from freezing. Tires on the planes would be frozen on the bottom in the morning and they would thump out for take off or slide along the snow and ice. Staff Sergeant Floyd P. Stocks, a plane captain with VMF-214 recalled the difficulties in accomplishing the simplest maintenance tasks, such as changing a spark plug in a F4U. "It isn't too bad removing the plugs, that can be done wearing gloves. Installing them is a different story. You can't start a plug wearing gloves, not enough clearance around the plug port. To change a sparkplug you have the old plug out and the new plug warm before you start. Wrap a new warm plug in a rag and hurry to the man standing by at the engine. That man pulls off his glove and gets the plug started. Once started he puts on his glove and completes the installation using a plug wrench."

Bombs, rockets, ammunition, and fuel were on hand at Yonpo, and with Marines to manhandle

Marine Corsairs operating out of frozen Yonpo Airfield experienced a number of problems. The airstrip had to be continually cleared and sanded, aircraft had to be run every two

them all, the air part of the airground team was ready to do its job. The task it had to do was probably the heaviest responsibility ever placed on a supporting arm in relatively modern Marine Corps history. As Lieutenant General Leslie E. Brown, a Marine aviator who witnessed combat in three wars, recalled: "The Chosin Reservoir thing was the proudest I had ever been of Marine aviation...because those guys were just flying around the clock, everything that would start and move. And those ordnance kids out there dragging ass after loading 500pound bombs for 20 hours. And aviation's mood and commitment to that division, my God it was total. There was nothing that would have kept them off those targetsnothing!"

From the time of the decision to fight their way south to the sea, Fifth Air Force had given the wing the sole mission of supporting the division and the rest of X Corps. Backup was provided by Task Force 77 aircraft for additional close support as required, and both the Navy and Fifth Air Force tactical squadrons attacked troop concentrations and interdicted approach routes all along the withdrawal fronts of Eighth Army and X Corps. The Combat Cargo Command was in constant support with requested airdrops of food and ammunition, and did a major job in aerial resupply of all types from basic supplies to bridge sections, as well as hazardous casualty evacuation from improvised landing strips at both Hagaru-ri and Koto-ri.

When reviewing the fighting withdrawal of the Marine airground team from the reservoir against these horrendous odds, and assessing the part Marine aviation played in the operation, it is important to remember the Tactical Air Control Party structure of the Marine air control system. Every strike against enemy posi-

hours during the night to keep the engine oil warm enough for morning takeoffs, and ordnance efficiency declined.

Department of Defense Photo (USMC) A130423





Marine Corsairs hit enemy troop concentrations with rockets and napalm in support of Marines fighting around the Chosin Reservoir. However, approximately half of the

Marine air missions were in support of South Korean and U.S. Army units.

tions along the route wherever the column was held up or pinned down, was under the direct control of an experienced Marine pilot on the ground in the column, known to the pilots in the air delivering the attack. Other methods had been tried repeatedly, but to put it colloquially, "there ain't no substitute for the TACP."

#### The Breakout

From the start of the 68-mile battle to the sea on 1 December to its completion at Hungnam on 12 December, so much happened on a daily basis that only shelves of books could tell the story in detail. It was one of the high watermarks for the Marine Corps, ground and air, cementing permanently a mutual understanding and appreciation between the two line branches of the Corps that would never be broken. It must be borne in mind that the same air support principles in almost every detail were followed in support of the division on its fight up to Hagaruri and Yudam-ni as were applied in supporting its fight back down to the sea.

Underlying the air support plan for the operation was the idea of having a flight over the key move-

ment of the day at first light. This initial flight would be assigned to the forward air controller (FAC) of the unit most likely to be shortly in need of close air support. In turn, as soon as that flight had been called on to a target, another flight would be assigned to relieve it on station. This meant that response times from request to delivery on target could be reduced to the minimum. Naturally, the weather had to cooperate and communications had to stay on, but if minimum visibility and ceiling held so that positive delivery of weapons was possible, the targets were hit in minimum time. If the attack of the

aircraft on station was not sufficient to eliminate that target, additional strength would be called in, either from Yonpo or from Task Force 77, or from time to time, by simply calling in any suitable aircraft in the area for a possible diversion from its assigned mission. The last possibility was usually handled by the Tactical Air Direction Center (TADC) of the air support system, or often by the tactical air coordinator airborne on the scene.

After dark each night, the column would be defended through unit assignments to key perimeters of defense. This was when they were most vulnerable to attacks by the Chinese. During daylight when Corsairs were on station, the Chinese could not mass their troops to mount such attacks because when they tried they would be immediately subjected to devastating air strikes with napalm, bombs, rockets, and overwhelming 20mm strafing. Not one enemy mass attack was delivered against the column during daylight hours. The night "heckler" missions over the column were effective in reducing enemy artillery, mortar, and heavy machine gun fires. But there was no way that they could do the things that were done in daylight controlled close air support, although the night controlled strikes against enemy positions revealed by their fires against the column were extremely effective as well. The general feeling in the column, however, was invariably one of relief with the arrival of daybreak.

The desire to have Marine aircraft overhead during daylight hours bears witness to the faith the Marines on the ground had in the potency and accuracy of Marine close air support. This was apparent to Captain William T. Witt, Jr., who led a flight of eight VMF-214 Corsairs that appeared over the Marine column one cold day as morning broke. As he checked in with the forward air controller on the ground he advised the controller that he had seen an enemy jeep heading north across the frozen reservoir and asked "if they wanted it shot up." The foot weary controller said: "Hell no, just shoot the driver."

The first leg of the fight south was from Yudam-ni to Hagaru-ri, a movement that would bring the 5th and 7th Marines together with elements of the lst Marines, division headquarters and command post. It was essential that Hagaru-ri be held because it gave the division its first chance to evacuate the seriously wounded by air. The evacuation was done from the hazardous but serviceable strip that had been hacked out of the frozen turf on a fairly level piece of ground near the town. Company D, 1st Engineer Battalion, accomplished this extraordinary job. Under fire much of the time, the work went on around-the-clock, under floodlights at night, and with flights from the two Marine night fighter squadrons orbiting overhead whenever possible. During the period from the first airstrip landing on 1 December to 6 December, the Combat Cargo Command's Douglas C-47 "Skyaugmented by every trains," Marine Douglas R4D in the area, flew out a total of 4,312 wounded, including 3,150 Marines, 1,137 Army personnel, and 25 Royal Marines. Until the Hagaru-ri strip became operational on 1 December, evacuation of the seriously wounded was limited as the only aircraft that could land at Yudam-ni, Hagaru-ri, and Koto-ri were the OYs and helicopters of VMO-6. For example, from 27 November to 1 December, VMO-6 evacuated a total of 152 casualties, including 109 from Yudam-ni, 36 from Hagaru-ri, and 7 from Koto-ri.

Casualties are helped on board a Marine R4D Skytrain at Hagaru-ri. From there, and later at Koto-ri to the south, more than 4,000 wounded men were snatched from death and flown to safety and hospitalization.

Department of Defense (USMC) A130281





Department of Defense Photo (USMC) A5439 Elements of the 7th Marines pause at the roadblock on the way to Koto-ri as Marine Corsairs napalm an abandoned U.S. Army engineer tent camp. The position had become a magnet for Chinese troops seeking food and shelter.

In the extreme cold and at the altitudes of the operation, these light aircraft had much less power and considerably reduced lift from normal conditions, but in spite of these handicaps, saved scores of lives.

The Yudam-ni to Hagaru-ri leg was completed by the afternoon of 4 December, with the first unit reaching Hagaru-ri in the early evening of the 3d. With most of the heavy action occurring on the 1st and 2d, wing aircraft flew more than 100 close support sorties both days, all in support of the division and the three Army battalions of the 7th Division, which were heavily hit east of the reservoir trying to withdraw to Hagaru-ri. The Marine FAC with the Army battalions, Captain Edward P. Stamford, directed saving strikes against the Chinese on 1 December, but during the night, they were overwhelmed and he was captured. However, the next day he managed to escape and made his way into

Hagaru-ri. Of the three battalions, only a few hundred scattered troops survived to reach Hagaru-ri. On 4 and 5 December, wing aircraft continued the march with almost 300 sorties against enemy positions, vehicles, and troop concentrations throughout the reservoir area. But on 6 December, they resumed their primary role over the division as the second leg, Hagaru-ri to Koto-ri, began.

Air planning for the second leg drew heavily on the experience gained during the move from Yudam-ni. The FACs were again spotted along the column and with each flanking battalion, and were augmented with two airborne tactical air controllers who flew their Corsairs ahead and to each side of the advancing column. The addition of a four-engine R5D (C-54) transport configured to carry a complete TADC controlled all support aircraft as they reported on station, and assigned them to the various FACs or TACs, as appropriate for the

missions requested. The system worked smoothly and made it possible for the column to keep moving on the road most of the time; even while the support aircraft were eliminating a hot spot. By evening of the 7th, the division rear guard was inside the perimeter of the 2d Battalion, 1st Marines, at Koto-ri. During the two days, Marine aircraft flew a total of 240 sorties in support of X Corps' withdrawal, with almost 60 percent of these being in support of the division, with the remainder being in support of other units. In addition, 245 sorties from Task Force 77 carriers and 83 from Fifth Air Force supported X Corps. The Navy sorties were almost entirely close support while the Air Force were mostly supply drops. The Koto-ri although widened strip, and lengthened, was not even as operable as the more or less "hairy" one at Hagaru-ri, but an additional 375 wounded were flown out. VMO-6, augmented by three TBMs on 7 December, also evacuated 163 more up to 10 December.

An enlisted squadron mechanic with VMF-214 noted the unpleasantness of unloading the TBMs in his diary: "Not only are the people seriously wounded, they are frozen too. This morning I helped with a Marine who never moved as we handled his stretcher. His head, framed by his parka, looked frozen and discolored. His breath fogging as it escaped his purple lips was the only sign of life. Between fingers on his right hand was a cold cigarette that had burned down between his fingers before going out. The flesh had burned but he had not noticed. His fingers were swollen and at places had ruptured now looking like a wiener that splits from heat."

