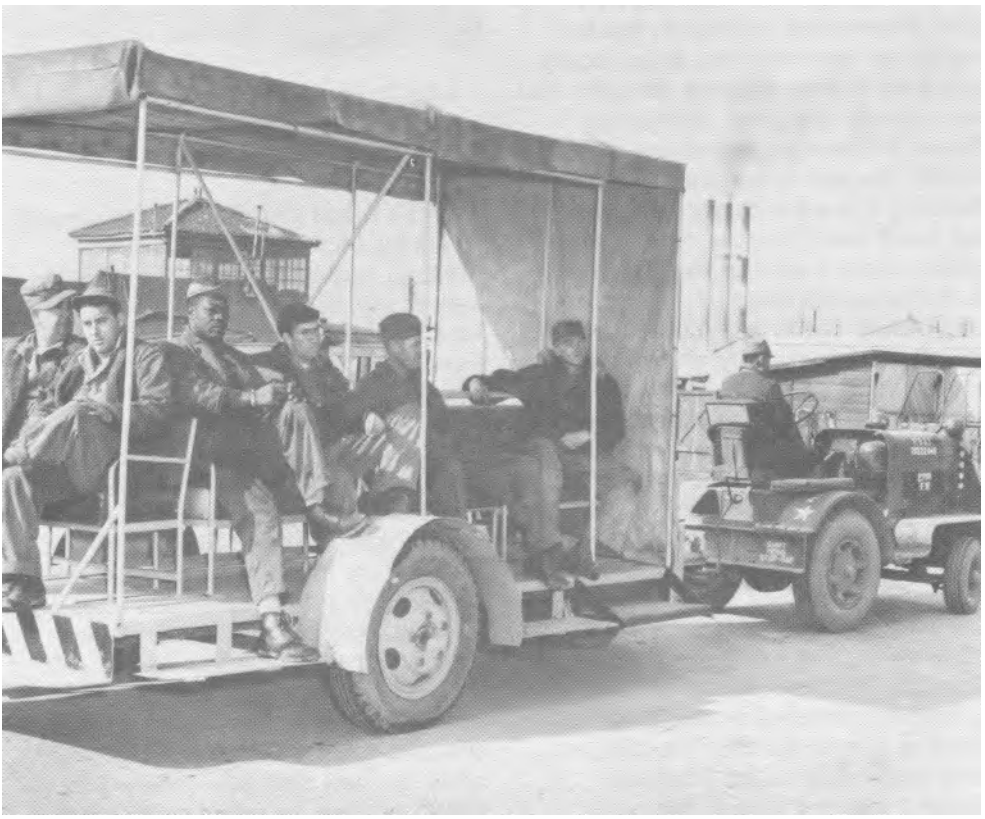
As "Operations Killer" forged forward, the U.S. IX and X Corps faced determined resistance, but the Red troops had evidently taken heavy casualties in their ill-fated offensive and were plainly dispirited. Advancing United Nations ground troops found the hills around Hoengsong and Chechon littered with enemy bodies, and many more Chinese and Korean soldiers were buried in shallow graves on the mountain slopes.[23] Up until now many Army critics had insisted that jet aircraft were inherently unsuited for close-support work. In February, however, an Army operations research study stated that: "Aside from endurance, it is difficult to determine any marked deficiency in ability of the F-80 or F-84 to bomb, napalm, rocket, or strafe a target."[24] Even General Almond, who had been a severe critic of both jet aircraft and the Army—Air Force air-support system, now messaged the X Corps' appreciation for the air support rendered by the Fifth Air Force in central Korea. "Nothing is more heartening to the front-line soldier," Almond stated, "than to observe such striking power as was displayed in the X Corps area."[25]



A C-119 departs a base while the Army's Anti-aircraft Artillery unit remains on alert.

While it had provided the air support which enabled the Eighth Army to force its way back to the Han River and to withstand Communist counter-attack in central Korea, the Fifth Air Force had been laboring under exceptionally difficult operational conditions. Its jet fighter-bomber wings were based in southern Japan, and all of these planes were too far distant from the target area to be able to spend much time looking for front-line objectives. Flying from Itazuke, for example, the 27th Wing's F-84 Thunderjets were able to spend only thirty minutes at low altitudes at the bombline. In view of this fact the 27th Wing gave preference to napalm and rockets which were effective against hostile personnel and could be most speedily launched by its fighter pilots.[26] Required to fly something on the order of 350 miles from their Japanese airfields to the bombline,

the Fifth Air Force's F-80's were at severe disadvantage since over 85 percent of their flying time was done between the front lines and the operating bases.[27] Seeking to overcome this problem, the 8th and 51st Groups staged their F-80's through Taegu Airfield. The Shooting Stars usually took off for a first mission flown directly from Japanese bases, returned to Taegu for rearming and refueling by a 49th Fighter-Bomber Wing detachment, and then flew a second mission from Taegu before returning directly to Japan. Although the air traffic through Taegu was heavy, the 8th Group recorded that the rearming and refueling detachment at Taegu did an "outstanding job" and usually got fighters turned around for a second combat mission within an hour and a half.[28] By using Taegu for a staging base, the Fifth Air Force overcame many of its operational problems, but the dependence upon a single base for such heavy operations carried an element of calculated danger. On the morning of 21 February, for example, marginal flying weather suddenly closed in over Taegu, forcing five 49th Group pilots to make crash landings along the Naktong River.[29]



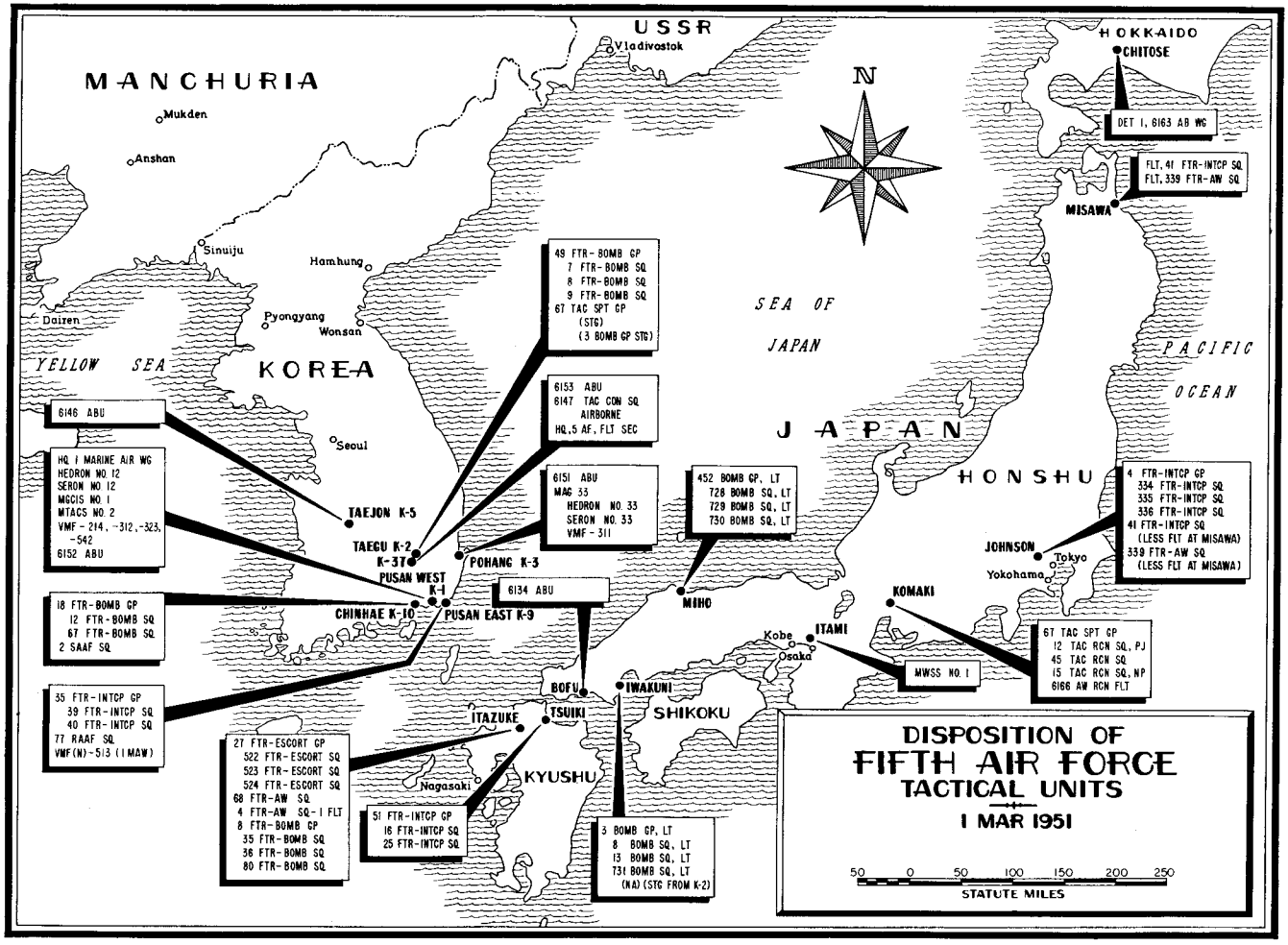
A tired maintenance crew takes a rest on a flightline tram.

2. Airborne Invasion at the 38th Parallel

Rather than attempt a frontal assault across the wide and thawing Han River at Seoul, General Ridgway, on 7 March, ordered the U.S. IX and X Corps to attack northward in central Korea. This attack, called "Operation Ripper," was designed to create a bulge east of Seoul, which would permit United Nations forces to envelop the capital city at their leisure. The most critical phase of this operation was expected to be at its starting, when the IX Corps' 25th Infantry Division would be called upon to brave enemy fire and establish a bridgehead across the Han River near its confluence with the Pukhan, about 15 miles east of Seoul.[30] Despite some bad-weather days, the Fifth Air Force in the week following 7 March would fly an average of 182 close-support sorties a day, a number slightly in excess of the month's average of 175 close-support sorties flown each day.[31]

Demonstrating airpower's ability to concentrate where it was most needed, on 7 March the Fifth Air Force and its attached pilots mounted some 575 sorties as the 25th Division began to cross the Han River. Of these sorties, about 200 supported the advancing ground troops and that many more attacked enemy personnel, supplies, and vehicles in the enemy's immediate rear. On 8 March Fifth Air Force and Marine fighter-bombers again assisted at the bridgehead, while 22 B-29's hit the major Red supply center at nearby Chunchon. Bad flying weather on 9 March reduced FEAF's effort, but the Fifth Air Force's Mustang groups found some worthwhile targets for effective strikes. Outside of Seoul, for example, a single flight of 35th Group pilots claimed 100 Communist troops killed and wounded, while near Chorwon 18th Group pilots destroyed 22 enemy trucks.[32] In describing the Han River crossing and the march northward, Lt. Col. Gilbert J. Check, commander of the 27th Regimental Combat Team, used these words: "The close support and coordination between air and ground units during this operation were unparalleled and can well serve as a standard for future operations." Colonel Check not only admired the way in which Mosquito controllers directed close support, but he considered that air strikes brought against hostile troops and weapons along the 27th Regiment's line of advance had prevented the Reds from mobilizing sufficient strength to threaten the newly won positions.[33]

Advancing through rugged mountainous terrain, where they were attempting a double envelopment aimed at Hongchon, the U.S. 1st Cavalry and 1st Marine Divisions found the going to be slow against well-entrenched enemy opposition. Major Wilbur C. Bechtold, who was serving as an air liaison officer, described the enemy's defenses and the best ways to attack them from the air. "The day before yesterday," Bechtold wrote, "I climbed a hill to take some pictures of a gang of dead and to look over their positions. About every other hole was dug down and then tunneled back into the hill, which makes it nearly invulnerable to strafing. The other holes seem to be much like the ones we dig and are usually in a position to offer a good firing point against ground attack. Mostly the deep holes seem to be living quarters and are well constructed. They also like to dig under the base of a large boulder; the open holes are often covered with


USSR
Vladivostok
MANCHURIA
Mukden
Anshan
Sinuiju
Hamhung
Dairen
Pyongyang
Wonsan
YELLOW SEA
KOREA
Seoul
SEA OF JAPAN
JAPAN
HONSHU
HOKKAIDO
CHITOSE
DET 1, 6163 AB WG
FLT. 41 FTR-INTCP SQ
FLT. 339 FTR-AW SQ
MISAWA
PACIFIC OCEAN
N
49 FTR-BOMB GP
7 FTR-BOMB SQ
8 FTR-BOMB SQ
9 FTR-BOMB SQ
67 TAC SPT GP
(STG)
(3 BOMB GP STG)
6146 ABU
6153 ABU
6147 TAC CON SQ
AIRBORNE
HQ, 5 AF, FLT SEC
HQ, 1 MARINE AIR WG
HEDRON NO. 12
SERON NO. 12
MGCIS NO. 1
MTACS NO. 2
VMF-214, -312, -323, -542
6152 ABU
6151 ABU
MAC 33
HEDRON NO. 33
SERON NO. 33
VMF-311
452 BOMB GP, LT
728 BOMB SQ, LT
729 BOMB SQ, LT
730 BOMB SQ, LT
4 FTR-INTCP GP
334 FTR-INTCP SQ
335 FTR-INTCP SQ
336 FTR-INTCP SQ
41 FTR-INTCP SQ
(LESS FLT AT MISAWA)
339 FTR-AW SQ
(LESS FLT AT MISAWA)
TAEJON K-5
TAEGU K-2
K-37
PUSAN WEST K-1
POHANG K-3
PUSAN EAST K-9
CHINHAE K-10
6134 ABU
MIHO
JOHNSON
Tokyo
Yokohama
KOMAKI
ITAMI
Kobe
Osaka
18 FTR-BOMB GP
12 FTR-BOMB SQ
67 FTR-BOMB SQ
2 SAAF SQ
MWSS NO. 1
67 TAC SPT GP
12 TAC RCN SQ, PJ
45 TAC RCN SQ
15 TAC RCN SQ, NP
6166 AW RCN FLT
35 FTR-INTCP GP
39 FTR-INTCP SQ
40 FTR-INTCP SQ
77 RAAF SQ
VMF(N)-513 (1 MAW)
BOFU
IWAKUNI
TSUIKI
ITAZUKE
SHIKOKU
KYUSHU
Nagasaki
27 FTR-ESCORT GP
522 FTR-ESCORT SQ
523 FTR-ESCORT SQ
524 FTR-ESCORT SQ
68 FTR-AW SQ
4 FTR-AW SQ-1 FLT
8 FTR-BOMB GP
35 FTR-BOMB SQ
36 FTR-BOMB SQ
80 FTR-BOMB SQ
51 FTR-INTCP GP
16 FTR-INTCP SQ
25 FTR-INTCP SQ
3 BOMB GP, LT
8 BOMB SQ, LT
13 BOMB SQ, LT
731 BOMB SQ, LT
(NA) (STG FROM K-2)
DISPOSITION OF
FIFTH AIR FORCE
TACTICAL UNITS
1 MAR 1951
50 0 50 100 150 200 250
STATUTE MILES

pine boughs. These are the ones we can get with our fifties with a high angle of attack. The uncovered holes are only about 18 to 24 inches deep. Good napalm coverage, as we already know, seems to be most effective."[34] Although attacks against such defenses had to be slow and methodical, the steady forward progress of "Operation Ripper" had one important significance to close-support management. For the first time in Korea the Fifth Air Force was able to assign jet fighter flights prebriefed to report to specified tactical air-control parties. This enabled the jet fighter squadrons to load their fighters with maximum ordnance selected for a particular mission and range factor. Up until now all squadrons had sacrificed ordnance in order to load extra fuel which might be needed if the fighter-bombers missed a close-support employment and had to continue northward to seek an armed reconnaissance objective.[35]

Quite suddenly, on the night of 14 March, Communist forces abandoned Seoul without a fight, and on 15 March the Eighth Army drove into Hongchon in central Korea. As the Reds broke cover and began to retreat, FEAF airmen flew more than 1,000 sorties almost every day to harry them unmercifully. On 16 March, for example, two Mosquito "Granite" controllers, Captains Dorrence E. Wilkinson and Joe T. Hargett, directed six flights of fighters against 1,200 enemy troops fleeing northward along a road east of Hongchon. The airborne controllers estimated that the air strikes killed 200 troops and 15 pack animals, but soon after the attack advancing U.S. 7th Division groundmen found 600 dead and 300 wounded enemy soldiers in the same vicinity.[36] Following the capture of Hongchon, the 1st Cavalry Division headed for Chunchon. In view of the fact that Chunchon was an enemy supply center, General Ridgway feared that a hard fight was in the making there, and, to help with the task, Ridgway asked General Stratemeyer to prepare to drop the 187th Airborne Regimental Combat Team at Chunchon on 22 March. On 20 March, however, Mosquito "Strategy," flown by Lt. Lloyd S. Nelson, directed several flights of Marine fighters against weapons positions in the hills south of the town and then buzzed over Chunchon at 50-foot heights to report that it was no longer occupied by the enemy. The airborne controller was apparently right, for the 1st Cavalry's tank columns drove into Chunchon without great difficulty on 21 March.[37]

