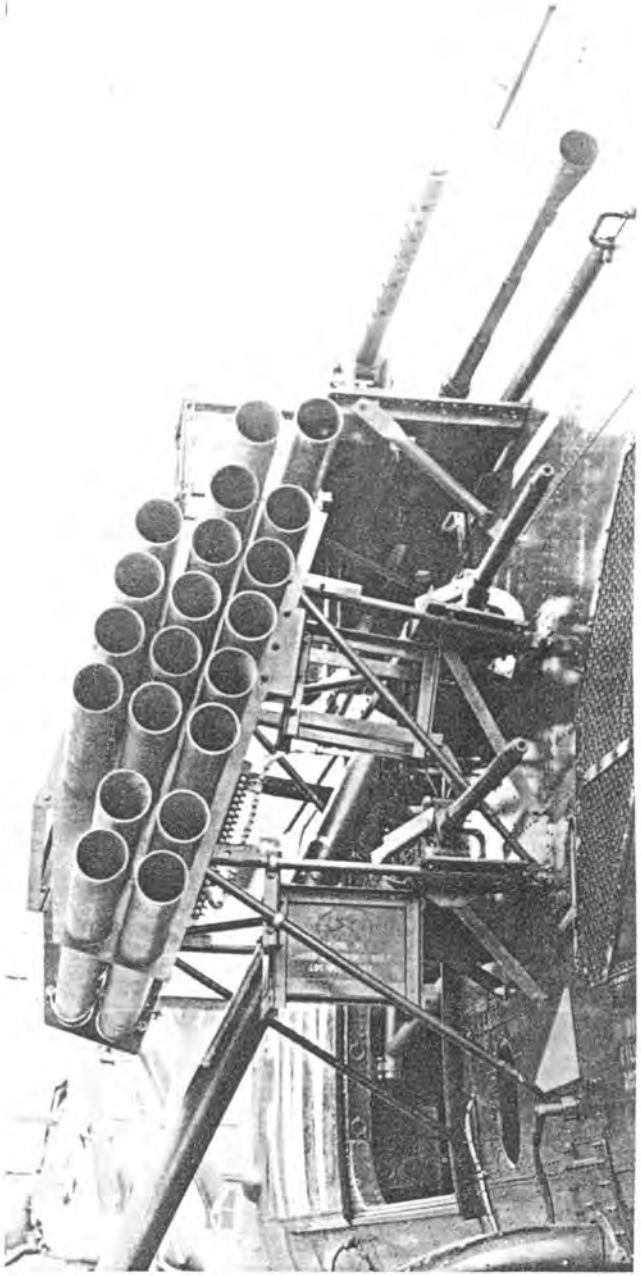
Experiments with an armed version of the H-34 were conducted in 1956.

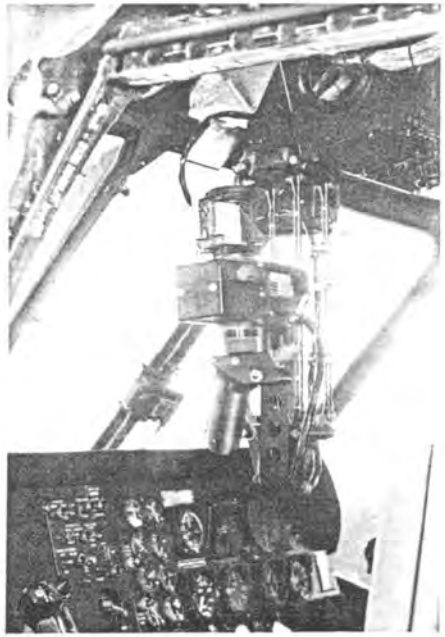
H-34 firing Bullpup missile during tests.

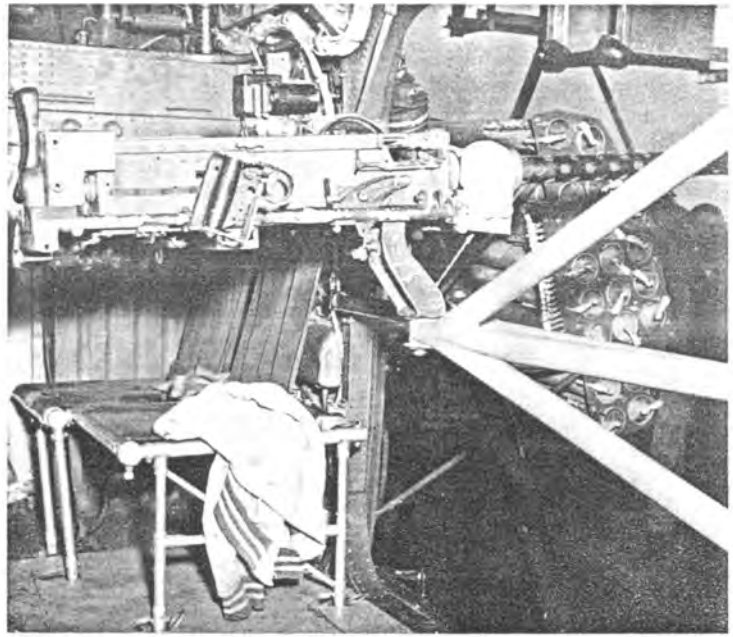
H-34's were also armed with Bullpup missiles and Hughes 20mm revolver cannon pod. (400 rounds)

Armed H-34 carried twin 20mm cannon, twin 50 caliber MG, 40 2.5 FFAR, twin 30 cal MG (window mounted),4 30 cal. MG (tracer firing for rocket aiming),2 5" Tiny Tim Rockets, and one 50 cal MG in window mount.



Armament mounting on side of H-34, including 2.5" FFAR tubes, .30 and .50 cal. MG's, and 20mm cannon.

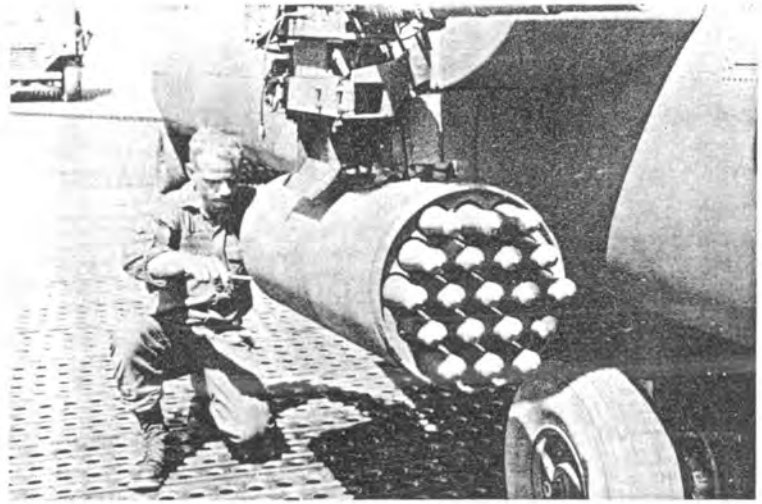




Additional H-34 details, including cockpit pantograph sight, and waist 50 cal. MG mount.

Sikorsky SH-3 Sea King mounting 40 4.5" rocket tubes, capable of elevation and depression. (Sikorsky)

In 1966 1st Air Cav Div evaluated 3 armed CH-47 Chinooks in combat. They mounted 40mm M-5 grenade launchers, 2.75 FFAR's, 20mm cannon, and five .50 cal. window mounted machine guns.

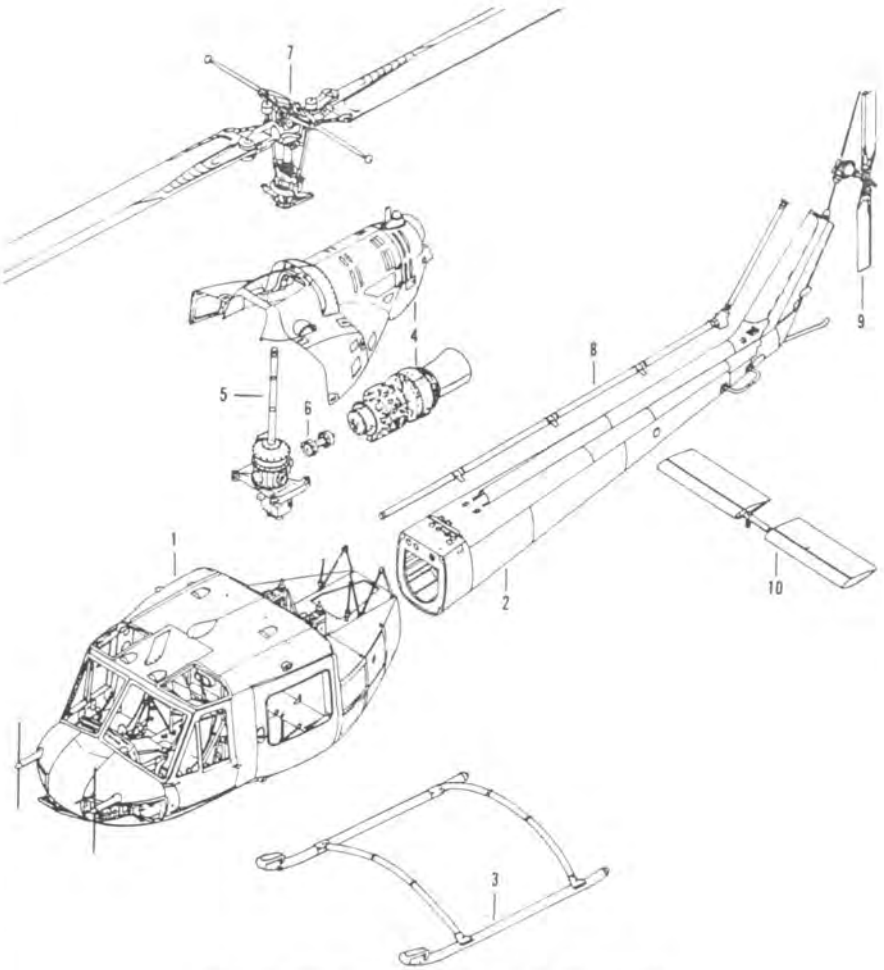


20mm cannon and 2.75 rocket pod.

Rear ramp mounted .50 cal. MG.

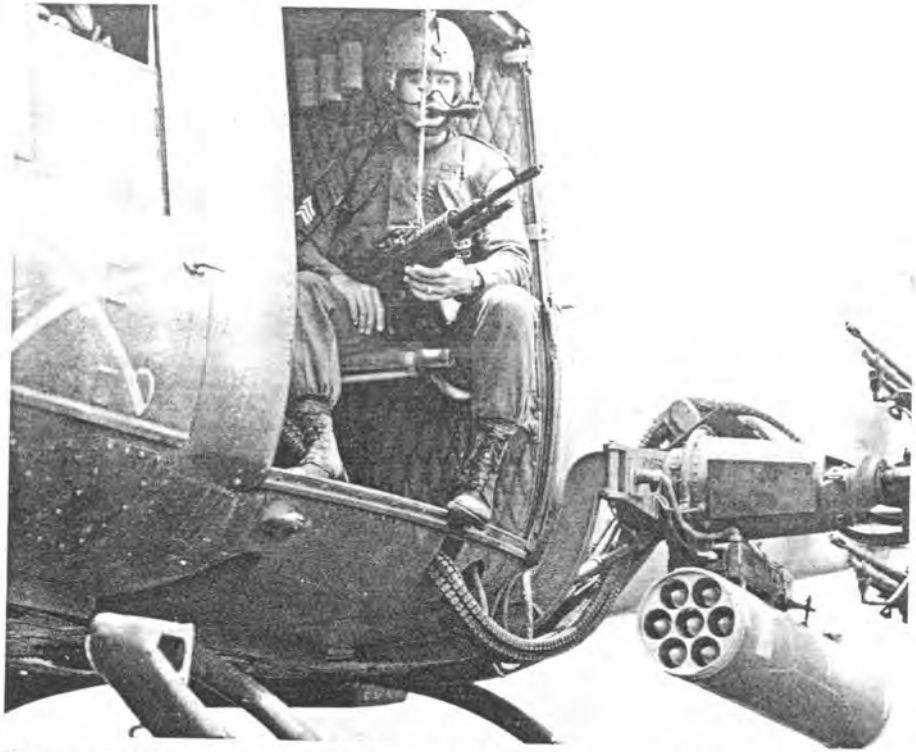
Window mounted .50 cal. MG.

