



The Korean War 1950-1953

Land-Air Aspects

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In 1986, the current United States Air Force Historian, Dr Richard Hallion, wrote *The Naval Air War in Korea*. In the final chapter, Hallion commented on the debate arising out of the war between “those who denigrated air power as marginal and those who saw it as decisive”. To understand the origins of this debate one should be aware that the Korean War broke out in a period when America was rationalising the roles and missions of its fighting services. One significant result of this rationalisation was that, in 1947, the United States Air Force achieved its independence from the Army as a fighting force in its own right. In a climate of change and inter-service rivalry, it was inevitable that the war should raise questions

By Dr John Mordike

about the relative contributions of the services and their roles. It was a debate which continued throughout the war and has subsequently influenced various historical accounts.

According to Hallion, both parties in this debate “missed the point”. In the first instance they failed to acknowledge “the importance of the rules of engagement in determining the outcome of air power application” in Korea. Hallion, a scholar with a profound understanding of the contribution air power can make to combat, was referring to political strictures which prevented strategic bombing missions against bases in Manchuria. Accordingly, air power simply could not function

F9F Panther, the stalwart of US navy operations in Korea



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in the same way as it had in World War II. In addition to ignoring these particular rules of engagement, Hallion believed that the debate all too often omitted a fundamental realisation about the very nature of warfare itself. Warfare, he observed, is “inevitably a *combined arms* exercise”. Air power, like land power and sea power, was only one part of “the war-fighting triad”. “Air power on its own could not win the Korean war, any more than the other two,” Hallion emphasised.

The Korean war, like other wars of the modern era, was conducted by forces operating in the land, sea and air environments. But air power gave United Nations Command forces a distinct advantage over the North Korean and Chinese forces. It cannot be stressed too much that United Nations Command enjoyed control of the air from the first few days of its involvement. At the time North Korea launched its invasion its Air Force completely outclassed the diminutive South Korean Air Force. Yet the advantage was not maintained for long. The invaders possessed less than 200 propeller-driven Russian aircraft of World War II vintage, but United Nations Command deployed some 650 aircraft to the theatre in the first month of the war, gaining immediate control of the air. Within six months, United Nations Command air assets numbered in excess of 1,400 aircraft, many of them jet fighters and jet fighter-bombers.² Significantly, these air assets also maintained control of the air

for friendly forces after China entered the war with its force of modern MiG-15s. This meant that the land forces of United Nations Command could operate with little fear of enemy air strikes.³

Control of the air meant that friendly air power could concentrate to a high degree and punish the enemy ground forces quite severely. At certain stages during the war, the tactical application of air power was decisive. Understandably, it is in this tactical role — specifically the close air support role — that land forces are most aware of air power’s contribution to the battle. John Terraine commented on the land force perspective when he observed that “[f]or the ordinary soldier, air support is the support that he can see”.⁴ Yet there are other forms of air support that are rarely seen by the ordinary soldier which, nevertheless, can have a decisive impact on the battle. In Korea, interdiction consumed a significant amount of effort in an attempt to use air power to deny the enemy supplies and reinforcements by cutting his lines of communication with his rear areas. However, air power used in this role did not achieve the same success as it did in close air support. Hallion believed that interdiction operations “resulted in large numbers of aircraft lost for relatively meager [sic] gains”. “While it is an exaggeration to state that it failed,” he concluded, “it clearly did not succeed. At best, interdiction complicated the Communists’ efforts to supply their front.”⁵

This paper discusses aspects of land-air operations, specifically the way in which the two air roles of close air support and interdiction contributed to the battle. However, before discussing these roles, the conduct of the war is reviewed.

A review of the war

The North Koreans gained the element of surprise. The invaders organised and assembled their forces for a sudden, all-out attack across the 38th parallel with the aim of subjugating the Republic of Korea. At 0400 hours on 25 June 1950, to use General Douglas MacArthur's words, some 10 divisions of the North Korean People's Army "struck like a cobra". Columns of invading infantry, spear-headed by Soviet-made T-34 tanks, stabbed deep into the southern republic.⁶ An underarmed Republic of Korea Army was hard-pressed to hold the well-armed invaders. Quickly reinforced by ill-prepared American Army forces which had been part of the occupation force in Japan, the defending forces, now nominally under United Nations Command, found themselves holding a perimeter around the south Korean port of Pusan.

In early September more substantial reinforcements arrived including the 3rd Battalion, The Royal Australian Regiment. The Australian battalion was a component of the 27th British Commonwealth Brigade. Although the situation was at first desperate, these reinforcements began to tip the balance in favour of the defenders of the Pusan perimeter, who had been organised as a United

Nations force called the Eighth Army. But the commander-in-chief of United Nations Command took a daring step. On 15 September, MacArthur landed X Corps, comprised predominantly of the First Marine Division and the Seventh Infantry Division, at Inchon midway up the west coast of Korea, effectively outflanking the North Korean invaders. One week later, the Eighth Army broke through at the Pusan perimeter, scattering the North Korean Army before it.⁷

Encouraged by these developments, President Truman decided upon the objective of the reunification of Korea. MacArthur went on the offensive. As the Eighth Army pushed its way north along the western side of the Korean peninsula, the X Corps was withdrawn from Inchon to be landed, towards the end of October, at the North Korean port of Wonsan on the east coast of the peninsula. The commander-in-chief's aim was the complete destruction of the communist forces in Korea, a task which would take United Nations Command troops across the 38th parallel into North Korea and up to the Yalu River, the northern border with Manchuria. By mid-October the North Korean capital of Pyongyang was taken. It appeared that MacArthur was well on the way to achieving his objective.

Although progress was encouraging, there were ominous signs from 25 October to 6 November that the war could assume disturbing proportions. Elements of the Eighth Army and X Corps were



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suddenly attacked by Chinese troops — a new force on the battlefield. Not pressing on with these initial attacks, the Chinese withdrew. Pausing briefly to take stock, the United Nations Command force resumed its northward advance, but on the night of 26 November the Eighth Army and X Corps were subjected to intense attack by Chinese forces of considerable strength. This time the Chinese offensive was sustained, putting the United Nations Command force under a severe test.