The capture of Chunchon placed Eighth Army troops within eight miles of the 38th parallel in central Korea, but back at Taegu Brig. Gen. John P. Henebry, commander of the 315th Air Division, and Brig. Gen. Frank S. Bowen, commander of the 187th Airborne Regimental Combat Team, had lost the planned objective for an airborne attack. Ever since 8 February, when he had relieved General Tunner in command of the 315th Air Division, General Henebry had been keeping his troop carrier forces in readiness for an airborne operation. On 21 March, even though there was some doubt as to whether paratroopers would jump at Chunchon, General Henebry brought 80 twin-tailed C-119's of Colonel R. W. Henderson's 314th Group and 55 C-46's of Colonel John R. Roche's 437th Wing to Taegu Airfield. Parked wingtip to wingtip, the big transports filled the dusty graveled parking area to overflowing. Even though he canceled the drop at Chunchon, General Ridgway soon explained that he had another employment in mind for the 187th's paratroopers. In view of the Commu-

nist withdrawal from Seoul, Ridgway had directed an expansion of "Operation Ripper" to include a U.S. I Corps attack to the Imjin River. In order to trap enemy troops fleeing northward Ridgway wanted General Henebry to drop the 187th Regiment at Munsan-ni, a village lying athwart the Seoul-Kaesong highway, on the morning of 23 March.[38]

On the afternoon of 21 March, the same day they were assigned the new objective, Generals Henebry and Bowen visually reconnoitered the assigned drop zones at Munsan-ni from the vantage point of a low-flying C-46. Returning to Taegu, Henebry and Bowen met with Ridgway and Partridge to confirm the fact that they could execute "Operation Tomahawk" at 0900 hours on 23 March, weather permitting. The delay of the airborne operation by one full day must have caused General Henebry some little apprehension, for his big transports would have to sit on the ground at Taegu an overly long time. Because of the dust problem, the transports would not be able to run up their engines before they took off for their mission; and, although the base was blacked out, a full moon's light glistened off the shiny planes, making them perfect targets for an enemy air attack. With less than a day to make ready, on the other hand, Generals Henebry and Bowen had to use the same serials and loadings worked out for the Chunchon drop. And in view of the fact that some 12,000 North Korean troops were believed to be in the vicinity of Munsan-ni, General Bowen emphasized that there must be no slip-up in the timing of the airdrops. General Bowen wanted the 187th on the ground in the two drop zones without delay once the drops began.[39]

On the morning of 23 March a few drifting clouds over Korea promised a weather-perfect day for the airborne operation. Long before dawn everyone at Taegu was up and about, and by 0700 hours all paratroopers were loaded aboard their assigned planes. One after another, powerful propellers churned the dust, as the transports began to lumber to the runway and take-off. General Henebry's C-54 command ship led the way and the other transports followed, beginning at 0730.[40] As the C-46's and C-119's began to climb out of the clouds of dust which lay like a blanket over Taegu, two groups of B-26 light bombers from Japan had already begun to soften the objective areas with 500-pound airbursting bombs and low-level "ramrod" strafing attacks. The 452d Wing sent 32 B-26's to begin on the outskirts of Seoul and work northward against troop positions along the road to Munsan-ni. The 3d Wing employed 24 B-26's against personnel areas closer to the drop zones.[41]

Loading .50-caliber machinegun rounds which will feed the nose, wing, and turret guns of the B-26.

Sixteen Mustangs from the 35th Fighter-Interceptor Wing joined the transports as they passed into enemy territory. Promptly as scheduled, at 0900 hours, the first serial of C-119's began dropping paratroopers in the north drop zone, and five other serials launched paratroopers and dropped equipment during the day. Only one mistake marred the drop. Shortly after take-off the lead C-46 in the second serial encountered mechanical difficulties and had to turn back to the alternate airfield at Taegu West (K-37). When the leader turned back, the deputy leader took over, and when the heavily loaded C-46's began to get behind schedule, the deputy leader elected to skip his assigned initial point and to head directly for the south drop zone. Because of an error in low-level navigation, the deputy leader missed the assigned zone and the serial dropped its battalion of paratroopers into the north drop zone. Back at Taegu West Airfield the regular serial commander secured a spare C-46 and flew to the south drop zone, where, at the insistence of the battalion commander, the planeload of paratroopers jumped. Learning what had happened, General Henebry informed the 187th's command post by radio, and General Bowen sent a company to retrieve the 30 men from the south drop zone.[42]

Other than for the misplaced planeload of paratroopers in the second serial, the airborne phase of "Tomahawk" went smoothly. Before the day was over 72 C-119's dropped 2,011 paratroopers and 204 tons of supplies and equipment, while 48 C-46's unloaded 1,436 paratroopers and 15.5 tons of ammunition, food, and signal equipment. Casualties from the low-level jump were light. During and immediately after the drop the 187th sustained 84 jump casualties, 18 wounded, and one man killed by enemy action. Forty of the jump casualties soon returned to duty. During the operation five C-119's incurred minor damage from hostile small-arms fire. Evidently one C-119 sustained greater damage from enemy action, for while returning toward Taegu this plane suddenly burst into flames. Five crewmen bailed out, but the pilot and copilot were killed when the plane exploded.[43]

In support of the 187th Airborne Regimental Combat Team and of Task Force Growden, which was driving northward from Seoul, the Fifth Air Force provided 31 F-51, 50 F-80, 31 F-84, and 56 B-26 sorties during the daylight hours of 23 March. Providing airborne control for the air-support effort, a C-47 airborne relay aircraft called "Mosquito Guarantee" orbited over Munsan-ni for more than nine hours, with a party of Fifth Air Force operations officers aboard it. Seven "Mosquito Nan" and "Mosquito Sugar" flights provided tactical air coordination and reconnaissance over the two drop zones, while "Mosquito Rakeoff" provided air control in support of Task Force Growden. In support of the 187th, the Mosquitoes received 31 flights of 108 fighter aircraft, which worked over 12 large enemy troop concentrations in dug-in positions, 7 concentrations in the open, 4 villages containing troops and supplies, 2 supply dumps, and 5 weapons positions. Four Fifth Air Force tactical air-control parties jumped with the 187th paratroopers. At the close of the day's operations General Ridgway, who had landed from a liaison plane in the drop zone, stated that the fighter support was the best he had ever seen in an airborne operation.[44] General Bowen fully agreed. "The air support the 187th Regimental Combat Team got

during our first two days of the attack on Munsan-ni," he said, "was one of the most beautiful things I have ever seen."[45]

Although the airborne operation at Munsan-ni enabled the U.S. I Corps to close up to the Imjin River very rapidly, its results in terms of Communist soldiers captured and killed were negligible. Enemy casualties inflicted by the 187th Regiment following its airborne assault were estimated at 200 killed and 87 captured, and an additional 24 prisoners were captured later within the perimeter defenses.[46] Contrary to expectations, the area around Munsan-ni was held by a single regiment of the North Korean 19th Division, a second-rate combat outfit. Disturbingly enough, moreover, Korean prisoners insisted that as early as 21 March their regiment had received warnings that the 187th was going to drop at Munsan-ni on 23 March.*[47]

With no profitable employment forthcoming for the 187th Airborne Regiment at the Imjin, the U.S. I Corps quickly ordered General Bowen's paratroopers to attack due eastward and capture high ground behind enemy troops opposing the advance of the U.S. 3d Division up the road from Seoul toward Yonchon. Launched on this attack over inaccessible roads before its supply lines were opened to Seoul, the 187th Regiment had great need for continuing air-dropped resupply. On 24 March 36 C-119's dropped 40 men and 187.7 tons of supplies at Munsan-ni to get the paratroopers started. When the 187th Regiment was on the road, 4 C-46's dropped ten tons of supplies on 26 March, and on 27 March 12 C-119's

Paramedics of the 3d ARSq "hit the silk."

dropped an additional 65.8 tons of supplies. The last two days' drops were of vital importance, for the men and guns of the 187th were getting hungry. Many of the men had eaten only once in thirty-six hours, and one battery was down to its last five rounds of ammunition. Once again General Bowen was complimentary. "The D plus 3 supply drop was as near perfect as anyone could imagine," he stated. "We recovered 95 percent of the supplies."[48] Despite the air support it received, the 187th Airborne Regimental Combat Team continued to be dogged by bad luck. Foul weather and all-but-impassable roads slowed the paratroop advance, and the Reds had withdrawn from the U.S. 3d Division's front before the 187th Regiment reached its objective.[49]

*The Communists employed many espionage agents in South Korea, especially around United Nations airfields, but there was official doubt that the Reds could have been so exactly cognizant of United Nations plans as this would indicate. Probably Red agents sighted the concentration of troop-carrier aircraft at Taegu, and Red commanders flashed a general alarm to all units that an airborne operation was impending.

3. FEAF Prepares for the Communist Spring Offensive

In a little more than two months a ripping United Nations air-ground attack had driven the Communists back to the 38th parallel. Ever since the major Red offensive had bogged down in January, however, Radio Pyongyang had been boasting that a huge and invincible Communist spring attack would yet drive United Nations forces from Korea. So far as they were able, the FEAF commanders were making preparations to meet this major Red attack, preparations which included the development of techniques and procedures for rendering close air support at night, the use of weapons best calculated to destroy Red personnel, the revamping of air-support control system, and the development of airfields near the front lines in Korea required for combat-cargo and close-support aircraft.

Like the North Koreans, the Chinese Communists used the cover of darkness to cloak their movements against United Nations air attack on the field of battle. A Soviet-prepared manual published by the Chinese Reds in Manchuria in 1947 well illustrated the importance of night attack as a Communist military technique. "Night combat," stated this manual, "is a normal occurrence under conditions of modern warfare. Night combat can be conducted by a small unit, large unit, or by a combined force of the various arms....Despite the difficulty of control during night attacks, it offers many opportunities for success in an attack."[50] Almost at the beginning of the fight in Korea Generals Stratemeyer and Partridge had stated requirements for equipment and procedures which would allow their aircrews to provide close air support to friendly ground troops at night and in bad weather. Actually, in World War II, the Army Air Forces had possessed some capability for supporting ground forces under all-weather conditions, but in the years between wars much of the necessary knowledge about these techniques had been forgotten. "Apparently, over in Korea," said Mike Chafee, a civilian technical representative on General Partridge's staff, "we completely forgot that we knew anything about ways of doing things and equipment to aid in an...all-weather type of warfare."[51]

Requests made by the Fifth Air Force brought the 1st Shoran Beacon Unit and three detachments of the 3903d Radar Bomb Scoring Squadron to Korea in September 1950. Both organizations had radar equipment of types similar to that used with good effect for directing all-weather bombing in Europe during World War II. In Italy Shoran had demonstrated its ability to position bombers and photographic planes over fixed targets, but in Korea in October and November 1950 the Fifth Air Force was unable to secure satisfactory results from the small 1st Shoran Beacon Unit.* The 3903d Radar Bomb Scoring Squadron's Detachments "C," "K," and "N," each brought well-trained technicians and AN/MPQ-2 radars with them to Korea. The MPQ radars possessed by these detachments were improved versions of the old SCR-584 gun-laying radars which had been used as "Picklebarrel" blind-bombing directors in the latter stages of the war in Europe.[52] Sometime in

**See* Chapter 13, pp. 408-410.

November 1950 two of the 3903d detachments moved their truck-mounted MPQ radars to Pyongyang, and, according to one report, one of the MPQ detachments had directed a B-26 strike in support of the U.S. I Corps on the night of 28 November 1950.[53] As of the end of December 1950, however, the Fifth Air Force possessed no electronics-directed attack capability. "I could go over to Korea today," stated Col. Gilbert Meyers on 28 December, "and turn all the radar off, and it would not affect our operations a bit."[54]

Early in January 1951 FEAF insisted that the Fifth Air Force must find some electronics means which would permit aircraft to provide night close support along friendly front lines. General Stratemeyer was particularly interested in devising a procedure which would enable the Superfortresses, with their great bomb-carrying capabilities, to strike the enemy along his front lines at night. As a result of the interest manifested by the Tokyo air headquarters, the Fifth Air Force assigned the project to the 502d Tactical Control Group, which began to work along two lines of action. As suggested by FEAF operations officers, the 502d Group sited AN/UPN-4 radar beacons along the front lines to determine if the B-29's could pick up the signals of these beacons on their airborne radar bombing (AN/APQ-13) scopes. The Superforts had no great difficulty doing this, but the beacons could not be used as aiming points, and the bomber crews were not much better off than before.[55] As the second line of action began in January, the 502d Group assumed operational control over the three MPQ detachments and sited them in the field behind the command posts of the U.S. I, IX, and X Corps. During January and February the MPQ tactical air-direction posts worked with a small number of night-intruder missions.[56]

Apparently the new bombing technique did not immediately fire the imagination of the 3d Bombardment Group's intruder crews, and it is possible that the essential simplicity of the bombing technique led them to overlook its effectiveness. All that an aircrew had to do was to obtain a vector from one of the tactical air-direction centers—"Michael" at Taegu, or "Horseradish" at Pyongtaek—which would put a plane at a spot where the narrow-beam MPQ radar could pick it up. On the ground, the MPQ controller specified the altitude, airspeed, and heading which the crew would fly. At a proper point the MPQ controller gave orders to open bomb bay doors and to arm bombs, and, starting at 10,000 yards from the target, the controller began a countdown to "zero," at which point the bombardier released his bombs. Before an MPQ mission the controller obtained coordinates of an enemy target from the corps he supported, plotted them on the map at his control table, and then utilized his lock-on radar and the automatic tracking device which gave him a visual indication of the aircraft course in reference to the ground target.[57] From the first the Eighth Army liked the MPQ bombing. The U.S. I Corps reported that a goodly number of prisoners of war agreed that the radar-controlled night-bombing was hurting them. The Reds noted that they customarily came out of their fox-holes and moved around at night and were peculiarly vulnerable to bombing at such times.[58] In view of these favorable results, the Fifth Air Force abandoned its efforts to employ UPN-4 radar beacons in favor

of an expanded employment of MPQ-2 bombing.[59]

Late in February, when the MPQ detachments began to try to control B-29 night-bombing attacks, they encountered some new difficulties. In order to provide better radar reflection at more extended distances, the B-29's were carrying AN/APN-60 airborne radar beacons, but for some reason the bomber groups and the MPQ detachments could not get their radars exactly calibrated to work with each other. After several unsuccessful tests of the APN-60 beacon-MPQ combination, Bomber Command insisted that the MPQ controllers attempt to track the bombers without the aid of the radar beacons. Good results were obtained from "skin-tracking" tests, and on 13 March Bomber Command began regularly to attack ground targets with ground-radar direction, a technique which it first called "X-Ray" and later "Phantom."[60] These night-bombing attacks were judged to be outstanding. The U.S. IX Corps reported that 16 B-29's operating singly between 7 March and 10 April and using the special tactics for night close-support operations, destroyed an enemy army command post, a regimental command post, three supply dumps, two villages containing enemy troops and supplies, and effected unknown results against 20 hostile troop concentrations.[61] During March the mobile MPQ radar detachments followed the advancing ground troops northward and established positions much closer to the front lines. Tactical air-direction post "Island," which supported the U.S. I Corps, moved to a location north of Seoul; "Vaudeville," which supported the U.S. IX Corps, moved to a place near Hongchon; and "Hobnob," which supported the U.S. X Corps, emplaced itself east of Wonju. The two latter direction posts had trouble finding suitable operating sites in the mountains of eastern Korea, but the MPQ detachments were accumulating experience and getting ready to help bomber crews deal the Reds a shattering blow.[62]

1st Lt. Paul D. Lehman, radar navigator-bombardier adjusts his radar scope.

