

A HISTORY OF MARINE MEDIUM HELICOPTER SQUADRON 161



HISTORY AND MUSEUMS DIVISION
HEADQUARTERS, U.S. MARINE CORPS
WASHINGTON, D.C.

An HRS-1 helicopter belonging to HMR-161 approaches the USS Sicily in 1952. HMR-161 experimented with the newly developed concept of vertical assault in the many Marine landing exercises conducted during the Korean War. (USMC Photo A134628).

A HISTORY OF MARINE MEDIUM HELICOPTER SQUADRON 161

By

Lieutenant Colonel Gary W. Parker, USMC



HISTORY AND MUSEUMS DIVISION
HEADQUARTERS, U.S. MARINE CORPS
WASHINGTON, D.C.

1978

PCN 190 003078 00

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402
Stock Number 008-055-00130-7

FOREWORD

This history of HMM-161, one of the oldest helicopter squadrons in the Marine Corps, is part of the Marine Corps History and Museums Division's effort to bring to light the achievements and contributions made by individual squadrons to Marine aviation.

Marine Medium Helicopter Squadron 161 has distinguished itself throughout its history. The squadron is noted for its work in developing the helicopter as a tactical tool for the Marine Corps and its ability to accomplish its mission regardless of the circumstances.

The history of HMM-161 was prepared by a former member of the squadron, Lieutenant Colonel Gary W. Parker, who joined HMM-161 in Hawaii in May 1963 and remained with the squadron when it went to Vietnam in 1965 with the 1st Marine Brigade. On his second tour of duty in Vietnam in 1968 he was again assigned to HMM-161. Lieutenant Colonel Parker has a Bachelor of Science degree in Management from the University of Baltimore and holds a Master of Arts degree from Pepperdine University. He joined the History and Museums Division in August 1976 where he is currently assigned.

It is our hope that this history will be read as a tribute to the men who have contributed significantly to this fine Marine helicopter squadron. It is also our hope that the readers will feel free to comment on the narrative. We solicit any additional information or illustrations which might enhance a future edition.



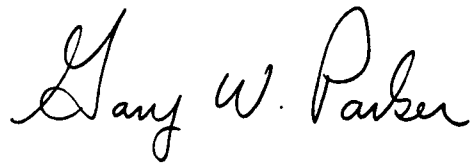
E. H. SIMMONS
Brigadier General, U. S. Marine Corps (Ret.)
Director of Marine Corps History and Museums

Reviewed and approved:
15 June 1978

PREFACE

Marine Medium Helicopter Squadron 161 enjoys a rich heritage, steeped in tradition, which was created through years of hard work and dedicated service. As a neophyte in Korea, HMR-161 tested the Marine Corps' newly developed concept of vertical assault during many landing exercises while continuing to support the 1st Marine Division. Flying in the rugged mountains of Korea, HMR-161 proved that helicopters could survive in combat and effectively carry out their mission of supporting the ground troops.

The manuscript was edited by members of the Historical Branch. It was typed and set by Miss Catherine A. Stoll and prepared for publication by the Production Editor, Mr. Douglas Johnston. Most of the photographs used in this monograph were taken by official photographers; a few, however, were provided by the author and subsequently entered into the official Marine Corps collection. It is this author's hope that this history will adequately tell the story of one of the finest squadrons in the Marine Corps.

A handwritten signature in black ink, reading "Gary W. Parker". The signature is written in a cursive, flowing style with a large initial "G".

GARY W. PARKER
Lieutenant Colonel, U.S. Marine Corps

TABLE OF CONTENTS

Foreword	iii
Preface	v
Table of Contents	vii
The Beginning	1
Korea: The Eastern Front	4
Korea: The Western Front	8
The Hawaiian Years	14
The Vietnam Years	21
The California Years	36
Notes	41
Appendix A: Chronology	43
Appendix B: Commanding Officers	45
Appendix C: Streamer Entitlements	47

A History of Marine Medium Helicopter Squadron 161

*The Beginning—Korea: The Eastern Front—Korea: The Western Front—The Hawaiian Years—
The Vietnam Years—The California Years*

The Beginning

When Marine Helicopter Transport Squadron 161 (HMR-161)* was commissioned on 15 January 1951, none of its aircraft had been built, very few of its future mechanics had ever worked on a helicopter, and even fewer of its future pilots had been checked out in rotary-winged aircraft. But the plans had been made, and the building and training were underway.

The atomic bomb tests at Bikini Lagoon in September of 1946 convinced Lieutenant General Roy S. Geiger, Commanding General, Fleet Marine Force, Pacific (FMFPac) that the problems and techniques of amphibious operations should be reviewed and updated for the atomic age. Upon General Geiger's urging, the Commandant of the Marine Corps (CMC) set up a special board to study the major steps which the Marine Corps should take "to fit it to wage successful amphibious warfare at some future date."¹ The board, comparing existing methods of assault against modern day weapons, immediately saw the need for a new means of accomplishing a rapid buildup of troops ashore, one that would lessen dependence upon massed transport shipping and landing craft. The members of the board considered a

variety of means to accomplish this, among these was the use of the helicopter, which at this time was still in a primitive state.²

In order to develop the helicopter and to adapt it to Marine Corps use, the Chief of Naval Operations (CNO), at the Commandant's request, authorized the commissioning of Marine Helicopter Squadron One (HMX-1) in December 1947.³ Its purpose was to assist in developing and evaluating the uses of the helicopter, in particular the possibility of transporting combat troops in an amphibious assault.

Prior to the commissioning of HMX-1, the Marine Corps had laid the ground work for the possible creation of several helicopter transport squadrons.⁴ A lack of money and helicopter expertise resulted in repeated delays in the creation of these squadrons. The Korean War confirmed for the Marine Corps that transport helicopters were necessary and stimulated development of helicopters in the Corps. Marine Helicopter Transport Squadron 161 was born from the urgent need of that time.

HMR-161 was commissioned at the Marine Corps Air Station (MCAS), El Toro, California, on 15 January 1951 as a unit in AirFMFPac. Lieutenant Colonel George W. Herring was assigned as its first commanding officer. Before assuming this command, Herring had been the executive officer of HMX-1. Lieutenant Colonel Herring, however, did not have much to command; on the date of com-

*The designation HMR represents: H, Helicopter; M, Marine; R, transport. West Coast units were designated 161, 162, etc. Second Wing units on the East Coast would be designated 261, 262, etc.

missioning the squadron consisted of only four officers, no enlisted men, and no helicopters or aircraft of any kind—not a very auspicious beginning.

Plans called for HMR-161 to receive brandnew Sikorsky helicopters as soon as they came off the production line. Until they arrived the pilots of HMR-161 used conventional aircraft which belonged to Headquarters Squadron, AirFMFPac. The arrival of the first HRS-1s was expected in mid-March 1951 with the squadron anticipating delivery of its full complement of 15 HRS-1s by July.

The HRS-1 was a Sikorsky-made transport helicopter with a single main rotor and a vertical tail rotor. This 10-place aircraft was nearly 62 feet long counting the maximum extension of rotor blades, and 11½ feet wide with the blades folded. The aircraft was designed to cruise at 90 knots and had a gross weight of over 7,000 pounds at sea level. It had a payload of 1,420 pounds at sea level with a crew of two and a full load of gas and oil. Under field conditions in mountainous terrain, the HRS-1 could lift four to six troops with combat equipment, or it could lift up to 1,500 pounds of cargo, or three to five casualties in litters. Load capabilities varied with altitude, temperature, fuel load, and pilot experience.

By February the squadron had 25 officers and 144 enlisted men and had moved to the Marine Corps Air Facility (MCAF), Santa Ana, California. With the arrival of its new helicopters impending, HMR-161 obtained clearance to use certain areas in the Santa Ana Mountains for pilot training and evaluation of HRS capabilities.

On 7 April, HMR-161 received its first helicopter. The Commanding General, AirFMFPac, Major General William J. Wallace, inspected the new arrival and flew as its first passenger. This helicopter had been flown to Santa Ana by two pilots from HMX-1 at Quantico, Virginia. Future aircraft deliveries would be made by HMR-161's own pilots and crewmen. Even though HMR-161 received only three helicopters in the month of April, two of which arrived after the 16th, the squadron still managed to fly 339.1 rotary-wing hours that month.

Six new helicopters were received in May and the tempo of training pilots and crew members increased. On the 10th of the month the squadron's first major accident occurred at Wink, Texas, while two squadron pilots were ferrying an HRS from Quantico to Santa Ana. Shortly after takeoff, the helicopter

crashed because of loss of rotor rpm* while the pilot was attempting to join up in formation. A hard landing in the desert caused extensive damage to the tail section of the helicopter, but no one was injured. The helicopter was repaired and completed the flight to Santa Ana without further incident.

The first loss of a helicopter in HMR-161 occurred on 17 May 1951. While attempting to make a rough area landing at 5,000 feet, the pilot approached the landing site too low, and crashed 20 feet from the intended point of landing. There were no passengers on board and the crew was uninjured. The next day the wreckage was removed from the mountain and the helicopter was stricken from the squadron inventory.

Training of pilots and crew members in the new HRS-1 helicopters received the highest priority on the flight schedule. On 29 May, Lieutenant Colonel Herring and Major William P. Mitchell, on a routine training flight in the Santa Ana mountains, spotted the wreckage of a Marine OY-1 airplane. They landed their helicopter on a nearby road and Major Mitchell and Corporal I. L. Foster extricated the OY-1 pilot, First Lieutenant James D. Brighton, from the wreckage. While Major Mitchell and Corporal Foster were freeing the pilot, Herring flew to El Toro and returned with a doctor. Later the injured pilot was returned to El Toro by helicopter for further treatment. This was the squadron's first rescue mission.

From 12-14 June HMR-161 participated in a landing exercise held at San Clemente Island off the coast of California. During this operation, the Commanding General, FMFPac, the Commanding General, Camp Joseph H. Pendleton, and members of their staffs were flown on reconnaissance missions.

On 12 June a helicopter en route to Santa Ana from Quantico made a forced landing 45 miles southwest of Reese Air Force Base, Lubbock, Texas. The primary cause of the forced landing was the failure of the main transmission. Three days later Chief Warrant Office Pat L. Sumners and five enlisted men from HMR-161 left Santa Ana to investigate the accident, and the same day a CNO dispatch grounded all HRS-1s until the cause of the transmission failure could be determined. To expedite the effort, Captain James T. Cotton and First Lieutenant Lloyd J. Engelhardt flew to Reese, picked up the faulty

*Rpm: Revolutions per minute. In this case it refers to the revolutions of the main rotor.



USMC Photo A132540

Officers of Marine Transport Helicopter Squadron 161 in Korea. Kneeling in front are Lieutenant Colonel George W. Herring, left, the commanding officer, and Major William P. Mitchell, the executive officer.

transmission, and delivered it to the Sikorsky factory at Bridgeport, Connecticut. On 29 June, after the reason of the failure had been determined, the CNO authorized the HRS-1s to resume flight operations.

On 10 July 1951, a Commander in Chief, Pacific Fleet directive alerted HMR-161 for overseas duty. The need for helicopter support in Korea was acute. The Marine Corps decided it could meet this need, at least in part, and at the same time complete the testing of the HRS and the evaluation of tactical concepts by sending the squadron to the combat theater. On 18 July nine helicopters from HMR-161 participated in a demonstration at Camp Joseph H. Pendleton's airstrip for the purpose of introducing the press to the Marine Corps' doctrine for using helicopters in modern warfare. The helicopters carried assault troops, 75mm pack howitzers on external slings, supplies, reinforcements, and simulated battle casualties. The latter part of the month was devoted almost entirely to preparing the squadron for overseas deployment.

On the 14th and 15th of August the squadron

moved to Naval Air Station (NAS), North Island, California, while a major portion of its equipment was loaded on board the SS *Great Falls Victory* (a Maritime Commission dry cargo Victory ship, hull number 717) for the movement to Korea. The same day all of the squadron's helicopters were embarked on the escort carrier USS *Sitkoh Bay* (CVE 86). As the carrier deck had already been loaded with F-86 aircraft, only 4 helicopters could find landing space, and the remaining 11 helicopters were put on board by hoist. All were then secured on the flight deck with blades folded for the journey to Korea. Most of the HMR-161 Marines, plus the remainder of the squadron supplies and equipment, were embarked on board the *Sitkoh Bay* on 16 August.

That same evening the *Sitkoh Bay* got underway for Korea. On board HMR-161 mustered 40 Marine officers, 231 Marine enlisted men, 1 Navy medical officer, and 3 Navy corpsmen. Additionally, 3 officers, including Lieutenant Colonel Herring, and 10 enlisted men were flown to Pusan, Korea, via Japan on 20 August. At 0830 on 2 September 1951,

the *Sitkoh Bay* arrived at Pusan, Korea, and the first transport helicopter squadron in the Marine Corps prepared for combat.

Korea: The Eastern Front

After its arrival in Korea, HMR-161 was attached to the 1st Marine Aircraft Wing (1st MAW) administratively, and came under the operational control of the 1st Marine Division. On 6 September shortly after unloading its aircraft and equipment at Pusan, the squadron moved from K-1, the airfield at Pusan, to K-18, an airfield near Kang Nung.* Three days after arriving at K-18, a truck convoy under the command of First Lieutenant Richard E. Stansberry left the airfield with the squadron's equipment and supplies for Chondo-ri (X-83). The following day the squadron's helicopters flew from K-18 to X-83, the forward strip, where the squadron would do most of its flying in support of the frontline troops. HMR-161 shared this facility with Marine Observation Squadron 6 (VMO-6). A rear echelon was maintained at K-18 where the major aircraft maintenance was performed; here the bulky material and equipment necessary for aircraft maintenance was established and the various maintenance shops erected.

After arriving at X-83 it was necessary for the squadron to locate possible helicopter landing sites in the vicinity of the frontline troops. Reconnaissance flights were flown for that purpose and landing sites acceptable to both the squadron and the division were identified.

On 13 September 1951, HMR-161 conducted the first mass helicopter resupply operation in history. Known as Windmill I, the operation involved airlifting one day's supply to the 2d Battalion, 1st Marines, which was attacking on Hill 673 northward along a ridge system. The supplies were loaded at field X-83 and carried approximately 7 miles, where they were unloaded at a site near the battalion.

Members of the 1st Shore Party Battalion, previously instructed by the squadron in helicopter operations, were detailed to accompany the first four helicopters. Their duties included improving and enlarging the landing point; unloading helicopters;

establishing supply dumps; and loading casualties on board helicopters for return to X-83.

Colonel F.B. Nihart, then a lieutenant colonel and commanding officer of the 2d Battalion, 1st Marines, recalled the historic event:

We were attacking from Hill 673 towards Hill 749 along a ridge system. Our supply and evacuation route was four miles of mountainous foot trails. The only way to keep supplies moving over these trails was by Korean Service Corps porters. The 400 Koreans could not keep up with the logistical demands imposed by heavy casualties and high ammunition expenditure. HMR-161 was called in to fill the supply and evacuation gap and performed admirably.³

A second major logistical flight (Windmill II) occurred on 19 September in the 5th Marines zone. At 1130 that day a request for supplies was received and after some delay in selecting a suitable landing site, 10 aircraft carried a total of 12,180 pounds of supplies in 18 flights. This amounted to 6.5 total flight hours, but the squadron took just an hour, overall time, to complete the mission.

Two days after Windmill II, HMR-161 finally was able to test the idea of using helicopters in a tactical lift. The purpose of Operation Summit was to relieve a Republic of Korea (ROK) unit on the frontline with a reinforced reconnaissance company. It was necessary to land an assault squad first, followed by 15 shore party battalion Marines whose mission was to clear a landing point as rapidly as possible. The assault squad had to disembark from the helicopters while they were hovering, using 30-foot knotted ropes, and then cover the shore party members while the landing zone was being prepared.

One hour after the assault squad and the shore party team landed, the first troops landed at the site which had been cleared by the shore party. Twenty minutes later a second landing point was opened, and from this time until the operation was completed, a steady flow of troops and supplies moved into the area. In 4 hours some 224 fully equipped troops and 17,772 pounds of cargo were lifted to Hill 884, which later became known as "Mount Helicopter." After the troops and supplies had been landed, 8 miles of wire were laid to connect the reconnaissance company on Hill 884 with the 1st Marines command post. This task took the helicopters just 15 minutes. Operation Summit received front page headlines throughout the United States and gave the American public its first knowledge of Marine helicopters in combat.

*Airfields designated "K" in Korea were major installations, and those in the "X" category were auxiliary strips. "A" designations were in the proximity of U.S. Army installations.



USMC Photo A132705

Colonel Keith B. McCutcheon, commanding officer of HMR-161 in Korea, preparing for a reconnaissance flight in an HRS helicopter. Colonel McCutcheon did much to pioneer the development of the helicopter in the Marine Corps.

The Commandant of the Marine Corps, General Lemuel C. Shepherd, Jr., praised HMR-161 by saying, "The effectiveness of your support presents a bright new chapter in the employment of helicopters by Marines." Major General Gerald C. Thomas, commanding the 1st Marine Division said, "Operation Summit, the first helicopterborne landing of a combat unit in history, was an outstanding success. To all who took part, Well Done."⁶ Operation Summit did much to establish the credibility of the helicopter and HMR-161 under combat conditions.

After Operation Summit, the 1st Marine Division and HMR-161 considered the possibility of conducting a night helicopter lift. Communist forces used the concealment of darkness effectively, and the Marines needed the ability to counter such moves quickly and decisively. Operation Blackbird was designed to gain experience in night operations. The order directed the lift of a reinforced company of the division reserve. It also provided for a full dress rehearsal during daylight.

As part of its thorough preparation, HMR-161 began reconnaissance flights between the embarkation point and the landing zone. The pilots conducted night indoctrination flights and various

lighting systems were tested. Routes and distances to be flown were recorded; approach and retirement lanes were flown to ascertain prominent terrain features. Correct headings and necessary altitudes were all memorized by the pilots involved. At 1000 on 27 September the dress rehearsal was executed without incident. Using only six helicopters, 200 troops were transported to the landing zone in an elapsed time of 2 hours and 10 minutes.