With just one more leg to go, the epochal move was almost completed. But the third leg, Koto-

ri to Chinhung-ni, was tough to contemplate because it included an extremely hazardous passage of a precipitous defile called Funchilin Pass, in addition to a blown bridge just three miles from Koto-ri that had to be made passable. The latter was the occasion of engineering conferences from Tokyo to Koto-ri, a test drop of a bridge section at Yonpo as an experiment, revision of parachutes and rigging, and finally the successful drops of the necessary material at Koto-ri.

The air and ground plans for the descent to Chinhung-ni amounted to essentially using the same coverage and column movement coordination that had been so successful on the first two legs, only this time there was one very effective addition. The 1st Battalion, 1st Marines, from its position in Chinhung-ni, would attack up the gorge and seize a dominating hill mass overlooking the major por-



National Archives Photo (USN) 80-G-425817

During the cold Korean winter it often took hours of scraping and chipping to clear several inches of ice and snow off the decks, catapults, arresting wires, and barriers of the Badoeng Strait to permit flights operations. High winds, heavy seas, and freezing temperatures also hampered Marine carrier-based air missions.

tion of the MSR. The battalion's attack was set for dawn on 8 December, simultaneous with the start of the attack south from Kotori. The night of 7-8 December

A General Motors TBM Avenger taxis out for takeoff. Largely flown by field-desk pilots on the wing and group staffs, the World War II torpedo bomber could fly out several litter patients and as many as nine ambulatory cases.

Department of Defense Photo (USMC) A131268



brought a raging blizzard to the area, reducing visibility almost to zero and denying any air operations during most of the 8th. As a result, although both attacks jumped off on schedule, little progress was made from Koto-ri and the installation of the bridge sections was delayed. The one bright spot that day was the complete surprise achieved by the 1st Battalion, 1st Marines, in taking Hill 1081. Using the blizzard as cover, Captain Robert H. Barrow's Company A employed total silence and а double-envelopment maneuver by two of the company's three platoons with the third in frontal assault, to take an enemy strongpoint and command post, wiping out the entire garrison.

The night of the 8th saw the end of the weather problem and the clear skies and good visibility promised a full day for the 9th. From the break of day complete air coverage was over the MSR under the direction of the airborne TADC, the TACs, and the battalion FACs. The installation of the bridge was covered, and when it was in place, the column began its move down to Chinhung-ni on the plain below. It is interesting to note that the bridge was installed at the base of the penstocks of one of the several hydroelectric plants fed by the reservoir. (Eighteen months later in June 1952, two of these plants were totally destroyed by MAGs -12 and -33 in one attack, Chosin 3 by MAG -12 and Chosin 4 by MAG -33, the latter in one of the largest mass jet attacks of the war.)

The good weather continued on the 10th and the passage over the tortuous MSR was completed by nightfall. Early in the morning of the 11th, the truck movement from Chinhung-ni to Hungnam began, and by early afternoon, the last unit cleared the town. With the division loading out from Hungnam, the three shore-based fighter squadrons moved to Japan on the 14th, and by the 18th the last of the wing's equipment was flown out of Yonpo. Air coverage of evacuation of Hungnam the became the responsibility of the light carriers with the displacement of the wing. Under a gradual contraction of the perimeter, with the heavy support of the naval gunfire group, the movement and outloading were completed by the afternoon of the 24th.

The statistics of the outloading from Hungnam cannot go unmentioned. Included were 105,000 military personnel (Marine, Army, South Korean, and other United Nations units), 91,000 Korean refugees, 17,500 vehicles, and 350,000 tons of cargo in 193 shiploads by 109 ships. That would have been a treasure trove for the Chinese if it had not been for the leadership of General Smith who said that the division would bring its vehicles, equipment, and people out by the way they got in, by "attacking in a dif-\_ferent direction."



Department of Defense Photo (USA) SC355021

As the last of the division's supplies and equipment were loaded on board U.S. Navy landing ships at Hungnam, the wing's remaining land-based fighter squadrons at Yonpo ended their air strikes and departed for Japan.

A few summary statistics serve to give an order of magnitude of the support 1st Marine Aircraft Wing rendered to the operation as a whole. From 26 October to 11 December, the TACPs of Marine, Army, and South Korean units controlled 3,703 sorties in 1,053 missions. Close air support missions accounted for 599 of the total (more than 50 percent), with 468 of these going to the 1st Marine Division, 8 to the 3d Infantry Division, 56 to the 7th Infantry Division, and 67 to the South Koreans. The balance of 454 missions were search and attack. On the logistics side, VMR-152, the wing's transport squadron, averaged a commitment of five R5Ds a dav to the Combat Cargo Command during the operation, serving all units across the United Nations front. With its aircraft not committed to the Cargo Command, from 1 November to the completion of the Hungnam evacuation, -152 carried more than 5,000,000 pounds of supplies to

the front and evacuated more than 4,000 casualties.

One other statistic for Marine aviation was its first jet squadron to see combat when VMF-311, under Lieutenant Colonel Neil R. McIntyre, operated at Yonpo for the last few days of the breakout. It is of interest to note that the tactical groups of 1st Marine Aircraft Wing, MAGs -12 and -33, were so constituted that just a year later MAG-33 was all jet and MAG-12 was the last of the props, for about a 50-50 split on the tactical strength of the wing.

On casualty statistics, the 1st Marine Aircraft Wing had eight pilots killed, four missing, and three wounded, while the division had 718 killed, 192 missing, and 3,485 wounded. The division also suffered a total of 7,338 non-battle casualties, most of which were induced by the severe cold in some form of frostbite or worse. The division estimated that about one third of these casualties returned to duty without requiring evacuation or additional hospitalization. Against these figures stands a post-action estimate of enemy losses at 37,500, with 15,000 killed and 7,500 wounded by the division, in addition to 10,000 killed and 5,000 wounded by the wing. In this case these estimates are based on enemy testimony regarding the heavy losses sustained by the Communists, and there is some verification in the fact that there was no determined attempt to interfere with the Hungnam evacuation.

In a letter from General Smith to General Harris on 20 December, Smith stated the sincere feeling of the division when he wrote:

Without your support our task would have been infinitely more difficult and more costly. During the long reaches of the night and in the snow storms many a Marine prayed for the coming of day or clearing weather when he knew he would again hear the welcome roar of your planes as they dealt out destruction to the enemy. Even the presence of a night heckler was reassuring.

Never in its history has Marine aviation given more convincing proof of its indispensable value to the ground Marines. A bond of understanding has been established that will never be broken.

In any historical treatment of this epic fighting withdrawal, it is important to emphasize that there was total control of the air during the entire operation. Without that, not only would the action have been far more costly, but also it may have been impossible. It is well to keep firmly in mind that not one single enemy aircraft appeared in any form to register its objection.

### Air Support: 1951-1953

After the breakout from the Chosin Reservoir and the evacuation from Hungnam, the Korean War went into a lengthy phase of extremely fierce fighting between the ground forces as the Eighth Army checked its withdrawal, south of Seoul. The line surged back and forth for months of intensive combat, in many ways reminiscent of World War I in France, with breakthroughs being followed by heavy counteroffensives, until it finally stabilized back at the same 38th Parallel where the conflict began in June 1950. In 1951, there were many moves of both the 1st Marine Division and elements of the 1st Marine Aircraft Wing. The basic thrust of the wing was to keep its units as close to the zone of action of the division as possible in order to reduce to the minimum the response time to requests for close air support. Coming under Fifth Air Force without any special agreements as to priority for X Corps, response times from some points of view often became ridiculous, measuring from several hours all the way to no The at all. Joint response Operations Center, manned by Eighth Army and Fifth Air Force, processed all requests for air support, promulgated a daily operaorder. approved tions all emergency requests for air support, and generally controlled all air operations across the entire front. With the front stretching across the Korean peninsula, with a communications net that tied in many division and corps headquarters in addition to subordinate units, and many Air Force and other aviation commands, there was much room for error and very

fertile ground for costly delays. Since such delays often could mean losses to enemy action, which might have been avoided. had close support been responsive and readily available, the Joint Operations Center was not highly regarded by Marines who had become used to the responsiveness of Marine air during the Chosin breakout, Inchon-Seoul campaign, and the Pusan Perimeter. This was a difficult time for the wing because every time the Fifth Air Force was approached with a proposal to improve wing support of the division, the attempt ran head-on into the statement that there were 10 or more divisions on the main line of resistance and there was no reason why one should have more air support than the others. There is without question something to be said for that position. But on the other hand, it could never be sufficient to block all efforts to improve close air support response across the front by examining in detail the elements of different air control systems contributing to fast responsiveness.

Throughout the period from 1951 to mid-1953, there were various agreements between the wing and Fifth Air Force relative to the wing's support of 1st Marine Division. These covered emergency situations in the division sector, daily allocations of training close air support sorties, special concentrations for unusual efforts, and other special assignments of Marine air for Marine ground. While these were indeed helpful, they never succeeded in answering the guts of the Marine Corps question, which essentially was: "We developed the finest system of air support known and equipped ourselves accordingly; we brought it out here intact; why can't we use it?"



If the Army-Air Force Joint Operations Center system had been compared in that combat environment to the Marine system, and statistically evaluated with the objective of improved response to the needs of the ground forces, something more meaningful might have been accomplished. Instead, what improvements were tried did not seem to be tried all the way. What studies or assessments were made of possibilities such as putting qualified Air Force pilots into TACPs with Army battalions, seemed to receive too quick a dismissal. They were said to be impractical, or would undercut other standard Air Force missions such as interdiction and isolation of the battlefield. Since the air superiority mission was confined almost entirely to the vicinity of the Yalu River in this war, a good laboratory-type chance to examine the Joint Operations Center and

Marine systems under the same loss, the same basic questions microscope was lost, probably irretrievably. As if to prove the

were pondered, argued, and left unanswered a decade or more

*The 1st Marine Aircraft Wing made a notable contribution in providing effective* and speedy tactical air support. Simplified TACP control, request procedures, and fast radio system enabled wing pilots to reach the target area quickly and support troops on the ground successfully.

National Archives Photo (USN) 80-G-429965





Sketch by TSgt Tom Murray, USMC

Marine Ground Control Intercept Squadron 1 radio and radar van set-up atop Chon-san—the imposing 3,000-foot peak near Pusan. During the early years of the war, the squadron was bard-pressed to identify and control the hundreds of aircraft flying daily over Korea.

later in the puzzlement of the Vietnam War.

