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 the Tango program. Already in July 1955, 2 C-47s chartered from CAT had participated in the first post-ceasefire combat jump flown by C-47s of the ANL (Armée Nationale Laotienne or Lao National Army), when the aircraft dropped the ANL’s airborne battalion, the Seno-based 1er Bataillon de Parachutistes, over the garrison of Moung Peun beleaguered by Pathet Lao forces. In August 59, PEO again contracted an Air America C-46 and C-47 for use in the Moung Peun paratroop drop. 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 Chinos 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 paratroopers 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. Reportedly, 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 und placed them under Major Aderholt’s command. But probably, only 2 B-26s were ferried to Takhli at that time. On 7 January 61, 2 more B-26s were ordered to Takhli, but had not yet arrived by early March 61. “On March 21 [1961], Jenny, Beale, Sutphin, and Barnes ferried heavily armed B-26s to Takhли” – probably the remaining 2 black B-26s. Originally, 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. Then, the target was to become the Plain of Jars. The loss of the critical junction of Routes 7 and 13 at Sala Phou Khoun in early March 1961 had several consequences: The US Government felt it might be necessary to defend the neutral and independent Laos, and so on 9 March 61, President Kennedy approved

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1 Conboy / Morrison, Shadow war, p.16.
2 Conboy / Morrison, Shadow war, p. 22.
3 Conboy / Morrison, Shadow war, p. 45.
4 Conboy / Morrison, Shadow war, pp. 48 + 52.
5 Interview with Thomas G. Jenny, conducted by Prof. William Leary at Atlanta, GA on 24 May 1988, written resume, at: UTD/Leary/B43F3. This is not evident from Tom Jenny’s log book, which notes only 2 B-26s (“6797” and “8264”) test flown at Tainan for one hour each (Tom Jenny kindly sent photocopies of his log book to the author on 22 October 2004). Probably, he was not allowed to log the ferry flight.
plans for a major B-26 strike against the Plain of Jars,\textsuperscript{6} as the only Laotian combat aircraft at that time were four armed T-6s received from the Royal Thai Air Force in early January 61.\textsuperscript{7}

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.\textsuperscript{8} 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,\textsuperscript{9} all volunteers, were discharged from the USAF, given civilian clothes

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\includegraphics[width=\textwidth]{RLAF_T-6_TEXANS_AT_Luang_Prabang_IN_1962.jpg}
\caption{RLAF T-6 Texans at Luang Prabang in 1962 (UTD/Leary/B75F5, former photo no. 1WL1-27-8-PC90)}
\end{figure}

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\centering
\includegraphics[width=\textwidth]{The_Mill_Pond_fleet_taken_at_Takhli_by_B_G_H_Aderholt_in_1961.jpg}
\caption{The Mill Pond fleet, taken at Takhli by B.G. H. Aderholt in 1961 (former photo no. 1-WL1-28-23-PB369, now preserved at UTD/Leary/B74F1)}
\end{figure}