The entry of Chinese forces changed the character of the war dramatically. In the west, the United States Second Division, an element of the Eighth Army, was surrounded by Chinese forces in the Chongchon valley, and, in the east, the X Corps' First Marine Division and parts of the Seventh Infantry Division were also surrounded at the Chosin Reservoir. Although the Marines would manage their subsequent withdrawal with greater competence, the Second Infantry Division suffered

a casualty rate of some 30 per cent and lost virtually all of its equipment. In a recent analysis of the war, Eliot Cohen and John Gooch referred to this episode and its immediate outcome as a series of 'costly and humiliating defeats'. Such was the debacle that in the period leading up to Christmas the United Nations Command forces "tumbled south, and the Joint Chiefs of Staff authorized [sic] MacArthur to begin planning for the liquidation of the Korean commitment".⁸ It was a complete turnaround of military fortunes; the defeat and reversal of the North Korean invasion during July to September now appeared a futile effort.

At the close of 1950, the appointment of General Matthew Ridgway as commander of the Eighth Army brought a new phase in the war. Revitalised by Ridgway's leadership and his insistence on applying the fundamentals of sound tactical procedures, Eighth Army took stock of itself and, in a few months, completed a successful advance

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north regaining Seoul in March and adopting a position close to the 38th parallel. From about mid-1951 a seesaw war of stalemate followed until the armistice of July 1953. It was during this phase in April 1952 — that the 1st Battalion, The Royal Australian Regiment, arrived in Korea. It was relieved by the 2nd Battalion a year later.

Land-air operations

The air component of United Nations Command was comprised of three separate organisations: the United States Air Force's Far East Air Forces (FEAF), principally its Fifth Air Force which included the RAAF's No 77 Squadron equipped with the F-51 Mustang; the 1st Marine Air Wing; and the United States Navy's carrier air groups belonging to the Seventh Fleet's Task Force 77.⁹ Among these, the principal component was FEAF.

Formerly responsible for the air defence of Japan against a possible Soviet attack, FEAF was not well prepared for the war it suddenly found itself engaged in. Commanded by Lieutenant General George Stratemeyer, FEAF's training had concentrated on air defence and air superiority roles. It was taken by surprise when President Truman authorised MacArthur to use this air force to supply the South Koreans with ammunition and equipment and to assist in the evacuation of non-combatants on the very day the invasion commenced. One day later, the American president removed all restrictions on operations by United States' air and naval assets in providing support to South Korea on the southern side of the 38th parallel. On 29 June MacArthur was authorised to extend air operations into North Korea.¹⁰

The commitment to battle of land forces also came without warning. Like FEAF, the first ground force component to be thrust into the battle — the United States' 24th Infantry Division — was ill-prepared for active service and undermanned. Each of its regiments had had one infantry battalion removed from its strength, and the divisional allocation of artillery, armour and automatic weapons had been slashed to accommodate reductions in appropriations." It was

the initial shortage of organic fire support which was to make air support critical in the first six months of the war. But putting problems with the fighting units to one side, it quickly became evident that there were problems with the force's command structure.

The command structure for the United Nations Command force evolved out of the command organisation established for the occupation of Japan. General Douglas MacArthur, as the Supreme Commander of Allied Powers in Japan, became the Commander-in-Chief, United Nations Command. Yet, as Robert O'Neill points out in the Australian official history on the Korean war, the command system that MacArthur had established in Japan "possessed some glaring deficiencies". The most notable omission was the absence of a joint service headquarters.¹² This was contrary to the thrust of American post-World War II defence developments where, as Robert Futrell, the American official historian of the air war, explains: the "theater [sic] commander was expected to stand separately from his own service and to provide the command authority over the theater ground, sea, and air forces, which would cooperatively employ their capabilities to attain the theater mission".¹³ As early as 1946 the American Joint Chiefs of Staff had directed the establishment of joint staffs, but MacArthur had made no real effort to implement this direction within his own command system. This deficiency was taken into the Korean war, leading to problems in utilising United Nations Command forces to their full effectiveness. Not only did the force consist of army, navy, air force and marine components but it also included significant air elements from the marines and the navy. Indeed, indicating the potential problems for organising and implementing air operations, the three air components were not under the direction of any single air commander.¹⁴ Robert Futrell believed that:

"at the outset of the Korean war, the defective theater [sic] command system prevented the fullest employment of air power, delayed the beginning of a comprehensive air-interdiction program for more than a month, and . . .

With the brigade's air group of three Corsair squadrons — some 48 aircraft — providing dedicated air support, the result was an arresting display of combat power

caused confusion and loss of effectiveness at the very time that every single aircraft sortie was vital to the survival of the Eighth Army in Korea."

"Had he possessed a joint headquarters staff," Futrell asserted, "General MacArthur might never have encountered these mischievous problems."¹⁵

Not only did the command system result in inefficiencies, such as navy and air force components independently selecting and attacking the same targets, but it also led to confusion and, for aircraft at least, a degree of danger as they operated in an unfamiliar environment and relatively restricted air space. The system also produced extensive delays between the reporting of targets and the assignment of strike aircraft. This was to have tragic consequences for No 77 Squadron on the second day of its operations in the war: 3 July 1950.¹⁶