By early 1952, the stabilization of the front had settled in to the point where the fluctuations in the line were relatively local. These surges were measured in hundreds or thousands of yards at most, as compared to early 1951 where the breakthroughs were listed in tens of miles. The Eighth Army had become a field force of seasoned combat-wise veterans, and within limitations, was supported by a thoroughly professional Fifth Air Force. The wing, still tactically composed of MAG-33 at K-3 (Pohang) and K-8 (Kunsan) airfields, and MAG-12, newly established at K-6 (Pyontaek), was more or less settled down to the routines of stabilized warfare. Wing headquarters was at K-3, as was the Marine Air Control Group, which handled the air defense responsibilities of the southern Korea sector for wing. Air defense

was not an over-exercised function in southern Korea, but the capability had to be in place, and it remained so throughout the remainder of the war. The control group's radars and communications equipment got plenty of exercise in the control and search aspects of all air traffic in the sector, and was a valuable asset of the wing, even though few if any "bogies" gave them air defense exercise in fact. MAG-33 was composed of VMFs -311 and -115, both with Grumman F9F Panther jets, and the wing's photographic squadron, VMJ-l, equipped with McDonnell F2H Banshee photo jets, the very latest Navy-Marine aerial photographic camera and photo processing equipment. All were at K-3 with accompanying Headquarters and Service Squadrons. At K-8, on the southwest side of the peninsula, MAG-33 VMF(N)-513 also had with Grumman F7F-3N's and Vought F4U-5Ns. In mid-1952, -513 received Douglas F3D Skyknights under Colonel Peter D. Lambrecht, the first jet night fighter unit of the wing. Colonel Lambrecht had trained the squadron in the United States as -542, moving in the new unit as -513, making MAG-33 entirely jet.

MAG-12 was the prop side of the house with VMAs -212, -323, and -312 equipped with the last of the Corsairs, and VMA-121 with Douglas AD Skyraiders. The AD was a very popular aircraft with ground Marines just like the Corsair, because of its great ordnance carrying capability. VMA-312, under the administrative control of MAG-12, and operating for short periods at K-6, maintained the wing's leg at sea and was based on board the carrier Bataan (CVL 29). The wing was supported on the air transport side by a detachment of VMR-152, in addition to its own organic R4Ds, and by Far East Air Force's Combat Cargo Command when required for major airlift. The rear echelon of the wing was at Itami, Japan, where it functioned as a supply base, a receiving station for incoming replacements, a facility for special aircraft maintenance efforts, and a center for periodic rest and recreation visits for combat personnel.

Operationally, the 1st Marine Aircraft Wing was in a unique position with respect to the Fifth Air Force because the air command treated the two MAGs in the same manner as they did their own organic wings. (Wing, in Air Force parlance, is practically identical to MAG in Marine talk.) This left the 1st Marine Aircraft Wing as kind of an additional command echelon between Fifth Air Force and the two MAGs which was absent in the line to all the other Air Force tactical wings. On balance, the



Used as a night fighter during the early years of the war, the two-seat, twin-engine Grumman F7F Tigercat, with its dis-

The Douglas AD Skyraider, one of the most versatile aircraft then in existence, was used on electronic countermeasure, night fighter, and attack missions. It could carry more than Marine Corps Historical Center Photo Collection

tinctive nose-mounted radar and taller vertical tail, proved its capabilities time after time.

5,000 pounds of ordnance in addition to its two wingmounted 20mm cannon.

Department of Defense Photo (USMC) A133536





The twin-engine Douglas F3D Skyknight jet night fighter gained the respect of many "former" members of the Chinese Air Force. With its state-of-the-art avionics, the big

The first Marine jet to see action in Korea, the Grumman F9F Panther compiled an enviable record in supporting United W.T. Larkins Collection, Naval Aviation History Office jet was soon tasked with escorting Air Force B-29s, which had been decimated by enemy MiGs.

Nations forces. It speed however was offset by its relatively short endurance and poor service reliability.

Department of Defense Photo (USMC) A132958





Cardinal Francis J. Spellman visits the Korean orphanage at Pohang supported by the 1st Marine Aircraft Wing. To the Cardinal's left are: MajGen Christian F. Schilt, Commanding General, 1st Marine Aircraft Wing; Bisbop Germain Mousset, head of the orphanage; and Col Carson A. Roberts, commanding officer of Marine Aircraft Group 33.

presence of the wing in the act was a definite plus of the most supportive kind for the two MAGs. For instance, the daily operation order for air operations came in to the two MAGs during the night and was popularly known as the "frag order," or simply, "the frag." The wing also received the frag at the same time by teletype and could check it over with MAG operations or even intercede with the Air Force if considered desirable. Relations between Fifth Air Force and wing were consistently good and although communications were somewhat hectic from time to time, the basic daily operational plans got through so that planned schedules could be met most of the time.

Maintenance of good command relations between the wing and the Fifth Air Force in the sometimes-difficult structure of the

Korean War was a direct function of the personalities involved. Marine aviation was fortunate in this regard with a succession of wing commanders who not only gained the respect of their Air Force counterparts, but also did not permit doctrinal differences, which might occur from adversely affecting the mutuality of that respect. Relationships were very much aided also by the presence of a liaison colonel from the wing on duty at the Joint Operations Center, a post that smoothed many an operational problem before it could grow into something out of proportion. The teams of leaders of the 1st Marine Aircraft Wing and the Fifth Air Force were hard to match. Generals Field Harris-Earl E. Partridge, Christian F. Schilt-Frank E. Everest, Clayton C. Jerome-Glenn O. Barcus, and Vernon E. Megee-Glenn O. Barcus, constituted some of the most experienced and talented airmen the country had produced up to that time.

Operations of both MAGs generally ran to the same pattern throughout the war. Neither group was engaged in any except chance encounters with respect to air-to-air, and some of these brought an occasional startling result as when a Corsair shot down a Mikovan-Gurevich MiG-15. However, since air combat was confined to the Yalu River area, the chance encounters were very infrequent. Considering the types of aircraft with which both groups were equipped, it is probably just as well that the Communists worked their MiGs largely in that confined sector. This left the usual frag order assignments to Marine aircraft mostly in the interdiction and close air support categories, with a lesser number in night interdiction and photo reconnaissance.

Interdiction as a category took a heavy percentage of the daily availability of aircraft because of the determination of the Air Force to show that by cutting the enemy's supply lines his ability to fight effectively at the front could be dried up. No one can deny the wisdom of this as a tenet. But in Korea at various stages of the war, it was conclusively shown that the North Koreans and the Chinese had an uncanny ability to fix roads, rails, and bridges in juryrigged fashion with very little break in the flow of supplies. This was most evident at the main line of resistance where no drying up was noted. Because interdiction was not proving effective, any dissatisfaction stemmed from the low allocation of aircraft to close air support where air support was needed almost daily. To many, it seemed that having tried the emphasis on interdiction at the expense of close air support, pru-

### Major-League Reservists

he Marine Corps Air Reserve, like other Reserve components of the United States military, had contracted after World War II. Unlike today's active organization, many reservists simply went inactive, remaining on the roles for call-up, but not drilling. Former SBD pilot, Guadalcanal veteran, and a greatly admired officer, Colonel Richard C. Mangrum (later lieutenant general) helped to establish a Aviation Reserve program, resulting in the Marine Corps Air Reserve Training Command that would be the nucleus of the "mobilizable" 4th Marine Aircraft Wing in 1962. By July 1948, there were 27 fighter-bomber squadrons, flying mostly F4U Corsairs, although VMF-321 at Naval Air Station Anacostia in Washington, D.C., flew Grumman F8Fs for a time, and eight ground control intercept squadrons. Major General Christian F. Schilt, who received the Medal of Honor for his service in Nicaragua, ran the revamped Air Reserves from his headquarters at Naval Air Station Glenview, Illinois.

When the North Koreans invaded South Korea, the Regular Marine forces were desperately below manning levels required to participate in a full-scale war halfway around the world. The Commandant, General Clifton B. Cates, requested a Reserve call-up. At the time, there were 30 Marine Corps Air Reserve squadrons and 12 Marine Ground Control Intercept Squadrons. These squadrons included 1,588 officers and 4,753 enlisted members. By late July 1950, Marines from three fighter and six ground control intercept squadrons had been mobilized—others followed. These participated in such early actions as the Inchon landing; 17 percent of the Marines involved were reservists.

The success of the United Nations operations in containing and ultimately pushing back the North Korean advance, prompted the Communist Chinese to enter the war in November and December 1950, creating an entirely new, and dangerous, situation. The well-documented Chosin breakout also resulted in a surge of applications to the Marine Corps Reserves from 877 in December 1950 to 3,477 in January 1951.

In January 1951, the Joint Chiefs of Staff authorized the Marine Corps to increase the number of its fighter squadrons from 18 to 21. Eight days later, nine fighter squadrons were ordered to report to duty. Six of these were mobilized as personnel, while three—VMFs -131, -251, and -451—were recalled as squadrons, thus preserving their squadron designations. Many of the recalled aviators and crewmen had seen sustained service in World War II. Their recall resulted from the small number of Marine aviators, Regular and Reserve, coming out of flight training between World War II and the first six months of the Korean War. Interestingly, few of the call-ups had experience in the new jet aircraft, a lack of knowledge that would not sit well with many Regular members of the squadrons that received the eager, but meagerly trained Reserve second lieutenants. As one reservist observed, without rancor: "The regulars had all the rank."

Major (later Lieutenant General) Thomas H. Miller, Jr., who served as operations officer and then executive officer of VMA-323, appreciated the recalled reservists. Remembering that the executive officer of the squadron, Major Max H. Harper, who was killed in action, was a reservist, Miller observed that although the Reserve aviators had to be brought up to speed on current tactics, they never complained and were always ready to do their part.

Miller was the eighth Marine to transition to jets and was looking forward to joining VMF-311 to fly Panthers. However, because he had flown Corsairs in World War II and was a senior squadron aviator, he was assigned to VMA-323 as a measure of support to the incoming Reserve aviators, most of who were assigned to the Corsair-equipped units in Korea. It was important, he observed, to show the Reserves that Regular Marines flew the old, but still-effective fighters, too.