H-hour was set for 1930 on the same evening. As during the rehearsal, each helicopter carried five fully equipped troops. Flights were spaced at 3-minute intervals and a shuttle was established between the embarkation area and the landing zone. Although the utmost care had been taken during rehearsal to note prominent terrain features, some difficulty was still encountered finding the exact landing spot. The helicopters had to fly up a narrow winding valley, which marked the course of the river draining the Punchbowl, with the mountains on either side higher than the altitude of the helicopters. Nevertheless, 2 hours and 20 minutes after H-hour the Commanding General, 1st Marine Division was notified that the mission had been accomplished. That it was done successfully was a tribute to pilots and crew.

Problems encountered during the operation included insufficient lighting of the landing zone, inadequate night instrumentation in the helicopters, and a need for a night guidance system that could direct the helicopter to the exact landing point. Success was achieved mainly through the skill of the HMR-161 pilots, but it was an important beginning and one that highlighted many of the challenges ahead.

As it turned out, Operation Blackbird was the only large-scale helicopter operation conducted at night during the Korean War, but the squadron's official records state:

Night troop lifts in mountainous terrain are feasible provided a daylight reconnaissance of the landing zone together with the avenues of approach to and retirement from can be effected. With present equipment and present operating areas these lifts should be limited to movements within friendly territory.⁷

After Operation Blackbird, night indoctrination flights continued. On the night of 28 September HMR-161 lost one of its helicopters. First Lieutenant Frederick D. Adams and Major Charles E. Cornwell approached a landing zone too low and the aircraft flew into the ground. The helicopter then bounced into the air and came to rest on its right side and immediately began to burn. Both pilots escaped without injury, but the aircraft was a complete loss.

On 11 October 1951, HMR-161 conducted Operation Bumble Bee, the largest operation the squadron had yet undertaken. The purpose of Bumble Bee was to effect the relief of one battalion of the 5th Marines. The squadron was to lift the 3d Battalion, 7th Marines from its bivouac area near Songge-Ri to the site where it would assume responsibility for a reserve battalion area.

The lift started at 1000 and the squadron shuttled a steady stream of troops into the landing zone until completion at 1610. All loads were carried internally and only one pilot was used in each helicopter instead of the customary two. This change increased the payload and enabled the helicopters to carry six fully equipped troops instead of five. Twelve HRS-1s flew 156 round trips, totaling 65.9 flight hours, and landed 958 passengers over the space of 6 hours and 10 minutes. This was the first time that an entire battalion had been helilifted in combat; again HMR-161 made front page headlines.

The month of October produced another new mission for the HRS-1. During Operation Bush-beater, armed patrols landed in selected rear areas of the 1st Marine Division zone to combat enemy guerrilla activity. Because of the terrain, the Marines had to debark via 40-foot knotted ropes suspended from hovering helicopters. This operation was very trying for pilots as most of the aircraft had difficulty hovering, either in or out of ground effect,* at the specified site. In the rough terrain, the helicopters would no sooner take up a hovering position above a ridge line and the wind would die or the ground cushion move down the slope; little reserve power was available and the helicopters could not hold position. In some cases the pilots averted a crash by gaining forward speed, by making a right turn, or by diving into a valley. In two cases terrain obstacles made such measures impossible and the helicopters crashed; in a third incident another helicopter settled into the trees, damaging its tail rotor. Many of the pilots, after finding that they were unable to maintain hover altitude, deposited their troops by landing or hovering at alternate sites. Notwithstanding the two

*When a helicopter is hovering near the surface, a thick layer of air builds up between the rotor and surface of the ground because of interference with the downflow. This ground cushion, or ground effect, provides additional lift as long as the helicopter remains near the surface. If the helicopter moves up away from the ground cushion or if the configuration of the ground permits the layer to escape, the extra lift is lost, and the pilot must apply more power.⁸

helicopter losses, HMR-161 still deemed it practical to undertake operations of this nature in the HRS-type helicopter, but only after a careful study of terrain and existing atmospheric conditions.

The squadron closed out the month by flying resupply for frontline units, moving troops, laying communication wire, evacuating casualties, and making reconnaissance flights for commanders. After just 2 months in Korea, HMR-161 had made over 1,000 flights including 192 medical evacuations, lifted over 150 tons of supplies, and accumulated more than 1,200 flight hours.

On 10 November 1951, the 176th birthday of the United States Marine Corps, HMR-161 delivered six large birthday cakes to the Marines on the frontlines. On Thanksgiving Day the squadron brought these same Marines 9,400 pounds of turkey dinners.

During December HMR-161 again supported counter guerrilla operations by the 1st Marine Division, which wanted the helicopters to cover areas that could not be reached by ground patrols. The squadron carried fully armed troops of the reconnaissance company on each flight. If strange activity was observed, troops were landed to investigate. Where necessary they were lowered to the ground by knotted ropes.

On 19-20 December, HMR-161 executed Operation Farewell which moved the 1st Battalion, 5th Marines into the frontlines and relieved the 2d Battalion, 5th Marines. During this operation Lieutenant Colonel Herring flew his last flight in Korea prior to returning to the United States and a tour as commanding officer of HMX-1. He was relieved by Colonel Keith B. McCutcheon. For Colonel McCutcheon Operation Farewell meant his first combat flight in a helicopter.

Another change also took place during December. The 1st Platoon, Company C, 1st Shore Party Battalion, 1st Marine Division was relieved by the 1st Air Delivery Platoon, Service Command, FMFPac. The shore party teams had become an important part of the helicopter operations in Korea, and they had worked closely with HMR-161.

On Christmas Day HMR-161 helicopters were turned back by a heavy snowstorm in their attempt to deliver special food to the troops on the frontlines. The year closed with HMR-161 hauling several USO shows throughout the area, in addition to completing its routine supply flights.

On the first day of the new year, HMR-161 received an additional mission which was to last until

the armistice was signed in 1953. One helicopter was dispatched to the United Nations Command, Advanced, at Munsan-Ni, to transport the United Nations peace conference delegates between Munsan-Ni and Panmunjom. The need for this arose when a portion of a pontoon bridge across the Imjin River was destroyed by ice. HMR-161 met the requirement by sending crew members for a week at a time and rotating the duty throughout the squadron.

On 15 January HMR-161 celebrated its first birthday and Major General John T. Selden, Commanding General, 1st Marine Division visited the forward echelon and performed the cakecutting ceremonies. The squadron rear echelon celebrated by hiring a Korean orchestra to entertain for 3 hours. The squadron's executive officer, Lieutenant Colonel William P. Mitchell, did the cakecutting honors at the rear echelon.

Early in February the 1st Marine Division received a call from the Joint Operations Center (JOC)⁹ requesting help from HMR-161 in rescuing a fighter pilot and a helicopter crew, reported to be down 40 miles behind enemy lines. One helicopter piloted by Lieutenant Colonel Mitchell and Captain Robert F. Warren and carrying the squadron doctor, Lieutenant Burt C. Johnson (MC), USNR, and the helicopter crew chief, Technical Sergeant Walter F. Mortimer, departed X-83 for K-50 airfield where it was to rendezvous with a fighter escort.

En route, the helicopter was diverted to the USS *Rochester* (CA 124), where the Marine crew conferred with a Navy helicopter pilot from the ship who had attempted a rescue earlier and had been driven off by enemy fire. The Marines learned at the conference that there were four persons downed in the vicinity of the crash. One was the fighter pilot, who had been shot down on 13 December. The other three were the crew of a helicopter that had attempted a pickup earlier that morning and had crashed. The second helicopter to attempt a rescue had been driven off by ground fire, and enemy troops had been reported to be within 500 yards of the helicopter wreckage. The wreckage had been covered with a parachute, making it almost invisible in the snow, but the enemy in the area had been aware of the rescue effort for several hours. Commander, Task Force 77 deemed the success of further rescue attempts doubtful.

After some indecision by the Navy as to whether the third rescue attempt should be launched, the

HRS-1 and eight covering fighter aircraft headed for the crash site. The fighters checked the terrain below and forward of the helicopter's position to suppress possible enemy fire, and pinpointed the wreckage in a stream bed at the bottom of a narrow valley for the rescue helicopter.

Lieutenant Colonel Mitchell and his crew made an initial tight orbit of the area at approximately 60 knots and 1,000 feet of altitude. They made their second approach and pass from south to north over the wreckage at an altitude of 100 feet and an airspeed of 45 knots. The crew chief reported enemy troops in holes along the flightpath. The ridges on both sides of the valley were then strafed continually by the fighter aircraft.

As the third pass started, fire was observed coming from the north end of the valley; this was reported to the fighters. The helicopter now wound slowly around a draw and along the stream bed in the valley floor. The helicopter wreckage was observed carefully, as well as houses in the immediate vicinity. Lieutenant Colonel Mitchell reported to the fighter escort that he saw no activity nor any recognition signal of downed personnel. The helicopter left the valley and returned to the *Rochester*. After a debriefing with the ship and the fighter escort, the helicopter pilots and the crew returned to X-83. The effort by Mitchell and his crew is noteworthy because the methods used on this rescue attempt were soon adopted as standard procedures for downed pilot pickups.

On 26 February and again on 1 March, HMR-161 had helicopter accidents resulting from faulty tail rotor drive shafts. One helicopter made a successful full autorotation to a landing,* but the second one, because of poor terrain, crashed and was a total loss. The Marines on board both helicopters were only slightly injured. On the 2d of March the CNO grounded all HRS-1s until the cause of the tail rotor drive shaft failures could be determined and corrective maintenance applied. The helicopters of HMR-161 remained down from 2-12 March until a design modification was received and installed.

While the aircraft were grounded, the squadron worked diligently on improving living and working spaces. This, however, proved to be a mistake as the 1st Marine Division soon informed the squadron that

*Autorotation: A means by which a helicopter, using the force of gravity to turn the rotor blades, can make an emergency descent to a landing.

it would be moving 180 miles west along with the division later in the month. All work improvement stopped immediately; preparations began for the move to the new area.

Between 23-29 March HMR-161 shifted to its new location in west Korea. In its new sector, under the operational control of I Corps, the 1st Marine Division would be the western anchor of the Eighth Army front.

Korea: The Western Front

During the move from X-83 to A-17, Colonel McCutcheon realized that the operating component of the squadron was too large and not sufficiently mobile to keep pace with the division had the division been moving forward in a fluid type of warfare. To make the squadron's forward echelon as mobile as possible, the squadron headquarters section, less the commanding officer and the executive officer, was moved to the rear with the material section and elements of the engineering section. Henceforth, the majority of the aircraft maintenance checks were also to be pulled at the rear echelon.

The first operation for HMR-161 on the western front came with very little notice. At 0210 on 5 April 1952, Colonel McCutcheon received a call from the 1st Marine Division ordering him to lift 662 troops of the 2d Battalion, 7th Marines and 10,000 pounds of rations, beginning at 0545 that same morning. The round trip flights, from the frontline area to the Kimpo Peninsula, had to remain clear of the neutralized zone near Munsan-Ni, and would average about 57 miles. This operation, known as Pronto, required the longest round trip distance of a large-scale helicopter troop movement up to that time.

After the operation Colonel McCutcheon stated, "This airlift, more than any other in which HMR-161 has participated, proved that a Marine transport helicopter squadron can successfully operate as an 'on-call' tactical tool"¹⁰ The effort established a new squadron high of 99 flights and 115.9 hours of flight time.

Operation Leapfrog followed on 18-19 April and, as the name would suggest, involved the transport of combat troops a short distance over water. Operation Circus, the last trooplift of April, involved a river crossing. The squadron moved the 1st Battalion, 7th Marines across the Imjin river to blocking positions in just 90 minutes.

On 26 April a CNO dispatch arrived which again grounded all the squadron's helicopters until new parts for the spring lock assembly in the tail rotor drive shaft were received. This assembly had failed in civilian operations, leading to an accident in the United States. HMR-161, in anticipation of a long grounding period, intensified its ground training schedule and elaborated on its camp improvement program.

Even though the helicopters were officially grounded by the CNO, the squadron made two emergency flights to evacuate casualties severe enough to justify temporarily ungrounding the aircraft. The pilots and crewmen also devised other means to keep themselves busy while flying was curtailed. A solution for making the meager rations of beer and soda more palatable was discovered. Soon each tent was equipped with a beverage cooler made by lining a hole in the ground with burlap and periodically soaking the burlap. Undoubtedly other ingenious devices would have been developed by the squadron had the helicopters been grounded longer, but on 17 May the needed parts arrived and were installed within a few hours.

On the evening of 27 May a dispatch from JOC was received requesting that a helicopter and crew be provided for a possible rescue mission of a downed Corsair pilot from Navy Fighter Squadron 653 (VF-653). The next day two HMR-161 helicopters departed for a rendezvous with the USS *Valley Forge*. The crews for this mission consisted of Major Dwain L. Lengel, Captains Robert J. Lesak, Eugene V. Pointer, and Donald M. Winter, First Lieutenant Wallace Wessel, Technical Sergeants Elmer S. DuBrey and Carlye E. J. Gricks, and Sergeants Lowell E. Wolfe and Frederick E. Dawley. Once on board the *Valley Forge* the pilots were briefed, and it was decided to make the rescue attempt the next morning with only one helicopter. The downed pilot was in the vicinity of Hapsu, North Korea, and the rescue helicopter would be protected by an armed fixed-wing escort.

The crew of Major Lengel, Captain Pointer, and Technical Sergeant Gricks launched the next morning as scheduled. The Corsairs directed the helicopter into the area where the downed pilot had last been seen and the search began. The helicopter searched the area until its fuel started to run low, but saw no sign of the downed pilot. On the last pass the helicopter started settling because of a combination of low speed and high altitude. When a stump appeared



USMC Photo A134367

Lieutenant Colonel John F. Carey, left, bids goodbye to Colonel Keith B. McCutcheon, whom he replaced as commanding officer of HMR-161 in Korea in August 1952. Lieutenant Colonel Carey had been the commanding officer of HMX-1 in Quantico before joining his new squadron in Korea.

ahead of the helicopter there was insufficient power available to avoid hitting it. The aircraft crashed and rolled over on its right side. No one was hurt, but now a rescue attempt was needed for the helicopter crew of three, in addition to the still missing Navy pilot.

Major Lengel and his downed crew immediately set about securing a position from which they could be rescued, and if necessary, defend themselves from the enemy. Survival packets were dropped to them from the fixed-wing aircraft before they left. Then they were left alone on the side of the mountain waiting for the other helicopter to come and pick them up. Their wait was longer than anticipated. Bad weather delayed the rescue attempt for another day and a half, but on the morning of the third day the second helicopter flown by Captain Lesak and First Lieutenant Wessel and crewed by Technical Sergeant DuBrey was launched to go to aid of their squadron companions.

Major Lengel and his crew were located and the rescue attempt was soon underway. Operating at this high altitude the helicopter had to maintain forward speed to keep from settling into the ground. The downed crew had to grab a rope ladder attached to the helicopter as it passed by and climb up the ladder while the helicopter was still in forward flight. This

was done with some difficulty. After a few seconds all were on board the helicopter and headed for the *Valley Forge*.

In June the amphibious mission of the Marine helicopters was to be realistically tested by HMR-161. Marine Landing Exercise (MarLex) I, on the 10th and 11th, and later in the month MarLex II were conducted for the purpose of gaining experience in vertical envelopment combined with an amphibious operation. This realistic experiment was conducted without the benefit of an aircraft carrier; none were available. The island of Sung Bong-do, 40 miles southwest of Inchon, was selected to represent the carrier and was used for the loading zones. A nearby island, Tokchok-to, offered broad and sandy beaches and it was used for the troop landings. Seven aircraft lifted 236 combat troops in 59 flights on 10 June and 239 troops in 58 flights the next day. The few minor problems encountered during the first exercise were worked out by the squadron by the end of the month when MarLex II was conducted.

Between MarLex I and MarLex II, however, two other operations were conducted. Operation Butterfly involved a battalion relief across the Han River, and Operation Eveready tested HMR-161's ability to conduct a trooplift on short notice. Both operations were completed successfully. The Marines continued their experiments with assault amphibious landings, conducting 10 additional MarLex operations during the remainder of the year.

Lack of spare parts became so critical during June that two officers were sent to Japan to find out why parts were not reaching HMR-161 in Korea. A liaison billet was established at Marine Wing Service Squadron 1 (MWSS-1) at Itami, Japan, to help maintain a closer check on parts and requisitions.

The heavy rains during July swelled the rivers in the area to flood stage and on 30 July HMR-161 evacuated 150 South Korean civilians and approximately 650 service personnel from several U.S. Army units located near K-47. These units had been isolated by the 30-foot crest of the Pukhan River caused by almost a week of constant rain.

The month of August brought a new commanding officer, Lieutenant Colonel John F. Carey, and another new type of operation for the Marine helicopters. Lieutenant Colonel Carey, also a former commanding officer of HMX-1, assumed command



USMC Photo A163913

An HRS-1 helicopter with HMR-161 is about to hook up and haul away rocket ammunition during Operation Ripple in Korea. HMR-161 provided a fast means of shifting positions after the firing of the rockets.

of HMR-161 on 7 August, arriving just in time to participate in Operation Ripple. The purpose of this operation was to test the ability of helicopters to move rocket launchers and their accompanying personnel and equipment quickly from one firing position to another. The launchers, the rearward blast of which exposed their positions every time they fired by kicking up huge dust clouds, had to change location rapidly to avoid retaliatory enemy artillery and mortar fire.

For several weeks before Carey's arrival, HMR-161 and the 1st 4.5-inch Rocket Battery attached to the 11th Marines had been practicing for this maneuver. They had devised new methods for hauling external loads and had developed new external hooks and releases. Their rehearsals covered all facets of the operation and were designed specifically to minimize the time required to fire the rockets and depart the area.