No 77 Squadron was one element of FEF that was proficient in the ground attack role. This was a particular strength which led O'Neill to say that in the early stages of the war the squadron was to play a part "far out of proportion to its modest size". No 77 Squadron was also equipped with F-51 Mustangs which were perceived to be better armed and more durable for ground attack than the Lockheed F-80 Shooting Star then in service with American squadrons.¹⁷ Therefore, it was probably no accident that No 77 Squadron was alerted when the Fifth Air Force headquarters in Itazuke, Japan, received a report of a North Korean convoy heading southwards through a particular area. This information had taken several hours in its passage through MacArthur's headquarters in Tokyo before it reached the air force operations officers. As a result, the assignment of the target to No 77 Squadron was based on an estimate of the likely location of the convoy when the aircraft arrived in the area of operations. Despite doubts by the pilots and reassurances from forward air control aircraft, an attack against a southward bound locomotive and a road convoy was subsequently authorised. It was their first ground attack mission, but members of the Australian squadron demonstrated their particular proficiency by blasting the train off the rails, onto its side, and hitting many of the trucks on the road during 20 minutes of rocketing and strafing. It was not until after they had returned to

their base in Japan that the Australian pilots learned that the trucks had been carrying South Korean soldiers and American troops of the 24th Division. Furthermore, the train had been laden with American ammunition. Making matters worse, the attack had been witnessed by several newspaper reporters, one of whom identified the aircraft as Australian. The tragic incident was the subject of extensive reporting in American newspapers on the following day.

The subsequent investigation revealed serious defects in the Fifth Air Force's target allocation system. The delay was attributed to MacArthur's command system, which forbade direct contact between the forward air operations staff in Korea and Fifth Air Force Headquarters in Japan. Effectively, this meant that requests for tactical air support in Korea were to be passed back through Eighth Army channels to MacArthur's headquarters in Tokyo before being referred to Air Force operational staff. One senior American officer described it as "a shameful way to operate". MacArthur authorised direct contact on the following day. Responsibility for the whole disastrous episode was accepted fully by the Americans. Along with other problems in those hectic first few weeks of the war, it resulted in improved procedures.¹⁸ For example, within a few days of this incident, MacArthur issued instructions for the establishment of a realistic bombline and the need to report changes in this line at periodic intervals during each day.¹⁹ Steps were also taken to rationalise the command system. "Belatedly," Futrell observed, "at the end of July, improvised procedures brought some order to the fantastically confused command situation in the Far East, but these extempore arrangements never achieved the full fruits of unification."²⁰

The intense activity which resulted from attempts to halt the well-organised invasion of South Korea also produced another controversy over the subject of close air support for land forces. Fighting a desperate battle from the beleaguered position of the Pusan perimeter, close air support played a vital role in the defence. However, the debate which followed — it lasted almost for the duration of the war — concerned the relative benefits of two different systems of providing close air support. One system had been developed during World War II by the

United States Army Air Forces (as it was then called) and the other system had evolved out of Marine Corps and Navy operations in the same war.

The Army and the Air Force had developed a tightly structured approach to close air support which was intended to have the capacity to deal with a battlefield spread over a wide front, perhaps covering hundreds of miles. Because the operations involved Army and Air Force, Air Force doctrine provided for the establishment of a Joint Operations Centre (JOC), staffed by Air Force and Army personnel. An Air Force Tactical Air Control Centre (TACC) would be located adjacent to the JOC. Tactical Air Control Parties (TACP), which included a Forward Air Controller (FAC), would be located forward with the land force. Normally, the FAC was an Air Force pilot who was supported by two airmen in a radio-equipped vehicle. When close air support was required, the FAC would pass the request by radio to the headquarters of the division being supported. Division would then relay the request up to corps headquarters, who would pass it to the JOC. Subject to competing priorities for air support, the TACC would then contact the appropriate airfield and aircraft would be scrambled. The pilots might also receive a pre-flight briefing. In flight, the aircraft would report to

the TACP and receive final instructions before attacking the target. As an indication, this process might take 40 minutes if handled expeditiously.²¹

The Army-Air Force concept of close air support had evolved on a very important premise: the Army's requirement for close fire support would be provided in the first instance by its own organic artillery. Within its effective range, the Army considered artillery to be the principal source of fire support. Beyond the range of the guns, the Army considered air support to be the principal weapon. For this reason, in Korea, the bomblines tended to coincide with the range limit of artillery support. Similarly, Air Force considered that, in delivering support, it would seldom be closer than one kilometre to ground forces. Therefore, there was room for debate whether this form of close air support could be considered to have been integrated with land force operations in the intimate way that artillery close support was. According to its accepted definition at that time, close air support was "air action against hostile surface targets which are so close to friendly forces as to require detailed integration of each air mission with the fire and movement of those forces".²² Despite any conjecture about the Army-Air Force concept of close air support, it had been

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US TBM-3R Avenger



The interrogation of some 2,000 North Korean prisoners indicated that more than half of North Korea's equipment losses and one-third of their casualties were the result of damage inflicted by aircraft

developed to accommodate the requirements and preferences of the Army while reflecting certain established principles for the employment of air power. In his study of close air support in Korea, Allan Millett observed that:

“the Army did not expect integrated close air support, and the Air Force did not intend to deliver it except under carefully circumscribed conditions: clearly marked targets and readily identified friendly troops positions, positive observed direction from Air Force ground or air controllers, near absolute safety from friendly artillery fire, and employment only against targets that could not be attacked with heavy artillery.”²³

The Marine-Navy concept of close air support had been developed in the war in the South-West Pacific. Unlike the system developed for Army, this form of close support was in the first instance a substitute for artillery, and, therefore, a fundamental necessity for lightly-armed Marines who lacked the traditional land force artillery support. Accordingly, a Marine division could normally expect the support of a Marine air wing, which was a small-scale tactical air force. During amphibious landings, Marines could utilise naval gunfire to some extent but, as there were limits to its application, close air support was still recognised as vital. In a similar fashion to artillery support, Navy and Marine strike aircraft would deliver fire support within 50 to 200 metres of ground forces. These air strikes were controlled by Tactical Air Control Parties (TACP) located with the forward troops, normally at battalion level. TACPs would radio requests for close air support direct to a Marine brigade's Tactical Air Direction Centre (TADC), which had direct contact with aircraft carriers and the aircraft.²⁴