The UH-1B was the first helicopter gunship to achieve widespread combat use. It was also the first to carry the name "Cobra". It is powered by the 1,100 shp T53-L-11 turbine engine, and could cruise at 85-95 mph. The model shown above was the most heavily armed version of the many variations the UH-1B/C was configured in. In addition to two door gunners with hand held M-60 machine guns, it was armed with the M-5 40mm grenade launcher (107 rounds), 2.75" rocket pods, and quad .30 cal. machine guns. Its success in escorting the troop carrying Hueys accelerated the development and production of the AH-1 Huey Cobra.

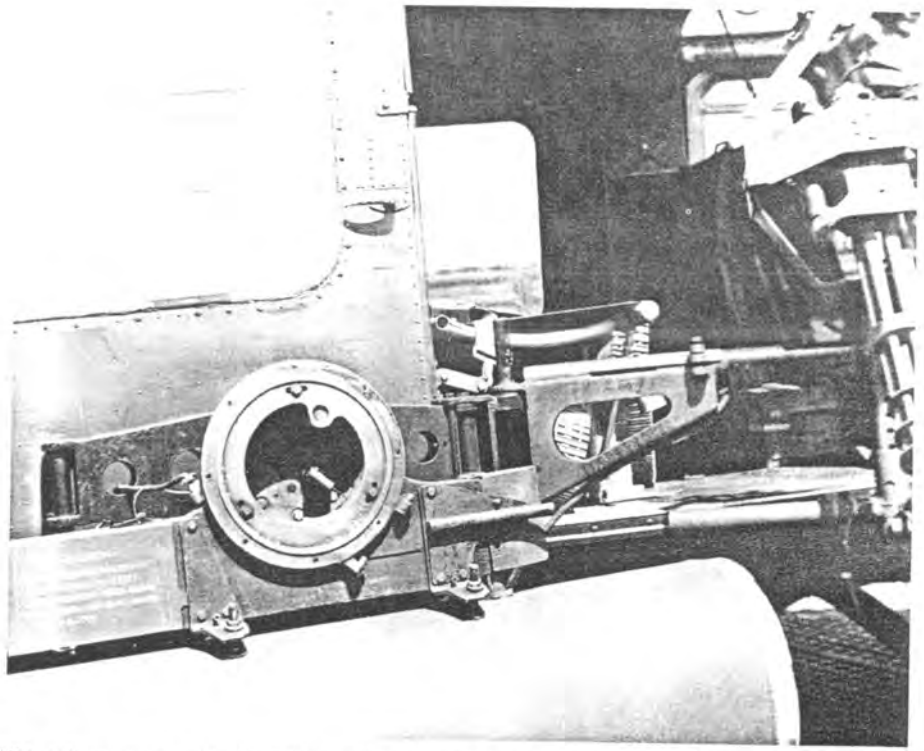


EXPLODED VIEW OF UH-1B AND UH-1C

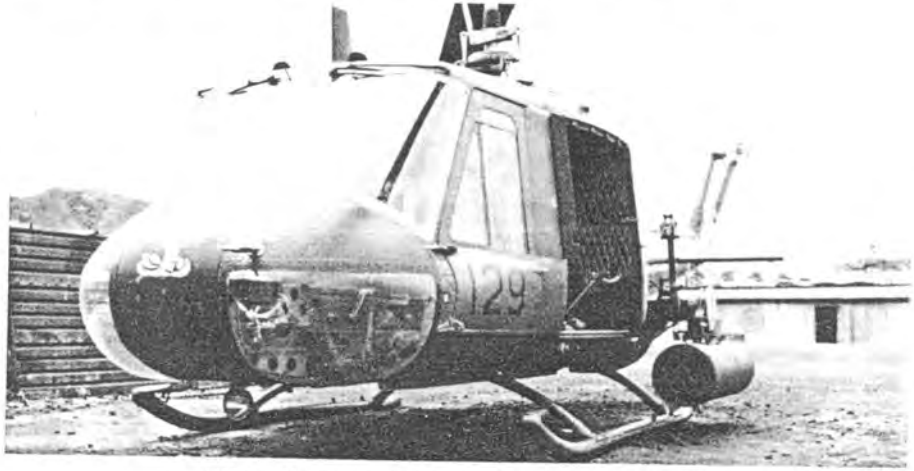
1	Section Assembly, Helicopter Forward
2	Section Assembly, Helicopter Aft
3	Gear Assembly, Skid Landing
4	Power Plant Installation
5	Transmission and Mast Assembly
6	Driveshaft Installation Engine to Transmission
7	Pylon Installation
8	Shaft Installation, Tail Rotor Drive
9	Hub and Blade Assembly, Tail Rotor
10	Elevator Installation, Switchboard



Door gunner on UH-1B of 179th Avn Co "Playboys" Vietnam, 1965.

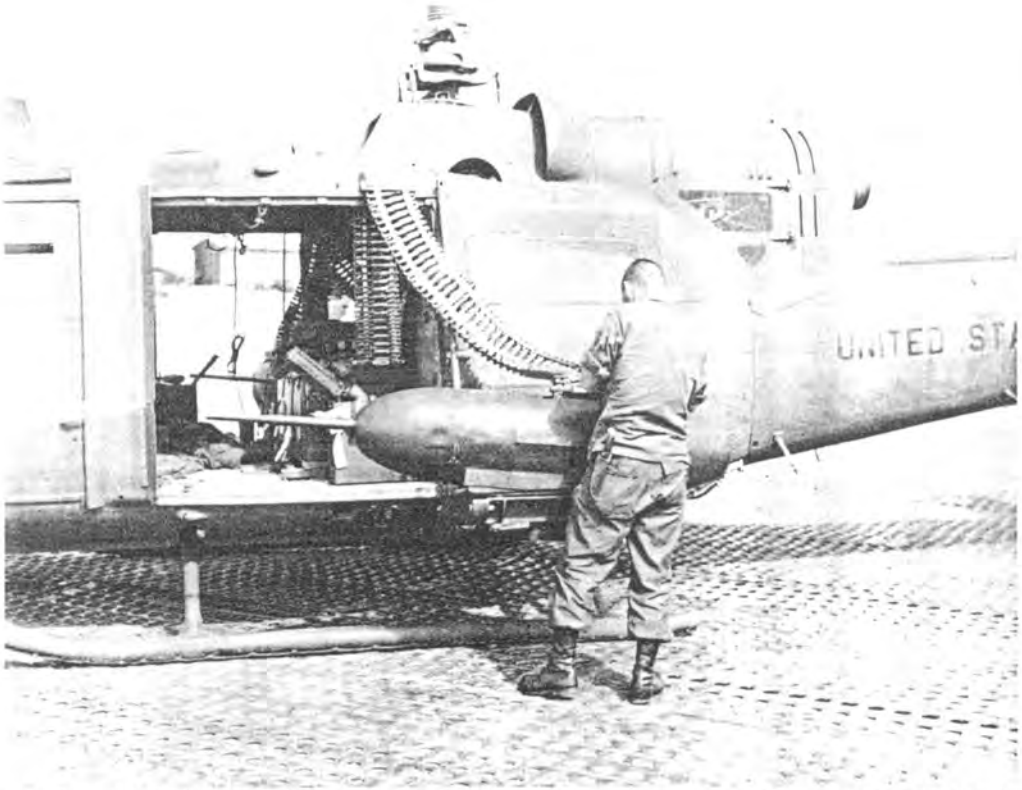


XM-156 mount, with M200A-1 rocket pod attached. Pod carries 19 rockets, which can be fired at the rate of 6 per second.



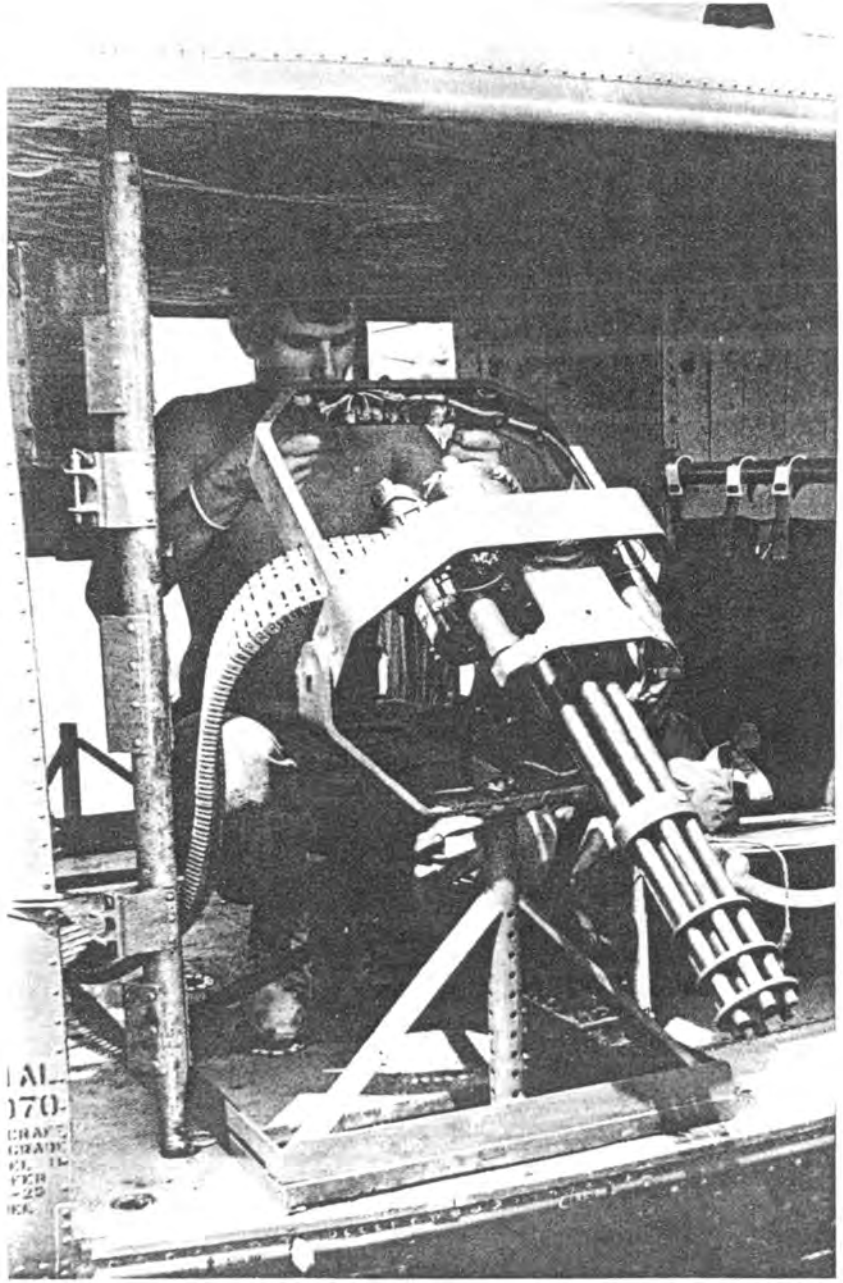
UH-1C flown by WO/1 Bill Gambriel, Vietnam 1969-70. (see color illustration in center section) When these pictures were taken it had just had windscreen and overhead greenhouse panels replaced, due to VC bullet damage. It was later destroyed in combat. (Bill Gambriel)

"Playboys" in action. (above and below) Lifting off for a mission in 1965, and firing rockets at VC in 1967.