The call-up affected people from all stations, from shopkeepers to accountants to baseball players. Two big-league players, Captain Gerald F. "Jerry" Coleman of the New York Yankees and Captain Theodore S. "Ted" Williams of the Boston Red Sox, were recalled at the same time, and even took their physicals at Jacksonville on the same day in May 1952. Another member of the 1952 Yankees, third baseman Robert W. "Bobby" Brown, was actually a physician, and upon his recall, served with an Army ground unit in Korea as battalion surgeon.

Capt Gerald F. "Jerry" Coleman poses in an F4U Corsair of VMA-323. Playing second base for the New York Yankees, the former World War II SBD dive-bomber pilot was recalled to duty for Korea.

Courtesy of Gerald F. Coleman



At 34, Williams was not a young man by either baseball or military standards when he was recalled to active duty in Korea in 1952. Of course, he was not alone in being recalled, but his visibility as a public figure made his case special. The star hitter took the event stoically. In an article, which appeared the August 1953 issue of *The American Weekly*, he said: "The recall wasn't exactly joyous news, but I tried to be philosophical about it. It was happening to a lot of fellows, I thought. I was no better than the rest."

Many in the press could not understand the need to recall "second hand warriors," as one reporter wrote somewhat unkindly. Most sports writers bemoaned the fact that Williams was really kind of old for a ball player as well as for a combat jet pilot.

However, the Boston outfielder reported for duty on 2 May 1952, received a checkout in Panthers with VMF-223 at Marine Corps Air Station Cherry Point, North Carolina, and was assigned to VMF-311 in Korea. His squadron mates got used to having a celebrity in their midst. Future astronaut and United States Senator John H. Glenn, then a major, was his flight leader for nearly half his missions.

On 16 February 1953, Williams was part of a 35-plane strike against Highway 1, south of Pyongyang, North Korea. As the aircraft from VMF-115 and VMF-311 dove on the target, Williams felt his plane shudder as he reached 5,000 feet. "Until that day I had never put a scratch on a plane in almost four years of military flying. But I really did it up good. I got hit just as I dropped my bombs on the target—a big Communist tank and infantry training school near Pyongyang. The hit knocked out my hydraulic and electrical systems and started a slow burn."

Unable to locate his flight leader for instructions and help, Williams was relieved to see another pilot, Lieutenant Lawrence R. Hawkins, slide into view. Hawkins gave his plane a once-over and told Williams that the F9F was leaking fluid (it turned out later to be hydraulic fluid). Joining up on the damaged Panther, Hawkins led Williams back to K-3 (Pohang), calling on the radio for a clear runway and crash crews. The baseball player was going to try to bring his plane back, instead of bailing out.

With most of his flight instruments gone, Williams was flying on instinct and the feel of the plane as he circled wide of the field, setting himself up for the approach.

It took a few, long minutes for the battered Panther to come down the final approach, but perhaps his athlete's instincts and control enabled Williams to do the job. The F9F finally crossed over the end of the runway, and slid along on its belly, as Williams flicked switches to prevent a fire. As the plane swerved to a stop, the shaken pilot blew off the canopy and jumped from his aircraft, a little worse for wear, but alive.

Later that month, after returning to El Toro, he wrote



Courtesy of Cdr Peter J. Mersky, USNR (Ret) Capt Theodore S. Williams prepares for a mission in his VMF-311 Panther jet. Although in his mid-30s, Williams saw a lot of action, often as the wingman of another famous Marines aviator, Maj John H. Glenn.

a friend in Philadelphia describing the mission:

No doubt you read about my very hairy experience. I am being called lucky by all the boys and with good cause. Some lucky bastard hit me with small arms and. . . started a fire. I had no radio, fuel pressure, no air speed, and I couldn't cut it off and slide on my belly. . . . Why the thing didn't really blow I don't know. My wingman was screaming for me to bail out, but of course, with the electrical equipment out, I didn't hear anything.

Williams received the Air Medal for bringing the plane back. He flew 38 missions before an old ear infection acted up, and he was eventually brought back to the States in June. After convalescing, Williams returned to the Boston Red Sox for the 1954 season, eventually retiring in 1960. Although obviously glad to come back to his team, his closing comment in the letter to his friend in Philadelphia indicates concern about the squadron mates he left behind: "We had quite a few boys hit lately. Some seem to think the bastards have a new computer to get the range. Hope Not." Unlike Williams, who had spent his World War II duty as an instructor, Yankees second-baseman Coleman had seen his share of combat in the Philippines in 1945 as an SBD pilot with Marine Scout Bomber Squadron 341, the "Torrid Turtles," flying 57 missions in General Douglas MacArthur's campaign to wrest the archipelago from the Japanese.

Coleman had wanted gold wings right out of high school in 1942, when two young naval aviators strode into a class assembly to entice the male graduates with their snappy uniforms and flashy wings. He had signed up and eventually received his wings of gold. When Marine ace Captain Joseph J. "Joe" Foss appeared at his base, however, Coleman decided he would join the Marines. And he soon found himself dive-bombing the Japanese on Luzon.

Returning home, he went inactive and pursued a career in professional baseball. Before the war, Coleman had been a member of a semi-pro team in the San Francisco area, and he returned to it as a part of the Yankees farm system.

He joined the Yankees as a shortstop in 1948, but was moved to second base. Coleman exhibited gymnastic agility at the pivotal position, frequently taking to the air as he twisted to make a play at first base or third. His colorful manager, Casey Stengel, remarked: "Best man I ever saw on a double play. Once, I saw him make a throw while standin' on his head. He just goes 'whisht!' and he's got the feller at first." By 1950, the young starter had established himself as a dependable member of one of the game's most colorful teams. He had not flown since 1945.

As the situation in Korea deteriorated for the allies, the resulting call-up of Marine Reserve aviators finally reached Coleman. The 28-year-old second baseman, however, accepted the recall with patriotic understanding: "If my country needed me, I was ready. Besides, the highlight of my life had always been—even including baseball—flying for the Marines." After a refresher flight course, Coleman was assigned to the Death Rattlers of VMF-323, equipped with F4U-4 and AU-1 Corsairs.

Younger than Williams, whom he never encountered overseas, the second baseman had one or two close

calls in Korea. He narrowly averted a collision with an Air Force F-86, which had been cleared from the opposite end of the same runway for a landing. Later, he experienced an engine failure while carrying a full bomb load. With no place to go, he continued his forward direction to a crash landing. Miraculously, the bombs did not detonate, but his Corsair flipped over, and the force jerked the straps of Coleman's flight helmet so tight that he nearly choked to death. Fortunately, a quick-thinking Navy corpsman reached him in time.

Coleman flew 63 missions from January to May 1953, adding another Distinguished Flying Cross and seven Air Medals to his World War II tally. With 120 total combat missions in two wars, he served out the remainder of his Korea tour as a forward air controller.

When the armistice was signed in July 1953, he got a call from the Yankees home office, asking if he could get an early release to hurry home for the rest of the season. At first the Marine Corps balked at expediting the captain's trip home. But when the Commandant intervened, it was amazing how quickly Coleman found himself on a Flying Tigers transport leaving Iwakuni bound for California.

Coleman had to settle for rejoining his team for the 1954 season, but he felt he never regained his game after returning from Korea. Retiring in 1959, he became a manager in the front office, indulged in several commercial ventures, and finally began announcing for the expansion team San Diego Padres in 1971, where he can still be found today.

The press occasionally quipped that the military was trying to form its own baseball club in Korea. However, the players never touched a bat or ball in their squadrons. In the privacy of the examination room, Dr. Robert "Bobby" Brown did try to show an injured soldier how to better his slide technique—all in the interests of morale.

According to the Assistant Secretary of the Navy for Air at the time, John F. Floberg, every third airplane that flew on a combat mission in Korea was flown by a Navy or Marine reservist. Of the total combat sorties conducted by the 1st Marine Aircraft Wing, Marine Air Reserves flew 48 percent.

dence and logic would have switched the preponderance of effort the other way, particularly where casualties were being taken which close air support missions might have helped reduce.

Other than in this doctrinal area, interdiction missions targeted supply dumps, troop concentrations, and vehicle convoys, as in the earlier days of the war. Day road reconnaissance missions became less productive as the months rolled by, and the Communists became very adept at the use of vehicle camouflage as they parked off the routes waiting nightfall. Flak became increasingly intense also and was invariably in place and active wherever a road or rail cut looked to the target analysts as if it might create a choke point leading to a supply break. The fact, however, that nothing moved

except at night generally stated the effectiveness of day interdiction. But it was impossible to isolate the battlefield if the tactical air was only effective half of each day.

VMF(N)-513 carried the load for the 1st Marine Aircraft Wing with respect to night road reconnaissance, or "road recces" as they were known, using both F7F-3Ns and F4U-5Ns. Usually, they were assigned a specific section of road



During a series of strike missions in June 1953, more than 68 Panther jets from VMFs –115 and –311 destroyed or

and a time on station, coordinated with a flare plane which would sometimes be a wing R4D, at others another Tigercat or Corsair, or at still others an Air Force aircraft. A mission plan would be set up and briefed for all participants, and all intelligence available would be covered. At the agreed upon time, the flare plane would illuminate and the pilot of the attack plane would be in such a position that he could hopefully make maximum use of the light in delivering his ordnance, usually fragmentation bombs, napalm, and strafing. Here, as elsewhere, as the stabi-

lized phase of the war continued, the Communists improved their use of organized light flak. Many planes were holed with hand-held weapons, indicating a policy of massed fires of all weapons when under air attack. In addition, a steadily increasing number of mobile twin 40mm mounts appeared on the roads, which added weight to the flak problem. The gradual improvement was effective to the point that in 1952, the F7F was taken off road recces because its twin-engine configuration was correlated with excessive losses without the protection of

National Archives Photo (USMC) 127-N-A347877 damaged more than 230 enemy buildings using napalm and incendiary munitions.

> one big engine directly forward of the cockpit. The Corsair continued to fly road recces, but the Tigercat was used primarily for air-to-air intercepts at night from mid-1952. The F3D Skyknight, when it arrived in -513, was used for deep air-to-air patrolling and for night escort of B-29s, with the F7F for closer range patrols.

