

Air America in Laos III – in combat

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When, in May 1987, during the unveiling of the Air America Memorial at UTD's McDermott Library at Richardson former CIA director William Colby said that Air America aircraft were not combat aircraft, but transport aircraft, that was only true for most of Air America's flights. But in at least three programs Air America crews flew or were to fly combat aircraft in Laos: B-26s in Projects *Mill Pond* and *Black Watch* in 1961 and T-28s as A-Team pilots for *Water Pump*. Then there was another absolutely unofficial use of Air America transport aircraft as bombers dropping "Hot soup". Finally many Air America aircraft flew combat support missions that brought them very close to the actual fighting: This was true for many missions flown by Air America's helicopters, that is by the UH-34Ds assigned to the *Madriver*-contract and later especially for the Bells and S-58Ts assigned to the AID-439-713 contract; these helicopters were often used in missions that used the "Leapfrog technique", transporting small groups of soldiers from one point of a battlefield to another. Other helicopters like the Chinooks would carry big guns to their actual positions. Other combat support flights made by Air America aircraft were Forward Air Controller missions (*Butterflies*) made before the arrival of the *Ravens*, and especially during the later years of the war, dropping paratroops from aircraft like the Twin Otters assigned to contract AID-439-713.

Laos 1961: Project *Mill Pond*:

As the Soviet Union made no attempt to conceal its airlift of arms and ammunition to Kong Le, US President Eisenhower approved an expanded program of CIA responses. Already in December 1960, the CIA secretly flew four black B-26s, probably left over from Operation *Haik*, from CEECO stocks at Tainan to Takhli and placed them under Major Aderholt's command. These B-26s were flown to Takhli by Air America crews, including Ed Eckholdt and Al White. The aircraft were to be used for air strikes against the center of Pathet Lao support at Vang Vieng, but although Detachment 2 had the bombers ready to go, all air strikes were called off. The loss of the critical junction of Routes 7 and 13 at Sala Phou Khoun on 9 March 1961 had still another consequence, as the US Government felt it might be necessary to defend the neutral and independent Laos that US President Kennedy had declared his goal on 24 March 61, by creating a strike force without obvious US connections, as the only Laotian combat aircraft at this time were three armed T-6 Texans received from the Royal Thai Air Force in early January 61. Major Aderholt was charged to work out the requirements of such a task force for an attack to be carried out on 17 April 61, within hours of the Cuban invasion.¹ On 19 March 61, a vast mobilization of US forces in the Pacific was ordered, and on 29 March, the Joint Chiefs of Staff approved a multinational contingency force for Laos. So, in March and April 61, a total of 18 USAF pilots, all volunteers, were discharged from the USAF, given civilian clothes and fake identification, and flown to Takhli, Thailand, home of Project *Mill Pond*, where they were given Royal Laotian Air Force commissions. They were to fly additional B-26s and to augment the detachment's ground crews at Takhli, while the Air America pilots were to fly the original four B-26s. But none of the USAF pilots that arrived at Takhli for Project *Mill Pond* had ever flown a B-26, so that the first thing Major Aderholt had to do was to look for a bombing range in the Gulf of Siam.² Compared to the situation of one year earlier, the facilities at Takhli had been extended, as Navy Seabees had built a barracks

¹ This chapter is mainly based on the excellent description contained in: Hagedorn / Hellström, *Foreign Invaders*, pp. 132-36; Trest, *Air Commando One*, p.110.

² Trest, *Air Commando One*, p.112.

with open bays and a small mess hall –facilities that occupants soon dubbed the “Ranch”.



A black CIA B-26B of project *Mill Pond*, probably in April 1961
(photo kindly supplied by Leif Hellström, published with kind permission from Gen. H.C. Aderholt)

Indeed, in early April 61, twelve more B-26s and two RB-26Cs were flown in from Okinawa. They had been removed from the USAF inventory, most of them coming from storage at Davis-Monthan AFB. All B-26s coming from Okinawa were natural metal and devoid of any markings or serials, while the four aircraft coming from Tainan were painted overall black. The additional B-26s arrived at Takhli from 11 April 61 onwards, and while awaiting the order to conduct air strikes, *Mill Pond* operations were limited to reconnaissance missions flying the RB-26Cs.³ On the program, there were also one Helio Courier, believed to be Major Aderholt’s “555”, used for liaison flights to Vientiane, Bangkok and Udorn, and four “sanitized” C-130As to be used for an invasion of the Plain of Jars. On 16 April 61, all B-26s were loaded with bombs and rockets, and the pilots were given papers identifying them as officers of the Royal Laotian Air Force. Plans to hang napalm canisters on the wings were dropped at the insistence of Ambassador Brown in Vientiane. Four simultaneous strikes against key targets were planned, each one performed by a group of four aircraft led by an Air America pilot. The planned primary mission of *Mill Pond* was a dawn attack on the airport of Xieng Khouang, with orders for eight B-26s to crater the runway and to destroy aircraft on the ground, while the other 8 B-26s were to attack the Pathet Lao concentrations in the Ban Ban valley and on the southern flank of the Plain of Jars. The following day, on 17 April 61 in the very early morning, the pilots were told by Major Aderholt that Washington had cancelled the strike because of the disaster in the Bay of Pigs in Cuba.⁴ All *Mill Pond* aircraft remained on standby at Takhli until August 61: The four “sanitized” C-130s⁵ were used to ferry two

³ Trest, *Air Commando One*, pp.109-10, 113.

⁴ Trest, *Air Commando One*, pp.114-15.

⁵ On 26 August 1960, four C-130As of the 21st TCS were transferred to a special detachment within the 21st TCS, which is marked “SF” in the official USAF assignment records, preserved at the AFHRA at Maxwell AFB, AL. These were most probably the four C-130As that moved to Takhli (T-05) for CIA scheduling in April 61 (Bowers, *The USAF in South-East Asia*, p.441). They were: 56-490, which was transferred to the control of the 4440th Aircraft Delivery Group, Langley AFB, Virginia, on 21 August 61; 56-491, which was transferred to the control of the 4440th Aircraft Delivery Group, Langley AFB, Virginia, on 21 August 61; 56-493, which was

volunteer Thai artillery batteries to Seno (L-46), Laos, in late April 61, to help repel the Pathet Lao advance, and the two RB-26Cs were used on reconnaissance missions over Laos since late April 61, especially over the Ho Chi Minh Trail. Some missions had previously been flown by USAF C-47s since late 60, until TC-47B 44-76330 of the 315th Air Division was shot down over Laos on 23 March 61,⁶ and then since 24 April 61 by an unmarked RT-33A based at Udorn (Project *Field Goal*). By early May 1961, in spite of increased US aid and advice to Phoumi Nosavan's forces, the Pathet Lao, then strongly supported by an extensive Soviet airlift operating from North Vietnamese bases, controlled half of Laos. But instead of armed interventions, in May 1961, the US administration of President Kennedy agreed to a cease-fire between the two factions. After the cease-fire announced in May 61, both the *Mill Pond* and the *Field Goal* reconnaissance missions were discontinued, but the B-26s and their crews remained at Takhli until August 61, when they were ordered by an upset US Ambassador to Thailand to leave the country immediately. The B-26s were flown to Okinawa, although three or four of them probably went to the Air Asia stocks at Tainan. Project *Mill Pond* was the last air strike project directed by the CIA, as in July 61, the responsibility for this type of operations passed to the Department of Defense.⁷

Laos 1961: Project *Black Watch*:

The negotiations in Geneva, that had started in May 61, were still going on, but the US government suspected that North Vietnam nevertheless continued to deliver troops and military equipment to Laos. So on 4 October 61, the RT-33 flights were resumed, and at about the same time, two RB-26Cs ("236" and "745") still based at Takhli flew photo reconnaissance missions on a demand basis. This project was called *Black Watch*, commanded by Major Aderholt and flown exclusively by Air America pilots, among whom Ed Eckholdt, Fred Riley and Al White. On one of these flights, "236", flown by Ed Eckholdt and Al White, was hit by anti-aircraft gun fire west of the Mu Gia Pass on 2 November 61, but landed safely at Udorn. Eight days later, the reconnaissance flights over Laos were taken over by four USAF RF-101s based at Bangkok (Project *Able Mable*). The RB-26Cs were still flying missions over Laos in December 61 or even later, but were returned to the USAF as 44-35585 and 44-35813 in May 62, when they became part of Project *Farm Gate* – the use of USAF B-26s, T-28s and SC-47s in the colors of the South Vietnamese Air Force from 1961 to 1963.⁸ The *Farm Gate* detachment had been sent to Vietnam primarily to train the South Vietnamese Air Force in special air operations and to support the Green Berets, but in reality, they flew psywar and resupply missions, and the combat role had even primacy.⁹

Increasing pressure from the left and from the right

But, in spite of increased US aid and advice to Phoumi Nosavan's forces, the Pathet Lao, then strongly supported by an extensive Soviet airlift operating from North Vietnamese bases, gained terrain, as North Vietnamese and Pathet Lao military activities had continued throughout the early months of 1961. By April 1961, a substantial portion of southern Laos,

transferred to the control of the 4440th Aircraft Delivery Group, Langley AFB, Virginia, on 2 November 61; and 56-497, which was transferred to the control of the 4440th Aircraft Delivery Group, Langley AFB, Virginia, on 9 November 61.

⁶ C-47 44-76330 had taken off from Vientiane and was on a flight to Saigon across the Plain of Jars, where it was intended to gather radio intelligence from several Soviet-built airstrips in the Xieng Khouang Ville area. On 23 March 61, it was shot down about 4 miles southwest of Phan Savan airfield. Major Lawrence R. Bailey parachuted to the ground, where he was captured and spent 17 months as a Prisoner of War at the Pathet Lao headquarters in Sam Neua province, until he was released on 15 August 62; the remaining crew of 7 was killed in the crash (Hobson, *Vietnam air losses*, p.5).

⁷ Hagedorn/Hellström, *Foreign Invaders*, pp.132-36

⁸ See Hagedorn/Hellström, *Foreign Invaders*, pp.135/6, and for Project *Farm Gate*: ib., pp.137-47.

⁹ Trest, *Air Commando One*, p.123.

including the cities of “Muang Phin” (= Muang Phine / LS-300) and “Xepon” (= Tchepone / L-38), had been conquered by the communists; the airfield at Tchepone (L-38) was rebuilt by North Vietnamese forces,¹⁰ and by early May 61, the Communists controlled half of Laos. That month, however, not only marked the beginning of the Geneva Conference that first met in May 1961 and where everybody agreed to a neutral Laos, although there was a strong disagreement as to the means by which it should be assured, but also produced the first casualties among Air America helicopter pilots, when Walter L. Wizbowski and Charles H. Mateer died in a landing accident of UH-34D H-G at Pa Doung (LS-05) on 30 May 61, while trying to land supplies to the Hmong forces.¹¹

In spite of this support by Air America, Vang Pao was driven from Pa Doung and moved his headquarters to Pha Khao (LS-14) in June 1961, marking the beginning of a pattern of the war that was to repeat itself over the years: a continuous migration of Hmong troops and non-combat Hmongs from one place to another. At that time, more than 9,000 Hmong had been equipped for guerrilla operations within a year. They blew up bridges and supply dumps or shot at Neutralist or Pathet Lao troops on the Plain of Jars.

However not only the Pathet Lao threatened the neutrality of Laos, but also the rightist military: So, when in February 62, the rightists had gone on raising obstacles, the United States withdrew most of its aid from the Vientiane government. Nevertheless, North Vietnamese support to the Pathet Lao continued all the time: During the spring of 1962, the 919th ATR of the North Vietnamese AF supported military activities around Louang Nam Tha (L-100) in northern Laos. Na San and Dien Bien in northern North Vietnam and Vinh in southern North Vietnam were used as operational bases. An-2s, Li-2s and Il-14s flew troops and supplies into northern Laos throughout 1962. Some Mi-4 helicopters were based at Moung Sai (L-27) in 1962 for use by the military commanders.¹² The withdrawal of US aid meant that, when Communist forces began to besiege Nam Tha (L-100) in March 62 and attacked Royal forces at Houei Sai (LS-284) in May 62, they could not sustain the assaults without US supplies. So, General Nosavan and Prince Boun Oum capitulated and in early June agreed to a coalition with Souvanna Phouma that was supposed to content all political sides and to assure a political balance in Laos.¹³ A new coalition government was installed by the king on 24 June 1962, thus allowing the Geneva Conference to sign an Agreement on 23 July 1962, that conceded great parts of the territory of Laos to the Pathet Lao and guaranteed the neutrality of the entire Kingdom of Laos. All foreign troops and paramilitary personnel had to leave within 75 days and stay out of Laos. An International Control Commission (CIC) made up by Indians, Poles, and Canadians was established to supervise the observance to be paid to the agreement, and the Sikorsky UH-34Ds used by the CIC members were furnished and serviced by Air America, but mostly flown by French pilots.

The 1962-68 period

Air America in combat

Supporting the “Secret War” on the ground

As Hanoi continued to send more troops into Laos in spite of the Geneva Agreements, the United States tried to counter the Communist expansion by beefing up the military of the Lao government. Since 1963, the Royal Laotian armed forces, totaling some 60,000 men, were equipped by the United States with everything from helmets to boots, from rifles to jeeps,

¹⁰ Toperczer, *Air war over North Vietnam*, p.7.

¹¹ List “Operational casualties in SEA” (in: UTD/CIA/B29F1); Memorial file (in: UTD/LaShomb/B16F3); Leary, *CIA Air Operations in Laos*, p.58.

¹² Toperczer, *Air war over North Vietnam*, p.7.

¹³ Kirk, *Wider war*, pp.207/8.

from maps to airplanes. Former US Special Forces, the “Green Berets”, highly experienced in jungle warfare, were hired by the CIA to lead Lao guerrillas deep into enemy-held areas. The US gave advice to Laotian forces through military attachés assigned to the US Embassy, the extent of which was kept secret by US and Lao officials. The man in charge of all US military activities in Laos was the US Ambassador, who, for his part, delegated responsibility for the tactical conduct of the war to his CIA station chiefs – James W. Lair and, since 1968, Lloyd (“Pat”) Landry. Their headquarters were on the Royal Thai Air Force Base at Udorn, adjacent to the Air America parking ramp. This was possible due to their excellent rapport with the commanding officer at Udorn, General Vitoon Yasawatdi, who, for his part, had direct, private access to both the Lao and Thai prime ministers.¹⁴ As to the Hmong army, US President Kennedy authorized the CIA to increase its number, and by the end of 1963, some 20,000 of them were armed. The new base of General Vang Pao’s Hmong troops was Long Tieng (LS-98, later to become known as LS-20A or just “The Alternate”), which had been built in 1962 to support military activities in the northeast. Situated about 6 miles south of Sam Thong (LS-20) by straight line, but 15 miles by mountain road, Long Tieng became the busiest US (CIA) base in Laos and the headquarters of General Vang Pao, for whose army it provided logistic and communications facilities. It was situated in an area that was considered to be secure and only some minutes of flight away from the battlefields of the Plain of Jars. And what had been “an abandoned opium poppy field in a bowl-like declivity high in the mountains” in 1962, became the second largest city in Laos, bigger than the royal capital of Luang Prabang and almost as large as the political capital of Vientiane” in 1970.¹⁵

Of course, this military expansion also signified more work for Air America. And more work does not only mean more military supplies, more fuel, and more food to be flown into Laos to maintain the troops on the ground, but also combat flying, that is supporting small units besieged by enemy forces, moving Vang Pao’s soldiers from one place to another, picking up wounded, and evacuating places that risked to be overrun. Much of the combat flying was done by Air America’s UH-34Ds, which were all based at Udorn, but which all worked in upcountry Laos under the provisions of contract AF62(531)-1674, then AF62(531)-1758, and later AF62(531)-1841, that is of the *Madrivier*-contract, which, as has been shown in the file *Air America in Laos II – military aid* of this database, covered flying services in the interest of National Defense. These helicopters mostly moved troops of *L’Armée Clandestine*, that is of General Vang Pao’s irregular forces, which was trained by several CIA specialists, several Green Berets and about 100 Thai PARU officers. Most of Vang Pao’s irregulars formed local defense units, also called *Auto Défense de Choc* (ADC)¹⁶ or *Auto Défense Ordinaire* (ADO)¹⁷ forces, but ten thousand were formed into *Special Guerilla Units* (SGUs).¹⁸ The SGU was a battalion made up of three line companies and a HQ unit, armed with bazooka and mortars, and later 75mm and 105mm howitzers, which moved from hilltop to hilltop, by Air America helicopters.¹⁹ These SGUs were a sort of strike force that reported to Vang Pao and were used for major offensive and defensive purposes. But although the SGUs made up of Hmong warriors are perhaps the most famous Special Guerilla Units in the meantime, the Hmong were far from being the only tribesmen who fought as SGUs in Laos: “The SGU was composed of many ethnic groups, including ethnic lowland Lao. In the NE,

¹⁴ Leary, *CIA Air operations*, p.61.

¹⁵ Don Schanche, quoted by Kirk, *Wider war*, pp.234/5.

¹⁶ The ADC units received some training and weapons and salaries of 1,000 to 2,000 kip – \$2 to \$3 – per month; they were organized by zones and paid by the Royal Lao Government (Hamilton-Merritt, *Tragic mountains*, p.177).

¹⁷ The ADO units were not trained or salaried, but were provided with weapons and ammunition for village defense (Hamilton-Merritt, *Tragic mountains*, p.177).

¹⁸ The SGUs were funded directly by US government appropriated funds, probably at ten US cents a day per man. They were paid by CIA advisors (Hamilton-Merritt, *Tragic mountains*, p.177).

¹⁹ Castle, *At war*, p.165 note 14, quoting D. Blaufarb; Robbins, *Ravens*, p.108.

VP's turf, the SGU was Hmong, Lao Thueng, and Lao, for the most part. In central Laos is was mostly Lao. In the south, Lao and some odds and ends of ethnics. In the NW, out of Luang Prabang, it was Lao Thueng and some Hmong. Further west to 118A it was mostly Lao Thueng and Yao/IuMien, with other smaller ethnics."²⁰

However, the overall strategy was the same in the whole country of Laos: During the rainy seasons the SGUs were often transported by Air America UH-34Ds into areas controlled by the Communists, where they could harass enemy positions and supply lines.²¹ This type of flying was very dangerous, and many times, Air America's helicopters were hit by ground fire, and some Air America helicopters were even destroyed during such flights – for example UH-34D H-42, which was hit by gunfire while landing troops northeast of Bouam Long (LS-32), Laos, in the Moung Hiem (LS-48A) area on 19 May 66. In this accident, the pilot, Captain John W. Wilmot Jr., and 8 passengers were killed, while Flight Mechanic Matthew Luca was severely burnt, but escaped together with 2 passengers; the aircraft was destroyed by fire. H-42 had been one of 7 Air America helicopters involved in a "passenger movement" from LS-48A to "T" pad at UH-3301.²²

This type of combat flying remained essentially the same during the whole period of the "Secret War" in Laos, although in later years, sometimes bigger and more modern equipment was used. What changed, were the political climate and the military situation. A first change already came in the spring of 1963, when the Neutralists were split into a leftist and a neutral wing in March 63 and when, in April 63, as a consequence to the murder of the leftist minister Pholsena, all Pathet Lao ministers established their headquarters at Khang Khay. This new situation meant an expansion of the Company's activities, as Air America now moved some Royal Laotian Army troops of General Phoumi Nosavan from positions in Southern Vientiane province to areas on the edge of the Plain of Jars. So since April 1963, heavy fighting started in the Plain of Jars between Kong Le's Neutralists, supported by the rightist Phoumi Nosavan, and the Pathet Lao, supported by the leftist group within the Neutralists and by North Vietnamese troops. At least since then, Souvanna Phouma was aligning himself closely with the Western-supported right wing, so that Air America planes now supported Kong Le's Neutralists, the troops of the rightist Phoumi Nosavan and the Royal troops obedient to the government of Souvanna Phouma. As the fighting on the Plain of Jars continued, clashes between Pathet Lao and Royal army forces occurred in the southern provinces of Attopeu and Saravane, necessitating other Air America supply missions to be flown to the south, where the

²⁰ E-mail dated 15 November 2005, kindly sent to the author by MacAlan Thompson.

²¹ Castle, *At war*, p.80.

²² "Sikorsky Helicopter UH-34D, H-42, crewed by R/Captain J. W. Wilmot and Flight Mechanic M. J. Luca departed LS-20 at 0545 Local 19 May for LS-48A. From LS-48A R/Captain Wilmot was instructed to carry passengers to coordinates UH 3301, approximately 5 miles south-west of LS-36. After making one uneventful round trip to an alternate landing zone at UH 3702, H-42 was again approaching the alternate zone with 10 passengers, when at an altitude of approximately 10 feet, the aircraft was observed going out of control, pitching up and to the left, over a line of trees, then contacting the ground on its left side heading 180° from the original approach heading. An explosion and fire followed almost immediately, destroying the aircraft and fatally injuring the pilot and 8 passengers. Flight Mechanic Luca and two indigenous passengers were able to evacuate the aircraft suffering minor to serious injuries. [...] H-42 was one of 7 Air America Helicopters which were involved in a passenger movement from LS-48A to "T" pad at coordinates 3301. Shortly after the shuttle began, "T" pad closed in due to cloud cover. Captain Wilmot in H-42 noticed an open rice paddy close by "T" pad and to the East and radioed back to LS-48A asking permission to discharge his passengers on this rice paddy. Permission was granted, and H-42 and 4 other helicopters deposited their passengers at the paddy without incident. On the second trip into this paddy H-42 was hit by ground fire by unfriendly elements. [...] As of this writing, the tactical situation in the area of H-42's crash site will not permit an actual on site investigation" (Accident report for this accident, in: UTD/CIA/B58F9); see also the Minutes of Meetings of the Executive Committee of Air Asia Co Ltd and Air America Inc. of 25 May 66 in: UTD/CIA/B8F1; Leary, *Outline - Air America in Laos*, 1966, p.5; and Davis, *Across the Mekong*, pp.129-30; the Memorial file preserved in UTD/LaShomb/B16F3 gives Thamla as location, as does the report of the Board of Review, dated 28 June 66 (in: UTD/CIA/B34F1).

United States were building up a military complex on the Bolovens Plateau.²³

In mid-1964, the political and military situation in Laos escalated: When talks between Souvanna Phouma and Souphanouvong, held at Khang Khay in April 64, failed, the Pathet Lao began new attacks against Kong Le and his Neutralist forces on 16 May 1964, and within a week, Kong Le was driven to the western edge of the Plain, where he established the Neutralist headquarters at Moung Soui. By now, the “Secret War” in Laos had really started. As to the northern and central parts of Laos, supported by Air America planes, Royal Lao forces launched a monsoon counter-offensive in July 64 that undid many earlier Pathet Lao gains. The government not only opened Route 13 between Vientiane and Luang Prabang, but also set up new positions in Phong Saly and Sam Neua provinces, long regarded as Pathet Lao terrain. Most important among the towns abandoned by the Pathet Lao on Route 13 were Vang Vieng (L-16), 50 miles north of Vientiane, and Sala Phou Koun (LS-260), another 50 miles north at the junction of Routes 7 and 13, recaptured by Kong Le in August 64. North Vietnam immediately increased their troops in the northern part of Laos that were estimated to number over 30,000 men later in 1964.²⁴ This was the beginning of a pattern of fighting which, since 1964, was to repeat itself over the years: Communist, i.e. Pathet Lao and North Vietnamese forces advanced regularly during the winter dry season, which lasted from October to May, as they were moving on foot and could easily drive back the Royal Lao troops when it was possible to walk thru the jungles. During the monsoon rains of summer, they always retreated, because when the jungles were drenched, the rivers at flood level, and the lowland rice-paddies shoulder-deep in water, the government always had the advantage of transportation on US supplied or Air America helicopters and aircraft. So, during the dry winter season, Air America planes had to support the Royal Lao troops during their retreat to the west, while during the rainy summer season, which lasted from June to September, Air America planes not only delivered supplies to the same troops, but transported them back to more eastern parts of Laos.²⁵

But in a more general way, 1965 marked the beginning of major military activities in Laos. When in 1965, the North Vietnamese troops operating in Laos were increased to about 40,000, they not only tried to protect the construction of the Ho Chi Minh Trail system, but they also attacked Laotian government forces in the south. Supported by Air America, Royal Lao Government troops were able to repel these assaults: On 9 March 1965, Communists attacked a reserve officers’ school at Dong Hene, 30 miles east of Savannakhet (L-39), but were stopped by Royal Lao troops and Royal Lao AF T-28s; then, in November 65, at the beginning of the next dry season, Lao soldiers repelled several mixed North Vietnamese and Pathet Lao battalions 2 miles outside of Thakhet (L-40). Still more encouraging was the success of General Vang Pao in the northeast, where, once again supported by Air America planes, he recovered small outposts in Sam Neua and Xieng Khouang provinces for the Royal Lao government in the 1965 monsoon counteroffensive. In 1966, these military successes of the pro-Western forces in Laos could be repeated: In spite of intensive road construction work carried out by Chinese workers in the north-eastern regions of Laos since 1962, Royal Lao troops, supported by Air America planes, drove into the Nam Bac valley, some 20 miles east of Moung Sai in August 1966, during the monsoon season. For a year and a half, the Lao forces loosely held the valley, thru which ran an old trail leading east to Sam Neua.²⁶

In 1967, however, there was a stronger resistance on the Communists’ side: As the Nam Bac valley could have been used as a base to extend Lao rule into terrain controlled by the Pathet Lao (Sam Neua) and the Chinese (Phong Saly, Moung Sai), the Communists reinforced positions surrounding the valley in July and August 1967. So Air America planes supported

²³ Kirk, *Wider war*, pp.208-10.

²⁴ Kirk, *Wider war*, pp.210-14.

²⁵ Moody, *The great adventures*, Prelude, p.7.

²⁶ Kirk, *Wider war*, pp.214-18.

the Royal Lao troops sitting there to defend the valley. Some of the rockets delivered to northern Laos by Air America also came from the USAF stocks at Nakhon Phanom, as the USAF's 56th ACW was ordered to use them on their A-26s and T-28s, although they were needless. So Colonel Aderholt had them send up to Vang Pao's guerrillas, who launched them off the ground.²⁷ At about the same time, the Communists sent reinforcements east of the Ho Chi Minh Trail in the vicinity of the towns of Saravane (L-44) and Attopeu (LS-10), north and south of the Bolovens Plateau. These activities meant that Air America planes also had to support the Royal Lao defenders in the south. Both movements later proved to be the opening of the Lao phase of the Communists' winter-spring Tet offensive, although the aims were different from the Tet offensive in South Vietnam, as in Laos, its main purpose was to defend the trail system and divert and disperse Lao forces in the north.²⁸

In 1968, the whole pace of the secret war in Laos changed. Impatient with the progress of the Pathet Lao, North Vietnam introduced new troops and opened its campaign in Laos with an attack on government positions in the Nam Bac valley on 13 January 68. Supported by artillery in the mountains, within two days, the Communists dispersed some 2,000 government soldiers, most of whom fled or surrendered. The battle of Nam Bac (LS-203) was the most important in northern Laos that year, but North Vietnamese and Pathet Lao forces also obtained some minor victories. On 12 January 68, two An-2s of the North Vietnamese AF (919th Air Transport Regiment) attacked the US TACAN installation, opened in 1966 at Phu Pha Thi (LS-85) in Laos to guide bombing missions over North Vietnam, with 120mm mortar rounds converted to "bombs", 57mm rockets and machine guns; the TACAN site sustained only little damage and remained in operation, but two soldiers and two female civilians were killed and two soldiers wounded. An Air America UH-1D, crewed by Captain Theodore H. Moore and Flight Mechanic Glenn Woods, happened to be in the vicinity, delivering food and ammunition to various Hmong villages and defensive positions located around LS-85. When Captain Moore saw the An-2s, he chased them in his UH-1D, while flight engineer Woods began firing an AK-47 rifle at the fleeing biplanes. One of the An-2s, apparently hit by Woods' gunfire, dropped and then crashed into a mountain ridge, followed, only a few minutes later, by the second An-2 which hit the side of a mountain some three miles further north of the first crash. As a political consequence, Captain Moore was immediately fired by Air America for "causing an international incident", but later rehired by the Company upon request of the CIA.²⁹ But this was only the beginning, as the military situation in Laos changed completely at the time of the Tet Offensive in South Vietnam.

Air America in air combat

Water Pump

The first US T-28s in South East Asia were those of Detachment 2A of the 4400th CCTS that became operationally ready at Bien Hoa Air Base, South Vietnam, on 16 November 61: At the request of the US Ambassador in Vietnam, these USAF aircraft were painted in the colors of the South Vietnamese Air Force on 26 December 61, while operating in Project *Farm Gate*, although they were actually flown by pilots of the USAF's 1st Air Commando Group.³⁰ The following year, in 1962, Major Harry C. ("Heinie") Aderholt proposed to the CIA to deploy an air commando detachment to Thailand to support Vang Pao and the Special Forces in Laos; this became urgent when the cease-fire broke down in the winter of 1962/63,

²⁷ Trest, *Air Commando One*, pp.198/9.

²⁸ Kirk, *Wider war*, pp.223-25.

²⁹ Kirk, *Wider war*, pp.224-26; Castle, *At war in the shadow of Vietnam*, pp.94/5; Castle, *One day too long*, pp.76-78; this version is based on interviews given to Castle by Captain Moore; a different version, based on William Colby's book, is given by Robbins (*Ravens*, p.42), who speaks of 3 An-2s participating in the attack.

³⁰ Dorr/Bishop, *Vietnam air war debrief*, p.19; Hagedorn/Hellström, *Foreign Invaders*, p.138.

as there was constant gunfire in northern Laos.³¹ So, in August 63, the US Government gave the Souvanna government in Laos 6 T-28s and provided a USAF Mobile Training Team (MMT) for initial instruction and maintenance at Wattay airport, Vientiane. A message sent by the US State Dept to Ambassador Unger on 26 October 63, allowed the T-28s to be used to attempt intercept and down any NVA illegal supply flights, but did not allow them to drop bombs for cratering Route 7, because it would have been a violation of the Geneva Agreements. To make sure that the Lao could not conduct bombing operations without US authority and to use the T-28s in *coups d'états*, the US Embassy at Vientiane retained the fuses for the T-28 ordnance. The problem was, however, that only 3 of these T-28s were flyable at the same time.³² So, on 6 December 63, CINCPAC recommended a detachment of the 1st Air Commando Wing, Eglin AFB, FL, deployed to Udorn to help the RLAF, and on 13 March 64, 38 USAF officers and soldiers of Detachment 6, 1st Air Commando Wing – code-named *Water Pump* –, commanded by Major Drexel B. Cochran, departed Hulbert, arriving at Saigon in mid-March in a C-135.³³ Half of them assembled 4 crated T-28s which had arrived at Bien Hoa in C-130s, the others flew to Udorn. On 1 April 64, Detachment 6, 1 ACW with 4 T-28Cs and 41 personnel arrived at Udorn, where the detachment established a T-28 maintenance facility using Air America equipment. This *Water Pump* training facility for RLAF T-28 pilots was located at Udorn adjacent to the Air America parking ramp,³⁴ and they immediately began a T-28 ground-and-flight school for Lao pilots.³⁵ When, on 24 March 1964, a USAF T-28 had lost its wing on a bomb run in South Vietnam followed by another loss on 9 April 1964, all American T-28s in South Vietnam were replaced by the A-1E Skyraiders in May 1964.³⁶ In this way, after some modifications, additional T-28s became available for operation in Laos. In April 64, a major Pathet Lao offensive ensued, sweeping across the Plain of Jars and threatening Royalist forces to the east. In preparation for a counteroffensive that was to become known as *Operation Triangle*, the *Water Pump* detachment opened a forward operating location at Wattay airport, Vientiane, and began training Laotian aircrews to fly T-28 combat missions.³⁷ The T-28D-5 attack version could carry 3,500 pounds of ordnance, was armed with two flush mounted forward-firing 50-caliber machine guns.³⁸ As to the use of T-28s in Laos, from the very beginning, US Ambassador Unger had a larger general tactic in mind. In his telegram no. 942 to the Dept. of State, dated 3 March 1964, he recommended: “Our guidance to FAR and neutralists for use of T-28s, to be discussed and agreed in advance, would continue to emphasize use of aircraft, bombs or not, for defensive purposes only, but defining defense to include both reprisal for aggressive

³¹ Trest, *Air Commando One*, p.139.