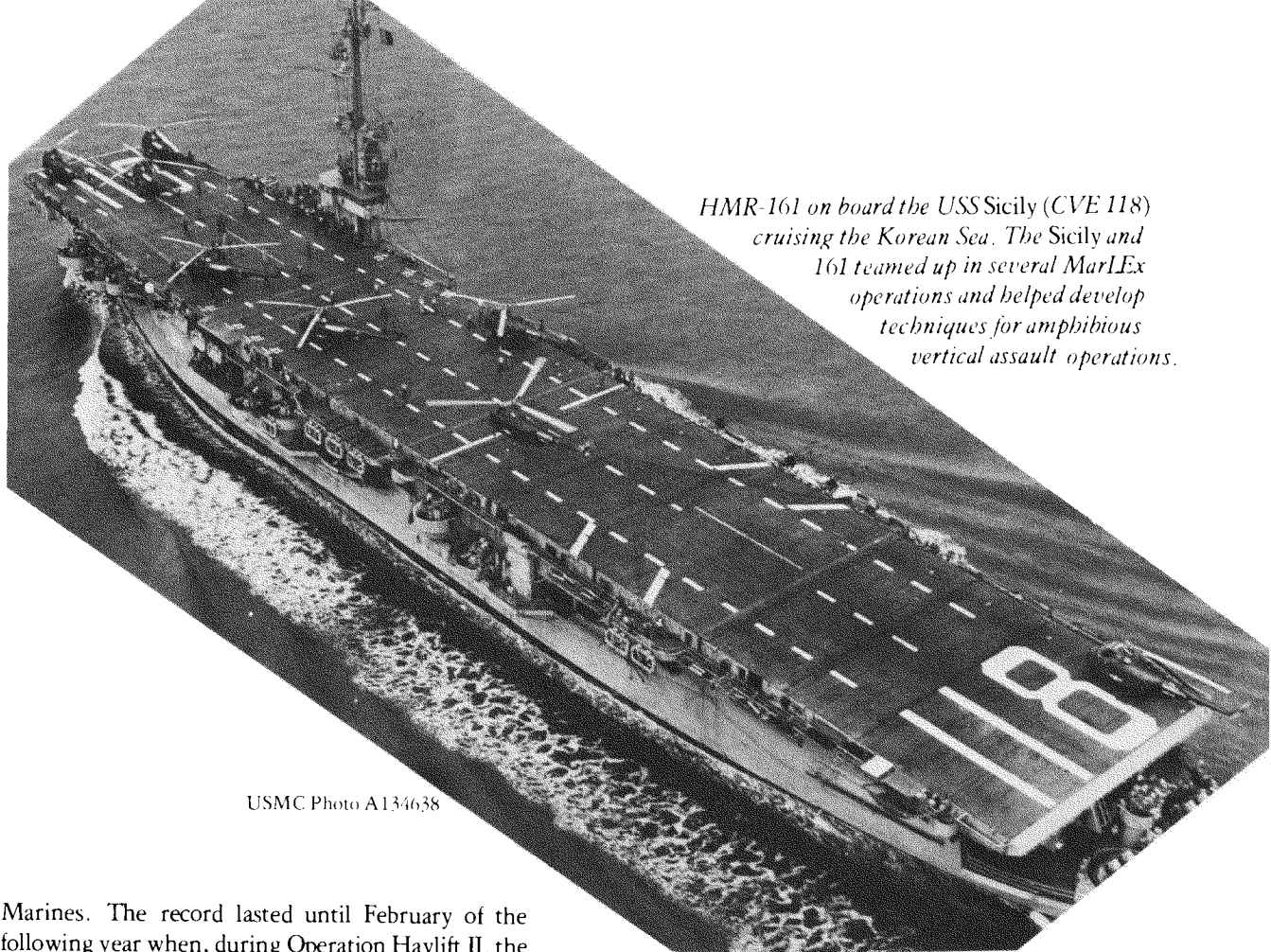
Operation Ripple began on 19 August. At first, things did not go as smoothly as HMR-161 would have liked. There was trouble with some hookups;

personnel were delayed boarding the helicopters. When another rocket launching operation was conducted the following day, however, these problems were solved, and HMR-161 was able to recommend that helicopters be used for rocket battery transporting missions.

Finally in September HMR-161 linked up with an aircraft carrier to test the Marine Corps' concept of vertical envelopment in conjunction with amphibious operations. MarLEx VII was conducted with the USS *Sicily* (CVE 118) on the 1st and 2d of September 1952.

In September a new type of operation was added to the growing list of HMR-161 activities. Operation Silent-Redline was designed to transfer one unit from the frontline to a rest area while replacing it with another unit as quickly as possible. Almost all of the Silent-Redline operations were conducted within view of the enemy lines.

On 22 September HMR-161 set a new record during Operation Haylift I. The squadron transported 332,291 pounds of supplies to the 7th



HMR-161 on board the USS Sicily (CVE 118) cruising the Korean Sea. The Sicily and 161 teamed up in several MarLEX operations and helped develop techniques for amphibious vertical assault operations.

USMC Photo A134638

Marines. The record lasted until February of the following year when, during Operation Haylift II, the squadron lifted supplies for two regiments for 5 days.

Starting in October, one helicopter and crew was attached to Marine Aircraft Group 12 (MAG-12) at K-6 airfield to provide air-sea rescue service and administrative transportation for MAG units. During the month the squadron evacuated 365 casualties, the largest number evacuated during a month in the history of the squadron.

The squadron began receiving newer HRS-2 helicopters in October. There was very little difference between the HRS-1 and the HRS-2, the only major change being that the HRS-2 was about a foot longer and a few inches lower. The engine was the same, and the performance of both types was virtually identical.

The squadron used the first 5 days in December to help the 7th Marines prepare its frontline positions. The squadron lifted prefabricated bunkers into spots inaccessible to vehicles because of the rugged terrain. Flight time totaling 20 hours and 35 minutes was required to lift 50 bunkers and 36,750 pounds of barbed wire and stakes. Thousands of manhours and at least 10 days time were saved.

MarLEX XII was carried out on 16-17

December and the third Silent-Redline operation was also conducted. Perhaps the most popular operation during this month was Operation Santa Claus. On Christmas day HMR-161 played host to 226 Korean orphans and supplied them with "yankee chow" and gifts. Some of the children were transported to and from the party in a squadron helicopter which had been decorated to look like Santa Claus.

On 23 January 1953, military police from the 1st Marine Division boarded a helicopter and began a search for five Communist infiltrators. Within an hour contact was made with the enemy, two Chinese Communist troops were killed and one North Korean was wounded in an exchange of small arms fire from the helicopter. During the firefight the helicopter was shot through the clam-shell door on the pilot's side, but the crew and passengers were not injured. Following the action the helicopter returned to A-17 for minor repairs.

HMR-161 had been able to maintain an amazing record of flight safety conducting helicopter operations in a combat zone for 17 months without losing a man. Unfortunately, this record ended on 12

February 1953. Captain Allen W. Ruggles and his crew chief, Technical Sergeant Joseph L. Brand, Jr., were about 25 miles south of Pusan on their way to rendezvous with an aircraft carrier that was to take them to Japan, when their helicopter crashed into the water. Mechanical trouble was believed to have been the cause; neither the bodies nor the aircraft were ever recovered.

Colonel Owen A. Chambers relieved Lieutenant Colonel Carey as commanding officer of HMR-161 on 15 March 1953. Shortly after Colonel Chambers assumed command of the squadron, another fatal accident occurred 6 miles northeast of Sinchon, Korea. Major Doil R. Stitzel was making a test hop out of Ascom City, the location of the squadron's rear echelon, when his helicopter crashed and burned. The pilot and his two mechanics, Master Sergeant Gilbert N. Candle and Sergeant Richard L. Parsell, died as a result of the accident.

On 5 May 1953, the 1st Marine Division went into reserve. At the direction of the division staff, planning began immediately for a large-scale helicopter landing exercise to be called Marine Landing Exercise I (MarLex I), the first MarLex exercise of 1953. The 5th Marines was assigned as the infantry unit to be landed by air and water on 13 May in the Yongdong-ni beach area southwest of Seoul. The squadron lifted a battalion landing team (BLT) ashore and participated in all phases of the amphibious exercise.

MarLex II on 6 June was a duplicate of MarLex I. It was the last large-scale exercise for HMR-161 in 1953. Although the 1st Marine Division returned to the front early in July, the helicopters flew only routine missions until the armistice on 27 July. The armistice did not end or even interrupt the helicopter missions in Korea. When the guns became silent in July, the 1st Marine Division, including HMR-161, remained in position in western Korea and occupied defensive positions overlooking the newly established demilitarized zone. The squadron continued to support the 1st Marine Division with personnel and cargo lifts, medical evacuations, and VIP transportation. The squadron also continued its training program in order to keep pilots and crewmen in a top state of readiness.

On 23 September 1953, Lieutenant Colonel John H. King, Jr., relieved Colonel Chambers as commanding officer of HMR-161. Shortly after Lieutenant Colonel King assumed command of the squadron a tragic accident cost the life of an officer in

HMR-161. Warrant Officer Lewis E. Chase, the electronics and communications officer attached to the rear echelon of HMR-161, drowned while hunting on 6 November 1953. Chase was trapped on a mud flat in the middle of the Han River by the rising tide. It seemed that rescue was imminent when a helicopter, an HO5S of VMO-6, came to his aid. As the helicopter hovered above, Chase grabbed hold of its undercarriage. But before the helicopter could carry him to safety, he lost his grip and fell into shallow water from a height of approximately 15 feet. His body was observed immediately afterwards, face down in the water. The rapidly rising tide covered the body completely before another rescue attempt could be accomplished and it was never recovered.¹¹

On 23 December, HMR-161 joined with the 1st Marine Division in giving a Christmas party for men, women, and children of the Imjin Refugee Village, near Kumch'on-ni, Korea. Donations from the officers and men helped purchase clothing for the refugees, and additional clothing was received from the relatives of Marines of the units involved. The party givers also treated their guests to Christmas dinner.

The old year literally went out with a bang on 30 December when a gasoline drum on a squadron truck spilled and caught fire. Before the blaze was extinguished, the drum exploded showering a tent with flaming gasoline. The tent was completely burned and the truck was about 50 percent damaged. Miraculously, no one was injured.

The new year saw HMR-161 doing what it did best in Korea, transporting personnel, cargo, VIPs, and medical evacuees. On 4 March an urgent call was sent out by the 1st Marine Division Schools Center requesting an unlimited number of emergency evacuations. Within 30 minutes of the call, six HMR-161 aircraft were at the scene of an accident where a mortar shell had exploded in the school. Seventeen patients were evacuated from the scene, many to the United States Hospital Ship *Haven* (AH 12). A letter from Major General Randolph McCall Pate, Commanding General, 1st Marine Division, praised HMR-161 for its speed and efficiency in evacuating the injured personnel.

On 20 March 1954, Lieutenant Colonel Robert R. Ayres, Jr., relieved Colonel Harold J. Mitchener as commanding officer of HMR-161. Colonel Mitchener had assumed command of the squadron on 3 December 1953 from Lieutenant Colonel John H. King, Jr. The squadron continued its normal support



USMC Photo A132541



USMC Photo A133599

HMR-161's rear echelon maintenance facility at Ascom City, Korea (above). Most of the large and involved maintenance was undertaken here. Field maintenance in Korea was performed wherever and whenever the necessity arose. Here (left) some HMR-161 mechanics are checking the engine and transmission of an HRS-1.

of the 1st Marine Division by hauling large amounts of supplies and personnel and evacuating casualties. On 29 May, however, HMR-161 took a break and celebrated its 1,000th day in Korea. The officers and men enjoyed a day of relaxation topped with a steak dinner and a large commemorative cake.

On 6 July, Lieutenant Colonel Richard L. Nickerson took command of the squadron. The squadron's mission remained the same and HMR-161 continued to support the 1st Marine Division. On 26 August one helicopter was lost on a cargo flight. A strong downwind in the landing zone caught the pilot by surprise and the helicopter crashed while attempting to land. The crew was uninjured, but the aircraft was a total loss. The remainder of the year was routine. The squadron hauled passengers, cargo, more and more visiting dignitaries, and occasionally transported a few Marines that needed emergency medical treatment. Once again for Christmas the squadron gave a party for Korean orphans and 59 children enjoyed a Christmas dinner, gifts, and a "Western movie," courtesy of HMR-161.

After the new year started, HMR-161 began receiving new HRS-3 helicopters as replacements for the earlier models. The HRS-3 was basically the same aircraft with a more powerful engine, the R-1300, which produced 700 horsepower, an increase of 100 horsepower over the R-1340 engine, which had been used in the HRS-1 and -2 models. The horsepower increase enabled the HRS-3 to lift approximately 250 pounds more than its predecessors,

the equivalent of one more combat Marine on each flight.

Just before a wing inspection in January, Major Irwin E. Moore, who was the executive officer of HMR-161, relieved Lieutenant Colonel Nickerson as commanding officer. The inspection, on 25 January, went well and the squadron passed with high marks in all departments.

During February and March there were many personnel changes in all sections, both enlisted and officer. The squadron had received word that it would redeploy to MCAS Kaneohe, Hawaii. On 1 March the squadron command post was moved to the rear echelon at Ascom City. The move was completed efficiently with no accidents or loss of gear. All personnel and sections then operated from the rear echelon. Between 1-11 March the squadron was busy crating equipment and preparing for embarkation. All equipment was palletized and moved to the staging area at Inchon on 7 March.

During this period all flight operations were held to a minimum so that the packing would not be interrupted unnecessarily. Some of the squadron's helicopters had already flown to Iwakuni, Japan, where they were being prepared for the voyage to Hawaii. A special preservative to help combat salt water spray was put on the aircraft. The rest of the squadron helicopters were scheduled to fly to Iwakuni at intervals so that support could continue as long as possible for the 1st Marine Division.

The staging of all the squadron equipment at Inchon, minus the helicopters and some squadron

personnel, was completed by 8 March, and loading on board the USS *Seminole* (AKA 104) started on the 9th. Loading was completed by 11 March, and the *Seminole* left Inchon for Hawaii with 4 officers and 35 enlisted men from HMR-161 embarked.

On 12 March 1955, the HMR-161 squadron area was officially turned over to HMR-162 which was to take over the mission of supporting the 1st Marine Division. The remaining personnel, 74 enlisted men who had handled the loading and work details at Ascom City, were flown to Atsugi on 14 March. These men were then taken to Oppama, Japan, to await the USS *Wasp* (CV 18) which was loading the squadron's helicopters at Iwakuni.

On 13 March the *Wasp* sailed from Iwakuni to Yokosuka, where the squadron's aircraft were unloaded on the 15th and reloaded on the 25th of March. The men at Oppama joined the ship at Yokosuka and the *Wasp* sailed for Hawaii on 26 March.

The work that had been done in Korea by HMR-161 was impressive. As the first transport helicopter squadron in combat it had flown over 30,000 hours and completed more than 32,000 flights. Besides doing their job well, the pilots, crewmen, and helicopters of HMR-161 had tested and proven the vertical assault concept for employing troops in combat.

The Hawaiian Years

The USS *Seminole* arrived in Hawaii on 24 March 1955 and squadron property was immediately unloaded and transferred to the designated area at the MCAS Kaneohe. The *Wasp* arrived at Pearl Harbor 10 days later with the majority of the personnel and the helicopters. The helicopters were flown to their new home on the other side of the island. While on board the carrier, HMR-161 had been reassigned to MAG-13 in Hawaii.

Upon arrival in Hawaii, HMR-161 became the only helicopter squadron in MAG-13, and the only helicopter squadron in the 1st Marine Brigade. After establishing themselves and becoming familiar with the area, the pilots and crews of the squadron flew regular support and training missions. They quickly proved that the fine reputation that they had built in Korea was well deserved.

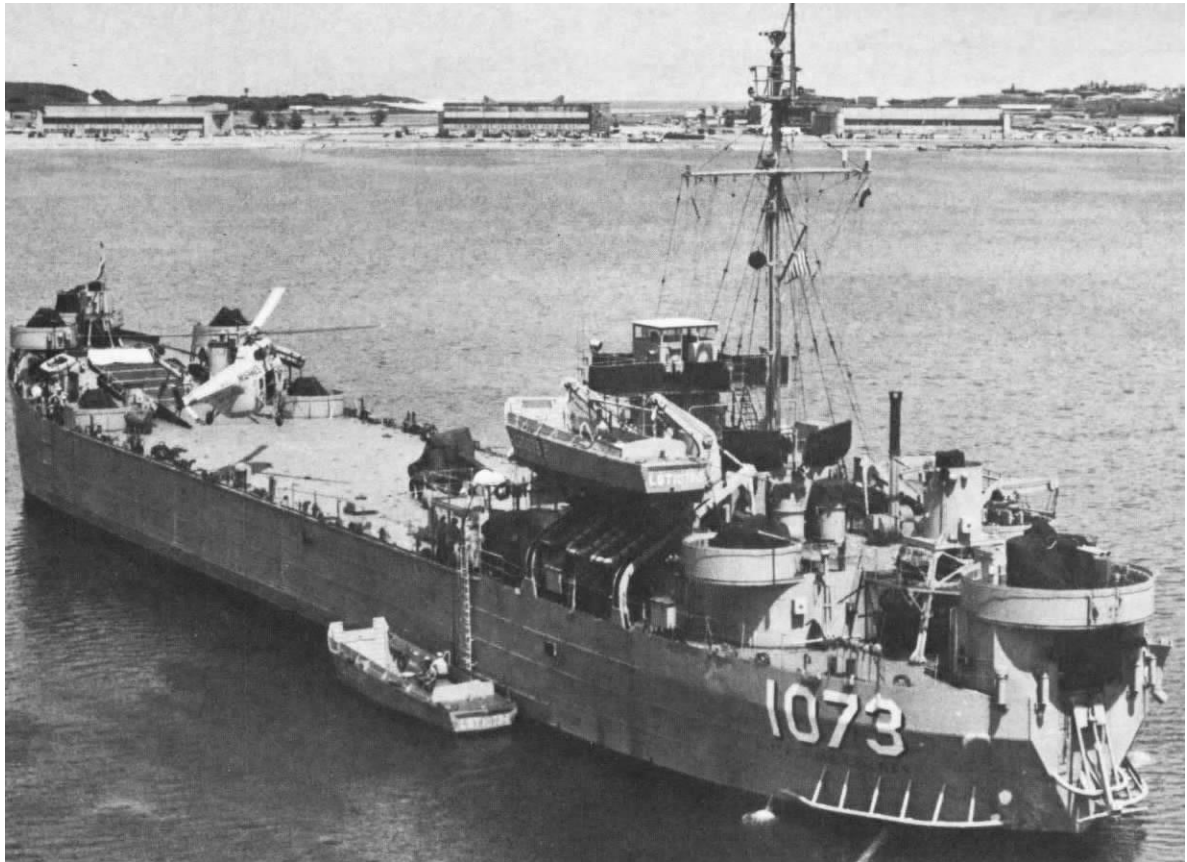
Sikorsky's "Winged 'S' Air Rescue Emblem" and Helicopter Rescue Certification were presented to Second Lieutenant Norman J. Bengtson, Second Lieutenant John T. Tucker, and Sergeant Bruce T.