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\textsuperscript{6} Conboy / Morrison, \textit{Shadow war}, p. 51; Ahern, \textit{Undercover armies}, p.54.
\textsuperscript{7} The Joint US Military Assistance Group (JUSMAG) at Thailand had offered the Royal Thai Government five T-37s in exchange for Thai-owned T-6s to be transferred to US control and then given to Laos. On 3 January 61, four Lao pilots arrived at Kokethiem, Thailand, and after some days of training, the Lao, including detachment leader Major Thao Ma, on 9 January 61 ferried the 4 T-6s to Savannkhet and then to Vientiane on 10 January for their first mission. By early February 61, the RLAF had received 8 T-6s, but not enough pilots, so that 4 Thai volunteer pilots were selected from the RThAF’s 63\textsuperscript{rd} Squadron of Don Muang. One T-6 was shot down over Sala Phou Khoun on 17 January 61, one T-6 crashed during a training flight on 11 March, two T-6s collided in midair during operations near Tha Thom on 12 March 61, and one T-6 received ground fire and crash-landed near Tha Thom on 31 March 61 (Conboy / Morrison, \textit{Shadow war}, p. 46, note 52, p. 48, and pp. 50/1).
\textsuperscript{8} This chapter is mainly based on the excellent description contained in: Hagedorn / Hellström, \textit{Foreign Invaders}, pp. 132-36; Trest, \textit{Air Commando One}, p.110.
and fake identification, and flown to Takhli, Thailand, home of Project *Mill Pond*, where they were given Royal Lao Air Force commissions. One of them, Ronald L. Allaire, describes his experience as follows: “I was sent to a hotel in Washington, D.C. where I took a battery of tests […] Afterwards I was sent to the Pentagon to be interviewed by a small number of psychologists. […] On March 24, 1961 I was reassigned from Griffiss AFB to the Central Control Group, Headquarters USAF, Washington, D.C. with 6 days TDY enroute at Eglin AFB, Florida. […] One of the Flight Test birds flew me down to Eglin. In a few days I met some of the other pilots involved when we went to Duke Field to get recurrent in the B-26 (now called the A-26). I flew two, day VFR, transition missions on the 29th of March and two, hot armament sorties on the 30th of March. […] The type airplane shown on the […] flight record had to be shown as T-29 for B-26 sorties and as L-20 for Helio Courier (U-10) flights. And Base was shown as Andrews AFB, Washington, D.C. […] I flew back to Washington and on 31 March 1961 was discharged from the USAF, given a first-class ticket on Pan American Flight 2 to Bangkok, Thailand. […] There we were put on a USAF C-130 and flown to Takhli Royal Thai Air Force Base, which was about 90 miles north of Bangkok. We were briefed that we would meet a Major “Heinie” Aderholt who would be in charge of our mission.”

These pilots were to fly additional B-26s and to augment the detachment’s ground crews at Takhli, while the Air America pilots – Truman Barnes, William H. Beale Jr., Tom Jenny, and Ron Sutphin – 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. Compared to the situation of one year earlier, the facilities at Takhli had been extended, as Navy Seabees had built barracks with open bays and a small mess hall – facilities that occupants soon called the “Ranch”. So, in the second week of April 61, twelve more B-26s and two RB-26Cs were flown to Takhli.

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)


11 Interview with Tom Jenny, dated 1 June 2006.

12 Trest, *Air Commando One*, p.112.
flown in from Okinawa.\textsuperscript{13} 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, \textit{Mill Pond} operations were limited to reconnaissance missions flying the RB-26Cs.\textsuperscript{14}

Instead of making familiarization flights out of Takhli in the B-26s, the 4 Air America pilots were called to fly C-46s “on twice-a-day arms and ammunition drops into Laos. One ammunition resupply mission was particularly eventful and nearly caused the cancellation of MILLPOND. Bill Beale and copilot Tom Jenny, accompanied by a mixed American-Thai parachute delivery crew, had trouble locating the drop zone. Flying in Laos, with changing weather conditions and ever-present mountains and enemy gunfire, was always a challenge. Despite good visibility, Beale suddenly realized he was flying the airplane directly at a limestone ridge line. With no room to maneuver, the C-46 barely passed over the formation. Luck quickly gave out as the plane then struck the top of a second karst and hit a tree. With the airplane now in an engine stall and essentially falling along the side of the mountain, Beale used the steep drop to regain engine power and control. The pilots managed to save the aircraft and the badly damaged C-46 made an emergency landing in Thailand at Udorn airfield. According to an eyewitness, ‘On the left side, a branch a foot in diameter had passed between the fuselage and the propeller arc, missing the prop but driving a hole two feet deep in the wing root. Everything there was damage that just barely missed being fatal.’”\textsuperscript{15} The USAF pilots flew 4 missions near the Plain to familiarize themselves with the area, and then the mixed USAF-Air America fleet began low-level practice flights in cells of 4 aircraft each.\textsuperscript{16}

On the program, there was also one Helio Courier, believed to be Major Aderholt’s “555”,\textsuperscript{17} used for liaison flights to Vientiane, Bangkok and Udorn: “Most of the Courier flights were between Takhli and Bangkok to pick up the mail and to take pilots down for Rest and Relaxation. I flew to Vientiane, Laos and Udorn, Thailand to deliver people and messages for Heinie.”\textsuperscript{18} And there were also 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 Lao 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 \textit{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