The vital aspects of the Marine-Navy close air support system were its rapid response time and its decentralised control of sorties. By eliminating the requirement for intervening ground force headquarters to process requests, the Marine-Navy system was able to deliver an air strike within minutes. Response times were further reduced because Marine operations were generally conducted within a relatively contained geographic area, perhaps in close proximity to aircraft carriers; without the requirement to conserve fuel for extensive transit between air bases and the area of

operations, aircraft could be kept airborne and ‘on-call’ over ground troops for long periods. In an emergency, execution of Marine-Navy air strikes proceeded on the assumption that liaison between ground and air representatives at the battalion level had determined that air support was to be utilised in the particular instance rather than artillery or naval gunfire, thus removing the complication of seeking clearances.²⁵

There were benefits in both the Army-Air Force and the Marine-Navy systems of close air support, but, when they witnessed the latter system in operation in the first six months of the war, some Army officers, notably General Almond, commander of X Corps, argued that the Marine-Navy system should be adopted as the standard with Army having its own organic air support.²⁶ The case put by these Army officers gained inspiration from such operations as the 1st Provisional Marine Brigade's defence of the Pusan perimeter in August 1950. With the brigade's air group of three Corsair squadrons — some 48 aircraft — providing dedicated air support, the result was an arresting display of combat power. Allan Millett referred to the operation as a “four-week virtuoso performance in close air support”.²⁷

One of the Corsair squadrons operated from Japan, but the other two squadrons were launched from two escort carriers. The carrier-launched squadrons were only minutes from the 1st Provisional Marine Brigade's position and could remain on-station for up to four hours, ready for immediate response. The Marine pilots, 70 per cent of whom were World War II veterans, were extensively trained in close air support, the stock-in-trade for their squadrons. An FAC was located with each battalion, a TACC was located adjacent to the brigade fire support coordination centre (FSCC), and the brigade's deputy commander was an aviation officer. The Marine air strikes were quick, devastating North Korean defensive positions, their mobile formations and their artillery positions. More than half of the Marine sorties were directed against targets about 1 kilometre from the forward troops. “It was the kind of close air support Marines expected”, Millett observed, “but it came as a revelation to the Army Officers who shared the experience.”²⁸



With air superiority assured by FEAF's dominant air power capability and the competence of its pilots, the North Korean forces suffered overwhelming damage

Boeing B-29s of the Yokota-based 92nd bomb group prepare to attack targets in North Korea

Hallion records that the effectiveness of Marine close air support in the Pusan perimeter “astonished Army troops fighting alongside the Leathernecks”. The apparent ease of calling in an air strike and the “overwhelming response added fuel to the [close air support] fires raging between the services”. But Hallion points out that there were a number of reasons favourable to the Marine performance. The prime ones were the short distance from the carriers to the battle, the small size of the battle front, bad weather interrupting Air Force support (which at that stage in the war had to come from Japan), the superior endurance and load-carrying capacity of the Corsairs, and the proficient relationship between the controller of the strike and the aircraft.²⁹ Other considerations that Hallion did not mention were that such a level of air support was dependent upon maintaining control of the air, that the dedicated support of 48 Corsairs was extremely expensive in terms of financial cost and asset distribution, and that there was a requirement for other air assets to conduct concurrent operations. Yet the Marine performance made “an indelible impression on the young infantrymen confronting a seemingly invincible foe”. “They cared little about the details of [close air support],” Hallion concluded, “they only knew that it saved their lives.”³⁰

In the first six months of the war there were other notable displays of the Marine-Navy system of close air support. The two most significant being the Inchon landing, which saw the landing force supported by an overwhelming application of Navy and Marine close air support, and the other being the withdrawal of the First Marine Division from the Chosin Reservoir.³¹ These episodes added





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further impetus to calls for changes to the Army-Air Force system of close air support.

The chief Army proponent for changing the close air support system was General Almond, commander of X Corps. In December 1950 and July 1951, Almond recommended that each corps commander should have operational control over a force of fighter-bombers equivalent to one group for each division. He also recommended that each infantry battalion should have a TACP, with the battalion commander having the power to send requests for air support direct to a TADC at corps headquarters, which, in turn, would order the mission flown.

Despite such arguments and the general acceptance that the Marine-Navy system had performed impressively in Korea, there was not a universal call for change. Firstly, it was recognised that this war was one where United Nations Command enjoyed control of the air. If this were not the case, then the Marine-Navy system would not have looked so impressive. Also World War II experience had demonstrated the problems of dividing air support into 'penny packets'. Furthermore, the adoption of the Marine-Navy system to support a force of 60 to 100 divisions would be prohibitively expensive. Most significantly, it was only the Army-Air Force system that had the capacity to concentrate all available air power — the FEAF Bomber Command, the Fifth Air Force, the Seventh Fleet, and the 1st Marine Air Wing — on specific sectors of the front line. In addition to all of these considerations, it was considered important to understand that the Marine-Navy and the Army-Air Force systems had been developed to accommodate the requirements of two distinct sets of circumstances. In August 1952, General Mark Clark, the then Commander-in-Chief of United Nations Command, rejected demands for changes

in the Army-Air Force system of close air support, effectively ending the debate.³²

The debate over the benefits of two systems should not draw attention from the important role air power played in the early months of the war. General Walker, as commander of the Eighth Army, asserted that it was tactical air support which allowed United Nations Command to remain in the Korea in the hectic first few months of the war and then to advance towards the Yalu River.³³ An analysis of this period of the war by Eliot Cohen and John Gooch supports this view and reveals that, in the few weeks before China entered the war, "intelligence confirmed what American commanders had long believed: American air power had paralyzed [sic] the North Korean People's Army".