What was true of electronics in the period between World War II and Korea was also true of ordnance: USAF officers and airmen had forgotten much that they had learned concerning the most effective selection of air weapons for the accomplishment of air tasks. In the initial months in Korea FEAF air units had exhumed many old "ghosts," such as wire-wrapped general-purpose bombs, which were believed to be good for antipersonnel attacks. Because of the particular configuration of the Soviet-built T-34 tanks, napalm incendiary mixture had

been the most effective destroyer of Red armor,[63] but Fifth Air Force crews and Eighth Army ground troops had also come to believe that napalm was a most effective weapon for employment against hostile personnel. Enemy prisoners of war, however, indicated that they did not fear napalm very much unless it was dropped directly on them. Otherwise, the Reds said that they could run away from a napalm blast. This, in fact, was probably why United Nations airmen and ground troops liked napalm: they saw it make enemy soldiers run and concluded that it must be highly effective.[64]

Early in 1951 a team of United States Army, Air Force, and Bureau of Standards experts who came to the Far East was surprised to discover that neither FEAF nor the Eighth Army was making use of electronic variable-time or proximity fuzes, which received impulses from a target and detonated a bomb or projectile in proximity to the target. Tests conducted in the United States in 1945 had revealed that proximity-fuzed bombs, which burst in the air and showered thousands of steel fragments earthward, were the best weapons possible against lightly shielded personnel. The proximity fuzes, however, were tricky. If they armed too soon, they could go off as the bombs passed through clouds. For this reason the fuzes were supposed to be used in combination with arming delay devices. Bomber Command crews, who had forgotten about the arming delay requirement, had flown one mission with proximity-fuzed bombs in the autumn of 1950, and many of the planes had been rocked by bombs which fell 1,000 feet, armed themselves, and exploded. After this Bomber Command had not used proximity fuzes any more. Early in January 1951 the team of armament experts visited Yokota and persuaded Bomber Command to try proximity-fuzed bombs, this time with arming delays, for the attack made against the town of Wonju on 12 January. The bombs worked to perfection. In March, when the B-29's began to make radar-directed close-support attacks, Bomber Command immediately accepted proximity-fuzed bombs as the primary ordnance for use in combination with the MPQ system.[65]

Although the Fifth Air Force fighter-bomber wings would continue to use large quantities of napalm during the spring of 1951, the tactical air units also made efforts to equip themselves to employ proximity fuzes. The fuzing delay devices which worked for the bombers were not applicable to the externally carried ordnance which the fighters stowed on their wing racks. And the fighter-bomber pilots knew that the results would be fatal if a proximity-fuzed bomb became accidentally armed on their wing racks. Working in conjunction with the 7th Fighter-Bomber Squadron, the Fifth Air Force office of operational engineering soon developed an "L"-shaped metal bracket, which fitted on an F-80's wing racks and extended downward, positively preventing a bomb's fuze vane from moving before the bomb was dropped. In February the Far East Air Materiel Command fabricated enough of these safety devices to equip the Shooting Star fighter-bombers. In May similar devices were made for Thunderjets, and in June the Mustangs obtained the brackets which enabled them to carry proximity-fuzed bombs. The use of proximity-fuzed 260-pound fragmentation and 500-pound general-purpose bombs proved beneficial to Fifth Air Force fighters. Such munitions were not only effective against the enemy, but the fighter-bomber pilots could

launch their attacks from higher altitudes, out of reach of enemy ground fire, and still make their bombs explode at heights best calculated to kill the enemy's troops, destroy his equipment, or suppress his flak.[66]

The Eighth Army-Fifth Air Force system for requesting and controlling tactical air support had been working well, but both General Partridge and General Timberlake agreed that the system must be kept under scrutiny to ensure that it was meeting Army and Air Force requirements. Early in March General Partridge accordingly proposed to establish a joint Army-Air Force board which would hear witnesses and report such changes as were needed in the tactical air system. The Eighth Army agreed that such a study would be a good thing. Accordingly, the Army-Air Force board met at Taegu under the presidency of the Eighth Army's Brig. Gen. J. J. Burns, heard testimony concerning the workings of the cooperative system, and reported to Generals Partridge and Ridgway on 26 March.[67]

At the outset of its report the Burns board concluded that the Army-Air Force system of air-ground operations was "sound and adequate" and was "applicable to the Korean theater of operations." As far as the Air Force side of the air-support picture was concerned, the Burns board devoted most of its attention to the forward elements of the air-control system—the tactical air-control parties and the tactical air coordinators. Whereas General Partridge had always allocated the tactical air-control parties on a basis of one to each regimental, division, and corps headquarters, Eighth Army representatives urged that a tactical air-control party should be allocated to each Army battalion. Actually, however, the Eighth Army representatives noted that such an allocation was impracticable at this time in Korea because of a limitation on the number of communications channels available to the tactical air-control parties. The AN/VRC-1 radio-control jeeps in use in Korea had only four channels of very-high-frequency communications, and, even when the parties were employed at regimental level, they frequently interfered with each other's radio transmissions. Until such time as the tactical air-control parties could secure portable very-high-frequency radios, which would permit a forward controller to go on foot up to a ground observation post, the Burns board recommended that the parties should station themselves somewhere in the regimental area where they could obtain immediate communications with the artillery battalion's fire-direction center and thus be able to coordinate fire during air strikes or get the artillery to mark close-support targets with colored smoke shells. The Burns board found only one fault with the Mosquito controllers: there were not enough of them. Eighth Army representatives wanted one of the airborne controllers continuously on station over each front-line division during daylight hours.

Partly in response to the Burns board suggestions and partly as the result of independent study, the Fifth Air Force soon undertook a general reorganization of the Mosquito and tactical air-control party functions. Since 1 August 1950 the 6147th Tactical Control Squadron (Airborne) had provided the Mosquito controllers, and since 25 December 1950 the 6164th Tactical Control Squadron had provided the enlisted members and equipment for tactical air-control parties. Both to provide more Mosquito controllers which the Army wanted and to provide

a more logical organizational framework for the whole control function, the Fifth Air Force, effective on 25 April 1951, established the 6147th Tactical Control Group (Provisional), including the 6148th and 6149th Tactical Control Squadrons (Air), the 6150th Tactical Control Squadron (Ground), and two supporting squadrons. The two air-control squadrons would now provide Mosquito controllers, and the ground-control squadron would provide the enlisted personnel and equipment for the tactical air-control parties. As for the radio equipment possessed by the tactical air-control parties, the Fifth Air Force had long recognized that more communications channels were necessary. Already the Far East Air Materiel Command was manufacturing new 12-channel AN/ARC-3 radio jeeps, and by 5 June all tactical air-control parties would be so equipped. General Partridge also requisitioned portable very-high-frequency radios for use by forward air controllers, but these sets would not soon be provided to the Fifth Air Force.[68]

The Burns board examination disclosed several faults in the Eighth Army's air-ground operations system, the Army contribution to the air-support establishment in Korea. Testimony of ground officers indicated that the SCR-399 high-frequency tactical air-request radio net between divisions and the Joint Operations Center was "generally dependable," but within divisions the board noted that battalion commanders who required immediate air support were compelled to forward their requests either by wire communications or over the division artillery or division command radio nets. When battalions were extended, or when the organic nets were crowded with other traffic, battalion commanders frequently relayed their air-support requests over the Air Force tactical air-direction net to division, or, more often, directly to the Joint Operations Center. This use of Air Force communications frequently overloaded them, and it also prevented regiment, division, and corps fire-support coordination centers from screening air-support requests to determine if artillery could not hit the targets. The board recommended that the Eighth Army establish special tactical air-request radio nets within divisions. Testimony heard by the board also indicated that some divisions and corps had not established G-3 air officers as a full-time duty and had not provided these officers with necessary assistants to permit twenty-four-hour duty schedules. The board recommended that the Eighth Army emphasize these G-3 Air duties. In response to the Burns board recommendations, the Eighth Army issued a directive establishing G-3 Air officers as a full-time twenty-four-hour duty at corps and divisions. It also instructed battalion commanders to forward their requests for air-support missions over Army communications; only in cases of emergency were battalion commanders authorized to use Air Force tactical air-direction communications for presenting their requests for air support.[69]

As the Eighth Army battleline reached the 38th parallel General Partridge and General Henebry knew added concern over the lack of airfields in Korea, especially advanced airstrips close behind the front lines. Early in March General Partridge approved plans for the development of all-weather airfields in Korea—including three airfields properly located for the support of the Eighth Army—but not before June would the Fifth Air Force be able to secure enough aviation engineer battalions to begin any

extensive airfield developmental programs. In the meantime, General Partridge asked the Eighth Army to use its combat engineers for some part of the necessary airfield construction.[70] In support of the ground operations in western Korea, General Henebry's 315th Air Division landed supplies first at Suwon, then at Kimpo (where a taxiway served as a landing strip), and finally at the Seoul Municipal Airfield. Following a slight amount of repair work, the 35th Fighter-Interceptor Group began to stage 12 Mustangs through Suwon Airfield on 1 March; and on 8 April the group moved its staging detachment—now expanded to 24 aircraft—to the Seoul Municipal Airfield.[71] After staging through the airfield for several weeks, the 6147th Tactical Control Squadron moved to the old airfield at Pyongtaek (K-6) late in March. This deployment brought the Mosquitoes closer to the western front, and in order to extend the time of Mosquito patrols over the eastern front the 6147th Squadron moved a detachment to an old fighter strip on the shores of the Japan Sea at Kangnung (K-18). In central Korea the scarcity of airfields and of acceptable sites for airstrips was most acute, and yet it was in this inaccessible area that the Eighth Army's combat troops most needed air-delivered supplies. In March Eighth Army engineers prepared a runway at the mountain-valley town of Hoengsong, and 315th Air Division planes

Locking slots and bayonet hooks are secured and welded by crews of the 930th Engineer Aviation Group of the U.S. Army.

Rollers pack down the asphalt surface of a runway.

rushed high-priority cargo there. Farther north, at Chunchon, other combat engineers worked with rifles on their backs to prepare a short runway in a burned-out section of the newly-captured town.[72]

On the eve of the Communist spring attack in Korea the Fifth Air Force and 315th Air Division did not possess, and would not be able to obtain, the airfields which they required to render optimum support to the Eighth Army. Accordingly, Fifth Air Force jet fighter-bomber wings would have to overcome their range problems as best they could. The 27th Wing would operate its relatively long-ranged Thunderjets directly from Itazuke. The 8th and 51st Wings equipped their short-legged F-80's with oversized wing tanks, which carried enough fuel for a trip from southern Japan to the front lines and return to Taegu Airfield. At Taegu, in March, the 8th and 51st Wings added personnel and equipment to the 49th Wing's refueling and rearming detachment, which now became "no longer an experiment but a much-used, high-performance operation."[73] Not only were Fifth Air Force wings based in Japan too far distant from the scene of battle, but the scarcity of airfields in Korea had another adverse effect on air operations which was derived from the variable seasonal weather. At times the weather over the front lines would be perfectly clear while the airfields in southern Korea were closed by spring storms. Under these circumstances the detachment of 35th Group Mustang fighters at Seoul would prove invaluable, but the Fifth Air Force had no such detachment available for operations in central Korea.[74]

4. Air-Ground Actions Defeat the Communist Spring Offensive

At the beginning of April 1951 all signs pointed to the fact that the all-out Communist offensive would be launched within a few weeks. Inclement weather, together with fog and haze, would hamper United Nations air operations and also present the on-foot Red armies with advantages of maneuver over motorized United Nations ground troops. Communist ground opposition had begun to stiffen, but the Eighth Army was still moving ahead toward the enemy's vital Chorwon-Kumhwa-Pyonggang communications and supply area at a rate approaching two miles a day. General Ridgway well understood that the Communists could not allow United Nations forces to breach this "Iron Triangle" without making a major offensive effort of some kind, but he wished to straighten his defense lines and maintain pressure on the Reds.[75] General Ridgway, however, would not command in the field when the Red attack came. On 11 April, at the direction of President Truman, General Ridgway relieved General MacArthur as Commander-in-Chief, United Nations Command and Far East Command. Dispatched by air from Washington, Lt. Gen. James A. Van Fleet arrived in Korea to take command of the Eighth Army and its attached forces on 14 April.[76]

Sometime early in April General Peng Teh-huai began to send new and fresh Chinese Communist armies to the 38th parallel battleline. How deeply the Reds had drawn upon troop strength remaining in China was revealed by the designation of the armies. The Chinese First Field Army's XIX Army Group (63d, 64th, and 65th Armies) took a position behind the western front. The Second Field Army's III Army Group (10th, 12th, and 15th Armies) came to the central front. Having completed replenishing the combat losses it had sustained in December's fight in eastern Korea, the Third Field Army's IX Army Group (20th and 27th Armies) deployed part of its forces to east-central Korea. Added to the strength of North Korean and Fourth Field Army units already at the battleline, the Communists were poising something on the order of 70 divisions for the attack.[77] The Reds were evidently going to try to overwhelm and destroy the United Nations forces. From their deployment, it appeared that they would mount their strongest attacks in the west and west-central zones, where relatively flat terrain led southward toward Seoul. General Van Fleet took these factors into consideration on 18 April, when he revealed the Eighth Army's plans. Utilizing superior air and ground firepower to effect casualties on the enemy, United Nations forces would roll backward as necessary through a series of phased defense lines. When the Communist offensives faltered, the Eighth Army would counterattack. General Van Fleet intended to continue General Ridgway's strategy of "maximum punishment" and "maximum delay." General Van Fleet also intended to make more use of artillery than ever before in Korea. "We must expend steel and fire, not men," he said. "I want so many artillery holes that a man can step from one to the other."[78]

In bright moonlight, on the night of 22 April, General Peng Teh-huai launched the "Big Red Attack" which Radio Pyongyang confidently predicted would destroy the United Nations Command. The Reds attacked every-

where across the front, but the major offensive, mounted by an estimated 337,000 Red soldiers, was a double envelopment aimed against the American I and IX Corps, obviously designed to cut the trans-peninsular Seoul to Kangsong highway and to capture the South Korean capital. During the night when the attack began ground-radar-directed medium bombers bombarded enemy troop concentrations south of Chorwon and north of Munsan. And as Communist ground troops crossed the Imjin River the U.S. I Corps used MPQ control to direct B-26 strikes against the enemy forces readying themselves for a breakthrough. On this night the I Corps recorded that the B-26's not only bombed the enemy but strafed his weapon positions as well.[79]

Beginning at daybreak on 23 April and continuing throughout the day, FEAF warplanes flew more than 1,100 sorties, some 340 of them in close support of the Eighth Army.* In an effort to mask their movements against day-flying aircraft, the Reds started woods fires along the battleline, and the smoke and haze did impede low-level strafing attacks. But there were too many Red soldiers and not enough cover, and the fighters and light bombers flew all-out schedules to slaughter the enemy. A report filed by Capt. William A. Alden, who led two 35th Squadron F-80 fighter-bombers in an early-afternoon close-support strike near the Imjin River on 23 April well illustrated the devastating effect of airpower on the enemy. Captain Alden's flight found some 200 Chinese frantically trying to bury themselves in the ground. The Shooting Stars dropped four 260-pound fragmentation bombs, fired eight HVAR rockets, and expended 3,600 rounds of .50-caliber ammunition. The Mosquito controller who directed the attack reported that at least 175 enemy troops were casualties.[80] This was only one example of close support in action, and across the front lines, on 23 April, Fifth Air Force pilots estimated that they inflicted nearly 2,000 casualties on the enemy, a total which ground observers called modest.[81]

Although Eighth Army troops fought valiantly, the Red tide was too strong, and south of Kumhwa the ROK 6th Division collapsed. Rather than see his army engulfed, General Van Fleet gave the order for the I and IX Corps to fall back fighting. For three more days after 23 April FEAF pilots flew more than 1,000 sorties a day in weather marred only by low haze and smoke. The fast carriers of Task Force 77—the *Boxer, Princeton,* and *Philippine Sea*—had returned from a sweep through the Formosa Straits on 16 April and were ready to lend a hand with close support. Benefiting from the flexibility of airpower, which permitted the Joint Operations Center to throw daylight fighter-bomber and MPQ-directed medium-bomber attacks into the breach near Kumhwa, the U.S. IX Corps cleared up its difficulties and launched counterattacks to clear the Seoul-Kansong highway. On the U.S. I Corps front fighter-bombers and night-flying B-26's and B-29's assisted a withdrawal to defense positions three miles north of Seoul, where the ground troops stood firm. In this fighting withdrawal the I Corps recorded that airpower and

*This was the third largest number of close-support strikes yet to be flown by the Fifth Air Force and its attached units. On 6 August 1950 380 close-support sorties had been flown, and 19 September 1951, with 361 close-support sorties, was the second largest day. Although substantial, these daily ground-support peak totals were quite small when compared to the Fifth Air Force's performance late in the war. On 15 June 1953, for example, the Fifth Air Force flew 859 ground-support sorties. *See* Chapter 19, p. 674.

artillery "kept enemy activity near the friendly front lines to a minimum during daylight hours...and made it possible for the friendly forces...to move at will during daylight, and prepare for the inevitable enemy assaults at night."[82] All tactical air wings distinguished themselves, but the 35th Group's Mustangs, which flew more than a hundred sorties a day, many of them from Seoul Airfield, achieved especially meritorious results. Early on the morning of 27 April, for example, the Mustangs got under rain clouds north of Seoul to envelop advancing enemy columns with napalm fire bombs. In one last dying gasp before the offensive collapsed, the Reds attempted to ferry troops across the Han River to the Kimpo peninsula and outflank Seoul. United Nations airmen strafed an estimated 6,000 enemy troops trying to cross the Han, and such as got ashore were easily handled by ROK Marines. The Communists reckoned that the "First Impulse" of their "Fifth-Phase" offensive ended on 29 April.[83]

All United Nations forces worked together to inflict terrible casualties on the Communist aggressors. Ground observers reported that United Nations airmen were conservative in their estimates of the casualties which air attack inflicted on the enemy, and air units referred to "the astronomical losses inflicted upon the enemy by our ground forces."[84] For the first time in Korea, moreover, United Nations airmen waged a tremendous close-support effort at night as well as by day. "Enemy frontline troops have now learned," announced General Stratemeyer, "that darkness no longer provides a protective cloak against our pinpoint air attacks on their positions." During April, despite many moves, the MPQ detachments directed 450 bomb drops on 425 targets nominated by the ground forces for attack. Each B-29 which attacked the hostile ground positions at night trained out forty 500-pound proximity-fuzed bombs. Each of these bombs burst into about 15,000 fragments, which showered downward to saturate an area 150 feet in diameter. The full extent of the casualties inflicted by the night-attacking bombers could not be exactly assessed, but ground-force reports mentioned excellent results. On the night of 26 April, on the western front, a B-29 dropped its bombs on an enemy concentration forming for an attack against the U.S. IX Corps. The attack never came. That same night two B-26's attacked enemy forces with 260-pound fragmentation bombs. At daylight ground patrols counted more than 400 Red bodies. Near Kapyong, after a single B-29 attack, ground patrols counted 600 dead next morning. On the eastern front, near Inje, ROK troops driven from a hill called for a supporting B-29. Next morning the ROK's recaptured the hill and counted 800 Communist troops killed by the B-29 attack. "Prisoners of war that we are taking are really complaining about night bombing," reported the U.S. X Corps. "We think the night effort we have been receiving has done a great deal to discourage the enemy."[85]

Although the Communist offensive had been halted short of Seoul and north of the Han River, Red prisoners explained that General Peng Teh-huai meant to launch a "second impulse" attack very soon, and United Nations reconnaissance crews reported that Red divisions were sideslipping over toward the east-central and eastern fronts.[86] Designing to keep the Reds off balance, General Partridge ordered his air wings to emphasize armed reconnaissance, and General Van Fleet

directed his corps commanders to press forward with tank-infantry task forces. Every evidence indicated that the cooperative air-ground probes were hurting the Reds. On 2 May, for example, Lt. Col. Rexford H. Dettre led a flight of four 35th Group Mustangs which dropped napalm at each end of a tunnel near Chunchon. A Mosquito controller reported that an enemy battalion had taken refuge in the tunnel, and, when no enemy troops showed themselves after the napalm attack, the Mustangs sealed both ends of the tunnel with general-purpose bombs.[87] On 4 May Captain Gordon S. Bush, 45th Tactical Reconnaissance Squadron, who was covering an advancing column of American tanks, called for flights of Thunderjets and Corsairs which he directed against dug-in Red troops. After a scorching napalm strike, the Reds came out with their hands in the air and surrendered to the tank column.[88] During these first fifteen days of May United Nations armored task forces drove the Reds back from five to ten miles across the whole peninsula.

