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FRONT COVER *High over Chino, a pair of Republic P-47 Thunderbolts display for photographer Frank Mormillo the meticulous care with which they have been restored by Steve Hinton.*

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HOW THE "GREEN HORNETS" OF THE 20TH SPECIAL OPERATIONS SQUADRON FLEW

COVERTLY TO CAMBODIA

THE GENEVA accords of 1954 forbade the US and its SEATO allies to station forces in Laos, and the 1962 Geneva accords reaffirmed the US observance of Laos' and Cambodia's neutrality. However, conflict within Laos brought a marked US response — confining the growing guerilla war inside South Vietnam's borders proved to be an impossible task without conducting operations within neutral regions. Often, these activities erupted into major combat actions which proved difficult to suppress from a watching world. Eventually, President Nixon would admit that the US was, in fact, conducting warfare outside of Vietnam in response to the increased communist use of Laos and Cambodia for bases and supply lines into South Vietnam.

As early as 1958, the South Vietnamese government mounted unconventional warfare forays against the communists as a countermeasure. In 1960, the CIA received authorisation to operate in Laos to strengthen Laotian forces, but these efforts were largely unsuccessful and later that year, members of the Special Forces entered Laos. The CIA received further permission in 1961 to assist the South Vietnamese in conducting covert operations in North Vietnam and Laos — and the South Vietnamese government added Cambodia to these arrangements, for good measure. Also that year, the US Air Force established several bases in northern Thailand, in conjunction with SEATO exercises designed to display a show of force in the region. Sixteen Sikorsky H-34 helicopters were among the materials delivered to these bases, for onward distribution to Laotian forces to help prevent communist domination.

The Vietnam war continues to provide aviation historians with a variety of highly interesting accounts of the many units that operated covertly throughout the conflict. Noteworthy among them was the 20th Special Operations Squadron (SOS), also known as the "Green Hornets", which had the distinction of being the only combat helicopter squadron in the US Air Force. Officially released versions of the Green Hornets' history claim that the unit engaged in classified psychological warfare (psywar) operations. Relying upon available references and the personal accounts of participants, Wayne Mutza shows that this was not quite the truth. In reality, the 20th SOS served mainly as the exclusive air arm of Special Forces (SF, "Green Berets") units that conducted surreptitious operations inside the borders of nations declared off limits by virtue of neutrality.

In February 1964, Military Assistance Command — Vietnam (MACV) initiated its Studies and Observations Group (better known as Special Operations Group or SOG) to handle the broad mission of clandestine operations in the denied areas of Laos and Cambodia — and a few months later, such missions into Laos gained President Johnson's approval. The stage was thus set for what would become a vast secret network of highly trained teams which penetrated Laos, Cambodia (after early 1970), and even North Vietnam. These projects, undertaken by SF under the MACV-SOG umbrella, were primarily for reconnaissance, but also included POW rescue, downed aircrew recovery, assassinations, bomb damage assessment (BDA), prisoner snatches, sabotage and tapping enemy communications. Missions were often launched from FOBs (Forward Operating Bases) in Vietnam and US air bases in Thailand.

Air support for SOG operations initially took the form of VNAF H-34s, US Army UH-1s and USAF fixed-wing aircraft. Air transport in Laos was accomplished by civilian contract, mainly the CIA air arm known as Air America. Later in the war, USAF helicopters regularly flew missions in Laos to augment Air America and the often inadequate helicopter forces of the Laotian government. In most SOG operations,

(Heading photo) A Bell UH-1F of the 20th Special Operations Squadron near Tan Son Nhut Air Base, Vietnam, in September 1968. (Below) Another 1968 photo of a 20th SOS UH-1F.

This Bell UH-1P (65-7935) has a universal mount for its cabin gun but without the dust shield on the outer face. The Sagami mount is hinge-fitted to the forward end of the universal mount. The boom marking includes a Mexican character "swatting" the hornet. (Photo via Bob Chenoweth.)

helicopters proved superior to fixed-wing transports, pushing the transport helicopter to the forefront in the special air warfare scenario.