The interrogation of some 2,000 North Korean prisoners indicated that more than half of North Korea's equipment losses and one-third of their casualties were the result of damage inflicted by aircraft. This was twice the rate of damage to equipment and the same rate of damage to personnel as inflicted by artillery. The Far East Command intelligence assessment concluded that "tactical air support was the greatest single factor contributing to the successful conduct of UN ground operations against the . . . invader". Emphasising its importance, Cohen and Gooch claimed that "[a]ir power, not the Inchon landing . . . blocked the success and weakened the grip of the North Koreans investing the Pusan perimeter". Eighth Army thought very highly of its air support, they observed, "and analysis proved it right to do so".³⁴

The North Korean force was particularly vulnerable to air attack. It was a conventional mechanised army, organised and equipped on Soviet lines, and dependent upon fuel, ammunition

A large Chinese force was located and substantial casualties were inflicted on it, promoting a sense of confidence in the Eighth Army and encouraging Ridgway to proceed with planning for a major offensive

and stores in large quantities. Resupplied by truck convoy and railways, its logistical tail provided many targets. It was also apparent that the North Koreans were not trained to deal with air attacks.³⁵ With air superiority assured by FEAF's dominant air power capability and the competence of its pilots, the North Korean forces suffered overwhelming damage. It all served to make MacArthur and his staff extremely optimistic as the United Nations Command forces broke out of the Pusan perimeter and headed for North Korea. Yet, in their study, Cohen and Gooch are at pains to point out that, while air power had a dramatic, perhaps decisive, impact on the North Koreans, it was a mistake to expect that air power would have the same impact on the Chinese. "MacArthur did not simply discount Chinese intervention," they asserted, "but he thought he had the antidote to it, in the form of broken bridges, strafed roads and tracks, and if necessary, incinerated villages and towns." Reflecting his confidence in United Nations Command air power, the Commander-in-Chief assured President Truman in October 1950 that "if the Chinese tried to get down to Pyongyang there would be the greatest slaughter".³⁶ He believed that the Chinese armies would be crushed at the Yalu River. Yet it should be noted that MacArthur's claim was not supported by Lieutenant General Stratemeyer, commander of FEAF, and Major General Partridge, commander of the Fifth US Air Force.³⁷

There were some important differences between the North Korean forces and the Chinese forces. The average North Korean division had some 200 hundred vehicles but a Chinese division had none. Where the North Koreans had some 40 artillery pieces in each division, the Chinese had nine light 76 mm howitzers. The North Koreans had four times the number of heavy machine guns as the Chinese and more anti-tank weapons. However, the Chinese had more light machine guns and more light mortars. Essentially, the Chinese were a lightly armed and equipped peasant army, able to infiltrate through the countryside and to survive on provisions requisitioned from local farmers; in the short term, they were not dependent on convoys of trucks for resupply. Their tactics were also different, capitalising on their strengths and diminishing their weaknesses. They attacked

mainly by night, probing, enveloping and intimidating the opposing force, using large quantities of hand grenades, light machine guns and mortar fire. In short, the Chinese force was a completely different type of opponent. When Far East Command intelligence assessments concluded that the Chinese force was an inferior version of the North Korean force, they missed this vital point. The North Koreans were a conventional force susceptible to the type of war the United Nations Command force expected to fight, the type of warfare that had been experienced in World War II. The North Koreans were extremely vulnerable to air warfare as it was conducted by FEAF, but the Chinese were not; at least not to the same degree. While Cohen and Gooch identified a number of United Nations Command failures in their explanation of the reverses of November and December 1950, they nominate two critical failures at the theatre level: excessive belief in air power as a solution and the faulty intelligence assessment that considered the Chinese force to be an inferior version of the North Korean force.³⁸

These conclusions by Cohen and Gooch do not mean that air power did not have an effective role to play once the Chinese entered the war. What the two analysts were intent on illustrating was that the Chinese were organised and fought in a way that allowed them to minimise the impact of air power on their operations, thereby confounding MacArthur's unbounded optimism that he would achieve his objectives despite China's entry into the war.³⁹ This was only one of a number of failures in MacArthur's force. At the tactical level there were other, more fundamental, reasons why Eighth Army found itself withdrawing over ground they had won only weeks before. These were immediately obvious to General Matthew Ridgway when he assumed command of Eighth Army at the end of December 1950.

Ridgway takes command of the Eighth Army
Ridgway was a highly experienced infantryman. What he found in Korea disturbed him deeply. After touring his forward units and talking to his field commanders, he realised that:

"before the Eighth Army could return to the offensive it needed to have its fighting spirit restored, to have pride

Mosquitoes organised and controlled napalm and rocket attacks from the air

*in itself, to feel confidence in its leadership, and to have faith in its mission.*⁴⁰

Ridgway had been chosen as the successor to Walker some time earlier but he had not been told. With the untimely death of Walker, Ridgway, who was working in Washington, received short notice to proceed to Korea. Arriving in Tokyo on Christmas Day on his way to the battlefield, he had discussions with General Douglas MacArthur, Commander-in-Chief United Nations Command. According to Robert O'Neill, Ridgway found MacArthur "to be discouraged at the turn of events in Korea". The reversal of the United Nations Command's thrust into North Korea towards the Yalu River was the cause. MacArthur's former mood of optimism had turned to despair in late November 1950, and he had ordered a withdrawal to the south by the Eighth Army and X Corps to avoid being outflanked by the Chinese counter-offensive.