Dunn for their rescue of a downed pilot on 30 November. On that day First Lieutenant David E. Christman, a member of Marine Composite Squadron 1 (MCS-1), parachuted from his stricken AD-5 Skyraider when the plane's engine failed. His last act before abandoning the aircraft was to broadcast an emergency May Day radio transmission. Second Lieutenant Bengtson and his crew arrived at the scene 20 minutes later. They quickly had the downed pilot in their helicopter and were on the way back to Kaneohe.

On 25 January 1956, HMR-161 boarded the USS *Princeton* (CVS 37) to take part in Operation Firm Link which was held in Bangkok, Thailand, 15-18 February. This exercise was in actuality a "show of force" by member nations of the South East Asia Treaty Organization (SEATO). HMR-161, the only Hawaiian-based unit to participate, reinforced MAG-16. HMR-161 helicopters lifted the 9th Marines and its equipment from the *Princeton* in the Gulf of Thailand to Don Muang Airport outside Bangkok, the site of the SEATO operation. The squadron also carried Thai dignitaries and correspondents while maintaining a supply and courier service for units ashore. The squadron returned from Operation Firm Link on 10 March 1956.

After a weekend of readjustment from shipboard life, HMR-161 began 3 weeks of intensive preparation for Operation Mauka, which was to start the first week in April. During Operation Mauka, HMR-161 teamed up with the 4th Marines. Together they conducted amphibious training in the form of numerous vertical envelopments. The squadron flew almost continuously throughout the exercise as part of a helicopter assault force, performing troop and supply transport, air-sea rescue, and one actual emergency evacuation. Operation Mauka took place the first 2 weeks in April. Afterwards, HMR-161 and the 4th Marines returned to Kaneohe.

In June of 1956 HMR-161 received three new HOK-1 helicopters as augmentation to the HRS transport helicopters already in the squadron. The HOK-1 was a four-seat liaison helicopter built by the Kamen Aircraft Corporation. The intended use of the HOKs was mainly for observation. Powered by a 600-horsepower Pratt & Whitney R-1340 radial engine mounted at the rear end of the fuselage, the HOK-1 used the contra-rotating and intermeshing twin-rotor system—two rotors which turned in



USMC Photo A290142

The USS Outagamie County (LST 1073), here in Kaneohe Bay, Hawaii, was used by HMR-161 to practice vertical assault techniques. The Outagamie County later helped bring HMM-161 home from Vietnam in August of 1970.

opposite directions. This rotor system ensured aircraft stability without the need for a tail rotor, such as that employed on Sikorsky-type helicopters.¹²

HMR-161 had received three OE-1 fixed-wing airplanes for observation in January 1956. Built by Cessna, the OE-1 (originally designated as the L-19 by Cessna) was a two-seat, light-observation, reconnaissance aircraft. Powered by a 213-horsepower, Continental, O-470-11, flat-six, air-cooled engine, the OE-1 had been used extensively during the Korean War for reconnaissance and artillery spotting. With the addition of these aircraft and the three HOK-1 helicopters, the squadron was becoming more versatile in both type of aircraft and type of mission it could perform.¹³

The squadron conducted carrier qualifications on board the USS *Boxer* (CVS 21) the last week in July. The aircrews had spent the previous 2 weeks “briefing and practicing” for the qualifications, and

their hard work paid dividends in their performance on board the *Boxer*. In less than 4 flying hours, spread over a 2-day period, the pilots of HMR-161 qualified for carrier operations, both day and night. Officers on board the *Boxer* called the well-organized and expertly flown operation, “the smoothest . . . ever conducted aboard the *Boxer*.”

On 26 September, a huge 500-million-candle-power flash, which simulated a nuclear blast, started HMR-161 and other units in the 1st Marine Brigade on Operation AirLex. This was the largest tactical air operation ever conducted by the 1st Marine Brigade, FMF. The operation covered almost all of the Hawaiian Islands and involved the 6,000 Marines stationed at Kaneohe. AirLex lasted for a full week and by its completion HMR-161 had flown more than 800 hours and carried over 1,400 troops.

In December 1956 the squadron was redesignated Marine Helicopter Transport Squadron (Light) 161

(HMR(L)-161), Marine Aircraft Group 13, 1st Marine Aircraft Wing. The squadron, of course, continued to work extensively with the 1st Marine Brigade.

During the first half of 1957 the squadron continued its training and completed numerous flights to some of the local islands. In January HMR(L)-161 flew a game survey on the island of Molokai for the Territorial Board of Agriculture and Forestry. In March it placed a large transformer on top of a barely accessible mountain near Kaneohe. The transformer powered the obstruction lights which marked the mountain top.

The island of Kauai was struck by a huge 33-foot tidal wave on 9 March, and HMR(L)-161 pilots and crewmen spent many hours evacuating Kauai residents made homeless by the disaster. "The devastation was really terrible," according to First Lieutenant Fred Jerrett. "The wave had completely destroyed everything in its path, and until 3 days after the tidal wave struck, helicopters were the only effective method of transportation."¹⁴

The Navy's first helicopter assault carrier, the USS *Thetis Bay* (CVHA 1) arrived in the Hawaiian area on 16 July, and HMR(L)-161 went on board for training in preparation for Operation Tradewinds. The training included day and night carrier qualifications; boarding and debarkation exercises with Marine Air Control Squadron 2 and the 3d Battalion, 12th Marines; and debarkation exercises by combat-equipped personnel of the 1st Battalion, 4th Marines.

After the week-long training drill, the 7,000-man 1st Marine Brigade and HMR(L)-161 boarded 21 Navy ships on 2 August for Operation Tradewinds. This huge operation included a landing rehearsal on the island of Maui and a live-firing exercise on the island of Kahoolawe before the final assault on the island of Kauai. HMR(L)-161 lifted pack howitzers, artillery ammunition, and combat-ready Marines from the deck of the *Thetis Bay* to the various assault points on Kauai. In addition the squadron flew resupply, medical evacuation, and reconnaissance missions during the operation. Operation Tradewinds was the last large-scale exercise for the brigade and HMR(L)-161 in 1957. The squadron devoted the rest of the year to training and maintaining combat readiness.

On 15 January 1958, HMR(L)-161 celebrated its seventh birthday. The squadron was now commanded by Lieutenant Colonel Stanley V. Titterud,

who had been commanding officer since 13 August 1956.

The second week of February HMR(L)-161 teamed up with the 4th Marines and airlifted 350 combat-equipped Marines in a night helicopter exercise using minimum field illumination. Earlier in the day, the squadron had moved all the command post personnel and their equipment. The helicopters also resupplied troops by air, and water was flown to the men in 5-gallon water cans, which eliminated the need for water trailers and motor transport to move them.

On 19 March the island of Kauai was once again invaded by elements of the 1st Marine Brigade. Helicopters from HMR(L)-161 delivered heliteams from three LSTs (Tank Landing Ships) lying offshore to the drop zone. The LSTs simulated carriers for purposes of the operation.

The next large-scale exercise for HMR(L)-161 and the 1st Marine Brigade came the following year with Operation Clear Ridge. Before the operation HMR(L)-161 embarked on the newly converted helicopter carrier the USS *Princeton* (LPH 5) for carrier qualifications. At the start of the operation on 20 September 1959, the squadron flew from the *Princeton* and joined with the 1st Marine Brigade in testing the doctrine of vertical envelopment.

Early in May 1960, HMR(L)-161 started receiving the new HUS-1 Sikorsky helicopters to replace their HRS-3 models. By the end of April all of the HRS-3 helicopters had been phased out and the squadron was completely equipped with the new HUS-1 helicopters. The Sikorsky S-58, designated the HUS-1 by the Marine Corps, had a four-bladed, all-metal main rotor, a tail rotor, and was capable of carrying 12 fully equipped Marines or 8 litter cases. This was a marked improvement over the old HRS-3 which was limited to 5-7 passengers. The HUS-1 was longer and taller than the HRS-3. The fuselage was nearly 47 feet long and almost 16 feet high, and the main rotor extended to 56 feet. The pilots' compartment was located above the cabin area, accommodating two pilots side by side with dual flight controls. The HUS-1 was powered by a Wright R-1820-84 nine-cylinder, radial, air-cooled engine, rated at 1,500 horsepower for takeoff and mounted in the front of the fuselage. The HUS-1 had a top speed of about 123 miles per hour and a cruise speed of about 95 miles per hour.¹⁵

Two of the squadron's new aircraft were put to an early test when they rescued nine Navy men off the island of Kauai on 20 May. Two Navy HRS-2



USMC Photo A290130

Helicopters from HMR-161 area about to discharge their passengers in an air-ground demonstration in Hawaii. Training in vertical envelopment techniques was only a part of the tasks that HMR-161 accomplished in a routine manner.

helicopters encountered heavy winds while operating near the island and ran low in fuel 20 miles from the coastline. The Navy crews intentionally ditched their aircraft before their fuel ran out, and later were pulled to safety by two HMR(L)-161 helicopters and flown to a hospital in Kauai.

Captains Norman Padgett and Thomas W. Glynn, First Lieutenants Gerald L. Johnson and Wesley B. Hargraves II, Gunnery Sergeant Alvin A. Burch, Staff Sergeant Richard T. Simmons, and Acting Sergeant Edward L. Jones, who made up the crews for the two HMR(L)-161 rescue helicopters, later received letters of commendation from Brigadier General Richard G. Weede, Commanding General, 1st Marine Brigade.

Even though air-sea rescue was not the primary mission of HMR(L)-161, once again on 12 July squadron pilots picked up a downed Navy jet pilot at sea. Lieutenant Colonel Alton W. McCully, HMR(L)-161 squadron commander, was the pilot of the helicopter making the pickup. His crew included First Lieutenant Gerald L. Johnson, and Acting Staff Sergeant Frank E. Mikolajczak.

The pilots and crew members of HMR(L)-161 were able to return to their primary mission during the week of 23 October 1960 when they supported the 25th Army Division in Exercise Koolau. During the first 2 days of the exercise, HMR(L)-161 pilots operated with the aggressor forces of the Army's 27th Infantry, the "Wolfhounds." The final 3 days of the operation, the squadron pilots were attached to the 25th Division and lifted food and supplies to units operating on the rugged ridges of the Koolau mountain range.

Early in February 1961, the squadron returned to the Koolau mountain range and conducted a week of extensive day and night training. The squadron lifted 1,100 troops, 80,000 pounds of supplies, and evacuated 10 casualties while working with elements of the 1st and 2d Battalions, 4th Marines. Perhaps

the most important aspect of this exercise was the incorporation of a landing zone control party (LZCP). The LZCP was a rather new concept in helicopter operations using pathfinder units to guide pilots into landing zones and, after landing, direct the troops to designated areas. The 1st Marine Brigade did not have a pathfinder unit but First Lieutenant Gary W. Williams, a pilot in HMR(L)-161, organized the LZCP. Its contribution to the success of the exercise led to the inclusion of LZCPs in future operations.

A command post exercise (CPX) involving HMR(L)-161 and the 1st Marine Brigade followed the exercise in the Koolau mountains. The CPX lasted only 3 days, and the squadron then went on board the LPH *Thetis Bay* for 2 days of carrier qualifications in preparation for Operation Green Light.

The 1st Marine Brigade left Pearl Harbor in Navy shipping on 22 March 1961 to participate in Operation Green Light, an amphibious assault of the beaches at Camp Pendleton, California. Shortly after the brigade's departure, the situation in the Far East became uncertain because of the Communist Pathet Lao's major offensive in central Laos, and the ships turned around and headed westward in complete secrecy. The whereabouts of the brigade was such a well-kept secret that for many in Hawaii the 1st Marine Brigade became the lost brigade.

HMR(L)-161 was on board the USS *Kearsarge* (CVS 33). Instead of landing on the beaches of California for Operation Green Light, the squadron arrived in the Philippines on 5 April and disembarked. The following day the squadron boarded another carrier, the USS *Bennington* (CVS 20), and sailed from NAS Cubi Point. Still uncertain of its destination, the squadron on 13 April found itself anchored off the island of Okinawa. Shortly thereafter, it received orders to unload and move to MCAF Futema, Okinawa.

The squadron remained at Futema until the Far East situation had stabilized. During the first 3 days of July the members of the squadron were flown back to Hawaii on government aircraft. The squadron's helicopters and equipment were loaded on board the USS *Catamount* (LSD 17) which departed Naha, Okinawa, on 3 July. The majority of the squadron was back home in Kaneohe in time to celebrate the 4th of July holiday.

Later in the year, in a remarkable display of helicopter usefulness, pilots of HMR(L)-161 flying in support of Operation Silver Sword on Maui transported 1,009 Marines and 26,000 pounds of external equipment in 5 hours and 28 minutes about 10 miles behind "enemy lines." The lift took place on 29 September and started before daylight. Prior to the vertical assault, a Marine pathfinder team had parachuted in to clear landing sites for the helicopters in the thick underbrush and mark them with small lights. In late December, in keeping with the Marine Corps' renewed emphasis on antiguerrilla warfare, the 1st Battalion, 4th Marines and HMR(L)-161 teamed up and conducted operations designed to give both commands practice in dealing with anti-guerrilla-type operations. Shortly after the new year began, in February 1962, the Navy Bureau of Weapons came up with a new helicopter class which changed Marine Corps squadron designations. Reflecting the class changes, HMR(L) became Marine Helicopter Squadron, Medium (HMM); HMR(M) became Marine Helicopter Squadron, Heavy (HMH). VMO squadrons remained unchanged; HMR(L)-161 was redesignated as Marine Helicopter Squadron, Medium (HMM) 161, Marine Aircraft Group 13, 1st Marine Brigade.

The brigade and HMM-161 continued their antiguerrilla training and in April conducted Operation Toe Hold. Hunter-killer groups were established and raids were carried out using HMM-161's helicopters. The mission was to hunt and "kill" the enemy by establishing two separate fronts and squeezing him between them.

In June of 1962 HMM-161 celebrated 2 years and over 13,000 flight hours of accident-free flying. During those 2 years HMM-161 carried more than 40,000 Marines, 5,500 passengers, and 1,000 VIPs. It had spent almost 400 hours in the air on 220 search and rescue missions, and hauled more than 443 tons of Marine equipment. Most of this work had been done in support of the 4th Marines, the ground portion of the 1st Marine Brigade's air-ground team.

Shortly after HMM-161 received its full complement of 24 HUSs, the squadron launched a 24-plane training flight over major portions of Oahu. The formation flight, a first in Hawaii, was conducted on 24 August from Kaneohe to Honolulu via Koko Head, Diamond Head, and Waikiki Beach.

In mid-1962, four helicopter crews from HMM-161 were selected to participate in the recovery operation of Project Mercury. Their job was to recover astronaut Walter M. Schirra after his five orbits of the earth. The aircraft crews and duties for HMM-161 were:

Primary:

Captain Kermit W. Andrus (Pilot)
WO-1 Eugene J. Ockuly (Copilot)
Sergeant Jose G. Abeyta (Crew Chief)

Backup:

Captain Phillip P. Upschulte (Pilot)
Captain Virgil R. Hughes (Copilot)
Sergeant James W. McSavaney (Crew Chief)

NASA Doctor and Photographer:

Lieutenant Colonel Lyle V. Tope (Pilot)
Captain Donald A. Dalrymple (Copilot)
Sergeant John C. Thompson (Crew Chief)

Navy Photographer:

First Lieutenant Gary W. Williams (Pilot)
Lieutenant (jg) H. Svoboda, USN (Copilot)

Liaison:

Captain Allen K. Daniel, Jr., was assigned as helicopter liaison officer to Commander Destroyer Flotilla Five.

The four crews and Captain Daniel left MCAS Kaneohe at 1600 on 28 September 1962 and landed on board the USS *Kearsarge* at 1710. The *Kearsarge* was already en route to the recovery station with the pickup scheduled for 3 October.

On the evening prior to the recovery, a message was received from Commander Schirra stating that he wished to remain in the capsule until it was picked up by a destroyer, and that the final decision would be made after impact. The HMM-161 detachment was briefed accordingly.

At 0930 on the morning of 3 October, the crews manned their aircraft and waited for the reentry of the capsule. The contrail of the reentering capsule was observed overhead at approximately 1021. Shortly thereafter the capsule's parachute deployed, and the helicopters launched to recover the astronaut. Captain Andrus established radio contact with Commander Schirra immediately after launching and arrived over the capsule 3 minutes after leaving the deck of the *Kearsarge*. The Navy UDU-1



USMC Photo A290163

1st Marine Brigade Marines disembark on Operation Dirt Road on Oahu in Hawaii. The Marines were brought ashore by HMM-161 in the UH-34D (formerly HUS-1) helicopter.

swimming team was dropped in the water next to the capsule from the primary helicopter, and installed the Stullken collar* around the capsule. Commander Schirra informed Captain Andrus that he desired to stay in the capsule until the USS *Kearsarge* could pick him up.

Lieutenant Colonel Tope, commanding officer of HMM-161 and pilot of the helicopter carrying the doctor and photographer, positioned his helicopter so that the NASA photographer could photograph the collar installation. First Lieutenant Williams hovered his helicopter to the left of the capsule to provide the Navy photographer a vantage point to record the activities.

The UDU-1 swimmers were unaware of Commander Schirra's final decision to remain in the capsule and because of the noise of the hovering helicopter were unable to communicate with the astronaut. They had been instructed in this case to light two red flares, which they did. Captain Upschulte retrieved one of the swimmers and explained Commander Schirra's desires and placed him back in the water. The backup swimming team was then put in the water from Captain Upschulte's helicopter to retrieve the antenna canister and the

drogue chute. Later Captain Andrus picked up these swimmers and their package.