Organisation and background

The Air Force had recognised the helicopter's worth during the 'fifties, when it formed a transport helicopter force. Disbanded in 1956 when deemed unnecessary, this force gave way to helicopter airlift provided by ground forces. It wasn't until 1962 that the Air Force again displayed an inclination towards possessing an autonomous transport helicopter capability. This recommendation, based on the worsening situation in Vietnam, stemmed from the formation of a counter-insurgency (COIN) force trained specifically for night penetrations and support of SF and friendly guerillas in South East Asia. Designated the 4400th Combat Crew Training Squadron (CCTS), and nicknamed "Jungle Jim", the unit was replaced by the Special Air Warfare Center (SAWC) in April 1962, which became responsible for training the "Air Commandos". The SAWC yielded the 606th Air Commando Squadron (ACS), which was sent to Nakhon Phanom (NKP) Air Base in Thailand in 1966. This was a composite unit designed to augment and train the Thais in COIN activities, although little training was actually done. Among the unit's aircraft inventory were a number of new Bell UH-1F "Huey" helicopters which performed a variety of missions in Thailand and Laos, including civil action and support of the Thai Army and Border Patrol Police. Some cargo swapping and a few extra marks on the map enabled the helicopters to trade missions with Air America — crews in civilian clothing often flying "sterile" missions into Laos. The US, convinced that reports and some radar tracks of unidentified aircraft over Thailand indicated the presence of North Vietnamese intruders, beefed up its night intercept capabilities, using 606th helicopters as training targets. While in Thailand, the Huey pilots heard reports of communist helicopters resupplying troops in northern Thailand at night without lights. One exuberant Huey pilot wanted to intercept them and then to fly alongside and shoot them down or fly above them and drop chains into their rotors!

When the US government decided that the Thais should handle their own security duties, the 606th Hueys were transferred to Vietnam in June 1967, where they joined the Sikorsky CH-3Cs, dubbed "Big Charlies", of the 20th Helicopter Squadron at Tan Son Nhut Air Base. Established on 8 October 1965, the 20th Helicopter Squadron used 14 CH-3Cs for artillery support, medevac and recovery of downed light aircraft. Two of these aircraft were moved to NKP in

(Below left) A 1969 photo at Binh Thuy shows the extensively reworked engine exhaust area of a UH-1F. Notice the screened engine air inlets and baggage compartment. The "Green Hornet" in this case is black, and the warning arrow to the engine exhaust is red. (Below right) A close-up of the UH-1P '935 showing the XM-156 universal mount with MA 4A bomb rack and M60 machine gun on the swing-out Sagami mount.

(Above) A "slick" UH-1F refuelling at Ban Me Thuot in March 1968. (Photo Bob Steinbrunn.) (Below) UH-1P at Tuy Hoa in August 1970, with mini-guns fixed to fire forwards, under control of the pilot. Notice the armoured pilot seat and twin UHF/VHF antennae. (Gene Cole.)

February 1966, where they formed the "Pony Express" detachment conducting covert missions in Laos and Thailand. In June, the 20th transferred to Nha Trang, where its rôle in unconventional warfare gained momentum after a brief training period and link-up with SF. Possibly the reason behind the UH-1 move to Vietnam was that the Air Force contributed nothing and the Army therefore wanted and expected to have all the available UH-1s.

Also located at Nha Trang was the parent unit, the 14th Air Commando Wing, which comprised 12 special operations squadrons, of which only the 20th used helicopters. UH-1 strength was brought up to 15 aircraft in June 1967 and a segment of the unit was re-established at Udorn Air Base in Thailand in May 1968 with several UH-1s from the parent unit soon added.

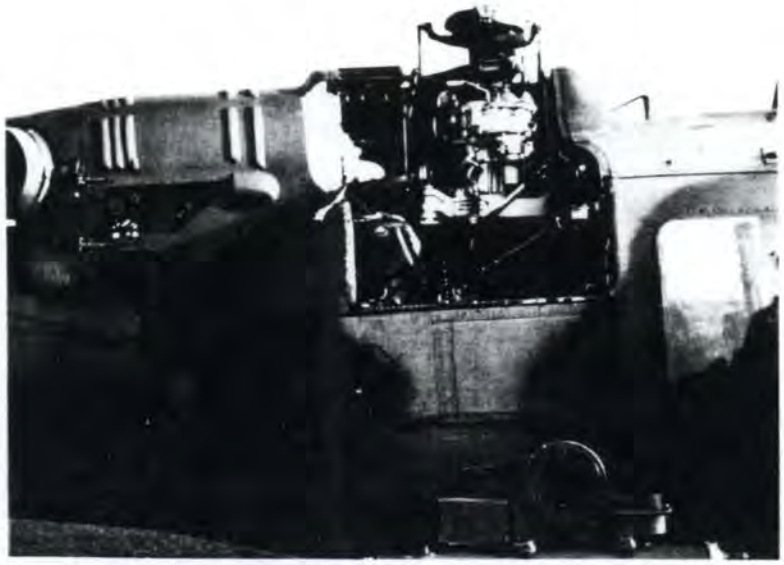
(Below) The Kontum Forward Operating Base (FOB) in March 1968. This was a primary launching base for Special Forces teams operating into Laos and Cambodia. The nine Hueys visible were from the 189th AHC, on rotational duty to assist cross-border operation. (Photo Bob Steinbrunn.)