Despite the hindrance of United Nations air and ground attacks, the Communists completed a concentration against the Chunchon-Inje sector held by the U.S. X Corps and the ROK III Corps by mid-May. Beginning on 16 May, an estimated 125,000 Chinese and North Korean soldiers struck southward down the roads from Chunchon and Inje which converged on Hongchon. Near Hangye ROK forces broke under the attack, exposing the flank of the U.S. 2d Infantry Division. Until the U.S. 3d Infantry Division could come over from its reserve position southeast of Seoul, the U.S. X Corps faced serious trouble. On the initial day of the attack a blanket of rain and fog assisted the Reds, and variable weather conditions continued to hamper United Nations air strikes on the days that followed. Once again, however, the flexibility of airpower came to the assistance of the ground forces, and the U.S. X Corps had as much close support as it could profitably employ. General Almond recorded that the X Corps dispatched aircraft to its divisions as fast as the divisions could handle them—usually three to four strikes an hour. Evidently the Reds had decided to carry their objectives at any price. Fighter-bomber pilots and Mosquito controllers reported that the Reds made little effort to take cover. Red troops continued to march forward even when they were being blasted from the air. Under such circumstances air-support pilots rained heavy destruction on the Reds. On 17 May the 2d Division reported that supporting air strikes killed at least 5,000 hostile troops on its front. On 18 May the Joint Operations Center had even more aircraft available for close support, for Task Force 77's three fast carriers reported for close air-support missions. Although the force of the Communist attack drove forward almost to Hongchon, the staunch stand of the U.S. 2d Division, all-out air support, and monumental artillery fire punished the Reds severely.[89]

During the first few days of the Communist attack General Almond used a good many MPQ-directed bomber sorties against hostile targets along the front lines, but his shrewdly conceived defense plan comprehended an even larger use of night-bombing aircraft. General Almond knew that in several days the Red drive would begin to falter and that the Reds would then begin to reassemble and mass their reserves for a renewed attack. When this happened, Almond planned to hit the Reds with a major night-bombing

attack. The U.S. X Corps' G-2 and G-3 worked closely together to nominate MPQ targets on information obtained from prisoners, observation posts, artillery air observers, and fighter pilots. On the night of 19 May the X Corps implemented the massive night attacks. At about 1800 hours on 19 May the Corps' G-2 reported enemy troops preparing for an attack. Eight B-29's saturated the area with 80 tons of proximity-fuzed 500-pound bombs, and no enemy attack materialized. About 2100 hours, on the night of 20 May, 15 B-29's attacked enemy troops reported to be assembling against the U.S. 2d Division. On this night a captured soldier of the 2d Division told what happened. Shortly before midnight, while a Chinese battalion was forming for attack, it was hit by the B-29's. The radar-aimed bombs inflicted many casualties and caused the enemy battalion to retreat northward in disorder. The American prisoner escaped in the confusion. Infantry patrols went forward next day and estimated that 300 fully armed and dead Chinese were left behind. At about 2000 hours, on the night of 21 May, the X Corps received reports that enemy troops were massing on the roads near Hangye and Chunchon. Eight B-29's hit the former area and five worked the latter zone. The Reds finally attacked, but only with two battalions, which were easily repulsed.[90] General Ruffner, commander of the 2d Division, told General Stratemeyer that the precision with which the radar-directed bombers destroyed enemy troops at night within 400 yards of his front lines was "utterly amazing."[91] General Almond called the night close support "an epic in our warfare." Almond thought it highly significant that the Reds committed no reserves and made no major night attacks after 20 May.[92]

In the battles of April and May the combat cargo airmen of the 315th Air Division played a splendid role, which in some measure dwarfed anything they had done up to this time. In order to stop the Red attack and to effect major casualties on the enemy, General Van Fleet had authorized his artillery battalions to exceed any prior limitations on fire, and the gun crews had begun to fire what they called the "Van Fleet load," five times larger than ammunition allowances up until then.[93] As General Van Fleet later explained, the Eighth Army's ammunition stocks, never so great as he wished, fell below a danger point, and steadily firing guns had to be fed by airlift from Japan.[94] In April, during the six days the Communists attacked in the west, the 315th Air Division airlifted more than 4,500 tons of battle supplies to Korea. The cargo planes landed some 1,700 tons of these supplies on the taxiway at Kimpo.[95] Beginning on 16 May, and for ten days thereafter, the 315th Air Division hauled more than a thousand tons of air cargo each day. On 23 May, with 222 aircraft on hand, the 315th flew 409 transport sorties to lift 1,534 tons of cargo, so exceeding its stated maximum capacity of 1,291 tons. The great bulk of the cargo lifted was ammunition and petroleum products, nearly all of which were landed at Seoul or Hoengsong.[96] At one time during the Chinese offensive, Hoengsong was only six miles behind the X Corps command post, and during the several days of most furious fighting truck crews lined up 50 to 100 at a time waiting to take ammunition off the transport planes and carry it to firing batteries.[97] In spite of the fact that its C-119's were grounded during several weeks in the period, the 315th Air Division delivered to Korea, by airlift and airdrop, 15,900 tons of cargo in April and 21,300 tons in May 1951.[98]

5. Defeated Reds Request a Cease-Fire

Everywhere along the United Nations lines in Korea the Communist "Second Impulse" of the "Fifth-Phase" offensive had collapsed on 22 May in a blood-soaked defeat so costly as to approach disaster. Always before, when their offensives spent themselves, the Reds had withdrawn beyond artillery range to reorganize and resupply. In May, however, United Nations ground forces recoiled only slightly, and by the fifth day of the Red attack, when the Red assault forces had hardly cleared their lines of departure, General Van Fleet launched the Eighth Army forward in a vicious counteroffensive, forcing the Reds into an exodus from South Korea which soon became a precipitous flight.[99]

According to General Van Fleet's order, the American I, IX, and X Corps launched a coordinated counteroffensive on 23 May designed to cut the enemy's main supply routes and destroy him. Preparing the way for the attack, 22 Okinawa-based Superfortresses of the 19th and 307th Bombardment Groups, together with 11 B-26's of the 3d Bombardment Group, employed MPQ-aiming techniques to lash enemy personnel across the entire front in the greatest single night close-support effort of the war.[100] Down on the ground, Army observers cheered the air-bursting bombs. One ground observer radioed the Superforts that bomber attacks in his area in two days had wiped out two regiments and a battalion of Chinese troops.[101] Although unfavorable weather conditions during the last week of May would hamper both close-air support and armed reconnaissance, the Joint Operations Center nevertheless managed lucrative attacks against Red troops who were desperately attempting to escape from the battlefield. On 23 May, when armor-infantry task forces began to attack forward the Joint Operations Center kept Mosquito controllers continuously over them and dispatched flights of supporting fighters to report every thirty minutes. This was the routine close support, and the Joint Operations Center had other policies concerning other targets which developed during a day's fighting. If enemy troops or vehicles were reported in the open, the Joint Operations Center gave highest priority to attacks against them, diverting pilots from other missions if necessary. If the targets were dug-in troops or parked vehicles, the Joint Operations Center usually scrambled alert planes to attack them. Supply dumps, bridges, and other immobile targets reported by ground forces had the lowest priorities.[102]

Supported by the full resources of FEAF and of Task Force 77, the Eighth Army made rapid progress against the demoralized Reds. The U.S. I Corps easily advanced north of Seoul to Munsan-ni and Uijongbu, while the U.S. IX and X Corps converged toward Hwachon to cut off Red troops south of the Hwachon reservoir.[103] In this area, on 28 May, Captain Edsel L. George, a Mosquito controller, witnessed an unusual sight. While the Mosquito orbited a flight of fighters overhead, Eighth Army artillery pummeled the enemy. When the artillery ceased firing, the Reds must have guessed what was in store for them, for the Mosquito controller saw them come down from the hills waving white flags. The Mosquito controller called off the air strike and told the Army tank men to close in and accept

North Korean soldiers surrendering to a U.S. Marine.

the surrender.[104] By the end of May Eighth Army troops had again advanced to the 38th parallel and had reconquered the ground given up in the Communist spring offensive. On all fronts the Reds showed their demoralization. In addition to heavy casualties inflicted upon the Reds, a total of 11,526 Chinese and Korean troops surrendered. Not since the period following Inchon had so many Communist soldiers given up the fight.[105]

While the pursuit phase of United Nations ground operations was ending on 2 June, and everywhere except in an indefensible area around Kaesong on the western front the Eighth Army was in full possession of South Korean soil, General Van Fleet had one more task for his ground forces to accomplish. He ordered the U.S. I and IX Corps to advance to Chorwon and Kumhwa and breach the southern limits of the Red "Iron Triangle," the fortified area which was the vortex of the enemy's road nets north of the 38th parallel.[106] Low-hanging clouds and pelting rainstorms now greatly hampered air support and retarded the progress of Eighth Army ground units. Moreover, the Reds kept in entrenched positions during the day, and the fighter-bombers scored no spectacular results other than a steady pounding against Communist caves and bunkers. As United Nations ground troops crept forward toward Chorwon and Kumhwa, however, FEAF unleased a crescendo of radar-directed attacks against enemy positions in the Pyonggang-Chorwon-Kumhwa triangle. At dusk on 7 June and at thirty-minute intervals throughout the night, 23 B-26's and B-29's of the 3d and 98th Groups showered air-bursting 500-pound bombs on enemy troops and

supply positions in the Iron Triangle. All during the night of 8/9 June 16 B-29's of the 19th Group and 17 B-26's of the 3d Group continued the MPQ-directed attack. On the night of 9/10 June five 307th Bombardment Group B-29's put finishing touches on such targets as remained.[107] The Red enemy, who had stubbornly resisted United Nations ground attack, quailed under the aerial punishment, allowing U.S. I Corps troops to enter Chorwon and Kumhwa virtually without opposition on 11 June. In fact, one American tank force drove all the way to Pyonggang, but fearing that it would be "mouse-trapped" at the apex of the triangle, General Van Fleet ordered it to withdraw.[108]

As the June cloudbursts turned Eighth Army lines of communications into quagmires, advancing ground troops depended heavily upon air-transported supplies. In central and eastern Korea the U.S. X Corps and the ROK I Corps were especially dependent upon airdropped and air-landed support. Aircrews of the 314th Troop Carrier Group accordingly threaded their C-119 Flying Boxcars through mazes of mountain peaks to parachute supplies into often inadequately marked drop zones from 800-foot altitudes. On such missions the Flying Boxcars usually picked up some enemy ground fire, but the only losses sustained occurred on 3 June when, in the ROK 5th Division's area, a C-119 formation searching for a vaguely marked drop zone flew through a friendly artillery barrage, which destroyed two of the transport planes.[109] Following this unfortunate accident, General Henebry issued orders that supply-dropping crews would make positive radio contact with a Mosquito controller or a tactical air-control party prior to entering a drop zone. General Henebry also sent a team of officers to visit the front lines and explain to ground units just what a drop zone was supposed to be.[110] In addition to the airdropped supplies, the 315th Air Division continued to lay down cargo at Korean airfields, and the heaviest Army shipments went to Seoul and Hoengsong. Even though Company C of the 811th Engineer Aviation Battalion had been improving Hoengsong Airfield since late April, this airfield was getting rather far to the rear. Early in June Company C accordingly sent a detachment to work on the recaptured airstrip at Chunchon. On 10 June Chunchon's clay-and-gravel runway was 4,200 feet long, and C-54's began to land Army supplies there.[111] Counting both the tonnage parachuted to front-line troops and that landed at airfields in South Korea, the 315th Air Division hauled 22,472 tons of cargo to Korea during June 1951.[112]

In a year of combat in Korea, and especially during April and May of 1951, the Communist armies in Korea had taken a bloodletting of tremendous proportions. In addition to the 163,130 enemy soldiers in United Nations Command prisoner-of-war camps, United Nations intelligence estimated that the North Koreans and Chinese Communists had sustained 863,949 battle casualties. Altogether, the Communists had lost a total of some 1,191,422 soldiers through capture and battle and non-battle causes.[113] At Peking and Moscow the scheming men who directed international communism must have at last recognized that no number of slaughtered Orientals could buy them a victory in Korea. In a radio address delivered in New York on 23 May 1951 Soviet Russia's delegate to the United Nations, Jacob A. Malik, suggested that the time had come for a peaceful solution to the Korean prob-

lem. Marking the first anniversary of Communist aggression in Korea, General Ridgway on 25 June broadcasted a message to the Chinese people in which he professed difficulty in understanding why their leaders continued to sacrifice men when they were so clearly incapable of making good in their boastful efforts to destroy the United Nations forces in Korea. In view of Russia's suggestion, General Ridgway on 30 June broadcasted another proposal to the commander of the Communist forces in Korea looking toward cease-fire meetings to be held aboard a hospital ship in Wonsan harbor. On 1 July Radio Peking addressed a reply to Ridgway, jointly signed by Premier Kim Il Sung, commander of the North Korean People's Army, and General Peng Te-huai, commander of the Chinese "Volunteers." The message stated that the Communists were authorized to suspend military activities and to hold peace negotiations. The Reds suggested that the Korean town of Kaesong should serve as the place of conference.[114] As United Nations and Communist leaders moved toward cease-fire talks, the war in Korea was entering a new phase, but United Nations air operations were going to progress unabated. "Combat operations," enjoined General Weyland on 1 July, "will continue at the normal rate until otherwise directed."[115]

In the year of combat following the Red aggression on 25 June 1950, the United Nations Command had defeated numerically superior North Korean and Chinese Communist ground armies. As their contribution to the victory, FEAF airmen had flown 223,000 sorties to drop 97,000 tons of bombs and 7,800,000 gallons of napalm, to fire 264,000 rockets and 98,000,000 rounds of ammunition, and to transport 176,000 tons of cargo and 427,000 passengers and air evacuees. The FEAF combat sorties had inflicted 120,000 casualties upon the enemy's personnel and had destroyed or damaged 391 aircraft, 893 locomotives, 14,200 railroad cars, 439 tunnels, 1,080 rail and road bridges, 24,500 vehicles, 1,695 tanks, 2,700 guns, and 125,000 buildings which sheltered enemy troops or supplies. FEAF strategic bombers had also neutralized the 18 major strategic targets in North Korea. In the year FEAF had lost 857 officers and airmen—187 killed, 255 wounded, 412 missing, and 3 known to be prisoners of war. Due to enemy action, FEAF had sustained the loss of 246 aircraft, including 188 fighters, 33 bombers, 9 transports, and 17 other planes. Told in terms of statistics, FEAF's combat record was enviable.[116]

The true role of airpower as the decisive force in the United Nations victory in Korea, however, could not be told solely in terms of damages wrought on the enemy. In the maintenance of air superiority over Korea FEAF destroyed or damaged a number of Communist aircraft, but the fact of the maintenance of the air superiority was far more important than the physical damage inflicted on the enemy. Free from the danger of hostile air attack, United Nations forces were able to maneuver as they wished during daylight hours. The Communists, on the other hand, were compelled to move and to fight at night. Air-interdiction missions destroyed enemy troops, equipment, and supplies before they reached the battle zone. Taken in conjunction with the United Nations ground fighting, the air-interdiction operations also impeded the flow of Communist troops, equipment, and supplies to the battle zone. With diligence and long-enough periods of

time between active campaigns, the frugal Orientals from the north were able to accumulate supplies for short and intensive periods of combat. In each offensive, however, the Reds took heavy losses, and each offensive dwindled for want of logistical support before it could bring decisive manpower to bear for a lasting ground decision. In his comments during armistice discussions in August 1951, Lt. Gen. Nam Il, the senior Red delegate, well summarized the dominant role that airpower had played in the Communist defeat. "I would like to tell you frankly," said Nam Il, "that in fact without direct support of your tactical aerial bombing alone your ground forces would have been unable to hold their present positions. It is owing to your strategic air effort of indiscriminate bombing of our area, rather than to your tactical air effort of direct support to the front line, that your ground forces are able to maintain barely and temporarily their present positions." Nam Il's torrent of words was not entirely clear. He evidently considered "strategic air effort" to mean both air attacks against the Communist's industrial capacity and the rear-area interdiction of enemy movement, while "tactical air effort" seemed to be in reference to battleline support. But General Nam Il made one point clear by repeating it several times: "Without the support of the indiscriminate bombing and bombardment by your air and naval forces, your ground forces would have long ago been driven out of the Korean peninsula by our powerful and battle-skilled ground forces."[117]

A B-26 crew makes final preparations for a night assault.