United Nations Command troops faced the depressing task of withdrawing over ground that they had won in battle only weeks before. It was obviously an outcome that MacArthur had not contemplated. During his discussions with the Commander-in-Chief, Ridgway "discovered that remarkably little specific planning had been done for the future operations of the Eighth Army". Furthermore, it seemed that no strategic policy had been developed. When Ridgway asked MacArthur if he had any objections to his mounting an attack against the enemy forces, the Commander-in-Chief responded: "The Eighth Army is yours, Matt. Do what you think best."⁴¹

Arriving in Korea, Ridgway spent time talking to his men. He recorded that they "all conveyed to [him] a conviction that this was a bewildered army, not sure of itself or its leaders, not sure what they were doing there, wondering when they would hear the whistle of that homebound transport".⁴² In Ridgway's opinion, the force had been ill-prepared, suffered major shortages in weapons, lacked warm clothing for the freezing Korean winters and, due to no fault of their own, had been spread across an area "far too wide for them to maintain an effective front". But Ridgway also found that many of the fundamentals of sound tactical operations were being neglected. He told his field commanders that



On the night of 11 February, the Chinese 40th and 66th Armies and the North Korean V Corps launched a counter-attack along the Hoengsong-Wonju axis. The attack by the communist forces did not take Ridgway by surprise

their forces had become road-bound, that they were failing to assess the terrain and to use it to their advantage. The Eighth Army had "to get off its bloody wheels and put some shoe leather to the earth, to get into the hills and among the scrub and meet the enemy where he lived".⁴³ The new commander quickly abandoned any thoughts of an immediate return to the offensive and began to prepare his force to meet a Chinese offensive that he believed would come at the beginning of the new year. "The Chinese outnumbered us," he reasoned. "But our armor [sic] was far superior . . . and of course we had control of the air." He urged his commanders to use the ground and enemy tactics to their advantage. They should occupy suitable hill masses, so inviting enemy infiltration at night. "Then with our superior firepower and air support we could destroy the enemy by daylight," he planned.⁴⁴

A new phase of the Chinese offensive commenced on 31 December 1950. Ridgway's policy was to yield a little further ground as his force withdrew to the south.⁴⁵ Pushed by advancing Chinese forces, the rear battalion of the Eighth Army crossed the Han River on the morning of 4 January. For the second time in six months, Seoul had been abandoned to the enemy. Achieving a clean break from the advancing Chinese,

the withdrawal continued for another 160 kilometres to the south-east where, on 5 January, a defensive line known as Line D was occupied. Ridgway had originally planned a further withdrawal to a Line E, some 50 kilometres to the south, but this was to be the limit for the new commander was determined to hold this position while inflicting heavy casualties on the Chinese.⁴⁶

The plans to withdraw to Line E were not implemented. "There were supposed to be 174,000 Chinese in front of us at that time," Ridgway observed, "but where they were placed, in what state of mind, and even that they were there at all was something we could not determine." A vigorous forward patrolling program and constant aerial reconnaissance failed to reveal evidence of a substantial Chinese presence south of the Han River. Ridgway himself took to the air in a slow advanced trainer with Major General Pat Partridge, commander of the Fifth US Air Force, as his pilot. "We flew at times at tree-top level and frequently below the barren ridges," Ridgway recalled. "Hardly a moving creature did we spot, not a camp fire smoke, no wheel tracks, not even trampled snow to indicate the presence of a large number of troops." Accordingly, Ridgway decided that he would begin to advance northwards to seek out and close with the enemy.⁴⁷ While he made plans to begin his offensive in late January, General MacArthur's headquarters in Tokyo was making detailed preparations for the evacuation of Korea. President Truman had authorised MacArthur to take this action if he thought⁴⁸ the safety of his command was threatened.

In the third week of January, Ridgway ordered a limited probing offensive known as Operation *Wolfhound* in the Osan-Suwon area, just to the north of the western end of Line D. A large Chinese force was located and substantial casualties were inflicted on it, promoting a sense of confidence in the Eighth Army and encouraging Ridgway to proceed with planning for a major offensive.⁴⁹ As a deliberate strategy, Ridgway proposed to seek out the enemy and, rather than sustaining heavy losses to his own force by fighting for and holding ground, he would endeavour to inflict punishing casualties by extensive use of his available fire power. This strategy, which he announced on 20 January, meant that the use of tactical air power would play a key role in the forthcoming battle, calling for a high degree of air-ground cooperation.⁵⁰

By this stage, United Nations Command air operations enjoyed better co-ordination, much of the confusion of the earlier months having been resolved. Furthermore, the Eighth Army had received its normal allocation of artillery. For example, in January the 27th British Commonwealth Brigade, which included the 3RAR, was augmented by the arrival of the 16th New Zealand Field Artillery Regiment. Such developments prepared the basis of a more rational application of the Army-Air Force close air support system in accordance with established doctrine. Ridgway planned to operate within this doctrinal framework.

Ridgway assured Major General Partridge that he would not support the calls General Almond had been making for radical changes to the close air support system. In return, Partridge examined the



On 15 March the Eighth Army regained Seoul for the final time in the war. Continuing the advance into April, Ridgway prepared his force for an expected Chinese offensive

Air Force aspects of the system and brought about improvements in communication procedures and equipment. The Air Force general also took steps to improve the training of TACPs and — to make FACs more efficient — Partridge increased the duration of their normal tour with land units from three to eight weeks. When Ridgway commissioned his own staff to examine the Eighth Army's participation in the air support system, similar reforms were implemented: improved communications and better training for Army personnel involved in the system. This was a distinct step forward from the early weeks of the war when it was reported that only two officers of the headquarters of the Eighth Army had ever read the service manual on joint army-air tactical operations. The reforms initiated by Partridge and Ridgway were timely, bringing improvements to joint operations.⁵¹

On 25 January, three of Ridgway's divisions advanced north on Operation *Thunderbolt*, encountering an enemy screening force comprised of two divisions of the Chinese 50th Army. Mosquito aircraft from the 6147th Tactical Air Control Squadron remained aloft over the advancing troops and, as they located enemy strong points, they informed the ground forces using infantry radios. These radios had been

installed in the cockpits of these aircraft earlier in the month as one of the measures aimed at improving the close air support system. An airborne relay station had also been established enabling radio messages to be transmitted from the advancing troops to the tactical air control centre at Taegu. Air strikes were used to soften enemy resistance and to attack the enemy as they withdrew to the north. With the capture of Suwon airfield, air resupply of the advancing force began on 30 January.⁵²