Lieutenant Colonel Tope then returned to the ship to enable the doctor and photographer to be on board when Commander Schirra arrived. The other helicopters landed 20 minutes later after the successful recovery of Schirra. HMM-161 flew for a total of just 4 hours in the recovery operations. The entire operation went smoothly and exactly as briefed.¹⁶

On 18 September, HMM-161 flew out to the USS *Princeton* and conducted day and night carrier qualifications. The squadron took honors for making the 95,000th aircraft landing on board the *Princeton* since its commissioning, the 33,000th helicopter landing since commissioning, and the 23,000th helicopter landing since the *Princeton's* redesignation as an LPH.

The HUS-1 helicopter was redesignated the UH-34D in December when the new uniform means of identifying military aircraft, a joint Army-Navy-Air Force regulation, became effective.

Operation Dirt Road, a 3-week helicopterborne amphibious exercise, put HMM-161 on board the USS *Valley Forge* (LPH 8) from 1-19 April 1963. The early portion of the period was devoted to annual carrier qualification. Once the exercise began, the mission of HMM-161 was to get Marines and their equipment to shore objective areas as fast as possible. By the close of the problem, HMM-161 had trans-

*The Stullken collar is a flotation device put around the space capsule after it lands in the water to prevent it from sinking.

ported nearly 130,000 pounds of supplies and equipment, helilifted 3,713 troops, made 1,041 landings, and logged almost 600 flying hours.

On 9 May 1963, an unfortunate accident almost cost the life of one of the squadron's crew chiefs. The incident occurred at Homestead Airfield on the island of Molokai during a fuel stop. Corporal Maurice H. Bither was refueling one of the squadron's helicopters when suddenly the portable fuel pump filter ruptured and exploded spraying the area with flaming high octane fuel. Corporal Bither was enveloped in flames. Captain Robert E. Stoffey, a pilot in HMM-161, was nearby supervising the refueling operation when the explosion occurred. Although drenched with gasoline himself, Stoffey immediately seized the crew chief, tore off his burning flight suit, and rolled him on the ground to extinguish the flames.

Corporal Bither was seriously burned and immediately flown to a hospital. Captain Stoffey was also burned, but not seriously. For his prompt actions, Captain Stoffey was awarded the Navy-Marine Corps Medal for saving Corporal Bither's life. The award was presented by General Wallace M. Greene, Jr., CMC, during his visit to Kaneohe on 13 January 1964.

A request from Rescue Headquarters at Pearl Harbor put two helicopters on the island of Hawaii for 9 grueling days. The helicopters were involved in the retrieval of the bodies of three men who were killed when their light plane slammed into the steep cliffs of Waimanu Valley on 16 July. During their 9-day mission, the helicopters logged in excess of 66 flight hours carrying 124 passengers and hauling 3,300 pounds of rescue cargo and equipment.

Following on the heels of the 9-day operation on Hawaii, Operation Gear Teeth, a helicopterborne exercise, was conducted from the USS *Iwo Jima* (LPH 2). HMM-161 and the 3d Battalion, 4th Marines landed on the island of Molokai in the early part of September. The landing force and its equipment, including vehicles and supporting artillery, were helilifted from the *Iwo Jima* to the island in less than 5 hours. During the exercise, 20 HMM-161 helicopters carried over 2,000 passengers and more than 70 tons of equipment and supplies.

The frequency of operations remained high for HMM-161, and the next month another amphibious operation, Dull Knife, was conducted on the island of Molokai. For this operation the squadron was to fly support of the landing force from its home base in



USMC Photo A390176

General Wallace M. Greene, Jr., Commandant of the Marine Corps, pins the Navy-Marine Corps Medal on Captain Robert E. Stoffey of HMM-161. Captain Stoffey was awarded the medal for saving the life of a helicopter crewman.

Kaneohe. The landing force was to land over Papahoku Beach on Molokai in Navy landing craft and then be supported by helicopters while operating farther inland. As the third and fourth waves of the landing force were reaching the shore, an unusually high, surging surf destroyed 14 of the 28 LCVPs (landing craft, vehicle, personnel) assigned for the ship-to-shore movement. Miraculously no one was seriously injured, but the landing force was left without transportation to the beach. High surf conditions persisted throughout D-day, preventing further use of LCVPs and LCMs (landing craft, mechanized). HMM-161 came to the rescue. Operating from the small troop ships, the squadron lifted the majority of the assault force ashore plus much of its supplies and equipment.

Lieutenant Colonel Lloyd J. Engelhardt relieved Lieutenant Colonel Tope as commanding officer of HMM-161 on 14 October 1963. Lieutenant Colonel Engelhardt was not a stranger to HMM-161; as a first lieutenant he had been a member of the squadron soon after it had been commissioned in 1951.

The squadron received practical experience in controlling fixed-wing escort aircraft, armed with live ordnance, during Operation Long Day which was conducted by MAG-13 on 2 May 1964. The island of Kahoolawe was used for live firing exercises. During a helicopter lift, HMM-161 directed the fire of the fixed-wing escort in a closely coordinated maneuver. The problem was planned to test coordination of the group under combat conditions.

With the practical experience of Operation Long Day behind it, the air-ground team of the brigade once more employed the Marine Corps-developed concept of vertical envelopment on 28 September, when more than 1,000 Marines assaulted Molokai Island by helicopter in Exercise Royal Oak. Commanding the landing force for the exercise was Lieutenant Colonel Engelhardt, Commanding Officer, HMM-161.

The purpose of Royal Oak was to test the ability of the helicopterborne landing force to operate as a fast reaction force to trap and destroy guerrillas. The USS *Princeton* was used as the flagship for the exercise. HMM-161 and Battalion Landing Team 1/4 made up the air-ground team and operated from her decks for the assault. Numerous landing raids were conducted by helicopterborne troops against the guerrillas, and Lieutenant Colonel Engelhardt commented that, "The raids provided practical experience for both HMM-161 and the ground troops."¹⁷

Major Bobby R. Wilkinson became the next commanding officer of HMM-161 when he relieved Lieutenant Colonel Engelhardt on 30 October 1964. Major Wilkinson had been the squadron executive officer prior to assuming command.

Two HMM-161 pilots achieved helicopter flying milestones when they each logged their 2,000th accident-free UH-34D hour. Chief Warrant Officer Eugene J. Ockuly reached the 2,000 hour mark on 10 December 1964, while Captain Billy G. Phillips accomplished the feat on 9 February 1965.

The officers and men of the 1st Marine Brigade had been planning and preparing for months for a major fleet exercise involving more than 90 ships and 70,000 Navy and Marine Corps personnel. Operation Silver Lance was to be one of the largest Navy and Marine Corps training exercises ever held during peacetime. The exercise was to be conducted off the coast of southern California and ashore at Camp Pendleton from 23 February until 12 March 1965. The brigade, including MAG-13 and HMM-161,

had started loading equipment for the journey to California when the operation was canceled for the units of the 1st Marine Brigade. Those units already underway were ordered back to Kaneohe, while the remaining elements of the brigade were alerted to standby for further orders. Mounting tension in Vietnam was behind these developments.

During this interim Lieutenant Colonel Gene W. Morrison assumed command of HMM-161 from Major Wilkinson, who reverted to duty as the squadron's executive officer.

On 15 March 1965, HMM-161 flew on board the *Valley Forge* and sailed for an unknown destination for an undetermined period of time. This was to be the final "Aloha" for HMM-161. Although it was not known at this time, the squadron would not return to Hawaii.

On the morning of 25 March, HMM-161 was transporting personnel and equipment of the 1st Battalion, 4th Marines from the *Valley Forge* to Camp Schwab, Okinawa, their destination after leaving Hawaii. Eight hours and 45 minutes later, the squadron had moved 500,000 pounds of cargo and airlifted 1,005 troops from ship to shore.

The next day the squadron began moving its own equipment and men to MCAF Futema. It took the squadron only until midafternoon to complete the job. Other units of the 1st Marine Brigade were located at six different camps throughout Okinawa.

Although no official word was passed to the men in the squadron, it was clear to all that HMM-161 was preparing for combat in Vietnam. Vietnamese maps were ordered and labeled, new camouflage flight suits were issued, training was stepped up, brackets for mounting M-60 machineguns were placed on the helicopters, and the crews conducted live firing exercises.

On the morning of 27 April 1965, the squadron departed Okinawa on board the *Princeton*. Its destination was still unannounced, but all hands knew that Vietnam was the next stop.

The Vietnam Years

HMM-161 started its Vietnam tour with another first on 7 May 1965. On this date the squadron conducted the first amphibious helicopter assault of the Vietnam War under combat conditions on the beach at Chu Lai. By noon, the squadron had lifted the assault elements of BLT 1/4 from the *Princeton* to the beach and the surrounding area. The com-



USMC Photo A421973

A UH-34D belonging to HMM-161 unloads soldiers of the 1st ARVN Division during a search and destroy mission 14 miles northwest of Phu Bai. Rice paddies were often the only landing zones available to helicopters in the northern provinces.

mand group of the Regimental Landing Team, 4th Marines (RLT-4) followed. Operating from the *Princeton*, HMM-161 supported the units ashore and conducted general unloading of the RLT.

While en route the squadron had received a message from the commanding officer of MAG-13 officially detaching it from MAG-13, 1st Marine Brigade, FMF, and assigning it to the 1st Marine Aircraft Wing. This message also included permanent change of station orders for the squadron personnel, meaning that the squadron would be in the Far East for an extended period of time. The 1st MAW, in turn, assigned HMM-161 to MAG-16.

Four days after the amphibious helicopter assault, HMM-161 moved by helicopter and small boats from the *Princeton* to the *Iwo Jima*. There the squadron continued to carry out its mission of supporting the units ashore at Chu Lai.

On the morning of 6 June, two squadron aircraft and crews were lost in an aircraft accident which occurred on a predawn mission shortly after they

took off from the *Iwo Jima*. The two helicopters apparently collided in midair and fell into the sea. Because of darkness only a bright yellow ball of flame was seen from the bridge, followed by a loud explosion. The accident claimed the lives of eight squadron members: Captain Paul F. McNally; First Lieutenants Gerald O. McKay, Nicolaus A. Doeden, and Allen C. Hertz; Corporals Gary D. Tracy and Frank W. Wilson; Lance Corporal Carl E. McBee; and Private First Class Curtis L. Foster. The squadron held a memorial service on the flight deck of the *Iwo Jima* the following morning.

For about a month the squadron continued to operate from the *Iwo Jima* in support of RLT-4 at Chu Lai. On 11 June the squadron began unloading its own equipment and supplies from LPH 2, moving to its new home at the airfield at Phu Bai, near the city of Hue. The squadron began daily operations from the new base camp at Phu Bai on 13 June 1965. The normal daily commitments included resupply and medical evacuations for BLT 3/4; Marine logistics (MarLog) flights from Phu Bai to Da Nang and Chu Lai and return in support of the III Marine Amphibious Force (III MAF); and support of the 1st Division of the Army of the Republic of Vietnam (ARVN), located in the northern provinces of South Vietnam.

HMM-161 and BLT 3/4 were the most northern Marine units in South Vietnam at this time. In the extreme north of the country was Quang Tri Province, the responsibility of the 1st ARVN Division. In the months to come HMM-161 would fly many missions in support of the ARVN troops in this sector.

Coming from Hawaii, HMM-161 soon came to be known as the "Pineapples" and, in recognition of this distinction, painted a large yellow pineapple insignia on the front of each helicopter. But the pineapple insignia was not limited to just HMM-161 aircraft. When the squadron left the *Iwo Jima*, they also left their Navy friends a reminder of their visit in the form of yellow pineapples stenciled inside the crews' hard hats, inside the bread box, and on the barber shop door. As a matter of fact, it is also reported that similar mementos of their presence were painted on aircraft of other squadrons whenever the opportunity arose. The idea of painting squadron insignia on another squadron's aircraft spread like wildfire, and it soon became necessary to guard helicopters in friendly areas against the threat of phantom painters.



Photo courtesy of LtCol Gary Parker, USMC

The "Pineapples" flight line at Phu Bai, Republic of Vietnam, in the summer months of 1965. HMM-161 flew UH-34D helicopters in support of the 3d Battalion, 4th Marines and the 1st ARVN Division in northern I Corps.

Although nearly 50 years later, living conditions at the squadron's base camp at Phu Bai developed much like those of Major Alfred A. Cunningham's pilots during the First World War when "Housing for pilots and crews went through three stages: tents with dirt floors, tents with wooden frames and floors, and finally portable wooden buildings."¹⁸ Although the squadron's quarters never advanced to the portable wooden buildings, the familiar quonset hut appeared later at some installations.

On 8 July, given less than 24-hours notice, HMM-161 provided a 10-aircraft detachment for duty 200 miles south at Qui Nhon. Detachment Alpha provided support for BLT 2/7 at Qui Nhon until the end of September when the aircraft and crews returned to Phu Bai.

This 10-aircraft detachment received the necessary maintenance materials and spare parts needed to operate on a day-to-day basis, but any large maintenance checks to be done were usually performed back at Phu Bai. Periodic liaison flights between the Alpha Detachment and its parent unit were made and any helicopter with high time on its engine, transmission, or any other major component was flown to Phu Bai and replaced with another helicopter which had recently undergone a major maintenance check. This kept the large maintenance equipment needed at Qui Nhon to a minimum. The regular liaison flights also provided a means of rotating the crews and kept the squadron informed as to the needs and problems of the detachment.

The first major battle employing the Marine Corps doctrine of vertical envelopment was Operation Starlite, which took place 12 miles south of Chu Lai

between 18-24 August. Five helicopter squadrons, including HMM-161, took part in the operation which trapped a Viet Cong (VC) regiment on a triangular-shaped peninsula and virtually destroyed it. For 5 days and 4 nights, the helicopters provided almost constant air transport service. They hauled troops, ammunition, rations, wounded Marines, and even some prisoners. When the fighting had finally stopped, the Viet Cong had lost 614 killed and another 9 captured.

The day after the Starlite operation ended the squadron's doctor, Lieutenant Kenneth L. Raulston (MC), USN, visited Dong Da, a Vietnamese village near the squadron, and treated 25 people for various infections. On the same visit an artificial leg, which was made by HMM-161's metal shop, was given to an elderly woman in the Duc Anh Kim Orphanage and home for the elderly. The Marines of HMM-161 readily accepted the responsibilities of making life a little easier for nearly a thousand Vietnamese orphans and elderly people, and regularly contributed their time, talent, and money to the orphanage. Medical care was provided by the squadron's doctor and corpsmen, and gifts of toys, clothing, and food were presented to the orphanage.

On 1 September 1965, "Old Glory" was flown for the first time at Phu Bai when HMM-161 held a formation and colors ceremony at its base camp. Representatives of other commands in the area were present to witness the historic occasion.

Several days after the flag raising ceremony, HMM-161 went on board the USS *Princeton* for Operation Piranha. This operation started on 7 September, and for 3 days HMM-161 operated from



Photo courtesy of LtCol Gary Parker, USMC

Two HMM-161 Detachment Alpha helicopters approaching Qui Nhon from the north. HMM-161 maintained a 10-plane detachment at Qui Nhon from July-September 1965 in support of the Battalion Landing Team 2/7.

the *Princeton*, first carrying the initial assault wave ashore and then providing logistical support. Upon completion of the operation, the squadron returned to Phu Bai and continued to support BLT 3/4 and the 1st ARVN Division.

Carrying supplies to the ARVN outposts in the northern I Corps area was a unique experience in that the rations carried were often live. Chickens, ducks, pigs, and even goats were flown to the outposts, as well as ARVN soldiers. It was not uncommon to have feathers floating around the cockpit, or to have an animal escape, creating a small panic in the cabin of the helicopter. Of course the animals themselves were not overly enthusiastic about the helicopter ride and usually managed to voice their displeasure.

On 19 September, seven helicopters in HMM-161 from the Qui Nhon detachment supported the 101st Airborne Brigade, USA, in Operation Gibraltar. All seven received numerous hits from enemy automatic weapons fire in the landing zone. One helicopter, piloted by Captain Billy G. Phillips, went down near the hostile landing zone. Sergeant Dante S. Romeo, the crew chief, evacuated the helicopter carrying his M-60 machinegun and covered the rest of the crew while they scrambled for safety.

Captain Manuel O. Martinez, Captain Phillips' wingman, immediately landed his helicopter in the midst of heavy enemy fire and picked up Phillips and his crew. A total of 58 enemy rounds struck the seven HMM-161 helicopters and many of the aircraft were just able to make it to a nearby village where emergency repairs were made. The aircraft were then flown back to the base at Qui Nhon where permanent repairs began in earnest. Later Captain Martinez

received the Silver Star and Sergeant Romeo received the Bronze Star with Combat "V" for this action.

On 20 September, Lieutenant Colonel Rex C. Denny, Jr., relieved Lieutenant Colonel Morrison as commanding officer of HMM-161. Lieutenant Colonel Denny had been a member of HMM-161 as a first lieutenant in 1951 and had just completed several months duty on the III MAF staff.

The Qui Nhon detachment rejoined the squadron at Phu Bai at the end of September. During this period the squadron was making almost daily runs to Quang Tri, a city 30 miles north of Phu Bai, where it picked up supplies for the 1st ARVN Division and delivered them to the less accessible ARVN positions. On 13 October, HMM-161 carried out an urgent resupply of ARVN outposts at Ca Lu and Ba

An external load of 81mm ammunition is being airlifted into Landing Zone Oak during Operation Piranha. HMM-161 operated from the USS Princeton (LPH 5) for the operation.

USMC Photo A185250



Long, carrying over 43,000 pounds of cargo and 143 passengers. This particular resupply mission was made extremely difficult by bad weather with ceilings down to 300 feet and visibility of less than a mile.

On 17 October a helicopter from HMM-161 ran into stormy weather while on a resupply mission in the Phu Bai area. The aircraft, with 10 persons on board, was lost in the storm and reported missing. Search aircraft were launched from Phu Bai and located the aircraft which had crashed on the side of a mountain. The jungle at the crash site made landing impossible so medical personnel were lowered by hoist, and the survivors were then hoisted into the rescue aircraft. A platoon from BLT 3/4 was lifted to the crash site to provide security for the damaged helicopter and to bring out the bodies of the two Marines killed in the crash. One of those killed was a Marine from BLT 3/4, and the other was Gunnery Sergeant Charles R. Chemis from HMM-161.

By this time the monsoon season had begun in the northern part of the country and flying conditions were treacherous. Howling winds and driving rain were the order of the day, and the VC took advantage of the bad weather to attack several outposts in the Ba Long valley.