12. *Armistice Talks Mark a New Phase of Korean Hostilities*

1. United Nations Commanders Confront New Objectives

As Vice-Admiral C. Turner Joy led United Nations armistice delegates to meet the Communist truce-talk delegation at the South Korean town of Kaesong on 10 July 1951, a new phase of hostilities—so far different from what had gone before as to constitute a virtually new war—was beginning in Korea. In the autumn of 1950 Chinese Communist intervention had convinced the United Nations of the futility of attempting to unify Korea by military force. Unable to accomplish this larger objective, the United Nations ground forces needed to go no farther north of the 38th parallel than the defendable terrain they held in early July 1951. In the spring of 1951 the Communists had been convinced by a series of major military disasters that they could not drive United Nations forces out of South Korea. Of course neither the United Nations nor the Communists could know the other's ultimate objectives, but for a time at least the United Nations and the Communists had abandoned their identical political objectives of unifying Korea by military force. Over the conference table at Kaesong both sides were beginning to seek acceptable terms for ending hostilities in Korea.

The United Nations and the United States had not easily abandoned the objective of unifying Korea by military means. During the cataclysmic month of December 1950, however, the United Nations had been forced to change its position on Korea. United States military leaders recognized that to continue to attempt to achieve the political objective of Korean unification by military means would incur the grave risk of an Asiatic war or perhaps World War III. The Joint Chiefs of Staff therefore accepted a State Department position paper submitted to President Truman for use in conversations with Prime Minister Attlee which stated that the most feasible solution to the Korean question would be to secure a cease-fire agreement and respite from combat, during which the United Nations could proceed with the political, military, and economic stabilization of the Republic of Korea while continuing to seek to accomplish Korea's eventual unification through political actions.[1]

The United States accordingly sponsored and the United Nations General Assembly on 14 December 1950 adopted a resolution proposing that immediate steps be taken to end the fighting in Korea and that existing issues there be settled by peaceful means. When Communist China did not seriously consider a cease-fire agreement, the General Assembly on 1 February 1951 declared the People's Republic of China to be in aggression in Korea and affirmed the determination of the United Nations to meet the aggression. At the same time, the General Assembly expressed its intention to bring about a cessation of hostilities and then to achieve the political unity and independence of Korea by peaceful means.[2] After December 1950 United Nations political objectives toward Korea continued to visualize a united and independent country, but the United Nations' military objective required the United Nations Command merely to conduct such operations, consistent with the

security of its forces, as would inflict maximum casualties on the Communist armed forces, thereby compelling Communist China and North Korea to seek a military armistice.

Whether the United Nations military objective was not clearly communicated to General MacArthur, or whether he was so fundamentally lacking in sympathy for the idea that he could not grasp it, cannot be determined, but General MacArthur later testified that he was "operating...in a vacuum" and, although aware that his directives had somehow been changed, was informed only that his military objective was the security of his forces and the protection of Japan.[3] At times during the spring of 1951 General MacArthur was openly critical of the "accordion fashion" fighting in Korea. "There is no substitute for victory," he noted in one letter released to the press.[4] Without clearing the statement with Washington, General MacArthur on 24 March implied that the United Nations might depart from its tolerant efforts to contain the war within Korea. Back in Washington President Harry S. Truman now thought it evident that General MacArthur did not agree with United States policy in Korea, and on 11 April 1951 President Truman relieved General MacArthur from all his commands in the Far East. To the American people President Truman explained that the United States military objective in Korea was "to repel attack...to restore peace...to avoid the spread of the conflict."[5]

Shortly after he became commander of the United Nations Command and the Far East Command, Lt. Gen. Matthew B. Ridgway announced: "Our principal objective is to keep the United States out of war and in Korea to restore international peace and to repel aggression. The job of unifying Korea, while desirable, is not an element of this principal mission."[6] During April, May, and June, the objectives of the United Nations and of the United States toward Korea were aired in public hearings conducted by a United States Congressional committee investigating General MacArthur's removal from command. Secretary of State Dean Acheson, for example, testified that the United Nations would be satisfied to end the fighting on terms which would ensure the security of the Republic of Korea. Although Acheson did not state it in so many words, he at least implied that the United Nations would accept the 38th parallel as the Republic of Korea's northern boundary.[7] Evidently the Communists also realized that they could no longer hope to unify Korea by force, for on 23 June in a radio broadcast in the United States, Russia's delegate to the United Nations, Jacob Malik, indicated that the time had come for the restoration of peace in Korea. "The Soviet peoples believe that as the first step," stated Malik, "discussions should be started between the belligerents for a cease-fire and an armistice providing for mutual withdrawal of forces from the 38th parallel." In response to an exploratory message from General Ridgway, Premier Kim Il Sung and General Peng Te-huai messaged on 1 July: "We are authorized to tell you that we agree to suspend military activities and hold peace negotiations."[8]

While technical arrangements were being made for the meeting of armistice delegates within Communist lines at Kaesong, President Truman and the Joint Chiefs of Staff provided General Ridgway with an official frame of reference for the armistice negotiations. "Our principal military interest in this armistice," stated the Joint Chiefs, "lies in a cessation of hostilities in

Gen. Matthew B. Ridgway, USA, watches planes returning from strikes during a visit to the USS *Bon Homme Richard (Courtesy U.S. Navy).*

Korea, an assurance against the resumption of fighting, and the protection of the security of the United Nations forces." The Joint Chiefs expressly enjoined Ridgway that "discussions...should be severely restricted to military questions," and charged him not to "enter into discussion of a final settlement in Korea or consideration of issues unrelated to Korea, such as Formosa and the Chinese seat in the United Nations."[9] Noting that the Communists evidently intended that hostilities would be suspended at the beginning of armistice negotiations, the Joint Chiefs stated that there must be no relaxation in United Nations military effort until proper arrangements for a cessation of hostilities had been agreed upon in armistice terms.[10] After two months of continuing discussions, the Joint Chiefs also provided General Ridgway with a codification of existing directives on 10 July, much of which had to do with objectives in Korea. The United Nations Command was charged "to assist the Republic of Korea in repelling armed aggression...and to restore international peace and security in Korea." Consistent with the security of forces under his command, General Ridgway was specifically charged to inflict maximum personnel and materiel losses on the Communist forces within Korea and adjacent waters. The policy objective of this military mission was to create conditions favorable to the settlement of the Korean conflict which would, as a minimum, terminate hostilities under appropriate armistice arrangements, establish the authority of the Republic of Korea over an area south of a northern border so located as to facilitate administration and military defense (but in no case south of the 38th parallel), provide for the withdrawal of non-Korean armed forces from Korea in appropriate stages, and permit the building of sufficient military power in the Republic of Korea to deter or repel a renewed North Korean aggression.[11] As armistice negotiations got under way at Kaesong on the morning of 10 July, Admiral Joy's opening statement emphasized that the United Nations delegation would not discuss political or economic matters of any kind, or military matters unrelated to Korea. Admiral Joy also stated that hostilities would continue in all areas except in the neutral zone around Kaesong until there was agreement on armistice terms. Following this initial statement, the United Nations delegation proposed the adoption of an agenda to include the establishment of a demilitarized zone representing military realities, concrete arrangements for a cease-fire to be supervised by an armistice commission and military observer teams, and arrangements relating to the disposition of prisoners of war.[12]

Somewhere in the policy-making echelons of the Soviet bloc of nations Communist planners must have been working out similar instructions for the Chinese and North Korean delegates who were to attend the meetings at Kaesong. The statement of Malik and the message of Kim and Peng already indicated what the Communist proposals were likely to be, but the peace terms were first stated in detail by the senior Communist delegate, Lt. Gen. Nam Il, at Kaesong, on 11 July. Nam Il proposed that, on mutual agreement, both belligerents would simultaneously order the cessation of hostile military actions of every sort. The 38th parallel would be fixed as the military demarcation line, and both armies would simultaneously withdraw to a distance of ten kilometers from the demarcation line. At this time talks should be

immediately conducted on the exchange of prisoners of war, so that these unfortunate men might return home quickly. All foreign troops should be withdrawn from Korea in the shortest possible time. The formal Communist agenda for the truce talks proposed acceptance of the 38th parallel as the military demarcation line, the implementation of a cease-fire and establishment of a demilitarized zone, and the withdrawal of foreign troops from Korea. On the same day as Nam Il made this statement of position at Kaesong, the Red propaganda radio stations at Peking and Pyongyang broadcasted these terms to the world. This action left little doubt that the Communist terms had been agreed upon and disseminated well before the assembly of truce delegates at Kaesong.[13]

After a few days of fruitless negotiations at Kaesong General Ridgway stated his conviction that the Communists believed that "an armistice is the short way to the attainment of their unchanged objective at minimum cost."[14] According to intelligence reaching Tokyo, for example, General Peng Te-huai, on 1 July, had advised all Chinese commanders in Korea that the Communist truce delegates were representing a victorious army. If the Kaesong discussions proved unavailing, Peng reportedly said, the Chinese Communists would launch a summer offensive.[15] General Ridgway began to suspect that the Reds were hoping to use the cover of the armistice negotiations to build up forces for a renewed attack in Korea. He later noted that the Communist counterproposal to hold the talks at Kaesong on South Korean soil rather than on a neutral hospital ship in Wonsan harbor was the "first harbinger of Communist delay."[16] Looking back at the beginning of the truce negotiations, General Weyland expressed a somewhat different viewpoint. Weyland thought that the Communist enemy "was prepared to accept what he thought to be our terms when he came to the conference table," but that "when he found the terms to be less favorable than he thought, the long negotiations began."[17] Whatever the Communist motives may have been as negotiations continued day after day without reaching agreement on mutually acceptable armistice terms, the United Nations Command and the Communists each possessed the same alternatives. They could compromise and accept less than they wanted in the way of armistice terms, or they could bring additional military pressure to bear to force the other side to accept terms which were less than it desired. From July 1951 onward the military objectives of both sides were the same—the accomplishment of an armistice on the most favorable terms.

In this same period which witnessed the defeat of the Communist armies in Korea and the incidence of the truce talks, the Far East Air Forces got a new slate of top-level commanders. Although General Stratemeyer professed loyalty to General MacArthur, he had been very reluctant to question national policy. "We are *prepared* to carry the air war to the enemy wherever he may be," Stratemeyer informed the press on 26 March 1951, "but a decision to extend the employment of our bombers or our fighters beyond the confines of Korea is not one that should be made by the field commander." "This," stated Stratemeyer, "is a basic decision that quite properly must be made at governmental and/or United Nations level." "It might be wise to point out," he added, "that the military man *implements* foreign policy in our democratic form of

Lt. Gen. O. P. Weyland (left) and Maj. Gen. Edward J. Timberlake.

government—the military do not *formulate* foreign policy."[18] General Stratemeyer's statement was a model reporting of military ethics in a constitutional government. Unfortunately, however, General Stratemeyer would not much longer command the Far East Air Forces, for on 20 May 1951 he suffered a severe heart attack which would force him to undergo a long period of hospitalization.[19]

The sudden illness of General Stratemeyer brought immediate changes in commanders in the Far East Air Forces. As the senior air officer present, Lt. Gen. Earle E. Partridge flew to Tokyo to assume the duty as acting commander of FEAF, and Maj. Gen. Edward J. Timberlake became acting commander of the Fifth Air Force.[20] Already, however, USAF had selected both Generals Partridge and Timberlake for rotation to important commands in the United States—Partridge to take command of the USAF Air Research and Development Command and Timberlake to take charge of the Ninth Air Force. As a result, General Vandenberg soon announced that Lt. Gen. O. P. Weyland would return to Tokyo to command the Far East Air Forces. At the outbreak of the Korean conflict General Weyland had been temporarily assigned as General Stratemeyer's vice chief of staff for operations, but he had recently returned to the United States to serve as deputy commander of the USAF Tactical Air Command. Vandenberg also stated that Maj. Gen. Frank F. Everest,

who had been serving as USAF's assistant deputy chief of staff for operations, would go to Korea to command the Fifth Air Force.[21] On 29 May Generals Weyland and Everest arrived at Tokyo, whence General Everest went promptly to Taegu to take command of the Fifth Air Force on 1 June 1951.*[22]

Under a spectacular canopy of FEAF aircraft overhead at Haneda Airfield on the morning of 10 June, General Ridgway presented General Partridge with an oak-leaf cluster to his Distinguished Service Medal and wished him success in his new assignment. Recalling their association in Korea, General Ridgway commented: "I doubt if any field commander ever had more loyal, unselfish, unfailing cooperation." Upon the departure of General Partridge, General Weyland officially assumed command of the Far East Air Forces on 10 June 1951.[23] Not unnoticed among these high-level command changes was a periodic rotation in the commander's post of the FEAF Bomber Command. In order to share the experience, the Strategic Air Command had begun to rotate officers to this command post at four months' intervals, and on 23 May Brig. Gen. Robert H. Terrill succeeded Brig. Gen. James E. Briggs in command of the bomber force at Yokota.[24] Marking completion of the commanders' transfers, Brig. Gen. James E. Ferguson, who had long served with General Weyland in Europe and in Tokyo, became vice-commander of the Fifth Air Force on 18 June 1951, relieving General Timberlake for return to his new command in the United States.[25] As the United Nations Command began to face a new-type war in Korea, General Vandenberg had provided his best officers to direct the fate and fortunes of the Far East Air Forces.

2. Combat Cargo, Air Defense, and Bomber Command Reorganizations

At the start of the Korean war, because of optimistic expectations that the hostilities would be of short duration and because available resources demanded expeditious actions, Generals Stratemeyer and Partridge had attempted to stretch an existing organizational framework far enough to encompass old duties in Japan and new air war tasks in Korea. Looking back shortly before he left the Far East, General Partridge wondered whether the improvisations had been wise. "One of my major failings...has been to take a look at the chips I have and say, how can I best accomplish my mission with what I have?" said General Partridge. "What we should have done," he remarked, "was to sit back and scream for more and get what we needed to fight a war and accomplish our mission."[26] Fortunate for the cause of the United Nations Command was this ability and willingness of the FEAF commanders to improvise and fight with what they had, but the pragmatic command arrangements made early in the Korean war were not wholly

*In accordance with a USAF policy granting such rank to the commander of the Fifth Air Force, General Everest was promoted to the temporary rank of lieutenant general on 20 December 1951.

Skilled cargo handlers perform a tricky loading maneuver on this C-119.

satisfactory, chiefly because they expected the Fifth Air Force to accomplish too many divergent tasks. During the first half of 1951 General Stratemeyer had at last been able to lighten the duties of the Fifth Air Force and to permit it to devote its entire attention to the Korean air war.

As the war continued in Korea the problem of the air defense of Japan and the administration of air facilities in the Japanese islands became more difficult for the Fifth Air Force to handle. Seeking to relieve the Fifth Air Force's headquarters staff of the immediate management of air affairs in Japan, General Partridge activated the 314th Air Division at Nagoya on 1 December 1950, under the command of Brig. Gen. Delmar T. Spivey. At this time General Partridge had proposed that the 314th Air Division should report directly to FEAF, but General Stratemeyer had preferred that it be assigned to the Fifth Air Force. General Stratemeyer's reasoning was that the 314th and the Fifth would have to share the same air units and air bases for air-war and air-defense functions.[27]

As Soviet and Chinese air capabilities increased in the Far East in the spring of 1951, however, the air defense of Japan loomed as a matter of added importance. General Spivey warned that a single successful hostile air attack against the Far East Air Materiel Command shops and warehouses at Tachikawa "could paralyze the technical supply of...our forces."[28] In March, moreover, a 314th Air Division study

demonstrated that the missions of air combat in Korea and of air defense in Japan were incongruously vested in the Fifth Air Force. No matter how good its intentions, the Fifth Air Force staff was naturally preoccupied with the war in Korea and could not help attaching secondary importance to Japan's air defenses. Force commitments were quite dissimilar. The Fifth Air Force was designed to be a highly mobile air-striking force. Japan's air defenses required a fixed system based on geographical concerns. When the study came to his desk, General Partridge agreed that it would be advantageous in many ways to divorce the 314th from his command, but he questioned whether sufficient air resources would ever be available so that certain units could be tagged for defense and others for tactical missions. General Stratemeyer, however, agreed that the two commands should be separated. At this time the Fifth Air Force was slated for deployment to Korea, and this satisfied one of General Stratemeyer's earlier objections to the divorcement.[29]