³² Castle, *At war*, p.65 + p.162, note 13 + p.66.

³³ The function of the *Water Pump*-Detachment is described in footnote 5 of telegram no. 942, sent by the US Embassy Vientiane to the US Dept. of State on 3 March 1964: “The Special Air Warfare Detachment was a proposal of the Joint Chiefs of Staff to deploy four T-28s and pilots and 30 to 40 support personnel in Thailand. The detachment could augment the Royal Lao Air Force in the event of a serious offensive by the Pathet Lao/North Vietnamese, assist the Lao Air Force’s maintenance training, provide advice for planning and employment of T-28s in Laos, and give impetus to Thai up-country development programs and counterinsurgency efforts. It would also serve as an adequate cover to justify the presence of US T-28s in Thailand” (in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 13: http://www.state.gov/www/about_state/history/vol_xxviii/01_24.html).

³⁴ Moody, *The great adventures*, Prelude, p.2.

³⁵ Castle, *At war*, p.66; Trest, *Air Commando One*, p.140; Leary, *Outline...*, 1964, pp.6+8.

³⁶ Dorr/Bishop, *Vietnam air war debrief*, pp.30+32. On 24 March 64, T-28D 53-8362 crashed near Soc Trang, on 9 April 64 T-28D 53-8361 crashed in South Vietnam’s Military Region IV (Hobson, *Vietnam air losses*, p.8).

³⁷ Between 1964 and November 66, 42 Lao T-28 pilots were trained by *Water Pump*, but only 24 remained in November 66 as a result of combat and training losses and the flight of 10 pilots to Thailand with General Ma (Telegram dated 9 November 66, from the Embassy at Vientiane to the Dept. of State, document 268, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, in: http://www.state.gov/www/about_state/history/vol_xxviii/266_285.html).

³⁸ Moody, *The great adventures*, Prelude, p.3.

actions and interdiction of build-up for attack. [...] As general proposition, believe we should initially stress step-up of visual and photo reconnaissance and a substantial road-cratering effort on principal lines of supply from North Viet Nam into Laos. Road cratering (principally routes 7, 8 and 12) commends itself...[...]. Other targets or operations that are currently appealing include. A) Three known artillery positions used in occasional harassing fire against Kong Le headquarters at Muong Phan; B) Support of guerrilla operations (cover/ diversion) principally in Xieng Khouang province and designed, as road-cutting, to reduce front-line pressure; C) In-bound convoys; D) Supply depots in combat areas (one such located east of Khang Khay cannot be touched with rockets due surrounding anti-aircraft but could be taken out by low-level bombing); E) Armor, wherever found; F) Phou Khe and adjacent artillery positions, in connection with possible operations for its recapture. [...] Expansion in use of T-28s will require active role by AIRA and ARMA personnel in advisory capacity with respect to target selection, mission planning, and coordination. It will probably require a kind of on-the-spot surveillance of work of aircraft armorers, by RO personnel.”³⁹ The next step was the plan to augment the fleet of the RLAf: In his telegram no.1023 of 19 March 1964, Ambassador Unger tells the US Dept. of State that “I asked what he [scil. the Laotian Prime Minister Souvanna Phouma] would think of augmenting present T-28 fleet with additional planes painted with Lao markings flown by South Vietnamese, perhaps with Lao passports. Souvanna indicated his readiness consider something of this nature of situation should deteriorate badly.”⁴⁰ Already on 29 April 64, the Assistant Secretary of State for Far Eastern Affairs recommended the “Positioning of some additional T-28s in Thailand. These could be useful in the event of further major Communist drives in Laos.”⁴¹ This expansion plan makes clear why, shortly after training began, about 16 T-28s with Vietnamese markings were flown in by PACAF pilots that had been trained by the Air Commandos. Most of these aircraft were photo reconnaissance aircraft. After training was completed, RLAf markings were painted on the aircraft and they were turned over to General Ma, commander of the Royal Laotian Air Force. He then left for RLAf headquarters at Savannakhet.⁴²

Then, a second group of pilots showed up, probably in May 64. These were Thai flying sergeants who were to be trained to fly in Laos as mercenaries.⁴³ They had flown T-28s, but had little weather and gunnery experience.⁴⁴ These pilots belonged to the Royal Thai Air Force, but were on loan to the Royal Laotian Air Force because of pilot shortage – a program that was to be continued until 1975.⁴⁵ They were mainly based at Vientiane, where they

³⁹ US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 13: http://www.state.gov/www/about_state/history/vol_xxviii/01_24.html.

⁴⁰ US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 17: http://www.state.gov/www/about_state/history/vol_xxviii/01_24.html.

⁴¹ A memorandum dated 29 April 64, sent by the Assistant Secretary of State for Far Eastern Affairs (Bundy) to the Under Secretary of State for Political Affairs (Harriman), document 42 in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, in: http://www.state.gov/www/about_state/history/vol_xxviii/35_44.html.

⁴² Leary, William M., *Outline - Air America in Laos*, 1964, p.8/9.

⁴³ Although Robbins (*Ravens*, p.118) states that the *Water Pump* program had 4 T-28s in April 64 and was aimed to train Thai and Lao pilots, the inclusion of Thai pilots into the program seems to go back to an idea of the US Dept. of State as an alternative to the US pilots requested by Ambassador Unger. This is evident from telegram no.1011, sent by the Dept. of State to the US Embassy in Laos on 17 May 1964, which states: “We believe use US pilots in T-28s represents excessive risk at this time. [...] In view ineffectiveness Lao pilots, believe substantial operational advantages would be realized if Thai prepared to furnish pilots and [scil. the US Embassy at] Bangkok should approach RTG [scil. the Royal Thai Government] urgently with this suggestion [...] However, pending receipt such permission, Vientiane authorized to turn over aircraft at once to Lao for operations dispatched through Vientiane. USAF unit at Udorn being instructed accordingly” (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 50, in: http://www.state.gov/www/about_state/history/vol_xxviii/45_55.html).

⁴⁴ Leary, *Outline - Air America in Laos*, 1964, p.8/9.

⁴⁵ Because of pilot shortage, Royal Thai Air Force personnel, with their governments approval, were trained and

officially worked for the RLAF, and the T-28s they flew probably belonged to the USAF, that is to the covert Military Assistance Program for Laos.⁴⁶ The first T-28s delivered to the RLAF carried the Erawan, that is the insignia of the Royal Laotian Air Force consisting of three white elephant heads in a red roundel, a red line circling the rear fuselage between the Erawan



John Wiren standing on the wing of one of the original RLAF T-28s (“8162”), at Savannakhet in 1964/5
(UTD/Wiren/B2)

joined the Laotians in flying operational missions. Already on 3 November 66, the US Departments of State and Defense asked the US Embassy at Vientiane, if they still needed Thai pilots in Laos, and on 9 November 66, Ambassador Sullivan cabled to the Dept. of State, that they would be required at least “until about July 68” (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 268, in: http://www.state.gov/www/about_state/history/vol_xxviii/266_285.html). But the program was indeed continued until 1975, when all training operations were brought to an end (Moody, *The great adventures*, Prelude, p.3).

⁴⁶ In the papers of Clarence J. Abadie (in: UTD/Abadie/), a nice story is reported. “A documented case of Ghost removal was when some Thailand Air Force pilots were to fly some U.S. 28’s (T-28) they refused to do so. These aircraft presumably belonging to Air America with the customer the US Air Force in this case paying the bill. The refusing pilots said the aircraft had Ghosts, so out comes the local version of the witch doctor and for the value of about \$ 7.50 of US type products, cigarettes, soap, tooth paste and the like he removed the Ghosts. Pictures of this very moving occasion were taken. These along with the \$ 7.50 bill were presented by Air America to the “customer”, for payment probably under miscellaneous expenses. After the ghost removal the Thai pilots had flown the aircraft with no complaints. The ghosts in this case as had been requested were transferred across the field to the US side of the airfield and to their aircraft.”



MAP T-28Ds in RLA colors, including “0-13470, taken by Air America pilot Ed Eckholdt probably in 65
(photo kindly submitted by Joe Hazen)

and the fin, and RLA-style four-digit serials that normally consisted of the last four digits of its former USAF or US Navy serials,⁴⁷ and in the early years, it seems that these RLA T-28s were only based at Savannakhet and Vientiane.⁴⁸ In later years, T-28s loaned to the Royal Lao Air Force under a Military Assistance Program carried the Erawan, but no red line around the rear fuselage and maintained their full USAF serials.⁴⁹ The Erawan these aircraft carried were detachable, so that the aircraft could also be used elsewhere.⁵⁰ After Pathet Lao forces had attacked Kong Le on 27 April 64, the Thai and Lao pilots of *Water Pump* were allowed to begin a stepped-up bombing and reconnaissance campaign against communist positions in the Plain of Jars.⁵¹ By mid-May 64, more than a dozen graduates flew daily bombing and reconnaissance missions over Laos. The targets these Thai-piloted T-28s attacked could be in the Plain of Jars – as in July 64, when Thai-piloted T-28s from Vientiane attacked Pathet Lao positions west of the Plain of Jars in Operation *Triangle*⁵² –, but they could also be in the panhandle,⁵³ for which, normally, the Lao-piloted RLA T-28s of

⁴⁷ Four T-28s which carried this type of serials are known: “1234”, “8146”, and “8162” are documented by slides taken by John Wiren probably in 1964/5 (Air America Archives), and “2345” can be seen on the video by Ed Eckholdt (at 0.02.37 and 1.23.11). None of these aircraft is still current in April 1972.

⁴⁸ In his e-mail dated 20 July 2001 to the author, former Air America T-28 pilot John Wiren notes: “At that time, General Ma kept a few T-28s there, but the main base was in Savannakhet.”

⁴⁹ The example of “0-17616” is illustrated by the slide of John Wiren (Air America Archives), the example of “0-13470” is on the video tape made by Ed Eckholdt (at 1.23.16 minutes), and T-28s “0-13476” and “0-17610” were flown by Allen Rich on 13 January 66 and on 16 April 65 respectively, as is documented by his log book (in: UTD/Rich/B1).

⁵⁰ See the photos of T-28s carrying a detachable Erawan on the side of the fuselage and the explanation in Davis, *Laos: Secret war pilots*, in: <http://www.angelfire.com/in/Laos/>. A photo of USAF T-28s lined up at Udorn and carrying USAF insignia can be found at <http://members.tripod.com/chancefac/Laos/AirCraft/t-28sUdorn.htm>.

⁵¹ Trest, *Air Commando One*, pp.141/2; Castle, *At war*, p.67; Leary, *Outline - Air America in Laos*, 1964, p.5.

⁵² Castle, *At war*, p.74.

⁵³ During a meeting held at Udorn on 18 August 64, Ambassador Unger “reported that General Ma, Chief of Lao Air Force, has examined twenty military targets suggested by MACV, GVN [that is by the Government of South

Savannakhet were responsible. So, on 28 October 64, Thai-piloted RLAFF T-28s bombed and strafed North Vietnamese villages in the Mu Gia Pass area.⁵⁴

But the arrival of the *Water Pump* detachment at Udorn did not only mean an improved air power for the Royal Laotian Air Force. The Air Commandos had the tradition of also organizing civic programs to help the civilian population. So, when the *Water Pump* detachment arrived at Udorn in 1964, they began to run a medical service for the Thai villages surrounding Udorn, transporting medical supplies to the villages and ill people to the Udorn hospital by a truck. The second *Water Pump* team, which arrived at Udorn in late 64, brought still more medical personnel to Udorn, and they even operated as medical doctors in Laos, for example at Savannakhet (L-39). Then, the *Water Pump* detachment arranged the shipment of 5000 pounds of free medical supplies from the World Medical Relief of Detroit, MI, for shipment into Laos. By early 1968, the civic action program of the 56th ACW was run by 84 officers and men, most of whom were doctors and medical technicians, and included the introduction of a floating medical center on the Mekong River to help the tens of thousands of people who were completely isolated during the rainy season. At the same time, the insurgent cells that had been active along the Mekong River for years, could be countered successfully.⁵⁵

Air America's T-28s

A further step in extending the strength of the RLAFF and its T-28s was taken in May 64, when US Ambassador Unger convinced Prime Minister Prince Souvanna Phouma also to allow USAF T-28s from the *Water Pump* unit, piloted by US civilian pilots, to fly attacks against Pathet Lao and North Vietnamese positions. These USAF T-28s would be painted in RLAFF colors to make them indistinguishable from the Lao T-28s,⁵⁶ and the civilian pilots would be individually hired by the Royal Lao Government.⁵⁷ On 18 May 64, the US Government cabled to Ambassador Unger that they still did not allow US military personnel to fly T-28s attacks in the Plain of Jars, but that they proposed to turn over the 4 *Water Pump* T-28s to the RLAFF, “fly them up to Vientiane with bombs [...] and let them be operated by US civilian pilots.”⁵⁸ On 20 May 1964, Ambassador Unger officially requested the authorization to use US civilian pilots for T-28s “not only for road cutting but in broader framework. [...] Utilization of these civilian pilots would require 10 additional T-28 aircraft [...] being transferred from COMUSMACV.”⁵⁹ The authorization was given the same day. Immediately, 5 Air America pilots – Rick Byrne, Ed Eckholdt, Joe Hazen, Thomas G. Jenny, and John Wiren, who were joined by Don Romes shortly thereafter⁶⁰ – were recruited to fly

Vietnam], and CAS [that is by the CIA], in corridor area south Mu Gia Pass and expressed willingness attack them with Lao T-28 force. Was willing to assign ten planes to this action, and felt that, with good weather, could accomplish task in ten days of operations” (Telegram sent by the US Embassy Saigon to the US Dept. of State on 20 August 64 in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 123, in: http://www.state.gov/www/about_state/history/vol_xxviii/111_130.html).

⁵⁴ Leary, *Outline - Air America in Laos*, 1964, p.40.

⁵⁵ Trest, *Air Commando One*, pp.142, 163/4, and 210/1.

⁵⁶ In telegram no.1329 of 17 May 1964, Ambassador Unger told the US State Dept.: “I referred to US-piloted T-28s in Udorn which I said could be promptly converted to be indistinguishable from Lao T-28s and flown with considerable effectiveness in sorties against PL/VM in present situation. I said I had been assured this could be done without American involvement becoming known. Souvanna concurred in this action” (in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 48, in: http://www.state.gov/www/about_state/history/vol_xxviii/45_55.html).

⁵⁷ Leary, *Outline - Air America in Laos*, 1964, pp.11/2.

⁵⁸ Castle, *At war*, p.69.

⁵⁹ Telegram no.1373, sent by Ambassador Unger to the Dept. of State on 20 May, 1964, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 54, in: http://www.state.gov/www/about_state/history/vol_xxviii/45_55.html).

⁶⁰ Ed Eckholdt, video tape, at 01.23 hours; letter dated 18 April 2002, sent by John Wiren to the author.

RLAF marked T-28s on CIA controlled attack missions. Most of them had prior experience in the T-28 and close air support training. “On acceptance, we were asked to resign from Air America Inc., our personal records were sanitized in the event we were shot down and captured. We would then be classified as mercenaries for the Royal Laotian Air Force to protect the US government from violating the Geneva Accord Agreement. The rationale for this program was that there was evidence of a big enemy build-up massing to come down highway 7 from North Vietnam to gain as much territory as possible before the monsoon season. The road needed to be cut and the bridges to be destroyed to halt the advance, but the Laotians just did not have the experience at that time to do the job.”⁶¹

These Air America pilots, called the A-Team flying for the Tango program,⁶² were based at Vientiane, but would go to Udorn to pick up the T-28s, then return to Vientiane, where USAF ground technicians would load on ordnance (bombs, rockets, and 50 caliber, later napalm),⁶³ and then go on a mission designated by the US Embassy and Air America’s Flight Information Center.⁶⁴ The T-28s themselves, which were flown by Air America pilots, were based at Udorn, and some of them were unmarked, as it seems.⁶⁵ On 20 May 64, the State Department approved that the 6 Air America pilots would fly the T-28s, officially being civilian technicians hired individually by the Royal Lao Government. The same day, the 4 former *Water Pump* T-28s were turned over to the Laotians,⁶⁶ and the same day, they were replaced by 5 T-28s and 5 RT-28s⁶⁷ that CINCPAC transferred from MACV to the *Water Pump* unit. Here at Udorn, they were immediately painted in RLAF markings, probably retaining their full USAF serial, and they were loaned to the RLAF the same day,⁶⁸ probably to allow Lao students to attack targets within Laos, as only RLAF pilots were allowed to fly strike missions inside Laos.⁶⁹ On 22 May 64, the *Water Pump* unit began T-28 refresher training for the six Air America volunteers for 2 days,⁷⁰ and the program included training for bombing, strafing, and napalm drops.⁷¹ Some of *Water Pump*’s new T-28s continued to be used to train new pilots,⁷² while others were picked up by Air America or (Thai) RLAF pilots

⁶¹ Wiren, “It takes five to Tango”, in: *Air America Log*, vol.17, no.4, p.5.

⁶² The name “Tango program” is testified for the early years by the article of John Wiren (“It takes five to Tango”, in: *Air America Log*, vol.17, no.4, p.5), while William Leary notes that in 1966, the T-28 fighter operation was called the “Alpha program” (Leary, *Outline - Air America in Laos*, 1966, p.1).

⁶³ Letter dated 18 April 2002, sent by John Wiren to the author. The bombs for these T-28s were carried to their take-off sites by Air America transport planes (Robbins, *Air America*, p.132).

⁶⁴ Letter dated 18 February 2001, kindly sent to the author by John Wiren.

⁶⁵ See Davis, *Across the Mekong*, p.77, and Robbins, *Ravens*, pp.117/8, who calls the program “Class A”: Air America pilots flew T-28s on combat missions out of Udorn. “When you came out of the barracks you had your gloves on so nobody could see the color of your skin and question your nationality, and you had to wear your helmet with dark glass visor down so nobody could see who you were and maybe identify you later”, one pilot said. “You crawled into an unmarked T-28 and launched”.

⁶⁶ Castle, *At war*, p.69; Leary, *Outline - Air America in Laos*, 1964, p.7. Moody (*The great adventures*, Prelude, p.3) points out that in 1964, T-28s from Detachment 6 were temporarily loaned to the RLAF, giving them a total of seven aircraft.

⁶⁷ The T-28Ds sent to Laos were attack aircraft, while the RT-28 was the reconnaissance version (Castle, *At war*, p.162, note 12; Bowers, *The USAF in South-East Asia. Tactical Airlift*, p.825).

⁶⁸ Moody, *The great adventures*, Prelude, p.3, notes that on 20 May 64, 10 more T-28s from South Vietnam were loaned to the RLAF.

⁶⁹ Moody, *The great adventures*, Prelude, p.3.

⁷⁰ Some of these Air Commandos of Udorn - like Joe Potter and Bill McShane - later joined Air America (Wiren, *Tango*, p.5).

⁷¹ Castle, *At war*, p.70; Leary, *Outline - Air America in Laos*, 1964, pp.7+13; Trest, *Air Commando One*, p.142.

⁷² *Water Pump* T-28s known to have been used for training and believed to have been delivered ex MACV in May 64 are: “0-37679”; it carried the Erawan (photos in: Don Moody, *The great adventures of Bob and Don*, Prelude, p.4, in: <http://www.aircommandos.org/BobAndDon/Episode0000.htr> and in <http://www.geocities.com/Pentagon/Quarters/9553/tld28.jpg>); it was not current on 1 April 72, but went to the Royal Thai Air Force as “0-37679” in ?, and to the Philippine AF as “137679” in 74 (?); a photo taken in July 77 at Villamor Air Base is in Anido/Austria-Tomkins, *Pictorial history of the Philippine Air Force*, p.34; “0-

and flown to Vientiane, their official base. It seems that sometimes, Air America pilots also flew some of the original RLAf T-28s, as is documented by some photos,⁷³ but most of the time, they used *Water Pump* T-28s based at Udorn.⁷⁴ Former Air America T-28 pilot John Wiren recalls: “The aircraft we used were based and maintained at Udorn, Thailand. The normal routine was to depart Udorn and fly to Vientiane, where ordnance was put on the aircraft by US Air Force personnel dressed as civilians.”⁷⁵ We were given our mission

40456”; it was already flown by Joe Hazen in the early days (e-mail by John Wiren, dated 11 October 01); a photo showing its training role in 1965 can be seen in: <http://www.ravens.org/kham/Kham1965TrainingUdorn.jpg>); on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72, it was still but flown under the command of the USAF Attaché, Vientiane and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); it was sold to the Philippine AF as “140456” in 1974 (?), and to Business Air Charter, Portland, OR, as N2065J in August 89; “0-40482”; a photo showing this MACV aircraft in VNAF colors is published in Dorr/Bishop, *Vietnam air war debrief*, p.19; it was flown by Joe Hazen as (e-mail by John Wiren, dated 11 October 01), but not current on 1 April 72, as it went to the Congolese AF as FA-482 around 1965; and “0-46244”; a photo showing this MACV aircraft in VNAF colors as “46244” can be seen in: <http://vnaf.net>; it was flown by Joe Hazen (e-mail by John Wiren, dated 11 October 01) and crashed at Udorn on 7 November 66, killing a student pilot (see: Telegram dated 9 November 66, from the US Embassy to the Dept. of State, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 268, in: http://www.state.gov/about_state/history/vol_xxviii/266_285.html); a photo of *Water Pump* T-28 “0-46244” after its crash (“Bad day Waterpump”) can be seen in: Don Moody, *The great adventures of Bob and Don*, Prelude, p.4, at: <http://www.aircommandos.org/BobAndDon/Episode0000.htm>. From 14 to 20 April 65, Air America pilot Allen Rich received his T-28 training at Udorn on T-28C “0-17610”, T-28B “0-38137”, T-28B “0-38357”, and T-28B “0-37724” according to his log book (in: UTD/Rich/B1).

⁷³ A slide of the John Wiren collection shows him standing on T-28 “8162”, and on a photo on the video made by Ed Eckholdt (at 0.02.37 and 1.23.11 minutes), Ed is seen standing in front of what seems to be T-28 “2345”. John Wiren, however, does not believe that this was one of General Ma’s T-28s: “That picture of me standing on the wing of the T-28 was taken at Savannakhet [...] We were dispatched from VTE to make some strikes down in Southern Laos. Those particular aircraft were not General Ma’s but ones that we had been flying” (E-mail dated 8 August 2001 to the author).

⁷⁴ The following T-28s can be seen on the video tape by Ed Eckholdt: “0-13470”, del. on 4 March 65 ex 51-3470; “8345”, that is BuA 138345, probably one of the original RLAf T-28s; others were identified from the log book of Allen Rich: “0-13476”, del. ex 51-3476 on 18 Oct. 65; “0-13511”, del. ex 51-3511 on 4 March 65; “0-13656”, del. ex 51-3656 on 4 June 64; “0-17610”, del. ex 51-7610 probably in May 64; “17678”, del. ex 51-7678 probably in May 64; “0-38352”, that is ex BuA 138352, del. ex MACV probably in May 64; “710”, that is probably “0-37710” ex BuA 137710, probably del. ex MACV in 64; that aircraft is still current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002); “724”, that is probably “0-37724” ex BuA 137724, probably del. ex MACV in 64; “758”, that is probably “0-37758” ex BuA 137758, probably del. ex MACV in 64; “137”, that is “0-38137” ex BuA 138137, probably del. ex MACV in 64; “357”, that is “0-38357” ex BuA 138357, probably del. ex MACV in 64; “0-40044”, that is BuA 140044, probably del. ex MACV in 64; this aircraft is still current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002); more T-28s were identified from the log book of Joe Hazen, information kindly supplied by John Wiren in his e-mail to the author as of 11 October 2001): “751”, that is probably “0-37751” ex BuA 137751, believed del. ex MACV in 64; “346”, that is probably “0-38346” ex BuA 138346, believed del. ex MACV in 64; “0-40456” ex BuA 140456, believed del. ex MACV in 64 and still current in April 72; “650”, that is probably “0-37650” ex BuA 137650, believed del. ex MACV in 64; “791”, that is probably “0-37791” ex BuA 137650, believed del. ex MACV in 64; “042”, that is probably “0-40042” ex BuA 140042, believed del. ex MACV in 64; “0-13743”, del. to MAP/Laos on 18 October 65 ex 51-3743; “0-13478”, del. to MAP/Laos on 29 April 65 ex 51-3478; “0-46244”, probably del. ex MACV in 64 (it crashed while with *Water Pump*; see the photo in: Don Moody, *The great adventures of Bob and Don*, Prelude, p.4, in: <http://www.aircommandos.org/BobAndDon/Episode0000.htm>); and “482”, that is probably “0-40482” ex BuA 140482, probably del. ex MACV (photo in Dorr/Bishop, *Vietnam air war debrief*, p.19) in 64; and from the slides made by John Wiren, the following T-28s were identified: “0-17616”, del. on 17 March 65 ex USAF 51-7616; “1234” ex USAF 52-1234; “8146”, that is BuA 138146; and “8162”, that is BuA 138162, probably three of the original RLAf T-28s.

⁷⁵ In his Memorandum of 1 October 64 addressed to the Secretary of State, Dean Rusk, the Deputy Assistant Secretary of State for Far Eastern Affairs (Green) notes the number of USAF men working for the Air Attaché

assignment from the Embassy, that came through Air America Flight Information Control (FIC).”⁷⁶

On 25 and 26 May 64, the Air America strike force of the A Team first attacked targets on the Plain of Jars.⁷⁷ And on 26 May 64, the first strike mission was flown out of Udorn, using ex US Navy T-28s, which had stronger engines; the target was the Ban Ken bridge near Ban Ban on the route leading from North Vietnam thru the Plain of Jars to Luang Prabang. The call-sign “Eagle” was used for strike missions. After the mission, the T-28s returned to Vientiane.⁷⁸ In a recent article, John Wiren recalls these first missions flown by Air America T-28 pilots: “On our first mission, we departed Udorn at ‘zero dark thirty’ to Vientiane. Air Force personnel had been placed there as civilian technicians to the Lao government. Point in fact, they were really ordnance specialists there to load and hook us up. We were now armed and ready for action, and off we went on our first mission to destroy a bridge on highway no.7 east of the PDJ and Ban Ban. We were carrying 500 lb. bombs, rockets, and 50- cal. ammo.



Weapons of a RLAf T-28 flown by Air America pilots in Laos in 1964/5
(UTD/Wiren/B2)

We made our dive runs from east to west targeting the bridge. We didn’t get the bridge, but we must have scared the hell out of it. We did, however, crater the road. [...] Later the same day, we returned to the same area and caught a truck convoy of 10 coming down the road from Vietnam. [...] The very next morning at the crack of dawn, we launch again for an assault mission on the PDJ. [...] As we skirted the north side of the PDJ we slipped down a

Office at Vientiane. “Authorized complement - three officers, one of which is stationed at Savannakhet with the RLAf. In addition, there are five (previously nine) officers on temporary duty as Assistant Air Attaches assisting in T-28 activities. Some 25 USAF ground personnel in civilian clothes arm and service the T-28s at Vientiane airfield but return to Udorn, Thailand, every night” (in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 135, in: http://www.state.gov/www/about_state/history/vol_xxviii/131_150.html).

⁷⁶ E-mail dated 20 July 2001, kindly sent to the author by John Wiren.

⁷⁷ On 24 May 1964, Ambassador Unger sent the following telegram (no.1411) to the Dept. of State. “Souvanna called me on telephone this morning regarding threatening situation around Muong Kheung-Ban An-Muong Soui and asked for T-28 strikes in area. [...] Accordingly I am authorizing US pilots (Air America civilians) to undertake T-28 flights tomorrow for two purposes: 1) help to hold PL advance on Ban An-Muong Soui area (Muong Kheung has reportedly been evacuated); 2) cratering Rte 7 east of Ban Ban. Pilots will be briefed very carefully on known enemy dispositions and AA batteries. On a selective basis I am relaxing certain long-standing prohibitions: 1) Air America, particularly choppers, being permitted carry military personnel in hill areas and also war material; 2) Dept. already aware presence here US T-28 technicians; 3) closer ARMA and AIRA participation with FAR and RLAf in targeting for T-28 strikes and more direct USAID/RO participation in supply arrangements” (in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 59, in: http://www.state.gov/www/about_state/history/vol_xxviii/56_75.html).

⁷⁸ Castle, *At war*, p.70; Leary, *Outline - Air America in Laos*, 1964, pp.13/4; Trest, *Air Commando One*, p.142.

pass at very low level letting us out on the plain itself, it was a complete surprise attack for targets of opportunity. Tom Jenny selected an armored vehicle and got into a shoot-out with it. As a result he sustained 8 holes across the leading edge of his wings. Joe Hazen and Rick Byrne went after a flat bed truck with 55gal. drums of fuel. [...] I spotted a jitney bus chock-full of the enemy hanging on as it traveled east down the dusty road, took aim at it and pulled the trigger. [...] The road forked and in the middle was an abandoned Russian tank. The driver was so intent on me that he plowed full speed into the tank making human Frisbees out of the occupants. Scratch one jitney bus! [...] We returned to Vientiane and for some unknown reason, General Ma, commander of the Laotian air force, wanted us to leave the aircraft there instead of going on to Udorn. Joe Hazen said to tell the general to go get his own holes. After landing back at Udorn later that evening it was found by the maintenance crew that all five of our aircraft had taken hits.”⁷⁹

The USA, that is Ambassador Unger at Vientiane, now exercised control over an American- and Thai-piloted combat aircraft squadron. The American flyers were called the “A Team”, the Thai flyers were the “B Team”, and the Lao were the “C Team”. During the summer of 1964, Ambassador Unger also urged the US Government to authorize him to use Air America pilots flying A-1Hs out of South Vietnam, but this proposal was refused.⁸⁰ To coordinate the T-28 activities, the State Department established a primary Air Operations Center (AOC) at Wattay and a secondary AOC at RLAf headquarters at Savannakhet. The *Water Pump* team provided the AOCs with communications equipment and map, targeting, and pilot-briefing rooms. *Water Pump* personnel in civilian clothes also staffed the Wattay and Savannakhet AOCs; initially, they were required to return to Thailand every evening, but later they were allowed to reside in Vientiane. “Civilian” *Water Pump* personnel also assisted the RLAf at Wattay and Savannakhet with maintenance and bomb-loading tasks,⁸¹ and later, some of *Water Pump*’s sheep-dipped pilots or some of the USAF commanders of the AOCs also flew combat missions in support of Royal Lao Government forces and Vang Pao’s guerrillas.⁸² As to the number of targets, it was constantly growing. At a meeting held by President Johnson’s major advisers at Honolulu on 1-2 June 64, Brigadier General Lucius D. Clay, Director, J-3, Joint Chiefs of Staff, “discussed ‘Punitive air strikes in support of the Laotian situation.’ He said there are four fixed targets in the north, and 3 in the Panhandle (only good ones, Ban Ban and Khang Khay in the PDJ). CIA identified 17 bridges. Also 5 sod-type airfields, as potential targets if air resupply used.”⁸³ As a consequence, an expansion of the T-28 operations in Laos was recommended.⁸⁴ The Laotian Prime Minister Souvanna Phouma also wanted to make a maximum use of the T-28s, as he stated on 11 June 64, but always according to the principle: “act, but don’t talk about it”, as he was very conscious of

⁷⁹ Wiren, “It takes five to Tango”, in: *Air America Log*, vol.17, no.4, p.5.