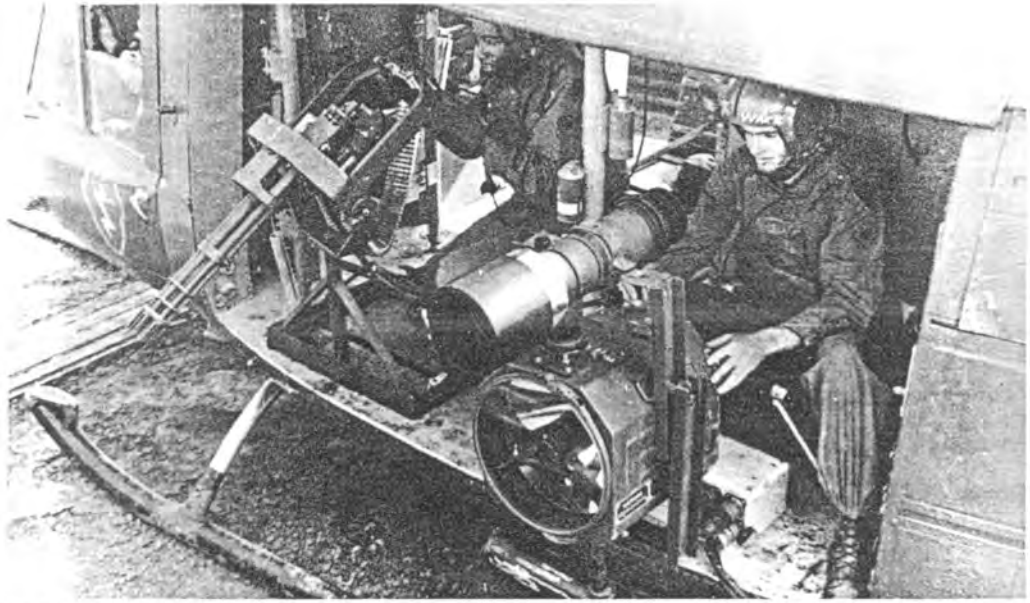


UH-1B of 145th Avn Battalion, mounting XM31 20mm cannon is made ready for mission in 1966 (above), and prepares to begin firing run. (below) It was based at Bien Hoa.

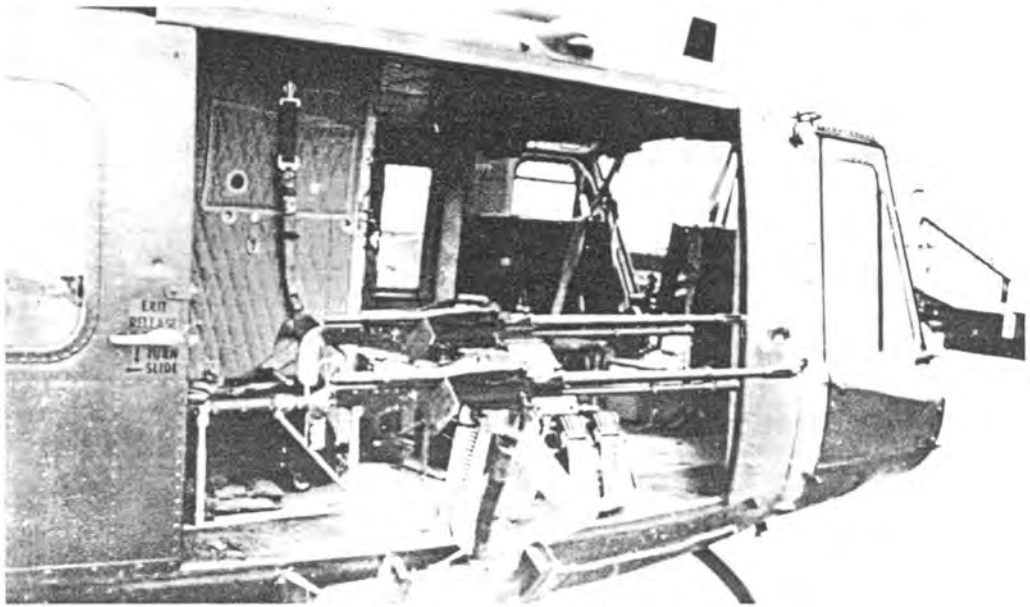
Army UH-1B and Air Force A-1E Skyraider worked as "Hunter-Killer" Team in South Vietnam, 1964. Huey is armed with quad .30 cal MG and M157 rocket pods, and carries old gloss OD finish. "ARMY" on fuselage in white, yellow tail markings, white eagle on nose and fuselage.



Details of Sagami mount for M-134 minigun mounted on UH-1D of 25th Inf Div, at Chu Lai.

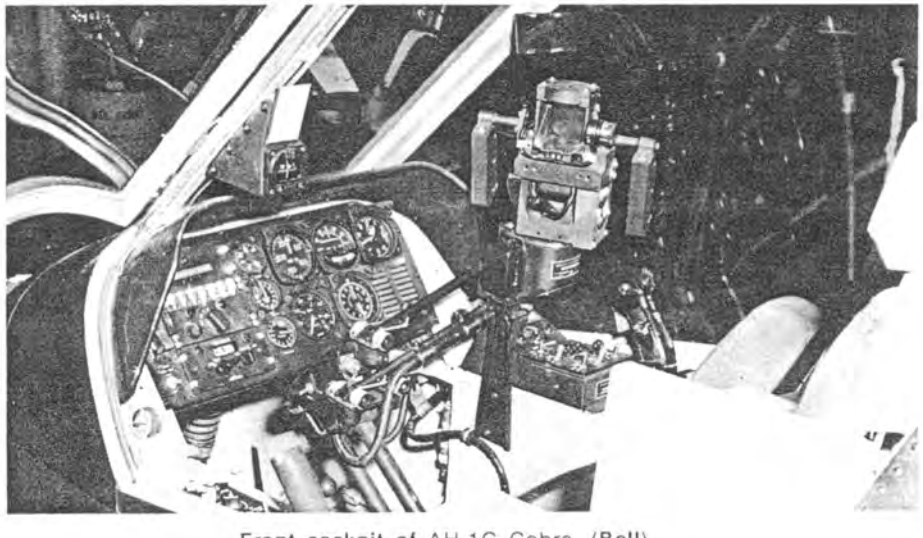


UH-1D of 25th Inf Div equipped with searchlight, night vision device and minigun for night support missions. (Dave Burton)

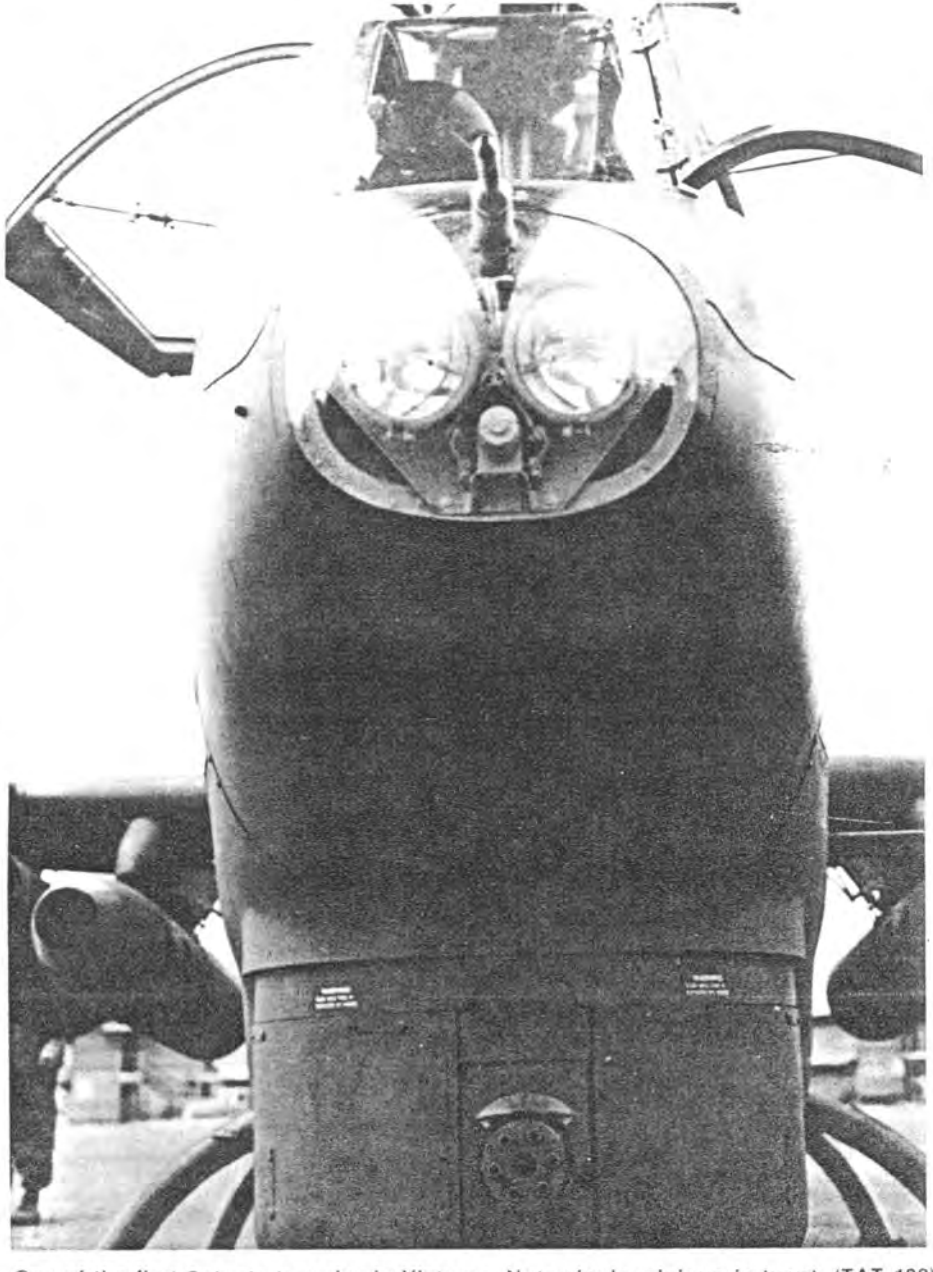


UH-1D with quad .30 cal MG mount.

The prototype Huey Cobra as it looked during a promotional visit to Ft. Wolters in 1966. It has been retired and is on permanent display at the Patton Musuem, Ft. Knox, Ky.



Front cockpit of AH-1G Cobra. (Bell)

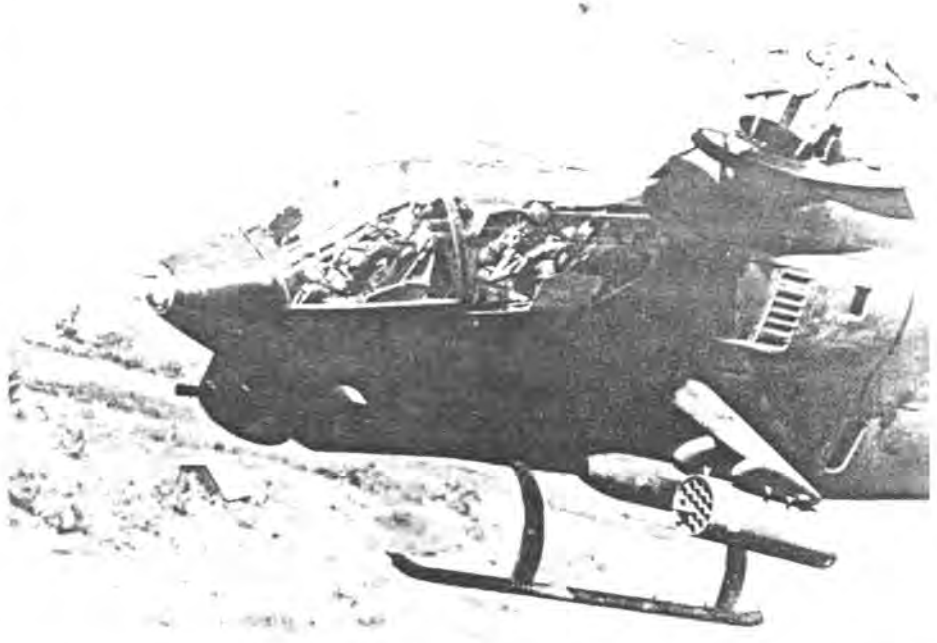


One of the first Cobra's to arrive in Vietnam. Note single minigun in turret, (TAT-102) and minigun pods on inboard stations. Dual landing lights were later replaced by single retractable unit under nose.

scattered tree trunks. There is a little bit of ash on the ground, which may create a visibility problem when the aircraft come to a hover.