Three days after the helicopter crash, 15 UH-34Ds from HMM-161 lifted 467 troops and 93,000 pounds of cargo to Ba Long outpost, which had beaten off a large-scale Viet Cong assault during the night. Because of the attack, the outpost was short of ammunition and supplies. When the resupply helicopters arrived at Ba Long, there were over 100 enemy bodies strewn about the area from the previous night's battle.

On 22 October, Operation Red Snapper continued pressure against the Viet Cong in the Phu Bai area. Helicopters from HMM-161, HMM-361, and VMO-2 supported the operation. The operation was concluded on 25 October with the lift of 380 Marines from the operating area, near the Hai Van Pass, to Da Nang and Phu Bai.

Helicopters from HMM-161 were busier than usual on 5 November. One flight of 8 UH-34Ds lifted over 21 tons of cargo and 52 passengers from the Quang Tri area to Nong Son and Dai Loc. Another flight of 6 UH-34Ds airlifted 37,600 pounds of cargo and 77 passengers between La Vang and Ba Long. On the same day, an unfortunate towing

accident occurred that took the life of Corporal Charles J. Antonelly, a mechanic with HMM-161.

Monsoon weather continued during November, and the rain frequently forced the cancellation of fixed-wing aircraft as helicopter escort on missions in the Ba Long valley. On 23 November six UH-34Ds from HMM-161 attempted to resupply the Ca Lu outpost. With fixed-wing escorts grounded because of the weather, the flight of helicopters could make only one lift due to the intense enemy ground fire. The flight received both small arms automatic weapons fire and 60mm mortar fire which was fused for air bursts. The helicopters were fired at from three different locations and the aircrews considered themselves lucky just to be able to depart the area. Two helicopters were hit in the landing zone and one crew member, Corporal C. F. Wright, was wounded and evacuated to the medical facility at Phu Bai.

Continued monsoon weather during December hampered flight operations everywhere, especially in the Ba Long valley where the ARVN outposts at Ba Long and Ca Lu depended entirely upon the helicopters of HMM-161 for supplies. On 4 December, HMM-161 responded to another call for emergency resupply of the ARVN outpost of Ba Long. Eight helicopters with six fixed-wing escorts repeatedly entered the valley under adverse weather conditions. Six trips were made into the valley; each time a different entry was used as the weather was constantly changing. At times the flights of four had to fly column formation to enter and leave the valley through a small break in the weather, while the second flight of four helicopters orbited outside of the valley until the first was clear of the ridge lines. Information on Viet Cong positions located along the ridge lines was passed to the fixed-wing aircraft, which had voluntarily entered the valley providing suppressive fire for the helicopters. This was extremely dangerous for the jets because at times they had to operate at altitudes of 300 feet or less in a valley which gave them little room to maneuver. The 8 helicopters flew 95 sorties, carried 51,950 pounds of much needed cargo, and transported 119 troops into the valley.

Four days later, HMM-161 launched 10 aircraft on an emergency mission in support of Operation Harvest Moon. Their mission consisted of transporting two waves of troops and cargo from Tam Ky to the combat area. The squadron supported Operation Harvest Moon for about a week. Its helicopters flew trooplifts, resupply, medical



USMC Photo A184342

A Marine helicopter gunner keeps his M-60 machinegun ready as he watches for signs of trouble. Being lifted from Da Nang to Phu Bai were Marines from BLT 3/4.

evacuations, and moved artillery from one firing position to another.

The monsoon rains and bad weather were still hampering flight operations, but it did not prevent distinguished guests from attending what is believed to have been the first unit mess night in Vietnam, held at Phu Bai by the officers of HMM-161. The guests included Major General Nguyen Van Chuan, Commanding General, 1st ARVN Division, Brigadier General Marion E. Carl, USMC, Assistant Wing Commander, 1st Marine Aircraft Wing, Colonel Geoffrey H. Boston, USA, Senior Advisor, 1st ARVN Division, and Colonel Thomas J. O'Connor, USMC, Commanding Officer, Marine Aircraft Group 16. All of the honored guests delivered short speeches. The close cooperation between the 1st ARVN Division and HMM-161 was emphasized when Major General Chuan presented a very attractive 1st Division plaque to the squadron. To what extent "carrier qualification" was practiced later in the evening has not been recorded.

On 28 December a Marine KC-130 aircraft arrived at Phu Bai carrying members of squadron HMM-163, an advance party, from Futema, Okinawa. An advance party from HMM-161 boarded the same KC-130 and returned to Futema. The two squadrons were to switch locations and aircraft at the beginning

of the year; the purpose of the advance parties, to prepare the way.

On the morning of its departure, 4 January 1966, HMM-161 flew a 16-aircraft strike mission* lifting the 2d Battalion, 1st Marines. After 10 minutes of preparatory fires by artillery, Lieutenant Colonel Denny led the helicopters into the zone. Little resistance was encountered. After the troop lift had been accomplished Lieutenant Colonel Denny led the flight in a low flyover at the Phu Bai airfield. By 1700 that evening all squadron members were en route to Okinawa on board three KC-130 aircraft, and HMM-163 had assumed the mission at Phu Bai. The officers and men of HMM-161 left their aircraft with HMM-163 but took with them the warm regard of the 1st ARVN Division. In addition 12 members of the squadron had received Vietnamese Crosses of Gallantry, presented by Major General Chuan at a formal ceremony 2 days before their departure.

Upon arriving in Okinawa personnel quickly settled into their new routine. The squadron was scheduled to spend 3 months in Okinawa replenishing, reorganizing, and training helicopter flight crews. It then would replace another squadron in Vietnam, which in turn would rotate to Okinawa. As many of the original squadron members were due to rotate back to the United States before the squadron reentered Vietnam, new personnel were constantly being transferred in to replace the old "Pineapples."

It was a busy interlude. The squadron flew many training hops; pilots renewed their instrument cards and received flight checks; mechanics, crew chiefs, and other squadron personnel had rifle and M-60 requalification; and, of course, all hands had to take the Marine Corps physical fitness test. As the time approached for HMM-161's reentry into Vietnam, advance parties were again exchanged. This time the squadron was to relieve HMM-361 at the Marble Mountain Air Facility (MMAF) near Da Nang. On 31 March a change of command ceremony was held and Lieutenant Colonel Rex C. Denny, Jr., relinquished command of the squadron to Lieutenant Colonel William R. Quinn.

On the morning of 2 April 1966, the squadron boarded four Marine Corps KC-130 aircraft and departed for Vietnam. It arrived at Da Nang that evening and started work immediately, taking over

*A strike mission is a helicopter assault employing the concept of vertical envelopment with helicopterborne troops.



USMC Photo A184786

Marine infantrymen from Company F, 2d Battalion, 7th Marines board UH-34D helicopters for a sweep and clear operation. In Vietnam the UH-34D could carry approximately eight combat Marines plus the crew.

the aircraft of HMM-361 and establishing itself at the Marble Mountain Air Facility.

On 21 April, two helicopters from HMM-161 were standing search and rescue (SAR) duty when they were sent into Laos to rescue the crew, one injured, of a downed United States Air Force F-4. The lead aircraft was hit by heavy automatic weapons fire while attempting the pickup. The pilot of the helicopter, Captain Gerald C. Huggin, was wounded and the aircraft was heavily damaged. His wingman, First Lieutenant David E. Walker, then made the pickup under hazardous conditions. First Lieutenant Walker's crew chief, Sergeant Daniel D. Gordon, leaped from the aircraft under enemy fire and pulled the injured crew member up a hill and into the waiting helicopter. Both helicopters then staggered back to the SAR base at Khe Sanh.

On 5 May, HMM-161 participated in Operation Cherokee. On 8 May, 8 helicopters from the squadron carried 37,550 pounds of cargo and 201 ARVN troops between Hoi An, Nong Son, Dai Loc, and Que Son. The next day nine aircraft from HMM-161 augmented MAG-36 for Operation Montgomery.

Hardly a day passed that the squadron was not involved in some sort of tactical operation. On 10 May HMM-161 supported Operation Wayne and, with HMM-163, carried 693 troops and 22,000 pounds of cargo. Two days later HMM-161 left Marble Mountain Air Facility for a tactical troop lift from Hoi An to a zone near An Hoa. A total of 201 Marines and 90 ARVN troops were carried in 3 waves.

On 14 May, four aircraft from HMM-161 were

launched on a Sparrow Hawk* mission into a zone 15 miles west of Hoi An. Heavy small arms fire did not prevent the aircraft from debarking the troops. As the number three aircraft was climbing through 1,100 feet, it was hit in the tail pylon causing the loss of directional control. The helicopter began to rotate around its vertical axis while descending and after about six 360-degree rotations, the aircraft crashed in a tree line near the landing zone. Despite enemy fire, all four crew members and their weapons were evacuated by the lead helicopter. All had injuries from the crash. Three of the four aircraft in the flight sustained battle damage, and the gunner of the number two aircraft was wounded in the arm. Later in the day, two maintenance aircraft tried to retrieve the downed helicopter but were driven off by enemy fire. During the night, the VC destroyed the downed aircraft.

Captain Zane V. Lamascus, First Lieutenant William G. Dwinell, Sergeant Karl G. Sandberg, Corporal Melvin J. Hewitt, and Lance Corporal Robert J. Calmes, Jr., were all wounded in action on this mission. Captain Lamascus and Corporal Hewitt were returned to duty; the remaining three, however, were evacuated to hospitals in the United States.

On 20 May the squadron sent three helicopters to support the 9th Marines. On arrival they were launched on an emergency medical evacuation mission. During this mission the crew chiefs left their aircraft to carry wounded Marines on board despite heavy enemy fire in the landing zone. Later in the day, these three aircraft flew an emergency resupply of critically needed ammunition to the same area.

Outstanding professional ability by the pilots of two HMM-161 aircraft enabled them to make an emergency recovery of a reconnaissance patrol under extremely hazardous weather conditions on 23 May. The pilot flying the lead aircraft was able to locate the reconnaissance patrol and make a landing under instrument conditions. Because of the altitude of the landing zone, the lead aircraft could not carry the entire patrol. The second aircraft also had to penetrate the weather to pick up the remainder. After several hazardous, abortive attempts, the landing of the second helicopter was finally ac-

complished. Both aircraft took off from the side of the mountain under instrument conditions and returned the patrol to its home base.

The squadron moved back to Phu Bai on 1 June and began operations from its old base camp. Two HMM-161 helicopters standing I Corps medical evacuation duty were sent north of the Quang Tri area on the evening of 22 June where a large ARVN operation was in progress. As the helicopters landed to pick up the wounded, they came under heavy fire and both aircraft received numerous hits. Because of the heavy contact, eight additional helicopters were launched from Phu Bai, and were joined shortly thereafter by two more aircraft, all with the same mission of support for the ARVN units.

In the course of the evening, 74 medical evacuations, and 14,000 pounds of supplies were carried by the aircraft, which were working in darkness or by the light of aerial flares. The landing zones were under fire all night; several helicopters were hit. One aircraft was grounded in the zone when a round pierced an engine fuel line. Two other damaged aircraft were forced to remain overnight at La Vang, and two additional aircraft remained with them through the night. The downed aircraft were patched up the next morning and all returned to Phu Bai later in the day. Captain Floyd C. Lewis was wounded in the leg by shrapnel during the night, but the wound was minor in nature and he remained on duty with the squadron.

Even more intense combat was encountered on 25 June when the squadron sent four aircraft to support the 4th Marines during Operation Jay. Assigned to resupply and medical evacuation duty, the helicopters initially had little to do. When darkness fell, enemy contact became heavier. By midnight, HMM-161 had 12 helicopters airborne on medical evacuation and resupply missions for Operation Jay.

One of the medical evacuation aircraft, lifting out of the zone after picking up four wounded Marines, was called back for another wounded man. As the pilot was landing, the helicopter was hit and burst into flame while it was still airborne. A corpsman, Hospitalman Third Class Edward G. Creed, was killed along with three of the wounded. The helicopter crew and one evacuee survived the initial crash and were taken out on another helicopter. One of the crewmen who survived the crash, Sergeant Donald E. Stahl, was severely burned and died 2 days later. Captain Floyd F. Stansfield, First Lieutenant Edward W. Moteckew, and Private First Class Jerry

*Sparrow Hawk is a code name for a reinforced rifle squad of about 22 Marines which could be lifted by helicopter to rapidly exploit a VC contact.

D. Ayotte, all suffered moderate burns as a result of the crash but survived. The squadron continued its support of Operation Jay until 28 June.

Operation Hastings, to date the largest Marine operation of the Vietnam conflict, started in mid-July. Until the end of the operation more than 2 weeks later, HMM-161 sent all available aircraft to Dong Ha at 0530 daily where they were assigned their missions, normally flying until 1900 each night. Additionally, two to four aircraft from HMM-161 remained at Dong Ha each night on standby for medical evacuation and emergency resupply missions. Throughout Hastings the pilots and crewmen of HMM-161 constantly met the hazardous conditions which were demanded by the urgency of the operation.

On 20 July a helicopter from HMM-161 was on a medical evacuation mission in support of Hastings, when a mortar round exploded a few feet from the aircraft. The pilot, First Lieutenant Paul W. Culwell, the crew chief, Gunnery Sergeant Elender L. Marks, and the gunner, Gunnery Sergeant Mario M. Dolata, were all struck by the mortar fragments, and the aircraft was riddled with hundreds of holes. Despite the casualties and the damage to the aircraft, First Lieutenant Culwell managed to fly the helicopter to a secure zone for medical and mechanical assistance. The wounded crew members were all returned to duty a few days later.

With Operation Hastings swelling the totals, July was a busy month for HMM-161. The squadron flew 2,104 hours. On the 19th it completed 20,000 combat flight hours in South Vietnam. Since returning to Vietnam in April the squadron had maintained a monthly flight-time average of 1,808 hours. Again, just as in Korea, the statistics compiled on sorties, flight hours, cargo tonnage, medical evacuations, and numbers of Marines carried were beginning to pile up.

Operation Hastings ended on 3 August and almost immediately Operation Prairie started. For HMM-161, Prairie consisted mainly of inserting reconnaissance teams into enemy territory and extracting them at a designated location and time or whenever they ran into trouble and called for help.

First Lieutenant David P. Cardinal, a pilot in HMM-161, received multiple burns when the engine in his helicopter failed and the aircraft crashed and burned 50 miles northwest of Phu Bai. He was on a reconnaissance insertion mission at the time in support of Prairie. The crew chief received minor



USN PHOTO 1116164

A wounded Marine is landed on board the hospital ship USS Repose (AH 16). This scene was repeated many times during the course of the war.

injuries, but the other crew members escaped unharmed. Lieutenant Cardinal was later evacuated to the United States.

Two days later while delivering an emergency ammunition resupply, Corporal Ronald L. Belknap, a gunner, was killed when he was struck by an enemy .50 caliber bullet. The bullet had passed through the cabin of the helicopter killing Corporal Belknap and wounding two passengers.

At this time another operation, Pawnee, was also in progress and HMM-161 was committed to the support of both operations while at the same time trying to meet its commitments to the MarLog flight and the various units which looked to it for support.

On the last day of August one of the squadron's helicopters was launched for a medical evacuation pickup in support of Operation Pawnee. The aircraft was in the landing zone loading the wounded when a burst of automatic weapons fire struck the helicopter. One round went through the cockpit windshield, spraying the pilot with glass. The pilot, Captain William H. Rever, Jr., cut on the face and neck, still managed to complete the mission.

During a medical evacuation mission in support of Operation Prairie on 16 September, a helicopter was hit in the engine throttle box causing the fuel controls to go to full power. The pilot climbed to prevent excessive speed and returned to Dong Ha under

instrument conditions. At 7,000 feet the fuel to the engine was shut off and a full autorotation to a landing was made into a small rice paddy in very hilly terrain. An overcast from 1,500-2,000 feet upwards made this feat extremely hazardous. While this maneuver testified to the professional skill of the pilot, it also exemplified the attitude and courage shown daily by the pilots and crewmembers of HMM-161.

On 25 September, HMM-161 lost a helicopter and a crew to friendly artillery fire. Operating northwest of Dong Ha, the helicopter was hit by a round, immediately burst into flames, and went completely out of control at 3,500 feet. It crashed 12 miles from Dong Ha. All four crewmen and a corpsman from HMM-265 were killed. The squadron lost First Lieutenants Phillip A. Ducat and Dean W. Reiter, Corporal Vernon H. Parker, and Lance Corporal Arthur W. Green. Prior to his death First Lieutenant Ducat had received the Distinguished Flying Cross for his outstanding performance of duty while evacuating 47 wounded U.S. Army troops under heavy fire.

Lieutenant Colonel Charles E. Wydner, Jr., replaced Lieutenant Colonel Samuel F. Martin as commanding officer of HMM-161 on the 1st of October 1966. Lieutenant Colonel Martin had taken command of HMM-161 on 10 August when he relieved Lieutenant Colonel Quinn.

The month of October had been set for HMM-161's second rotation to Okinawa, and embarkation was scheduled for the afternoon of the 31st and the morning of the 1st of November. This time the squadron was to take its helicopters and equipment on board the USS *Valley Forge*. On 30 October, however, the squadron was notified of a shipping change. The USS *Iwo Jima* would be ready to embark them early that same afternoon. The first aircraft left Phu Bai at 1415 and the last aircraft landed on board LPH 2 at 1815. The squadron was completely embarked within 7 hours of notification.

After only a day on board the *Iwo Jima*, the squadron was ordered off the ship and unloaded its aircraft and equipment at the Da Nang airbase taxiway. The following morning the squadron again moved all of its equipment and aircraft from Da Nang to the USS *Valley Forge*, the ship committed in the original plan. The *Valley Forge*, after loading the 2d Battalion, 4th Marines, sailed on 6 November for Okinawa. The squadron arrived at MCAF Futema on 8 November 1966. From 8 November to 15

December the squadron engaged in extensive training and provided support to various Okinawa-based military units.

During this period, the squadron was still flying the UH-34D—an aircraft made obsolete by the introduction of the new CH-46 Sea Knight. Most Marine Corps helicopter squadrons reporting to Vietnam were flying the newer, bigger, faster, and more capable CH-46s. The decision was made to drop HMM-161 from the RVN rotation plan until it could be reequipped with the CH-46.