By the end of the month, the advance had reached a line approximately 20 kilometres to the north without encountering any major Chinese defensive position. As Operation *Thunderbolt* proceeded on the western flank, Ridgway ordered a second thrust, Operation *Round-up*, in the central sector and by 10 February the whole battle-line had moved forward by 30 to 60 kilometres. Moderate resistance was encountered on the western flank but north of Ichon the Chinese resistance increased.⁵³ The main body of the enemy had been attempting to rest and restore their forces after their recent offensive but they now realised that they needed to regain the initiative. Beginning on the night of 11 February, the Chinese 40th and 66th Armies and the North Korean V Corps launched a counter-attack along the Hoengsong-Wonju axis.⁵⁴

It was a period of determined fighting and the Fifth Air Force's fighter bombers flew almost 400 close air support sorties each day, the heaviest effort of the war



US F-84s

The communists had to divert thousands of men to repair the continual damage to the railways and the roads. For example, the enemy eventually had a repair gang positioned at four-mile intervals throughout the rail system

The attack by the communist forces did not take Ridgway by surprise. Aerial reconnaissance had detected large groups of the enemy making their way to their line of departure. Ridgway assigned priority air support to the elements of his force under immediate threat, which meant that some aircraft that had been supporting ground forces in the west now found themselves providing assistance in central Korea. As the communist force began its attack, Republic of Korea troops north of Hoengsong were in imminent danger. Close air support was a key element in enabling them to withdraw. In the daylight hours groups of up to 400 enemy were detected by tactical air support Mosquitoes which organised and controlled napalm and rocket attacks from the air.⁵⁵ While it is clear that enemy sustained many casualties, Hoengsong was taken by the communists on 13 February, forcing United Nations Command troops to fall back to Wonju.

As daylight broke on the morning after Hoengsong was taken, aerial observers detected two Chinese divisions moving south in columns along the Som River. It was clear that the communist force intended to encircle the United Nations Command troops at Wonju. Caught in the open without the protection of field trenches, this force took a relentless pounding from artillery and air strikes over a period of some hours. Further fighting continued that night and into the next day, but the enemy attack had been broken by the extensive punishment it suffered. It is estimated that the battle at Wonju cost the Chinese over 5,000 men, an unacceptable loss even for a profligate enemy and they shifted their efforts to Chipyeong-ni.⁵⁶ Chipyeong-ni was a village surrounded by mountains to the west of Hoengsong. The occupying force, the United States 23rd Infantry Regiment and a French battalion, were quickly surrounded and in immediate danger.

From the outset it was a grim struggle against superior numbers. The defensive position, being approximately one kilometre in diameter, was dependent on ammunition, fuel and rations resupply from the air as the enemy attacked in strength. Blood plasma and medicines were also flown into the position by helicopters and 52 casualties were evacuated. It was some of the

bloodiest fighting of the whole campaign with the defenders grimly engaged in desperate combat with a force that was estimated to be more than three Chinese divisions: Ridgway would later claim that it was five divisions.⁵⁷

For the three days that the position was under immediate threat, Mosquito tactical control aircraft were constantly aloft over the area when it was light. Air strikes were directed against the enemy in the surrounding hills with rocket and napalm attacks. The 5th United States Cavalry was dispatched from the south of Chipyeong-ni in a bid to relieve the beleaguered position. At the same time, the 27th British Commonwealth Brigade was deployed to remove enemy forces from the main supply route from Iho-ri to Chipyeong-ni. Broken in spirit by artillery and air bombardment and the fierce resistance of the defenders of Chipyeong-ni, the communists abandoned attempts to take the position just as it was finally relieved by the 5th United States Cavalry Regiment. General Almond, commander of X Corps, subsequently acknowledged that close air support and resupply by air were critical in sustaining the force at Chipyeong-ni over the period 14 to 16 February.⁵⁸

The enemy forces were successful in an attack on a third front to the east at Chechon. Overall, however, their offensive collapsed due to the amount of punishment they had suffered in central and western Korea. The United Nations Command force had again assumed the upper hand by 21 February. Therefore, Ridgway launched Operation *Killer* which, by thrusting eastward, was designed to isolate enemy forces which had penetrated into South Korea. Throughout this operation close air support was used extensively. Major General Claude Ferenbaugh, commander of the 7th Division, reported that close air support given to his division was 'outstanding' and the 'excellent results' achieved by air strikes enabled the taking of objectives with minimum casualties.⁵⁹

On 15 March, the Eighth Army regained Seoul for the final time in the war. Continuing the advance into April, Ridgway prepared his force for an expected Chinese offensive. By this stage Eighth Army had developed confidence and a higher degree of operational competence. The experienced

infantry commander had reversed the fortunes of a bewildered army, turning it into an efficient fighting organisation able to deal with a determined and aggressive enemy. Ridgway did this largely by reminding his field commanders of the basics of infantry tactics and by utilising the overwhelming firepower which he had at his disposal. A major element of this firepower was close air support, an asset which Ridgway had endeavoured to employ to his advantage from the outset.

Buoyed by its successes against the Chinese, Eighth Army was well prepared for and able to counter the Chinese offensive which commenced on 22 April and extended through to 22 May. The Eighth Army plan was to absorb the momentum of the Chinese attack by withdrawing through a number of defensive lines while inflicting heavy casualties on the enemy with artillery and air strikes.⁶⁰ It was a period of determined fighting and the Fifth Air Force's fighter bombers flew almost 400 close air support sorties each day, the heaviest effort of the war.⁶¹ The Chinese and North Korean forces sustained serious casualties in this period, making them ponder whether it was worthwhile proceeding with another offensive. Indeed, there were few real gains to be made by either side. The communists agreed to truce talks in June 1951, thereby giving prominence to the political arena of negotiation. At this stage, military operations developed into a seesaw war of stalemate which continued until the armistice of July 1953.

Interdiction

In April 1951, FEAF's emphasis on air operations shifted from close air support to interdiction missions. Yet Ridgway, who had assumed the position of Commander-in-Chief of United Nations Command in April 1951, began to have serious doubts about its effectiveness. He noted that the enemy's defensive strength "obviously improved during the summer" of 1951, recording that:

"Despite our constant and consistently successful effort to knock out railroads and bridges, to demolish marshaling [sic] yards and deny the highways to enemy traffic, supplies continued to flow down from Manchuria."