This information would be used by the Aero Rifle Platoon leader, who would use my approach axis to orient himself on the ground and on the map, so that when he got off the lead aircraft he wouldn't have to be fooling around with a compass and would automatically know which direction the enemy threat was. The information was also used by the pilot of the lead Huey, who was the flight leader. He would then go up on his VHF frequency and brief his pilots on the landing zone and the area in general, including such things as recent enemy activity or fire. Generally, we wouldn't put the ARP's into an area that was "hot". We would move the LZ a bit, to give them as sterile a situation to go into as possible. As the Hueys got into a position to observe, (usually when they spotted the Cobras orbiting at 1500 to 2,000 feet, they knew we were close-by) the flight lead would give me a call. I would give him a roger, and "smoke's out in the LZ!" At that time I would tell my crew chief which color to throw. When the flight lead spotted the smoke he would call me with a "roger, identify yellow, confirm yellow." (If it was yellow smoke.) We never told them which color we were going to throw, because the enemy was often on our frequencies and I have often had the designated color pop up all over the place when we confirmed a color before throwing it. That made it impossible to correctly identify the landing zone, and could lead to some serious complications in a hot situation. At the time the landing zone was marked, the scout would generally move out of the area. Some of the pilots liked to come up to altitude, some didn't. Generally, with the newer scout pilots, we liked to have them come up to altitude, where we were

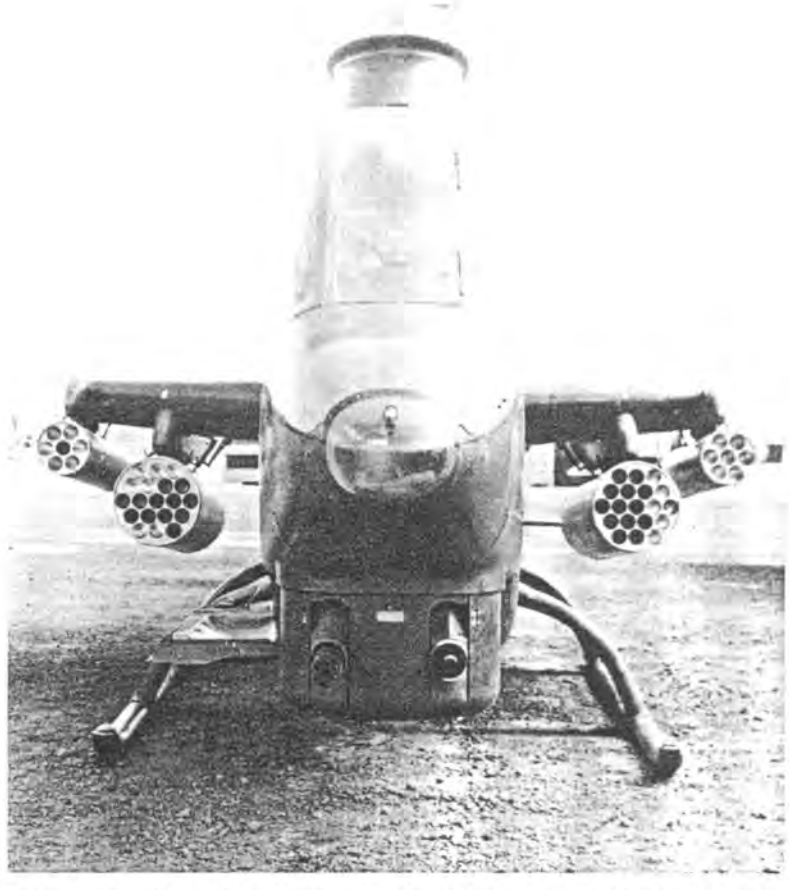
Newly arrived Cobras **await their baptism of fire in Vietnam.**



Cobra **of the 334th Armed Helicopter Co, 12th Combat Aviation Gp, II Field Force, Vietnam, on a support mission, 1967.**

sure that they were out of the way. That saved the Cobras the trouble of dividing their attention between the scout, and the incoming Hueys. The Hueys would usually bring an extra pair of Snakes (Cobras) with them to assist in the "prep". The Cobra working with the Loach would retain his ordnance to protect the scout when the scout went back down to direct the activities of the ARP's. As the two Snakes who were accompanying the Hueys approached, they would also identify my smoke, and when the Hueys began their descent into the LZ, the lead Cobra would roll in on his initial pass. The Cobras would lay down suppressive fire with their rockets in a three sided box around the LZ, making repeated passes to cover the approach and exit of the Hueys. When the Hueys got down to their last 75 feet of approach, the flight lead would give his door gunners the O.K. to begin suppressive fire with their M-60 machine guns. While the door gunners were prepping, I usually stayed away from the area, because of the danger of ricochets. Once touch-down was complete, the door gunners would cease fire, the ARP's would dismount from both sides of the aircraft, and immediately establish a

Post-mission checklist is completed by Maj. Ronald Gray, CO of 1st Plt, 334th Armed Helicopter Co. "Playboys", at Bien Hoa, April, 1968. Note gloss black helmets, with bunny emblem on side. These were later replaced with the standard OD helmet.



Cobra **with the XM-28 turret which replaced the TAT-102. It also mounts XM159 and M158 rocket pods. The 2.75 in. rockets come in 10 or 17 pound warhead variety, in HE, and in WP.**

rudimentary defense perimeter. At that time, the Hueys would leave the LZ in the most expeditious manner. As soon as their escorting Cobras had them in tow, and they were well clear of the area, the "killer" Cobra overhead would go silent on UHF. We had three radios: UHF, VHF, and FM. The FM frequency was used to communicate with the ARP's, since they carried the PRC-25 radio. When the scout wanted to talk exclusively to the Cobra, he would use UHF. The policy in the troop was that when the scout was working low-level, he initiated all communications. Technique varied from pilot to pilot, but I liked to stay on FM, talking to the ARP's, describing what I saw, and what I was going to do next. The Cobra pilot would monitor these transmissions, and maintain a mental picture of the situation. I generally flew with Lt. Dean Siner, who was "Darkhorse three-one". We had been flying together long enough that Dean very seldom said anything to me at all, because when I worked low-level it bothered me to have to divide my attention from looking and talking. When scouting, if I talked to the people on the ground, or to my crew chief, I always keyed the mike rather than just use the intercom. That way, the Cobra pilot would pick up the same impressions that I did from what I saw, or felt in the area.

When the **Aero Rifle Platoon** was on the ground, and had established their perimeter, I would immediately go up on FM and get a communications check with the Aero Rifle Platoon leader's RTO. Once that communications link was established, I would come

back over the ARP's, confirming that their position was secure. I would then move directly to the enemy threat that I wanted them to check out. If they were within visual range of the target I would drop a colored smoke grenade, generally red, to mark the enemy locations. After that I would move back to the LZ, and give them a heading to the target. For example: "Darkhorse four-six, this is Darkhorse one-six. Your target is an enemy bunker complex, two hundred meters to the north. Your heading from the LZ is zero one five degrees, and I'll let you know when you are within seventy-five meters of the first bunker I've spotted".

Once the ARP's had begun their advance, I would set up a circular pattern over the area, with the tip of the advance as one side of the circle, and the far side of the target as the other. That way, I could monitor activity within the target area, and keep the ARP's heading in the right direction. This relieved the ARP platoon leader of the burden of trying to read a compass as he advanced. I didn't fly with a map, as it is almost impossible to fly low-level, in a single pilot aircraft, and keep track of where you are on the map. All the mapwork was handled by the front seat pilot in the Cobra. The rearseater in the Cobra had to keep his eyes on me at all times, as the Loach is a small airplane anyway and when you're working down on top of the trees it is that much harder to see. The Cobra's job was to supply immediate suppressive fire if the Loach was fired upon, and that required knowing exactly where the scout was at all times.

When we first got our **Loaches,** they were OD overall, with no colorful markings on them at all, and that made them doubly hard to spot. Eventually we painted a solid white stripe down the top of the tail boom and on top of the "doghouse". This was a matter of pilot preference, and some of the pilots painted theirs with red, yellow, or international orange. After a while, individual taste came out. . .I painted a set of gold crossed sabres on the front of my aircraft, across the bubble. Each time the aircraft was hit, which was quite often in the scouts, the crew chief would paint a small purple heart next to the rear door. Each time the crew chief scored a kill, our policy was to paint a small black "coolie" hat with a skull and crossbones under it. As their skill increased with experience, many of them went over the 200 kill mark. We then began to designate ten kills with a silver hat and skull and crossbones.

When I left Vietnam after my first tour, I was flying **"Miss Clawd II".** The first "Miss Clawd" had been shot down three or four times, but had been recovered and repaired each time, before finally sustaining irreparable damage. We had a string of silver coolie hats that ran the full side of the cockpit, and also 20 to 25 purple hearts painted on each side of the door.

The **OH-6A's** in our unit were armed with the XM27E1 minigun, set up to fire at a 2,000 or 4,000 rpm rate. (The pilot could control the rate of fire with his trigger switch.) The system was geared for

Cobras of the Cobra Transition School at Vung Tau, Vietnam. Note Cobra emblem on doghouse of Cobra below.

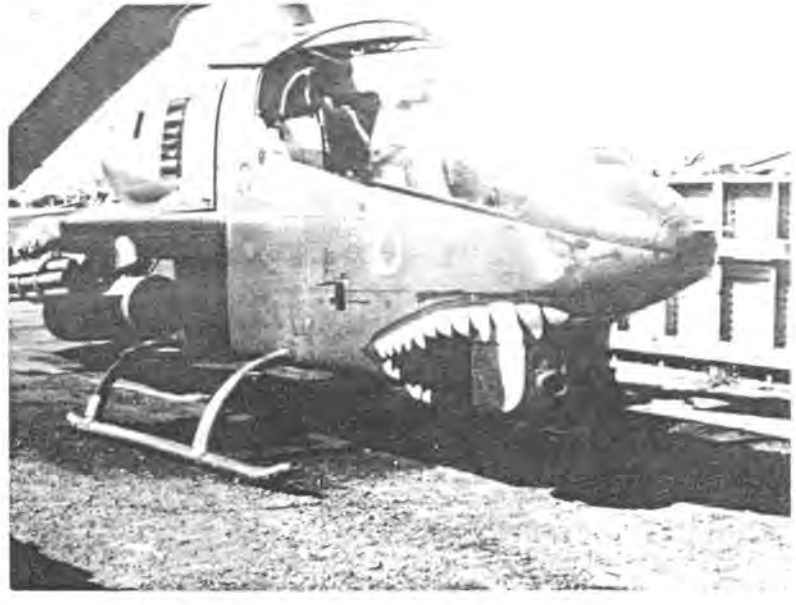
the enemy threat. For instance: I would get a hold of the ARP platoon leader's RTO and tell him: "O.K., you've got two enemy soldiers in a bunker, five by five, twenty five meters to your front. Move over by the M-60 machine gun." He and the platoon leader would move to the M-60, and I would come up with: "O.K., move the barrel about 12 inches to the right, and fire a burst." They would fire, and by observing the tracers and the bullet strikes, I could further direct their movement of the machine gun barrel until we had hits on the enemy position. We could do the same thing with the M-79 grenade launchers and the M-16's. After working together many times, the ARP's got quite proficient at this indirect fire technique, and it proved successful for us.

One of the missions performed by the Aero Rifle Platoon was search and seizure. We would fly them into a road between two villages and they would set up a roadblock, checking traffic on the road. They had Vietnamese National Police to assist them on this mission, doing the interpreting and checking credentials of the people they stopped. Within the Aero Rifle Platoon we had four **"Kit Carson"** scouts. These were ex-Viet Cong or NVA that had rallied to the Government side, and had volunteered to go into combat against their former compatriots as scouts for American units. Overseeing the activities of the Kit Carsons in our unit was an NCO by the name of Sergeant Nguyen, who was born in North Vietnam, and had been teaching school in the South when the war broke out. In my opinion, the Kit Carsons were invaluable in the field, as they could read signs that the enemy left, and which we might miss. When the time came for a fella to go down into a bunker and roust out the enemy, it was usually the Kit Carsons who volunteered. On many occasions I saw these ex-VC run into the line of fire to pull a wounded American to safety, so there was no question of their loyalty. While I was there, we went through six or eight Kit Carsons. All were killed. All died in battle, fighting along side of Americans. I have nothing but the greatest of respect for the Kit Carson scouts who served with us.

Another vital mission performed by the ARP's was the security of downed aircraft anywhere in the division area. The ARP's weren't used every day for reconnaissance and ground patrol. Many days they had "Strip Alert" back at Phu Loi. If an aircraft was downed anywhere in the division area, the call would come back to troop headquarters, and we would scramble the ARP's to move out and secure the downed aircraft and extract the crew, if they had not already been rescued. They were always preceded by a hunter-killer team, which would sterilize the area before they moved in. The tactics used were much the same as I have described earlier, except that they would stay around the downed aircraft until "pipesmoke", the **CH-47 Chinook** came in to pick up the damaged aircraft.

The scouts didn't fly at night, except on a very few occasions, and then only under ideal weather conditions, and over flat terrain. The Loach is not an IFR equipped aircraft and does not handle well under instrument conditions. The curvature of the bubble creates a glare which makes visibility a sometime thing at night. Most of the night flying in the troop was done by the Cobra platoon.