> Close air support missions were of two types. The first, used the most, appeared in the frag as an assignment of a certain number of aircraft to report to a specific control point at a specific time, for use by that unit as required or specified.

## Night MiG Killers

Marine squadron that had both an unusual complement of aircraft and mission assignments was VMF(N)-513, the "Flying Nightmares." The squadron was on its way to the Pacific war zone when the Japanese surrendered, but it was an early arrival in Korea, operating Grumman's graceful twin-engine F7F Tigercat. Too late to see action in the Pacific, the F7F had languished, and it was not until the war in Korea that it was able to prove its worth.

Actually, a sister squadron, VMF(N)-542 had taken the first Tigercats over—by ship—and flew some of the first land-based Marine missions of the war, relinquishing the Grummans to -513 when it relieved -542.

The Flying Nightmares soon found their specialty in night interdiction, flying against Communist road supply traffic, much as their successors would do more than 10 years later and farther to the south in Vietnam, this time flying F-4 Phantoms.

Operating from several Air Force "K" fields, -513 quickly gained two other aircraft types—the F4U Corsair and the twin-jet F3D Skyknight. Thus, the squadron flew three frontline warplanes for the three years of its rotating assignment to the war zone.

The squadron accounted for hundreds of enemy vehicles and rolling stock during dangerous, sometimes fatal, interdiction strikes. Four Nightmare aviators were shot down and interned as prisoners of war.

Occasionally, Air Force C-47 flareships would illuminate strips of road for the low-flying Corsair pilots, a tricky business, but the high-intensity flares allowed the Marines to get down to within 200 to 500 feet of their targets.

Nightmare aviator First Lieutenant Harold E. Roland recounted how he prepared for a night interdiction flight in his Corsair:

As soon as I was strapped in, I liked to put on my mask, select 100 percent oxygen and take a few deep breaths. It seemed to clear the vision. At the end of 4 1/2 hours at low altitude, 100 percent oxygen could suck the juices from your body, but the improved night vision was well worth it.

We always took off away from the low mountains to the north. Turning slowly back over them, my F4U-5N labored under the napalm, belly tank, and

Applicable intelligence and coordinating information would be included most of the time, and ordnance would either be specified or assigned as a standard load. Depending on the target, if one was specified in the frag, flights of this type were usually of four aircraft but could often be as many as eight or twelve. The second type of close air support mission was known as strip alert. This concept was adapted usually to those fighter fields which were reasonably

eight loaded wing stations. I usually leveled off at 6,000 feet or 7,000 feet, using 1,650 rpm, trying to conserve fuel, cruising slowly at about 160 indicated.

The F4U pilots were expected to remain on station, within a quick call to attack another column of enemy trucks. Individual pilots would relieve another squadron mate as he exhausted his ordnance and ammunition.

VMF(N)-513 was also unique in that it scored aerial kills with all three types of the aircraft it operated. The Corsairs shot down one Yakovlev Yak-9 and one Polikarpov PO-2, while the F7Fs accounted for two PO-2s. The jet-powered F3Ds, black and sinister, with red markings, destroyed four MiG-15s, two PO-2s, and one other Communist jet fighter identified as a Yak-15, but sometimes as a later Yak-17.

Today, the squadron flies the AV-8B Harrier II, and although based at Marine Corps Air Station Yuma, Arizona, it is usually forward deployed in Japan. A detachment of VMA-513 Harriers flew combat operations during the 1991 Persian Gulf War.

Returning on the night he shot down a MiG-15, squadron commander LtCol Robert F. Conley greets SSgt Walter R. Connor. There was a second MiG, which was listed as a probable, hence SSgt Connor's two-fingered gesture.

Courtesy of Cdr Peter J. Mersky, USNR (Ret)



close to the main line of resistance, making it possible for the slower prop aircraft so assigned to reach any sector of the front from which a close support request was received, in minimum time. It was also used from fields farther back,



Corsairs of Marine Fighter Squadron 312, based on the light carrier Bataan (CVL 29), carry out a raid against sev-

National Archives Photo (USN) 80-G-429631

eral small North Korean boats suspected of being used to lay mines along the Korean coastline.

primarily with jet aircraft, in order to conserve their fuel so that they could remain on station longer, time to reach any sector of the front not being as much of a factor as with prop aircraft. Ordnance loads for strip alert close air support could be specified or standard. Intelligence matters and coordinating data would usually be given while the aircraft were enroute. Strip alert aircraft were without exception under the "scramble" control of Joint Operations Center. The same increasing antiaircraft

capabilities of the Communists

were found along the main line of resistance as elsewhere. In fact, stabilized warfare brought some weird and different tactics into play, which were somewhat reminiscent of the "Pistol Pete" days at Guadalcanal. Heavy antiaircraft artillery guns were sited close to



Department of Defense Photo (USMC) A168084 An entrenched Marine peers out over the lip of his bunker to observe an air strike against equally entrenched Communist soldiers on the western front in Korea.

the main line of resistance just out of friendly artillery range, and 37 and 40mm twins were a commonly encountered near the frontlines. Once the close air support flight checked in with the Tactical Air Control Party, the usual response was for the controller to bring the flight leader "on target" by having him make coached dummy runs.

When he had the target clearly spotted, he would mark it with a rocket or other weapon on another run, having alerted the orbiting flight to watch his mark. The flight would then make individual runs, in column and well spaced, invariably down the same flight path. While this was essential for accurate target identification, the whole process gradually told the enemy exactly who or what the target was, so that by the second or third run down the same slot, every enemy weapon not in the actual target was zeroed in on the next dive. The heavy antiaircraft artillery and automatic antiaircraft fire complicated the process because the flight, orbiting at 10,000 feet or so, now had other

things to consider while watching the flight leader's dummy run and mark. In close air support, there is usually no way to change the direction of the actual attack run without subjecting friendly troops to inordinate danger of "shorts" or "overs."

The net effect stimulated more time on target coordinating tactics with the artillery, and also put more emphasis on the detailed briefing given by the forward air controller by radio to the flight. This measure served to reduce the number of dummy runs and marking runs required, while coordination with the artillery put airbursts into the area at precisely the right time to cut down on the massing of enemy weapons on each succeeding dive. These measures were effective counters to the increased antiaircraft capability of the enemy, without the sacrifice of any effectiveness in close air support delivery.

To attempt to fill the lack of Tactical Air Control Parties in the Army and other United Nations divisions, the Fifth Air Force used the North American T-6 training

A bird's-eye-view of Battery B, 1st 90mm Antiaircraft Artillery Gun Battalion's heavily sandbagged position north of Pusan. While the battalion's two 90mm batteries were centered on Pusan, its .50-caliber automatic weapons battery was stationed at K-3 (Pohang), the home base of MAG-33.

1st MAW Historical Diary Photo Supplement, Jul53





Among the targets hit by Marine aircraft were the generating stations of hydroelectric plants along the Yalu River, which provided power to Communist-controlled manufacturing centers. The resultant blackout of the surrounding areas halted production of supplies needed by enemy forces.

A Sikorsky HRS-1 helicopter picks up several Marines from a precarious frontline position. The helicopters of Marine Helicopter Transport Squadron 161 revolutionized frontline aircraft which flew low over the frontlines and controlled air strikes in close support, in somewhat the same manner as was done by a forward air controller in the Tactical Air Control Party. Many of controllers, known these as "Mosquitos," were very capable in transmitting target information to strike aircraft and in identifying and marking targets. The Mosquito was an effective gap-filler, but with increased enemy antiaircraft fire, the effectiveness of the expedient fell off markedly.

In addition to interdiction and close air support missions, from time to time Fifth Air Force would lay on a maximum effort across the board when intelligence developed a new or important target. These missions would involve all Air Force wings, in addition to the two MAGs, and a heavy force from Task Force 77 carriers. Preliminary coordination and planning would

operations, bringing men and equipment into the battle zone and evacuating the wounded in minutes.

National Archives Photo (USMC) 127-N-A159962





Department of Defense Photo (USMC) A158624 Developed between 1946 and 1950, the MPQ-14 radar-controlled bombing equipment was employed by Marine Air Support Radar Team 1 to control night fighter sorties flown by day attack aircraft, achieving Marine aviation's primary goal of providing real 24-bour close air support, regardless of weather conditions.

usually be the subject of conferences at Joint Operations Center, to which the wing commanders (including the commanding officers of the Marine aircraft groups) would be summoned. When a non-scheduled wing commanders conference was called, it was a signal that a big one was in the offing. Examples of this type of targeting included the hydroelectric plant complex, long restricted and finally released in June 1952; intelligence indications of a highlevel Communist conference in Pyongyang; or an important installation on the Yalu, just across from the MiG fields in Manchuria. These missions broke the routine of stabilized warfare and gave all units a chance to see what massing their aircraft could achieve-it was a good break from the usual flight-offour routine.

While VMO-6 continued its support of the division through 1951-1953 with its OYs, OEs, and HO3Ss, the big news in helicopters was the arrival of Marine Transport Helicopter Squadron 161 on 31 August 1951. Commanded by Lieutenant Colonel George W. Herring, the first transport helicopter squadron was attached to the division and administratively supported by the wing in the pattern of VMO-6. Just two weeks later, the squadron executed the first resupply and casualty evacuation lift in just 2.5 hours, moving 19,000 pounds of cargo seven miles to the engaged 2d Battalion, 1st Marines, and evacuating 74 casualties. Called Operation Windmill, it was the first in a long and growing list of Marine Corps combat lifts. HMR-161 set standards on helicopter operations with troops, which are still in active use. The squadron was a leader in night and marginal weather operations, and pioneered many different movements of field equipment in combat for

the division, quick tactical displacements which were previously impossible. A typical example was the pre-planned emplacement of rocket launchers, which after a ripple discharge attracted immediate counterbattery fire. Lifting the launchers in by "chopper," and then immediately lifting them to another planned site after firing avoided an enemy response.