During a maintenance overhaul, the UH-1P serial 63-13163 was repainted in the USAF's standard SEA camouflage scheme, but with the darker shade of green omitted. It is seen here at Cam Ranh Bay in 1971 — compare with the regular three-tone scheme shown below. (Photo Tom Hansen.)

(Above) A twin-engined UH-1N version of the Huey at Cam Ranh Bay in late 1971, carrying LAU-59/B rocket pods, with mini-guns stowed in the cargo cabin. (Photo Tom Hansen.) (Below) An SOG team leaves a "Green Hornet" UH-1N after a mission. This aircraft is equipped with the XM-23 system which utilises M60D machine guns on pintle post mounts. (Photo via Bob Chenoweth.)

(Above) One of the "Green Hornet" UH-1Ps in February 1971 with the GAU-2B/A mini-guns and later style bomb racks. (Photo Jim Ball.) (Below) One of the original 20th SOS pilots, Maj Tom Garcia (lower left) with a typical SOG team (four indigenous Vietnamese and two US personnel) alongside a "slick" UH-1F. Rope ladders and body armour plates are visible on the cabin floor, and the infantry-type M60s fastened in the doorway have metal rods attached to the barrels to prevent them being fired into the aircraft. (Photo Tom Garcia.)

(Below) A Bell UH-1P with transmission cowling removed, showing a seven-shot LAU-59/A rocket pod suspended on an XM-156 mount. Barely visible is the 0·30-in (7,62-mm) mini-gun stowed in the cabin. (Photo Bob Chenoweth.)



Throughout its lifetime in SEA, the 20th SOS was frequently segmented into detachments which operated from locations such as Kontum and Ban Me Thuot, thereby making it difficult to ascertain exact dates that aircraft operated from certain areas. For some time, the Huey section of the 20th was called "E Flight". On 1 August 1968, the 20th Helicopter Squadron was renamed the 20th Special Operations Squadron, concurrent with the 14th ACW redesignation to 14th Special Operations Wing (SOW). The 20th was relocated to Tuy Hoa AB on 5 September 1969 while the 14th SOW moved to Phan Rang AB. In September 1970 the "Green Hornets" made a final move, this time to Cam Ranh Bay, where the unit remained until de-activation in March 1972.

Some of the pilots who were tasked for duty with the 606th ACS at NKP, Thailand, for six months, volunteered to go with the unit to Vietnam. The original six of these were sent to Nha Trang in spring 1966, while vacancies were filled with Thai-based CH-3 pilots whose lack of Huey experience sometimes compromised high risk missions. The UH-1 pilots were highly experienced, having flown UH-1Fs at missile bases in the US. The 20th SOS lost its first pilot KIA (killed in action) in the first few weeks of operations, on 31 March 1967.

In December 1967, a second Sikorsky unit, the 21st Helicopter Squadron, using the improved CH-3E, set up shop at NKP, from where it placed seismic sensors, conducted roadwatch infiltrations, and later launched team insertions for MACV-SOG. In the summer of 1969, the "Pony Express" CH-3s were absorbed into the 21st, while the UH-1s assigned to the unit joined the others with the 20th in Vietnam.

Missions of the 20th SOS

After the first helicopter infiltration in May 1965, SOG rapidly expanded its area of operations during 1966 and '67 — so far, in fact, that the reconnaissance teams soon could no longer use their maps showing borders deliberately positioned farther west. By 1967, nearly 300 patrols had been launched into Laos, as well as more than 80 larger forces to "exploit" targets uncovered by the reconnaissance teams. Early that year, MACV overrode the US government policy of not violating Cambodia's neutrality and began missions across its border. Intelligence gathering "across the fence" remained of paramount importance and soon became standard procedure.