Our missions were set up daily as follows: We would have two hunter-killer teams, consisting of a Cobra and Loach each, assigned to visual reconnaissance missions. These were known as VR-1 and VR-2. We would have



AH-1G's of 1st Cav Div at Phuoc Vinh, RVN, 1969. Sharkmouth is black, teeth white, gums red, and outline black. It does not extend to underside of aircraft. Eyes are white, with light blue tips. (Capt. John Kelly)

"Satan Snake". . .AH-1G Cobra flown by Lt. Dean Siner, who was the "Killer" on Hunter Killer missions with Hugh Mills. (Hugh Mills)

Hugh Mills' Cobra is reloaded with 17 lb. HEAT rockets between strikes.

two hunter-killer teams set up as Scramble teams. . .they were known as Scramble team one and Scramble team two. We would get our briefing at five in the morning, catch a quick cup of coffee, preflight the aircraft, and be off at first light with the two VR teams. They would move out to areas preselected by Division Headquarters, and perform their mission, taking as much time as was necessary to get the information. If they were fired upon, or got a contact of any kind, they would radio back to troop headquarters for additional assistance. When the call came in, the radio operator would turn on the amplifier, which broadcast throughout the troop area, and come up with a call such as: "Hunter-killer team on the hot spot! Scramble north!" At that time the crews of Scramble one would hit their aircraft at a dead run, crank, and be gone. The scout is the faster aircraft to crank, so he would normally be at a two foot hover in the revetment when the Cobra was still cranking. He would call the tower. . ."Phu Loi tower, this is Darkhorse one-six, hunter-killer team in the hot spot. We'll be scrambling north." At that time the tower would give him a "roger, break", and hold all traffic in the Phu Loi area until the team was off. As soon as the team had cleared the perimeter fence, low level high speed, the Cobra would call the scout with: "Darkhorse one six, this is three-six, my systems are hot." This would let the scout know that the Cobra had his armament systems on and was ready to deliver suppressive fire when called for. It would also remind the scout to check to see that his systems were hot, and that the crew chief had his M-60 loaded and ready for action. Then the Cobra would call flight operations for specific coordinates on the contact.

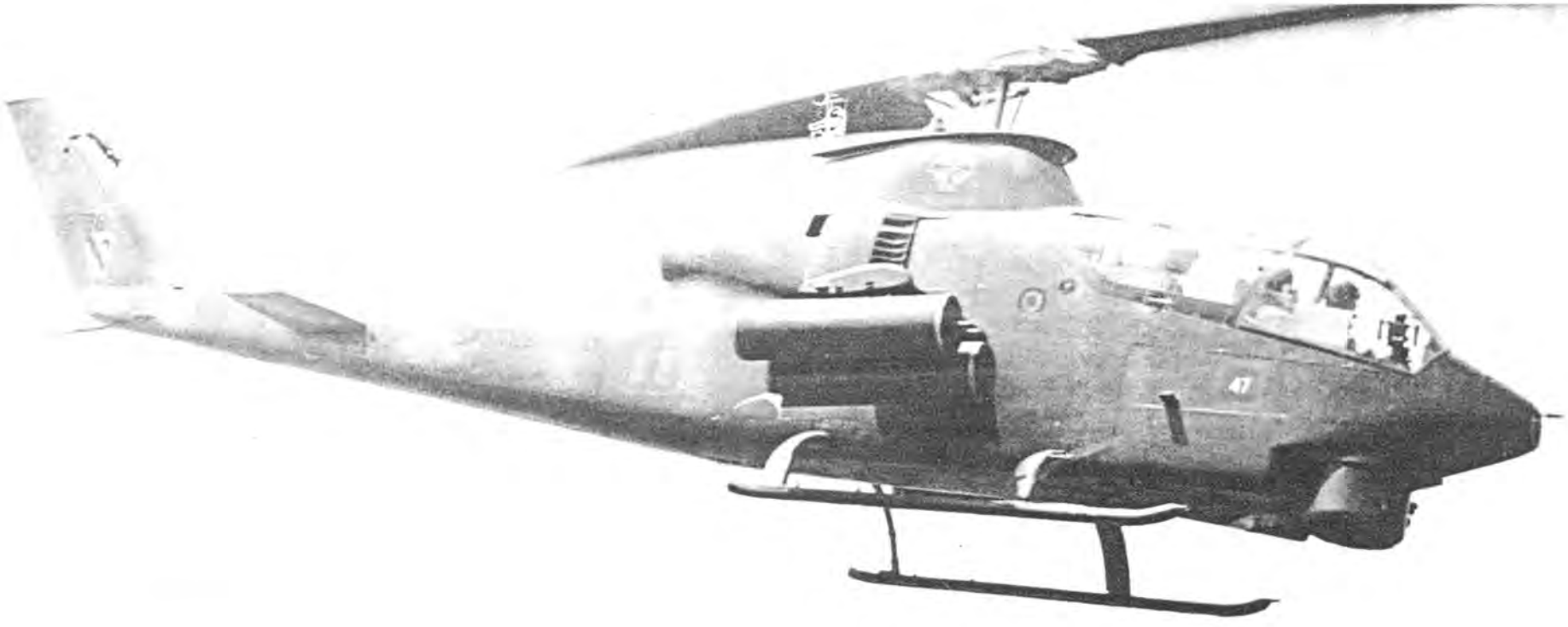
Once you got to an area, there was a ritual you followed. The Cobra would lead, with the scout flying formation on the left side of the Cobra. When you were in the area of the contact, and assuming there were not friendly troops on the ground to mark, the Cobra would identify the target by geographical reference. Then, since you had approached the area at altitude, (1500 feet) the scout would look for a spot to go down. The transition from altitude to low level is particularly dangerous, because that's when people are going to fire you up. . .you are vulnerable, because they can see you coming down, and they are most likely to take a chance and shoot at you. I would usually look for a large, open area, such as a field or rice paddy, and go down right in the middle of it.

When I decided where I wanted to go down, I would call the Cobra up and say: "O.K., thirty one, I'm going down in the large open paddy southwest of the target, and I'll be running in from southwest to northeast." Then I'd brief my gunner on the intercom. "O.K., Jim, we're going to be going down in the large open paddy to our three o'clock low. We'll be moving into the target on a northeast heading and we've got people in bunkers. I don't know their strength, or what kind of weapons they've got, but we can expect AK-47 and

CW3 Ken Evans of 334th Helicopter Co. "Playboys" dons helmet prior to taking off on a quick reaction strike in support of LRRP's of the 151st Rangers. (left) And enroute to target area "Red Catcher", Sept. 1969. (below)

possibly 50 caliber. If we do go down, you're escape and evasion will be to the southwest. . .make it all the way to the streambank and hold up. . .someone will pick you up. You'll be cleared to fire. . . there are no friendlies in the area, and use Darkhorse rules of engagement. . .no women and children. (And that's an up-and-up rule that we used. We didn't shoot women and children. We didn't shoot people unless they were clearly identified as enemy soldiers, armed and capable of doing a job on us. That was a policy, not my own, but a policy of mutual consent between all the pilots in the troop, and as far as I know, that was the policy of the great majority of all pilots in Vietnam. . .I never saw anyone violate that.) Once the crew chief was briefed, I would call the Cobra and we would recheck our weapons systems "hot". Then I would kick the aircraft over on it's right side with full right pedal, cyclic to the right, and collective all the way to the bottom. The aircraft would fall on it's right side, in a gentle right spiral straight down. About seventy-five feet off the ground, I would begin to pull left and aft on the cyclic, come on with the power, and eventually forward cyclic for airspeed. Utilizing this tactic, I would usually level off about five feet off the ground with forward airspeed. This made me a tough target for anyone on the ground who decided to take a shot at me on the way down. I was never hit coming out of altitude, using that tactic. Once we were down, and clear, the Cobra would begin to direct me to the target area, in the same manner as I worked with the ARP's. I tried to make my first pass through the target area at 60 to 65 knots, right on the trees. At that speed, you are past the target before they can get off a shot at you. During my initial reconnaissance of the area, I would move in erratic circles, keeping the speed up, until I had a pretty good idea of the disposition of the enemy troops. I would take a look at the trails in the area, checking to see what kind of traffic had been on them. An experienced scout can tell within a few hours how long it has been since the trails have been used, and how much traffic has been on them, and from that how many people he can expect to run up against. If the situation looked pretty hot, I would maintain my 65 knot speed. If it didn't look too hot, I would go into what I called my "tap dance". This was a technique I developed to make me a tougher target to hit. I would fly forward at about 40 knots, kicking left and right pedal alternately, and simultaneously "stir" the cyclic, just like a big tub of milk. This created a series of wild gyrations around both the horizontal and vertical axis of the airplane.

The crew chiefs would normally carry the M-60 machine gun in their right hand, and a red smoke grenade, with the pin pulled, in their left. They did this so that they could kick the grenade out the door the second we started taking fire. When that happened, I would turn my tail to the fire, and move smartly out of the area, calling: "One-six is taking fire!" The Cobra pilots knew that the red smoke marked the general area of the fire, and that my tail was pointing in



the direction from which it came. I would give them more specific instructions, such as: "Ten meters south of the smoke". They would roll on the target, and begin firing their rockets. About a second or two after leaving the immediate target area, I would give the Cobra a "one six is clear". This would let him know that I had safely exited the area, and that he could devote a majority of his time to hitting the target, and not worry about where I was. With the newer scout pilots, the Cobra pilot was forced to get him back up to altitude, make sure that he was straight, then put him in an orbit somewhere out of the way before hitting the target. Our experienced scouts would just take off out of the area, and hold clear, fifty to sixty meters away, down low, while the Cobras worked over the target. That saved a lot of time, and prevented the enemy getting too set for the Cobra attack.

That pretty well covered the job of the scout, whose mission was to find and fix the enemy location. . .not to engage. If a target was particularly hot, I would call in an Air Force FAC, and put down seven-fifties (750 lb. bombs) or napalm. I didn't take chances with fifty caliber machine guns, or high speed thirties, such as the SGM. When the enemy had those, I made sure there was a good chance that they had been neutralized before I went back in for an assessment. In the case of troops firing AK-47's or SKS, I would go back and have a look. Normally, after they were fired upon by the Cobra, they would go to ground, staying in the bunkers.

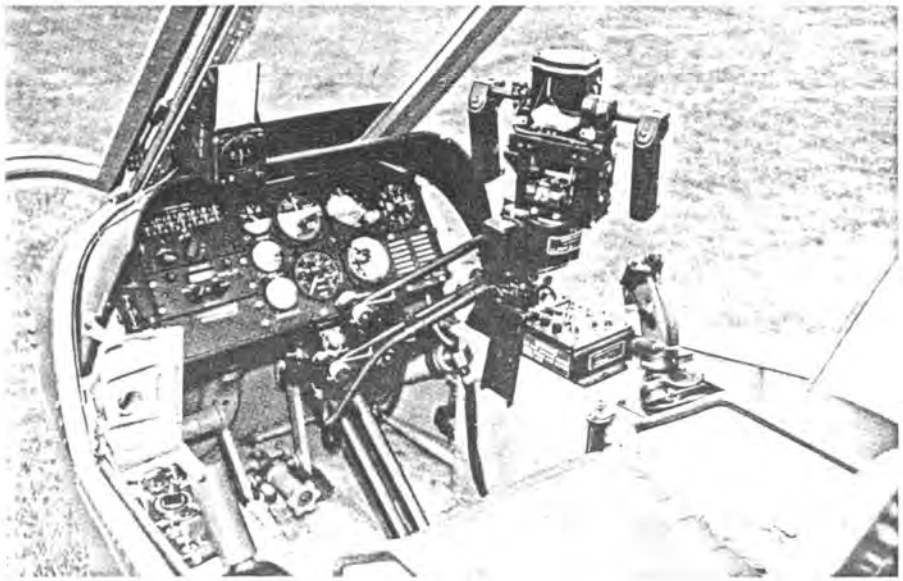
■ ■ ■

Hughs OH-6A "MISS CLAWD IV", flown by Captain Hugh Mills, Veitnam 1972.