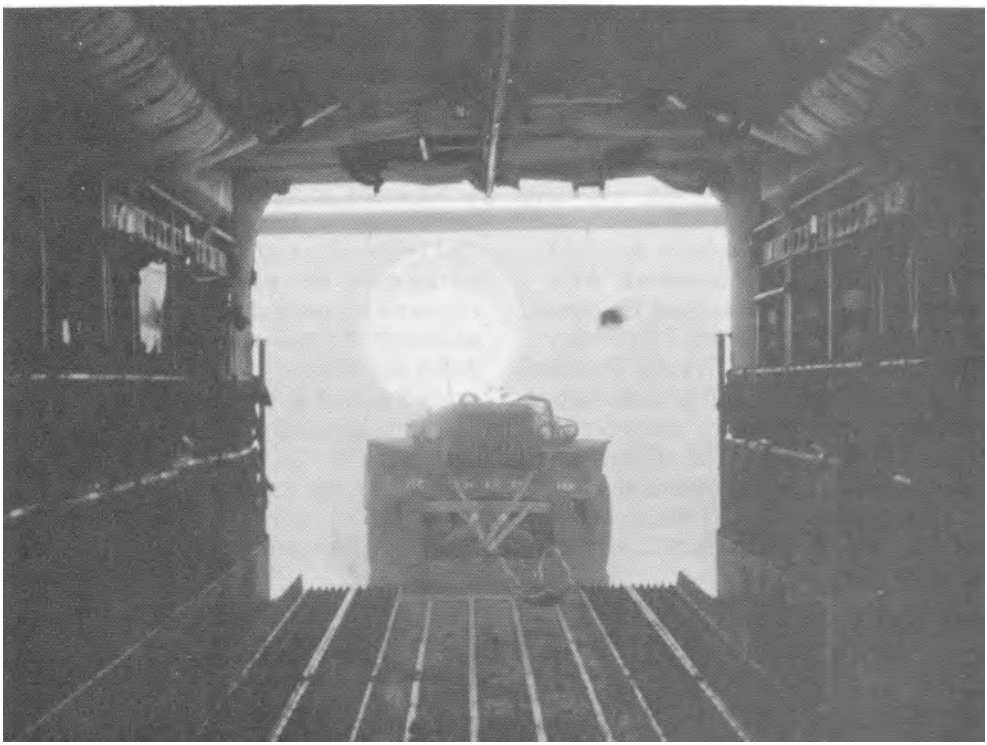
Effective on 18 May 1951, FEAF established the 314th Air Division as a separate major air command, directly responsible to General Stratemeyer. The 314th was charged to provide an air defense for Japan, to support the Fifth Air Force as mutually agreed, to conduct joint training and operations with the two partly trained National Guard divisions which had come to Japan to compose the XVI Corps, and to administer assigned air bases in Japan.[30] The 314th Air Division assumed command over the 68th and 339th Fighter-Interceptor Squadrons which were based in Japan. In order to provide the 314th with an air-defense organizational framework, and because FEAF no longer had enough Mustang fighters to go around in Korea, the 35th Fighter-Interceptor Wing was transferred from Korea to Johnson Air Base on 25 May 1951, where it began to serve as the air-defense operations center. The 40th Squadron of the wing went to Misawa Air Base on northern Honshu for eventual conversion to F-94 interceptors, and the 39th Squadron remained a Mustang unit and was attached to the 18th Fighter-Bomber Wing for continued service in Korea.[31]

Like other supposedly temporary arrangements of that optimistic season, General Stratemeyer had organized the FEAF Combat Cargo Command (Provisional) on 26 August 1950, under command of Maj. Gen. William H. Tunner. Although it was made a principal air command directly responsible to FEAF, the Combat Cargo Command possessed only operational control over troop-carrier units attached to it, and the Fifth Air Force was charged to provide administrative and logistical support. These interrelationships puzzled both organizations. The Fifth Air Force was charged to provide manning for all troop-carrier units and the bases supporting them. Such manning was calculated on requirements stated by the Cargo Command, and the Fifth Air Force often had to withdraw personnel from other functions to meet troop-carrier requirements. According to a Fifth Air Force study, Cargo Command always submitted urgent requirements "on the basis of what they thought they needed and assigned the first available body to the job regardless of...the individual's qualifications or pending requisitions."[32] General Tunner also found the arrangement unsatisfactory for sustained operations. "We are limited to operational control of our subordinate units," he wrote, "which is all right for a short period of time, but after a while it becomes unwieldy. We are faced with

C-47 of the 315th Air Division (Combat Cargo).

administrative matters every day which we are not prepared to handle."[33]

Noting that the "temporary nature" of the Combat Cargo Command was giving him "considerable concern," General Stratemeyer, on 29 December 1950, asked Washington for authority to activate an air-division headquarters to control combat cargo. Stratemeyer also asked for permission to reorganize the 374th and 437th Wings on a four-squadron war-strength basis. Without delay, USAF approved much of the request, but it was unable to authorize a fourth squadron for the 374th Wing.[34] Knowing of Stratemeyer's requests, General Tunner had been making plans. Given approval of the proposed organization and necessary personnel to relieve the temporary-duty people he had brought to Japan, Tunner was confident that he could permanently organize the air-cargo function and turn it over to the Fifth Air Force within two weeks. At such a time as this General Tunner felt that he could give his command to Brig. Gen. John P. Henebry, the young Air Reservist general who had brought the 437th Wing to Japan.[35] There was something to be said for the assignment of the combat-cargo function to the Fifth Air Force, for it would permit the Eighth Army to look to one officer in Korea for the accomplishment of all air support. General Stratemeyer disagreed politely but firmly. "As long as the ground situation remains up in the air," he told Tunner, "I desire to retain my Combat Cargo Command separate from



The interior of a C-119 as a truck is airdropped to frontline forces.

the Fifth Air Force and I desire that you continue as its commander."[36]

In accordance with plan, FEAF discontinued the FEAF Combat Cargo Command (Provisional) and simultaneously activated the 315th Air Division (Combat Cargo) on 25 January 1951. The 374th and 437th Troop Carrier Wings and the 6122d Air Base Group were assigned to the 315th, but they were attached to the Fifth Air Force for administrative and logistical support except for the assignment and promotion of personnel. The 1st Troop Carrier Group (Provisional) was disbanded, and most of its men and equipment were transferred to the newly activated 86th Troop Carrier Squadron of the 437th Wing. The temporary-duty organizations—the 314th and 61st Troop Carrier Groups and the 4th Troop Carrier Squadron—were attached to the 315th Air Division for operational control and to the Fifth Air Force for administrative and logistical support.[37] In the fortnight that followed the activation of the new air division General Tunner made other necessary changes. Because of overcrowding at Ashiya Air Base, headquarters of the 315th Air Division moved to Higashi Fuchu, near Tachikawa Air Base, on 2 February.[38] More significant in terms of operational efficiency was an authority which General Tunner received to operate aerial ports in the Far East theater. Beginning at Kimpo in September 1950, General Tunner had sent detachments to Korea to handle loading and unload-

ing of air-transported cargo. In Japan, however, the Japan Logistical Command had been loading air cargo at the major aerial ports. General Tunner insisted that he could not completely guarantee airlift capabilities unless he could control the loading and unloading of his planes, a proposition which seemed logical enough both to FEAF and to the Far East Command. With the approval of the Far East Command, the 315th Air Division on 7 February 1951 organized the 6127th Air Terminal Group (Provisional) and gave it responsibility for increasing the effective utilization of FEAF airlift through prompt and proper loading and offloading of cargo aircraft.[39]

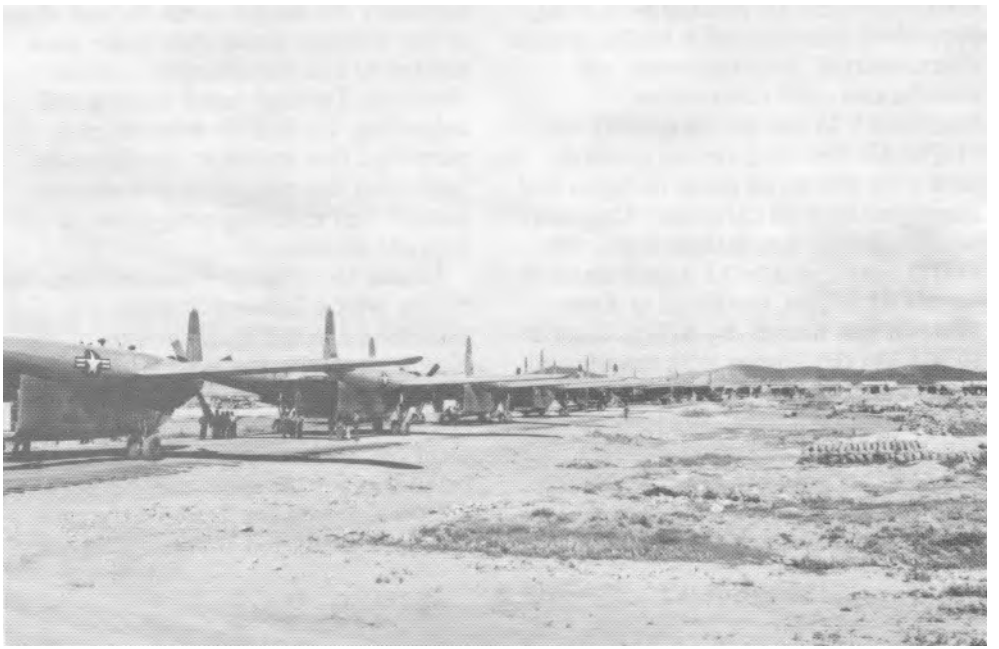
Following the permanent establishment of the 315th Air Division, General Stratemeyer consented "with considerable reluctance" to the termination of General Tunner's prolonged temporary duty in the Far East.[40] On 8 February 1951 Brig. Gen. John P. Henebry accordingly relieved General Tunner as commander of the 315th Air Division and before the end of the month most of the other key staff officers were also replaced by permanently assigned officers.[41] As was contemplated, the 315th Air Division required an extended period in which to effect its reorganization. By 11 June, when separation of the 314th Air Division from the Fifth Air Force had necessitated new support agreements, the 315th Air Division required the 314th's

These battle veterans are being logged for a trip from Korea to Japan aboard one of 315th Air Division's transports.

assistance only for civilian personnel, dependent housing and schools, general courts-martial, post exchange, air installations, and comptroller functions.[42] In the spring of 1951 the 6127th Air Terminal Group gradually took over the aerial ports in Japan and amply justified its existence. Originally organized with ten detachments, the 6127th burgeoned to 13 detachments to handle its largest workload in June 1951. In this month the 6127th loaded 10,938 aircraft sorties with manifested cargo including 60,475 passengers, 17,146 tons of freight, 899 tons of mail, and 10,520 air-evacuation patients. Most of this grand total of 25,480 tons was also off-loaded by other 6127th detachments. At the Korean airlift terminals the detachments moved about to the airfields where they were most needed to suit the changing combat situation. Through rapid loading and unloading, the 6127th detachments permitted fast transport turnarounds, increasing the utilization of transport aircraft and reducing congestion at forward airstrips.[43]

Unlike the other provisional commands which General Stratemeyer established in the early months of the Korean war, the Far East Air Forces Bomber Command (Provisional) was fated to be little changed as the war went on. Its headquarters continued to be staffed for the most part by personnel provided by the USAF Strategic Air Command, and Bomber Command

These soldiers wait to board this C-54 for a rest and relaxation leave.



C-119's await the take off signal.

continued to exercise operational control over the Twentieth Air Force's 19th Bombardment Group (Medium) and the Strategic Air Command's 98th and 307th Bombardment Groups (Medium) and 91st Strategic Reconnaissance Squadron. Located at Yokota Air Base, Bomber Command headquarters, the 98th Group, and the 91st Squadron drew administrative and logistical support from the 314th Air Division. On Okinawa, at Kadena Air Base, the Twentieth Air Force similarly supported the Advance Echelon, FEAF Bomber Command and the 19th and 307th Bombardment Groups. Because of the Strategic Air Command's experimental elimination of combat group headquarters in its bombardment wings, the 98th and 307th Groups were redesignated with provisional wing status in February 1951. On 12 September 1951 the 307th Wing assumed the operational functions of the Advance Echelon, FEAF Bomber Command, thus eliminating this small organization.[44]

Originally conceived to be a strategic bombing force, the FEAF Bomber Command found other worthwhile duties as the Korean war continued. Several influences nevertheless worked to keep Bomber Command at a modest size. On 5 December 1950, when the Chinese Communist armies were attacking, General MacArthur had requested the Joint Chiefs of Staff to return the 22d and 92d Bombardment Groups to the theater. The Joint Chiefs, however, were unwilling to risk these groups on bases which might be hazarded by an all-out Communist air attack.[45] In March 1951, moreover, USAF operational circles in Washington began to question whether the 98th and 307th Wings could not be relieved

from duty in the Far East. So far the medium bombers had not proved to be good for ground support, and there were no more strategic targets in Korea. At this time General Stratemeyer cited the development of the MPQ close-support techniques and justified the retention of the two Strategic Air Command wings.[46] In June 1951 Assistant Secretary of the Air Force John A. McCone queried USAF about the advisability of sending the 22d and 92d Wings back to FEAF, but USAF did not believe that additional medium-bomber wings could find worthwhile employment in Korea.[47] By the spring of 1951, moreover, the USAF Strategic Air Command was finding it difficult to provide replacement aircrews and aircraft to the FEAF Bomber Command. Replacement Superfortresses had to be removed from storage and reconditioned in the United States. In March 1951, when general aircrew rotation began in the medium-bomber units, the Strategic Air Command did not wish to disrupt the combat effectiveness of its battle-ready wings by drawing replacements from them. As a result, nearly all B-29 replacement crews sent to the Far East in the spring of 1951 were recalled Air Reservists who had flown B-29's in World War II.[48] In April General Vandenberg cautioned Stratemeyer that this problem of providing replacement aircraft and aircrews would prevent USAF from supporting more than 12 Superfortress combat sorties per day in Korea.[49] On 18 May General Vandenberg additionally informed Stratemeyer that USAF would maintain the FEAF Bomber Command at a strength of 99 aircraft (30-unit equipment, plus 3 command support planes per group). Once again, however, Vandenberg warned Stratemeyer that USAF was figuring attrition replacements on the basis of 12 combat sorties per day, and he stated that the Strategic Air Command would provide a replacement flow of three aircraft and aircrews per month.[50] For the duration of the war in Korea Bomber Command would have to husband its resources.

3. General Weyland Requests "Long-Haul" Programming

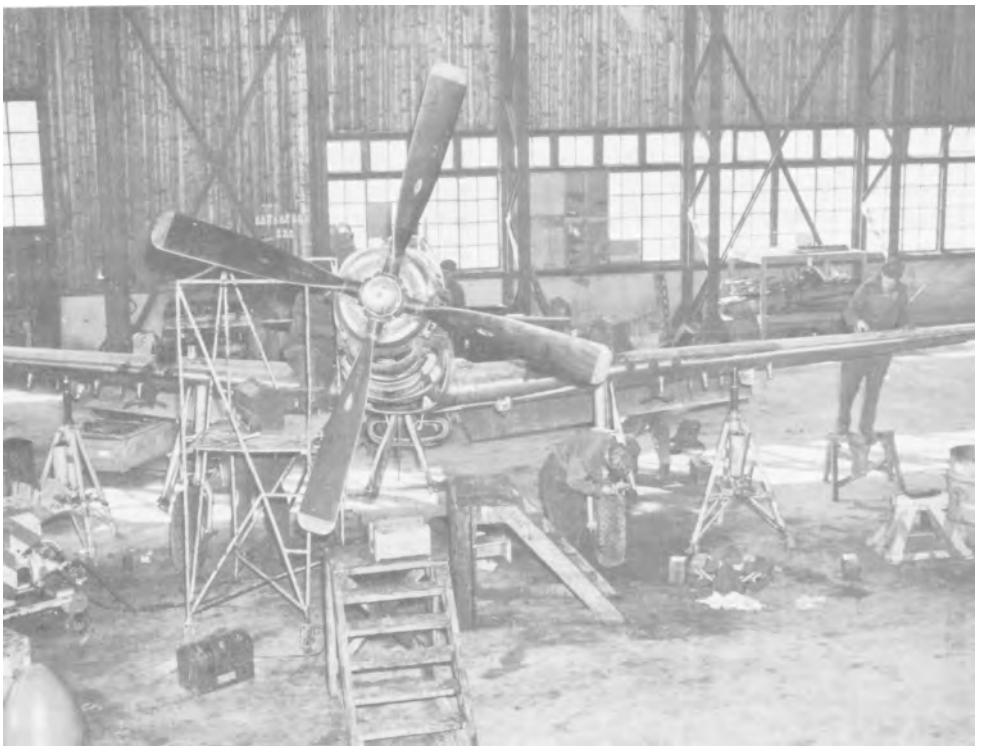
According to General Partridge, the Fifth Air Force in May 1951 was "short of everything." As General Partridge reviewed the events of the year of combat, it was evident to him that the Fifth Air Force had never possessed the engineer aviation battalions it needed to build tactical airfields in Korea and it had not had the aircraft in the types and numbers which were best suited for tactical air operations. General Partridge ordered his staff to get down to business and figure its requirements for another year of war. "There is nothing to point to the fact," he said, "that we won't be here next year."[51] A month later General Weyland urged USAF to augment the minimum FEAF forces, equipped below authorized levels, which had contributed so mightily to the initial year of Korean operations. "To accept the theory," Weyland warned, "which envisages the current United Nations military position in Korea as...a stalemate is to completely ignore the innumerable

advantages of air power as a predominant weapon for destroying the enemy fighting machine and to acquiesce to the dangerous 'rule of thumb' whereby military success, regardless of cost, is measured solely in terms of geographical gain." General Weyland suggested that USAF ought to "plan for a 'long haul' and program accordingly."[52]

At the beginning of the Korean war USAF had known no choice but to equip the Fifth Air Force with older-type aircraft which were the only planes that it possessed in substantial numbers. The decision was one of necessity, since USAF did not have sufficient numbers of modern planes to program for Korea. In defense of the decision, USAF cited the fact that older, conventional planes were good enough to meet the quality of the enemy's air opposition. Apologists for the policy also pointed out that the conventional aircraft could operate from rough airfields in Korea. Since USAF could obtain limited numbers of engineer aviation troops from the Department of the Army, the Fifth Air Force would obviously have to depend upon limited air facilities in Korea for some time to come.