⁸⁰ In an undated Memorandum written to the Secretary of State probably in July 64, Assistant Secretary of State for Far Eastern Affairs William P. Bundy states: “Unger has been urging this [that is an operation against Route 7] for some time, with a proposal for Air America pilots using the A-1Hs out of Vietnam. Although the JCS came out for this [...], we have all felt that the better way to do this would be through the Air America pilots in T-28s” (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 116, in: http://www.state.gov/www/about_state/history/vol_xxviii/111_130.html).

⁸¹ Castle, *At war*, pp.70+66.

⁸² See the detailed story entitled *The great adventures of Bob and Don*, written by Don Moody, former commander of the AOC of Luang Prabang.

⁸³ Summary record of the meeting held at Honolulu, 2 June 64, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 69, in: http://www.state.gov/www/about_state/history/vol_xxviii/56_75.html.

⁸⁴ Memorandum dated 5 June 64, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 73, in: http://www.state.gov/about_state/history/vol_xxviii/56_73.html. The proposal made by William E. Colby, Chief of the CIA’s Far East Division, to use US military pilots on the T-28s (see document 71, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, in: http://www.state.gov/www/about_state/history/vol_xxviii/56_75.html) was not taken up, however.

the necessity to “maintain internationally his neutral position and to maintain the Geneva Accords.”⁸⁵

A good example of cooperation: Operation *Triangle*

In reality, however, it is not possible to clearly separate the contributions of the individual partners that participated in a military operation, as in these operations several partners worked together. While beefing up the Royal Laotian Air Force was a primary task of the Air Commandos,⁸⁶ Air America provided transportation of troops and arms, but also medevac services like flying out wounded or picking up downed airmen, and this could also include cover and later even air strikes carried out by Air America’s T-28s. A good example of such cooperation was Operation *Triangle*. “In telegram CX-291, the US Army Attaché in Vientiane reported on a June 23 meeting with the Lao General Staff and Souvanna to discuss a FAR offensive against Pathet Lao strongholds at the Junction of Routes 7 and 13 north of Vientiane and west of the Plain of Jars. The ultimate objective of this extensive three-pronged offensive would be to relieve pressure on Muong Soui.”⁸⁷ While the Department of State rejected Souvanna’s idea “to include use American pilots with T-28s and armed US recce,” they agreed to furnish additional T-28s and to ask for additional Thai pilots.⁸⁸ In a first Memorandum dated 27 June 64, Rear Admiral J.W. Davis of the Joint Chiefs of Staff, exposes to Secretary of Defense McNamara the numbers of T-28s and pilots that could be added,⁸⁹ and in a second Memorandum of the very same day, he reports to McNamara what has already been done: “Fifteen T-28s have been made available from resources in the Republic of Vietnam. [...] Should the operation be approved, Air America pilots should be authorized to fly T-28 aircraft as necessary to exploit available aircraft and assist in maximizing the effectiveness of the air effort.” The Joint Chiefs of Staff further recommend that “The United States support the plan for relieving pressure on and providing for the

⁸⁵ Telegram no.1587, sent by Ambassador Unger to the Dept. of State on 11 June 64: “When I called on PriMin Souvanna this morning he told me [...]. Souvanna then volunteered that he wished make maximum use T-28s to support RLG forces, to interdict supplies arriving over routes to Xieng Khouang (No.7) to Thakhek and Savannakhet (nos. 8 and 12) and to destroy on the ground what supplies Pathet Lao/Viet Minh have in place. They must be so crippled that they will be able to mount no further attacks on RLG forces and so that possibly in due course RLG may be able to retake Plaine des Jarres. He asked that my attaches be in touch with appropriate RLG officers to work out plans for T-28 program which will really punish PL/Viet Minh. I told Souvanna of Lao-American targeting group already in operation and other forms of cooperation which I said we would be happy to augment. Throughout our conversation Souvanna kept returning to theme ‘act but don’t talk about it’” (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 92, in: http://www.state.gov/www/about_state/history/vol_xxviii/91_110.html).

⁸⁶ Moody, *The great adventures*, Prelude, p.1.

⁸⁷ Telegram no. 1250, sent by the State Dept. to the US Embassy at Vientiane on 24 June 64 (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 101, in: http://www.state.gov/www/about_state/history/vol_xxviii/91_110.html).

⁸⁸ Telegram no. 1250, sent by the State Dept. to the US Embassy at Vientiane on 24 June 64 (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 101, in: http://www.state.gov/www/about_state/history/vol_xxviii/91_110.html).

⁸⁹ “In response to the reference, an estimate of the quick augmentation capability (e.g., within three to seven days) to expand the Royal Lao Armed Forces (FAR) T-28 force as a possible response to an early Pathet Lao (PL) move against Muong Soui is outlines as follows. a. Aircraft: The Royal Lao Air Force (RLAF) has 20 T-20s available in Laos or at Udorn. It is estimated that 15 T-28s can be made available from RVN [Republic of Viet Nam] resources as a result of the conversion from T-28s to A-1H aircraft without detriment to the RVN war effort. [...]b. Pilots. The RLAF has 13 qualified T-28 pilots augmented by ten Thais. Six Air America pilots have also been checked out and are available. [...] The Joint Chiefs of Staff recommend that in any augmentation plan the four T-28 aircraft of the USAF SAW Detachment, Udorn, remain in place to continue to provide the only source of trained RLAF T-28 pilots, and that efforts be made to encourage the Thais to provide the required additional assets.” Telegram no. 1250, sent by the State Dept. to the US Embassy at Vientiane on 24 June 64 (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 102, in: http://www.state.gov/www/about_state/history/vol_xxviii/91_110.html).

defense of Muong Soui, by 1) Providing three additional C-123 and three additional Caribou aircraft, subsequent to further validation of the requirement for such aircraft; 2) Proving necessary logistic support for the planned air and ground operations; 3) Authorizing Air America pilots to fly T-28 aircraft in support of the operation required; 4) Authorizing the use of napalm against appropriate military targets; and 5) Providing reconnaissance support, as requested by Vientiane, on a timely basis.”⁹⁰ In his telegram dated 27 June 64, US Secretary of State Rusk cabled to the US Embassy at Laos that “we do not believe US civilian pilots required for T-28s in support of operation”, but “if Muong Soui [is] subjected to major attack [...] in this event we authorize US civilian pilots in T-28s and also direct US Navy and USAF strikes against forces attacking Muong Soui”.⁹¹ Two C-7A Caribous were received on 29 June 64: “393” and “401”, and three C-123Bs were received on 30 June 64: “525”, “530”, and “575”. They were all assigned to the AID-439-342 contract.⁹² These Air America aircraft airlifted the Royal Laotian Army’s *Groupement Mobile 16* (GM-16) from Attopeu in southern Laos to Muong Soui and provided “continuing resupply of operation as required”.⁹³ Operation *Triangle* began in early July 64: Royal Lao and neutralist troops attacked the Pathet Lao positions west of the Plain of Jars near the junction of Routes 7 and 13. On 4 July 64, Air America airlifted 6 Thai 105mm guns from Korat to Muong Soi. The operation, involving 10 government battalions against 3 Pathet Lao battalions, began on 8 July 64. Air Commando Joe Potter, who joined Air America about a year later, flew in an Aero Commander loaned by the USAF to the RLA (U-4 “2714”) and acted as a Forward Air Controller who directed the T-28s. Other US Forward Air Controllers were also brought into Laos to direct the attacks. Air America transports (3 Caribous; 3 C-123s) airlifted troops and supplies, including bombs and rockets for the T-28s and arms and ammunition for the troops, all coming from the *Peppergrinder* warehouse at Udorn. Reconnaissance missions were flown by US jets and by B-Team T-28s, carrying Lao observers in the back seat, but the B-Team T-28s also flew strike missions, involving 4-8 T-28s per day. Air America T-28s, however, were specifically excluded from the operation, although it seems that some of them did fly in these combat operations. The US T-28s were flown by *Water Pump* pilots, departed Udorn, staged thru Vientiane, made their air strikes in Northern Laos and returned to Udorn at night.⁹⁴

Operation *Triangle* had been conceived by the Royal Lao Government to relieve pressure on neutralist forces located at Muong Soui on the Plain of Jars, as since 16 May 1964, Pathet Lao had attacked Kong Le and his Neutralist forces and driven them to the western edge of the Plain, where he had established the Neutralist headquarters at Mung Soui. During Operation *Triangle*, since July 64, trained *Water Pump* personnel flew as combat controllers with Air America pilots over Laos to direct air strikes in support of friendly forces, using the “Butterfly” call sign, and in mid-August 64, Ambassador Unger approved the first air strikes in Laos by F-105s. Especially heavy fighting occurred on 14 and 18 August 64: On 14 August, T-28 missions were flown against a very lucrative object, a 110x20 foot bridge across the Nam Mat at UG 6066 on Route 7, but enemy fire downed one Thai-piloted RT-28 and damaged another one. The other Thai-piloted reconnaissance RT-28s made good pictures of the bridge, so that the plan was that one flight of four T-28s would dive bomb the bridge to get the guns pointed upward. Then another flight of four would come in low and drop their 500-pound bombs with delay fuses at a low angle on the supports under the bridge. But because of the RT-28 that had crashed, that day 25 T-28 sorties were flown in support of the

⁹⁰ US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 103, in: http://www.state.gov/www/about_state/history/vol_xxviii/91_110.html.

⁹¹ US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 104, in: http://www.state.gov/www/about_state/history/vol_xxviii/91_110.html.

⁹² Aircraft status report as of 7 July 64 in: UTD/Kirkpatrick/B1F1.

⁹³ US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 104, in: http://www.state.gov/www/about_state/history/vol_xxviii/91_110.html.

⁹⁴ Leary, *Outline - Air America in Laos*, 1964, pp.22+7+24-26; Castle, *At war*, p.71/2 .

Search And Rescue operation around UG 025528, that is the place where the RT-28 had crashed.⁹⁵ On 18 July 64, Route 7 was effectively cut by RLAF T-28s, when they knocked out three of five spans of a 40x12 foot wooden bridge across the Nam Mat River. But a RT-28 piloted by the well known Thai Lt. Iriyapong Tavashi, Chief of Staff, base commander at Udorn and nephew of the Prime Minister of Thailand, was shot down at a 4000 foot elevation near route 42 north of Phong Savan (LS-21) and Ban Peung (LS-95) at the southeastern corner of Plain of Jars, while it was engaged in close air support of Neutralists in the Plain of Jars. Covered by four USAF F-100s from Takhli, Air America UH-34D H-19, piloted by William A. Zeitler, was sent out to pick up the Thai pilot. He already had him in the sling and was hovering over the site, when the Pathet Lao opened fire, so that H-19 crashed. Pilot William A. Zeitler escaped, but Flight Mechanic Cornelio N. (“Pappy”) Pascual was killed by gunfire aboard H-19, as was the Thai pilot, and H-19 blew up on the ground. Six T-28s, including 3 Air America-piloted T-28s, escorted a second UH-34D, H-20, which was piloted by Jack Connors and Stan Wilson. One of the T-28s crashed in bad weather. On this occasion, even the Air America-piloted T-28s were authorized by Ambassador Unger to use napalm. The whole rescue operation was coordinated by Fred Walker circling over the site in Air America Caribou “443”. At 17.20 local time, Billy Zeitler, who had received a bullet hole in his foot and burns over 25% of his body, was picked up by H-20, while H-19 was in flames. So on that day, two T-28s and an Air America UH-34D were lost.⁹⁶ But a diplomatic success was to follow: When Ambassador Unger had sent in Air America-piloted T-28s on this rescue mission, he had done it without authority; but his explanations cabled to Washington convinced the US Administration, so that on 26 August 64, State Department officially allowed to use Air America pilots on T-28 SAR operations.⁹⁷ And as, despite of flying hundreds of search-and rescue support missions and a handful of ground attack sorties over the next few years, the A Team suffered no casualties and just lost two aircraft, the communists were never able to prove the existence of this State Department/CIA “air force”.⁹⁸ In this way, fighting continued until mid-September and extended its range, as sometimes even North Vietnamese villages near the Laotian border were attacked by T-28s,⁹⁹ and Operation *Triangle* was able to undo many earlier Pathet Lao gains. So government forces not only opened Route 13 between Vientiane and Luang Prabang and recaptured the towns of Vang Vieng (L-16), and Sala Phou Koun, but also set up new positions in Phong Saly and Sam Neua provinces.

The continued success of Air America’s T-28 pilots

The success of the Air America-piloted T-28s flying in the colors of the Royal Lao Air Force encouraged the Company to train a second group of Air America pilots in September 64 to fly T-28 missions. Among the pilots of this second group were Rich Crafts, Earl Jones,¹⁰⁰

⁹⁵ Castle, *At war*, p.74; Trest, *Air Commando One*, p.142/3; Leary, *Outline...*, 1964, pp.27-29.

⁹⁶ Robbins, *Air America*, pp.146/7; Leary, *Outline - Air America in Laos*, 1964, p.15+27-31+35; Castle, *At war*, p.74; lists “Aircraft accidents 1964” (in: UTD/CIA/B49F2) and “Aircraft destroyed or lost” (in: UTD/CIA/B49F2).

⁹⁷ On 26 August 64, Secretary of State Dean Rusk cabled to Ambassador Unger: “We agree with your assessment of importance SAR operations, that Air America pilots can play critically important role, and that SAR efforts should not discriminate between rescuing Americans, Thais of Lao. You are hereby granted as requested discretionary authority to use AA pilots in T-28s for SAR operations when you consider this indispensable to success of operation and with understanding that you will seek advance Washington authorization wherever situation permits” (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 127, in: http://www.state.gov/www/about_state/history/vol_xxviii/111_130.html).

⁹⁸ Castle, *At war*, pp.73-76.

⁹⁹ On 1-2 August 64, Thai-piloted T-28s bombed and strafed North Vietnamese villages near the Laotian border. Additional strikes were made on 16, 17 and 28 October 64 (Leary, *Outline - Air America in Laos*, 1964, p.28).

¹⁰⁰ Earl Jones flew T-28s even until 1968-9, when the program just petered out (Leary, *Outline - Air America in Laos*, 1964, p.18).

Bill McShane, Dick Nolan, and Joe Potter, and others like Allen Rich joined the program even in 1965.¹⁰¹ The chief pilot of this second group was Tom Jenny. The T-28s they flew were B and C models, most of whom had Lao markings, while some of them were unmarked, although there was no difference in the mission.¹⁰² In cooperation with the RLAF, which was headquartered at Savannakhet (L-39), Air America pilots flew attack and rescue missions, although, in later years, the SAR-missions predominated. On 10 December 64, there were 20 T-28s at Udorn for strikes in the north, and the success of the missions flown by these propeller-driven aircraft was so great, that US Ambassador Unger even proposed that A-1Hs should be given to Air America. Although this idea was not taken up directly, in an indirect way, however, it was taken up, as since 1965, Air Commando A-1Es from Thailand supported the US military and Air America rescue and special operations in Laos and Vietnam.¹⁰³ At the same time, attack missions flown by Air America-piloted T-28s continued in the north – such missions being conducted, for example, onto the Plain of Jars in August 65, January 66, February 66, and March 66, while, in the summer of 1966, RLAF General Thao Ma's T-28s bombed the Pathet Lao forces near Attopeu in the south.¹⁰⁴ The success of these attack missions flown by Air America's T-28 pilots was so great that in June 65, Ambassador Sullivan proposed to have two RLAF T-28s with Air America pilots based at Long Tieng to intercept transport planes that airdropped supplies to the Pathet Lao and North Vietnamese forces sitting in the Xieng Khouang and Sam Neua areas. For political reasons, however, this plan was rejected.¹⁰⁵

Reinforcing the Royal Laotian Air Force

The Air Commando advisors

As Don Moody states, “from the beginning, the Royal Laotian Air Force (RLAF) had enjoyed a symbiotic relationship with the Air Commandos. In fact, it could be argued that the RLAF of the mid to late 60s was a reflection of the spirit and dedication of those who answered the call for building an Air Force.”¹⁰⁶ This relationship started in 1964 with the *Water Pump* training program described above, whose personnel was the Detachment 6 of the 1st Air Commando Wing. In 1966, the US Department of Defense set up “Project 404” (sometimes referred to as “Palace Dog”), a covert augmentation of the DEPCHIEF program, under which about 120 USAF and US Army personnel and some civilians served in Laos, although they were administratively assigned to DEPCHIEF in Thailand. They were stationed at RLAF bases and Military Region Headquarters of the Royal Laotian Army to advise, assist in targeting effort and to coordinate regional air support requirements. Only part of these men really acted as trainers for the Lao, while a good number of them helped to coordinate the Lao Air Operations Centers (AOCs) and RLAF and USAF aircraft.¹⁰⁷ In 1964, there had been only two AOCs, one at Wattay Airport and the other at the RLAF headquarters at Savannakhet. In about July 1966, the RLAF reopened Luang Prabang Airfield (L-54), which had been closed for resurfacing and the construction of an Air Operations Center (AOC). General Thao Ma

¹⁰¹ According to his log book (in: UTD/Rich/B1), Allen Rich joined the T-28 program in April 65 and flew T-28 missions until early 1966. For the other pilots see Leary, *Outline - Air America in Laos*, 1964, pp.13, 15, 16, and 37.

¹⁰² Leary, *Outline - Air America in Laos*, 1964, p.18.

¹⁰³ Leary, *Outline - Air America in Laos*, 1964, p.47; Castle, *At war*, p.165, note 68.

¹⁰⁴ Leary, *Outline - Air America in Laos*, 1964, p.15; Trest, *Air Commando One*, pp.163/4.

¹⁰⁵ See the Memorandum dated 26 June 65, sent from the Deputy Director of the Office of Southeast Asian Affairs (Dexter) to the Deputy Assistant Secretary of State for Far Eastern Affairs (Unger), and the Memorandum dated 17 September 65, sent from the Director of the Office of Southeast Asian Affairs (Trueheart) to the Assistant Secretary of State for Far Eastern Affairs (Bundy), that is documents no. 188 and 197 in: http://www.state.gov/www/about_state/history/vol_xxviii/181_200.html.

¹⁰⁶ Moody, *The great adventures, Prelude*, p.1.

¹⁰⁷ Castle, *At war*, pp.85/6; Moody, *The great adventures, Prelude*, p.5.

brought 12 T-28s and pilots to Luang Prabang to provide air operations in support of the Royal Lao Army in Military Region I (MR-I) and General Vang Pao in Military Region II (MR-II) to the East. And at that time, Don Moody, who had been working with the *Water Pump* detachment, was sent up to Luang Prabang as an advisor to General Ma, the RLAFA commander, and to be the commander of the AOC at L-54.¹⁰⁸ In the beginning, this also meant that he had the function of a Forward Air Controller, flying in a RLAFA U-17 and looking for enemy positions or dropping surrender leaflets in “Psy Ops” or Psychological Operations. In July 66, Bob Downs and Al Shinkle flew an RLAFA U-17: “This included finding targets by flying visual recce in the area around Nam Bac and up the Nam Ou River”.¹⁰⁹ This particular U-17 was probably “417796” (ex USAF 64-17796), the remaining one of two U-17As which had been delivered to Laos on 2 October 64 as part of a Military Assistance Program. The other U-17A, “417797” (former USAF 64-17797) had been destroyed in Laos, on 11 October 65, when the aircraft took off with controls locked, as the check off list was not used.¹¹⁰

With the arrival of the “Ravens” in late 1966, the AOC commanders were relieved of most of their FAC responsibilities, as these Ravens were based and assigned to one of the AOCs, which, by that time, had become five: Vientiane, Pakse, Savannakhet, Long Tieng, and Luang Prabang.¹¹¹ At the same time, the personnel of the Air Operation Centers (AOCs) in each of the five military regions in Laos was augmented by further Project 404 people, mostly by other Air Commandos in the black in that technically they were not in Laos, consisting – in addition to the commander – of a line chief, a communications specialist, and doctor or medic, who were attached to a native fighter squadron.¹¹² Ambassador William Sullivan wanted Project 404 personnel to have a Special Operations background to support his air operations; that is why he selected the Air Commandos to fill his requirement. “Individuals in Project 404 were assigned to out of country units and their in-country existence was classified for most of the 1966-73 period. Being in the Black allowed personnel to perform military duties as a civilian operating in Laos under the supervision of AIRA (Air Attaché).”¹¹³

More T-28s for the Royal Laotian Air Force

At the same time, the United States strengthened the Royal Lao Air Force to be able to attack the Pathet Lao: Already in May 64, the USA, which had initiated low-level reconnaissance flights over southern Laos on 19 May and over northern Laos on the 21 May, using USAF RF-101s and US Navy RF-8As from the *USS Kitty Hawk*, also released bomb fuses and additional T-28s to the RLAFA.¹¹⁴ A further step was taken in late June 64: Already on 23 June 64, the Royal Lao Government had asked for extensive US support for an operation in the areas north of Vientiane and west of the Plain of Jars; the operation was to be an attack to secure control of Route 13 (Vientiane-Luang Prabang) and that part of Route 7, which runs from Route 13 east to the present position of the Neutralist forces at Muong Soi. On 26 June 64, the US authorized the release of bombs to the RLAFA and increased from six to twenty-four the number of T-28s under Laotian command (16 for strike missions, 8 for reconnaissance missions), and by the end of June 64, the RLAFA had 33 T-28s,¹¹⁵ another 17 T-28s being added to the RLAFA fleet in July 64.¹¹⁶ It has not been disclosed, in which way

¹⁰⁸ Moody, *The great adventures*, Episode 1, pp.2/3.

¹⁰⁹ Moody, *The great adventures*, Episode 1, p.3.

¹¹⁰ USAF Assignment Records, AFHRA, Maxwell AFB; Lists “Company operated aircraft lost or destroyed” (in: UTD/CIA/B51F12) and “Aircraft accidents 1965” (in: UTD/CIA/B49F2).

¹¹¹ Moody, *The great adventures*, Episode 1, pp.7/8; Castle, *At war*, p.86.

¹¹² Robbins, *Ravens*, p.118.

¹¹³ Moody, *The great adventures*, Prelude, pp.5/6.

¹¹⁴ Leary, *Outline - Air America in Laos*, 1964, p.12; Trest, *Air Commando One*, p.143.

¹¹⁵ Moody, *The great adventures*, Prelude, p.3.

¹¹⁶ A total of 23 T-28s have been identified that were probably all delivered to the RLAFA in 1964, but are not

known to have been flown by Air America pilots, so were probably flown by B-Team and C-Team pilots out of Vientiane and Savannakhet. These T-28s are: **"0-13463"** (c/n 174-1, ex 51-3463), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown; **"0-13680"** (c/n 174-218, ex 51-3680), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown; **"0-17611"** (c/n 174-464, ex 51-7611), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), and sold to the Philippine Air Force as "17611" in 1974 (?); **"0-17677"** (c/n 174-530, ex 51-7677), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown; **"0-17746"** (c/n 174-599, ex 51-7746), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown; **"0-17753"** (c/n 174-606, ex 51-7753), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown; **"0-17763"** (c/n 174-616, ex 51-7763), shown on a photo, where it carries the Erawan, but no red line, at <http://www.ravens.org/kham/KhamOperNongKeunMR5.jpg>, current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but not current on 1 April 72, so was probably destroyed between 1 August 71 and 1 April 72; **"0-17773"** (c/n 174-626, ex 51-7773), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown; **"0-17777"** (c/n 174-630, ex 51-7777), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but not current on 1 April 72; so it was probably destroyed between 1 August 71 and 1 April 72; **"0-17779"** (c/n 174-632, ex 51-7779), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but not current on 1 April 72; so it was probably destroyed between 1 August 71 and 1 April 72; **"0-21187"** (c/n 189-2, ex 52-1187), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown; **"0-21208"** (c/n 189-23, ex 52-1208), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown; **"0-21225"** (c/n 189-40, ex 52-1225), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), and sold to the Philippine AF as "21225" in 1974 (?); broken up at Sangley Point Air Base; **"0-23498"** (c/n 189-59, ex 52-3498), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), and sold to the Philippine AF as "23498" in 1974 (?); **"0-37644"** (c/n 200-7, ex BuA 137644), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America on 1 August 71 (List of Assigned

these T-28s joined the fleet of the Royal Laotian Air Force. But, probably, most if not all of them were loaned to the RLAF thru the Military Assistance Program, which officially supported Thailand, that is thru DEPCHIEF. Many of these aircraft probably came from surplus MACV stocks,¹¹⁷ so that they are no longer listed in the USAF Assignment Records preserved at the USAF's Historical Research Agency at Maxwell Air Force Base, Alabama. Another difficulty in identifying those aircraft comes from the fact that these Assignment Records only note that an aircraft was transferred to a MAP on a specific day, but do not state to which country it went. It can, however, be assumed that all aircraft of the same type going to a MAP the very same day, also went to the same country. So, as T-28D "0-13656", which

and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), and still current in 1973, when it carried the Erawan and the Long Tieng badge, but destroyed in 1973 (photo plus information in: <http://members.bellatlantic.net/~lcol/laos.html>); "0-38259" (c/n 200-330, ex BuA 138259), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), and sold to Apex Associates Inc., Canby, OR, as N86AW 24 January 86 (AMCAR 30/p.39); sold to M. Rolph-Smith, Archerfield, QLD, as VH-SHT in 6.90; current in 1996; "0-38276" (c/n 200-347, ex BuA 138276), shown on a photo taken at Vientiane in 1967 in <http://www.angelfire.com/in/Laos/> with an detachable Erawan on the side (the text gives the serial as "0-38728", which is impossible), but not current on 1 April 72; "0-38325" (c/n 200-396, ex BuA138325), known to have been delivered in the seventies (Carroll, *World Air Forces Directory 1998-99*, p.275), but not current on 1 April 72, and sold to Philippine AF "53138325" in 1974 (?), and to Business Air Charter, Portland, OR, as N2061Q in August 89; "0-38351" (c/n 200-422, ex BuA 138351), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), and sold to the Philippine AF as "138351" in 1974 (?), and to Business Air Charter, Portland, OR, as N20580 in August 89; "0-40457" (c/n 226-34, ex BuA 140457), formerly South Vietnamese AF "140457" (photo in: Mesko, *VNAF*, p.27), still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), still current in 1973, when it carried the Erawan and the Long Tieng badge (photo in <http://members.bellatlantic.net/~lcol/laos.html>), and sold to the Philippine AF as "140457" in 1974 (?), and to Business Air Charter, Portland, OR, as N2065R in August 89; "0-40533" (c/n 226-110, ex BuA 140533), carried the Erawan, but no red line in "Operation Nong Keun" (see the photo in: <http://www.ravens.org/Kham/KhamOperNongKeunMR5.jpg>), but a photo probably taken at Long Tieng and contained in the collection of Allen Rich (in: UTD/Rich/B1), also reproduced in Davis (*Across*, p.73), shows it without any markings; another photo can be seen in photo in: <http://www.namphong.com/album5/album5.htm>, taken at Nam Phong, Thailand; still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), and sold in 1974 (?) to the Philippine Air Force as "140533"; preserved at Villamor Air Base, Manila; "0-40547" (c/n 226-124, ex BuA140547), known to have been delivered in the seventies (Carroll, *World Air Forces Directory 1998-99*, p.275), but not current on 1 April 72, which was sold as N2800Q in June 79; and finally T-28C "0-40579" (c/n 226-156) ex MACV "140579" (photo in: Mesko, *VNAF*, p.29); this aircraft was still current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but no longer current on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), so was probably destroyed between 1 August 71 and 1 April 72.

¹¹⁷ As has been seen above, all American T-28s in South Vietnam were replaced by the A-1E Skyraiders in May 1964. During a meeting held at Udorn on 18 August 64, it was discussed how to augment the current strength of the RLAF. Two methods were proposed: either to assign VNAF A-1Hs to Laos (this idea was later rejected) or "by assignment remaining T-28s now in Vietnam as soon as A-1Es arrive in country" (Telegram sent by the US Embassy at Saigon to the Dept. of State on 20 August 64, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 123, in: http://www.state.gov/www/about_state/history/vol_xxviii/111_130.html).

was flown by Air America pilot Allen Rich on a special mission in Laos on 21 May 65,¹¹⁸ was part of a group of 8 T-28s that were all transferred to a Military Assistance Program on 4 June 64,¹¹⁹ probably all of these 8 T-28Ds belonged to the same MAP; and as another one of these 8 T-28Ds, that is “0-13714”, was seen at Bangkok 20 October 72 in the colors of the Royal Thai Air Force,¹²⁰ the T-28s destined for officially neutral Laos were probably all brought in thru the official MAP for Thailand, that is thru DEPCHIEF. In any case, these were too many aircraft to fly, so, the Royal Thai Air Force provided pilots on loan, who were based at Vientiane.

On 7 October 64, a cable from State and Defense to Embassy, Vientiane said that the US Ambassador was authorized to urge the Royal Lao Government to begin air attacks against Viet Cong infiltration routes and facilities in the Laos Panhandle by RLAf T-28 aircraft as soon as possible.¹²¹ At the same time, the strength of *Water Pump* was increased: When, on 9 October 64, a second *Water Pump* contingent headed by Lieutenant Colonel Bill Thomas replaced the first one at Udorn, the detachment was augmented by 3 C-47s and 21 personnel, so that, in late 1964, the *Water Pump* detachment was the largest American contingent at Udorn.¹²² As a response to the call for attacks to be flown against the infiltration routes in southern Laos, 13 T-28s were used in air strikes against the Ho Chi Minh Trail since 14 October 64. The same day, the US even authorized jets from Yankee Team to fly cover for the RLAf T-28s bombing the Ho Chi Minh Trail against attacks from NVA MiGs.¹²³ On 19 October 64, the Director of the Defense Intelligence Agency, Lieutenant General Joseph F. Carroll, wrote to the Secretary of Defense (McNamara): “The missions have so far been conducted out of Savannakhet using 13 aircraft (T-28). To date strikes are known to have been conducted against 5 of the 12 scheduled targets. Yesterday, Gen. Ma, Air Force Chief, moved six T-28s to Pakse to strike the two southernmost targets today.”¹²⁴ And the T-28 fleet was constantly growing and growing: In November 64, there were 27 T-28s in Laos, of which 22 were in operation, and on 5 August 65, the RLAf had even 45 T-28s. As to the attack missions, these T-28s were involved in general harassing activities against Pathet Lao in the Xieng Khouang and Sam Neua provinces, plus in interdiction missions against Route 7, and in the spring of 1965, Ban Dong Hene (LS-54) was successfully defended against an attack by

¹¹⁸ Log book of Allen Rich, in: UTD/Rich/B1.

¹¹⁹ The eight USAF T-28Ds, which were transferred from SMAAR, McClellan AFB, to MAP on 4 June 64, are: 51-3656 (c/n 174-194), becoming “0-13656”; 51-3658 (c/n 174-196), probably becoming “0-13658” (this aircraft later became “513658” of the Philippine AF; photo is in Anido/Austria-Tomkins, *Pictorial history of the Philippine Air Force*, p.34); 51-3669 (c/n 174-207), probably becoming “0-13669”; 51-3698 (c/n 174-236), probably becoming “0-13698”; 51-3714 (c/n 174-252), probably becoming “0-13714”; 51-3724 (c/n 174-262), becoming “0-13724” (this aircraft later went to the Royal Thai AF as “0-13714” and was noted at Bangkok 20 October 72; then it passed to the Khmer AF as “51-3714” and later to the Philippine AF as “13714”); 51-3732 (c/n 174-270), probably becoming “0-13732”; and 51-3744 (c/n 174-282), probably becoming “0-13744”. On 29 June 64, US Secretary of State Rusk cabled to the US Embassy in Laos that “15 additional T-28s are being moved to Udorn” (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 107, in: http://www.state.gov/www/about_state/history/vol_xxviii/91_110.html).