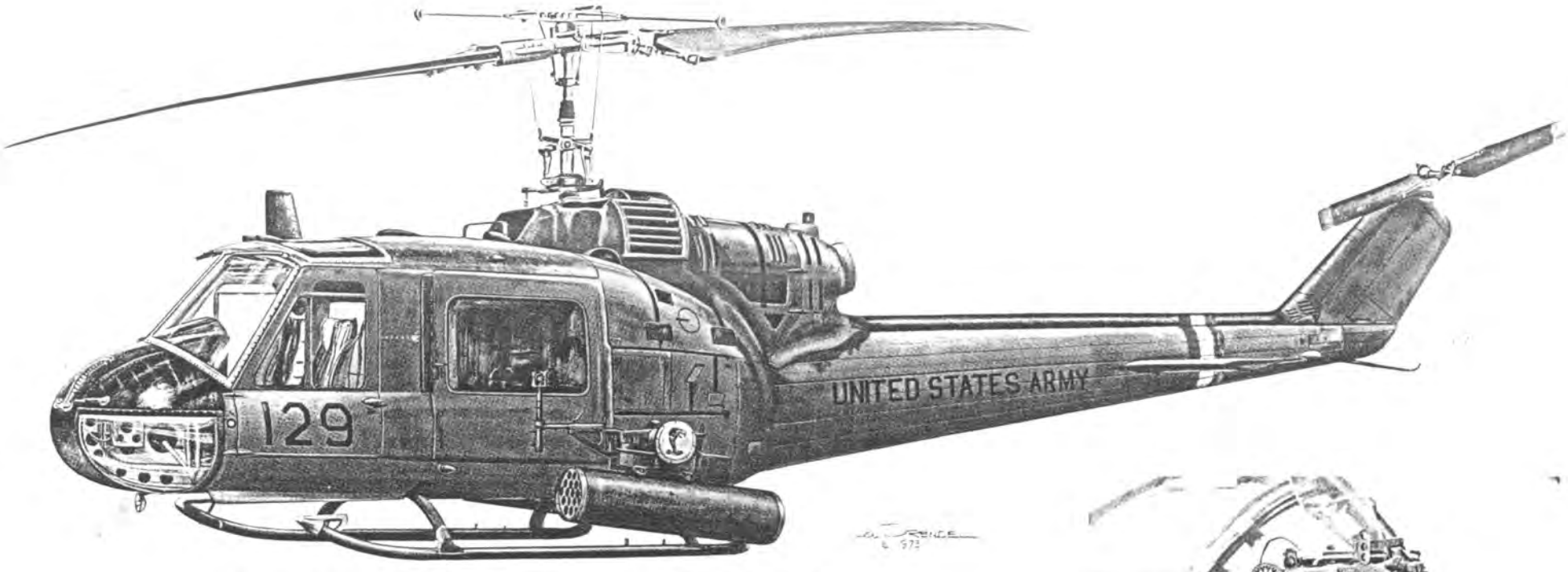
Lou Drendel
©1973

Rear cockpit pilot's seat.

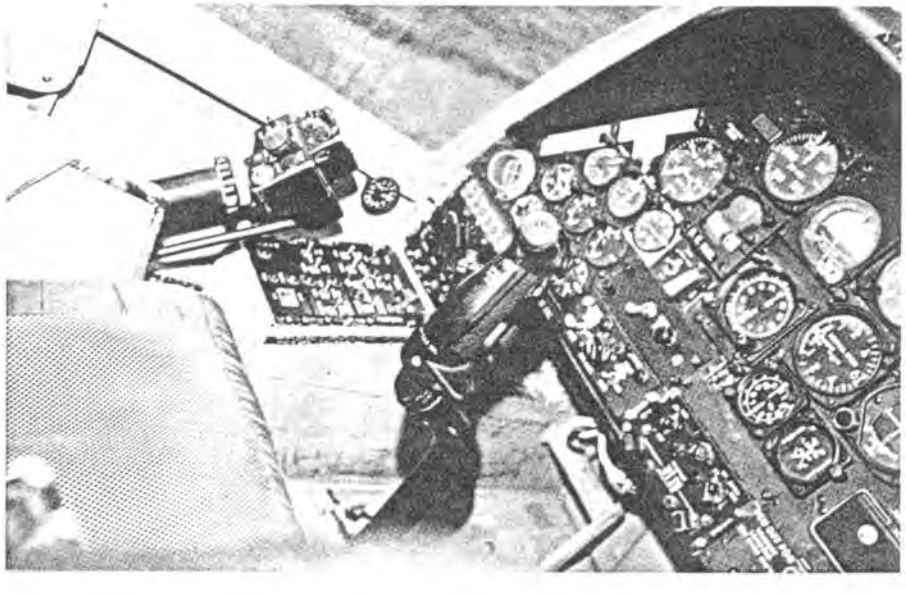
AH-1G
Huey 'Cobra'



Front cockpit showing gunner's position and turret sight. Red buttons on top of handles fire 40mm grenade launcher. Triggers at front of handles fire the 7.62mm minigun.



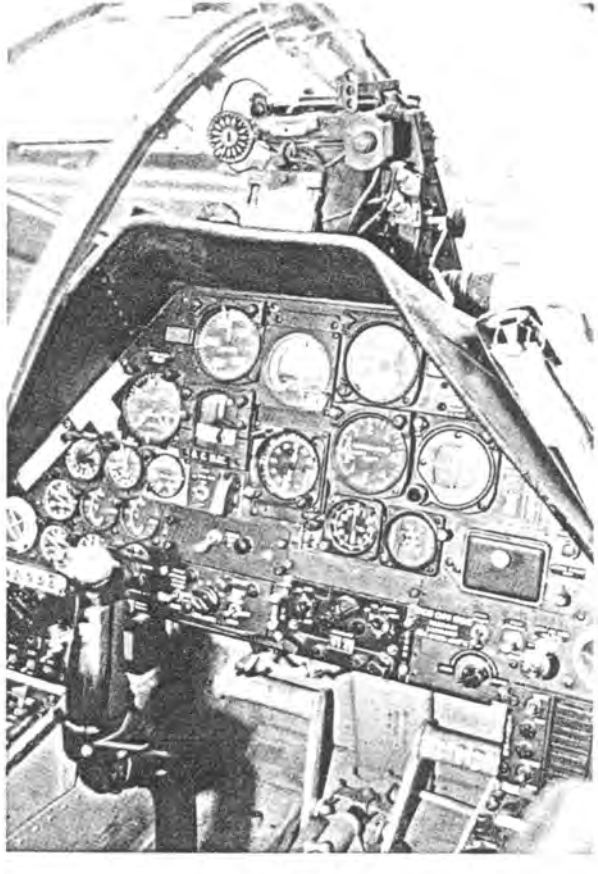
UH-1C Gunship of the 129th Assault Helicopter Company, flown by WO/1 Bill Gambriel, Veitnam 1969-70.



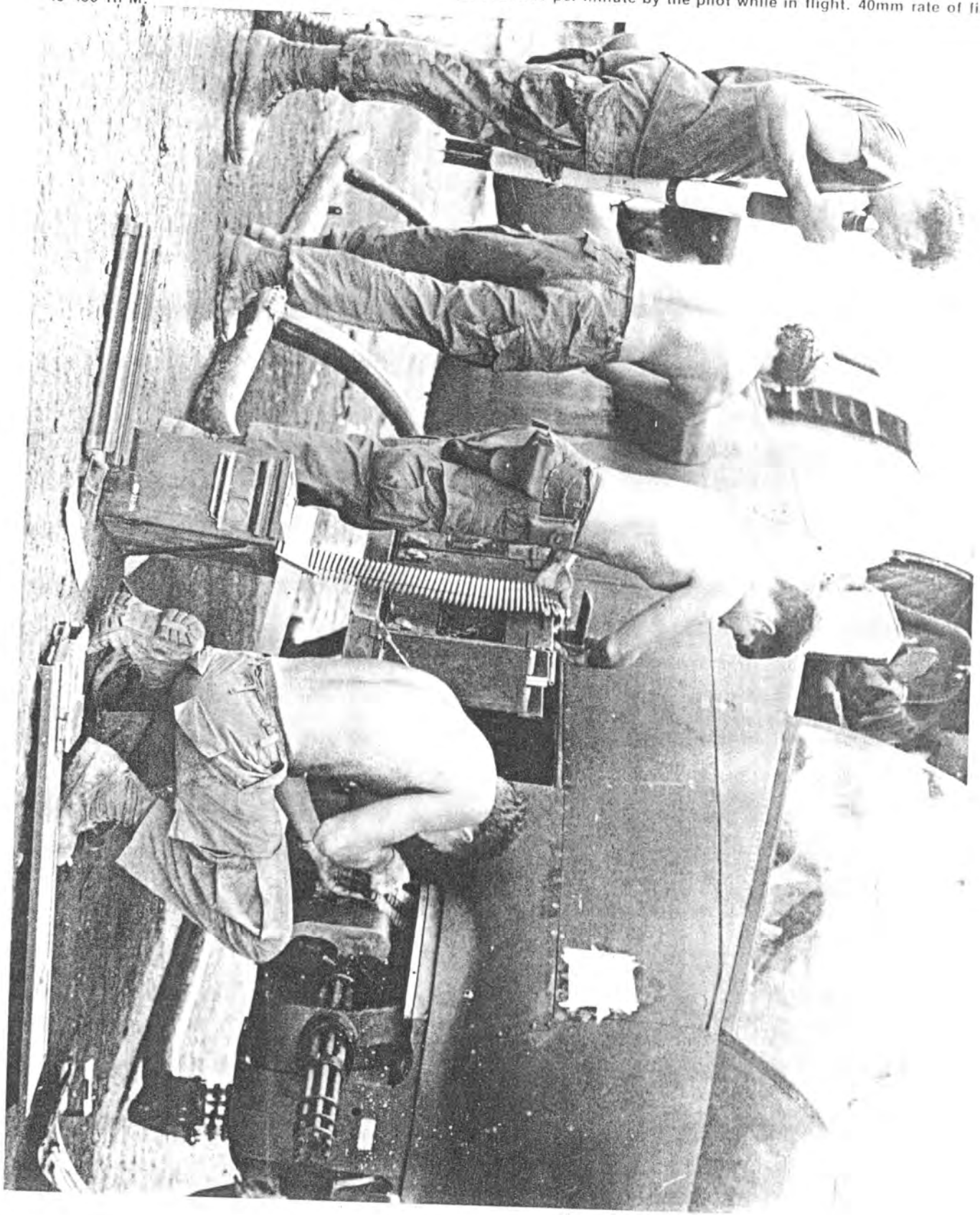
Rear cockpit, showing relative positions of cyclic and collective pitch controls.

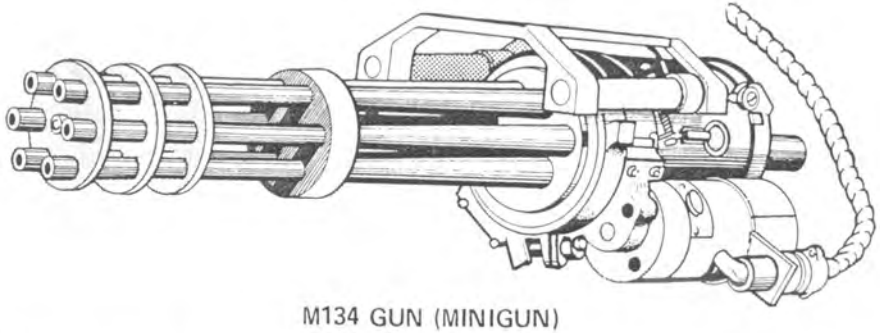
AH-1G
Huey 'Cobra'

Rear cockpit, showing pilot's instrument panel and XM73 Reflex sight.



Loading minigun ammunition aboard a Cobra at Mai Loc, Vietnam, 1969. Also being loaded are the 2.75 rocket launchers. Max capacity for the minigun in the M-28A1 turret is 4,000 rounds, with 300 rounds for the 40mm grenade launcher. Minigun can be set to fire from 2,000 to 4,000 rounds per minute by the pilot while in flight. 40mm rate of fire is 450 RPM.