Although the Fifth Air Force accomplished superior results against the Communist forces in Korea, the hydra-headed problem of old planes and inadequate numbers of aviation engineers (which translated into inadequate airfields) began to cause General Stratemeyer and Partridge much concern in the early spring of 1951. Months of combat from crude air facilities, where maintenance was often rudimentary, began to exhaust USAF inventories of Mustang and Shooting Star fighter-bombers, neither of which were any longer produced in the United States. Although the F-80 Shooting Stars proved admirable fighter-bombers and stood up amazingly well under rough field conditions, the strain of combat from Taegu Airfield caused these planes to deteriorate faster than they could be repaired. After four months of flying from Taegu, ten 49th Wing F-80's were withdrawn for exploratory maintenance tests at Tachikawa, where it was found that an average of 7,500 man-hours would be needed to recondition each one of them.[53] The appearance of Communist MIG-15 jet fighters over Korea vitiated the proposition that old-type planes were good enough to meet enemy air opposition in Korea. While not quite high enough in performance to stand air combat on even terms with the MIG's, the F-84 Thunderjets could at least hope to live in the same air with the Communist interceptors and they were, according to Colonel Ashley B. Packard, the 27th Wing commander, "the best ground-support jet in the theater today."[54] Early in March General Stratemeyer wrote General Vandenberg of his concern about the old F-51's and F-80's and requested that immediate action be taken to accelerate the conversion of all Fifth Air Force fighter-bomber squadrons to F-84E aircraft. In order to build the airfields which these newer planes would require, General Stratemeyer asked USAF to send him five engineer aviation battalions and other engineer units.[55]

In Washington USAF proved unable to comply with General Stratemeyer's requests. The United States had declared itself in full support of the North Atlantic Treaty Organization and a build-up of F-84 strength in the Far East would seriously disrupt the scheduled augmentation of North Atlantic Treaty Organization air forces. The Air Staff, moreover, estimated for planning purposes that the Korean



A SAAF Mustang undergoing a complete overhaul by mechanics and technicians of the 18th Fighter Bomber Wing.

hostilities would end by 1 January 1952. As a result of both factors, the Air Staff programmed attrition support for Fifth Air Force F-51 and F-80 fighter-bomber squadrons and made no promises to convert any of them to F-84 aircraft. None of the engineer aviation units requested by General Stratemeyer were available to USAF, and the Air Staff directed that Stratemeyer should convert his rear-area construction from troop labor to civilian contract and concentrate all available FEAF aviation engineer strength in Korea.[56] On the basis of this decision, the 931st Engineer Aviation Group liquidated its projects on Okinawa, and in April and May began to move to Korea with its 802d, 808th, and 839th Engineer Aviation Battalions and 919th Engineer Aviation Maintenance Company.[57]

Because of long-standing inadequacies of aviation engineers and of old aircraft, the Fifth Air Force was hard pressed to meet the challenge of the Communist spring attacks in 1951. The Fifth Air Force's 930th Engineer Aviation Group, with the 811th and 822d Engineer Aviation Battalions, had been able to do no more than to work at company-sized projects designed to keep Pusan, Taegu, and Chinhae Airfields in operation. So that combat cargo planes could land there, one company of the 811th made limited improvements at Chunchon, Hoengsong, and Chungju, working in turn at

whichever of these sites happened to be within United Nations lines.[58] Everywhere in Korea in the spring of 1951 airfields were a limiting factor on Fifth Air Force operations. Despite the serious threat of a growing Chinese Communist Air Force, the 4th Fighter-Interceptor Wing was able to keep only two squadrons based at Suwon's inadequate and positively dangerous air facilities. Because of the seriousness of the Red ground offensives, the Fifth Air Force had to sacrifice its aircraft in all-out employments from inadequate airfields. Although based at Pusan (K-9), the 35th Fighter-Interceptor Wing staged its 39th and 40th Squadrons from the stretch of Han River alluvial plain which was called Seoul Airfield. In a four-day period in late April these two Mustang squadrons mounted more than 400 combat sorties, a magnificent effort which strained the old F-51's to a near-breaking point. On 20 May 1951, despite continued remedial work of the 822d Engineer Aviation Battalion, Taegu Airfield's pierced-steel plank runways—never satisfactory because they were laid on unstabilized ground and were pounded by up to 10,000 landings and take-offs a month—finally went to pieces.[59] The collapse of Taegu Airfield threatened to take three groups of F-80 fighter-bombers out of action during the renewed Communist offensive in Korea, but operational ingenuity stood the Fifth Air Force in good stead. The 49th Fighter-Bomber Group loaded its planes for combat back at Tsuiki Air Base and landed them for refueling at Taegu after combat missions.[60] On 18 May the 51st Fighter-Interceptor Group transferred its 16th Squadron to the rain-soggy, Sabre-crowded airfield at Suwon and began to stage its 25th Squadron through this same airfield.[61] For the time being the 8th Fighter-Bomber Group could get no staging rights anywhere in Korea, and its F-80's had to fly combat from Itazuke Air Base. The distance from this Japanese base to the front lines was so great that the 8th Group F-80's could spend no more than five minutes seeking targets. Meanwhile, 8th Wing air installations personnel had been employing a large force of Korean laborers to fill bomb craters on the shorter runway at Kimpo Airfield, and on 25 June the 8th Group was able to move to this base.[62]

Japanese laborers pause to watch this C-119 come in for a landing at an airlift base in Japan.

Through staunch determination, the Fifth Air Force met the challenge of Communist ground attack in April and May 1951, but it paid a heavy price both to operating conditions and to hostile small-arms fire and flak. Their vulnerable engines and coolant systems caused the Mustangs to suffer most heavily, but the Shooting Stars were also vulnerable. During April, for example, the Fifth Air Force lost 25 F-51's, 13 F-80's, and 2 F-84's to hostile ground fire. Already thwarted in his efforts to secure Thunderjets, General

Stratemeyer now asked USAF to send him equally old-fashioned but more-rugged F-47 Thunderbolt fighters as replacements for the Mustangs.[63] The Fifth Air Force also noted that its F-80 attrition rate was averaging 18.3 planes per month. If it was to continue to operate the jet fighter-bombers at the same combat rates, it would have to convert one group of F-80's to F-84's very soon.[64] At about this same time—on 6 April—General Curtis E. LeMay, the Strategic Air Command's commander, secured consent from General Vandenberg to withdraw the 27th Fighter-Escort Wing from the Far East. This Thunderjet wing was a substantial part of the long-range escort capability which the Strategic Air Command possessed, and, employed as fighter-bombers in Korea, the wing's pilots were losing their specialized skills.[65]

Once again USAF had to consider the problem of replacements for FEAF's fighter-bombers. Mr. John A. McCone, Assistant Secretary of Air Force, urged that the F-51's and F-80's should be replaced with F-84's, but a USAF operations spokesman pointed out that the proposal for sending "increased numbers of first-line equipment" to FEAF was not consonant with Joint Chiefs of Staff policy which accorded higher priorities to Europe.[66] Unwilling to introduce a second type of obsolete fighters into combat, General Vandenberg advised Stratemeyer to forget about F-47's. General Vandenberg noted that the Mustangs would eventually be replaced by jet aircraft, but for the immediate future he urged Stratemeyer to move the F-51's back to the defense of Japan, where attrition rates would be acceptable.[67] Partial compliance with this suggestion came on 25 May 1951 when FEAF moved the 35th Fighter-Interceptor Wing structure and one Mustang squadron back to Japan. At this time the 35th Wing's other Mustang squadron was attached to the 18th Fighter-Bomber Wing, which also assumed responsibility for operating the staging detachment at Seoul Airfield.[68] While General Vandenberg was willing to allow the redeployment of the 27th Wing to the United States, he did not wish to deprive FEAF of the Thunderjet fighter-bombers. Therefore, USAF decided to deploy the 136th Fighter-Bomber Wing, an Air National Guard organization which had been mobilized in late 1950, to Japan to assume the equipment and duties of the 27th Wing. In order to relieve the strain on F-80 resources, moreover, USAF had no

An F-51 loaded with rockets and bombs takes off for a pre-dawn mission.

recourse but to program the 49th Fighter-Bomber Wing for conversion to F-84 Thunderjets. Late in May the Fifth Air Force charged the 27th Wing to provide transition training to both the 49th and the 136th Wings. According to plan, the 136th Wing began to replace the 27th Wing, squadron by squadron, on 1 June, and the process was complete on 1 August. By the end of August the 49th Wing's three tactical squadrons completed transition to Thunderjet fighters, and the personnel of the 27th Fighter-Escort Wing were relieved from duty in the Far East.[69] In this elaborate transaction the Fifth Air Force had obtained one wing of new planes, but on 20 July General Vandenberg warned General Weyland that no more FEAF squadrons would be converted to Thunderjets in the foreseeable future. Because of shortages in aircraft, moreover, USAF was not going to be able to provide FEAF with a desired 50 percent theater reserve of fighters. Possibly USAF would be able to manage a 10 percent theater reserve.[70]

The story of the provisioning of the Fifth Air Force's two light-bombardment wings paralleled that of the fighter-bombers. At the beginning of the Korean war the 3d Bombardment Wing had possessed two squadrons of B-26 bombers, planes which had not been produced since World War II. In the late autumn of 1950 USAF had dispatched to Japan the recently mobilized 452d Bombardment Wing, which possessed four squadrons of B-26 aircraft. The 731st Squadron was trained for night attack and was attached to the 3d Group. According to USAF programming documents, the 3d Wing's two squadrons were each authorized 24 B-26 aircraft and the 452d Wing's four squadrons were each authorized 16 B-26 aircraft. In order to provide replacement crews, the USAF Tactical Air Command instituted a B-26 combat crew training center at Langley Air Force Base, Virginia, which turned out 12 crews each month.[71] On 3 February 1951 General Stratemeyer requested authority to reorganize the 452d Wing at a war strength of 24 aircraft to each squadron, but USAF disapproved the request on the grounds that the combat-crew output at Langley would not support so many aircraft.[72] Partly because of strong representations made by Col. Virgil L. Zoller, while he was on a visit to the United States, the Tactical Air Command took steps to increase its combat-crew output to some 45 B-26 crews a month, beginning after May 1951.[73]

As long as the 452d Wing operated by day, FEAF could tolerate its reduced-strength peacetime authorizations, but in April 1951 General Stratemeyer and Partridge undertook to convert the 452d Wing to night operations. Desiring to increase the critically important night-intruder capability on 14 April, General Stratemeyer renewed his request for additional light bomber authorizations, specifically asking for six squadrons with 144 unit equipment aircraft, plus 50 percent theater reserves, or a total of 216 B-26's.[74] Not only was USAF unable to grant Stratemeyer's requests for increased B-26 authorizations, but on 17 April, citing overloaded modification facilities and shortages of night equipment, it was compelled to reduce the unit equipment authorizations of the two light bombardment wings to a total of 96 aircraft. By the end of August USAF planners expected FEAF to possess the 96 unit equipment aircraft, plus 50 percent theater reserves, or a total of 144 light bombers.[75] As a part of the request for "long-haul" programming on 10 June, General Weyland

again asked that the two light bomber wings be brought up to war strength.[76]

Despite these insistent and urgent requests and an appreciation of the fact that FEAF needed a larger night-intruder capability, USAF was unable to promise FEAF any B-26's other than those required to compensate for attrition. In the spring of 1951 a USAF board of senior officers selected the British Canberra (B-57) jet bomber as a proposed replacement for the B-26 as a night intruder,[77] but until these aircraft could be produced in quantity USAF was committed to a B-26 program which was replete with configuration changes, parts shortages, and modification difficulties. Altogether USAF possessed an inventory of approximately 400 B-26's in various configurations, and before these planes could be dispatched overseas they all required modifications. The Fifth Air Force, for example, specified some 40 changes to fit B-26's for night intruding. These modifications, many of which called for equipment in short supply, taxed the civilian contractor who handled the work. Back in the United States, moreover, the USAF had ordered the Tactical Air Command to prepare the newly-mobilized 126th Bombardment Wing (Light) for deployment to Europe, and this wing was supposed to receive the entire output of modified B-26's during August and September 1951. These factors, plus the increase of FEAF's B-26 attrition rate to 11 aircraft per month, prevented USAF from augmenting FEAF's light bomber wings to a war strength. The best that USAF could do, stated General Nathan F. Twining, USAF vice chief of staff, would be to authorize FEAF 96 unit equipment B-26's plus 50 percent theater reserves.[78]

If General Weyland was unsuccessful in his efforts to obtain more light bombers, one of his follow-up statements of FEAF deficiencies written on 12 July at least brought a commitment of more aviation engineers. In addition to the five engineer aviation battalions which were buckling down to work in Korea, General Weyland stated a requirement for five battalions from the United States. The additional battalions, Weyland explained, were required to construct additional airstrips to meet the Eighth Army's need for contiguous combat-cargo and air-support fields, as well as to expand and maintain the tactical airfields being built in Korea.[79] General Vandenberg committed two engineer aviation battalions and an engineer maintenance company to FEAF at such time as they could complete their training and secure the necessary equipment. While this commitment did not wholly satisfy General Weyland's request, General Vandenberg noted that each engineer aviation battalion had recently been augmented to a 997-man strength. This augmentation, plus the additional committed units, promised FEAF an engineer force equivalent to nine old war-strength battalions.[80] Back in the United States the Department of the Army remained responsible for recruiting and training engineer aviation troops, but on 10 April 1951 USAF organized an Engineer Aviation Force under its Continental Air Command to provide operational training for aviation engineer units.[81] After stripping zone of interior units of critical items of equipment and obtaining other machines from current production, the Engineer Aviation Force sent the 622d Engineer Aviation Maintenance Company and the 809th Engineer Aviation Battalion to Korea in September 1951. The 1903d Engineer Aviation Battalion arrived in Korea in November 1951.[82]

4. The Fifth Air Force Makes Permanent Deployments

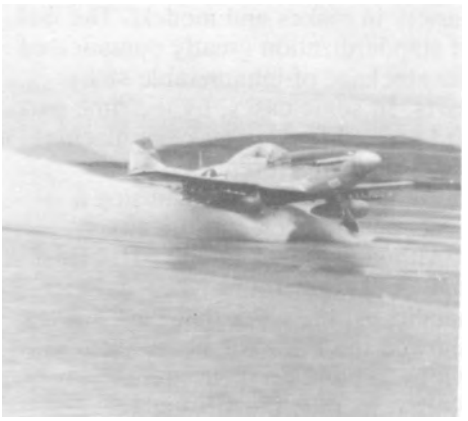
Despite the possibility that hostilities might soon be ending in Korea, Generals Partridge and Everest agreed that the Fifth Air Force had to call a halt to short-sighted construction objectives and effect more permanent deployments in South Korea. "Build the best establishments you can," ordered General Partridge in May 1951, "and assume you will be staying there."[83] Shortly after he assumed command of the Fifth Air Force, General Everest authorized an expanded construction program looking toward the preparation of semipermanent facilities, which would have a life expectancy of as much as two years under sustained operations. Early in June General Everest went a step farther and directed that 9,000-foot runways would be built in Taegu, Kunsan, and Suwon airfields. Such runways would be more expensive in terms of construction effort, but a FEAF study had demonstrated that "logistically and from a cost standpoint the extension of runways to 9,000 feet would be far more economical than to employ JATO."[84] The jet-assisted takeoff "bottles" which combat loaded fighter-bombers used to get airborne off short runways rapidly ran up operating costs.

Leading the way toward a permanent deployment in Korea, the Fifth Air Force closed its headquarters in Taegu City and reopened in Seoul City on 14 June 1951. The original movement plan required the headquarters to move northward in two echelons, with the second echelon scheduled to arrive at Seoul within a month. Within this month, however, another plan providing for emergency evacuation from Seoul demonstrated the rashness of moving the whole headquarters so far forward and the difficulty of splitting the existing headquarters structure into two echelons.[85] To remedy both aspects of this situation, the Fifth Air Force eventually secured authorization for a double deputy system which it instituted on 14 February 1952. Under this arrangement the deputy for adminstration supervised rear-echelon activities at Taegu, including the directorates of materiel, personnel, installations, organization and manpower, comptroller, and the special staff. The deputy for operations supervised the forward echelon at Seoul, including the directorates of operations, intelligence, and communications.[86]

When the 931st Engineer Aviation Group joined the 930th Group in Korea in May 1951, the Fifth Air Force was at last able to institute a fairly ambitious construction program which sought to

A JATO-equipped F-80 takes off with a 500-pound demolition bomb nestled beneath each wing.

provide five tactical airfields to be operational as wing bases by September 1951. The 931st Group was directed to repair Kimpo Airfield, to extend the runway and construct taxiways and parking aprons at Suwon, and to build a new airfield at Kunsan, on the southwestern coast of Korea.[87] The 930th Group was charged to renovate and expand Taegu Airfield as a major task, and to perform smaller company-sized projects at Chunchon, Hoengsong, Seoul, and Pyongtaek.[88] As the engineer aviation battalions went about their assigned tasks, summer rains and Korean soil instabilities greatly hampered all projects. Working conditions were especially bad at Suwon, where the subsoil was a spongy mass and air traffic continued to be heavy. At Kimpo the aviation engineers had great difficulty filling and stabilizing more than 40 bomb craters which pocked the main runway. Construction troops at Kunsan Airfield encountered Korea's worst drainage problems. The site was only a little way inland from mud flats bordering the Yellow Sea, and the local soil was a grayish-blue clay which had long been inundated for rice culture. At Taegu the engineers first rehabilitated the pierced-steel plank runway and then began to work on the long-term project of building a 9,000-foot cement concrete runway.[89] All base-construction projects involved far more than building runways and their appurtenances. Since a jet air wing in combat could consume as much as 125,000 gallons of fuel each day, two detachments of the 931st Engineers supervised Korean laborers in the erection of tanks to hold a five days' supply of jet fuel at each of the major jet bases. The Eighth Army's 82d Engineer Petroleum Company pushed a pipeline from Inchon to Kimpo and Suwon by October 1951, but fuel consumption at both bases often outran pipeline supply and had to be supplemented by rail shipments. The major airfield at Taegu remained dependent upon fuel deliveries by rail tankers.[90] In the early days, at all Korean airfields, Air Force troops lived and worked in winterized tents, but more permanent buildings gradually replaced the tents. At Taegu air installations personnel contracted with Korean builders for stucco buildings. The initial cost was low, but these oriental structures rapidly deteriorated and required heavy maintenance costs. For this reason, steel quonset huts and "tropical shell" kits prefabricated in Japan were extensively used in Korea, both for housing and working quarters. Most structures were put up by Korean laborers or contractors under the supervision of base air installations personnel.[91]



An F-51 on a watery start.