Another piece of Marine aviation equipment that was moved into the 1st Marine Division area early in 1951 was a radar bombing system that could direct aircraft to their proper release points at night or in bad weather. It was scaled down from an Air Force version mounted in large vans that was unsuitable for forward battlefield terrain, to a mobile configuration that could be used close to the frontlines. Designated the MPQ-14, the objective of the design was to provide close air support around-the-clock, regardless of the weather. While this ambitious goal was not attained, nevertheless the use of the MPQ-14 radar in Korea was an unqualified success in that it kept an "almost close" capability over the frontlines under conditions that previously had closed the door to air support. MPQ-14 air support was never as close and as positive as the close air support, but it was useful and continued to fill that type of need many years after Korea.

In practice, the MPQ controller would vector the aircraft to the release point and at the proper spot, would direct release by radio, and in later refinements, automatically. The aircraft would be in horizontal flight, and in effect it turned day fighters and day attack aircraft into all-weather horizontal bombers, without any major modification to the aircraft, ordnance, and communications systems. The work that was done



Crewmen load reconnaissance cameras on board one of Marine Photographic Squadron 1's MacDonnell F2H-2P Banshees. The squadron's wartime output of more than

Maj Marion B. Bowers, VMJ-1's executive officer, prepares to "light-off" his 550-mph F2H-2P twin-jet Banshee for another unarmed but escorted mission deep into North Korea to VMJ-1 Historical Diary Photo Supplement, Oct52

793,000 feet of processed prints was equal to a continuous photographic strip six-and-one-half times around the earth at the equator.

photograph enemy positions, airfields, powers plants, and other potential targets.

VMJ-1 Historical Diary Photo Supplement, Oct52



### Who Were the Guys in the MiGs?

For decades, the public perception was the men in the cockpits on the other side were North Korean and Communist Chinese. While there were certainly pilots from these countries flying against allied aircraft, recent disclosures after the collapse of the Soviet Union in 1991 and subsequent release of previously classified files, point to a complete wing of MiG-15s flown exclusively by "volunteered" Soviet aviators, many of whom had considerable combat experience in World War II. Several had sizeable kill scores against the Germans. Indeed, the leader of the wing, although he apparently did not actually fly MiGs in Korean combat, was Colonel, later Air Marshall, Ivan N. Kozhedub, with 62 kills on the Eastern Front, the top-scoring Allied ace of World War II.

The Soviets went to great lengths to disguise the true identities of their MiG drivers. They dressed the much larger Soviet aviators in Chinese flight suits, complete with red-topped boots, and tried (somewhat unsuccessfully) to teach them flying phrases in Chinese to use on the radio. But they could not hide the rapid-fire Russian American monitors and pilots heard once a major engagement had begun. The American Sabre and Panther pilots always suspected that the "honchos," the leaders of the so-called "bandit trains" that launched from the other side of the Yalu River, were actually Soviets.

While the MiG-15 was a match for the American F-86 Sabre jets, which several Marine Corps aviators flew during exchange tours with the Air Force, its pilots later described their cockpits as rather cramped with much less visibility compared to the Sabre. They flew without G-suits or hard helmets unlike their opposite numbers in the F-86s. MiG-15 pilots used the more traditional leather helmets and goggles—a kit used through the 1970s by North Vietnamese MiG-17 pilots.

The MiG's ejection seat required activating only one handle, whereas the Sabre pilot had to raise both arms of his seat to eject. While the Soviet arrangement might



Yefim Gordon Archives

Soviet volunteer pilots inspect one of their MiG-15s in Korea. The MiG's small size shows up well, as does the bifurcated nose intake.

be advantageous if the pilot was hurt in one arm, it could also place him badly out of proper position when ejecting, and could result in major back injuries.

Korean service was hard, and decidedly inglorious for the Soviet crews, who remained largely anonymous for more than 40 years. Yet, it would seem that the top-scoring jet-mounted ace in the world is a Russian, Colonel Yevgeni Pepelyaev with 23 kills over United States Air Force F-86s and F-84 Thunderjets in Korea. He is closely followed by Captain Nikolai Sutyagin with 21 scores. The only other jet aces who approached these scores are two Israelis, with 17 and 15 kills, and American Air Force Captain Joseph "Mac" McConnell with 16 kills in F-86s. When McConnell was ordered home in May 1953, Marine Corps ace Major John F. Bolt, Jr., succeeded him as commander of Dog Flight, 39th Squadron, 51st Fighter Interceptor Wing.

with the MPQ-14 in Korea established confidence in its use and set procedures in its employment, which are still standard practice.

In the spring of 1952, MAG-33 acquired a new and special squadron, VMJ-1. A photo reconnaissance unit, the squadron was equipped with 10 McDonnell F2H-2P Banshees and the latest Navy-Marine camera configuration that made the aircraft by far the most efficient photo reconnaissance system in the Fifth Air Force. Not only were the side-looking and vertical cameras superior to anything else around, but also the squadron was equipped with its own organic field film processing equipment. The design of the Banshee photo equipment was the work of the photographic development section of the Bureau of Aeronautics of the

Navy, the McDonnell Aircraft Corporation, and the Navy and Marine pilots assigned to the associate activities. Where the percentage of film exposed that after processing was readable had been no more than 30 percent, the comparable figure in VMJ-1 was more than 90 percent. This factor, along with other automated advances in the system, literally made the 10 Banshees, which comprised no



1stMAW Historical Diary Photo Supplement, Jul53

Maj John F. Bolt, Jr., while flying a North American F-86 Sabre jet with the Air Force's 51st Fighter Interceptor Wing shot down his sixth MiG-15 on 12 July 1953, becoming the Marine Corps' first jet ace. Bolt also achieved ace-status during World War II by downing six Japanese aircraft while flying with the Black Sheep of VMF-214.

more than 20 percent of the photo reconnaissance force available, carry upwards of 30 to 40 percent of the daily Air Force photo mission load.

The employment of the reconnaissance aircraft was interesting. Totally unarmed, almost all of its missions were flown unescorted at high altitude, except that often the pilot in the event of cloud obstruction would descend below a cloud deck to acquire his target if the area was not too hot. For the tougher targets, like Sinanju and Suiho on the Yalu, which were well within MiG range from across the Yalu, the Banshee was escorted by an ample flight of North American F-86 Sabre jets. There was an advantage, strange as it may seem, to the unescorted mission. A single Banshee at high altitude presented a very low profile to enemy antiaircraft radar and radar fighter direction equipment, compared to that of one photo plane with four or more fighter escorts in company. The unescorted missions penetrated all the way up the east coast to the Soviet border and at the extreme northeast end of the run, Vladivostok was clearly visible. Other missions would take the aircraft the length of the Manchurian border down the Yalu to the point where the range of the MiG dictated escort. If jumped when unescorted. the best defense against the MiG was a steep and very tight spiral to the deck or to the nearest heavy cloudbank.

The last highlight to mention was the system arranged between Fifth Air Force and 1st Marine Aircraft Wing which provided a few Marines, after they had finished their tours in MAG-33 jets, the experience of a few weeks temporary duty with the F-86 squadrons. Being very experienced jet pilots, they checked out quickly and were taken into the regular flights of the Air Force squadrons, some for as many as 50 or more missions against the MiG. From November 1951 to July 1953, these visitors shot down a total of 21 MiG-15s. At any given time, there was usually only one Marine on duty with each of the two F-86 wings. The high score and only Marine jet ace of the group was Major John F. Bolt with six, although Major John H. Glenn, getting three in July 1953, was closing in fast when the ceasefire was announced. It was a valuable program for Marine aviation, which was indebted to the Air Force for the experience; air-to-air experience being essentially denied because the straight-wing F9F was no match for the sweptwing MiG-15. With the Corsair, Tigercat, and Skyknight tolls added in, Marines shot down more than 37 Communist aircraft of all types during the Korean War.

The character of the Korean War for Marine aviation was light on air-to-air, heavy on air-to-

# Marine Pilots and Enemy Aircraft Downed

Date: Pilot	Squadron	Aircraft Flown	Aircraft Downed
21 Apr 51: 1stLt Harold D. Daigh	VMF-312	F4U-4	2 Yak-9
21 Apr 51: Capt Phillip C. DeLong	VMF-312	F4U-4	2 Yak-9
30 Jun 51: Capt Edwin B. Long/			
WO Robert C. Buckingham	VMF(N)-513	F7F-3N	1 PO-2
12 Jul 51: Capt Donald L. Fenton	VMF(N)-513	F4U-5NL	1 PO-2
23 Sep 51: Maj Eugene A. Van Gundy/			
MSgt Thomas H. Ullom	VMF(N)-513	F7F-3N	1 PO-2
4 Nov 51: Capt William F Guss	336 FIS (USAF)	F-86A	1 MiG-15
5 Mar 52: Capt Vincent J. Marzelo	16 FIS (USAF)*	F-86A	1 MiG-15
16 Mar 52: LtCol John S. Payne	336 FIS (USAF)	F-86A	1 MiG-15
7 Jun 52: 1stLt John W. Andre	VMF(N)-513	F4U-4NL	1 Yak-9
10 Sep 52: Capt Jesse G. Folmar	VMF-312	F4U-4	1 MiG-15
15 Sep 52: Maj Alexander J. Gillis	335 FIS (USAF)	F-86E	1 MiG-15
28 Sep 52: Maj Alexander J. Gillis	335 FIS (USAF)	F-86E2	2 MiG-15
3 Nov 52: Maj William T. Stratton, Jr./			
MSgt Hans C. Hoglind	VMF(N)-513	F3D-2	1 Yak-15(17?)
8 Nov 52: Capt Oliver R. Davis			
WO Dramus F. Fessler	VMF(N)-513	F3D-2	1 MiG-15
10 Dec 52: 1stLt Joseph A. Corvi/			
MSgt Dan R. George	VMF(N)-513	F3D-2	1 PO-2
12 Jan 53: Maj Elswin P. Dunn/			
MSgt Lawrence J. Fortin	VMF(N)-513	F3D-2	1 MiG-15
20 Jan 53: Capt Robert Wade	16 FIS (USAF)	F-86E	1 MiG-15
28 Jan 53: Capt James R. Weaver/			
MSgt Robert P. Becker	VMF(N)-513	F3D-2	1 MiG-15
31 Jan 53: LtCol Robert F. Conley/			
MSgt James N. Scott	VMF(N)-513	F3D-2	1 MiG-15
7 Apr 53: Maj Robert Reed	39 FIS (USAF)	F-86F	1 MiG-15
12 Apr 53: Maj Robert Reed	39 FIS (USAF)	F-86F	1 MiG-15
16 May 53: Maj John F. Bolt	39 FIS (USAF)	F-86F	1 MiG-15
17 May 53: Capt Dewey F. Durnford	335 FIS (USAF)	F-86F	1/2 MiG-15
18 May 53: Capt Harvey L. Jensen	25 FIS (USAF)	F-86F	1 MiG-15
15 Jun 53: Maj George H. Linnemeier	VMC-1	AD-4	1 PO-2
22 Jun 53: Maj John F. Bolt	39 FIS (USAF)	F-86F	1 MiG-15
24 Jun 53: Maj John F. Bolt	39 FIS (USAF)	F-86F	1 MiG-15
30 Jun 53: Maj John F. Bolt	39 FIS (USAF)	F-86F	1 MiG-15
11 Jul 53: Maj John F. Bolt	39 FIS (USAF)	F-86F	2 MiG-15
12 Jul 53: Maj John H. Glenn	25 FIS (USAF)	F-86F	1 MiG-15
19 Jul 53: Maj John H. Glenn	25 FIS (USAF)	F-86F	1 MiG-15
20 Jul 53: Maj Thomas M. Sellers	336 FIS (USAF)	F-86F	2 MiG-15
22 Jul 53: Maj John H. Glenn	25 FIS (USAF)	F-86F	1 MiG-15
* FIS (Fighter Interceptor Squadron)			