Initially, the "Green Hornets" helicopters were pressed into service, along with VNAF H-34s of the 219th Helicopter Squadron and Army UH-1s, as troop carriers and gunships for reconnaissance teams. The 20th SOS quickly adapted to its new COIN rôle and soon became the preferred support unit for SF operations across the borders. Rapport between the two was keen, mainly because of the high risk of operations, which required precision teamwork and speed. During the greater part of its career, the speciality and primary mission of the 20th SOS was infiltration and exfiltration of SF teams in an operational area in Laos known as "Prairie Fire", which covered the vast Ho Chi Minh Trail network. Missions into Cambodia were called "Daniel Boone". All personnel involved in missions functioned "sterile", meaning that gear, weapons, clothing and even the helicopters, in the event of capture, could not be linked to US origins, lest an international incident were created with evidence of warfare being conducted beyond neutral boundaries. "Black" became a byword, used in reference to mission details; "black" missions were supported by unmarked aircraft called "Blackbirds", etc. Although Washington tacitly approved, the mounting of such missions was publicly denied by the US and South Vietnamese governments. To this day, the dilemma of POW/MIAs in Laos remains a sensitive issue.

The first SOG teams in Laos quickly wore thin the element of surprise. As missions escalated in number and strength, the teams often became the prey in deadly manhunts. Missions were assigned by MACV-SOG and usually were flown by four

The UH-1P shown in close-up at the foot of the opposite page is here seen receiving further attention from a ground crewman. The rocket pod, stowed mini-gun and dual UHF/VHF antenna are all visible. (Photo via Bob Chenoweth.)

gunships, a command aircraft, a rescue aircraft and the reconnaissance team transport. Later, smaller flights of four UH-1s were used, and these always worked in pairs to cover one another. On an intelligence mission, the idea was to insert the team as unobtrusively as possible, have them do the work and get out again in one piece. Initiating, encouraging, or in any way provoking contact with the enemy was a bad idea, since the odds heavily favoured the enemy. Getting the teams in was relatively easy, as there was time for careful planning and aerial reconnaissance of the LZ (landing zone). Usually consisting of two Americans and four indigenous troops, the teams spent a maximum of five days in the jungle. While on patrol, they had an aptitude for attracting trouble and the extraction often became a big production. Once the team was "in", it was standard procedure for the same helicopters to stand by at the nearest base for the extraction. An FAC (Forward Air Controller) usually worked the mission and, if necessary, could muster up heavy air support to cover a pick-up.

"Green Hornets" flew in loose formation, with the gunships providing cover. To mask an insertion, they touched down in several locations, with only one aircraft depositing a team. Another technique was to have a flight in trail formation flying low over the LZ — the lead Huey then dropped down to

UH-1P 63-13163 enjoys the relative luxury of a hardened apron. As other photos show, the Hueys often operated from unprepared surfaces and were habitually maintained under open skies. (Photo via Bob Chenoweth.)

A UH-1N operating at Cam Ranh Bay in 1971 reveals flat armour plating installed in the chin bubble. (Photo Tom Hansen.)

deposit the team while the others flew slowly overhead. As they passed, the insertion aircraft lifted to rejoin the procession at the rear, giving the impression that the flight had not altered its pattern. Secrecy was not essential on withdrawals, so the gunships orbited the LZ to attract and suppress enemy fire. Rarely was an LZ large enough for the helicopter to land for the pick-up. The alternative second choice method was to hover between 10 and 15 ft (3-4,6 m) and drop rope ladders. The method most often used involved the "McGuire Rig", which allowed the helicopter to pluck the men out of the jungle. It consisted of triple ropes, each with trapeze wrist locks, or fastened to the soldier's "Stabo Harness". The troops dangled 120 ft (37 m) below the aircraft, their hands free for firing weapons. Night infiltration and pick-up missions were extremely dangerous and performed only in emergencies, when possible aided by flareships.