It was evident that fire from Chinese artillery greatly increased while more and more anti-aircraft

fire appeared, destroying 81 FEAF aircraft in the period of three months from April to June.⁶²

"Whatever may be said for the value of air power — and there is no question that without it many of our advances would not have been possible," he concluded after the war, "it simply could not keep the enemy from bringing in the armament he needed." In Ridgway's opinion, air power "could not isolate the battleground" in Korea.⁶³

While there were doubts about the immediate benefits of air interdiction programmes, the Commander-in-Chief had another reason for maintaining such pressure on the communist forces. The enemy hoped for an early cease-fire to relieve their forces from air attack. But Ridgway reasoned that once an armistice had been granted, there would have been no incentive for the communists to negotiate on other issues. Therefore, he decided to maintain pressure by using the available air power to operate far and wide over North Korea conducting close support operations, maintaining air superiority and cutting supply lines.⁶⁴

Operation *Strangle*, an air interdiction programme involving a major portion of FEAF's assets, commenced in April 1951. The area between the 39th parallel and the forward edge of the battle was divided into three north-south strips, one being allocated to each of the Fifth Air Force, the 1st Marine Air Wing and air units of the naval Task Force 77. But the concentrated interdiction programme was unsuccessful in preventing sufficient resupply to the communist forces to enable them to maintain a moderate rate of combat. As quickly as one route was cut, another was opened or repaired, while aircraft suffered the danger increasing anti-aircraft fire.⁶⁵

Following the poor results achieved through Operation *Strangle*, FEAF staff officers examined the logistic system in North Korea. They determined that the 60 Chinese and North Korean divisions in the combat zone depended upon a daily supply of 2,400 tons. The most efficient means of carrying this quantity of supplies was on the North Korean railways. It was therefore determined that a comprehensive attempt would be made by FEAF to cripple the rail system by attacking its bridges.⁶⁶

These interdiction operations continued at an intensive rate for four months, from August to December, but it was only in the first two months that it was evident that the communist supply system suffered any major dislocation. The enemy soon displayed an ability to recover quickly from damage to the railway by transferring the load to road convoys and by undertaking speedy repairs.

It also proved difficult to make complete cuts in the system without a large number of sorties. Making the task even more difficult, anti-craft protection for the rail system increased significantly. There were serious doubts whether it was worth the effort. While this program was in progress it was still necessary to conduct close air support operations, but this was done at a reduced rate, because air assets were limited. As a result, ground commanders complained — O'Neill believes with justification — that their forces were suffering increased casualties because of the emphasis on interdiction.

Yet no one could be sure whether the interdiction program was actually making it impossible for the communist forces to accumulate sufficient supplies and equipment to mount a damaging offensive. There were grounds to believe that, if interdiction stopped completely, then an offensive would follow.⁶⁷ Ridgway reported to the United States Joint Chiefs of Staff in January 1952 that although the communist logistic system had suffered as a result of the raids, the enemy was still able to conduct a defensive operation.⁶⁸

In March 1952, Fifth Air Force launched a new form of interdiction known as Operation *Saturate*. The object was to inflict intensive damage to railways in select areas rather than to achieve simple cuts over a wide range of track. The reasoning behind these operations was the observation that the North Koreans found it more difficult to repair damage if it required heavy equipment to be brought forward. While this program met with some early success, the increased deployment of anti-aircraft artillery made it extremely costly. The whole of the railway interdiction program resulted in a loss rate that exceeded the replacement rate of fighter-bombers. By May 1952, there were only enough aircraft to

maintain six intensive cuts and the program was abandoned.⁶⁹

In his account of the Korean war, Ridgway was adamant that interdiction 'could not isolate the battleground'. Clearly, such an objective would be uppermost in the mind of a ground force commander. Yet there can be no doubt that the interdiction program, which lasted for 10 months, did cause disruption to the communist system of supply. The communists had to divert thousands of men to repair the continual damage to the railways and the roads. For example, the enemy eventually had a repair gang positioned at four-mile intervals throughout the rail system. The repair of a single break took them two hours and intensive damage requiring special equipment took from four to seven days. These are the small gains that were made at a large cost, but it seems probable that the results would have been greater if the communists had not enjoyed the sanctuary of Manchuria.⁷⁰

Conclusion

Air power was a vital component of the United Nations Command forces in Korea. At times its influence was decisive. This was particularly so in providing close air support in the defence of the Pusan perimeter where it inflicted heavy losses on the North Korean invaders. Breaking down the enemy's combat power and resolve, air power permitted a break-out of land forces. Yet the provision of close air support was subject to debate. The Marine-Navy system was impressive from the land force commander's perspective but it demanded a relatively large number of dedicated assets. This not only involved dedicated aircraft but also the provision of TACPs down to battalion level. This lavish scale of support was not feasible where large forces were concerned. Furthermore, concurrent air operations had to be executed. Most important was the necessity to maintain control of the air. Without this the war in Korea would have had a different outcome.

Ridgway demonstrated that the Korean war could be fought successfully through a conventional approach to battle which paid attention to the fundamentals of sound tactical operations while making good use of available fire support. Ridgway used the existing Army-Air Force system

of close air support but introduced efficient procedures and improved communications. This achieved positive results which permitted an advance by the Eighth Army. Where the Eighth Army and X Corps had been initially overwhelmed by the entry of the Chinese forces, Ridgway's approach turned the tables on the communists. He claimed that some stages of his advance would not have been possible without the application of air power. But he also believed that air power used in the interdiction role was unsuccessful. Yet it is going too far to say that it failed entirely.

There can be no doubt that the interdiction programs did complicate the resupply of the communists forces and did force the enemy to use large amounts of resources to keep his supply routes functional. In this light, it seems that the full impact of the interdiction program is not known.

Notes

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