¹²⁰ See *Aviation Letter*, no.73, December 72, p.2.

¹²¹ In: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 138, in: http://www.state.gov/www/about_state/history/vol_xxviii/131_150.html.

¹²² Apart from the austere manned and equipped *Water Pump* detachment, the Americans based at Udorn in 1964/65, consisted of Bill Lair’s CIA office in an abandoned civil aviation building, responsible for the rear support HQ for paramilitary operations in Laos, the Air America helicopter operations, a small MAAG contingent of 3 US Army officers, a relay station located a few miles east of town, and a USAF adviser attached to a Thai flying squadron at Udorn (Trest, *Air Commando One*, pp.140/1). A photo of a USAF C-47A flown in RLAf markings (“24178” c/n 10040) can be seen at <http://members.tripod.com/chancefac/Laos/AirCraft/RLAFC-47.htm>.

¹²³ Leary, *Outline - Air America in Laos*, 1964, pp.39+25.

¹²⁴ In: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 141, in: http://www.state.gov/www/about_state/history/vol_xxviii/131_150.html.

North Vietnamese troops.¹²⁵ On 6 November 65, 45 T-28 sorties were flown on Route 92 in the south, killing about 200 road workers working on the Ho Chi Minh Trail. These were staged from Pakse, and General Ma, Commander of the Royal Laotian Air Force, stated that these strike missions could have been even more effective, if they could had been conducted out of Saravane airfield, which is closer to the Trail.¹²⁶

The total number of T-28s supplied to the Royal Laotian Air Force is unknown: Moody presumes that at the end, the RLAf had received 60 T-28Ds.¹²⁷ Probably, there were even many, many more than that, as no less than 48 T-28s are known to have been lost or destroyed – and this is for sure not the total number: At the beginning, the loss rate was quite low, so that in his telegram sent to the US Dept. of State on 20 August 1964, Ambassador Unger is quite optimistic: “Since May 17, when T-28 activities expanded, RLAf had flown 1543 combat sorties, many against heavily-defended targets, e.g. Ban Khan bridge, Phou Kout area, PDJ. Yet during this period only four T-28s lost to enemy ground fire and one lost to weather. Lost rate .0032 percent very low. [...] They have carried out air operations to destroy PL bases, interdict supply lines, provide close support for ground operations and provide visual and photo recce. They have also played important role SAR operations. In many respects amount and effectiveness hostile fire here is much greater than in South Viet-Nam.”¹²⁸ But then, the situation changed: Already from July 64 to the end of the year, 9 RLAf T-28s and 2 *Water Pump* T-28s were lost,¹²⁹ so that more T-28s were urgently needed. In January 1965, the Royal Thai Air Force loaned 10 T-28s to the United States for operation in Laos.¹³⁰ During the entire year of 1965, no less than 48 T-28s were transferred from SMAAR, the USAF’s Air Logistics Center at McClellan Air Force Base, Sacramento, California, to Military Assistance Programs. If we continue to assume that all aircraft delivered on a specific

¹²⁵ Leary, *Outline - Air America in Laos*, 1964, p.41, quotes these numbers from a State Department report dated 7 November 64 on actions taken after the “Gulf of Tonkin Resolution” of 7 August 64; Leary, *Outline - Air America in Laos*, 1965, p.26. See also the Special National Intelligence Estimate dated 5 August 65, document 192 in: http://www.state.gov/www/about_state/history/vol_xxviii/181_200.html.

¹²⁶ Telegram dated 8 November 65, sent from the US Embassy in Laos to the Commander in Chief, MACV (Westmoreland), document 203, in: http://www.state.gov/www/about_state/history/vol_xxviii/201_225.html.

¹²⁷ Moody, *The great adventures*, Prelude, p.1.

¹²⁸ US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 125, in: http://www.state.gov/www/about_state/history/vol_xxviii/111_130.html.

¹²⁹ One T-28 was shot down on **14 July 64**, followed by another one on **16 July 64** (Log book of Allen Rich, in: UTD/Rich/B1); four T-28s were shot down in **August 64**, the first one, an RT-28, on **14 August** at UG 025528 on western end of PDJ, killing its Thai pilot named Prasap (Leary, *Outline - Air America in Laos*, 1964, p.29); 2 T-28s were lost on **18 August**, one while it was engaged in close air support of Neutralists in the northwest corner of PDJ, the other one, piloted by the well regarded Thai base commander of Udorn, near route 42, about 5 miles NE of Ban Peung (LS-95) (Leary, *Outline - Air America in Laos*, 1964, pp.29/30+35; Log book of Allen Rich (in: UTD/Rich/B1; see also the Memorandum dated 18 August 64, sent by the President’s Special Assistant for National Security Affairs, McGeorge Bundy, to President Johnson in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 122, in: http://www.state.gov/www/about_state/history/vol_xxviii/111_130.html); and the fourth T-28 of the month was shot down on **28 August** over Rittaville (Log book of Allen Rich, in: UTD/Rich/B1); in **October 64**, one T-28 was lost, when it ran out of gas during air strikes against the Ho Chi Minh Trail (Leary, *Outline - Air America in Laos*, 1964, p.25). On **25 November 64**, two *Water Pump* T-28s were lost on a flight from Udorn to Saigon, killing four pilots (Leary, *Outline - Air America in Laos*, 1964, p.46). According to Hobson (*Vietnam air losses*, p.12), this already happened on **19 November 64**, involving 51-7870 plus another T-28D; the USAF Assignment Records make believe that these two aircraft were T-28Ds **51-7863** (c/n 174-715) of 2 AD, Udorn, which was officially transferred to accident status TM / code 2, on 64340, that is on 6 December 64, and **51-7870** (c/n 174-723) of 2 AD, Tan Son Nhut, which was officially transferred to accident status TQ on 64324, that is on 30 November 64. On **22 December 64**, an RT-28 was shot down near Xieng Khouang Ville (Leary, *Outline - Air America in Laos*, 1964, p.48), and, finally, 2 Air America-piloted T-28s were lost **in late 64**, when Nolan made a forced landing, and in Joe Potter’s T-28, rockets that he did not launch, ignited (Leary, *Outline - Air America in Laos*, 1964, p.16).

¹³⁰ See the Telegram dated 26 January 65 sent from the US Embassy in Thailand to the Dept. of State (document 160), in: http://www.state.gov/www/about_state/history/vol_xxviii/151_160.html.

day were destined for the same customer, we must believe that in 1965, at least 32 USAF T-28s were delivered to Thailand and Laos in a Military Assistance Program: three T-28s on 4 March 65,¹³¹ five on 17 March 65,¹³² seven on 29 April 65,¹³³ three on 11 May 65,¹³⁴ two on 9 June 65,¹³⁵ five on 19 August 65,¹³⁶ three on 18 October 65,¹³⁷ and four on 4 November 65,¹³⁸ but probably even more T-28s were delivered to the RLAf in 1965. Little is known about the T-28s lost in 1965, but nine T-28s were lost on 24 January 65,¹³⁹ one Air America piloted T-28 based at Udorn was shot down near Sam Neua (L-04), Laos, on 23 July 65, while it flew cover on a rescue mission; the pilot was rescued, however.¹⁴⁰ And in September 65, a RLAf T-28, which had been downed, was to be lifted up by Air America UH-34D H-12, but when the aircraft proved to be too heavy, a US Army Chinook had to carry the wreck back to

¹³¹ T-28D 51-3470 (c/n 174-8) became **"0-13470"** and can be seen on a photo in the video by Ed Eckholdt (at 1.23.16); 51-3472 (c/n 174-10) probably became **"0-13472"**; and 51-3511 (c/n 174-49) probably became **"0-13511"** and was flown by Allen Rich on 25 May 65, who quote it as "511".

¹³² T-28D 51-7616 (c/n 174-469), becoming **"0-17616"**, documented by a slide by John Wiren preserved in the Air America Archives; 51-7622 (c/n 174-475), probably becoming **"0-17622"**; 51-7635 (c/n 174-488), becoming **"17635"**, documented by a photo in Love, *Wings of Air America*, p.92; 51-7665 (c/n 174-518), probably becoming **"0-17665"**; and 51-7869 (c/n 174-722), probably becoming **"0-17869"**.

¹³³ T-28D 51-3478 (c/n 174-16), becoming **"0-13478"** (a photo showing "0-13478" together with T-28 "0-40533" is in <http://secretvietnamwar.com/BOSSET28.jpg>); 51-3506 (c/n 174-44), probably becoming **"0-13506"**; 51-3507 (c/n 174-45), probably becoming **"0-13507"**; 51-3508 (c/n 174-46), probably becoming **"0-13508"**; 51-3531 (c/n 174-69), becoming **"0-13531"**; a photo taken at Vientiane in 1967 can be seen in Davis, *Laos: Secret war pilots*, in: <http://www.angelfire.com/in/Laos/>, showing the aircraft with an detachable Erawan on the side; this aircraft, an RT-28D recce bird, was still maintained by Air America, Udorn, in current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and April 72 (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); 51-3538 (c/n 174-76), probably becoming **"0-13538"**; this aircraft was later transferred to the Royal Thai Air Force as "0-13538", coded 22404, and noted airworthy at Chiang Mai in November 96 (*Air-Britain News*, vol.26, no.2, February 97, p.196); and 51-3609 (c/n 174-147), probably becoming **"0-13609"**.

¹³⁴ T-28D 51-3467 (c/n 174-5), probably becoming **"0-13467"**; 51-3518 (c/n 174-56), becoming **"0-13518"**, as can be seen on a photo taken at Vientiane in 1967 seen in Davis, *Laos: Secret war pilots*, in: <http://www.angelfire.com/in/Laos/>, showing the aircraft with an detachable Erawan on the side, and T-28A 51-3608 (c/n 174-146), probably becoming **"0-13608"**.

¹³⁵ T-28D 51-3579 (c/n 174-117), probably becoming **"0-13579"**; and 51-3588 (c/n 174-126), probably becoming **"0-13588"**; although it was not current on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1.4.72, in: UTD/CIA/B49F2), it was with the Air Force of the Laos People's Army as "3405" since 1975 and was sold as VH-PFM in September 93.

¹³⁶ T-28D 51-3474 (c/n 174-12), probably becoming **"0-13474"**; 51-3475 (c/n 174-13), probably becoming **"0-13475"**; 51-3527 (c/n 174-65), probably becoming **"0-13527"**; this aircraft was transferred to the Khmer Air Force as "51-3527" in 1973 (mentioned in LMAT's Phnom Penh Monthly Base Report of 6 October 73, p.6 (in: UTD/CIA/B39F1); 51-3548 (c/n 174-86), probably becoming **"0-13548"**; and 51-3700 (c/n 174-238), probably becoming **"0-13700"** (Carroll, *World Air Forces Directory 1998-99*, p.275).

¹³⁷ T-28D 51-3476 (c/n 174-14), becoming **"0-13476"**, was flown in Laos by Allen Rich on 13 January 66 (Log book of A. Rich, in: UTD/Rich/B1); this aircraft was maintained by Air America, Udorn, still on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); 51-3743 (c/n 174-281), probably becoming **"0-13743"** (this T-28 was also flown by Air America pilot Joe Hazen according to his log book: information kindly supplied by John Wiren in his e-mail to the author as of 11 October 2001); and 52-1220 (c/n 189-35), probably becoming **"0-21220"**.

¹³⁸ T-28D 50-315 (c/n 171-121), probably becoming **"0-00315"**; 50-317 (c/n 171-123), probably becoming **"0-00317"**; 51-3759 (c/n 174-297), probably becoming **"0-13759"**; and T-28A 51-7597 (c/n 174-450), becoming **"0-17597"**, as can be seen on a photo taken at Vientiane in 1967, published in Davis, *Laos: Secret war pilots*, in: <http://www.angelfire.com/in/Laos/>, showing the aircraft with an detachable Erawan on the side.

¹³⁹ See the Telegram dated 26 January 65 sent from the US Embassy in Thailand to the Dept. of State (document 160), in: http://www.state.gov/www/about_state/history/vol_xxviii/151_160.html. No details are available, but to replace the losses, the Royal Thai Air Force immediately loaned 10 T-28s to the United States for use in Laos.

¹⁴⁰ See the report by Tom Hoppe in Davis, *Across the Mekong*, pp.100-102).

Udorn.¹⁴¹

In 1966, no less than 43 T-28Ds were transferred from USAF stocks to various Military Assistance Programs, most of them thru SMAAR, the USAF's Air Logistics Center at McClellan Air Force Base, Sacramento, California. If we continue to assume that all aircraft delivered on a specific day were destined for the same customer, we must believe that in 1966, at least 17 USAF T-28s were delivered to Thailand and Laos, that is 7 on 1 February,¹⁴² 3 on 3 February,¹⁴³ 1 on 14 July,¹⁴⁴ 3 on 21 July,¹⁴⁵ and 3 on 7 August 66.¹⁴⁶ In May 66, 18 T-28s and some 12 C-47s had their base at Savannakhet.¹⁴⁷ The introduction of Project 404,

¹⁴¹ The scene is shown on the video tape by John Tarn at 0.37.40 minutes.

¹⁴² According to the USAF Assignment Records, the following 7 T-28Ds were transferred from SMAAR to TL MAP on 66032, that is on 1 February 66: 50-281 (c/n 171-87), probably flying as "0-00281"; 50-285 (c/n 171-91), probably flying as "0-00285"; 50-287 (c/n 171-93), probably flying as "0-00287"; 50-297 (c/n 171-103), probably flying as "0-00297"; 50-298 (c/n 171-104), flying as "0-00298", and based at Luang Prabang, as the aircraft carried the eagle badge on the fin; a photo is in Moody, *The great adventures*, prelude, p.13; 50-301 (c/n 171-107), probably flying as "0-00301"; and 50-306 (c/n 171-112); this T-28 is known to have flown with MAP/Laos as "0-00306"; it was destroyed at Luang Prabang on 2 February 67, when the airfield was attacked at midnight: In that attack, 8 people were killed, and 5 RLAFF T-28s as well as Air America's UH-34Ds H-F + H-31 were destroyed, and 3 T-28s were damaged; the enemy used rocket launchers and small arms; a photo of "0-00306" appeared at <http://angelfire.com/in/Laos/>.

¹⁴³ According to the USAF Assignment Records, 3 T-28Ds were transferred from SMAAR to TL MAP on 66034, that is on 3 February 66: 50-307 (c/n 171-113), probably flying as "0-00307" (which later became "00307" of the Philippine Air Force); 50-309 (c/n 171-115), probably flying as "0-00309" (which later became "00309" of the Philippine Air Force); and 50-310 (c/n 171-116); the latter is believed to have flown as "0-00310" and still on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 1972, it was maintained by Air America, Udorn, and flown under the command of the USAF Attaché, Vientiane (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); later, it was sold to the Philippine AF as "00310".

¹⁴⁴ T-28D-5 49-1531 (c/n 159-43) was transferred from SMAAR to TL MAP on 66195 (14 July 66) as "0-91531"; it served with the RLAFF at Wattay, in 1967 (a photo is in: <http://www.angelfire.com/in/Laos/>, p.13, when it carried the Erawan); until it was transferred to the Steve Canyon program as a Raven aircraft in 1970?; a photo of its Raven service, when it carried a badge on the fin, but no Erawan, can be seen at: <http://www.ravens.org/gene72-2.jpg>; this USAF aircraft was still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown

¹⁴⁵ According to the USAF Assignment Records, 3 T-28Ds were transferred from SMAAR to TL MAP on 66202, that is on 21 July 66: 49-1508 (c/n 159-20), probably flying with MAP/Laos as "0-91508", 49-1523 (c/n 159-35), as "0-91523"; this T-28 later became a Raven aircraft about 1970?, not carrying the Erawan, nor a badge on the fin; a photo can be seen in: <http://www.ravens.org/jimcain6.jpg>; it also appeared in the movie "Birds of a feather" at 0.49.47 minutes, without the Erawan; and still in April 1972, it was maintained by Air America, Udorn, and flown under the command of the USAF Attaché, Vientiane; finally, T-28D 49-1526 (c/n 159-38) was transferred, to the RLAFF on 66202 (21 July 66) as "0-91526"; it carried an eagle emblem on the tail and was destroyed in the mortar attack at Luang Prabang (L-54) on 2 February 67; a photo of the wreck in can be seen in Don Moody, *The great adventures of Bob and Don*, Episode 2, p.1, in: <http://www.aircommandos.org/BobAndDon/Episode0002.htm>; reportedly, it was repaired and later given to the *Aviation Nationale Khmère* (Lon Nol) between 1970-1975, but was written off (Carroll, *World Air Forces Directory 1998-99*, p.187).

¹⁴⁶ On 7 August 66 (66219), 3 T-28D-5s were transferred from SMAAR to TL MAP: 49-1496 (c/n 159-8), probably flying as "0-91496"; still on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72, it was maintained by Air America, Udorn, and flown under the command of the USAF Attaché, Vientiane (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); in 1975 (?), it was transferred to the Air Force of the Laos People's Army as "3407"; in May 1990, it was sold to Brian P. Kenney, Myrtle Point, OR, as N1496K; later becoming N2496; T-28D 49-1500 (c/n 159-12), probably flying as "0-91500", and 49-1504 (c/n 159-16), probably flying as "0-91504".

¹⁴⁷ Telegram dated 15 May 66, sent from the US Embassy in Laos to the US Dept. of State, document 233 in: http://www.state.gov/www/about_state/history/vol_xxviii/226_240.html.

however, meant that more Air Commandos could be stationed in Laos and work for the Royal Laotian Air Force. Already in March 66, the 606th Air Commando Squadron was activated at Nakhon Phanom with its small force of T-28s to augment the capabilities of the *Water Pump* detachment at Udorn, and on 8 April 67, this 606th Air Commando Squadron was transformed into the 56th Air Commando Wing,¹⁴⁸ later known as the 56th Special Operations Wing, still based at Nakhon Phanom.¹⁴⁹ While from 1964 to 1966, instructors, maintenance and armament personnel were assigned only on temporary duty, since 1966, permanent personnel from Nakhon Phanom was used. As Don Moody notes, almost every T-28 pilot from the 56th Special Operations Wing did one tour of duty at *Water Pump*.¹⁵⁰ Officially, only the Lao pilots were flying the T-28s; unofficially, the Americans only flew maintenance test hops on the T-28. But “sometimes those test hops had strange configurations.”¹⁵¹ And this was only the beginning: “During the air war in Laos,” Moody notes,¹⁵² “the Air Commandos were called upon to perform operational tasks at great risk to the personnel and pilots involved. Although operating under rules not normally found in the regular Air Force, the personnel assigned to Project 404 continued to place their lives at risk for many years. Some Air Commandos flew in Laos for more than a decade, braving enemy fire and surmounting challenging operational conditions with rare skill and determination.” And there was still another type of help brought by the Air Commandos: In the summer of 1966, the T-28s of Royal Lao Air Force General Thao Ma attacked Pathet Lao positions around Attopeu (LS-10), as the Pathet Lao was burning and pillaging the town, killing, raping, and maiming the inhabitants. It was probably at this occasion, that Colonel Aderholt, who was working at Clark AFB in the Philippines at that time, arranged for a C-47 full of medical supplies flown to Attopeu, where they were urgently needed by Royal Lao Air Force General Thao Ma for the inhabitants of the town.¹⁵³

This obvious augmentation of air power for the Royal Laotian Air Force was, however, opposed by several losses. An unknown number of RLAF T-28s was shot down during the fighting around Na Khang (LS-36) in 1966.¹⁵⁴ A major loss occurred on 21 October 66: As General Thao Ma, the commander of the Royal Laotian Air Force, feared to be removed from his command, he suddenly left Luang Prabang without warning on 20 October. In the evening, “the location of Ma and 12 loaded T-28s could not be determined. Early the next morning, the T-28s¹⁵⁵ took off from Savannakhet and bombed targets around Wattay Airport,

¹⁴⁸ The components of the new 56th ACW were the 602nd ACS at Udorn with A-1Es and A-1Hs, the 606th ACS at NKP with T-28D-5s, C-123s, and U-10Ds, and the 609th ACS at NKP with A-26As. There was also Detachment 1 based at Udorn, using T-28Bs, Cs, Ds, and D-5s to train Laotian pilots and to fly tactical reconnaissance missions over Laos and North Vietnam. Detachment 1 was also the parent unit of the Ravens. In addition, the NKP-based O-1s and O-2s of the 23rd TASS, were also attached to the 56th ACW, although not assigned to the unit (Hagedorn/Hellström, *Foreign Invaders*, p.160).

¹⁴⁹ Trest, *Air Commando One*, p.182.

¹⁵⁰ Moody, *The great adventures*, Prelude, p.3.

¹⁵¹ Moody, *The great adventures*, Episode 1, p.7.

¹⁵² Moody, *The great adventures*, Prelude, p.6.

¹⁵³ Trest, *Air Commando One*, pp.163/4.

¹⁵⁴ See Hamilton-Merritt, *Tragic mountains*, pp.144-146, for the battle around LS-36 in 1966. Wrecks of two T-28s shot down there can be seen on the video tape by John Tarn at 0.18.15 and 0.53.42 minutes.

¹⁵⁵ Leary (*Outline - Air America in Laos*, 1966, p.10) states that on 21 October 66, General Ma led only six of his T-28s from Savannakhet (L-39) on the bombing run over military targets in the Vientiane area, Kirk (*Wider war*, p.218) says he had led 10 T-28s against Vientiane, and still other sources (Davis, *Laos: Secret war pilots*, in: <http://www.angelfire.com/in/Laos/Pilots.html>) say that 13 T-28s attacked Vientiane. It seems that 11 T-28s participated in the attacks, as Ambassador Sullivan cabled to the Dept. of State on 20 October, 0200Z: “At 0830 hours this morning General Ma’s 5-28 [read: T-28] pilots from Savannakhet launched bombing and strafing attacks against Phone Keng and Chinaimo in what appears to be the last ditch effort by Ma to salvage his own position and force change in General Staff. [...] T-28s continue to fly over city as we draft this and machine-gun fire heard near Embassy. Bombs have hit barracks near AOC at Wattay as well as Chinaimo and Phone Kheng” (Document 262 in: http://www.state.gov/www/about_state/history/vol_xxviii/241_265.html). An undated paper

the Army Barracks, and Chinaimo HQ North of Vientiane. The primary target seems to have been a high level secret meeting place adjacent to the Bomb Storage Area near Vientiane, where reportedly high level officials from powerful Communist countries prepared to pay for a secret deal with an extremely high level Lao Government control person.¹⁵⁶ Later that day, the Coup fell apart. Ma and the T-28 pilots fled across the river and landed at Udorn. The Thai Government impounded the aircraft and incarcerated General Ma and the pilots. They were later given political asylum.”¹⁵⁷ For the AOC at Luang Prabang, this meant that they had to start all over, and this included new crews and replacement aircraft, which arrived in November 66. “We only had six T-28s to cover all of MR-I”.¹⁵⁸

In 1967 and in the early months of 1968, a total of 57 USAF T-28s were delivered to various air forces like the *Fuerza Aérea Hondureña*¹⁵⁹ in Military Assistance Programs. At least 24 of these T-28s were probably delivered to the Royal Laotian Air Force, that is five on 31 January 67,¹⁶⁰ four on 7 February 67,¹⁶¹ four on 20 July 67,¹⁶² three in late October 67,¹⁶³

prepared for US President Johnson notes that “Sullivan, the British Ambassador and Boun Oum flew to Savannakhet to persuade Ma to go into voluntary exile”, continuing: “In face of this Ma has flown out 10 T-28s to Udorn and one to Ubol in Thailand. Ma is now with the Thai base commander at Udorn. Seven T-28s remain at Savannakhet. General La is now moving to reassert the government’s control over Savannakhet and anticipates no opposition” (Document 264 in: http://www.state.gov/www/about_state/history/vol_xxviii/241_265.html).

¹⁵⁶ See Davis, *Laos: Secret war pilots*, in: <http://www.angelfire.com/in/Laos/Pilots.html>, p.8, where Thao Ma is commemorated as a Laotian Patriot.

¹⁵⁷ Moody, *The great adventures*, Episode 1, pp.7/8. The General Staff executed Ma after he was captured following another failed Coup attempt in 1973 (p.8).

¹⁵⁸ Moody, *The great adventures*, Episode 1, p.8.

¹⁵⁹ Five T-28Ds are believed to have gone to the Honduran Air Force in 1967: three – 50-230 (c/n 171-36); 50-272 (c/n 171-78), becoming *Fuerza Aérea Hondureña* “215”; and 50-293 (c/n 171-99) – on 67153, that is on 2 June 67, and two – 50-233 (c/n 171-39); and 50-234 (c/n 171-40), becoming *Fuerza Aérea Hondureña* “212” – on 67195, that is on 14 July 67.

¹⁶⁰ The 5 T-28Ds that were transferred (TL) to the MAP from McClellan AFB, Sacramento CA, on 67031 (= 31 January 67), that is to the RLAf were: 50-288 (c/n 171-94), probably becoming “**0-00288**”; 50-292 (c/n 171-98), probably becoming “**0-00292**”; 50-294 (c/n 171-100), probably becoming “**0-00294**”; this USAF aircraft was still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); 51-3562 (c/n 174-100), probably flying as “**0-13562**”; this USAF aircraft was still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); and 51-3660 (c/n 174-198), probably becoming “**0-13660**”

¹⁶¹ All of the four T-28Ds were transferred (TL) to the MAP from McClellan AFB, Sacramento CA, on 67038 (= **7 February 67**): 50-261 (c/n 171-67), probably becoming “**0-00261**”; 50-271 (c/n 171-77), probably becoming “**0-00271**”; this T-28D was still under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); 50-274 (c/n 171-80), probably becoming “**0-00274**”; and 50-276 (c/n 171-82), probably becoming “**0-00276**”, also still under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2).

¹⁶² The four T-28D-5s transferred from McClellan AFB to TL for MAP on 67201, that is on 20 July 67, are: 50-214 (c/n 171-20), probably serving as “**0-00214**”, fate unknown; 50-219 (c/n 171-25), probably serving as “**0-00219**”; current with MAP/Laos on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but not current on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), so it was probably destroyed between 1 August 71 and 1 April 72; 50-228 (c/n 171-34), probably serving as “**0-00228**”, fate unknown; and 50-232 (c/n 171-38), probably serving as “**0-00232**”, fate unknown.

two on 8 March 68,¹⁶⁴ two on 12 March 68,¹⁶⁵ two on 16 March 68,¹⁶⁶ and two on 28 March 68,¹⁶⁷ but probably many of the remaining T-28s, which had also been transferred to a Military Assistance Program in 1967, equally went to Laos. On 9 November 66, US Ambassador Sullivan had estimated that by July 1967, there would be “a fleet of between 44 and 48 T-28” in Laos.¹⁶⁸ A major loss occurred shortly after midnight in the early morning of 2 February 67, when North Vietnamese sappers attacked the airfield of Luang Prabang (L-54) by rockets launchers and automatic weapons fire.¹⁶⁹ The day before, on 1 February 67, 9 fully loaded T-28s had been parked on the ramp overnight to save time the next morning. So when these aircraft were attacked, there were also huge secondary explosions from the bombs on the aircraft; furthermore, the ammo dump exploded and the AOC building was destroyed.¹⁷⁰ Eight people were killed in the attack.¹⁷¹ Don Moody, commander of AOC at Luang Prabang recalls: “Out of the nine T-28s at LP, six were totally destroyed and three were heavily damaged.¹⁷² The damaged airplanes were shipped down to the Air America facility at Udorn

¹⁶³ Two T-28Ds were transferred (TL) from McClellan AFB to the MAP on 67297, that is on 24 October 67: 49-1648 (c/n 159-160), probably becoming “**0-91648**” and still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); and 49-1723 (c/n 159-235), probably becoming “**0-91723**”, followed by a third T-28D, that is 49-1624 (c/n 159-136), probably becoming “**0-91624**”, on 67299, that is on 26 October 67.

¹⁶⁴ Both T-28Ds were transferred (TL) from McClellan AFB, Sacramento CA, to MAP on 68067, that is on 8 March 68: T-28D 51-3558 (c/n 174-96), probably becoming “**0-13558**”, and 51-7801 (c/n 174-654), probably becoming “**0-17801**”, and still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

¹⁶⁵ Two T-28D-5s were transferred from NAMCO, Columbus, to MAP on 68071, that is on 12 March 68: 51-3500 (c/n 174-38), probably serving as “**0-13500**”; it is no longer current on 1 August 71; and 51-3552 (c/n 174-90), probably serving as “**0-13552**”; this aircraft was still current with MAP/Laos on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but is no longer current on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown.

¹⁶⁶ Both T-28Ds were transferred (TL) from NAMCO, Columbus, to MAP on 68075, that is on 16 March 68: 50-289 (c/n 171-95), probably becoming “**0-00289**”, and 50-303 (c/n 171-109), probably becoming “**0-00303**”; while “0-00289” is longer current on 1 August 71, “0-00303” was current with MAP/Laos on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but not on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown, but it was reported as sold as N3338G prior to 1987.

¹⁶⁷ Two T-28D-5 were transferred from NAMCO, that is from North American Aircraft, Columbus, to MAP on 68087, that is on 28 March 68: 50-226 (c/n 171-32), probably serving as “**0-00226**”; it was current with MAP/Laos on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but not on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); so probably it was destroyed between 1 August 71 and 1 April 72. The other T-28D-5 was 50-246 (c/n 171-52), probably serving as “**0-00246**”.

¹⁶⁸ Telegram dated 9 November 66, from the US Embassy to the Dept. of State, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 268, in: http://www.state.gov/www/about_state/history/vol_xxviii/266_285.html.

¹⁶⁹ Two Air America UH-34Ds – H-F (c/n 58.1166) and H-31 (c/n 58.1170) – which were parked in a designated area adjacent to the T-28s were also destroyed at 0105 local time. “According to all available information, the attack began at approximately 0035L and the fire fight lasted approximately 15 minutes. During the time of attack both helicopters plus 6 RLAf aircraft were completely destroyed by direct hits from rocket launchers and automatic weapons fire” (Narrative report of the accident as part of the Air America Local Board of Review Memorandum dated 11 February 67, in: UTD/CIA/B59F1).

¹⁷⁰ Moody, *The great adventures*, Episode 2, pp.2/3.

¹⁷¹ Log book of Allen Rich, in: UTD/Rich/B1.

¹⁷² Three of the T-28s involved can be identified: a photo in the video tape made by John Tarn shows among

for repair and would soon return to action. [...] We didn't know at the time that *Water Pump* had retrieved the T-28s that were confiscated during the coup, and were able to get six of these aircraft back within two days. [...] The Requirements Office (RO) sent us munitions and replacement parts to replace almost everything lost in the attack. The Embassy negotiated an into-plane contract with Esso to refuel all of our aircraft. Everyone rolled up their sleeves and got to work. We were able to return to combat ready status three days after the attack on the airfield.”¹⁷³ Photos of the T-28s involved in this attack show that all aircraft the Erawan and an eagle badge on the tail, which seems to have been the emblem of the T-28s based at Luang



RLAF / MAP T-28Ds destroyed at Luang Prabang on 2 February 67,
including 0-00306 and 0-91526 (UTD/Rich/B3)

Prabang. As all T-28s involved seem to have carried USAF-style serials, they were probably all loaned to the RLAF as part of the MAP. Furthermore, the article by Don Moody makes clear that, while the pilots of the T-28s were Lao, the man really in charge was the USAF/Air Commando Commander of the Air Operations Center, that is Moody himself.