\textsuperscript{13} Ronald L. Allaire recalls: “On the 5th of April 1961 Heinie checked me out in the Helio Courier. Then we were flown to Kadena AFB, Okinawa in an Air Force plane. After staying overnight, we flew several B-26s back to Takhli, two pilots per airplane, on April 11, 1961. Our route was over the Pacific Ocean most of the way, east of Taiwan, north of the Philippines, then almost straight west over South Vietnam, Laos, and Thailand. The flight took eight hours and thirty minutes, with bomb bay tanks. We maintained complete radio silence all the way.” (Letter dated 25 Sept.1990, written by R. L. Allaire to William M. Leary, preserved at: UTD/Leary/B43F8).

\textsuperscript{14} Trest, \textit{Air Commando One}, pp.109-10, 113.


\textsuperscript{16} Conboy / Morrison, \textit{Shadow war}, pp. 52 plus 56, note 29.

\textsuperscript{17} “555” was Aderholt’s Helio (see William A. “Al” White, Interview with William M. Leary, 7-16 February 1988, written version, preserved at UTD/Leary/B43F5).

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.\(^\text{19}\)

\[\text{\[Image 79x449 to 516x716\]}\]

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\text{Mill Pond RB-26C “236” taken at Takhli in 1961 by B.G. H. Aderholt (former photo no. 1-WL1-28-23-PB368, now preserved at UTD/Leary/B74F1)}\]

However, apparently, Operation \textit{Mill Pond} was intended to be more than just a number of B-26 strikes on to the Plain of Jars. The idea was that of an invasion of the Plain of Jars. When the B-26 fleet of Project \textit{Mill Pond} was built up at Takhli in April 61 in order to bomb the Plain of Jars, there were also four C-130As based at Takhli\(^\text{20}\) for CIA scheduling. They were to be used for close air support of an invasion of the Plain of Jars. But when the strike was called off by Washington on 17 April 61, the 4 USAF C-130As remained at Takhli, and in late April and May 61, they were used to ferry two volunteer Thai artillery batteries to Seno (L-46), Laos, to help repel the Pathet Lao advance.\(^\text{12}\) Interestingly, the build-up of Air America’s helicopter operations at Udorn by the Marines was also called Operation \textit{Mill Pond},\(^\text{21}\) a name that is mostly known only for the aborted B-26 attack out of Takhli that was to hit the Plain of Jars on 17 April 61.\(^\text{22}\) Apart from 4 UH-34Ds delivered to Air America already in December 1960, the bulk of the UH-34s had been very abruptly ordered to Laos in March 61. The story was that they were to replace a squadron US Marine helicopters,\(^\text{23}\) but

\begin{footnotes}
\item [20] C-130As 56-490, 56-491, 56-493, and 56-497. See the C-130 file within my \textit{Aircraft of Air America}.
\item [22] See my file: \textit{Air America in Laos III – in combat} within this \textit{History of Air America}.
\item [23] USAF GS-13 James E. Spencer, former Contract Administrator for USAF-Air America contracts, recalls the beginning of Air America operations out of Udorn from the military point of view: “In early 1961, there was a
\end{footnotes}
Udorn airfield was only built by US Marine forces who had arrived from Okinawa not before 22 March 61. Apparently, the beginning of Air America’s new helicopter operations out of Udorn was conceived as a part of the same decision made by President Kennedy in March 61 to substantially increase US support to the Royal Lao Government against the Communists. In the case of the helicopters, this new operation was “disguised” as a continuation, i.e. as a simple change of the operator from the US Marines to Air America, in order to comply with the neutrality of Laos. Thomas Ahern calls Operation Mill Pond “the contingency plan for a US invasion of the Plain of Jars” and, to prove it, quotes a document of June 61 from the US Joint Chiefs of Staff. This document says that the “helicopter portion of Mill Pond operations is falling apart at the seams” – apparently referring to the many Air America UH-34Ds that had already been lost by that time.