The CH-46 helicopter was built by Boeing Vertol and was the Marine Corps' replacement for the aging UH-34D. The CH-46 could lift more than double the payload of the UH-34D. A tandem-rotor helicopter, it could carry a crew of 3 and 17-25 fully equipped troops, or 4,000 pounds of cargo over a combat radius of 115 miles at 150 miles per hour. The CH-46 could also be configured to carry up to 15 litter patients. The fuselage was sealed to allow water operations, and it had a large rear ramp for straight-in loading of vehicles and bulky freight. It was equipped with a powered blade-folding system which enabled the rotor blades to be folded quickly by a pilot-operated control. The CH-46 was driven by two 1,400-shaft-horsepower, General Electric, T58-GE-10, shaft-turbine engines, mounted side-by-side at the base of the rear pylon. Two self-sealing tanks in sponsons, mounted on either side of the fuselage, held 380 gallons of fuel. For protection a .50 caliber machinegun was mounted on each side of the helicopter.¹⁹

On 16 December 1966, all personnel in HMM-161 without enough time to rotate back to the United States were transferred to other units in the 1st MAW. Then on 18 December HMM-161's colors were transferred to MAG-26, 2d MAW, FMFLant. The following day Subunit 1 of Headquarters and Maintenance Squadron 26, MAG-26 was officially designated as HMM-161 and the subunit was deactivated. Lieutenant Colonel William D. Watson, commanding officer of Subunit 1, became the new commanding officer of HMM-161 when he accepted the squadron colors from Colonel Thomas T. Tulipane, Commanding Officer, MAG-26, New River, Jacksonville, North Carolina.

Lieutenant Colonel Watson commanded the squadron until 6 July 1967. During that period HMM-161 flew 3,854 accident free hours and trained 29 pilots as replacements for Vietnam in the CH-46D helicopter. The squadron averaged 35 officers and



USMC Photo A191737

An HMM-161 CH-46 helicopter brings in replacements to the 1st Battalion, 3d Marines in an operation near the Demilitarized Zone. Note the "Pineapple" painted on the upper front portion of the helicopter.

206 enlisted during this period as a training squadron. As the squadron continued to train CH-46 replacement pilots for Vietnam, Lieutenant Colonel Paul W. Niesen assumed command of HMM-161 on 7 July 1967. The squadron was due to rotate back to Vietnam in the spring of 1968. At the beginning of the year, it began to stabilize assigned personnel, and an extensive training program was adopted in preparation for the April departure.

On the morning of 20 April 1968, HMM-161 and its 24 aircraft departed New River for MCAS El Toro, California. Three days later, the squadron arrived en masse at its destination. On 1 May it again boarded the USS *Princeton*, the ship it had served in on several previous occasions, for a 17-day voyage to Vietnam.* If nothing else the trip across the ocean gave the squadron a chance to test the sea worthiness of the CH-46D. During the trip Lieutenant Colonel Niesen performed a water rescue when he landed his

CH-46D on the ocean to rescue a seaman who had fallen overboard.

The squadron arrived in Vietnam on 17 May 1968 and began to unload from the *Princeton* at its new home, Quang Tri. Situated north of Phu Bai, the Quang Tri strip was only 15 miles south of the demilitarized zone and not far from the 3d Marine Division command post at Dong Ha. Upon arrival at Quang Tri the squadron was incorporated as part of the Provisional Marine Aircraft Group 39 (ProvMAG-39), 1st Marine Aircraft Wing, FMFPac.

The next day all HMM-161 personnel were given indoctrination briefings. From 19-22 May the squadron flew missions integrated with HMM-262 to become familiar with the area. Starting on 23 May the squadron provided normal helicopter support as part of ProvMAG-39, which was supporting the 3d Marine Division. For the first few days it seemed as if Lance Corporal William R. Gruby, a gunner, was determined to win the war all by himself. On 3 June he was credited with killing 12 enemy soldiers and destroying 2 enemy .50 caliber weapons. Two days later he added four more enemy killed to his total.

*This was to be the squadron's last contact with LPH 5 as the ship was stricken from the Navy's active list on 30 January 1970.



USMC Photo A275307

Lieutenant Colonel Paul W. Niesen, former commanding officer, HMM-161, accepts from Major General Robert G. Owens, Jr., the miniature replica of the Alfred A. Cunningham Trophy signifying his designation as Marine Aviator of the Year for FY 1969.

Two HMM-161 pilots, Captain Lufkin S. Sharp and First Lieutenant Michael D. Helmstetler were killed on 19 June when their helicopter crashed while on a mission near Quang Tri. The other crewmen and passengers were uninjured. For the remainder of June the squadron supported Phase I, II, and III of the 3d Marine Division's Operation Scotland. This was followed in July and August by Operation Lancaster II.

Almost every day the squadron missions included inserting and extracting reconnaissance teams. Frequently this had to be done under heavy enemy fire. On 18 August one crewmember, Sergeant Wayne A. Wild, was seriously wounded during an extraction. On 22 August while trying to insert a reconnaissance team, Corporal Kenneth N. Brandes, a crew chief, was killed and two other crewmen were wounded.

Major Joseph L. Felter and his crew chief, Corporal Rodney E. Weiss, made a daring pickup of a helicopter crew on 2 September. In the face of intense fire, Major Felter, the squadron's executive officer, landed his helicopter next to the wreck of his downed wingman's aircraft, which had been destroyed by enemy mortar and small arms fire. Corporal Weiss jumped out of his aircraft, and under heavy enemy fire, helped the wounded pilot, Captain Gary W.

Parker, into his helicopter. Major Felter patiently held his aircraft in the zone until all of the downed crew were on board and then evacuated the wounded to the emergency hospital at Quang Tri.

On 17 October one of the squadron's helicopters was reported missing. The helicopter was located the next morning, it had crashed on the side of a mountain, killing all six persons on board. The aircraft was believed to have hit a ridgeline hidden by the clouds. The squadron lost Captain Joseph L. Powell, Jr., First Lieutenant James N. Sweet, Corporal John R. Ferrazzano, and Lance Corporals William D. Frantz and Robert M. Cheek.

On 8 November 1968 a change of command ceremony took place and Lieutenant Colonel David L. Elam relieved Lieutenant Colonel Niesen as commanding officer of HMM-161. Lieutenant Colonel Niesen would later receive the Alfred A. Cunningham award as the 1969 Marine Corps Aviator of the Year.

Starting in December and lasting until the end of March, poor flying weather hampered many of the helicopter resupply operations vital to units in the field. To meet the critical commitments required almost daily exploits of daring. Pilots literally air taxied up the sides of cloud-covered mountains to deliver needed supplies. Others spiraled down through small breaks in the weather to pick up wounded Marines and then took off under instrument conditions, climbed out, and while still in the overcast, received radar vectors for instrument approaches to deliver their wounded for treatment.

Marines have always been known for adopting animals in a combat zone, but on the night of 23 December one Marine had to be medically evacuated because of a cat. When the HMM-161 helicopter landed to pick up the injured Marine, his entire reconnaissance patrol decided to leave also. With the injured Marine and his team, the helicopter brought back the cat, now dead, that had caused all the trouble—a 500-pound, 8-foot tiger which had mauled the surprised Marine.

Weather continued to hamper flight operations. During a resupply mission in support of Operation Dewey Canyon on 6 March, First Lieutenant Terry H. Powell was seriously wounded by one of two .50 caliber rounds which struck his aircraft. The copilot, Captain Paul D. Alford, flew the aircraft back to Quang Tri where he executed an instrument approach and delivered Lieutenant Powell to the 3d Medical Battalion.



USMC Photo A192257

Men of the 9th Marines wait to board an HMM-161 helicopter at Vandegrift Combat Base for transport to an area near Quang Tri. The crew chief's .50 caliber machinegun can be seen protruding from a side window.

Several days later, six helicopters were launched on an emergency resupply and medical evacuation mission. While the lead aircraft was unloading its cargo, a mortar round hit the rear of the helicopter, killing the corpsman on board, seriously wounding the gunners and the crew chief, and slightly wounding the pilots, Lieutenant Colonel Elam and First Lieutenant Michael Finnerty. The aircraft caught fire but the crew managed to escape even though all were wounded. The survivors were picked up by another helicopter from the squadron.

On 23 March 1969 First Lieutenant Charles D. Hendricks was fatally wounded by a .50 caliber round while he was trying to extract a casualty by hoist. The aircraft was shot down, but no other crew members were injured. The aircraft was later patched up and flown out by a recovery crew.

Exactly a month later, while the squadron was supporting the 2d ARVN Division, the second helicopter in a landing zone was hit by mortar fire. It rolled down a hill and finally came to rest trapping the pilots. The pilots were freed after being trapped

for 7 hours, but the copilot, First Lieutenant Allen V. Barr, later died from his wounds.

Squadron support of the 3d Marine Division continued at a steady, intense pace. Missions were flown in support of Operations Purple Martin, Maine Crag, Virginia Ridge, Herkimer Mountain, Apache, and Cameron Falls. In June HMM-161 also supported the U.S. Army and the 2d ARVN Division, and added Operation Utah Mesa to its already long list of completed activities.

On 5 June, Major James S. Loop received major injuries in both feet and his right leg while he was attempting to pick up wounded Marines from the 9th Marines. Then 5 days later, HMM-161 lost two aircraft to enemy action, but the crews escaped uninjured.

Major Richard W. Carr became the next commanding officer of HMM-161 on 20 July when he relieved Lieutenant Colonel Elam. On 28 July, First Lieutenant George A. Kontrabecki and First Lieutenant Andrew F. Green took off for an emergency mission at a fire support base that was



USMC Photo A192732

HMM-161's "Yankee Romeo 31" moves in for an external pickup in a loading zone near the "Rockpile." Gear and supplies were transferred from one landing zone to another by this method.

completely covered by clouds. The mission was accomplished by air taxiing the helicopter up the last 1,000 feet of the mountain side that was obscured by the clouds.

On 2 September, Typhoon Dora hit Quang Tri with winds in excess of 70 knots. All flight operations were canceled, and emergency measures taken to secure helicopters and equipment. Nevertheless, the high winds caused excessive blade flapping and damaged the rotor blades of 18 squadron aircraft. After the typhoon, HMM-161 entered a new phase of logistical combat support in the Republic of South Vietnam. Because of the reduction of Marine forces in northern I Corps, the squadron's main tasks were the relocation of remaining elements of the 3d Marine Division along the northern and north-

western frontier of South Vietnam. During the period of 26-28 September HMM-161 was busy moving from Quang Tri to Hue/Phu Bai. Two days and five truck convoys later, HMM-161 began normal operations once again from the Phu Bai airfield.

The month of October brought rain and winds as the monsoon season approached. Phu Bai recorded 57.93 inches of rain during the first 8 days of October. Flight operations were curtailed, but HMM-161 still flew, in many instances accomplishing assigned missions under instrument conditions in hazardous mountain areas.

On 16 October 1969, HMM-161 became part of Marine Aircraft Group 16 when Provisional Marine Aircraft Group 39 was deactivated. The squadron

remained at Phu Bai, but on 23 October it began flying all of its missions in the Da Nang area. The tasks assigned were primarily resupply, visual reconnaissance, and administrative movements. The pilots and crewmen adapted quickly to the new working area and acquired the techniques necessary for operations in the flatlands of the 1st Marine Division's area.

The end of the month was highlighted by the squadron's acceptance of the fourth annual National Defense Transportation Association Award. The award recognized the squadron's exemplary performance in support of ground units in South Vietnam from 1 December 1968 to 31 May 1969. During this period HMM-161 transported 72,367 passengers, 7,185 medical evacuations, and 9,876,000 pounds of cargo.

For the next 2 months HMM-161 supported both the 1st Marine Division in the Da Nang area and the Republic of Korea Marines, who were assigned a coastal area to the south. The squadron was primarily engaged in medical evacuations, resupply,

reconnaissance, and administrative missions. Low ceilings and very limited visibility hampered helicopter operations for most of the month. Despite hazardous weather conditions, HMM-161 crews repeatedly flew into landing zones that were intermittently or totally obscured by cloud cover. On 9 December First Lieutenant James M. Chapin was wounded while flying a medical evacuation mission, and on the same day First Lieutenant Gerald L. Long made a successful emergency landing after his helicopter was damaged by enemy fire.

Major Carr turned over command of HMM-161 on 15 December 1969 to Lieutenant Colonel Bennie H. Mann in change-of-command ceremonies conducted at Phu Bai. The first task confronting Mann was moving his newly acquired squadron to the Marble Mountain Air Facility near Da Nang. The squadron's relocation from Phu Bai to Marble Mountain began on 2 February 1970 and was completed on the same day. The squadron was operational on 3 February.

The shortest month of the year brought bad luck to



USMC Photo A422630

Helicopters from HMM-161 transport 1st Division Marines to Arizona Territory during an operation south of Da Nang. Note that the "Phrog Phlyers" symbol on the front of the helicopter has replaced the pineapple.

HMM-161. On 5 February First Lieutenant Martin J. Benson was critically wounded and Captain Brian J. Duniec received minor abrasions when they drew heavy enemy fire on a reconnaissance insert mission. First Lieutenant Benson died on 26 February as a result of his wounds.

Another squadron aircraft, en route to the USS *Repose* on the night of 16 February on an emergency blood-resupply mission, entered marginal weather and crashed into the side of a hill. First Lieutenants Alan C. DeCraene and Joel W. Sampsell, Corporals Jan D. Garringer and Robert J. Wiese, and Lance Corporal Donald W. Morin were killed in the crash.

HMM-161 continued flying support for the 1st Marine Division, the Republic of Korea Marines, and ARVN units located in the Da Nang area during the month of March. One aircraft accident of 10 March resulted in the death of four Marine passengers and the complete destruction of the helicopter. The helicopter crew escaped with only minor injuries.

Major Lewis J. Zilka, the squadron's executive officer, became the new commanding officer when he relieved Lieutenant Colonel Mann on 16 July 1970. On 5 August, the squadron was ordered to stand down in preparation for redeployment to the United States.

On 16 August 1970, some of the squadron personnel and equipment embarked on board the USS *Outagamie County* (LST 1073) for the return trip. The squadron's helicopters were turned into the MAG for dispositions to other squadrons. The commanding officer and other HMM-161 Marines whose overseas tours were nearly completed were returned to the States by government aircraft on 22 August. The remaining squadron personnel boarded the USS *Denver* (LPD 9) on 6 September for their return.

The *Denver* arrived at Del Mar, California, on 23 September and the members of HMM-161 boarded buses for the ride to their new home at Santa Ana. It was almost a month later before the *Outagamie County* finally arrived, but on 22 October she docked at Del Mar and unloaded her passengers and equipment. The squadron was now assigned to MAG-56, 3d MAW, FMFPac and located at the MCAS(H) Santa Ana, California.

The Vietnam tours had come to an end for HMM-161. The squadron had done its job well adding to the traditions and heritage of HMM-161 that had been established in Korea some 19 years before.

Shortly after the squadron's arrival at Santa Ana, Lieutenant Colonel Richard G. Courtney assumed command of HMM-161 succeeding Major Zilka. The change of command was actually a dual ceremony. On Friday 14 November 1970, Lieutenant Colonel Courtney first retired the colors of HMM-265, which was being deactivated, and then relieved Major Zilka as commanding officer of HMM-161. The Marines and aircraft of HMM-265 had already been transferred to the rolls of HMM-161.

The squadron continued its transition from cadre status to a fully operational squadron in the following months. On 12 March 1971, the squadron again changed commanding officers when Lieutenant Colonel Bobby T. Ladd relieved Lieutenant Colonel Courtney.

Between 20-25 June HMM-161 provided 10 aircraft in support of Operation Bell Thumper. The operation was conducted within the confines of Camp Pendleton, and the squadron flew 126 hours in support of ground forces despite deteriorating weather. For the 6-month period ending 30 June, HMM-161 remained accident free while accumulating 3,533 flight hours.

With the start of the new fiscal year the squadron received still another new commanding officer. Lieutenant Colonel George H. Dunn II relieved Lieutenant Colonel Ladd during a ceremony held at MCAS (H) Santa Ana on 1 July 1971. Two weeks after the change of command the squadron was assigned to MAG-16, which had recently returned from Vietnam. At the same time MAG-56 was deactivated.

During the first 3 months of the fiscal year, HMM-161 accumulated 1,570 flight hours. The majority of these were logged in support either of the 3d MAW or of the FMFPac units located at MCB Camp Pendleton and MCB Twentynine Palms. Starting in October, HMM-161 was ordered to prepare aircraft for transfer as part of the overall redistribution of CH-46 aircraft through the Marine Corps and specified Navy commands. Maximum effort was concentrated on accepting and preparing designated aircraft for transfer. This task greatly reduced the number of flight hours flown during this period.

The squadron opened the new year still preparing CH-46D aircraft for redistribution within the Marine Corps. Prior to the transfer of the last CH-46D

aircraft on 18 March 1972, HMM-161 began receiving the newer CH-46F models. The CH-46F was similar to the CH-46D, having the same engine, rotor blades, and fuselage, but it contained additional electronic equipment and a slightly different instrument panel. Operational commitments remained light throughout February and March while the squadron trained with the new models and returned to full operational status.

The squadron continued its training with operations encompassing day and night medical evacuations, troop lifts, reconnaissance inserts, administrative assistance, sensor drops, microwave testing, pilot and crew training, and static displays for various military and civilian organizations. The squadron was also engaged in training replacement pilots for duty in Vietnam. On 26 April 1972 Lieutenant Colonel Gary W. Hintz relieved Lieutenant Colonel Dunn as the commanding officer of HMM-161.

The squadron took part in Exercise Bell Hammer from 24-31 January 1973. The task of coordinating the planning and operation of the helicopter element, composed of 10 CH-46F, 6 HU-1E, and 4 CH-53 helicopters, was assigned to HMM-161. During the exercise a total of 1,708 passengers and 41.4 tons of cargo were lifted by the composite squadron in support of RLT-7.

From 7-17 May the squadron deployed to NAS Fallon, Nevada, with 10 aircraft. Primary emphasis was given to tactics, field problems, confined area landings, mountain area landings, and enlisted aircrew training on the .50 caliber machinegun. Later in the month HMM-161 participated in a joint operations exercise, Operation Broken Arrow II, for Marine Aircraft Group 16. The operation emphasized the Redeye-type missile threat to helicopters and was designed to develop ideas and concepts for future tactics.