But the night-attack on to Luang Prabang was not an isolated phenomenon: In 1967, the whole character of war began to change, as the North Vietnamese, impatient with the progress of the Pathet Lao, introduced new combat forces into Laos and took control of the dry season offensive. Already in May 67, Don Moody, Commander of AOC Luang Prabang, was given the job of teaching the Laotian Army at Luang Prabang the Principles of Air Ground Operations and how to set up a Tactical Air Control System. Missions flown by RLAF T-28s on 11 March 68 included air strikes flown against attacked the enemy forces who had taken Phou Pha Thi (LS-85) the night before. By mid-March 1968, enemy forces had also recaptured Nam Bac, a strategic valley north of Luang Prabang, and Na Khang (LS-36) and Moug Soui (LS-108) were in danger. The NVA offensive ended only with the monsoon season of 1968.¹⁷⁴ This increased activity also meant a higher number of T-28s lost. Even

others the wreck of T-28 “3625” at 0.21.10, which is believed to be “**0-13625**” (c/n 174-163) ex USAF 51-3625; a photo contained in the papers of Allen Rich (Air America Archives) shows the wreck of a T-28 with just the last three digits of its tail number visible: “0-??306”, believed to be “**0-00306**” (c/n 171-112), which is clearly shown in Davis, *Laos: Secret war pilots*, in: <http://angelfire.com/in/Laos/>. The best documented victim of this attack was T-28D “**0-91526**” (c/n 159-38) ex 49-1526; a photo of the intact aircraft is shown on p.4 of Don Moody’s article *The great adventures*, Episode 2, while photos of the wreck can be found in the papers of Allen Rich (in: UTD/Rich/B1) and on pp.1 and 6 of Moody’s article. This aircraft seems to have been one of those that were only damaged and later repaired, as it was reportedly given to the Lon Nol’s *Aviation Nationale Khmère* between 1970-1975 (Carroll, *World Air Forces Directory 1998-99* p.187).

¹⁷³ Moody, *The great adventures*, Episode 2, pp.5/6.

¹⁷⁴ Moody, *The great adventures*, Prelude, pp.6/7, and Episode 2, p.8; Robbins, *Ravens*, p.43-45.

after the shock of Luang Prabang, no less than 8 T-28s are known to have been lost until the end of February 1968: Two RLAFF T-28s from Luang Prabang were shot down north of Nam Yu in northern Laos in late February or early March 67, when they flew cover for a CIA infil mission in northern Laos.¹⁷⁵ Three RLAFF T-28s went missing in the Tha Thom (LS-11) area on 23 February 68, and three more RLAFF T-28s crashed in the same area on 25 February 68.¹⁷⁶

Air America's Udorn Thailand base and the RLAFF T-28s

But Air America did not only supply pilots to fly the Royal Laotian Air Force T-28s, the Company's maintenance facility at Udorn also maintained these aircraft. At the time of writing, no contract stating this in a clear way, is available, but from other sources, it is known that already in June 1964, Air America's Udorn facility maintained the T-28s operated by the Royal Laotian Air Force,¹⁷⁷ that already in September 65, RLAFF C-47s were repaired by Air America teams at the crash-site, while RLAFF T-28s that had crashed were taken back to Udorn for repair at the Air America facilities, as John Tarn shows on his video tape.¹⁷⁸ The best evidence, however, comes from Jack Forney, who had been in charge of the Air America maintenance at Udorn. He states: "The AAM operation at Udorn provided all heavy maintenance and almost all intermediate maintenance for the entire RLAFF fleet during the period in question [i.e. the 1964-69 period]. In the case of the T-28s, we provided the heavy and intermediate maintenance at Udorn and at Vientiane and up country Laos (LS-20, et al). For the RLAFF H-34s, we contracted with Air Vietnam (because of political considerations) for the periodic heavy maintenance operations conducted at Saigon, but virtually all other H-34 maintenance was performed at Udorn. For the O-1s all maintenance was performed at Udorn, though the T-28 pilots and USAF support personnel were to accomplish daily maintenance up country."¹⁷⁹ This maintenance was probably done thru Air America's contracts with the United States Air Force, which, although negotiated with Headquarters Air Procurement Region Far East, placed all services to be performed by Air America under the command of DEPCHIEF.¹⁸⁰ Already contract AF 62(531)-1758 effective 1 July 63 included maintenance of Government furnished equipment, which in that case only referred to the UH-34Ds, as well as "helicopter flight and maintenance training to such students as are presented by Deputy Chief, JUSMAG, at time or times when the aircraft are not performing other operations hereunder or undergoing necessary maintenance."¹⁸¹ The students presented by DEPCHIEF were probably RLAFF pilots and mechanics, as DEPCHIEF was responsible for the military aid to the RLAFF. Contract AF 62 (531)-1841 negotiated between Air America and the USAF and effective 1 July 65 is quite similar to contract AF 62(531)-1758, in so far as it also refers to the UH-34Ds, as it also places Air America's services under the command of DEPCHIEF, and as it also allows training RLAFF personnel. But then it mentions "any agreements of a classified nature pertaining to this contract" which could be set forth by the

¹⁷⁵ Moody, *The great adventures*, Episode 2, p.7.

¹⁷⁶ Entries in the log book of Allen Rich, in: UTD/Rich/B1.

¹⁷⁷ In telegram no. 1683 sent to the US Dept. of State on 23 June 64, Ambassador Unger states that "Department appears nervous about any acknowledgment that Air America involved in maintenance T-28s in Udorn" (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 100, in: http://www.state.gov/www/about_state/history/vol_xxviii/91_110.html).

¹⁷⁸ Video tape made by John Tarn at 0.16.16 and 0.37.48 minutes.

¹⁷⁹ E-mail dated 2 April 2002 kindly sent to the author by Jack Forney.

¹⁸⁰ "The Contractor [that is: Air America] shall [...] provide, establish, manage, operate, and maintain a complete flying and maintenance service [...]. The aircraft are to be operated [...] at points in the Work Zone designated by the Deputy Chief, JUSMAG. The contract services shall be rendered at airports or other locations in a specified area made effectively available by the United States Government and designated in writing to the Contractor by the Deputy Chief, JUSMAG" (Contract AF 62(531)-1758, in: UTD/Kaufman/B1F10, quotation taken from p.1).

¹⁸¹ Contract AF 62(531)-1758, in: UTD/Kaufman/B1F10, quotation taken from p.2.

Procurement Contracting Officer,¹⁸² and it extends the services to be performed by Air America to “flying services with Beechcraft, C-46, C-47, Helio Courier, Piper Apache, Dornier Do-28, Pilatus Turbo-Porter PC-6A, fixed wing type aircraft and UH-34D helicopter type aircraft” in accordance with the Deputy Chief, JUSMAG, Thailand, and to “all necessary repairs to its aircraft determined by the Deputy Chief, JUSMAG, Thailand”.¹⁸³ So, there is no direct hint to the T-28s in this contract, but its extension from the operation and maintenance of helicopters to that of fixed wing aircraft working for DEPCHIEF as well as the mention of classified agreements which could be added to the original contract, make believe that this was the way, Air America could also do maintenance for RLAF aircraft – later contracts between Air America and the USAF will be much clearer.

Combat Air Control in Laos: the “Butterflies”

The control of air power over Laos was first in the hands of a joint operation between the RLAF, the USAF and Air America. Already in July 1964, during Operation *Triangle*, Air Commando pilot Joe Potter, who joined Air America about a year later, flew an Aero Commander U-4 which was loaned to the RLAF by the USAF,¹⁸⁴ that is “2714”, when he acted as a Forward Air Controller to direct the strikes carried out by RLAF T-28s. On 2 October 1964, two Cessna U-17As (417796, ex USAF 64-17796, and 417797, ex USAF 64-17797), were transferred to the RLAF under a Military Assistance Program. Both aircraft were flown by Air Commando pilots like Bob Downs,¹⁸⁵ but also by Air America pilots. On 23 October 64, Cessna U-17A “64-17797” was test flown by Joe Hazen, Air America’s Chief pilot of the STOL program, and ferried to Udorn (T-08) the same day. Joe Hazen checked out Air America Captain Paul M. Severson in that aircraft on 21 January 65 or 25 February 65. There after, the aircraft sat on the ground at Udorn for quite a while,¹⁸⁶ but Air America’s Paul M. Severson flew it again between 1 and 5 October 65 on missions out of Vientiane.¹⁸⁷ When “417797” was destroyed during take-off from Vang Vieng, Laos, on 11 October 65, the



RLAF U-17A “64-17797”, taken at Vang Vieng in October 65 by John Anthony (photo no.VA031041, No Date, John Anthony Collection, The Vietnam Archive, Texas Tech University, with kind permission from Steve Maxner)

accident appeared on an Air America list called “Company operated aircraft lost or

¹⁸² Contract AF 62(531)-1841, in: UTD/Kaufman/B1F9, quotation taken from p.3.

¹⁸³ Contract AF 62(531)-1841, in: UTD/Kaufman/B1F9, quotation taken from pp.11/2.

¹⁸⁴ Still in July 71, this aircraft is listed as loaned by the USAF (Memorandum dated 19 July 71 about aircraft insurances in: UTD/Herd/B2).

¹⁸⁵ Moody, *The great adventures*, Episode 1, p.1.

¹⁸⁶ E-mail dated 9 September 2003 sent by Joe Hazen to Erik Carlson who kindly forwarded it to the author.

¹⁸⁷ Flight crew member monthly movement report of Paul M. Severson, in: UTD/Severson/B3F26.

destroyed”,¹⁸⁸ so at that time it was again flown by an Air America pilot. Don Moody, commander of the AOC at Luang Prabang, recalls his activity in 1966: “Bob and I had been flying together regularly for several months. We had flown FAC missions, Strike missions, Armed Recce missions, and Psy Ops missions”, “Psy Ops” meaning that from their U-17, they dropped surrender leaflets east of Luang Prabang.¹⁸⁹

But when no Air Commando pilot was available to fly a RLAFA aircraft, Forward Air Controllers in Laos used Air America or Continental PC-6 Porters. And that is what happened after the U-17 flown by Bob Downs was taken back to Savannakhet from Luang Prabang in late 1966: “I had to other means to provide the air support for MR-I,” Don Moody, commander of the AOC in Luang Prabang, recalls. “Mostly, I used Air America and Continental Porters, which weren’t free, and occasionally the T-28. We were restricted by AIRA as to when we could fly the T-28.”¹⁹⁰ And: “I believe that Dick Secord was responsible for making the Raven Program happen. Up until now, we had tried to do it with the combat controllers and AOC Commanders in Porters, but we had too many restrictions placed on us by the Embassy. For example, we were not allowed to mark targets by throwing smoke grenades out of the windows of the Porters. There was a fear that dropping things out of airplanes that were used for humanitarian purposes would change the rules of the game. The bad guys might think that all of those Air America and Continental aircraft flying around Laos were combat aircraft and make a special effort to shoot them down as if they didn’t already. The truth is that we needed our own FAC aircraft and we got them when the Ravens came.”¹⁹¹ As for as Air America is concerned, these Air Commandos used Udorn-based Porters assigned to contract 59-069¹⁹² with CEECO and since 1966 to USAID contract 713.¹⁹³ On some occasions, Air America pilots also flew Air Force Cessna O-1s¹⁹⁴ and U-17s.¹⁹⁵ The small number of aircraft used corresponded to the fact that in these early days, only half a dozen of “sheep-dipped”¹⁹⁶, that is officially civilian nonrated Air Commandos served as Forward Air Controllers, using the call-sign “Butterfly”. They were enlisted USAF men belonging to the *Water Pump* detachment at Udorn, that flew in Air America piloted aircraft in civilian clothes directed air strikes in northern Laos as part of the *Water Pump* operations. Mostly, they did not mark the targets with smoke canisters dropped out of the windows –

¹⁸⁸ In: UTD/CIA/B51F12. The aircraft took off with controls locked, as the check off list was not used.

¹⁸⁹ Moody, *The great adventures*, Episode 1, pp.5+6.

¹⁹⁰ Moody, *The great adventures*, Episode 1, p.7.

¹⁹¹ Moody, *The great adventures*, Episode 3, p.3.

¹⁹² In November 1965, two PC-6 Porters were assigned to CEECO contract 59-069 and based at Udorn, that is N9444 and N285L (List “Status of aircraft” as of 1 November 65, in: UTD/Kirkpatrick/B1F1).

¹⁹³ In April and May 1966, three PC-6 Porters were assigned to contract USAID-439-713, the two taken over from the CEECO contract, that is N9444 and N285L, plus N12235 (c/n 556); all of them were based at Udorn (Lists “Status of aircraft” as of 8 April 66 [in: UTD/Kirkpatrick/B1F1] and 5 May 66 [UTD/Hickler/B1F2]).

¹⁹⁴ So, on 20 February 66, Air America pilot Lewis H. Maxwell flew “Air Force” Cessna O-1F “1861” according to his log book (in: UTD/Maxwell/B1F6), but it is unknown, if this O-1F belonged to the RLAFA or to the USAF Military Assistance Program.

¹⁹⁵ According to his log book preserved at the Air America Archives, Air America pilot Paul M. Severson flew Cessna U-17A “797” (64-17797) between 1 and 5 October 65 out of Vientiane, U-17A 65-10853 on 15 November 65 from Vientiane to Udorn, on 2 January 66 out of Sam Thong, on 4 and 5 January 66 out of Vientiane, and between 3 and 7 March 1966 out of Vientiane, and U-17A 65-10854 on 13 and 17 October 65 out of Vientiane.

¹⁹⁶ A good description of what “sheep-dipped” meant is given by Robbins (*The Ravens*, p.49, note): “A complex process in which someone serving in the military seemingly went through all the official motions of resigning from the service. The man’s records would be pulled from the personnel files and transferred to a special Top Secret intelligence file. A cover story would be concocted to explain the resignation, and the man would become a civilian. At the same time, his ghostly paper existence within the intelligence file would continue to pursue his Air Force career: when his contemporaries were promoted, he would be promoted, and so on. Sheep-dipped personnel posed extremely tricky problems when they were killed or captured. There would be all sorts of pension and insurance problems, which was one of the reasons the CIA found it necessary to set up its own insurance company.”

which was forbidden – , but talked fighters onto the target by describing the scenery. These Butterflies – up to 1966 only four men to control the whole of Laos – directed RLAf T-28s as well as USAF jet fighters and were very effective.¹⁹⁷

The Ravens between 1966 and early 1968:

But in spite of the effectiveness of the “Butterflies”, their number was not sufficient in a constantly growing war. Already on 8 November 65, US Ambassador Sullivan proposed to General Westmoreland, Commander in Chief of the US Military Assistance Command Vietnam, a closer cooperation between the RLAf and MACV: “Substance in our preliminary understandings is that US aircraft will be able, subject to detailed arrangements to be worked out in aforesaid trilateral meetings: [...] C. Share low-level, eyeball recce and FAC functions with RLAf in O-1 type aircraft. For this purpose General Ma would like to accept MACV’s previous offer of ten O-1 type aircraft.”¹⁹⁸ The end of the “Butterflies”, however, arrived from another side: It was abruptly terminated by USAF General William M. Momyer, a commander of the 7th Air Force in Vietnam and deputy commander of the US Military Assistance Command Vietnam, when he heard that his precious high-tech jets were being controlled by people who were neither pilots nor officers. In December 1966, General Momyer created a FAC training school at Bien Hoa and replaced the “Butterflies” by the “Ravens”, that is rated USAF officers having at least six months’ experience in Vietnam.¹⁹⁹ In late 1966, about half a dozen of USAF Forward Air Controllers were stationed in Laos, using “Raven” as call-sign. These men, all USAF volunteers, were given six-month temporary duty orders and administratively assigned to the *Water Pump* detachment at Udorn, that is to Detachment 1 of the 56th Air Commando Wing of Nakhon Phanom. But in reality, these combat-tested USAF FACs worked in the *Steve Canyon Program*, which was the official name of the “Ravens” program. They were assigned under Project 404, the umbrella program for covert USAF activities in Laos, and were considered “loaned” to the US Air Attaché at Vientiane (AIRA), who became their nominal Air Force commander, although in the field, they actually performed missions for Hmong General Vang Pao and for the CIA in Laos. In practice, these men lived and worked in one of the five Lao Air Operations Centers, which had been created one by one since 1964: Vientiane and Savannakhet, then Luang Prabang, Long Tieng, and Pakse, and the “Ravens” were based at and assigned to these AOCs. Among them, one of the busiest and most demanding FAC assignments in Laos was to become Long Tieng, where nearly a dozen Ravens flew in support of Vang Pao’s operations. The whole group of the “Ravens” wore civilian clothes, carried USAID identification cards, and flew O-1s and U-17s that belonged to the USAF, but carried the insignia of the Royal Lao Air Force or were unmarked. In later years, the Ravens would also fly T-28s. They operated under the direction of the American Ambassador in Vientiane. Flying with English-speaking indigenous observers and Forward Air Guides who possessed the authority under the Lao “rules of engagement” to validate targets, the Ravens provided indispensable targeting assistance for US and Lao aircraft. With the arrival of the Ravens, the AOC commanders were relieved of most of their FAC responsibilities and could turn their attention to coordination tasks.²⁰⁰

There were two legal links between the “Ravens”, who were USAF men assigned to a secret USAF program, and Air America: One of them was rescue – Air America helicopters also picked up Raven pilots who had been downed²⁰¹ – and the other one was maintenance.

¹⁹⁷ Robbins, *The Ravens*, pp.49/50; Trest, *Air Commando One*, p.193.

¹⁹⁸ Telegram dated 8 November 65, sent from the US Embassy in Laos to the Commander in Chief, MACV (Westmoreland), document 203, in: http://www.state.gov/www/about_state/history/vol_xxviii/201_225.html.

¹⁹⁹ Trest, *Air Commando One*, p.193.

²⁰⁰ Castle, *At war*, p.86/7; Robbins, *The Ravens*, pp.49/50; Hagedorn/Hellström, *Foreign Invaders*, p.160; Moody, *The great adventures*, Prelude, p.7/8.

²⁰¹ The rescue of Ron Rinehart (“Papa Fox”) by an Air America helicopter is described in Robbins, *The Ravens*, pp.72-75.

When a Raven O-1 went down somewhere in Laos, an Air America helicopter would fly in an Air America flight mechanic who would fix the damage²⁰² – but little regular maintenance was done, until, in late 1968, after a number of engine failures, Raven Ron Rinehart grounded



Some Raven O-1s, plus an Air America C-123K and C-130A at Long Tieng
(with kind permission from Chuck Baird)

all Raven aircraft working out of Long Tieng. Only then, a lot of improvements were introduced. But in the period described here, the situation was very bad: All of the O-1s had come from the US military, where sometimes they had been out in the field for many years, accumulating dirt in the fuel tanks. As was discovered in the new maintenance program introduced in late 1968, some planes had two cups of mud in each of their fuel tanks. This explains why, until 1968, the situation of the Raven pilots flying in Laos was quite bad: Their number was too small – there were only four Ravens to cover the whole of northeast Laos –, the maintenance was limited,²⁰³ and the number of airplanes available was too small, which was especially felt when one of the O-1s was down from battle damage or in for maintenance. In such a situation, more than one Raven illegally flew as copilot in an Air America or Continental Air Services aircraft, returning to the old practice of the “Butterflies”.²⁰⁴ Finally, there was also another group of Forward Air Controllers operating over Laos, who had nothing to do with the Ravens, and that were the USAF OV-10s based at Nakhon Phanom, using the radio call-sign “Nail”. They flew over the Trail in Vietnam, but occasionally also operated in Laos.²⁰⁵

USAF T-28s over Laos: the “Zorros”

But the T-28s of the Military Assistance Program supporting the RLA and those flown by the Ravens were not the only US T-28s operated in Laos. In March 1966, the 606th Air Commando Squadron was activated at Nakhon Phanom with its small force of T-28s to augment the capabilities of the *Water Pump* detachment at Udorn.²⁰⁶ After the 606th ACS had arrived at NKP, T-28 pilots from its Detachment 1 took over the operation of the in country AOCs. In June 66, a detachment of 8 A-26s arrived at Nakhon Phanom for combat evaluation as a night interdiction weapon over Laos. Between 5 and 16 August 1966, no less than 11 T-28Ds were transferred from McClellan Air Force Base to the 606th ACS at Nakhon Phanom.²⁰⁷ Very soon, they began to fly night interdiction missions over the Ho Chi Minh

²⁰² Robbins, *The Ravens*, pp.57+77.

²⁰³ Robbins (*The Ravens*, p.76) notes that before 1968, the mechanics who worked on the Raven aircraft in Laos were passing them after a ground-check inspection, instead of a flight-test, which involved a certain amount of risk.

²⁰⁴ Robbins, *The Ravens*, pp.75-78.

²⁰⁵ Robbins, *The Ravens*, p.401.

²⁰⁶ One of these T-28Ds, **49-1582** (c/n 159-94), of 606 ACS, NKP, crashed near Nakhon Phanom on 23 October 66 during a training flight (Hobson, *Vietnam Air losses*, p.79).

²⁰⁷ According to the USAF Assignment Records, these T-28Ds were: **49-1559** (c/n 159-71); **49-1561** (c/n 159-73); **49-1569** (c/n 159-81); **49-1571** (c/n 159-83); **49-1572** (c/n 159-84); **49-1582** (c/n 159-94), it was based at Udorn for WN-service on 66297, and returned to NKP on 66323; the same day, it was transferred to status TA

Trail in central Laos on a regular basis, and in November 66, these aircraft even began flying missions in the more heavily defended “Barrel Roll” sector in northeastern Laos, supporting General Vang Pao. This initial force of 8 A-26As (“Nimrods”) had proved their effectiveness



A *Steel Tiger* A-26A taken in the mid-sixties
(Ed Eckholdt collection, photo kindly submitted by Mike LaDue)

in night interdiction between June 66 and 9 December 66, when Colonel Aderholt arrived at Nakhon Phanom to take over the command of the Squadron. Colonel Aderholt immediately began molding it into a wing with control and supervision over Thailand-based special air warfare operations, and in April 67, the 56th Air Commando Wing was activated at Nakhon Phanom, consolidating the many special air warfare activities in Thailand under Colonel Aderholt’s hand.²⁰⁸ Officially, seven of the original T-28s of 606 ACS were assigned to the 56th Air Commando Wing, Nakhon Phanom, on 31 May 67 as an act of “reconciliation”.²⁰⁹ In January 67, Colonel Aderholt got permission to augment operations in *Steel Tiger* with T-28s (call sign “Zorro”) that were not used in the Thai training program, and on 18 January 67, the T-28 “Zorros” phased into the night interdiction program over the Ho Chi Minh Trail. Although Colonel Aderholt did not want the Zorro T-28s to be used in daylight missions, the 7th Air Force fragged four of them for a daylight rescue mission on 17 January 67, and one of them was shot down, killing the pilot, Captain William K. Cogdell.²¹⁰ More T-28s were

(flying accident); **49-1583** (c/n 159-95); **49-1586** (c/n 159-98); **49-1591** (c/n 159-103); **49-1599** (c/n 159-111); and T-28D-5 **49-1621** (c/n 159-133).

²⁰⁸ Trest, *Air Commando One*, pp.182+191/2+195; Moody, *The great adventures*, Episode 3, p.1.

²⁰⁹ These **seven** T-28Ds were: **49-1569** (c/n 159-81); this aircraft was transferred to a classified project on 12 June 67 (67163), flying attacks on to North Vietnam; on such a mission, it was shot down near Ban Katoi, North Vietnam, on 12 July 67, killing Captain J. P. Dove and Major B. E. Squire (see: Hobson, *Vietnam air losses*, p.108, and <http://www.geocities.com/Pentagon//Quarters/9553/losses.html>); **49-1571** (c/n 159-83); after service with the 56th Special Operations Wing (56 SOPWG, NKP) since 3 August 68 (68215), this aircraft was transferred to a Military Assistance Program on 2 October 68 (68275); **49-1572** (c/n 159-84); crashed over Laos on 2 January 68 (Hobson, *Vietnam air losses*, p.131); officially to status “TP” on 3 January 68; **49-1586** (c/n 159-98); crashed near the Ho Chi Minh Trail on 28 January 68 (Hobson, *Vietnam air losses*, p.134); officially to status “TN” on 28 January 68; **49-1591** (c/n 159-103), to 56SOP WG, NKP, on 68215; transferred to an MAP on 69003, that is on 3 January 69; **49-1599** (c/n 159-111), to 56SOP WG, NKP, on 68215; this aircraft was transferred (TL) to an MAP on 68265, that is on 22 September 68; **49-1621** (c/n 159-133), to 56 SOP WG, NKP, on 68215; to TL on 16 September 68 (68259), which means it became a Raven aircraft, probably flying as “0-91621”; still on 1 April 72, it was one of those USAF aircraft, that were maintained by Air America, Udorn, but flown under the command of the USAF Attaché, Vientiane (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

²¹⁰ Trest, *Air Commando One*, p.196. According to the USAF Assignment Records preserved at Maxwell AFB, AL, the T-28D of 606 ACS which was destroyed on 17 January 67 (Hobson, *Vietnam air losses*, p.86), but

added²¹¹ and more T-28s were lost in accidents,²¹² while some others were transferred to a Military Assistance Program.²¹³ As a total, the 56th ACW at Nakhon Phanom had 10 A-26s and 10 T-28s in operation in the spring of 1967. In addition, the NKP-based O-1 and O-2 FAC aircraft of the 23rd TASS, call-sign *Nail* at night and *Cricket* during day-time, were in effect attached to the 56th ACW, although not assigned to the unit.²¹⁴

ABCCC

There was still another aspect of the air war in Laos that should be mentioned here: the chain of command. Already in 1961, a letter by US President Kennedy dated 29 May 61 determined that the US Ambassador to Laos was in charge of all CIA operations undertaken in that country. After all MAAG personnel had officially left the country in October 1962, the US Ambassador to Laos acquired an unprecedented military power in special military activities.²¹⁵ William H. Sullivan, who was the US Ambassador to Laos between November 64 and June 69, had the power to control “permanent and temporary assignment in Laos of all personnel concerned with military activity. Budget requests for MAP. Ground rules governing movements of US advisory personnel within Laos. Construction of US military facilities. Sizable movements of Lao military [...] by US controlled aircraft. Advance approval of preplanned US air attacks against targets in Laos.”²¹⁶ Ambassador Sullivan continued Leonard Unger’s policy of daily staff meetings. It was during these meetings and in private sessions with the CIA Station Chief and the Embassy’s military attachés that Sullivan shaped and administered his multi facial war. When he required military advice, it came in from the CIA chief of station and the US military attachés at Vientiane, that is the USAF Attaché (AIRA) and the US Army Attaché (ARMA). This combined staff of the US Embassy at Vientiane was called the “Country Team”.²¹⁷ Colonel Robert Tyrell, AIRA, said: “I report to

officially written off (TA) on 18 January 67 (67018) was **49-1604** (c/n 159-116), which had been transferred from McClellan AFB to 606ACS, NKP, on 67017, that is the very day before its crash.

²¹¹ According to the USAF Assignment Records, T-28D **49-1543** (c/n 159-55), came from McClellan AFB, when it joined the 606 ACS, Nakhon Phanom, on 67101, that is on 11 April 67, and was reassigned to 56ACW, NKP, on 67151, that is on 31 May 67.

²¹² T-28D **49-1559** (c/n 159-71), which had probably been with 606ACS, NKP, since 1966, was shot down (TA) over Laos on 67091, that is on 1 April 67, killing Majors R. A. Govan and D. R. Williams (see: Hobson, *Vietnam air losses*, p.94, and <http://www.geocities.com/Pentagon//Quarters/9553/losses.html>); **49-1558** (c/n 159-70), had been transferred from 1ACW, England AFB, to 606ACS, NKP, on 67052, that is on 12 February 67); it was reassigned to 56ACW, NKP, on 67151 (31 May 67), crashed during a reconnaissance mission over Route 23 near the Ban Karai Pass on 25 December 67, killing the pilot, Captain Terry T. Koonce, and an unknown backseat observer (Hobson, *Vietnam air losses*, p.129); officially to status “TM” on 67360, that is on 26 December 67; see also: <http://www.geocities.com/Pentagon//Quarters/9553/losses.html>.

²¹³ According to the USAF Assignment Records preserved at Maxwell AFB, T-28D **49-1561** (c/n 159-73), came from “THABTRRFCV”, which possibly means the Royal Thai Air Force at Nakhon Phanom (RFCV), and joined the 606ACS, NKP, on 67089, that is on 30 March 67; like the other T-28s, it was reassigned to 56ACW, NKP, on 67151, that is on 31 May 67, and served for some time at XMTG, that is at Udorn, in 1968, so was probably serving with the *Water Pump* Detachment there; on 68278, that is on 5 October 68, it was transferred (TL) to the MAP/Laos, probably as “0-91561”, and was still current with them on 1 April 72 (List of assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), until it was sold to the Philippine AF as “91561” in 1974 (?); T-28D **49-1583** (c/n 159-95), came from 8TFW, Ubon, when it joined 56ACW, NKP, on 67303, that is on 30 October 67; after having been reassigned to the 56th Special Operations Wing, NKP, on 68215, that is on 3 August 68, it was likewise transferred (TL) to the MAP/Laos on 68279, that is on 6 October 67, but later, it was used as a Raven aircraft (a photo exists in <http://www.ravens.org/gene72-2.jp>); it was still current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but not on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), so was probably destroyed between 1 August 71 and 1 April 72.

²¹⁴ Trest, *Air Commando One*, p.197; Hagedorn/Hellström, *Foreign Invaders*, p.160.

²¹⁵ Castle, *At war*, pp.54/5.

²¹⁶ Douglas S. Blaufarb, CIA station chief in Vientiane 1964 - 1966, quoted by Castle, *At war*, p.78.

²¹⁷ Castle, *At war*, pp.2-3, 79, and 88.

the Ambassador proposals for air strikes that come to us from the Laotian military forces and the American military commands and in turn, I submit to US commands the requirements for air strikes approved by the Ambassador, which supplements the RLAF capability.”²¹⁸

This complex command system created problems especially for the USAF. Initially, the air strikes were controlled by the Ambassador and his staff from the Air America operations.²¹⁹ But in November 65, the Department of Defense decided to establish a new air headquarters at Udorn, which was initially called Deputy Commander, 2nd Air Division/13th Air Force, and then redesignated as Deputy Commander, 7th/13th Air Force, in April 1966.²²⁰ This was probably the beginning of the ground-based Direct Air Support Center (DASC) and the Airborne Battlefield Command or Control Centers (ABCCC). Up to 1967, the ABCCC coordinating all air strikes had been a USAF EC-47,²²¹ and since 1967, it was a Udorn-based EC-130E.²²² There were two ABCCCs orbiting over Laos, one operating in northern Laos, using the radio call-sign “Cricket” during daytime and “Alley Cat” during night, and another one operating in the Laotian panhandle, using the radio call-sign “Hillsboro” in the day and “Moonbeam” at night.²²³ As has been made clear, these ABCCC C-47s and C-130Es did not give the orders themselves, but they served as relay stations between the “Country Team” as well as other military headquarters and the aircraft involved in the air strike. When a Raven had marked a target by white phosphorus (“Willy Pete”) smoke rockets, he would call fighter-bombers on to the target from a circling Airborne Battlefield Command or Control Center (ABCCC) or a ground-based Direct Air Support Center (DASC). Then, the target chosen by the Raven had to be approved by the orbiting ABCCC or the DASC, which could take up to half an hour. Sometimes, the ABCCC aircraft would also pass requests for special ordnance and target validation to Air Force HQ in Saigon and to the Air attaché at Vientiane.²²⁴ When a target chosen by the Raven had been approved, ABCCC would call in RLAF T-28s or a RLAF AC-47 or USAF F-105 jet fighters out of Takhli.²²⁵ If necessary, the ABCCC aircraft would also give the radio frequency of a certain ground unit and the coordinates of its location, weather information, information about fuel depots, coming from AIRA, and special instructions to the Ravens.²²⁶ While the fighters were on station, their operation would be

²¹⁸ Colonel Tyrell quoted by Castle, *At war*, p.88.