As to the Mill Pond B-26s, they all remained on standby at Takhli until August 61: The four “sanitized” C-130s were used to ferry two volunteer Thai artillery batteries to Seno (L-46), Laos, in late April 61, to help repel the Pathet Lao advance, and to carry military supplies for the Royal Lao Army (FAL) to Vientiane, while the two RB-26Cs were used on reconnaissance missions over Laos since late April 61, especially over the Ho Chi Minh Trail. Some reconnaissance missions had previously been flown by USAF C-47s since late 60, until a specially modified SC-47B dubbed Rose Bowl, 44-76330 of the 315th Air Division, was shot down over Laos on 23 March 61, and then since 24 April 61 by an unmarked RT-33A based combat Marine squadron operating and maintaining UH-34 aircraft out of Udorn Royal Thai Air Force Base. Apparently, because of the political situation, a decision was made in Washington to remove the Marines from Udorn, and to take-over the operation with a civilian contractor. In February 1961, a joint State/DOD message was received by the procuring activity in Tachikawa, Japan directing that the Marine operations at Udorn be taken over by contracting with Air America, Inc. As there were no detailed requirements contained in the State/DOD message, another Contracting Officer, Mr. John F. Pakenham, and I were sent to Vientiane to discuss the details of the requirement with Gen. Boyle. Gen. Boyle’s instructions to us were: ‘I want aircraft to fly where I want them, when I want them and without any interference.’ After the visit to Gen. Boyle, a meeting was arranged with the commander of the Marine squadron, and the details of what would be required of the contractor were determined” (James E. Spencer, End of tour report, 19 September 1974, in: UTD/Kaufman/B19F3). All this sounds as the if beginning of Air America helicopter operations out of Udorn was only a change of the operator, replacing the Marines by Air America, and that was probably what people should believe.

In reality, the Marine squadron at Udorn was not a combat Marine squadron, but Marine Air Base Squadron 16 (MABS-16) that had received its order to move from its home at Futema, Okinawa to Udorn only on 19 March 61, with airlift to begin on 22 March 61 (Hofmann, Operation Millpond. U.S. Marines in Thailand, 1961, pp. V, 7, and 8).

See also, Leary, Manuscript, ch. V, pp.363/4, in: UTD/Leary/B19F3.

26 Ahern, Undercover armies, p.94.

27 Air America UH-34D losses by June 61 were: H-D on 22 January 61; H-Q on 5 April 61; H-I on 19 April 61; H-K on 15 May 61; H-G on 30 May 61; and H-W on 18 June 61. For details see the file: SIKORSKY UH-34s (1st series) within my The Aircraft of Air America.

28 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 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.

29 The USAF C-130 supply flights were named Hotshot and began on 26 April 61, and by 27 April, they had brought in 170 tons of military equipment (Conboy / Morrison, Shadow war, p.55 note 26).

30 These missions were apparently flown by USAF pilots: On or around 1 May 61, USAF pilots Ronald L. Allaire and Claude W. Gilliam were shot at over the town of Nape; although the left horizontal stabilizer and elevator were damaged, the aircraft was able to return to Takhli (Castle, At war, p.35). See also the letter dated 25 Sept.1990, written by R. L. Allaire to William M. Leary, preserved at: UTD/Leary/B43F8.

31 C-47 44-76330 had taken off from Vientiane and was on a flight to Saigon across the Plain of Jars, where it
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.

Laos 1961: Project Black Watch:

The negotiations in Geneva that had started on 3 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 a little bit later, 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 William Beale, Ed Eckholdt, Fred Riley and Al White. White went on the B-26 photo recon project in October 1961. He began training with Beale at Takhli on 4 October, with additional training flights on 6, 8, and 9, making a total of about 27 hours. His first operational flight as observer was on 10 October 61, with Beale as pilot. White flew again with Beale on the 11th and 12th, after which Beale left the program. So White then took over as pilot, with Fred Riley and Ed Eckholdt as observers. Al White also had a role in selecting equipment for the aircraft. The B-26 had two 12-inch split vertical cameras in the belly. White asked Aderholt for a 36-inch dicing camera; this quickly appeared, and White had it installed in the nose at a slight down-angle. This camera gave a 9 x 12 blow up with excellent detail. White then asked for and obtained from Aderholt a voice recorder that was synchronized with the cameras so that the observer could make comments during the photo runs. Together with USAF Major Watson, White worked out the intervelometer setting for the B-26’s speed in order to provide 60 percent overlap for the 12-inch split vertical cameras, which could identify troops at 12-14,000 feet; the 60 percent overlap was optimum for photo interpretation. Some missions were high-level mosaic work, others involved oblique photography, flying down roads to get pictures of troop movements, equipment, and supplies that were coming down into South Vietnam. The pilots 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; Castle, At war, p.33).