Department of Defense Photo (USMC) A348551 Future astronaut and United States Senator, Maj John H. Glenn smiles from the cockpit of his F-86 Sabre jet on his return from a flight over North Korea during which he shot down the first of three MiG-15s he would be credited with during the war.

ground, and often primitive with respect to operating airfields. The part played by the enemy which directly affected Marine aviation, was the gradual and continuous build-up of his antiaircraft capability. The employment of heavy antiaircraft artillery in proximity to the front, the increased use of mobile automatic antiaircraft weapons of higher caliber, both at the front and on access routes, forced tactical changes but did not lessen the effectiveness of either close air support or interdiction In addition, the time missions. spent in advancing up the learning curve as changes occurred, are reflected in a summary of the aviation statistics for the war. These show that Marine aviation lost 258 killed (including 65 missing and presumed dead) and 174 wounded. A total of 436 aircraft were also lost in combat and in operational accidents. Of the 221 Marines captured during the three-year conflict, 31 were aviators.

#### Armistice and Aftermath

The possibility of a ceasefire and general armistice was a constant element in the Korean War from mid-1951. The peace talks gained more attention in early 1952 after a formal site was established at Panmunjom, with assigned United Nations, North Korean, and Communist Chinese negotiators in attendance at scheduled sessions. Marine aviation provided support for this aspect of the Korean War, and its aftermath. Aviation furnished several general officers, as did the ground Marine Corps, for the negotiating team, a shared assignment between all the United States Armed Services.

The 1st Marine Aircraft Wing post-armistice plan, a part of the Fifth Air Force strategy, was effective on 27 July 1953. Its basic objective was twofold: first, to carry out Fifth Air Force responsibilities as assigned; and second to maintain a high level of combat readiness in all units. The armistice delineated a "no-fly" barrier along a line just south of the United Nations southern boundary of the Demilitarized Zone, and day and night patrols of that barrier were missions assigned to the wing. The day missions were shared by the MAGs at K-3 and K-6, while the night patrols were flown by the F3Ds of VMF(N)-513 and the radar-configured ADs of Marine Composite Squadron I.

The armistice agreement created a set of administrative bottlenecks, with the limitation on airports of entry and departure to a total of six for South Korea. This meant that every aircraft entering, regardless of its ultimate destination, had to undergo a detailed inspection upon landing. Numerous forms were required to be filled out and untold reports rendered for each aircraft arriving in country or departing. When the personnel and unit reports were added to the list, it all became a formidable bureaucratic check on cheating with respect to the armistice agreement.

Because of the indeterminate and duration of nature the armistice, it was necessary to deploy additional Fleet Marine Forces to the Far East in order to maintain a posture of amphibious readiness in the area. Late in the summer of 1953, the 3d Marine Division arrived in Japan accompanied by MAGs -11 and -16, the latter a helicopter transport group equipped with Sikorsky HRS-2s. MAG-11, comprised of three F9F squadrons, was based at Atsugi, Japan, as was VMR-253, an additional transport squadron assigned to wing and flying the F4Q Fairchild Packet. MAG-16 was based at Hanshin Air Force Base with its two squadrons and service units.

Both in Korea and Japan, the

### Aviator Prisoners of War

The long months of incarceration, torture, deprivation, and uncertainty made the prisoner of war experience a terrible ordeal. It was a harbinger of what the next generation of American prisoners of war would face barely a decade later in another Asian country.

While American treatment toward its prisoners of war in World War II was much more benevolent, it might be said that the stories told by returning prisoners from World War II Japanese and Korean War prison camps changed how we as a country looked at ourselves as warriors, and how we conducted ourselves regarding enemy soldiers we captured in future wars.

Certainly, the greatest change that resulted from the Korean War prisoners' collective experience was the institution of the Code of Conduct, which specifically outlined what an American serviceman would give his captors by way of information and how he would conduct himself.

The Code was at times quite nebulous and in its first test, in Vietnam, each American had to determine his own level of faith and endurance. The boundaries were defined in the Code, but as the years wore on, cut off from any contact with his government, and with only occasional meetings with his compatriots in the camps, each had to determine for himself how he could meet the requirements of his country. It was a trial of strength and courage far more terrible than the short-burst stress of aerial combat. Those who survived their internment in Southeast Asia could-in some measure-perhaps thank their predecessors in the cold mountain camps of Korea for bringing back information that helped them live. Of the 221 Marines captured during the Korean War, 31 were flight crewmen. Three died in captivity; one is presumed dead.

The first Marine aviator prisoner of war in Korea was Captain Jesse V. Booker of Headquarters Squadron 1. He was shot down on 7 August 1950 while flying a reconnaissance mission from carrier *Valley Forge* (CV 45). Captain Booker, who had shot down three Japanese aircraft in World War II, received several briefings on escape and evasion. He could be considered as well prepared as could be at this early stage of the war. After capture, he was beaten and tortured by his North Korean guards and was the only Marine pilot in enemy hands until April 1951.

Captain Paul L. Martelli was shot down on 3 April 1951 while flying Corsairs with VMF-323. As he attacked ground targets, his fighter's oil cooler was hit by small arms fire, and he soon had to bail out. His wingman initially reported that Captain Martelli had fallen from his F4U, and he was carried as killed in action.

Martelli was captured by Chinese troops, who took him to an interrogation center near Pyongyang. He endured



Department of Defense (USN) 628393

Maj Francis Bernardini, USMC, chats with returning prisoners of war Capt Jesse V. Booker, center, and 1stLt Richard Bell, right, at Freedom Village, Panmunjom, Korea. Booker and Bell were returned on 27 August 1953, the first Marine aviators to be sent back.

several painful sessions with a Major Pak, considered by many of the prisoners to be among the enemy's most sadistic "interviewers."

Captain Mercer R. Smith launched for an armed reconnaissance mission from K-3 (Pohang) on 1 May 1951. Flying F9F-2B Panthers with VMF-311, he and his wingman were at 6,000 feet when Captain Smith reported a fire in the cockpit. He climbed to 16,000 feet and ejected. At first, his wingman and the pilot of a rescue helicopter that arrived shortly afterward reported enemy troops standing over the body of the downed pilot, thereby giving rise to the belief that Captain Smith was dead. He initially was carried as killed in action, but was reported on the Communist 18 December 1951 list of prisoners of war.

The following day, Captain Byron H. Beswick, an F4U pilot with VMF-323, was part of a four-plane, close air support mission. It was his third mission of the day and the 135th of his tour. Small arms fire caught him during a strafing run, hitting a napalm tank, which did not ignite. However, his aircraft was hit soon afterward, catching fire, and forcing Captain Beswick to bail out. He suffered painful burns on his face, arms, hands, and right leg.

Communist troops captured him, placing him with a battalion of British prisoners of war, which fortunately included two doctors. Enduring long marches, Captain Beswick and his compatriots tried to escape, but were recaptured.

On 27 May 1951 while on an armed reconnaissance with two other aircraft, Captain Arthur Wagner, the pilot of an F4U-5N with VMF(N)-513 also was interned.

Captain Jack E. Perry of VMF-311 was the squadron-

briefing officer and had to scrounge flights. By mid-June 1951 he had 80 missions. He knew about the danger of enemy flak sites in the Singosan Valley and scheduled himself for a mission against the traps on 18 June. However, the guns quickly found the range and hit his Panther's fuel tank. Captain Perry ejected and was captured by Chinese troops, who showed him bomb craters and their wounded soldiers as a result of American strikes.

Several other Marine aviators were shot down in subsequent months, mainly by antiaircraft guns. But VMF-311 lost a Panther to MiGs on 21 July 1951. First Lieutenant Richard Bell was part of a 16-plane strike in MiG Alley, the notorious area along the Yalu River in northwestern Korea. His division of three aircraft—a fourth F9F pilot had aborted the mission when his cockpit pressurization failed—flew their mission and were returning to base when no less than 15 MiG-15s appeared. The enemy fighters attacked the small American formation, whose pilots turned into the oncoming MiGs.

Unknown to his two other squadron mates, Lieutenant Bell, low on fuel, engaged the first MiGs, giving his fellow Marines the chance to escape. When his fuel was gone, Bell ejected from his powerless jet and was captured.

Other Marines were interned after leaving their crippled aircraft. On 30 July, Lieutenant Colonel Harry W. Reed, the commanding officer of VMF-312, was hit by another Corsair during an attack and bailed out. The other pilot, First Lieutenant Harold Hintz, was thought to have been killed when he apparently spun in. But subsequent prisoner of war debriefings revealed Hintz had died in captivity. Lieutenant Colonel Reed was captured and apparently hanged by the North Koreans because he had shot and killed four enemy soldiers during his capture.