"The quality and volume of the airfield construction accomplished in Korea," commented a USAF consulting engineer in August 1951, "in spite of the shortcomings, has been remarkable."[92] Many of the "shortcomings"

were attributable to personnel and equipment difficulties of the engineer aviation units which were manned and equipped by the Department of the Army. The new engineer battalions, like those available in the theater at the outbreak of the war, lacked much in the way of skilled personnel and basic equipment. Prior to its shipment overseas, for example, the 1903d Engineer Aviation Battalion had sustained three major personnel levies in six months, levies which had drawn heavily upon the battalion's trained specialists.[93] Fearing to tap its sources of trained engineer cadres too heavily, the Army sparingly provided highly skilled replacements, with the result that FEAF obtained permission to move Air Force air-installations personnel into engineer units when requisite skills could not be obtained from Army sources. In November 1951 the Army assigned 1,100 basic engineer soldiers to FEAF to replace rotational personnel. Although these people were inexperienced and not completely trained, they proved worthwhile potentials for on-the-job training. Unfortunately, however, men who had to be trained for operating complicated machines in Korea were about ready for rotation by the time they were becoming proficient in their assigned duties.[94]

Throughout 1951 all engineer aviation units were constantly short of equipment and spare parts, shortages which forced improvisations, often to the detriment of sound construction.[95] During peak operational periods in-commission rates as low as 15 percent were the rule rather than the exception on critical items of equipment. Some part of the low serviceability rates was caused by abuse of complicated machines by unskilled operators, but maintenance also suffered from a

Crew chief Lance Corporal Bob Bell sweats out the return of the RAAF Mustangs.

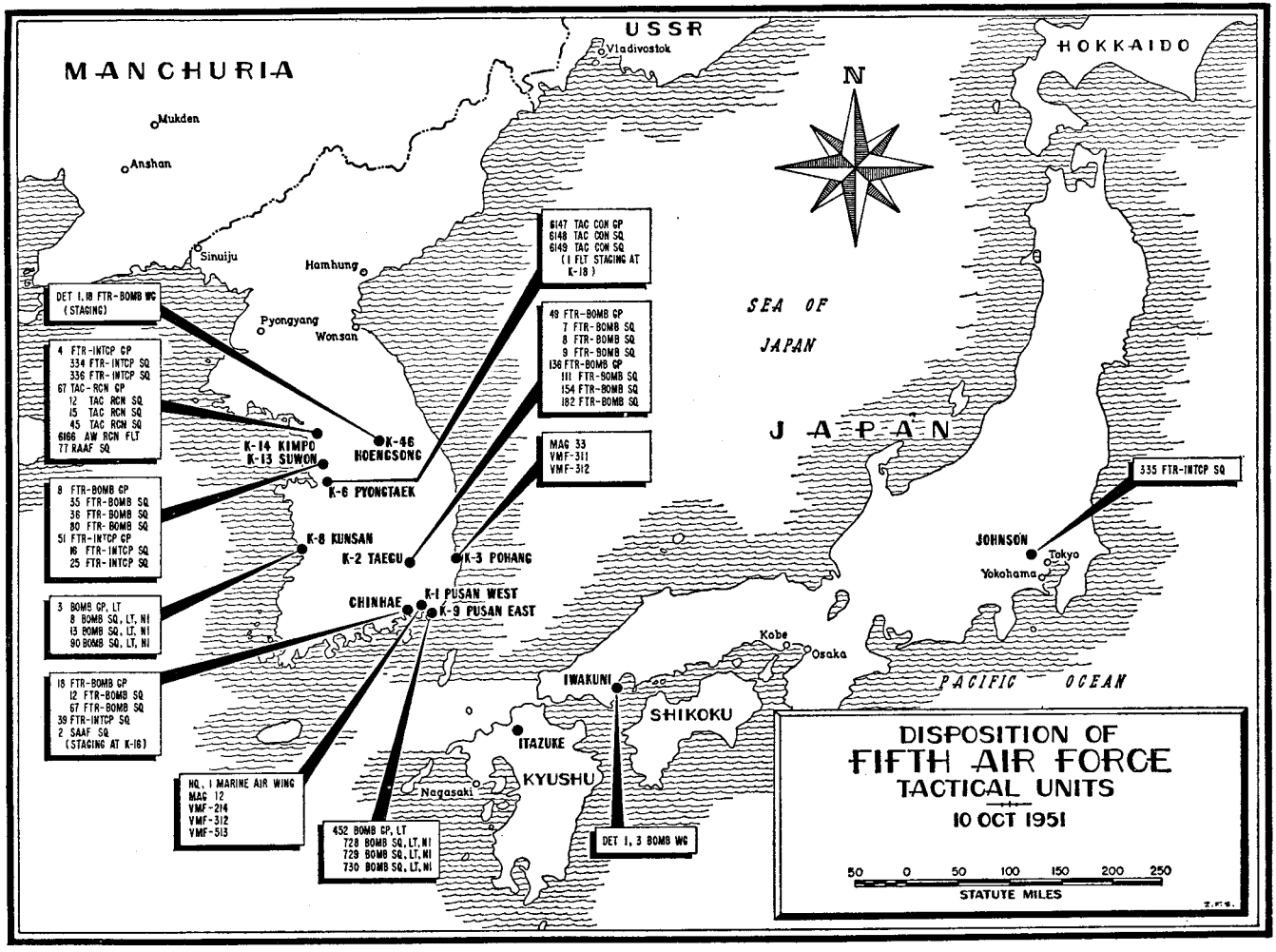
shortage of technicians and spare parts. In the spring of 1952 some new engineer equipment began to arrive in Korea, but much of this new equipment had been procured as an emergency action from domestic production in the United States, and there was a great variety in makes and models. The lack of standardization greatly complicated the stockage of innumerable spare parts. In some cases, by the time parts had arrived for one make of machine, it would have been replaced by an entirely different make, causing a never-ending cycle of difficulty.[96]

Although the 930th and 931st Engineer Aviation Groups labored under handicaps, the work that they did allowed the Fifth Air Force tactical wings to build up their strength in Korea. In June the 4th Fighter-Interceptor Wing left a squadron and a detachment behind at Johnson Air Base and moved to Suwon Airfield. Later in

the same month the 8th Fighter-Bomber Wing concentrated at Kimpo Airfield, where, in July, the RAAF No. 77 Squadron, newly equipped with British Meteor-8 jets, was attached to it.[97] While the aviation engineers made good progress rehabilitating Kimpo, this airfield's runways were short and still rough. Two months of operations at Kimpo amply demonstrated that combat-loaded F-80 fighter bombers could not safely use this cramped airfield. On the other hand, the Sabres did not carry external ordnance and could use the short runways. Consequently, in late August the 4th and 8th Wings traded bases. At Kimpo the RAAF No. 77 Squadron was now attached to the 4th Wing.[98] Beginning on 16 August and continuing during the remainder of the month, the 67th Tactical Reconnaissance Wing assembled at Kimpo. The tactical squadrons came from Taegu and the supporting elements moved from Japan to bring the wing together for the first time since its activation.[99] Following additional construction at Suwon, the 51st Fighter-Interceptor Wing moved its command post from Tsuiki to Suwon on 1 October.[100]

At Itazuke, in August, the 136th Fighter-Bomber Wing completed its in-place relief of the 27th Wing, and during September the 136th moved its fighter group and essential supporting elements to join the 49th Fighter-Bomber Wing at Taegu Airfield.[101] In southwestern Korea, at the new Kunsan Airfield (K-8), the aviation engineers completed 5,000 feet of asphalt runway in mid-July, and this and other airfield facilities permitted the 3d Bombardment Wing to establish itself there on 22 August.[102] The 18th Fighter-Bomber Wing and the attached South African Air Force Squadron No. 2 continued to base on the south coast of Korea at Chinhae Airfield, but during the last days of September the 18th Wing cleared the way for an extensive rebuilding of Seoul Airfield (K-16) by moving its staging detachment from this field to Hoengsong Airfield (K-46) in central Korea.[103] The 6147th Tactical Control Group continued to be located at Pyongtaek Airfield, where a company of aviation engineers built a short pierced-steel plank runway to serve the Mosquito aircraft.[104]

In August 1951 the Fifth Air Force was deploying its tactical air wings to the airfields in Korea which most of them would occupy during the remainder of the Korean hostilities. The deployment was advantageous to operations, for aircraft were closer to their targets and were operating from improving airfields. The deployment to Korea, however, introduced a number of major logistical problems. Several of the Korean airfields served two combat wings, and with two wings fully in place at one base there would be an excess of base-service personnel. Even more serious than this problem, which could be alleviated by making one wing the "owner" of a base and the other the "tenant," was the prospect confronting aircraft maintenance in Korea. Each tactical wing's maintenance and supply group possessed large tonnages of tools, supplies, and equipment. During the first year of hostilities most of the air wings had moved so often that a few of them had never removed their heavier equipment from boxes and crates. Even the 49th Wing, which enjoyed a comparatively stable existence at Taegu, did not get its first machine tool into operation for nearly a year after its movement to Korea. As they located at the Korean airfields, all of the tactical wings faced the prospect that scarce maintenance shelter and warehousing for supplies would compli-


USSR
Vladivostok
MANCHURIA
Mukden
Anshan
Sinuiju
Hamhung
Pyongyang
Wonsan
HOKKAIDO
N
SEA OF JAPAN
JAPAN
DET 1, 18 FTR-BOMB WG (STAGING)
4 FTR-INTCP GP
334 FTR-INTCP SQ
336 FTR-INTCP SQ
67 TAC-RCN GP
12 TAC RCN SQ
15 TAC RCN SQ
45 TAC RCN SQ
6166 AW RCN FLT
77 RAAF SQ
8 FTR-BOMB GP
35 FTR-BOMB SQ
36 FTR-BOMB SQ
80 FTR-BOMB SQ
51 FTR-INTCP GP
16 FTR-INTCP SQ
25 FTR-INTCP SQ
3 BOMB GP, LT
8 BOMB SQ, LT, NI
13 BOMB SQ, LT, NI
90 BOMB SQ, LT, NI
18 FTR-BOMB GP
12 FTR-BOMB SQ
67 FTR-BOMB SQ
39 FTR-INTCP SQ
2 SAAF SQ
(STAGING AT K-18)
K-14 KIMPO
K-13 SUWON
K-46 HOENGSONG
K-6 PYONGTAEK
K-8 KUNSAN
K-2 TAEGU
K-3 POHANG
CHINHAE
K-1 PUSAN WEST
K-9 PUSAN EAST
HQ, 1 MARINE AIR WING
MAG 12
VMF-214
VMF-312
VMF-513
452 BOMB GP, LT
728 BOMB SQ, LT, NI
729 BOMB SQ, LT, NI
730 BOMB SQ, LT, NI
6147 TAC CON GP
6148 TAC CON SQ
6149 TAC CON SQ
(1 FLT STAGING AT K-18)
49 FTR-BOMB GP
7 FTR-BOMB SQ
8 FTR-BOMB SQ
9 FTR-BOMB SQ
136 FTR-BOMB GP
111 FTR-BOMB SQ
154 FTR-BOMB SQ
182 FTR-BOMB SQ
MAG 33
VMF-311
VMF-312
335 FTR-INTCP SQ
JOHNSON
Tokyo
Yokohama
Kobe
Osaka
PACIFIC OCEAN
IWAKUNI
SHIKOKU
ITAZUKE
KYUSHU
Nagasaki
DET 1, 3 BOMB WG
DISPOSITION OF
FIFTH AIR FORCE
TACTICAL UNITS
10 OCT 1951
50 0 50 100 150 200 250
STATUTE MILES

cate their efforts to keep their airplanes in commission. At the sparsely occupied airfields on Kyushu there were ample shops, warehouses, and skilled indigenous labor.[105]

As the Fifth Air Force sought answers to its logistical problems, it noted the records of experience of some of its tactical wings. The 4th and 27th Fighter Wings had never attempted to move completely to Korea. Although Sabre squadrons had deployed to Korea, the 4th Maintenance and Supply Group had remained at Johnson Air Base, where specialized maintenance crews drawn from the tactical squadrons and the 4th Maintenance Squadron had performed the more comprehensive periodic inspections, field maintenance, engine buildup, and engine overhaul on all Sabres. The Sabre experience was not completely conclusive since it had been largely dictated by a shortage of F-86 parts which made it advisable to keep the maintenance and supply group near the Tachikawa air depot.[106] More to the point was the experience of the 27th Fighter-Escort Wing. Upon its arrival in the Far East in December 1950, this Thunderjet wing had sent an advance echelon comprising a small part of wing headquarters, the combat group, and necessary service elements to Taegu Airfield. The rear echelon of the 27th Wing settled at Itazuke Air Base, where major inspections and maintenance were performed on aircraft rotated there from Taegu. Utilizing production-line techniques, the 27th Wing's rear echelon had successfully maintained 48 aircraft in commission at all times in Korea. The 27th Wing's Thunderjets, moreover, did not deteriorate in combat. In May 1951, when its combat elements moved to Pusan East Airfield (K-9), the 452d Bombardment Wing followed the same maintenance pattern used by the 27th Wing. Remaining behind at Miho, under supervision of the commander of the 452d Maintenance and Supply Group, the wing's field maintenance squadron and a specially organized organizational maintenance squadron performed major periodic inspections and repairs on aircraft returned from Korea at scheduled intervals. The 452d Wing's aircraft-in-commission rate increased from 57 percent in July to 82 percent in November 1951. In this same period the 3d Bombardment Wing moved completely to Kunsan, where it attempted to perform maintenance under field conditions. The 3d Wing's aircraft-in-commission rate dropped from 78 percent in July to 65 percent in December 1951. Staff inspection visits revealed that the 3d Wing's B-26's were in poor condition, while

An aircraft maintenance crew hoists a Sabrejet engine into position for installation.

the B-26's of the 452d Wing were in excellent condition.[107]

Recognizing that its aircraft resources would continue to be so limited as to demand maximum utilization, and noting the beneficial aspects of more stable rear-echelon maintenance, the Fifth Air Force on 18 August 1951 ordered the establishment of rear-echelon maintenance organizations for Shooting Star and Thunderjet aircraft at Tsuiki and Itazuke airfields.[108] Both organizations were set up during the last half of the month. At Tsuiki the 51st Maintenance and Supply Group, augmented by a detachment of personnel from the 8th Wing, accomplished major inspections and repairs on F-80's. At Itazuke the 136th Maintenance and Supply Group, augmented as agreed by personnel from the 49th Wing, had similar duties toward F-84 aircraft. Only minor maintenance and temporary repairs were performed at Suwon and Taegu. In November, when the 51st Wing began to convert to Sabres, Tsuiki was designated as the site for the F-86 rear-echelon maintenance organization. The 8th Wing's detachment, which would continue to handle F-80's, accordingly moved to Itazuke, and the 4th Maintenance and Supply Group moved to Tsuiki in December.[109] Plans for the establishment of a B-26 rear-echelon maintenance organization at Miho Air Base were complicated by the fact that the three wings which would operate it were located on different Korean airfields and had no excess service units to go to Miho. The 314th Air Division, however, assumed base service and supply (less B-26 service stock) responsibilities at Miho, and in November 1951 the 3d Bombardment and the 67th Tactical Reconnaissance Wings sent detachments to join the 452d Wing's establishment at Miho. These detachments were charged to perform battle-damage repairs, structural repairs, engine build-ups and changes, aircraft modification, equipment installations, technical order compliances, and 1,000-hour inspections.[110]

The rear-echelon maintenance detachments provided positive results in the form of higher aircraft-in-commission rates, more flying hours, and better maintained planes, but the organizational structures initially set up at Tsuiki, Itazuke, and Miho were very complex. At first each commander attempted to maintain the integrity of his men and property, so there was a duplication of supply accounts, of personnel, and of equipment. Many combat commanders, moreover, did not like the system. They objected to the time lost ferrying aircraft to a rear-area base and pointed out that the concentration of skilled maintenance personnel in the rear areas deprived lesser-skilled men in the tactical squadrons of the benefits of association with seasoned maintenance men. One B-26 squadron commander spoke caustically of the "super service station" at Miho and commented that "when such an organization dictates to a tactical squadron how much flying time it can or must fly to meet the production-line schedules, all unit control is lost."[111] In these formative months, however, the value of rear-echelon maintenance was amply demonstrated, and the Fifth Air Force had begun to move toward a combination of the separate detachments which would alleviate the problems of duplication and provide centralized control in the form of rear-echelon maintenance combined operations.