32 Ronald L. Allaire recalls: “We ferried the B-26s out of Thailand starting on August 5, 1961. Howard Naslund and I flew one of them to Tainan, Taiwan and turned it over to CAT. This was a six hour and ten minute flight. […] On August 15, 1961 Bill Healey and I flew one of the birds back to Kadena AFB, Okinawa, and eight hour and fifty minute flight. We went right back to Thailand and on August 18, 1961 Matt O’Hare and I flew the last B-26 (I believe) from Thailand to Okinawa in eight hours and 5 minutes” (Letter dated 25 Sept.1990, written by R. L. Allaire to William M. Leary, preserved at: UTD/Leary/B43F8).
carried T-shirts, cutoffs, combat boots, .357 Magnums, and some gold coins in a plastic bag, but they carried no identification. After Beale had left the program, White flew some recce missions with Fred Riley, i.e. on 14, 16, 20, 26, 30 and 31 October 61. Others were flown with Ed Eckholdt as observer: So, on 18 October 61, Al White and Ed Eckholdt flew RB-26C “745” in a reconnaissance mission to Saravane. Ed Eckholdt refers to these RB-26Cs as being CEECO aircraft. On 22 and 24 October 61, they flew “236” on similar missions to Tchepone, but on 28 October they had to abort the mission because of technical problems and flew “236” to Udorn for repairs; on 29 October 61, they returned to Takhli. On 1 November 61, they flew another recon mission to Tchepone in “236”. But the following day, on 2 November 61, “236”, again flown by Ed Eckholdt and Al White, was hit by 40 mm anti-aircraft gun fire in the Nape Mahaxoy Lak Sao area west of the Mu Gia Pass, but returned 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 – on 2 December 61, Ed Eckholdt and Al White flew RB-26C “745” again on a 4.25 hours reconnaissance mission out of Takhli into Laos, including the Nape area, and in early 1962, Al White was asked to test hop a B-26 at Takhli: White accepted, but then made a belly landing at Takhli. In May 62, both aircraft were returned to the USAF as 44-35585 and 44-35813 and 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. 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.

**Increasing pressure from the left and from the right**

In spite of increased US aid and advice to Phoumi Nosavan’s forces, however, 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, including the cities of “Muang Phin” (= Muang Phine / LS-300) and “Xepon” (= Tchepone / L-38), had been conquered by the Communists. In order to stop the Communist advance, the PEO planned an airmobile assault that was to take a stretch of Route 13 north of Moung Kassy and then await reinforcements. So, on 5 April 61, after part of the airborne force had been flown there by RLAF C-47s and parachuted 16 kilometers northeast Moung Kassy, the remaining troops were flown there by Air America UH-34Ds. Although this heliborne infiltration went smoothly, H-Q, one of Air America’s UH-34Ds, was lost on that occasion, when a deployed parachute became entangled in the rotor blades, resulting in substantial damage to the aircraft, which made an emergency landing in an insecure area; on 6 April 61,

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38 “Unlike the single-pilot planes, the Blackbirds flew with two-man crews: one to fly the plane and the other to give a vocal soundtrack for the serial photographs” (Conboy / Morrison, Shadow war, p.122, note 13).
40 Log book of Ed Eckholdt, in: UTD/Leary/B44F13; see the entry that notes his first flight in a B-26 for 18 November 61 in his list “Types flown – date”.
41 Log book of Ed Eckholdt, in: UTD/Leary/B44F13. Flak chewed up an engine, part of the nose, destroyed the radio rack, and chewed up the armor plating under White’s seat (William A. “Al” White, interview with William M. Leary, 7-16 February 1988, written version, preserved at UTD/Leary/B43F5).
44 See Hagedorn/Hellström, Foreign Invaders, pp.135/6, and for Project Farm Gate: ib., pp.137-47.
45 Trest, Air Commando One, p.123.
Air America’s helicopter H-Q was abandoned on customer’s advice.\textsuperscript{46} Also during that period, the airfield at Tchepone (L-38) was rebuilt by North Vietnamese forces,\textsuperscript{47} 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.\textsuperscript{48}