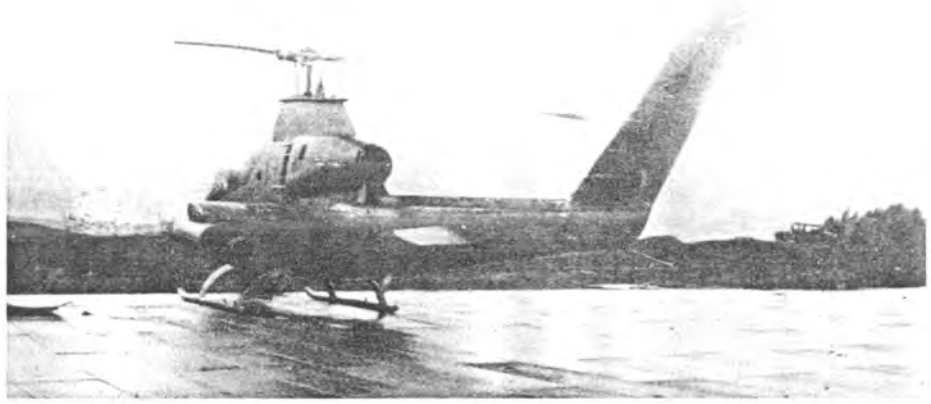




M134 GUN (MINIGUN)

ARP's of the 101st Airborne Division rearm the AH-1G Cobra of Capt. Hugh Mills at Quang Tri, while Mills discusses a point with co-pilot/gunner WO1 Dave Hartwick. Note the old M-1 Carbine carried in cockpit by Mills as personal armament. Six man crew of ARP's became quite proficient at rearming Cobras and engines were left turning during rearm to save time. December, 1971. (left)
Reloading M158A1 rocket pod on Cobra of Troop A, 7th Squadron, 17th Cav. Note dual miniguns. (below)

101st Cobras stir up the red dust of Khe Sahn as they take off for a mission against the NVA in northern South Vietnam, 1971.



Cobra on the flight line of 2nd Squadron 17th Avn Co, 101st Abn Div, Khe Sahn, 1971. Crummy weather was typical of that encountered in the highlands of South Vietnam.

Pilots refuel their Cobras at a forward refuel/rearm area during operations in support of 101st Airborne Troops at Fire Base Victory 12 miles south of the DMZ, 1969.

had been in a "stand down" posture prior to leaving country. If it got too close to dark, and we still hadn't gotten them out, the 502nd was primed for an airmobile assault. We also had attached to us a company of CCN, known as the "Hoc Bao". They are a combination of Nung mercenaries and South Vietnamese Montagnards. Their missions include infiltration across the Laotian and North Vietnamese borders, where they set up ambushes along the Ho Chi Mihn Trail. They are vicious fighters. . .real good people to have on your side.

I returned to My Lac, a staging field between Khe Sahn and Quang Tri, reloaded and refueled and returned to the area. The two A-1's were on station. The flight lead was "Sandy Eight", his wingman "Sandy Seven". Since they had a capability to loiter longer, and deliver more ordnance, I relinquished control of the operation to Sandy Eight, who immediately established radio contact with Captain Harvey. Harvey, suffering from loss of blood, and severely shaken from the continuous enemy fire, told them that his people were about out of ammunition, and that they couldn't last much longer. The A-1's set up a race track pattern around the Huey and began to sterilize the area with 250 and 500 pound bombs, rockets, and 20mm cannon fire. After about 45 minutes of this, the enemy fire subsided. Sandy Eight decided to bring in the first Jolly Green. While all of this was going on, we flew a wider circle around the position, keeping an eye out for enemy movement on the roads. When we spotted them, we ran in with the turret miniguns, 40mm, and/or the 20mm M-35.

The first Jolly Green came to a hover over the downed crew, and put down a paramedic to aid the wounded. About the time his PJ touched the ground, the big HH-53 began to receive an intense volume of fire from the enemy. He was hit repeatedly, and was forced to abort, leaving the paramedic behind. He did manage to limp back to Danang, but was too badly damaged to fly again that day. The Sandies decided that the area was still too hot to bring in the second Jolly Green, so they went back to work on it, blasting away at the dense jungle around the Huey. They discussed with me the possibility of using an agent they called "Hobart". They told me that it was an incapacitating gas that would knock out everyone on the ground within 300 meters, good guys and bad. The after-effects would make them pretty sick for about a week, but that might be the only way they could cool the area down enough to get them out. . .and sick for a week was better than dead forever. I told them to do what they thought was necessary to accomplish the mission. They deferred their decision on Hobart for the time being and continued to work the area over with their conventional ordnance.

About that time, we spotted a platoon of NVA moving over a hillcrest, and down into a wooded draw. I rolled with my gunships,

"Pipesmoke" CH-47 recovers a battle damaged Cobra after it was forced down in fighting around Can Tho, March 1968.

"Blue Max" Cobra escorts a "Nighthawk" Huey search ship in support of 1st Cav Div. Nighthawk carried 2 Xenon lights, 1 bank of C-130 landing lights, 1 starlight scope, (visible in picture) 1 minigun, and 1 50 cal MG.

and let fly with 17 pound high explosive and fleschette rockets. We drew no return fire, and saw no further movement.

After about three hours of additional prep, the Sandies fired a protective smoke screen of white phosphorous, and called in the second Jolly Green, which was flown by the Squadron Commander. He came to a hover over the Huey, dropped his PJ, and began to extract the crew. The whole time he was at a hover, the Jolly Green put out a tremendous volume of fire from the miniguns in the sides and tail, and the A-1's provided a continuous blanket of 20mm fire around the area. They got all the people on the ground up, buttoned up, and headed for Danang without further incident. Every member of the downed drew, with the exception of 1/Lt. Neil Flynn, the co-pilot, was wounded. It was later determined that they had been under attack by a reinforced NVA battalion.

General Hill did insert the 502nd, which swept through the area, hoping to police up any remaining enemy. They counted 100 NVA bodies within 50 meters of the downed Huey, and we counted another 50 within 300 meters of the position. The Huey was too badly damaged to salvage, so after the infantry had retrieved the avionics and weapons, we blew it in place. The operation concluded with the extraction of the infantry at about 1830..

"Palerider" Markings details: upper half of mouth black, lower half red, white teeth, with red outline. White eyes, with black pupil and red outline. Name in white outline. (via Dan Wright)

WO/1 Dan Wright with his Cobra "Pillow Power", so named because Wright's diminutive physical stature required the use of a pillow to enable him to see over the top of the panel. The pillow enhanced his effectiveness. (via Dan Wright)

"Bad News" (above), and "Canned Heat" (below) of the Blue Max 20th Aerial Rocket Artillery. (see rear cover profile for additional markings details.) (L. Wayne Richardson)

Pilot of AH-1G refuels his Cobra at a forward refueling point, while he awaits the arrival of the C & C ship. Camau, Vietnam, 1971.

Wayne Richardson poses beside "Pandora's Box". (see profile on rear cover for complete markings.) (via Wayne Richardson)

Preliminary instruction in preflight of the AH-1G armed with 20mm Vulcan cannon, at Cobra Transition School, Vung Tau, Vietnam. Note: Installation of the XM-18 Pod on right inboard, and M-35 on left inboard is unusual.

334th Avn Co Cobra firing the M-35 20mm cannon at a target in Vietnam. Note spent shell casings below and behind Cobra.

SHOT DOWN. . .

The date was January 29, 1972. We were working a hunter-killer mission in the tri-border area. (The northwest corner of South Vietnam, where it meets the borders of Laos and North Vietnam.) "We" consisted of the standard hunter-killer team for that area and time, a pair of **AH-1G Cobras,** and an **OH-6A** scout, of Delta Troop, 3rd Squadron, 5th Cav, 101st Airborne Div. In addition to the hunter-killers, we also were accompanied by our own self-extraction team, which was a **UH-1N** loaded with Rangers. If one of the hunter- killers was shot down, the Huey could come in, lower the Rangers on rapelling ropes, (the Rangers were there strictly for perimeter defense while the rescue was being made) and extract the crew who had been shot down. We did this because we had no direct Jolly Green Giant support. The UH-1N was flown by Captain Joe Lasster, our Operations Officer. His call sign was Charley Horse three. I was air mission commander, and was flying a Cobra. My call sign was Charley Horse 38. My wingman was Lt. Lew Brewer, who was later shot down by a Strella missile, and killed at An Loc. His call sign was Charley Horse 34. The Loach was flown by WO/1 Tim Knight. SP/5 Rip Smith was his door gunner and their call sign was Charley Horse 11.

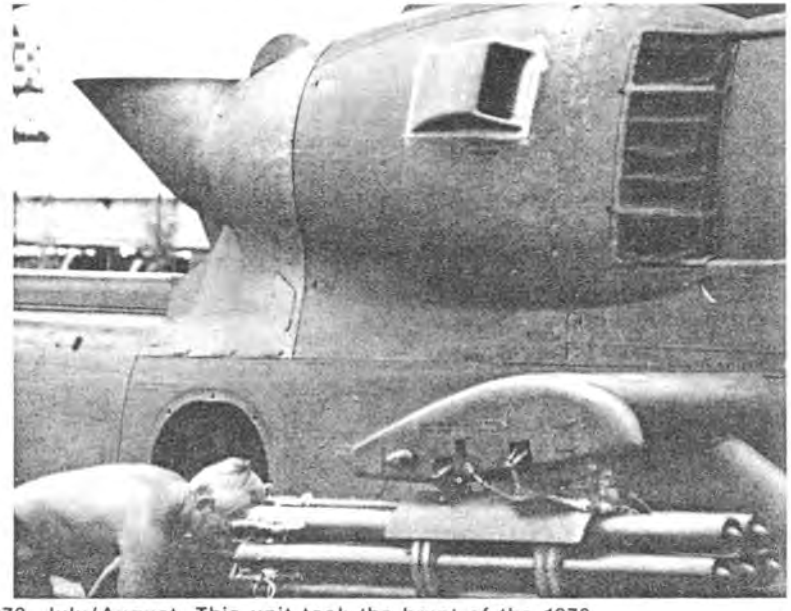
It was about four o'clock in the afternoon, and we had been conducting a visual reconnaissance along highway QL-9, from Khe Sahn to the Laotian border. It had been a relatively uneventful mission until I received a call from an Air Force "Covey" FAC, flying an **OV-10.** He had been putting in an air strike on some unfriendlies, and had just lost one of his F-4's to enemy ground fire. He wanted to know if we were in a position to give them some cover until the Jolly Greens arrived on the scene. I rogered that we could, and immediately headed for their area.

We arrived in the area and began to look for the downed F-4 crew. It was a heavily wooded area, with hills on either side of a small stream. The F-4 crew was somewhere in the base of the stream bed. Initially, we stayed high, at about 6,000 feet, hoping to catch sight of their parachutes in the trees. After a few passes, we decided to put the Loach down low. The FAC said that he had communications with the downed crew, (we couldn't talk to them because of a difference in frequencies) and he instructed them to let him know if and when they heard the Loach. If the Loach got close, he would let me know and I would direct the Loach onto their position. The Loach went down, and was down about seven or eight minutes, before he called up to me that he had spotted a base camp. The camp was active, had people in it that were running at the sight of him. I told him to disregard them, and to keep up a fast sweep to try to find the F-4 crew before we did anything else. About five minutes later, as the Loach was moving down the stream bed, he began to receive automatic weapons fire. He called "taking fire", and immediately broke right. As soon as he broke, we rolled from 6,000 feet with both gunships. I was lead and we made one pass with rockets, broke and climbed back up to about 1,500 feet. The Loach went back into the area, and again received small arms fire. As he broke, we rolled from 1,500 feet. As I fired my rockets this time, I experienced a double "hang fire" in the left outboard pod. The rocket motors fired, but the rockets stayed put long enough to tear off the aft end of the pod. It hit the tail rotor, knocking it off. The Cobra, unlike the Huey, won't fly straight and level without the tail rotor. (Because of the heavy weapons load in the nose, loss of center of gravity is uncontrollable.) The Cobra began to spin, nose low, to the right. I rolled the throttle off and held the cyclic centered, just to keep it level as it spun in. Just above the trees, I pulled the cyclic all the way to the stops. She stopped her spin and settled into the trees. The trees in that area were about 250 feet high, and upon first impact we lost the main rotor hub and rotor blades. We rolled inverted and plunged into the darkness below.