The squadron supported the Marine Reserves when the 17th Marine Amphibious Unit (MAU) conducted Operation Beagle Dancer from 13-18 July. Ten aircraft and crews participated in numerous troop lifts, both administrative and tactical. During early portions of the operation, helicopters from HMM-161 were utilized for on-call search and rescue and night inserts. The squadron flew a total of 68 hours, transporting 172 combat troops and 7.5 tons of cargo.

Change of command ceremonies were held on Friday, 20 July 1973, in the squadron area and



USMC Photo A195287
Major General William R. Quinn, a former commanding officer, HMM-161.

Lieutenant Colonel Leland O. Waymire relinquished his post as commanding officer of HMM-161 to Lieutenant Colonel John J. Tharp. Lieutenant Colonel Waymire had assumed command of the squadron on 24 March when he had relieved Lieutenant Colonel Hintz.

The squadron conducted operations at the Marine Corps Mountain Warfare Training Camp (MWTC) located near Bridgeport, California, from 3-24 August. Two aircraft, with supporting air and maintenance crews on a rotating basis, provided search and rescue, training, and administrative and logistical support for the 3d Battalion, 1st Marines.

HMM-161 celebrated its 23d birthday on 15 January 1974. The guest speaker was Brigadier General William R. Quinn, a former commanding officer of the squadron. During the ceremony a Boeing Vertol representative presented a 10,000 accident-free hours plaque from the Vertol Division of Boeing Aircraft Corporation. In addition, a flight-time achievement plaque was awarded for 50,000 accumulated hours in the CH-46. The ceremony was followed by a cake-cutting celebration.

Carrier qualifications were conducted on 9 May on

board the USS *Duluth* (LPD 6) and on 3 and 4 June 14 pilots were day and night qualified on board the USS *Okinawa* (LPH 3). During 4 June HMM-161 pilots and crew manned the SAR helicopter for the USS *Okinawa*.

On 13 September 1974, MAG-16 assigned HMM-161 as the composite helicopter squadron to support Exercise Alkali Canyon 74. The squadron received a mix of helicopters from other squadrons in order to support the exercise. The helicopters flew missions in support of the 3d Battalion, 8th Marines during the small unit and mechanized/infantry training phase of the exercise, and later flew support missions for the I MAF units deployed to Twentynine Palms in support of Alkali Canyon. The exercise proved to be excellent for training pilots in desert operations. The three CH-46 helicopters of HMM-161 flew 218 hours and lifted 13.5 tons of cargo and transported 1,550 Marines on the exercise. Lieutenant Colonel Richard J. Adams now commanded HMM-161, and during Exercise Alkali Canyon he flew his 6,000th accident-free hour on 12 November 1974.

The first deployment of the new year took place from 28 January to 6 February, when three aircraft from HMM-161 flew on board the USS *Denver* for Operation Bead Stream. The detachment included 9 officers and 21 enlisted men, led by Major Henry L. Kunkel, the squadron's executive officer. Flights in support of Bead Stream included ship-to-shore troop lifts, logistics flights, simulated tactical troop movements, resupply flights, and simulated medical evacuation flights.

From 31 March to 5 April, HMM-161 deployed to MCAS Yuma with nine helicopters. Flight training consisted of formation flying and advanced tactics and techniques. When the squadron returned from the 6-day deployment, it had flown a total of 180 hours.

Operation Bell Buster took place from 28 April to 9 May and involved four aircraft from HMM-161. The detachment flew a total of 142.1 hours and 142 sorties, while carrying 580 passengers, and 22,000 pounds of cargo.

The squadron's next deployment was from 1-7 June 1975 at NAS Fallon. Ten aircraft were flown to Fallon for the purpose of developing high altitude and mountain flying skills. Training included tactical formation flying, mountain area landings, and instrument flying. Then on 20 June Lieutenant Colonel Adams turned over command of HMM-161 to Major Kunkel in ceremonies held at HMM-161's

squadron area. Lieutenant Colonel Adams reported to MAG-16 where he was assigned as the group operations officer.

The squadron returned to NAS Fallon from 8-15 August 1975 for more mountain and high-altitude training, while at the same time supporting activities at the MWTC. The squadron stood search and rescue duty for the MWTC twice during the second half of the fiscal year.

Two HMM-161 helicopters joined the USS *Dubuque* (LPD 8) on its way to Alaska on 2 September. The mission of the aircraft was to support the 3d Battalion, 5th Marines' Exercise Kernal Eagle. Throughout the operation, the squadron helicopters provided logistical support and stood SAR duty for the battalion.

HMM-161 was called upon to support Operation Alkali Canyon 75 at Twentynine Palms from 2-16 September. Four HMM-161 aircraft provided the 2d Battalion, 2d Marines with support encompassing extracts, logistic flights, actual and simulated medical evacuations, and both day and night aerial observation.

From 5-12 December HMM-161 had 10 aircraft in Yuma engaging in advanced tactics and techniques training which included day and night live firing problems as well as aerial maneuvering in a simulated hostile environment. During this deployment, squadron crews qualified or requalified, as necessary, in aerial gunnery.

The squadron deployed to Yuma again in March and participated in Operation Palm Tree 4-76, which was held in May. After moving back to NAS Fallon in June, another detachment of two helicopters was sent to Alaska on board the USS *Juneau* (LPD 10) in support of the 1st Battalion, 5th Marines and Exercise Bearer Ice. On 26 August HMM-161 was back in Fallon for more formation and tactics training and from 5-10 September one HMM-161 aircraft participated in Operation Palm Tree 6-76 at Twentynine Palms. Another deployment to Yuma came from 22-29 October, and the squadron's last major commitment of 1976 was Operation Palm Tree 7-76, again held at Twentynine Palms.

From early in February 1977 until the middle of March, HMM-161 flew over 100 hours in Operation Evaluation. This operation was in support of the USS *Tarawa* (LHA 1), the newest amphibious assault ship. Then from 25-31 March, the squadron took 15 helicopters and 121 men and deployed to MCAS Yuma for desert tactical training. Exercise Palm

Tree 2-77 from 13-21 April ended HMM-161's commitments for the first six months of 1977.

During the period of 1 January 1977 to 30 June 1977, HMM-161 flew 3,721 accident free hours and carried 4,600 passengers and over 500 tons of cargo. The squadron supported such varied agencies as MCAS Yuma, 3d Marine Aircraft Wing, 1st Marine Division, and numerous naval and civilian groups in the San Diego area.

Marine Medium Helicopter Squadron 161 enjoys a rich heritage steeped in traditions created by Marines who have flown and worked and fought with helicopters through the years. Its combat effectiveness has been tested and proven. This proud squadron can claim many firsts in aviation history from Korea to Vietnam, and the Marines who have been part of HMM-161 have brought honor to the squadron, Corps, and Country.

NOTES

The Beginning

Unless otherwise noted, the material in this section was derived from Marine Transport Helicopter Squadron 161 Historical Diary, January 1951 - September 1951.

1. LtGen Roy S. Geiger ltr to CMC, dtd 21Aug46.
2. LtCol Eugene W. Rawlins, *Marines and Helicopters, 1946-1962* (Washington: Hist&MusDiv, HQMC, 1978), p. 40, hereafter Rawlins, *Helicopter*, 1946-1962.
3. CNO msg to CMC, dtd 22Nov47.
4. Rawlins, *Helicopter*, 1946-1962, pp. 30-31.

Korea: The Eastern Front

The material in this section was derived from Marine Transport Helicopter Squadron 161 Historical Diary, September 1951 - March 1955.

5. Col F.B. Nihart, Comments on draft manuscript, dtd 16Feb68 (HMM-161 Comment File).
6. HMM-161 Squadron Historical File (HisRefSec, Hist&MusDiv, HQMC), hereafter *HMM-161 Hist File*.
7. *HMM-161 Hist File*.
8. Charles Gablehouse, *Helicopters and Autogyros* (Philadelphia: J. B. Lippincott Company, 1967), p. 13.
9. Lynn Montross, Maj Hubard D. Kuokka, and Maj Norman W. Hicks, *The East Central Front-U.S. Marine Operations in Korea 1950-1953*, Vol IV, (Washington: HistDiv, HQMC, 1962), p. 17.

Korea: The Western Front

The material in this section was derived from Marine Transport Helicopter Squadron 161 Historical Diary, March 1951 - March 1955.

10. *HMM-161 Hist File*.
11. *Ibid*.

The Hawaiian Years

The material in this section was derived from the base newspaper, *The Windward Marine*, U.S. Marine Corps Air Station, Kaneohe, Hawaii, from March 1955 - April 1965.

12. *Jane's All the World's Aircraft* 1956, compiled and edited by Leonard Bridgman (New York: McMillan Co., 1955-56), p. 271, hereafter, *Jane's Aircraft* and date.
13. *Jane's Aircraft*, 1955-56, p. 231.
14. *Windward Marine*, 15Mar57, p. 4.
15. *Jane's Aircraft*, 1960-61, p. 391.
16. HMM-161 MA-8 Recovery; Special Post Operation Report, on file *HMM-161 Hist File*.
17. *Windward Marine*, 2Oct64, p. 1.

The Vietnam Years

Unless otherwise noted, the material in this section was derived from Marine Aircraft Group 16 Command Chronology, April 1965-April 1966, and from Marine Helicopter Squadron 161 Command Chronology, April 1965-August 1970.

18. LtCol Edward C. Johnson, *Marine Corps Aviation: The Early Years 1912-1940* (Washington: Hist&MusDiv, HQMC, 1977), p. 44.
19. *Jane's Aircraft* 1965-66, pp. 199-200.

The California Years

The material in this section was derived from Marine Medium Helicopter Squadron 161 Command Chronology, September 1970-present. All material is located in ArchivesSec, Hist&MusDiv, HQMC.

APPENDIX A

CHRONOLOGY

15 Jan 1951	Activated at El Toro, California, as Marine Helicopter Transport Squadron 161 (HMR-161) Air-FMFPac.	May 1965	Deployed to Hue/Phu Bai, Republic of Vietnam, and attached to MAG-16, 1st MAW.
Aug 1951	Deployed to Korea and attached to 1st MAW.	Jan 1966	Relocated to Futema, Okinawa.
Aug 1951-Jul 1953	Participated in the Korean War, operating from the East Central Front and the Western Front.	Apr 1966	Redeployed to Da Nang, Vietnam.
Jul 1953-Mar 1955	Participated in the defense of the Korean Demilitarized Zone.	Jun 1966	Redeployed to Hue/Phu Bai, Vietnam.
Mar 1955	Relocated to Kaneohe Bay, Territory of Hawaii, and attached to MAG-13.	Nov 1966	Relocated to Futema, Okinawa, and attached to MAG-15, 9th Amphibious Brigade.
31 Dec 1956	Redesignated as Marine Helicopter Transport Squadron (Light) 161 (HMR(L)-161), MAG-13, 1st MAW.	Dec 1966	Relocated to New River, North Carolina, and attached to MAG-26, 2d MAW.
1 Oct 1958	Attached to the 1st Marine Brigade.	May 1968	Deployed to Quang Tri, Vietnam, and attached to Provisional MAG-39, 1st MAW.
1 Mar 1959	Attached to MAG-13, 1st Marine Brigade.	Oct 1969	Relocated to Phu Bai, Vietnam, and attached to MAG-16 1st MAW.
1 Feb 1962	Redesignated as Marine Medium Helicopter Squadron (Light) 161 (HMR(L)-161), MAG-13, 1st Brigade.	24 Sep 1970	Relocated to MCAS(H), Santa Ana, California, and designated as HMM-161, MAG-56, 3d MAW.
		15 Jul 1971	Redesignated as HMM-161, MAG-16, 3d MAW.

APPENDIX B

COMMANDING OFFICERS

LtCol George W. Herring	15 Jan 1951 - 17 Dec 1951
Col Keith B. McCutcheon	18 Dec 1951 - 6 Aug 1952
LtCol John F. Carey	7 Aug 1952 - 15 Mar 1953
Col Owen A. Chambers	16 Mar 1953 - 23 Sep 1953
LtCol John H. King, Jr.	24 Sep 1953 - 2 Dec 1953
Col Harold J. Mitchener	3 Dec 1953 - 19 Mar 1954
LtCol Robert R. Ayres, Jr.	20 Mar 1954 - 4 Jul 1954
LtCol Richard L. Nickerson	5 Jul 1954 - 20 Jan 1955
Maj Irwin E. Moore	21 Jan 1955 - 19 May 1955
Maj David Riley	20 May 1955 - 21 May 1956
Maj William W. Eldridge	22 May 1956 - 12 Aug 1956
LtCol Stanley V. Titterud	13 Aug 1956 - 1 Jul 1958
Maj Donald A. McMillan	2 Jul 1958 - 26 Aug 1958
LtCol Robert E. Cameron	27 Aug 1958 - 14 Oct 1958
Maj Warren R. Young	15 Oct 1958 - 13 Aug 1959
LtCol Alton W. McCully	14 Aug 1959 - 19 Aug 1960
LtCol Elbert F. Price	20 Aug 1960 - 18 Dec 1961
LtCol Lyle V. Tope	19 Dec 1961 - 14 Oct 1963
LtCol Lloyd J. Engelhardt	15 Oct 1963 - 30 Oct 1964
Maj Bobby R. Wilkinson	31 Oct 1964 - 14 Mar 1965
LtCol Gene W. Morrison	15 Mar 1965 - 21 Sep 1965
LtCol Rex C. Denny, Jr.	22 Sep 1965 - 1 Apr 1966
LtCol William R. Quinn	2 Apr 1966 - 9 Aug 1966
LtCol Samuel F. Martin	10 Aug 1966 - 2 Oct 1966
LtCol Charles E. Wydner, Jr.	3 Oct 1966 - 17 Dec 1966
LtCol William D. Watson	18 Dec 1966 - 6 Jul 1967
LtCol Paul W. Niesen	7 Jul 1967 - 8 Nov 1968
LtCol David L. Elam	9 Nov 1968 - 19 Jul 1969
Maj Richard W. Carr	20 Jul 1969 - 14 Dec 1969
LtCol Bennie H. Mann, Jr.	15 Dec 1969 - 15 Jul 1970
Maj Lewis J. Zilka	16 Jul 1970 - 13 Nov 1970
LtCol Richard G. Courtney	14 Nov 1970 - 11 Mar 1971
LtCol Bobby T. Ladd	12 Mar 1971 - 30 Jun 1971
LtCol George H. Dunn II	1 Jul 1971 - 25 Apr 1972
LtCol Gary W. Hintz	26 Apr 1972 - 23 Mar 1973
LtCol Leland O. Waymire	24 Mar 1973 - 20 Jul 1973
LtCol John J. Tharp	21 Jul 1973 - 28 Jun 1974
LtCol Richard J. Adams	29 Jun 1974 - 19 Jun 1975
Maj Henry L. Kunkel	20 Jun 1975 - 23 Nov 1976
LtCol Noel J. Keller	24 Nov 1976 -

APPENDIX C

STREAMER ENTITLEMENT

PRESIDENTIAL UNIT CITATION STREAMER WITH ONE BRONZE STAR

Korea, 21 Sep - 25 Sep 1951
Vietnam, 7 May 1965 - 3 Jan 1966 and 1 Apr - 31 Oct 1966

NAVY UNIT COMMENDATION STREAMER WITH TWO BRONZE STARS

Korea, 1 Aug 1952 - 27 Jul 1953
Vietnam, 18 Aug - 23 Aug 1965
Vietnam, 17 May - 16 Oct 1968

MERITORIOUS UNIT COMMENDATION STREAMER

Vietnam, 17 Oct 1968 - 30 Jun 1969

NATIONAL DEFENSE SERVICE STREAMER WITH ONE BRONZE STAR

15 Feb 1951 - 27 Jul 1954
1 Jan 1961 - 15 Aug 1974

KOREAN SERVICE STREAMER WITH ONE SILVER STAR

U.N. Summer-Fall Offensive, 2 Sep - 27 Jul 1951
Second Korean Winter, 28 Nov 1951 - 30 Apr 1952
Korean Defense, Summer-Fall 1952, 1 May - 30 Nov 1952
Third Korean Winter, 1 Dec 1952 - 30 Apr 1953
Korea, Summer-Fall, 1953, 1 May - 27 Jul 1953

VIETNAM SERVICE STREAMER WITH TWO SILVER AND ONE BRONZE STAR

Vietnam Defense Campaign, 7 May - 24 Dec 1965
Vietnamese Counteroffensive Campaign, 25 Dec 1965 - 5 Jan 1966 and 24 Apr - 30 Jun 1966
Vietnamese Counteroffensive Phase II, 1 Jul - 8 Nov 1966
Vietnamese Counteroffensive Phase VI, 17 May - 30 Jun 1968
Vietnamese Counteroffensive Phase V, 1 Jul - 1 Nov 1968
Vietnam Counteroffensive Phase VI, 2 Nov 1968 - 22 Feb 1969
Tet 69/Counteroffensive, 23 Feb - 8 Jun 1969
Vietnam, Summer-Fall 1969, 9 Jun - 31 Oct 1969
Vietnam, Winter-Spring 1970, 1 Nov 1969 - 30 Apr 1970
Sanctuary Counteroffensive, 1 May - 30 Jun 1970
Vietnam Counteroffensive Phase VII, 1 Jul - 16 Aug 1970

KOREAN PRESIDENTIAL UNIT CITATION STREAMER

2 Sep 1951 - 27 Jul 1953

VIETNAM CROSS OF GALLANTRY WITH PALM

7 May 1965 - 20 Sep 1969

VIETNAM MERITORIOUS UNIT CITATION CIVIL ACTIONS STREAMER

21 Sep 1969 - 16 Aug 1970

The squadron insignia on the back cover originated with the squadron in 1951. The Latin inscription Equitatus Caeli, translates to "Cavalry of the Sky," which the winged horse, or Pegasus, represents. The three rotor blades count for the number used on the squadron's first helicopter, the Sikorsky HRS-1. The number inscribed in the center of the insignia represents Marine Transport Helicopter Squadron 161, the first transport helicopter squadron in the Marine Corps.