²¹⁹ Castle, *At war*, p.70.

²²⁰ Castle, *At war*, p.89.

²²¹ According to the USAF Assignment Records preserved at Maxwell AFB, AL, two C-47Ds of 2AD were based at Udorn in 1965: **43-49373** (c/n 26634) on 65181, that is on 30 June 65, and **45-887** (c/n 34147) on 65314, that is on 10 November 65; in 1966, C-47D **43-48388** (c/n 25649) of 606 ACS was assigned to Udorn service on 31 July 66 (66212); in 1967, 4 C-47Ds were operated by the 432nd Tactical Reconnaissance Wing, Udorn, that is by the same unit which later also operated the ABCCC C-130Es: **43-48492** (c/n 25753), **43-48946** (c/n 26207), **43-49701** (c/n 26962), and **45-887** (c/n 34147), which left the 432nd TRW in 67; probably, these were the ABCCC aircraft. At some time, RC-47s from Nakhon Phanom (NKP) were also used on ABCCC duties in Barrell Roll, using the call-sign “Dog Patch” (*Operational Call Signs SEA*, in: http://downloads.members.tripod.com/chancefac/Call_SignPgs/CSpg_1.htm). One of these RC-47s, RC-47D **43-48388** (c/n 25649) of 606 ACS, Nakhon Phanom, using call-sign “Dogpatch 2”, was shot down by a North Vietnamese MiG 17 in North Vietnam close to the Sam Neua Province of Laos on 29 July 66 (Hobson, *Vietnam air losses*, p.68).

²²² Hagedorn/Hellström, *Foreign Invaders*, p.160. A total of ten C-130Es are known to have been modified to EC-130Es over the years, but only four of these aircraft were based at Udorn with 432 TRW in 1969: **62-1809** (c/n 3770), **62-1820** (c/n 3783), **62-1836** (c/n 3799), and **62-1857** (c/n 3821) (USAF Assignment Records). All of them were later reported with the 7th Airborne Command and Control Squadron at Udorn (Olausson, *Lockheed Hercules production list 1954-1999*, pp.35-39+149), which had been activated on 13 February 68, organized on 1 March 68, and assigned to the 432nd Tactical Reconnaissance Wing on 31 October 68 (History of the 7th ACCS in: <http://www.au.af.mil/au/afhra/wwwroot/sqs/0007accs.htm>), so that these four C-130Es / EC-130Es are believed to have been used as ABCCC over Laos already since 1967.

²²³ Robbins, *Ravens*, pp.398+400.

²²⁴ Robbins, *Ravens*, pp.10+18+283.

²²⁵ Robbins, *Ravens*, pp.10+155+268.

²²⁶ Robbins, *Ravens*, pp.13+175+176+76.

controlled by the Raven, and after the fighters had departed, the Forward Air Controller remained over the target to make a bomb damage assessment (BDA), which he relayed to the fighters and to the ABCCC, and the ABCCC aircraft would send the bomb damage assessments thru to the Air Attaché's office at Vientiane, who would give the direct orders of what had to be done next.²²⁷ As an air strike was a very complex operation, in the later years, the T-28s flown by Air America pilots were also directed by ABCCC.

The 1968-73 period

Hazardous supply flights to locations besieged by enemy forces

Although, strictly speaking, dropping supplies to friendly positions could be a routine flight as described in the file *Air America in Laos II – military aid*, such flights could become very dangerous combat support missions, when the locations to be re-supplied were besieged by enemy forces. As Air America's Twin Otter pilot Jim Pearson points out, this was true for Long Tieng in the early seventies: "At that time, flying in the Long Tieng area was quite hazardous, especially making air drops onto Skyline ridge." He recalls two particularly dangerous situations: "Captain Parker and I were flying two Twin Otters making air drops onto Skyline ridge. I was first in and noticed heavy 12.7mm weapons firing at us, when Captain Parker arrived and began holding overhead. I said: 'Pete, we are taking heavy 12.7 fire, be careful up there!' So we made our second pass, and just before the DZ I turned away and made a very hard 360 degree turn. Just as we turned away, we heard numerous explosions on the DZ. The enemy (smart guys) timed our procedure and fired mortars to try and knock us down as we over-headed the DZ. As we made our second drop, we noticed much heavier 12.7 firing. I again told Pete: 'Be careful, we are really taking heavy fire!' 'They can't get me way up here.' I mentioned that 5000 feet is the effective range of the 12.7. The bullets don't stop there. On the third pass, the same turn away maneuver with the same explosions with a quick 360 and drop to the steadily increasing tune of 12.7s. On my fourth pass in again 12.7s. I told Pete: 'Be careful and hold somewhere else!' He replied: 'They can't hit me up here.' I said: 'No, unless they get lucky.' The pregnant pause! 'They just got lucky, I am on fire!' I told him to high tail it to Alternate and put her down. Then I rolled in and made two tight drops and headed for Alternate myself at a high power setting and tried to catch him. I heard him say: 'I'm not landing there.' Apparently the enemy said him coming in smoking and knew he would be landing. Again they fired mortar rounds, so as to impact just as he landed, and as he came over the runway threshold they began exploding, causing him to go around. I told him to head for Phu Kao on the 9700 foot mountain Phu Bia. It is where LS-14 was located and it was harassed by the enemy daily. By now I was approaching Alternate and saw Captain Parker's plane and did not see any smoke and told him so. I told him to land at Phu Khao and I would follow him in and pick him up, which I did. They shut down and chocked the plane and jumped on my plane, and we were out of there in seconds. Fortunately, the strip was not attacked that evening and we flew in the next day and retrieved the repaired plane.

Again making drops on Skyline. I was heading west looking for a DZ, and unbeknownst to me, a Continental Twin Otter was heading east, looking for a DZ at the same height! The sun was in my eyes, and I caught a glint of light which attracted my attention only to see both pilots in the Continental Twin Otter looking at me. The glint was, as they saw me first, they took evasive action by diving, and the changing attitude of the plane reflected the sun into my eyes. I saw they were descending, so I just pulled up slightly and we missed each other. My plane naturally was OK, but in his massive effort to evade my aircraft he dislodged the cargo and it flew up to the overhead along with the two kickers. When he pulled out, the load

²²⁷ Robbins, *Ravens*, pp.10+79.

crashed down onto the deck, doing heavy damage to the plane and injuring one kicker very much. I have always felt the most dangerous situation was first weather, then the possibility of a mid-air collision and lastly enemy action.”²²⁸

Hazardous supply drops to road watcher teams

But the *Plaine des Jarres* was not the only area where Twin Otters were used. “Shortly after utilizing the Twin Otter out of Long Tieng area on night missions, the customer focused on the Pakse, Laos area. The Twin Otter began operations with constant air drops to teams positioned all over the *Plateau des Bolovens* just east of Pakse. We would begin usually with a recon flight interrogating all the positions as to their present locations and needs, then fly back to Pakse and begin to assemble drop bundles. These missions were taking up to six hours.”²²⁹

“Hot soup”

While during the 1968-73 period, many of Air America’s combat support operations remained the same as described before, on several occasions the Company’s transport aircraft were apparently used as bombers. This illicit type of combat missions flown by Air America’s transport aircraft occurred in the early seventies: When, in 1970, an overzealous CIA case officer employed Laotians to mix homemade napalm, then known as “hot soup”, Air America Caribous dropped them with great effect onto enemy positions for some time, until the US ambassador G. McMurtrie Godley stopped it right out, as it was in direct contravention of the Geneva accords – as had been the action of an Air America helicopter whose flight mechanic had shot down a Russian AN-2 biplane leading North Vietnamese troops into a valley in northern Laos, equally blamed by the ambassador, but praised by Vang Pao.²³⁰ Nevertheless later in the war, the practice was repeated using aviation gas. Air America’s Twin Otter pilot Jim Pearson recalls that this type of flights was also undertaken out of Pakse in late 1972: “The last operations of note out of Pakse were due to the critical situation regarding the enemy proximity to the city. The Pathet Lao and their cohorts, the North Vietnamese, were only 20 kilometers from the city of Pakse, with no opposition between and no air cover. All aerial assets were totally utilized elsewhere. So one morning, the customer at Pakse told me to load up with six 55 gallon drums of Av Gas and: ‘Go up the road from Pakse to the Plateau and join up with a Raven who will mark targets for you.’ Wow, I could not believe this. Real combat flying, except in an unarmed plane! Well, you can’t have everything, make do. The customer decided to go and watch the hot soup drop. On the way up to the contact area, I was pondering just how to deliver this weaponry: two 55 gallon drums of Av Gas with two thermite grenades taped to the side! Finally, I decided that in order to hit the target, the drums had to be going straight towards the target; so to make the drums go straight to the target, I had to point the plane straight to the target, until stabilized, and then ring the bell, and the kickers would push out two drums attached to the static line, which would remove the safety pins allowing the grenades to explode. So I met up with the Raven, and he said he had a target and would put in Willy Pete for me. White smoke. He smoked the target and told me to put the ordnance on the beginning of the smoke. So with my newly concocted drop procedure, I pulled up to 1200 feet over the drop zone and slowed the plane to 80 knots with 10 degrees of flap. Max flap speed was 110 knots. So I pushed the nose into a dive straight at the beginning of the smoke plume, and when it was coming straight at my window, I rang the bell. Out went the drums, and I pulled up and rolled to the left and watched the grenades begin to smoke and watched until both barrels hit the beginning of the smoke and exploded. Wow, on target! I was mostly relieved, as the customer was on board watching this entire episode. Again I

²²⁸ E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.

²²⁹ E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.

²³⁰ Robbins, *Air America*, pp.135-37.

repeated this procedure on two more targets and went back to Pakse and picked up four more loads that day. We stopped the advance of the enemy troops.”²³¹

Dropping Commando raiders

Generally speaking, introducing the Twin Otter to Air America’s fleet in the early seventies meant a new level of effectiveness. Air America’s Twin Otters were the special project aircraft of the early seventies. Captain Clyde Moorehouse was Chief Pilot of the Twin Otter program, and Captain Jim Pearson was Chief Pilot of Special Projects on the Twin Otter.²³² This role of the Twin Otter explains why the official blue and black stripes of its color scheme were quickly replaced by a black night color scheme, which makes the registration very difficult to be seen. Some of them had special electronic equipment, including terrain following radar. Of course, the aircraft could make deliveries of all sorts of



An unknown DHC-6 in night colors at Udorn in October 1973
(with kind permission from Ward S. Reimer)

supplies, and sometimes did so in order to hide their real activities. These included nightly supply drops to road watcher teams, relay missions for electronic signals, parachuting Commando raiders, and intelligence flights. Jim Pearson recalls: “As the North Vietnamese and the Pathet Lao moved southward towards Long Tieng, the Twin Otters were flying daily in both north central and southern Laos supporting the customers’ operations there. Out of the Alternate in north central Laos, operations were basically routine and consisted of mostly air drops of food and ammunition to the local forces holding the mountain outposts checking the advance of the North Vietnamese and Pathet Lao forces. This operation became rather hectic as the enemy forces got closer. Due to their constant motion, it was also difficult to determine their exact location, so you were shot at from nearly everywhere you were sent to drop

²³¹ E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.

²³² E-mail dated 2 July 2005, kindly sent to the author by Jim Pearson.

supplies. During all this maneuvering back and forth the customers' demands increased, and the Twin Otters were flying day and night missions. At this point in time, we still flew with one pilot in day-time and two pilots on night drop missions. Due to the shortage of trained pilots on the TFR Radar, it was usually the same two of us on night missions for some time.

We would depart Vientiane around 1730 to 1800 locally and fly up to LS 272 Ban Xon, as Long Tieng was by now destroyed and the enemy had withdrawn. The first night mission was conducted the instant we were indoctrinated on the newly modified Loran C installation on 74M. Captain Parker and I flew five night drops and delivered Commando raiders on the East side of the *Plaine des Jarres* in North Central Laos. It was pitch black out and thunder storms in the area. On our first drop, we could see out somewhat, even though it was pitch black. However, on the second through fifth drop it was completely IFR, and we dropped the Commandos on instrument conditions in the high mountains. Fortunately they all survived. The mission success was rather dubious, unless you consider the fact they all came back, which makes it successful. Their objective was to capture and hold a position that the USAF helicopters were going to utilize for other missions the next day. The mandate was that no US aircraft could be damaged or downed in Laos, so the high degree of anxiety regarding the security of the air strips they utilized. During this hectic period of operations my log shows that I was making up to 36 take offs and landings per day.²³³

Sometimes, Air America's Twin Otters would drop Commando raiders even into North Vietnam. Jim Pearson recalls: "I had been advocating the utilization of two pilots on the Otter for some time due to the threat of enemy fire, when I was assigned a night mission beginning at Udorn at 0530 in the morning: 'Proceed to Pakse and fly as assigned by the customer until relieved, then after the evening meal, proceed to PS-44 for briefing.' I asked if they required two pilots. This particular customer said 'no' – he seemed to only want one pilot on board. So after dropping to positions all day and doing some point to point flying, I proceeded to PS-44 and loaded up with 20 Commando raiders and one customer, and he said: 'Go to Udorn.' Oh well off to Udorn, where we picked up the Number One customer, and he said: 'Go to Luang Prabang, Laos.' We would be the Command ship with two just converted Twin Pack helicopters, on their first operational flight. 'Where to?' 'Commando raid on Dien Bien Phu, Viet Nam.' Wow, and only one pilot! This guy must have balls or is a pilot himself. So off from L-54 northward with two choppers full of Commandos. Our raiders were issued chutes, and if the choppers got into trouble, we would deploy our Commandos to assist on the ground. Our primary duty was Command ship. After heading north we turned off all lights on the aircraft and proceeded black to a short distance from Dien Bien Phu and then orbited, while waiting for the choppers to insert and exfil the commandos.

Going in, all was well, however they managed to stir up the hornets' nest, and they were really pissed off. One of the choppers got shot up pretty badly coming out, and some on board were injured and I think one or two fatalities. We had been holding black for over an hour and I was not that sure of our position, however I had not doubts about going back to L-54, as the evening was still clear out. The shot up chopper's pilot was somewhat distressed as this was his first mission utilizing the S-58T, which had two Pratt & Whitney turbine engines which really sucked up the jet fuel compared to the Wright 1820 recip engine. He had been hit in the fuel tanks and in the fuselage and was losing fuel, to compound his problems. He asked me my position and distance from L-54. I barely got 'I am app...' (approximately), when he jumped down my throat: 'I want to know exactly how many miles from L-54!' Well, a quick calculation (wild assed guess): 'I could just barely see the glow of the lights of the town of Luang Prabang, I am exactly 110 miles north.' He said: 'I cannot see you.' So with that to help him calm down, I turned on every light on the aircraft including the landing and taxi lights. He could not see me. So I told him: 'I will fly directly to where I think you are coming

²³³ E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.

from. Tell me when you see my lights.’ When he said ‘I see you now’, I said: ‘I will head for L-54 and orbit overhead until you come in. Call if you have any doubts as to whether or not you are going to make it and I will come running.’ He made it into L-54 OK, so we landed and refueled, reloaded and headed for Udorn. On arrival at Udorn, the One customer got off, and we proceeded to PS-44. On arrival at PS-44, now about three in the morning, we were greeted with zero zero weather at the site. After circling I noticed that I could get under the clouds from the south and make it up to where I thought the runway began. The runway was pitched up about 20 degrees from the horizontal and had an easterly heading. When I turned final, above the runway touch down zone, but below the upper portion of the runway, my visibility went zero zero. I went to full throttle (thank heavens for our change in landing procedures as the engines spooled up beautifully). We went into the murk and climbed for all we could and then broke out on top. I turned south and began another approach and I analyzed I could make it OK. Second approach, same thing, go around. By now, the customer was really feeling the stress and said: ‘Let’s go to Pakse.’ Sure, with 20 fully armed Commandos on board they would think this was a *Coup d’etat*. So I made one more approach and just as planned. We went zero zero and I applied max power, and on the go around the aircraft impacted the ground. Fortunately for us, we could be nowhere but on the runway, so I reversed both engines fully and applied the brakes before I really hit something, and sure enough, we were on the runway. So with knees shaking, we slowly taxied back and offloaded the Commandos and the customers. Then once again I got the wonderful opportunity of making an instrument take-off with trees on both sides up a 20 degree slope and climb at full throttle, until I saw some beautiful safe sky. Then I proceeded to Pakse and went to the crew quarters and went to bed, while the other chopper pilots were just getting up for a day’s work. 0530 until 0500: not a bad duty day for one pilot!”²³⁴

“By now, the military situation at Pakse was getting tight. Due to enemy action, the USAF had a *Spectre* gun ship shot down, and Air America lost two C-123s and one Caribou plus two or three H-34 helicopters. The decision was made that the Twin Otter will commence night operations to resupply positions due to the large number of aircraft shot up during daylight operations. We had to put in Commando raiders on the Saravane, Laos runway at night, as there was a seven USAF Jolly Green mission scheduled in the morning, ferrying in troops to retake the position from the enemy. In the morning, we all gathered at a strip just west of PS-44 to pick up troops and a customer. Of the seven planes, two aborted for maintenance, one sustained damage on landing. Later one went mechanical before departure. We lead the remaining planes with troops into Saravane and held overhead for the customer in case of a counter attack. After a while we were beginning to get short of fuel. I called the customer and he said he had to stay longer. I did not want to leave him, so I asked if he had any prisoners. He said: ‘Yes, why?’ ‘I am running low on fuel and don’t want to leave. Can you run them up and down the runway and check for land mines?’ He said: ‘Just a minute.’ He called back and said: ‘OK, come on in....’ Don’t know what he used to check, but we were OK on this one. When he came out, he said we would have to shuttle troops, as there were only three choppers working, and we would have to pick up the slack. Thus it was an uneventful day for us, we had a chopper shot down, and the customer on board was killed. I noticed that of late more and more customers were getting killed by enemy action.”²³⁵

However, Long Tieng and Pakse were not the only area where Air America used Twin Otters: “One more episode in Air America’s utilization of the Twin Otter in Laos was flying Commando raiders into LS-32 at night pitch black. We would bring the raiders out of PS-44 to Udorn and then to LS-32, join up with the choppers, and after refueling depart with the choppers to North Viet Nam as Command ship. We flew numerous missions which basically were routine of nature, except the landing and take-off from LS-32. It was down in a bowl on

²³⁴ E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.

²³⁵ E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.

top of a mountain. After about three attempts, we settled on a guy standing at the far end of the runway with a flash light pointing at us. With this aid, we came in over a rock rim (part of the bowl shaped depressed mountain top) at a speed of 70 knots with full flaps (engines spooled up). We would make a slight descent until the flash light disappeared, then begin a slight reduction in descent rate until the light came back on. Then we made a normal descent until impacting the runway. Scary! Yes, very! Nearly as much as with full fuel and full load of Commandos on take-off.

Most of these flights were routine except during one day flight. We were operating in the same area with air cover. AD Sky Raiders, call-sign 'Sandy', were overhead with the most beautiful load of ordnance one could imagine. We were returning to LS-32 when we began taking ground fire. The Chief Pilot was in the right seat with me this flight. He alerted the choppers: 'Ground fire, guys, scatter!' The Sandy came in with 'I got em!' and proceeded to drop CBUs on them until they hated their mothers."²³⁶

Carrying home body bags

One of the sad duties linked to combat support flights was carrying home body bags. Two or three times a week, Air America's Twin Otters had to perform that duty at Pakse, as Jim Pearson recalls: "To pick up the KIA in body bags and fly them to Ubon, Thailand and pick up replacements. We would land in Ubon, and as usual, it was steaming hot. The kickers just offloaded the dead and placed them haphazardly in piles beside the aircraft in the full heat of the sun. I told them: 'These are dead comrades and should be treated with more dignity. Please place them in a row under the shade of the wings!' Then with them nicely placed under the wings the buses drive up with the replacements. The troops (kids) climbed down from the buses with big smiles. Going on an airplane ride, big smiles. Then they noticed the body bags all in a row under the plane wings. The smiles of happiness begin to fade and then a feeling of horror overtakes them, then silence, as they just kept looking at the body bags. They loaded up with no problems, and we hauled them to the slaughtering grounds. When making air drops to these guys in the positions, I was amazed at the amount of enemy incoming fire they were subjected to. It was as if the DZ was elevated up about 15 feet into the air, with all the dust and explosions going on. For this reason I would never turn away until I had dropped my load. I wanted them to know that we (AAM) would be there when they needed us"²³⁷.

Reinforcing the Royal Laotian Air Force

The Air Commando advisors

As has been shown above, already in 1966, *Water Pump* had become part of the 56th Air Commando Wing at Nakhon Phanom, and on 4 August 68, the 56th ACW changed its name to become the 56th Special Operations Wing at Nakhon Phanom, and all aircraft were assigned to the new unit name the same day.²³⁸ The duties of these Air Commando advisors remained essentially the same as during the previous years: to advise, assist in targeting effort and to coordinate regional air support requirements. Part of these men acted as trainers for the Lao, while others helped to coordinate the Lao Air Operations Centers (AOCs) and RLAF and USAF aircraft. As there were Thai "B Team" pilots based at Vientiane still in late 1968, Bob Downs, the Vientiane AOC commander, as well as Air Commando advisors Jim Walls and Jesse Scott were responsible for these men.²³⁹ In 1968/69, a new Joint Operations Center

²³⁶ E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.

²³⁷ E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.

²³⁸ See the USAF Assignment records preserved at Maxwell AFB for the aircraft formerly assigned to the 56th ACW, e.g. T-28D 49-1599, which was transferred from 56ACW, NKP, to 56SOP WG, NKP, on 68215, that is on 4 August 68.

²³⁹ Moody, *The great adventures*, Prelude, p.10, in: <http://www.aircommandos.org/BobAndDon/Episode0000.htm>.

(JOC) was set up at Luang Prabang. The JOC “met every morning with an Intel type, an Army rep and an RLAF rep to determine priorities for potential targets and publish a daily FRAG Order.”²⁴⁰ Sometimes, these Air Commando advisors still flew reconnaissance missions: In the summer of 1969, a Raven U-17 based at Luang Prabang made photos of the Chinese Road, and some days later, Don Moody, commander of the AOC at Luang Prabang, flew a photo reconnaissance mission over the Chinese Road, using a RT-28 Guppy photo bird that was normally based at Udorn. Four Luang Prabang-based armed T-28s flew cover, and in spite of heavy triple-A fire none of the aircraft that participated in this extremely dangerous mission took a hit.²⁴¹ And sometimes, these Air Commandos also flew attack missions together with the Lao and Thai pilots they advised. In March 69, Don Moody, commander of the AOC at Luang Prabang, operated out of Ban Houei Sai for 5 days: “LP had sent 4 T-28s and Raven Dale Richardson over to provide support for the FAR operating in an area close to the Burmese border. [...] The air strikes were directed against the caravans bringing questionable cargo (opium) down through Burma.”²⁴²

In October 69, the former US Ambassador to Laos, William Sullivan, admitted at the US Senate hearing that at that time, 558 Americans were employed by the US Government in Laos, including 338 Americans on direct hire with USAID and another 127 serving as military attachés. The US military attachés worked in all five regional headquarters, from Luang Prabang in the north to Pakse in the south and often visited units in the field. Their number could be increased thru Project 404, whose personnel was under the direct command of the US Military Assistance Group, Thailand, headquartered at Bangkok to expedite supplies thru Thailand to Laos. Project 404 people in Laos were also called attachés, although they did not have diplomatic status. Some of these people also worked from Udorn Airbase, Thailand, in coordinating with a group of Vientiane based air-attachés on strike and transport missions flown from all bases in north-eastern Thailand (Udorn, Nakhon Phanom, Ubon, Korat).²⁴³ Looking to the situation in April 1972, Moody concludes “that the past three years had produced a lot of successes but also a high toll in lives and serious injuries to Project 404 personnel. US and Laotian aircrews had been called upon to perform under possibly the most difficult environmental conditions in the world. In Laos, there is always a morning mist in the mountains that seems to screen out some of the more sinister elements. This was a combination of remote jungle, rugged mountainous terrain, and the bad guys.”²⁴⁴

More T-28s for the Royal Laotian Air Force after March 1968:

Once again, no exact numbers are available for those T-28s which were added to the fleet of the Royal Laotian Air Force between April 1968 and February 1973. Between early April 68 and the end of the same year, no less than 40 USAF T-28s were transferred to various Military Assistance Programs, but their exact destination is not indicated in the USAF Assignment Records. But if we continue to assume that all aircraft transferred to an unknown MAP on the very same day were delivered to the same Military Assistance Program, the RLAF received no less than 32 T-28s between April 68 and the end of the year, that is 2 of them on 5 April,²⁴⁵ 3 on 5 June,²⁴⁶ 5 on 28 June,²⁴⁷ 3 on 12 July,²⁴⁸ 4 on 14 August,²⁴⁹ 1 on 16

²⁴⁰ Moody, *The great adventures*, Episode 3, p.3: in: <http://www.aircommandos.org/BobAndDon/Episode0003.htm>.

²⁴¹ Moody, *The great adventures*, Episode 3, pp.5-7, in: <http://www.aircommandos.org/BobAndDon/Episode0003.htm>.

²⁴² Moody, *The great adventures*, Episode 3, p.2, in: <http://www.aircommandos.org/BobAndDon/Episode0003.htm>.

²⁴³ Kirk, *Wider war*, pp.236/7.

²⁴⁴ Moody, *The great adventures*, Prelude, p.10, in: <http://www.aircommandos.org/BobAndDon/Episode0000.htm>.

²⁴⁵ T-28Ds 49-1753 (c/n 159-265) and 50-216 (c/n 171-22) were both transferred to MAP from NAMCO, i.e. the North American Aircraft plant at Columbus, OH, on 68095, that is on 5 April 68, probably becoming “0-91753”

September coming from Nakhon Phanom,²⁵⁰ and 4 on 18 September, probably all of them to General Vang Pao's Hmong troops,²⁵¹ 4 on 25 September 68,²⁵² 4 in late September and early October 68, coming from the 56th Special Operations Wing of Nakhon Phanom,²⁵³ and 2 T-

and "0-00216" respectively. "0-00216" was maintained by Air America, Udorn, and flown under the command of the USAF Attaché, Vientiane, still on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

²⁴⁶ T-28Ds 49-1699 (c/n 159-211), 49-1704 (c/n 159-216), and 49-1717 (c/n 159-229) were all transferred from McClellan AFB to MAP on 68156, that is on 5 June 68, probably becoming "0-91699", "0-91704", and "0-91717" respectively. As "0-91704" was maintained by Air America, Udorn, and flown under the command of the USAF Attaché, Vientiane, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), the other two T-28Ds probably had the same career. By 1974, all of them joined the Philippine AF, becoming "91699", "91704", and "91717" (Anido/Austria-Tomkins, *Pictorial history of the Philippine Air Force*, p.68).

²⁴⁷ T-28Ds 49-1608 (c/n 159-120), 49-1622 (c/n 159-134), 49-1687 (c/n 159-199), 49-1688 (c/n 159-200), and 49-1702 (c/n 159-214) were all transferred from McClellan AFB to MAP on 68179, that is on 28 June 68, probably becoming "0-91608", "0-91622", "0-91687", "0-91688", and "0-91702" respectively. "0-91622"; is known to have been maintained by Air America, Udorn, and flown under the command of the USAF Attaché, Vientiane, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

²⁴⁸ T-28Ds 49-1584 (c/n 159-96), 49-1601 (c/n 159-113), and 49-1612 (c/n 159-124) were all transferred from McClellan AFB to MAP on 68193, that is on 12 July 68, probably becoming "0-91584", "0-91601", and "0-91612" respectively. "0-91584" became "3410" with the Air Force of the Laos People's Army in 1975, was then sold as N8391H and finally became VH-CIA in September 93; during the Australian International Air show 99 at Avalon, Victoria, from 16 to 21 February 99, it appeared in a gray Royal Lao Air Force color scheme (*Air-Britain News*, June 99, p.699); "0-91601" later became "0-91601" of the Royal Thai AF and was noted displayed at Bangkok in October 95.

²⁴⁹ The four T-28Ds from transferred (TL) from McClellan AFB to MAP on 68226 (= 14 August 68) were: 49-1510 (c/n 159-22), becoming "0-91510"; it was used by the Ravens in 1970? (a photo is in: Moody, *The great adventures*, Prelude, p.5); 49-1514 (c/n 159-26), probably becoming "0-91514"; 49-1529 (c/n 159-41), probably becoming "0-91529"; and 49-1539 (c/n 159-51), probably becoming "0-91539".

²⁵⁰ T-28D 49-1621 (c/n 159-133) was transferred to the 56th Special Operations Wing, Nakhon Phanom, on 68215; it was transferred (TL) to MAP on 16 September 68 (68259), which probably means to the RLAf, probably flying as "0-91621"; later, that is in 1970?, it became a Raven aircraft, still on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and 1 April 72, it was one of those USAF aircraft, that were maintained by Air America, Udorn, but flown under the command of the USAF Attaché, Vientiane (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

²⁵¹ T-28Ds 49-1600 (c/n 159-112), 49-1613 (c/n 159-125), 49-1627 (c/n 159-139), and 49-1631 (c/n 159-143) were all transferred from McClellan AFB to MAP on 68261, that is on 18 September 68, probably as "0-91600", "0-91613", "0-91627", and "0-91631" respectively. As there are photos showing Hmong Ace Lee Lue standing in front 49-1600 (in Hamilton-Merritt, *Tragic mountains*, p.165) and sitting in 49-1627 (in: Robbins, *Ravens*, pp.120-21), the other two T-28s are believed to have gone to the Hmong as well. "0-91600" later became a Raven aircraft – a photo by H. Mesaris, probably taken in 1970, can also be seen in Robbins, *Ravens*, pp.120/1.

²⁵² On 25 September 68 (= 68268), the following four T-28Ds were transferred (TL) from McClellan AFB, Sacramento, CA, to MAP/Laos, Udorn, on 25 September 68: 49-1637 (c/n 159-149), probably becoming "0-91637", 49-1638 (c/n 159-150), probably becoming "0-91638", 49-1706 (c/n 159-218), probably becoming "0-91706", and 49-1716 (c/n 159-228), becoming "0-91716"; this aircraft was transferred to the Ravens in about 1970; a photo, taken by H. Mesaris probably in 1970, showing the aircraft without markings or badge, is published in: Robbins, *Ravens*, pp.120-21, photo section; none of these aircraft was still current on 1 April 72; their fates are unknown

²⁵³ T-28D 49-1599 (c/n 159-111) was transferred from 56SOP WG, NKP, to MAP on 68265, that is on 22 September 68, probably becoming "0-91599"; T-28D 49-1571 (c/n 159-83) on 68275, that is on 2 October 68, probably becoming "0-91571"; T-28D 49-1561 (c/n 159-73) on 68278, that is on 5 October 68, probably becoming "0-91561"; this aircraft was still maintained by Air America, Udorn, and flown under the command of the USAF Attaché, Vientiane, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2) and went to the

28s on 9 October 1968.²⁵⁴ No details about RLAf T-28s lost in 1968 are available.