I guess I was unconscious for about five or six minutes. The aero scout hovered over the wreckage of our Cobra for about four minutes, and observing no life, decided to make a sweep of the immediate area. A few minutes later the Loach came back to find that I had gotten out of the wreck. I still hadn't regained my senses, because I don't remember doing what I did for the next few minutes. I crawled back into the Cobra, retrieved my survival gear and CAR-15 automatic rifle, which I had stowed behind the armoured seat, and discarded my helmet in favor of the Stetson cavalry hat we all wore when not flying. The Loach was hovering over us, and as I looked up at the door gunner, he pulled out a survival radio and started pointing to it, indicating that I should get mine out and start talking.

recovered it. A door on the right side of the Jolly Green opened and a paramedic carrying a litter climbed on the jungle penetrator at the end of the hoist and began to make the 300 foot descent through the trees. When he reached the ground, we gently loaded Bryant into the litter, and they hauled him to safety. In deference to my head injury, they also made me ride the litter up to the Jolly Green. The rest of them came up two at a time on the jungle penetrator. When they had us all aboard and buttoned up, with the A-1's strafing on either side of us, we climbed for Danang and safety. The second Jolly Green in the team, with the aid of sophisticated tracking equipment, located the F-4 crew and made a successful pickup of them.

John Bryant spent three weeks at the 90th Evacuation Hospital in Danang, and then was medvac'ed to the States. He is in fairly good shape, though still under care at Brook Army Hospital. I would like to add that the Air Force was **good!** Very professional, and very cool under pressure. The HH-53 pilot was Captain Roger Colgrove, co-pilot was Major Jackson K. Scott, Jr., P.J.'s were Staff Sgt. Jimmie Minshaw, and Sgt. Harvey R. Pickelsimer. A1C William R. Pearson was the gunner. It was Colgrove's first pickup, and Pickelsimer's first time on the ground, and they did a fantastic job!



Cobras of "F" Troop, 4th Cav Squadron, Hue-Phu Bai, Vietnam 1972, July/August. This unit took the brunt of the 1972 NVA invasion of South Vietnam and developed low-level tactics against enemy armor and missiles. They were the first unit to get the Strella Suppression kits for their Cobras. (shown installed in these photos) (see rear cover profile.) The Strella is a Soviet made heat seeking shoulder fired ground to air missile, which accounted for several shoot downs of U.S. aircraft during the invasion. (Ray Semora)

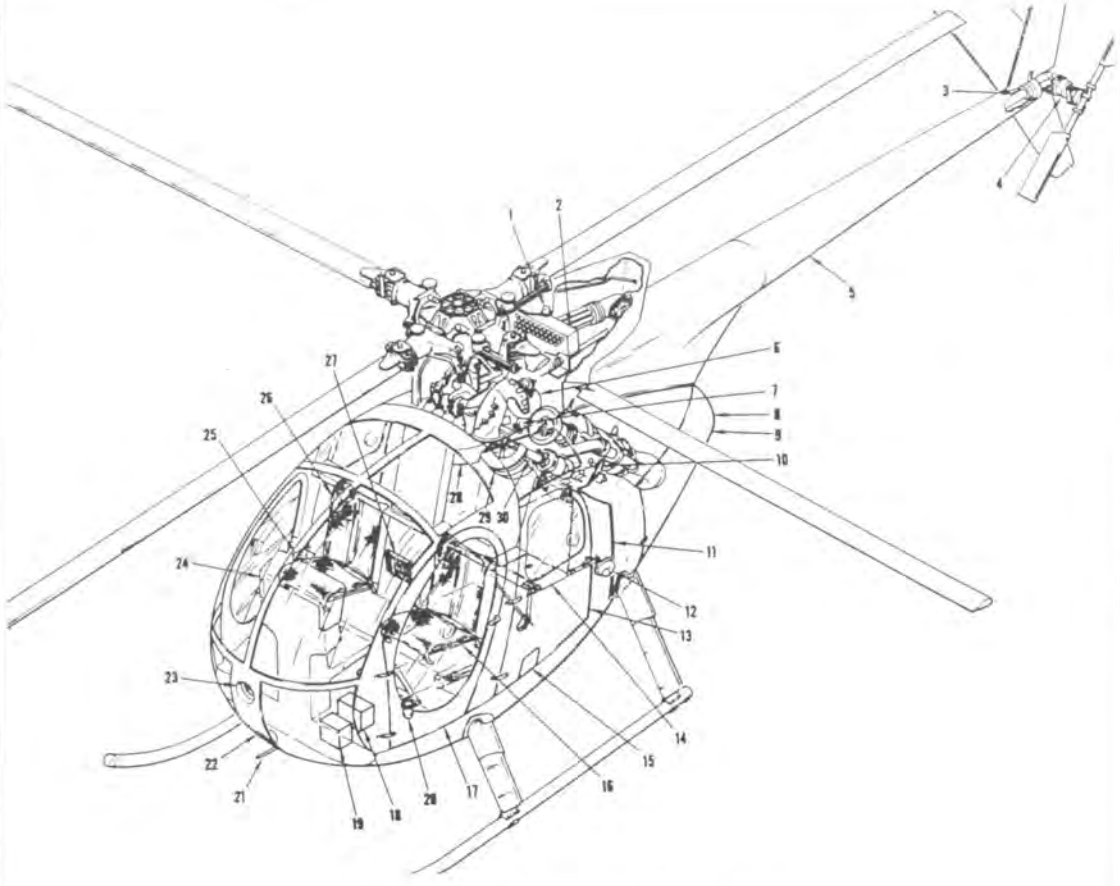
him.) Parker opened up with the machine gun, and I hauled it around for another pass. On our second pass we dropped the red smoke, and turned outbound. Dean was already inbound on his firing run in the Cobra. His first rockets impacted the target when I was 15 meters from the target. That will give you an idea of the coordination we had achieved through practice. I had not said anything to him after my initial transmission, and yet he had determined what the target was, and had fired his rockets, confident that I would be clear of the target. As the smoke began to clear, I reversed and made another pass over the target area. We were not firing, and we received no fire on this pass. I turned and moved back into the area, slowing down to a hover over the target to get an assessment. Slowing through 40 knots, I spotted one body under the bamboo, pretty badly mangled and some equipment scattered around. Just then, right outside my right door, an AK-47 went off! (The sound of the AK-47 is unmistakable...it's a high ripping sound...a real bone-chiller!) In the same split second, the M-60 in the back seat erupted in answering fire. I put the nose down and hauled on the power, calling Siner to tell him that there was still some activity in the area. He came in for a second pass, putting about 40% of his ordance down. I moved in for a third time. On this pass we confirmed all four VC soldiers dead. There were some packs and weapons lying around, but they had been pretty badly chewed up by the Cobra.

When I was sure that there were no other VC around, I moved back towards the river, intending to continue the mission. About that time, Jim Parker hit his intercom floor button with his foot, and said; "Sir, if we took care of all the bad guys, could you take me to a hospital?" Since I hadn't heard any rounds hit the aircraft, I hadn't thought to take a look at Parker. I turned around to see him slumped in the gunner's seat, his neck and shoulders a mass of blood. He still had his M-60 in his right hand, and was clutching his neck with his left. There was a constant gush of arterial blood through his fingers. I quickly told the Cobra that Parker was hit, and that I was going to the 1st Infantry Division Surgical Hospital at Lai Khe. Siner called the hospital and forwarned them that I was inbound. I changed frequencies to the "Surgical Push", called them and told them that I would be inbound from the west in about three minutes with what appeared to be a neck shot, gushing arterial blood.

As I cleared the south perimeter, I saw the ambulance parked on the pad. Before I had shut down the engine, two medics had Parker loaded on a stretcher and were moving him inside. I climbed out of the airplane and began to inspect it for hits. There were no hits in the aircraft, but Jim's chickenplate (the body armor worn by helicopter crews), which was lying on the ground next to the pad had been hit by two AK-47 rounds. One of the rounds had hit it dead center, the other close to the neck line. It was the latter that had done the damage, deflecting through his neck, narrowly missing his

One of Hugh Mills' early Loaches, which he flew in 1969. Most Loaches in Vietnam were flown with the doors removed. This facilitated getting out in case of crash, and aided visibility. (Hugh Mills)

Another of Mills' mounts. (See cover painting for Darkhorse markings colors.) Loaches carried 2,000 rounds for minigun, which could be set to fire at 2,000 or 4,000 rounds per minute. (Hugh Mills)



OH-6A GENERAL ARRANGEMENT DIAGRAM

1. Upper anticollision light
2. Engine air filter (Series 3 acft)
3. Tail rotor drive shaft
4. Tail rotor transmission
5. Tail boom
6. Engine oil tank
7. Oil cooler
8. Engine exhaust tail pipes
9. LH engine access door (right side typical)
10. Engine
11. Firewall
12. LH navigation light
13. LH cargo compartment door
14. Left passenger troop seat (right side typical)
15. Armament access door
16. Copilot's seat
17. LH pilot's compartment door
18. Radio and navigation equipment
19. Battery
20. Lower anticollision light
21. Pitot tube
22. Landing/hover light
23. External air inlet
24. Instrument panel and console
25. External power receptacle
26. Pilot's seat
27. Map case (checklist)
28. Main rotor transmission
29. Oil cooler blower
30. Main drive shaft

Scout at work. Door gunner peers intently into the jungle below, as Loach sweeps slowly over the treetops looking for enemy activity near Pleiku, 1969.

Scout leading ARP's to a suspected VC bunker complex, during operations near Pleiku in 1969. Units are from 7th Squadron, 17th Cav.

Loading a minigun of Loach belonging to 101st Airborne. Mai Lac RVN. White strips on bubble near door are antenna. Note position of pilot's M-16.

Hugh Mills in "Miss Clawd IV." External power receptacle is immediately behind fire extinguisher. Note position of "Darkhorse" emblem on front of Loach.

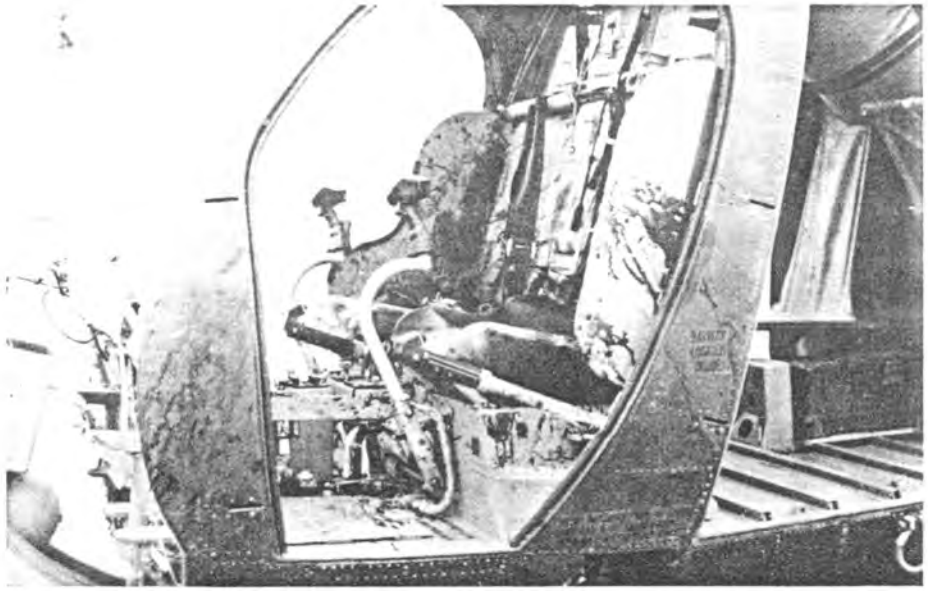
Loach hovering. Diminutive size of the OH-6A is evident. (Note that door gunner is not all the way in the aircraft!)

Mills and company with captured enemy flag and weapons, including AK-47 rifle and RPG-2.

Rangers practice dismounting from hovering Huey via rope ladder. Note rapelling rope also. (top right) ARP's aboard Darkhorse Huey prepare to lift off on a quick reaction scramble mission. Note armor around pilot's seat. (top left) ARP M-60 machine gun team in action. Note camouflage suits, which were not standard issue for infantry units in Vietnam. (left)

Hugh Mills in ARP mufti. Note dents made in his "Chickenplate" armor by AK-47 rounds. Body armour was a must item and saved many lives.

Remains of one of Hugh Mills' Loaches, after it was shot down and recovered. (Hugh Mills)



Blood splattered cockpit of Mills' Loach. Mills managed to force land the bullet riddled Loach, and returned to combat after convalescence. (Hugh Mills)

Mills and members of his troop examine the enemy machine gun that shot him down. (ARP's were inserted, pursued and killed enemy force, capturing many of their weapons.) (Hugh Mills)

Hugh Mills with Rod Willis (left) as he turned over command of the Aero Scouts at the end of his second combat tour. "Miss Clawd IV" was retired shortly after this photo was taken.