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 Hmong 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. In rare cases, mutiny inside the Royal Laotian troops resulted even in “converting” Air America’s transport helicopters into gunships: When in early February 1962, a Royal Lao Army company commanded by Lt. Hongsee Thong entered the camp at Xiang Lom and immediately placed the White Star team working there (FTT 2) and Major Khuang, the commander of battalion BV 17 that was being trained in the camp, under arrest, back at Luang Prabang, Major Patrick Marr, the commander of the White Star teams working on that area, assembled 12 Special Forces members for a rescue mission. Then 3 Air America UH-34Ds got machine guns sandbagged at the doors. The assault force entered 2 of the helicopters, while the White Star commander and the Royal Lao Army commander for northern Laos went aboard the third UH-34D. After offloading the 2 commanding officers on a hill behind the White Star compound at Xiang Lom, the 3 helicopters orbited over the town, guns plainly visible in the doorways. But the 2 commanding officers managed to end the confrontation without bloodshed, released the imprisoned team, and all flew out in a waiting helicopter.\textsuperscript{49} 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.\textsuperscript{50} 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.\textsuperscript{51} 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

\textsuperscript{46} Aircraft list of June 62, corrected to Sept. 1963, in: UTD/Kirkpatrick/B1F1; Aircraft destroyed or lost, in: UTD/CIA/B49F2; Aircraft accidents 1961, in: UTD/CIA/B49F2; for the historical background see Conboy / Morrison, Shadow war, p.53.
\textsuperscript{47} Toperczer, Air war over North Vietnam, p.7.
\textsuperscript{48} List “Operational casualties in SEA” (in: UTD/CIA/B29F1); Memorial file (in: UTD/LaShomb/B16F3); Leary, CIA Air Operations in Laos, p.58.
\textsuperscript{49} Conboy / Morrison, Shadow war, pp.69/70.
\textsuperscript{50} Toperczer, Air war over North Vietnam, p.7.
\textsuperscript{51} Kirk, Wider war, pp.207/8.
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, 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 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. 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 in 1970, “bigger than the royal capital of Luang Prabang and almost as large as the political capital of Vientiane”.

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 Madriver-contract, which, as has been shown in the files 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, i.e. 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) or Auto Défense Ordinaire (ADO) forces, but ten thousand were formed into Special Guerilla

52 Leary, CIA Air operations, p.61.
53 Don Schanche, quoted by Kirk, Wider war, pp.234/5.
54 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; they were full-time defenders (Conboy / Morrison, Shadow war, p. 23; Hamilton-Merritt, Tragic mountains, p.177).
55 The ADO units were not trained or salaried, but were provided with weapons and ammunition for village defense; they were part-time village defenders (Conboy / Morrison, Shadow war, p. 23; Hamilton-Merritt, Tragic mountains, p.177).
Units (SGUs).\(^5^7\) 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.\(^5^8\) 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, 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 ethnic. 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 ethnic.”\(^5^9\)

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.\(^6^0\) For example, on 5 July 65, General Vang Pao launched his rainy season offensive out of the two major Royal Lao Government outposts along the Sam Neua-Xieng Khouang border, i.e. Na Khang (LS-36) and Houei Thom (LS-27). Supported by Air America UH-34Ds, Thai-flown RLAF T-28s, and USAF F-4s and F-105s, Vang Pao conquered the Phou Then Nong Thao hill on 24 July, then another mountain, Phou Phak Lod, and – always marching northeast – Hua Moung (LS-58) on 16 September, whereupon they returned south to Na Khang.\(^6^1\) 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.\(^6^2\)

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57 Actually, the concept of AD corps had already been introduced in 1955, then was disbanded by 1958, and finally resurrected in mid-1959 as an ambitious countrywide village defense network (Conboy / Morrison, Shadow war, p. 23).