High drama was often prevalent during the "Green Hornets" tenure in SEA. The mettle inherent in the 20th SOS crews was typified by the actions of 1st Lt James P Fleming on 26 November 1965, when he rescued a seven-man team under withering enemy fire. One gunship was shot down in the mêlée and Fleming was awarded the Medal of Honor. The next day his wingman was shot down, but Fleming and his crew rescued the occupants, earning him the Air Force Cross. Fleming had flown his combat qualification check ride only 12 days before the mission.

On 2 April 1968, SF MSGT Roy Benavidez jumped aboard a "Green Hornet" Huey preparing to depart on a mission to rescue a reconnaissance team pinned down near Loc Ninh. The first Huey was shot down attempting the pick-up and another was successful but not before a pilot and co-pilot were killed. Benavidez, who was severely wounded, was awarded the Medal of Honor for his actions. During a mission on 19 February 1968, a UH-1F was shot down attempting a team rescue. SF SSGT Fred W Zabitosky, though badly wounded, rescued the co-pilot, earning him the Medal of Honor. Because of the very nature of its exploits, the 20th SOS lost 19 Hueys in SEA, 13 of them shot down. One was lost north of Nha Trang when it was hit in flight by a 105-mm round. Five aboard were killed, reportedly including the squadron commander and a

These UH-1Ns are shown operating with the 24th Composite Wing (eventual successor to the 20th SOS) at Howard AFB in the Canal Zone. They have high-visibility markings and XM-94 20-mm grenade launchers mated with LAU-59/B rocket pods on the hardpoints. (USAF photo.)

(Above) A 1982 illustration of a UH-1N of the 20th SOS at Hurlburt Field, Florida, showing an unusual mottled colour scheme resulting from the application of a three-tone camouflage over light grey. Stencil-type national insignia are in black. (Right) LAU-59/B rocket pods on the UH-1N, 10 in (25,4 cm) longer than the LAU-59/A version. (Below) A pair of UH-1Ns over Hurlburt in May 1983. (USAF photos.)

civilian technical representative from Bell Helicopter. Five helicopters were lost (four by enemy fire) during 1967-68 alone, and the unit fell upon even harder times when five aircraft were lost to enemy fire during the first four months of 1969, an undisclosed number of crewmen being killed or wounded.

Cross-border operations peaked in 1969 and early 1970, but further losses and maintenance problems forced an end to such work. Missions ended on 1 July 1970, when the political decision was made to cease US troop lifts into Cambodia. The "Green Hornets" continued gunship support for the VNAF H-34s and occasionally made emergency pick-ups. During the

summer of 1971, several troop carrier flights of eight aircraft were made from Kontum to DaNang. During 1972, US helicopters flew only occasional infiltration missions and only on special request. In the second half of 1968 alone, 20th SOS members earned numerous awards for heroism, including six Silver Stars and 11 Purple Hearts. During 1967-68, six crewmen earned the Air Force Cross, and the squadron earned the Presidential Unit Citation in 1967 and multiple Air Force Outstanding Unit Awards.

The Air Force Huey

The mount of the "Green Hornets" was the Bell UH-1 series "Huey" helicopter (officially, the Iroquois), which had been selected by the Air Force in 1963 for missile site support duties. Designated the UH-1F (originally H-48 in the USAF designation system), and based on the Bell Model 204B, the aircraft was built to accept the GE T58-GE-3 engine already in use in USAF Sikorsky CH-3 helicopters, replacing the Lycoming turboshaft in Army versions of the UH-1. The driveshaft of the T58 ran aft, necessitating several engineering changes to be made. The engine was mounted backwards, allowing the driveshaft to fit into the transmission with the exhaust rerouted to the fuselage right side. The GE engine was unreliable but very powerful, requiring the installation of a step-down gearbox to decrease rpm. Indicative of the T58's power was an airlift by a 606th ACS UH-1F of 34 Thai flood victims, plus the crew of three! This standing record was achieved with the pilot performing an apparently routine lift-off. The powerful T58 permitted a favourite stunt performed by 20th SOS pilots, which was to lift straight up to 200 ft (61 m) and dive forward into a take-off attitude. UH-1Fs originally featured the open bell-mouth shaped engine air inlet; however, for use in SEA, this was changed to a set of removable screened air inlet filter sections. Like the 204B, the F model Huey had a 2-ft (61-cm) tail boom extension, permitting the installation of a baggage compartment. This compartment was inconveniently located directly below the exhaust outlet, because Bell fitted it before the Air Force decided which engine to use. The 1,272 shp (951 kW) power plant drove a 48-ft (14,6-m) main rotor with 21-in (53-cm) chord, enabling a gross weight of 9,000 lb (4 082 kg) to be used. UH-1F deliveries totalled 120 aircraft through 1967, with follow-on versions designated the TH-1F built during 1967 for instrument and rescue training.