As to the operations flown by RLAf T-28s, there was another increase in 1968: As already in June 68, the US Joint Chiefs of Staff had decided to delete the “Zorros”, that is the T-28s flown by the 606th Air Commando Squadron at Nakhon Phanom, in order to make space for additional A-1s and A-26s,²⁵⁵ some of the 12 remaining T-28s had found their way into the RLAf. This availability of additional T-28s was met by an additional need to compensate the losses suffered by the Hmong. As the strength of the Hmong waned, the US tried to redress the growing imbalance of forces in the field thru increased use of airpower. Between 1965 and 1968, the rate of sorties in Laos, in direct support of VP, had remained fairly constant at 10 to 20 a day. In late 1968 and through 1969, the rate reached 120 per day at LS-20A and 300 in all of Laos. This increase in air sorties was also the basis of enhancing the Ravens FAC program and increasing the number of FACs allowed in country.²⁵⁶ In the north, Moung Soui (L-108), the traditional stronghold of the Neutralists on the western edge of the Plain of Jars about 100 miles north of Vientiane, became the scene of a bloody battle in late 1968 and early 1969. At that time, the Moung Soui area became the primary target of the Thai “B Team” pilots and the RLAf assigned to Vientiane. The Thais and the RLAf were both flying out of Moung Soui in late 1968; but there was so much dust, that an old yellow water truck had to keep down the dust from before day light until way after dark. Without the truck, flying out of Moung Soui would have been very difficult. But there was also an ARMA Captain at Moung Soui, Joe Bush, who worked with the Lao Army there to take the mountains east of L-108; he was one of the two Army advisers that were allowed by the Geneva Accords of 1962 to advise the Neutralists at Moung Suoi.²⁵⁷ In the south, the number of North Vietnamese troops had increased to about 25,000 men by mid-1968, and equipment now even included new 106mm. canons never before used in southern Laos. There was heavy fighting on the Bolovens Plateau, and the city of Attopeu was under siege and had to be supplied by parachute drops and Air America helicopters.²⁵⁸ By that time, the RLAf also had a T-28 wing at Pakse, M.R.IV, and *Water Pump* T-28s operating in southern Laos were kept at Pakse as well as at Savannakhet.²⁵⁹ This also meant an increasing fighter traffic coming out of the RLAf headquarters at Savannakhet, which, sometimes, could be quite dangerous. Former Air America pilot Frank Bonansinga recalls: “It was well after I was working in the HARP project at L-39. This was an afternoon passenger flight out of Udorn probably in the late 60s. There were five passengers onboard our Volpar from Udorn. We had stopped to pick up two additional customer passengers at L-39, for the last leg to our destination, Pakse in Southern Laos. The runway at Savannakhet was laid out on a slight hill, so the ends of the runway could not be seen from either end. Our Volpar was cleared for take off and as we were

Philippine AF as “91561” by 1974; finally T-28D 49-1583 (c/n 159-95), on 68279, that is on 6 October 68 as “**0-91583**”; it later became a Raven aircraft, as the photo in <http://www.ravens.org/gene72-2.jp> proves.

²⁵⁴ T-28Ds 49-1724 (c/n 159-236) and 49-1731 (c/n 159-243) were both transferred from McClellan to MAP (Laos) on 68282, that is on 9 October 68, probably as “**0-91724**” and “**0-91731**” respectively; although it seems that their delivery was first postponed for some time, both of them were maintained by Air America, Udorn, and flown under the command of the USAF Attaché, Vientiane, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

²⁵⁵ A Memorandum dated 17 June 1968, from the Joint Chiefs of Staff to Secretary of Defense, McNamara (Document 371, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 366, in: http://www.state.gov/www/about_state/history/vol_xxviii_351_370.html) recommends that all of the 12 T-28s flown by the 606th Air Commando Squadron at Nakhon Phanom at that time should be deleted to make space for additional A-1s and A-26s.

²⁵⁶ Moody, *The great adventures*, Prelude, p.7.

²⁵⁷ Moody, *The great adventures*, Prelude, pp.10, 11, and 14.

²⁵⁸ Kirk, *Wider war*, pp.228-30.

²⁵⁹ Robbins, *Ravens*, pp.58+168.

approaching the middle of the runway and just about to lift off, when here comes a T-28 directly in front of us, heading directly for us! We both veered to the right and managed to pass without hitting each other! Our wing tips passed by perhaps a foot or so, at most! The tower was shouting over the radio, in Lao to the T-28 pilot and soon after told us in English the T-28 pilot had taken off without clearance! The chief of AB-1 at Udorn, Pat Landry, next to me in the copilot's seat and we just shook our heads in disbelief. The rest of the flight was anti climatic! I never heard about it again, though it is easy to remember. Sometimes, things happen really fast and you do it or don't do it, right! Good luck is a blessing."²⁶⁰

In 1969, more T-28s were added to the RLAf inventory, but at this time, only 8 of them can be traced: T-28D-5 49001591 was transferred from the 56th Special Operations Wing at Nakhon Phanom to the Military Assistance Program on 3 January 69.²⁶¹ On 27 December 1969, a total of 5 T-28s are known to have been transferred from SMAAR, the USAF's Air Logistics Center at McClellan Air Force Base, Sacramento, California, to the Military Assistance Program for Laos,²⁶² followed by a 6th T-28 on 28 December 69.²⁶³ Only 3 losses are known for 1969: Hmong fighter Ace Lee Lue was shot down in his T-28 on 12 July 69 during the battle for Muong Soui (L-108),²⁶⁴ one RLAf T-28 lost its brakes and crashed into a warehouse at Long Tieng (LS-20A) on 2 December 69, and another T-28 was shot down at the "O" pad on 3 December 69, killing the pilot.²⁶⁵ In 1969, there were already five Air Operations Centers in Laos, that is at Savannakhet, the RLAf headquarters, at Vientiane,²⁶⁶ at Luang Prabang, at Long Tieng, and at Pakse,²⁶⁷ but *Water Pump* T-28s, that is USAF-owned T-28s operated for the RLAf, were not only kept at these places, but usually also at Korat and Ubon in Thailand.²⁶⁸

Strategically, the T-28 operations were focused on two large aims in 1969: the battle for Muong Soui during the first half of the year, and Operation *About Face* in the fall of 1969. As to the battle for Muong Soui (L-108), the plan was for the Neutralist troops to move out from Muong Soui, the Neutralists HQ and, in a coordinated push with Vang Pao's guerrillas in the south, advance onto the Plain of Jars and force the North Vietnamese back. Air support would

²⁶⁰ E-mail dated 4 January 2002 sent to the author by Frank Bonansinga.

²⁶¹ T-28D-5 49001591 was later transferred to the Steve Canyon program as a Raven aircraft, not carrying the Erawan, but a badge on the fin; a photo can be seen in: <http://www.ravens.org/gene72-2.jpg>; it was still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

²⁶² They were: T-28Ds 50000275 (c/n 171-81), probably flying as "0-00275"; 50000283 (c/n 171-89), probably flying as "0-00283"; it was still flown under the command of AIRA, that is the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); 50000295 (c/n 171-101), probably flying as "0-00295"; 51003521 (c/n 174-59), probably flying as "0-13521"; 51007552 (c/n 174-405), probably flying as "0-17552"; it was still flown under the command of AIRA and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

²⁶³ This was T-28D 50000273 (c/n 171-79), probably flying as "0-00273"; it was still flown under the command of AIRA and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its subsequent history is unknown, but in December 1990, it was sold to R. MacFarlane, Archerfield, Queensland, as VH-XVT.

²⁶⁴ A transcription of the communications exchanged between Lee Lue, the other pilots of his group and Forward Air Controller General Vang Pao during Lee Lue's fatal flight on 12 July 69 can be found in: Chaophakhao Red, "The day we lost Lee Lue", in: <http://www.geocities.com/koratmahknut/warinlaos/hmonglao/theday.htm>.

²⁶⁵ For these two accidents, see the log book of Allen Rich (in: UTD/RichB1).

²⁶⁶ In 1969, Lao-piloted RLAf T-28s were also based at Vientiane (Robbins, *Ravens*, pp.141+164).

²⁶⁷ Castle, *At war*, p.86.

²⁶⁸ Robbins, *Ravens*, p.168

be provided exclusively by Lao, Meo, and Thai pilots flying T-28s from the strip of Muong Soui itself, rather than staging out of Vientiane.²⁶⁹ Vang Pao wanted that US piloted Ravens could drop bombs onto the Plain of Jars, and also that his Hmong pilots were based at Long Tieng, under his personnel control, instead of at Vientiane, where they were under the nominal control of the RLAf. The United States finally accepted the second point, but did not admit it officially.²⁷⁰ So, in June 1969, Vang Pao sent the 8 T-28s at his disposal, lead by Lee Lue, in support of the Neutralist headquarters of Muong Soui, where they bombed the enemy until July 69.²⁷¹ But, of course, inevitably, the gap between embassy policy and battlefield reality was a large one. It was impossible to monitor the rules and control the placing of every bomb in Laos, although this was the intention under Godley, as it had been under Sullivan. The embassy had no right to monitor or control where the Lao or Hmong T-28s put their bombs. And all the Laotian regional military commanders had the right and the ability to attack where they wished.²⁷² But in spite of this more direct type of control, which was closer to the actual battlefield,²⁷³ at the end L-108 was lost in June 69.²⁷⁴ As to Operation *About Face*, this was a daring campaign to retake the communist controlled Plain of Jars, conceived as a hit-and-run assault against the North Vietnamese 316th Division, mainly carried out by Hmong troops. Vang Pao was supported by some 200 daily USAF sorties, as well as by Ravens and by RLAf T-28s operating out of four Lima Sites in enemy-held territory.²⁷⁵ The operation was so successful that on 12 September 69, Vang Pao's forces captured the Pathet Lao "provincial capital" at Xieng Khouang, including a number of howitzers, anti-aircraft artillery, and AK-47s, as well as an enormous amount of ammunition and food. Two weeks later, Vang Pao recaptured Muong Soui.²⁷⁶ But there were other activities as well, in which RLAf T-28s were involved: For example, in September 69, Luang Prabang-based T-28s attacked and destroyed a huge Chinese supply area located in Nam Beng valley which had had the purpose of allowing to extend the Chinese Road further to the South.²⁷⁷

In 1970, at least 14 T-28Ds were added to the Military Assistance Program for Laos, all of them between 15 and 28 January 1970. According to the USAF Assignment Records preserved at Maxwell AFB, Alabama, they were all transferred from SMAAR, the USAF's Air Logistics Center at McClellan Air Force Base, Sacramento, California, to an unknown MAP, but if we continue to assume that aircraft delivered at the same time all went to the same customer, they all went to Laos.²⁷⁸ As the losses suffered in 1970, it is known that at

²⁶⁹ Robbins, *Ravens*, p.142.

²⁷⁰ Robbins, *Ravens*, p.147.

²⁷¹ Robbins, *Ravens*, pp.173+180.

²⁷² Robbins, *Ravens*, p.187.

²⁷³ In 1969, Bob Downs checked the area around Moug Soui in his T-28 (Moody, *The great adventures*, Prelude, p.12).

²⁷⁴ Moody, *The great adventures*, Prelude, p.16.

²⁷⁵ Robbins, *Ravens*, p.188.

²⁷⁶ Castle, *At war*, pp.105/6.

²⁷⁷ Moody, *The great adventures*, Episode 3, p.8.

²⁷⁸ These 13 T-28Ds were: 49001503 (c/n 159-15), transferred on 21 January 70, probably serving as "0-91503", 49001506 (c/n 159-18), transferred on 15 Jan. 70, probably serving as "0-91506"; this USAF aircraft was still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); 49001519 (c/n 159-31), transferred on 16 Jan. 70, probably serving as "0-91519"; USAF aircraft officially serialised "49-1519", maintained by Air America, Udorn, but flown under the command of AIRA, that is the USAF Attaché, Vientiane; current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); transferred in 1975 (?) to the Lao Air Force (Air Force of the Laos People's Army) as "3408"; sold in ? (prior to 1987) to ? as N8098H; sold in May 91 to Heli-Muster, V.R.D. Station, as VH-AVC; regd. 22 May 91; current in 1996; 49001633 (c/n 159-145), transferred on 16 Jan. 70, probably

least 6 T-28s were lost that year, one being shot down in the Luang Prabang (L-54) area on 25 February 70,²⁷⁹ 3 T-28s were lost during the battle for Sam Thong in late March 1970,²⁸⁰ also in March 1970, a Luang Prabang-based T-28 was shot down over the Chinese Road, while flying at 10,000 feet on the way to support Lima Site 118A,²⁸¹ and one Lao-piloted T-28 was shot down on 13 November 70, when returning to Luang Prabang.²⁸²

As to the areas where RLA/T-28s were involved in combat actions during 1970, the success of Operation *About Face* was very short-lived. In January 1970, the North Vietnamese launched a tank-led counterattack and recaptured Xieng Khouang in February 70 in spite of B-52 strikes that were ordered against targets in the Plain of Jars for the first

serving as “**0-91633**”; 49001677 (c/n 159-189), transferred on 28 Jan. 70, the RLA/T-28 as “**0-91677**”; carried the Erawan, but no red line; photo taken at Udorn in <http://www.air-america.org/ImageLibrary/Large4a.htm>; USAF aircraft, maintained by Air America, Udorn, but flown under the command of AIRA; current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); sold to the Philippine AF as “91677” in 1974 (?) (Anido/Austria-Tomkins, *Pictorial history of the Philippine Air Force*, p.68); and 49001698 (c/n 159-210), transferred on 20 Jan. 70, probably serving as “**0-91698**”; none of these 6 T-28Ds was current on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2). T-28D 5000240 (c/n 171-46) was transferred to MAP/Laos on 15 January 70, probably flying as “**0-00240**”, and maintained by Air America, Udorn, still on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2); its fate is unknown. Four more MAP/Laos T-28Ds did not survive until April 72: They were 5000304 (c/n 171-110), transferred on 20 Jan. 70, probably serving as “**0-00304**”; this aircraft was current with MAP/Laos on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but was no longer current on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), so maybe it was destroyed between 1 August 71 and 1 April 72; 51003485 (c/n 174-23), transferred on 25 Jan. 70, probably serving as “**0-13485**”; 51003787 (c/n 174-325), transferred on 28 Jan. 70, probably serving as “**0-13787**”, as well as 51003588 (c/n 174-126), transferred on SMAAR, McClellan AFB, to TL MAP on 28 January 1970, probably serving as “**0-13588**”; this aircraft had already been with MAP/Laos between 9 June 65 and 23 December 1968 (68357), where after it was based at Keesler AFB among others, but it returned to MAP/Laos on 28 January 70 and was current on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002); however, it does not appear on the List of Assigned and maintained aircraft at Udorn of 1 April 72 (in: UTD/CIA/B49F2); so it may have been under long term repair or not yet recovered after a crash or leased to the Khmer Air Force; transferred in 1975 (?) to the Lao Air Force (Air Force of the Laos People’s Army) as “3405”; sold in September 93 to F. Pike, Bankstown, NSW, as VH-PFM; regd.30 September 93; sold in ? to W. Hamilton, Gordon, NSW; current in 1996. And the remaining 3 T-28Ds of MAP/Laos survived at least until April 72: They were 51007493 (c/n 174-346), transferred on 28 Jan. 70, probably serving as “**0-17493**”; maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), transferred in 1975 (?) to the Lao Air Force (Air Force of the Laos People’s Army) as “3409”, and sold to Australia in 1989; T-28D 51007696 (c/n 174-549), transferred on 25 Jan. 70, probably serving with MAP/Laos as “**0-17696**”, and still maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72; its subsequent fate is unknown. The last of the 13 T-28Ds was 51007793 (c/n 174-646), which was transferred to MAP/Laos on 24 January 70, probably flying as “**0-17793**”; this T-28D-5 was also maintained by Air America, Udorn, on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and in April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), and its subsequent fate is also unknown.

²⁷⁹ Log book of Allen Rich, in: UTD/Rich/B1.

²⁸⁰ Robbins, *Ravens*, p.236: “A bad six days [i.e. the last of March 1970], a tally of 3 T-28s, 2 O-1s and 1 U-17 with two dead or presumed so and one hurt rather badly. But we have retaken Sam Thong.”

²⁸¹ The pilot, Lt. Liao Phaysane, was missing in action and never recovered (Moody, *The great adventures*, Episode 3, p.8).

²⁸² Leary, *Outline - Air America in Laos*, 1970, p.23.

time.²⁸³ In early 1970, Muong Suoi was even the center of T-28 operations, where Major Jesse E. Scott worked from January to late February 70, and during this time, RLA F T-28s were also based at Muong Suoi until 24 February 70, when the site was overrun. Then, a new T-28 operation was opened at Ban Na Then (LS-249), about 30 miles west of the Plain of Jars. At the same time, Thai pilots flew missions out of Vientiane, arriving from and returning to Udorn every day. At that time, there were some 20 Thai pilots on a six-month contract to fly T-28s, although, in April 70, Scott recommended that the contract be cancelled as there were sufficient Lao pilots for the T-28s.²⁸⁴ And there were other T-28 activities as well: During the first week of January 1970, two Thai-piloted RLA F T-28s headed northwards, bombing a truck convoy on Route 46, registering 15 confirmed vehicle kills.²⁸⁵ In the western part of Laos, large armed boats were discovered operating on the Nam Ou River in 1970, and they were attacked and bombed by Luang Prabang-based T-28s. Many more ships were discovered later on the Nam Ou and on the Nam Bac Rivers, carrying supplies to the Pathet Lao and sometimes even Pathet Lao troops; finally, after many of these ships had been destroyed by the T-28s, they preferred to go at night; but then, USAF F-4s dropped mines into the Nam Ou, shutting down a major supply road into MR-I.²⁸⁶

In 1971, at least 9 T-28Ds were delivered to the Military Assistance Program for Laos, all of them coming from NASJA, that is from Cecil Field Naval Air Station at Jacksonville, Florida, on 13 and 14 September 71 according to the USAF Assignment Records preserved at Maxwell Air Force Base, Alabama. All of them are still present on the list of aircraft maintained by Air America's Udorn base in April 1972, contained in the CIA papers preserved at the Air America Archives at Dallas.²⁸⁷ Another 42 USAF T-28s, most of them T-28Ds, were also marked "TL" in the 1971 USAF Assignment Records, which means that they were delivered to an "organization outside the USAF" in 1971, but as they were not marked

²⁸³ Castle, *At war*, p.106.

²⁸⁴ Leary, *Outline - Air America in Laos*, 1970, p.10; Bowers, *The USAF in South-East Asia*, p.459.

²⁸⁵ Conboy/Morrison, *Shadow war*, p.315.

²⁸⁶ Moody, *The great adventures*, Episode 3, pp.9-11.

²⁸⁷ These 9 aircraft are: T-28D 00137639 (c/n 200-2), marked "55-137639" in the list of aircraft maintained by Air America, Udorn, but probably flying as "**0-37639**"; its fate is unknown. T-28D 00137738 (c/n 200-101), marked "55-137738" in the list of aircraft maintained by Air America, Udorn, but probably flying as "**0-37738**"; its fate is also unknown. T-28D 00137757 (c/n 200-120), marked "54-137757" in the list of aircraft maintained by Air America, Udorn, but probably flying as "**0-37757**"; its fate is also unknown. T-28D 00137773 (c/n 200-136), marked "55-137773" in the list of aircraft maintained by Air America, Udorn, but probably flying as "**0-37773**"; this T-28D was transferred to the Lao Air Force (Air Force of the Laos People's Army) as "3411" in 1975, but sold in to the Central Michigan Crematory, Battle Creek, Mi, as N128TB in October 93 and rereg'd. as N5291Y in March 1994. T-28D 00138208 (c/n 200-279), marked "55-138208" in the list of aircraft maintained by Air America, Udorn, but probably flying as "**0-38208**"; its fate is unknown. T-28D 00138232 (c/n 200-303), marked "55-138232" in the list of aircraft maintained by Air America, Udorn, but probably flying as "**0-38232**"; this aircraft was also transferred to the Lao Air Force (Air Force of the Laos People's Army) in 1975, becoming "3416"; in January 93 it was sold to Trojan Air-Tech, Darwin, NT, and was registered as VH-DPT on 14 Jan. 93; it is now preserved at Tyabb Airport Collection, Tyabb, Vic, as VH-DPT (Ogden, *Aircraft museums*, vol. 11, p.85) and is painted in a white and gray US Navy color scheme (*Air-Britain News*, June 99/p.699). T-28D 00138249 (c/n 200-320), marked "55-138249" in the list of aircraft maintained by Air America, Udorn, but flying as "**0-38249**"; this aircraft rolled into Air America C-123K "374" at Long Tieng (LS-20A) on 16 November 72 (a photo of the accident can be seen in the Air America Yearbook 1984 (in: UTD/Smith/B1), its subsequent fate is unknown. T-28D 00138258 (c/n 200-329), marked "55-138208" in the list of aircraft maintained by Air America, Udorn, but flying as "**0-38258**"; its subsequent fate is also unknown. The last T-28D, "**0-37679**" (c/n 200-42), is not listed in the USAF Assignment Records, but a photo showing this aircraft carrying the Erawan, can be seen in: Don Moody, *The great adventures of Bob and Don*, Prelude, p.4 ("Getting ready to go") in: <http://www.aircommandos.org/BobAndDon/Episode0000.htm>. As all other aircraft with similar serials were transferred in 1971, it is believed that this T-28D was also delivered in 1971. It later became "0-37679" with the Royal Thai Air Force and then passed to the Philippine AF as "137679" in 74 (?); a photo taken in July 77 at Villamor Air Base can be seen in Anido/Austria-Tomkins, *Pictorial history of the Philippine Air Force*, p.34.

“MAP” at the same time, at least 25 of them are believed to have become Raven aircraft, while the others probably went to the Royal Thai Air Force. They are also listed on the Air America maintenance list of 1 April 1972,²⁸⁸ but are not distinguished from the T-28Ds of the first group. So, it cannot be excluded that some of the T-28Ds believed to be destined for Raven use, actually went to the RLAf instead, as the RLAf insignia carried on the T-28Ds were detachable.²⁸⁹ Ten RLAf T-28s are known to have been destroyed in 1971: 2 T-28s burnt at Vientiane on 8 February 71,²⁹⁰ 3 T-28s were destroyed at Ban Dong Hene (LS-54) on 9 March 71, when the location was under a rocket attack,²⁹¹ one T-28 was shot down in late October 71, when bombing enemy positions around Long Tieng,²⁹² 2 T-28s were shot down on 1 December 71, when the North Vietnamese Army attacked the Plain of Jars bases,²⁹³ and another 2 T-28s were shot down on 18 and 19 December 71 during the battle for Long Tieng.²⁹⁴ Between 1 August 71 and 1 April 72, a total of RLAf 10 T-28s²⁹⁵ disappeared from the inventory of aircraft maintained by Air America’s Udorn facility.

When talking about Laos in February 71, most people would look at the fighting that took place in the south in Operation *Lam Son 719*. But at the same time, North Vietnamese forces again infiltrated the southern ridge of Skyline overlooking Long Tieng, shooting at Hmong positions around Long Tieng and Long Tieng itself. Hmong T-28s daily bombed enemy positions on Skyline Ridge, at Bouam Loung, and at other positions in danger of being overrun. When North Vietnamese commandos stormed Long Tieng in the early morning of 14 February 71, F-4s were called in from Thailand, and as a result of confusion, one of the jets hit friendly positions. This debacle would be referred to as the “Valentine’s Day Massacre”. But the siege continued, and during March 71, T-28s flew over 1,000 sorties in defense of Long Tieng.²⁹⁶ In May 1971, General Vang Pao launched another operation, called *About Face II*. On 11 June 71, he airlifted irregulars to the southern tip of the Plain of Jars; hit-and-run strikes by his 8,900 irregulars airlifted by Air America helicopters from one location to another, were supplemented by T-28 strikes. This type of guerrilla warfare with T-28 close support finally enabled him to retake the Plain of Jars – at least for the next six months, when the mountains surrounding Long Tieng were again controlled by North Vietnamese and Pathet Lao forces.²⁹⁷ In late 1971, there were even 12 T-28s based at Long Tieng, although some of them were Raven T-28s flown by American Forward Air Controllers. But when Long Tieng came under heavy attack so that aircraft could no longer take off safely, at the end of December 71, air operations and the T-28s moved from Long Tieng to Vientiane, and Ban Xong became the new staging base for all RLAf T-28 operations previously at Long Tieng. In late February 72, however, the T-28s returned to Long Tieng.²⁹⁸

Little is known about the T-28s that joined the RLAf in 1972, but in April 72, no less than

²⁸⁸ They are listed in the section dealing with the Raven aircraft.

²⁸⁹ See the photos of T-28s carrying a detachable Erawan on the side of the fuselage and the explanation at <http://www.angelfire.com/in/Laos/>.

²⁹⁰ Log book of Allen Rich, in: UTD/Rich/B1.

²⁹¹ Log book of Allen Rich, in: UTD/Rich/B1.

²⁹² Hamilton-Merritt, *Tragic mountains*, pp.268/9.

²⁹³ Leary, *Outline - Air America in Laos*, 1971, p.12.

²⁹⁴ Hamilton-Merritt, *Tragic mountains*, p.274.

²⁹⁵ These 10 T-28s were: “0-40579”, “0-13588”, “0-17777”, “0-17779”, “0-17763”, “0-00219”, “0-00226”, “0-00303”, “0-00304”, and “0-13552” (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002; and List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

²⁹⁶ Hamilton-Merritt, *Tragic mountains*, pp.253-55.

²⁹⁷ Castle, *At war*, p.107; Hamilton-Merritt, *Tragic mountains*, pp.263-66.

²⁹⁸ Conboy/Morrison, *Shadow war*, p.330; Leary, *Outline - Air America in Laos*, 1971, pp.12/3, also notes that, when the T-28s moved to Vientiane in late December 71, the Raven O-1s staged out of Ban Xon (LS-272), about 18 miles south and west of Long Tieng. Before, there had been 12 T-28s, and 6 O-1s as well as 2 RLAf UH-34Ds based at Long Tieng, flown by 6 Hmong pilots, 6 Lao pilots and 10 American FACs.

76 T-28s were maintained by Air America at Udorn, of which only 26 are believed to have been Raven T-28s,²⁹⁹ leaving a total of 50 RLAF T-28s on the list.³⁰⁰ Others seem to have been added later in 1972.³⁰¹ On 26 June 72, one Hmong T-28 was shot down and exploded, while bombing enemy positions at Sam Thong.³⁰² Among the RLAF T-28s that suffered accidents in 1972, was also T-28D “0-38249”, which landed without flaps at Long Tieng (LS-20A), Laos, on 16 November 72 and rolled into Air America C-123K “374” that was parked on the tarmac.³⁰³ As to the missions flown by the RLAF T-28s in 1972, there were two centers of activities. In the north, Hmong T-28s based at Vientiane since late December 71, bombed enemy positions on Skyline Ridge in January and February 72 to defend the besieged town of Long Tieng, and by late February, Vang Pao’s troops moved doggedly some two miles back up the Ridge. But as Sam Thong (LS-20) and Phou Pha Xai were still occupied by enemy forces, Vang Pao ordered his Hmong T-28s to hit these gun positions in June 1972.³⁰⁴ When, in late 1972, North Vietnamese troops launched another major attack against Bouam Long (LS-32), a remote mountaintop base located in an area controlled by the Communists, Vang Pao directed 4 Hmong T-28s and 6 Lao-piloted T-28s to destroy the enemy gun positions around LS-32, but only USAF F-111s finally saved Bouam Long in early 1973.³⁰⁵ In the south, North Vietnamese and Pathet Lao forces moved from the Bolovens Plateau down Route 23 and into the valley, advancing in Pakse in the beginning of 1972, so that many T-28 attacks were flown in the south. Still in December 72, RLAF T-28s attacked the enemy forces that had Saravane under siege. But all this was ended with the cease-fire of 22 February 73, which meant that all “USAF air support would halt as of 1200 22 February.”³⁰⁶

The Hmong T-28s

A special group within the T-28s operating over Laos were the Hmong T-28s. Since quite a long time, some Lao pilots had been based at Long Tieng to fly T-28 attack missions. For General Vang Pao, however, the problem was that traditionally, the lowland Lao looked upon the Hmong as their social and cultural inferiors, so that no lowland Lao was going to die defending a Hmong village, while, the other way round, no Hmong was going to trust his life in the hands of a lowland Lao, and the Thai mercenaries were ethnically closer to the lowland Lao. For all of these reasons, Vang Pao wanted his own Hmong pilots to fly a squadron of T-28s out of Long Tieng. So since 1968, initially five Hmong pilots were trained at the *Water Pump* training unit at Udorn. They were handpicked by Vang Pao himself as well as by the CIA, who also conducted a language program for them. The most brilliant of these Hmong pilots was Lee Lue (also written Ly Lue), a cousin of Vang Pao, whose courageous and daring

²⁹⁹ See the List of aircraft “presently operated, maintained or supported by Air America Inc., Udorn” as of 1 April 72 (in: UTD/CIA/B49F2).

³⁰⁰ According to the List of aircraft “presently operated, maintained or supported by Air America Inc., Udorn,” as of 1 April 72 (in: UTD/CIA/B49F2), these 50 RLAF T-28s were: **4 T-28Bs** (0-37644, 0-38351, 0-38352, and 0-40044), **1 T-28C** (0-40457), **1 RT-28D** (0-13531), **10 T-28Ds** (0-13463, 0-17611, 0-17677, 0-17746, 0-17753, 0-21187, 0-17773, 0-21208, 0-21225, and 0-23498), **25 T-28D-5s** (0-91496, 0-91506, 0-91519, 0-91561, 0-91622, 0-91648, 0-91677, 0-91704, 0-91724, 0-91731, 0-00216, 0-00240, 0-00271, 0-00273, 0-00283, 0-00294, 0-00310, 0-13476, 0-13562, 0-13680, 0-17493, 0-17552, 0-17696, 0-17793, and 0-17801), and **9 T-28D-10s** (0-37757, 0-37639, 0-37738, 0-37773, 0-38208, 0-38232, 0-38249, 0-38258, and 0-38259).

³⁰¹ These probably included T-28D “**0-38369**” (c/n 200-440, ex BuA 138369), which was not current on 1 April 72 nor listed in the AFRHA microfilms, but is known to have been current in 1973, when it carried the Erawan and was based at Luang Prabang; a photo taken at Luang Prabang in 1973 can be seen in <http://members.bellatlantic.net/~ltcol/lp2.jpg>; its fate is unknown.

³⁰² Hamilton-Merritt, *Tragic mountains*, p.287.

³⁰³ The Accident report and photos can be found in: UTD/CIA/B61F13; other photos are preserved in: UTD/Anthony/F6.

³⁰⁴ Hamilton-Merritt, *Tragic mountains*, pp.284 and 287.

³⁰⁵ Hamilton-Merritt, *Tragic mountains*, pp.300/1.

³⁰⁶ Robbins, *Ravens*, pp.305, 312, and 323.

aerial attacks onto Pathet Lao and North Vietnamese positions made him a legend even among his enemies, until he was shot down and killed in his T-28 near Muong Suoi (L-108) on 12 July 69.³⁰⁷ A total of 33 Hmong pilots were trained, all of whom were very courageous, which may explain why 20 of them were killed during the war.³⁰⁸ These Hmong pilots flew T-28s out of Long Tieng and were funded by the CIA. The group was known as the “Long Tieng Strike Force” and used the call-sign “Chaophakaow”, meaning “Lord White Buddha”.³⁰⁹ Their T-28Ds were not integrated into the regular RLAF, and probably four of them were assigned to Vang Pao’s new air force on 18 September 68.³¹⁰ By mid-1969, General Vang Pao had already eight T-28s at his disposal: When the Neutralist headquarters at Muong Suoi (L-108) in the northwestern corner of the Plain of Jars was attacked by North Vietnamese troops in June 69, General Vang Pao directed Lee Lue to lead the eight T-28s at his disposal in full support of the Neutralists, and during the next five days, these Hmong T-28s flew continuous bombing missions against the North Vietnamese.³¹¹ And as has been shown above, to the very end of the official war in Laos in February 1973, Hmong pilots continued to be a very important factor in aerial combat in Laos’ Military Region II.