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

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

60 Castle, At war, p.80.

61 Conboy / Morrison, Shadow war, pp.129-30.

62 “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 UX 3301, approximately 5 miles south-west of LS-36. After making one uneventful round trip to an alternate landing zone at UX 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
The type of combat flying (“tactical airlift”) that moved Vang Pao’s troops over short distances was called “Leap frog technique”. In the early 60ies, this type of flying was done by Air America’s UH-34Ds operating under the provisions of the Madriver-contract no. AF 62(531)-1674 and its follow-on contracts, in the late 60ies and early 70ies, Air America’s Bell 205s assigned to the CIA contract no. AID-439-713 did the job. A good example of the first type was the fighting for Na Khang (LS-36) that occurred in 1966. After the first North Vietnamese attack of 6 February against Na Khang had chased many defenders into the jungle – an Air America UH-34D later backloaded the ragged survivors to Na Khang –, General Vang Pao was hit by a bullet on 13 February and had to be flown out, first to Moung Hiem by UH-34D and then by C-123 to a hospital in Thailand. So the morale at the Lao Army garrison went down, and the following night, Na Khang was abandoned to the North Vietnamese. The remaining defenders gathered at Moung Hiem, where they were visited by USAF and USAID specialists on 6 March. When the Americans took off again, their Helio B-877 crashed onto the ground, killing the pilot Wayne Ensminger and a PARU captain. In April 66, a reinvigorated Van Pao returned, launching his 1966 rainy season offensive, and in May 66, the Hmong guerrillas leapfrogged from Long Tieng to San Pa Ca and Phu Cum in May, then 28 kilometers northeast to Moung Hiem, and from there into the hills southeast of Na Khang. There, one of the Air America UH-34Ds, H-42, was shot down on 19 May 66, killing the pilot, Capt. John W. Wilmot Jr, and eight Hmong passengers. But on 25 May, Na Khang was declared a secure site after flying in the 5 SGU Battalion for garrison duty. In July, one airmobile column leapfrogged northeast to the North Vietnamese frontier to get into contact with Hmong refugees inside North Vietnam.

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 Lao Army troops of General Phoumi Nosavan from positions in Southern Vientiane province to areas on the edge of the Plain of Jars. For more details, see my file Air America in Laos II – military aid, Part I.

Air America in air combat

A new bombing mission scheduled for 1964

In February 1964, a number of Air America pilots were again sent to Tainan for flight training in the B-26. Most of the training was done in TB-26B “B-888”: Joe Hazen flew it on 22, 24, and 28 February 64, Tom Jenny on 22 and 23 February 64, and on 26 February 64.

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).

Between 1 July 63 and 30 June 65, this was contract no. AF 62(531)-1758 (in: UTD/Kaufman/B1F10), followed by contract no. AF 62(531)-1841 between 1 July 65 and 30 June 67 (in: UTD/Kaufman/B1F9). Between 1 July 67 and 30 June 70, this contract was no. F62531-67-C-0028, which was followed by a more comprehensive contract on 1 July 70, that is by F04606-71-C-0002 (Price negotiation memorandum dated 20 October 71, in: UTD/Kaufman/B1F8).

Conboy / Morrison, Shadow war, pp.151-11.

Kirk, Wider war, pp.208-10.

E-mail dated 7 June 2004, kindly sent to the author by Joe Hazen. “The only person I flew with in February 1964 was Truman Barnes and that was in 888 on the 22nd for 1.7 hours, four takeoffs and landings plus some air
Ed Eckholdt and Bob Abrahms were checked out by Truman Barnes as instructor pilots in a 2.00 hours flight, Ed Eckholdt making one landing, and Bob Abrahms 2 landings. As an instructor pilot, Ed Eckholdt then made two 2.00 hour flights in B-888 from Tainan to Tainan on 27 February 64: In the first flight, Ed checked out Chuck Cameron and Russ Krieg, and in the second one Morrie Kenstler. Among the “hard nose” B-26Bs, “797” is known to have been flown several times out of Tainan during that period, that is by Tom Jenny on 24 and 25 February 64, and by Joe Hazen on 24, 25, and 27 February 64. The reason for this training seems to have been a bombing mission that was scheduled to strike Vang Vieng. But as the US Navy began flying air strikes after the Golf of Tonkin incident, that mission never came off.