Marine crews from nearly every squadron flying offensive missions in Korea were captured. VMF(N)-513's executive officer, Major Judson C. Richardson, Jr., was captured when his F4U-5N was shot down on a night armed-reconnaissance mission on 14 December 1951.

Lieutenant Colonel William G. Thrash was flying a TBM-3R as part of a strike with VMA-121. The old Grumman torpedo bombers, normally assigned to 1st Marine Aircraft Wing, flew as hacks—mainly short-range

period was one of intensive training, including landing exercises, joint exercises with the U.S. Army and the U.S. Air Force, and a heavy concentration on bombing and gunnery. The principal bombing target for Korean-based squadrons was on the Naktong, where Marine pilots had done considerable bombing during the defense of the Pusan Perimeter. In addition an exchange program between Japan-based and Koreanbased squadrons was established within the wing. The objective of the program was to familiarize new pilots to the area with flight conditions in Korea, just in case the ceasefire did not work out. There were many programs and competitions in athletics with one of the highlights being the winning

"taxis" and currency trainers, and occasionally carried observers. With two ground officers as passengers, Lieutenant Colonel Thrash accompanied the strike when his aircraft was hit by enemy flak. Thrash and the junior officer behind him were able to get out of the crippled Avenger, but the ground colonel could not open his canopy and died in the plane crash.

Four Marine aviators were shot down in May 1952: Major Walter R. Harris (VMF-323); First Lieutenant Milton H. Baugh (VMF-311); Captain John P. Flynn, Jr. (VMF[N]-513); and First Lieutenant Duke Williams, Jr. (VMF[N]-513).

Most prisoners of war of all Services and nationalities were subjected to periods of torture, starvation, and political indoctrination. The Chinese, in particular, were furious at the effort by the United Nations and took out their anger and frustration on many prisoners. The degree of interrogation and deprivation varied considerably, depending on requirements and how much intercamp movement occurred in any particular period. Other prisoners were occasionally put in camps with newly captured forces.

Lieutenant Colonel Thrash became the senior officer in one camp, establishing rules of behavior that listed what tasks prisoners would do and not do. Thrash's policies eventually brought the wrath of the camp commander down on him, resulting in his removal and eight months of solitary confinement with constant interrogation and harassment.

The final Marine prisoner of war was actually captured after the armistice. Lieutenant Colonel (later Colonel) Herbert A. Peters was an experienced aviator with heavy combat experience in the Pacific, where he shot clown four Japanese aircraft during service at Guadalcanal. On 5 February 1954, he took off in an OY light aircraft and became lost in a snowstorm among the mountains.

Circling, he saw a small landing strip through the clouds. He landed, but was immediately surrounded by North Korean soldiers, who held onto his small plane's wings so he could not take off. He languished in captivity at the airfield until August. No word of his internment had been sent, and his family and the Marine Corps had thought him missing, if not dead. His family was surprised and gratified to be notified of Peters' return in October 1954.

of the Fifth Air Force and Far East Air Force softball championships by MAG-12 of K-6.

In June 1956, the wing moved its headquarters to Naval Air Station, Iwakuni, Japan, and control of the wing passed from Fifth Air Force to Commander in Chief, Pacific Fleet, in Hawaii, thus ending Marine Corps aviation's participation in the Korean War.

#### About the Authors

The main text of this pamphlet is derived from Major General John P. Condon's original draft of a history of Marine Corps aviation, an edited version of which appeared as *U.S. Marine Corps Aviation*, the fifth pamphlet of the series commemorating 75 years of Naval Aviation, published by the Deputy Chief of Naval Operations (Air Warfare) and Commander, Naval Air Systems Command in 1987.

Major General John Pomery Condon, Naval Academy Class of 1934, earned his wings as a naval aviator in 1937. On active duty from May 1934 to October 1962, he held command positions at the squadron, group, and wing levels. During World War II, he



served with the Fighter Command at Guadalcanal and in the Northern Solomons and subsequently played a key role in training Marine Corps pilots for carrier operations. At Okinawa he commanded Marine Aircraft Group 14, and in Korea, Marine Aircraft Groups 33 and 12, the first group to fly jet aircraft in combat and the last to fly the Corsair against the enemy. As a general officer, he served with the U.S. European Command and commanded both the 1st and 3d Marine Aircraft Wings.

General Condon earned a Ph.D. at the University of California at Irvine and also studied at the U.S. Air Force's Air War College. He is the author of numerous essays and several works on Marine Corps aviation, the last, *Corsairs and Flattops: Marine Carrier Air Warfare, 1944-1945*, was published posthumously in 1998.

Commander Peter B. Mersky, USNR (Ret), provided supplemental materials. A graduate of the Rhode Island School of Design with a baccalaureate degree in illustration, Mersky was commissioned through the Navy's Aviation Officer Candidate School in 1968. Following active duty, he remained in the Naval Reserve and served two tours as an air intelligence officer with Light Photographic Squadron 306.

Before retiring from federal civil service, he was editor of *Approach*, the Navy's aviation safety magazine, published by the Naval Safety Center in Norfolk, Virginia. Commander Mersky has written several books on Navy and Marine Corps aviation, including U.S. Marine Corps Aviation, 1912-Present (3d Edition, 1997). He also authored two publications for the History and Museums Division: A History of Marine Fighter Attack Squadron 321 and Time of the Aces. Marine Pilots in the Solomons, 1942-1944, a pamphlet in the World War II Commemorative Series.

**THIS PAMPHLET HISTORY**, one in a series devoted to U.S. Marines in the Korean War era, is published for the education and training of Marines by the History and Museums Division, Headquarters, U.S. Marine Corps, Washington, D.C., as part of the U.S. Department of Defense observance of the 50th anniversary of that war. Editorial costs have been defrayed in part by contributions from members of the Marine Corps Heritage Foundation.

To plan and coordinate the Korean War commemorative events and activities of the Sea Services, the Navy, Marine Corps, and Coast Guard have formed the Sea Services Korean War Commemoration Committee, chaired by the Director, Navy Staff. For more information about the Sea Services' commemorative effort, please contact the Navy-Marine Corps Korean War Commemoration Coordinator at (202) 433-4223/3085, FAX 433-7265 (DSN288-XXXX),E-Mail: HonorAndRemember@hqmc.usmc.mil, Website: www.history.usmc.mil.

#### KOREAN WAR COMMEMORATIVE SERIES

DIRECTOR OF MARINE CORPS HISTORY AND MUSEUMS Colonel John W. Ripley, USMC (Ret) GENERAL EDITOR, KOREAN WAR COMMEMORATIVE SERIES

Charles R. Smith

EDITING AND DESIGN SECTION, HISTORY AND MUSEUMS DIVISION W. Stephen Hill, Visual Information Specialist Catherine A. Kerns, Visual Information Specialist

> U.S. Marine Corps Historical Center 1254 Charles Morris Street SE Washington Navy Yard DC 20374-5040 2002

> > PCN 190 00319 800

#### Sources

The five volume official Marine Corps history of the Korean War provides the centerline for this account of Marine aviation in Korea: Lynn Montross and Capt Nicholas A. Canzona, USMC, U.S. Marine Operations in Korea, 1950-1953: The Pusan Perimeter (Washington, D.C.: Historical Branch, G-3 Division, HQMC, 1954); Lynn Montross and Capt Nicholas A. Canzona, USMC, U.S. Marine Operations in Korea, 1950-1953: The Inchon-Seoul Operation (Washington, D.C.: Historical Branch, G-3 Division, HQMC, 1955); Lynn Montross and Capt Nicholas A. Canzona, USMC, U.S. Marine Operations in Korea, 1950-1953: The Chosin Reservoir Campaign (Washington, D.C.: Historical Branch, G-3 Division, HQMC, 1957); Lynn Montross, Maj Hubard D. Kuokka, USMC, and Maj Norman W. Hicks, USMC, U.S. Marine Operations in Korea, 1950-1953: The East-Central Front (Washington, D.C.: Historical Branch, G-3 Division, HQMC, 1962); and LtCol Pat Meid, USMCR and Maj James M. Yingling, USMC,

U.S. Marine Operations in Korea, 1950-1953: Operations in West Korea (Washington, D.C.: Historical Division, HQMC, 1972).

Other official accounts of use were Roy E. Appleman, *South to the Naktong, North to the Yalu* (Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1961), and Ernest H. Giusti and Kenneth W. Condit, "Marine Air Over Inchon-Seoul," *Marine Corps Gazette*, June 1952; Ernest H. Giusti and Kenneth W. Condit, "Marine Air at the Chosin Reservoir," *Marine Corps Gazette*, July 1952; and Ernest H. Giusti and Kenneth W. Condit, "Marine Air Covers the Breakout," *Marine Corps Gazette*, August 1952.

Among useful secondary sources were BGen Edwin H. Simmons, USMC (Ret), *The United States Marines* (Annapolis, MD: Naval Institute, 1999); Andrew Greer, *The New Breed: The Story of the U.S. Marines in Korea* (New York: Harper Brothers, 1952); Richard P. Hallion, *The Naval Air War in Korea* (Baltimore, MD: Nautical & Aviation Publishing Co., 1986); G. G. O'Rourke with E. T. Wooldridge, *Night Fighters Over Korea* (Annapolis, MD: Naval Institute, 1998); and Robert F. Dorr, Jon Lake, and Warren Thompson, *Korean War Aces* (London: Osprey, 1995).

Sources of great use were the oral histories, diaries, and memoirs of many of the participants. The most important of these were those of LtGen Robert P. Keller, LtCol John Perrin, LtCol John E. Barnett, LtCol Emmons S. Maloney, Col Edward S. John, LtCol William T. Witt, Jr., SgtMaj Floyd P. Stocks, LtGen Leslie E. Brown, MSgt James R. Todd, and MSgt Lowell T. Truex.

As is the tradition, members of the Marine Corps Historical Center's staff, especially Fred H. Allison, were fully supportive in the production of this pamphlet as were others: William T. Y'Blood and Sheldon A. Goldberg of the U.S. Air Force History Support Office; Hill Goodspeed of the Emil Buehler Naval Aviation Library, National Museum of Naval Aviation; and Warren Thompson, Joseph S. Rychetnik, Steven P. Albright, Steven D. Oltmann, Nicholas Williams, and James Winchester.