The USAF in Laos: Zorros, ABCCC, and Ravens

It has already been mentioned that in June 1968, the US Joint Chiefs of Staff had decided to delete the “Zorros”, that is the T-28s flown by the 606th Air Commando Squadron at Nakhon Phanom, in order to make space for additional A-1s and A-26s,³¹² and that consequently, some of the remaining “Zorro” T-28s found their way into the RLAF. At the same time, the number of sorties and the quality of USAF aircraft operating over Laos increased. Since May 1969, virtually all the aircraft that had been flying from Thailand against North Vietnam prior to the bombing halt up North, including USAF B-52s, were now directed towards Laos, for which official permission was granted by the Laotian Government only in June 1969. These B-52 strikes initially only hit the Ho Chi Minh Trail, but in February 1970, USAF B-52s attacked the Plain of Jars for the first time.³¹³ These increased air combat activities also required a larger scale of coordination: Already on 13 February 1968, the 7th ACCS (Airborne Command and Control Squadron) was constituted and activated and organized on 1 March 1968, equipped with EC-130Es. They initially operated out of Udorn, until moving to Korat Royal Thai Air Force Base on 15 April 72. The 7th ACCS provided airborne combat command and control in South East Asia from 1 March 1968 to 15 August 1973.³¹⁴

Air strikes by smaller USAF aircraft and by RLAF T-28s however continued to be called

³⁰⁷ Robbins, *Ravens*, pp.181-84; Moody, *The great adventures*, Prelude, p.8. A description of the battle of Mung Suoi (L-108) can be found in Moody, Prelude, pp.10-16.

³⁰⁸ Moody, *The great adventures*, Prelude, p.4.

³⁰⁹ Leary, *Outline - Air America in Laos*, 1969, for October 69-April 1970, p.10; Robbins, *Ravens*, pp.64/5 + 180/1; Hamilton Merritt, *Tragic mountains*, pp.165 (photo of Ly Lue)+192.

³¹⁰ The USAF’s Assignment Records preserved at Maxwell AFB note that 4 T-28Ds were transferred from the USAF’s SMAAR unit, McClellan AFB, Sacramento, CA, to MAP on 68261, that is on 18 September 68: Two of them are positively Hmong T-28s, that is **0-91600** (that is 49-1600, c/n 159-112; photo in Hamilton-Merritt, *Tragic mountains*, p.165) and **0-91627** (that is 49-1627, c/n 159-139; photo in Robbins, *Ravens*, pp.120-21), while the other two, that is **0-91613** (or 49-1613, c/n 159-125) and **0-91631** (or 49-1631, c/n 159-143), are believed to have been used by Hmong pilots as well.

³¹¹ Robbins, *Ravens*, pp.170-74.

³¹² A Memorandum dated 17 June 1968, from the Joint Chiefs of Staff to Secretary of Defense, McNamara (Document 371, in: US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 366, in: http://www.state.gov/www/about_state/history/vol_xxviii_351_370.html) recommends that all of the 12 T-28s flown by the 606th Air Commando Squadron at Nakhon Phanom at that time should be deleted to make space for additional A-1s and A-26s.

³¹³ Kirk, *Wider war*, pp.239-43.

³¹⁴ See <http://www.spectrumwd.com/c130/inactive/left3.htm>; on 22 May 1974, the 7th ACCS moved to Clark AFB in the Philippines.

in by Raven Forward Air Controllers. Already after the fall of Phou Pha Thi (LS-85) in March 68, more Ravens were required to handle the increase in TACAIR sorties.³¹⁵ In late 1968, important changes in maintenance were introduced, as since that time, Air America mechanics maintained the Raven O-1s based at Long Tieng, and on a periodical basis, all Raven aircraft were rotated thru Udorn, where they were overhauled by Air America's Maintenance Department.³¹⁶ But at that time, only Cessna O-1s³¹⁷ and Cessna U-17s were operated, and very little is known about the individual Raven aircraft flown in those days. They either carried the Erawan or were unmarked, and normally, they used a 4-digit³¹⁸ and sometimes also 3-digit³¹⁹ abbreviation of their USAF or US Army serial. Later, Raven O-1s used normal USAF serials,³²⁰ like the Raven T-28s,³²¹ but were still unmarked. Raven FACs who had flown the T-28 had done so in direct violation of the rules. But in 1969, the Ravens were finally allowed to fly T-28s as FACs, and some Raven pilots were trained at Udorn on *Water Pump* T-28s in 1969, the first being Mike Cavanaugh who was to be based at Long Tieng.³²² Ravens were absolutely forbidden to fly the T-28 in combat, but with the RLAFF at Pakse in Military Region IV being ineffective, Raven pilot Tom Richards broke that rule too in 1968. He would find a target in the O-1 Bird Dog only to have the Lao refuse to hit it. He would then return to base, climb into the T-28, and fly out to bomb it himself.³²³ The first Raven T-28s came from various sources – some came from *Water Pump*,³²⁴ but most came from the RLAFF Military Assistance Program.³²⁵ As to 1971, more than 21 T-28Ds that were

³¹⁵ Moody, *The great adventures*, Episode 3, p.3.

³¹⁶ Robbins, *Ravens*, p.78.

³¹⁷ Three Raven Cessna O-1s have been traced, which were no longer current on 1 April 72: O-1A “2628”, a photo of which is contained in: UTD/LaShomb/B11F3; O-1A “2044”, a photo of which can be seen at <http://www.ravens.org/>; and O-1 “1674”, a photo of which, taken at Pakse in March 71, can be seen at <http://www.ravens.org/>.

³¹⁸ A photo of Raven Cessna O-1A “2628” can be found in: UTD/LaShomb/B11F3; another picture of a Raven Cessna O-1 (“1674”), taken at Pakse in March 71 can be seen at <http://www.ravens.org/> the fate of these aircraft is unknown.

³¹⁹ A photo of Raven Cessna O-1 “937”, carrying small South Vietnamese Air Force insignia, can be found at <http://www.ravens.org/pictures/o1nape.jpg>; its identity and fate are unknown.

³²⁰ A photo taken at Pakse in March 71 showing Raven Cessna O-1F “0-72897”, that is former USAF 57-2897 of 504 TAS, Cam Ranh Bay, delivered to TL MAP on 5 March 71 (71064), can be seen at <http://www.ravens.org/>. As it is no longer current on 1 April 72, it probably crashed before that date.

³²¹ A photo of Raven T-28D-5 “0-91531” (c/n 159-43) can be seen at <http://www.ravens.org/gene72-2.jpg>; it does not carry the Erawan, but a badge on the fin, indicating that it was based at Long Tieng.

³²² Robbins, *Ravens*, pp.166/7.

³²³ Robbins, *Ravens*, p.59.

³²⁴ Former *Water Pump* T-28C “0-40456” (c/n 226-33) was a Raven aircraft probably since 1969/70, as its photo is presented on the homepage of the *Ravens Organization* at <http://www.ravens.org/kham/Kham1965TrainingUdorn.jpg>; in April 1972, it is still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2), but went to the Philippine AF as “140456” in 1974 (?), and was sold to Business Air Charter, Portland, OR, as N2065J in August 1989.

³²⁵ A total of 8 Raven T-28s have been identified by photo proof: T-28D-5 “0-00276” (c/n 171-82) crashed at Lima 36 (Na Khang, LS-36); a photo of “0-00276” without the Erawan can be found at <http://www.tlc-brotherhood.org/lima36down.jpg>; still in April 72, it is flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2), its fate is unknown; T-28D “0-91510” (c/n 159-22) is pictured as a Ravens T-28 in: Moody, *The great adventures*, Prelude, p.5; it is not current in April 72, so was probably destroyed before that date; T-28D “0-91523” (c/n 159-35) is pictured as a Ravens T-28 in: <http://www.ravens.org/jimcain6.jpg>, and appeared in the movie *Birds of a feather* at 0.49.47 minutes, without the Erawan; it is not current in April 72, so was probably destroyed before that date; T-28D-5 “0-91531” (c/n 159-43) is pictured as a Ravens T-28 in: <http://www.ravens.org/gene72-2.jpg>; still in April 72, it is flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2), its fate is unknown; T-28D “0-91583” (c/n 159-95) is pictured as a Ravens T-28 in: <http://www.ravens.org/gene72-2.jpg>; it is not current in April 72, so was probably destroyed before that date; T-28D “0-91600” (c/n 159-112) is pictured as a Ravens T-28 in: Robbins, *Ravens*, pp.120-21 photo section,

marked as “transferred to non-USAF” (TL) in the USAF Assignment Records, without going to a Military Assistance Program, do appear in the list of T-28s maintained by Air America, Udorn, in April 1972: Two T-28 were transferred on 21 June 71,³²⁶ 2 on 30 June 71,³²⁷ three on 20 July 71,³²⁸ 5 on 10 October 71,³²⁹ 4 on 18 October 71,³³⁰ 4 on 11 December 71,³³¹ and 4

taken by Howard Mesaris probably in 1970; it is not current in April 72, so was probably destroyed before that date; T-28D “**0-91716**” (c/n 159-228) is pictured as a Ravens T-28 in: Robbins, *Ravens*, pp.120-21 photo section, taken by Howard Mesaris probably in 1970; it is not current in April 72, so was probably destroyed before that date; and finally, T-28C “**0-40533**” (c/n 226-110) is pictured as a Raven T-28 in a photo probably taken at Long Tieng and preserved in: UTD/Rich/B2F6, and published in: Davis, *Across the Mekong*, p.73; still in April 72, it is flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); probably in 1973, it was transferred to the training unit at Nam Phong, Thailand (photo in <http://www.namphong.com/album5/album5.htm>, taken at Nam Phong, Thailand), and in 1974 (?), it went to the Philippine Air Force as “140533”, who, subsequently preserved it at Villamor Air Base, Manila.

³²⁶ T-28D-10 “**0-38268**” (c/n 200-339) was transferred from NASJA, Jacksonville, to TL on 21 June 71 (71172), but not to MAP, and was current within the fleet of T-28s maintained by Air America Udorn on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72 as flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2). T-28D-10 “**0-37729**” (c/n 200-92) was also transferred from NASJA, Jacksonville, to TL on 21 June 71 (71172), but not to MAP, and was current within the fleet of T-28s maintained by Air America Udorn on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), but not current on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), so was probably destroyed between 21 June 71 and 1 April 72.

³²⁷ T-28D-10s “**0-37769**” (c/n 200-132) and “**0-38270**” (c/n 200-341) were both transferred from NASJA, Jacksonville, to TL on 30 June 71 (71181), but not to MAP, and were both current within the fleet of T-28s maintained by Air America Udorn on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002), and on 1 April 72 as flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2).

³²⁸ T-28D-10s “**0-37646**” (c/n 200-9), “**0-37785**” (c/n 200-148), and “**0-38174**” (c/n 200-245) were all transferred from NASJA, Jacksonville, to TL on 20 July 71 (71172), but not to MAP; all of them were current within the fleet of T-28s maintained by Air America Udorn on 1 August 71 (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12 September 2002); “0-37646” was no longer current on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2), but reportedly leased to the Khmer Air Force as “137646”; mentioned in <http://www.scramble.nl/mil/>; “0-37785” was still flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn, on 1 April 72 (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); this aircraft was later (1974?) sold to the Philippine AF as “37785”; and “0-38174” was also no longer current on 1 April 72, so may have been destroyed between 20 July 71 and 1 April 72.

³²⁹ T-28D-10 “**0-37673**” (c/n 200-36), T-28D-10 “**0-37674**” (c/n 200-37), T-28D “**0-37697**” (c/n 200-60), T-28D-10 “**0-37713**” (c/n 200-76), and T-28B “**0-37799**” (c/n 200-162) were all transferred from NASJA (Cecil Field Naval Air Station, Jacksonville, FL) to status “non-USAF” (TL) on 71283, that is on 10 October 71, but not to MAP, and all of them were current on 1 April 72 as flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2). “0-37673” was transferred to the Khmer Air Force as “673” in 73/4?, and received battle damage in March 74 (Phnom Penh base monthly report for March 74, in: UTD/CIA/B38F8); “0-37697” was transferred to the RLAf in 1973 (?) and to the Lao Air Force (Air Force of the Laos People’s Army) as “3406” in 1975; later, it was sold to the Royal Australian Navy Museum at Nowra, and is preserved there (noted in June 89; see Air-Britain News, Oct. 97, p.1229); “0-37799” was transferred to the Royal Lao Air Force in 1973 and to the Lao Air Force (Air Force of the Laos People’s Army) as “3412” in 1975; in March 92, it was sold to Ron J. Kitchen, Carson City, NV, as N28YF; regd. on 3 March 92; repainted as “0-37799” in RLAf colors and carrying the Long Tieng badge, advertised as a Hmong aircraft, allegedly flown by Hmong ace Lee Lu; photos in: http://pages.prodigy.net/jollyrogercain/_uimages/pages; the fates of “0-37674” and “0-37713” are unknown.

³³⁰ T-28D-10s “**0-37666**” (c/n 200-29), “**0-37675**” (c/n 200-38), “**0-37677**” (c/n 200-40), and “**0-37709**” (c/n 200-72) were all transferred from NASJA (Cecil Field Naval Air Station, Jacksonville, FL) to status “non-USAF” (TL) on 71283, that is on 18 October 71, but not to MAP, and all of them were current on 1 April 72 as

on 21 December 71.³³² Evidence of its career with the Ravens exists only for one of these 21 T-28s, that is for “0-37799”.³³³ As at the very same dates, other T-28s were transferred “to non-USAF” (TL) that ended up with the Royal Thai Air Force,³³⁴ it is believed that those T-28s given in the Air America list of 1 April 72 for which the USAF Assignment Records note “transferred to non-USAF”, but not to an MAP, were actually Raven aircraft that had been from batches destined for the Royal Thai Air Force. A similar case seems to be that of T-28D-5 “0-91621”, which was transferred from the 56th Special Operations Wing, Nakhon Phanom, to “non-USAF” (TL), but not to an MAP, on 16 September 68 (68259), that is at a date, when the Ravens did not yet fly T-28s, but reappears on the list of T-28s maintained by Air America in April 72; probably, this was also a former Royal Thai Air Force T-28, transferred to the Ravens by 1970.

In April 1972, no less than 3 Raven O-1As,³³⁵ 6 Raven O-1Ds,³³⁶ and 14 Raven O-1Fs³³⁷

flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); their fates are unknown.

³³¹ T-28D-10s “0-37684” (c/n 200-47), “0-37693” (c/n 200-56), “0-37701” (c/n 200-64), and “0-38201” (c/n 200-272) were all transferred from NASPF (Naval Air Station, Pensacola, FL) to status “non-USAF” (TL) on 71345, that is on 11 December 71, but not to MAP, and all of them were current on 1 April 72 as flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); while the fate of “0-37684”, “0-37693”, and “0-38201” is unknown, “0-37701” was used by the Royal Thai Air Force in 1974 (?), and sold to the Philippine AF as “137701” in 1974 (?), where it was damaged beyond repair at Sangley Point Air Base on 1 December 89.

³³² T-28B “0-38305” (c/n 200-376), T-28D “0-38320” (c/n 200-391), T-28D-10 “0-40019” (c/n 219-18), and T-28D-10 “0-40023” (c/n 219-22) were all transferred from NASPF (Naval Air Station, Pensacola, FL) to status “non-USAF” (TL) on 71355, that is on 21 December 71, but not to MAP, and all of them were current on 1 April 72 as flown under the command of the USAF Attaché, Vientiane, and maintained by Air America, Udorn (List of Assigned and maintained aircraft at Udorn as of 1 April 72, in: UTD/CIA/B49F2); while the fates of “0-40019” and T-28D-10 “0-40023” are unknown, “0-38305” and “0-38320” went to the RLAf in 1973 (Carroll, *World Air Forces Directory 1998-99*, p.275), and “0-38320” was transferred to the Lao Air Force (Air Force of the Laos People’s Army) as “34??” in 1975, and sold to J. Rayner, Moorabbin, as VH-LAO in March 92, regd. on 12 March 92; cancelled after a damage which occurred at Wangaratta, Victoria, on 13 June 92, and no longer current in 96.

³³³ See the photo at <http://www.ravens.org/t28craig.jpg> on the homepage of the Ravens Organization.

³³⁴ For example, T-28D 00137742 (c/n 200-105) was transferred from NASJA, Jacksonville, to TL (not MAP) on 71283 (10 October 71), and became “137742” with the Royal Thai Air Force (<http://www.scramble.nl/>); and as to the date of 11 December 71 (71345), even five T-28Ds transferred from Naval Air Station, Pensacola, FL, to “non-USAF” (TL), but not to an MAP, are known to have gone to the Royal Thai Air Force: 0-37671 (c/n 200-34), was noted at Bangkok on 11 November 72; “0-37802” (c/n 200-165) was noted at Bangkok on 6 January 73 and is preserved at Phitsannulok as “802”; “0-38157” (c/n 200-228) is listed by <http://www.scramble.nl/>; “0-38173” (c/n 200-244) was coded “22103” and noted airworthy in Nov. 96 and at Bangkok in 97; “0-38284” is also known to have gone to the Royal Thai Air Force.

³³⁵ The List of aircraft assigned and maintained by Air America, Udorn, as of 1 April 72 (in: UTD/CIA/B49F2) mentions only the full USAF serials of Raven Cessna O-1As 51-12666, 51-12781, and 51-6864; it is unknown if they carried the abbreviated 3 or 4 digit serial or the full USAF serial prefixed by an O-; their fate is equally unknown.

³³⁶ The List of aircraft assigned and maintained by Air America, Udorn, as of 1 April 72 (in: UTD/CIA/B49F2) mentions only the full USAF serials of Raven Cessna O-1Ds 55-4656, 55-4699, 55-4743, 57-2903, 57-2952, and 57-2974; it is unknown if they carried the abbreviated 3 or 4 digit serial or the full USAF serial prefixed by an O-; their fate is equally unknown.

³³⁷ No less than 10 of the 14 Cessna O-1Fs given on the List of aircraft assigned and maintained by Air America, Udorn, as of 1 April 72 (in: UTD/CIA/B49F2) were transferred (TL) from the 504th TAS of Cam Ranh Bay, South Vietnam, to MAP in February or March 1971: Again, the Air America list only gives the full USAF serials. Two O-1Fs were transferred on 15 February 71: 57-2792, and 57-2799; three more O-1Fs were transferred from the same unit the very same day, but do not appear on the Air America list of 1 April 72: These are O-1Fs 57-2860, 57-2861, and 57-2866; they are believed to have been destroyed between 15 February 71 and 1 April 72. Three Raven Cessna O-1Fs still current on 1 April 72 were transferred on 20 February 71; they are O-1Fs 57-2847, 57-2863, and 57-2874; two more O-1Fs were transferred from the same unit the very same day, but do not appear on the Air America list of 1 April 72: These are O-1Fs 57-2872 and 57-2921; they are believed to have been destroyed between 20 February 71 and 1 April 72. Four Raven Cessna O-1Fs still current on 1

were maintained by Air America's Udorn facility. This high number of O-1s still operated in spite of the T-28s introduced in 1969 was probably necessary in order to balance the equally high number of O-1s lost in crashes: No less than 27 Raven Cessna O-1s are known to have been lost in Laos,³³⁸ and there were probably many more. At the same date, that is in April 1972, 7 Raven Cessna U-17Bs³³⁹ were maintained by the Udorn facility of Air America, and of the 76 T-28s given in that list as maintained by Air America, Udorn, 26 are believed to be Raven T-28s.³⁴⁰ One more Raven T-28, possibly delivered in 72 from RThAF stocks, is known to have been T-28 "0-37762", whose wreck was photographed in 1973 and can be seen at <http://members.bellatlantic.net/~ltcol/laos.html>. Little is known about Raven T-28s that were lost: One Raven T-28 was shot down on the Plain of Jars on 25 May 70, wounding John Fuller, another one was shot down near Ban Na on 9 February 71, wounding Jim Hix, and a third one was shot down near Ban Na on 11 February 71, killing Grant Uhls.³⁴¹ Among those T-28s that, between 1 August 71 and 1 April 72, disappeared from the inventories of T-28s maintained by Air America's Udorn facility, four are believed to have been Raven aircraft,³⁴² most of them were probably destroyed. The cease-fire of 22 February 73 meant

April 72 were transferred on **28 February 71**; they are O-1Fs **57-2827**, **57-2892**, "**0-72976**" (a photo taken at Pakse in March 71 can be seen at <http://www.ravens.org/>), and **57-2977**. And one Raven Cessna O-1F still current on 1 April 72 was transferred on **5 March 71**, namely **57-2942**; another Raven Cessna O-1F, which was transferred (TL) from 504 TAS, Cam Ranh Bay, to MAP on 5 March 71 and photographed at Pakse in March 71 (see: <http://www.ravens.org/>), was "**0-72897**"; as it is no longer current on 1 April 72, it probably crashed before that date. The delivery dates of 4 Raven Cessna O-1Fs mentioned on the list of 1 April 72 are not known, so they were probably inherited from earlier times; they are O-1Fs: **57-2899**, **51-12718**, **51-12776**, and **55-4693**. In most cases, only the full USAF serials are known, so maybe they used the 4-digit abbreviation or also the regular USAF serial with the 0- prefix.

³³⁸ The "King of crashes" probably was Fred Platt, who crashed no less than 11 aircraft himself, his first crash being in **January 1969**, when he crashed his O-1 on the Plain of Jars in bad weather, his last O-1 crash was on Route 7, east of Xieng Khouang, on **11 January 70**, and this time, Fred Platt was injured (Robbins, *Ravens*, pp.143/4 and 209-12). The other 18 Raven O-1 crashes known are (all quoted from Robbins, *Ravens*): One O-1 disappeared on **6 September 68** during a ferry flight from Bien Hoa to Laos, killing Sam Deichelman (Robbins, *Ravens*, pp.61+379); on **7 November 68**, an O-1 crashed into the side of the mountains near Long Tieng, killing Charles D. Ballou (Robbins, *Ravens*, pp.68/9 + 379); also in **1968**, a Raven O-1 was shot down and crashed into a paddy near the Chinese border, but this time, the pilot (Papa Fox) and his backseater survived, as both were rescued by an Air America helicopter (Robbins, *Ravens*, pp.72-74); on **27 November 68**, a Raven O-1 was shot down east of Savannakhet, killing Ed "Hoss" McBride (Robbins, *Ravens*, pp.81/2+380); on **20 April 69**, a Raven O-1 was shot down over the PDJ near Xieng Khouang, killing John Bach (Robbins, *Ravens*, pp.155+386); on **26 March 70**, a Raven O-1 crashed north of Vientiane, killing Hank Allen and Dick Elzinga (Robbins, *Ravens*, p.235); in **late December 70**, a Raven O-1 crashed on the northern edge of the PDJ, killing Park Bunker (Robbins, *Ravens*, p.260); in **February /March 71**, a Raven O-1 crashed near Vientiane, killing Chuck Engle (Robbins, *Ravens*, pp.273-75); in **late April 71**, the Raven O-1 of Frank Kricker was shot down near Paksong on the Bolovens Plateau, killing his backseater (Robbins, *Ravens*, pp.296/7); on **11 June 71**, Lloyd Duncan's O-1 was shot down near Pakse, injuring him (Robbins, *Ravens*, p.299); in the **second half of 1971**, Jim Hix's O-1 crash-landed near Pakse (Robbins, *Ravens*, p.303); in **December 71**, three Raven O-1s were destroyed while parked on the ramp at LS-20A (Robbins, *Ravens*, pp.280/1); on **23 December 72**, Hal Mischler was killed in his O-1 over Saravane, (Robbins, *Ravens*, pp.312-16), and on **24 December 72**, Raven Skip Jackson was killed in his O-1 over the PDJ (Robbins, *Ravens*, p.316).

³³⁹ The following Raven Cessna U-17Bs were maintained by Air America, Udorn, in April 72 (List of Assigned, maintained aircraft as of 1 April 72 in: UTD/CIA/B49F2): **66-8549**; **68-10538**; **69-7304**; **69-7305**; **69-7306**; **71-1050**; and **71-11046**); it is unknown if they carried the abbreviated 4 digit serial or the full USAF serial prefixed by an O-; their fate is equally unknown. One Raven U-17 is known to have been shot down in the Ban Ban valley in May 70, killing Jim Cross and Dave Reese (Robbins, *Ravens*, p.247).

³⁴⁰ These 26 T-28s are: **2 T-28Cs** (0-40456 and 0-40533), **3 T-28D-5s** (0-91531, 0-91621, and 0-00276), and **21 T-28D-10s** (0-37666, 0-37673, 0-37674, 0-37675, 0-37677, 0-37684, 0-37693, 0-37697, 0-37701, 0-37709, 0-37713, 0-37769, 0-37785, 0-37799, 0-38201, 0-38268, 0-38270, 0-38305, 0-38320, 0-40019, and 0-40023 (List of aircraft assigned and maintained by Air America, Udorn, as of 1 April 72, in: UTD/CIA/B49F2).

³⁴¹ Robbins, *Ravens*, pp.247/8+p.390, and pp.260-63.

³⁴² These 4 T-28s were: "0-91583", "0-37729", "0-37646", and "0-38174" (List of Assigned and maintained aircraft at Udorn of 1 August 71, kindly supplied by Jackson L. Forney in his e-mail to the author, dated 12

that all “USAF air support would halt as of 1200 22 February.” The US Ravens were ordered to be back on the ground by midday and to be out of Laos very soon. As the war on the ground continued, the Raven pilots handed over their planes to the RLAf, that is to the Lao FACs, who turned them around and flew back into battle to direct the hopelessly inadequate squadrons of T-28s.³⁴³

In 1968, there were probably enough Lao and Hmong pilots available, as since 1969, even the Ravens were allowed to fly T-28s as FACs, and although they were absolutely forbidden to fly the T-28s in combat, some of them just did it.³⁴⁴ Furthermore, a Contingency Study of Laos and Thailand, accompanying a letter sent on 8 May 1968 to the Deputy Secretary of Defense, Paul Nitze, by the Under Secretary of State, Nick Katzenbach, states that Ambassador Sullivan “considers it preferable to augment the number of “Class B” pilots (Thai pilots flying RLAf aircraft under control of our Air Attaché in Vientiane),”³⁴⁵ and so Royal Thai Air Force pilots continued to fly for the Royal Laotian Air Force until 1975.³⁴⁶

RLAF T-28s at Air America’s Udorn Thailand base 1968-1973

As has been seen above, many more T-28s were added to the Military Assistance Program to Laos in the 1968-1973 period, all of them loaned to the RLAf thru DEPCHIEF, all of them flown under the command of AIRA, that is the USAF Attaché, Vientiane,³⁴⁷ and all of them maintained by Air America, Udorn. So, on the map of the Air America Udorn Thailand Base drawn on 15 October 68 and contained in the papers of David Hickler, a certain area located adjacent to the open storage area is called “T-28 Operations”. Furthermore, mention of the T-28 maintenance performed by Air America at its Udorn facilities is no longer hidden in classified documents, but in this period, it overtly figured in the contracts that the Company negotiated with the United States Air Force. Contract F04606-71-C-0002, negotiated between Air America and the USAF’s Sacramento Air Material Area in June 1970 and modified on 30 June 71 to cover Fiscal Year 1972, that is ending on 30 June 72, first mentions a certain sum for T-28 CBD (combat, battle damage), then states that “the primary customer for the Udorn maintenance base is DepChf JusMag”, that is DEPCHIEF, and finally adds a paragraph C “Supply instructions for DepChf-managed aircraft” in Section XVIII “Other items”, where the contract states that “supply procedures for T-28, UH-34, O-1, and U-17 aircraft had been included in three separate documents attached to the basic contract. DepChf, in conjunction with the Det. 11 Udorn plant office, developed a consolidated supply procedure.”³⁴⁸ These details clearly show that the Udorn-based T-28s flying in RLAf colors belonged to the USAF, were managed by DEPCHIEF, and were maintained by Air America. As the O-1s and U-17s were aircraft used by the Ravens, one part of the T-28s managed by DEPCHIEF were also Raven aircraft. Indeed, the “List of Assigned, maintained aircraft” of 1 April 72 contains, among others, a total of 76 T-28s of all versions (that is 4 T-28Bs, 3 T-28Cs, 1 RT-28D, 10 T-28Ds, 28 T-28D-5s, and 30 T-28D-10s), of which at least 26 were Raven aircraft, as well as 23 Raven O-1s (A, D, and F models) and 7 Raven U-17Bs,³⁴⁹ and all of these aircraft were operated, maintained or supported by Air America’s Udorn base at that time.

The follow-on contract between Air America and USAF’s Sacramento Air Material Area

September 2002; and List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2).

³⁴³ Robbins, *Ravens*, pp.312+323-25.

³⁴⁴ Robbins, *Ravens*, pp.166/7 and 59.

³⁴⁵ US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 366, in: http://www.state.gov/www/about_state/history/vol_xxviii.351_370.html.

³⁴⁶ Moody, *The great adventures*, Prelude, p.3, in: <http://www.aircommandos.org/BobAndDon/Episode0000.htr>.

³⁴⁷ Fax dated 7 August 2000 kindly sent to the author by B/G Aderholt.

³⁴⁸ Contract F04606-71-C-0002-P00024, effective 1 July 71, pp. 2 and 60 (both quotations on p.60), in: UTD/Kaufman/B1F8.

³⁴⁹ The list dated 1 April 72 contains all aircraft “presently operated, maintained or supported by Air America, Inc., Udorn” (in: UTD/CIA/B49F2).

(SMAMA), that is Modification P00054 to contract F04606-71-C-0002, effective 1 July 72 and valid until 30 June 73, now also included services formerly performed under USAID contracts 439-342 and 439-713. In the beginning, it specifically mentions “additional requirements, totaling \$ 815,400 for Weather Network O&M [that is: Operation and Maintenance], TACAN (PACAF) O&M, T-28 Stand by Maintenance and a Logistics Management Assistance Team” that “are also provided for under the FY73 program”. Later it states that several changes had to be introduced to the Maintenance Services at Udorn for operation during Fiscal Year 1973, including “addition of coverage for the expanded ‘South Forty’ T-28 facility (USAF operational area, with contractor facility maintenance)”.³⁵⁰ So, until the very end of its Udorn operations, Air America was responsible for maintaining the USAF T-28s loaned to the RLAF thru DEPCHIEF.

The 1973-74 period:

It is evident that after the cease-Fire Agreement of February 73, no combat or combat support missions were allowed in Laos to any US personnel. The only thing to be mentioned here was a T-28 coup that failed: On 20 August 1973, Brigadier General Thao Ma, who had been in exile in Thailand since his *coup d'état* of October 1966, tried to stop the slow handover of Laos to the Communists by another T-28 attack. The attack began quietly around 1:30 AM across the Mekong at Vientiane's Wattay Airport. In the meantime, proud Lao nationalists who supported the uprising handed out Blue-and-white ascots to help identify Thao Ma's supporters. Although ordered not to accept or wear those ascots, some of them were worn by some Airport Security, some mechanics, some Air America employees, and some *Water Pump* personnel, until they were ordered to remove them by supervisors fearing they might become targeted for reprisals. Around noon, some RLAF T-28s taken over by Thao Ma to aid in the bombardment attack, took off to begin bombing missions. In the meantime, Thao Ma's associates had captured the City Bank and begun transmitting messages from the captured downtown radio station. During the air attack, the T-28 flown by Thao Ma himself was battle damaged, and crashed short of the runway while returning to land at Vientiane. Thao Ma, although badly damaged from the plane crash, was captured by General Kouprasith Abhay and head shot. And 60 of the leaders supporting his coup were also reportedly shot, after some had been captured and others surrendered to the authorities.³⁵¹

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³⁵⁰ Contract F04606-71-C-0002-P00054, effective 1 July 72, pp. 2 and 11, in: UTD/Kaufman/B1F6.

³⁵¹ Davis, *Laos: Secret war pilots*, in: <http://angelfire.com/in/Laos/Pilots.html>, p.9.