The Air Force wasted no time in sending its UH-1Fs to SEA, the first Hueys serving with the 606th ACS in Thailand in 1966. The exact number of Air Force Hueys used in SEA is unknown, but reliable sources and photographic evidence indicate about 20 to 25 aircraft. A typical crew comprised a pilot, co-pilot and two gunners who doubled as crew chiefs. Air Force UH-1s in SEA wore the typical USAF tri-tone paint scheme with light grey undersides, but during maintenance overhauls, some Hueys were repainted with only the lighter shade of green. Markings were limited to simply a flat black serial number on the tail fin — standard practice having the last three digits of this number applied to the nose panel, also in flat black. Located on each side of the tail boom was a large stencilled hornet, usually in green and facing forwards, but at times black or facing to the rear. While the unit was at Tuy Hoa, the hornet began to appear everywhere, including on aircraft from other units. Personal markings were used on the Hueys, though not in abundance. On rare occasions, the USAF Hueys were observed in SEA with a small national insignia on the forward tail boom.

To fulfil the two-fold mission of transport and gun support, some UH-1Fs were modified shortly after the "Green Hornets" began operations in Vietnam. These helicopters were fitted with hardpoints, armour and crew-operated weapons. Eventually, some 20 aircraft were so modified and redesignated UH-1Ps. The standard weapons load on the "P" model comprised a pair of LAU-59/A (XM-157A) 2·75-in (70-cm) seven-shot rocket pods and two hand-operated GAU-2B/A (XM-93) 0·30-in (7,62-mm) pintle-mounted mini-guns. These gun systems were located in each cargo doorway and could be fixed forward for firing by the pilot. Their rate of fire was adjustable at either 2,000 or 4,000 rounds per minute. They could also be pivoted to a stowed position inside the aircraft. Fastened to each gun was a flex chute through which expended brass was diverted down and away from the aircraft. Some of the 20th SOS Hueys had the mini-guns fitted right from the start of operations. The rocket pods were attached to universal mounts on the aft hardpoints. Initially, the mounts used were the XM-156 type, familiar on Army Huey gunships, but these were later replaced in favour of a more compact mount of the type seen on US Marine Corps' Hueys.

UH-1Fs used as team transports were called "slicks", a term originated by Army Huey crews in Vietnam to describe a UH-1 lacking heavy armament systems. The UH-1F and P designations were used interchangeably within the unit as the number of Hueys modified with hardpoints increased. During the early years of operations, a number of 20th SOS Hueys also featured a Sagami mount, which incorporated a standard infantry model M60 machine gun affixed to a swing-out post arrangement. The Sagami was used on gunships as well as "slicks", but most of the latter featured M60s suspended from "bungee" cords in the cabin doorway. Fastened to the weapon's barrel was a long metal rod which prevented an over-zealous gunner from accidentally shooting into the aircraft. The guns were also fastened from below with a strap and were belt-fed through flexible ammunition chutes attached to containers fastened to the cabin floor.

SEA avionics were installed in the 20th SOS Hueys and many aircraft were seen with two VHF/UHF antennae on the cabin roof. All "Green Hornet" Hueys retained their cargo hooks, although these were rarely used. Passenger seats were not installed for the reconnaissance team missions — instead, crews frequently fastened lawn chairs to the cabin floor! In Vietnam, crews quickly adopted the practice of placing ceramic body armour plates in the nose "chin bubble" windows — gunners usually sat on them in the cargo area. While based in Thailand, the UH-1Fs also often displayed a placard in a bracket on the doorpost located between the pilot and cabin doors. The information on the placard depended on the cover story being used to explain a particular mission. Some titles used were "USAF, Thai Army, Lao Government", and even "Department of Health"!

At times, the 20th SOS was called upon to test new equipment. One example was a large infra-red searchlight tested while the UH-1s were part of the 606th ACS in Thailand. Later, in Vietnam, the unit tested a personnel detector, known as a "people sniffer", which detected chemical scents emitted by humans. Neither system was adopted for use by the unit. While at Nha Trang, two gunships flew "Firefly" missions over Binh Thuy for a time, but it's doubtful that they were fitted with searchlight equipment.

Twin Hueys arrive

In a move by the Air Force to upgrade its Hueys, the UH-1s of the 20th were gradually replaced by UH-1Ns after the unit moved to Cam Ranh Bay in late 1970. The UH-1N was well suited to the "Green Hornet" missions, having a greater payload capacity and twin engine safety. Initially developed by Bell for the Canadian Armed Forces, the twin-Huey was purchased simultaneously by the USAF and USN. Air Force N-model deliveries began in 1970, eventually totalling 79 aircraft. Power was supplied by two Pratt & Whitney PT6T-3 turbine engines having a total output of 1,800 shp (1 343 kW); the military engine designation was T400-CP-400. Maximum gross weight of the UH-1N was 10,000 lb (4 540 kg), maximum speed was 142 mph (228 km/h) and the maximum range at mission gross weight was 260 miles (418 km). The normal

passenger load was 14 plus pilot and 220 US gal (833 l) of fuel. Like their predecessors, the twin-engined Hueys of the 20th SOS were fitted with weapons systems — all gunship versions having GAU-2B/A and LAU-59/A weapons. In lieu of the mini-guns, the Ns could carry XM-94 rapid-fire 40-mm hand-operated grenade launchers. Installation, operation, and applicable systems paralleled those of the mini-guns. This system had an 800-round capacity, an effective range of 4,900 ft (1,500 m) and could fire 400 rpm. Often, a mini-gun was mounted in the left door and the 40-mm weapons in the right. The UH-1Ns arrived in Vietnam with flat black USAF titles and serial numbers on the tail fin, and standard camouflage, but the "USAF" and data block on the pilot's door were quickly oversprayed with flat black, and the hornet insignia added to the tail boom.

End of an era

Many lessons were learned from the SOG operations of the Vietnam war era. The full potential of these exploits was never realised, because of the inhibitions imposed by the US observance of the Geneva accords. America also feared that expanding the war into Laos and Cambodia would further involve North Vietnam or even China. Many of those lessons learned are formed into the doctrine of today's modern Special Operations Force (SOF).

From the end of the war until 1983, the 20th SOS continued to function at Hurlburt Field, Florida, as part of the 1st SOW of the Tactical Air Command (TAC). Aircraft used were the UH-1F, P, and N variants and CH-3Es, with the tail code "AO" carried in white on the tail fin, the serial number added on the tail boom in white, and small national insignia applied to the fuselage roof and belly, as well as the forward end of each tail boom side. Eventually, the older Hueys were phased out in favour of the twin-engined models and HH-53Cs replaced the CH-3s. Many of the older Hueys and CH-3s equipped reserve SOS units.

Today, Special Operations exists on a large scale, encompassing a mix of Air Force active, Reserve and Guard units flying a wide variety of special aircraft. Through a major reorganisation in March 1983, the 2nd Air Division was reactivated, becoming the focal point for all Air Force special operations activities. Through this reorganisation, the 20th SOS officially drew to a close its proud status as the only combat helicopter squadron in the Air Force. Its UH-1Ns were absorbed primarily into the 24th Composite Wing at Howard AFB in Panama. Besides this unit, other principal units of the 2nd Air Division include the 1st SOW, the USAF Special Operations School, and three squadrons at Hurlburt Field, two squadrons in the Philippines and one in Germany. Special emphasis is placed on unconventional warfare, using unique aircraft with special capabilities. In contrast to the days of Vietnam, a good proportion of helicopter missions are flown low level at night with night vision devices.

In an effort to upgrade the SOF to keep pace with the likelihood of low intensity conflict, the Army and Air Force signed an agreement on 22 May 1984 as an AirLand accord. The agreement provided that the Air Force transferred responsibility for providing helicopter support for SOF to the Army — this including about 100 Air Force helicopters dedicated to that mission. The changeover, occurring in July 1986, ended what proved to be a truly unique and colourful chapter in Air Force history. □

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The UH-1N serial 96-6644 of the 20th SOS conducting open water training in June 1983. (USAF photo.)