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. 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, as there was constant gunfire in northern Laos. So, in July and August 63, the US Government gave the Souvanna government in Laos 8 T-28s taken from the Royal Thai Air Force inventory, and provided a USAF Mobile Training Team (MMT) for initial instruction and maintenance at Wattay airport, Vientiane. Before that, 5 RLAF pilots had been trained in work. […] To complete my time in Tainan in February 1964, I flew 888 on the 24th for 1.3 hours and one takeoff and landing and the 28th for 0.7 hours (night) and 5 takeoffs and landings.” (E-mail dated 19 June 2009, kindly sent to the author by Joe Hazen). The scene is depicted in a painting by Keith Woodcock (at http://www.air-america.org/News/images/Limaprintlowres.jpg), and the registration of the Bell 205 involved, XW-PFH, is confirmed by Dr. Tim Castle (e-mail dated 22 September 2012 kindly sent to the author), who has it from Tod Moore’s log book. The immediate reaction of the CIA had been a cable that headquarters (William Colby) sent to CIA man Ted Shackley on 13 January 68, saying: “Congratulations to Snoopy and all you other guys out there who are fighting the Red Baron” (Theodore Shackley, Spymaster: my life in the CIA, Dulles, VA [Potomac] 2005, p.185, quoted by Jesse Walton in his e-mail of 29 December 2012, kindly forwarded to the author by Ward Reimer).

68 Ed Eckholdt, interview made by William M. Leary on 24 September 1987; the notes of Prof. Leary are preserved at UTD/Leary/B44F13.
71 E-mail dated 7 June 2004, kindly sent to the author by Joe Hazen. “On 24 February I was in 797, but had some trouble at run up, possibly engine, so had to return to the ramp. I did log 0.8 hours as required. Whatever the problem, it was fixed and I flew 797 on 25 February for 1.9 hours and made three takeoffs and landings. I again flew 797 on 27 February for 1.1 hours and two takeoffs and landings.” (e-mail dated 19 June 2009, kindly sent to the author by Joe Hazen).
72 Ed Eckholdt, interview made by William M. Leary on 24 September 1987; the notes of Prof. Leary are preserved at UTD/Leary/B44F13.
74 Trest, Air Commando One, p.139.
75 According to Anthony / Sexton (The War in Northern Laos, pp.87-89), the 8 original T-28s delivered to the Royal Lao Air Force in 1963 were transferred from the inventory of the Royal Thai Air Force. Three of them were delivered on 25 July 63 and the remaining 5 aircraft on 29 August 63. But the last 2 were probably delivered only during the early months of 1964.
the US. 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. At that time, B/Gen. Thao “Ma was the titular LAAF flying leader. Please bear in mind that Ma was trained as a Dassault transport pilot and then transitioned into the C-47. He never felt comfortable with dive bombing and behind his back was referred to as a ‘Thirty-degree bomber pilot.’ The accepted dive bomb angle in a T-28 was sixty degrees. In fact, 1st Lt. Prayoon Khamvongsa routinely led the LAAF T-28s once they were airborne. He was one of five USAF Basic Pilot trained LAAF T-28 pilots who had been trained at Moody AFB, Georgia. Ma was usually in Lt. Prayoon’s flight of four as the Number Four pilot enroute to and in the bombing of the assigned target. After the bombing mission had been completed, Ma flew back to Savannakhet in the Number One slot.”

On 6 December 63, CINCPAC recommended a detachment of the 1st Air Commando Wing, Eglin AFB, FL, deployed to Udorn to help the LAAF, and on 13 March 64, 38 USAF officers and airmen 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. 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-28s 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 LAAF T-28 pilots was located at Udorn adjacent to the Air America parking ramp, and they immediately began a T-28 ground-and-flight school for Lao pilots. 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. 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-

76 “The five LAAF T-28 pilots trained in the USAF Basic Pilot Training program, Moody AFB GA, which ended in the summer of 1963 were: Lt. Prayoon Khamvongsa, Lt. Boun Leuam (Henri) LeGay, Lt. Phou Kong (surname forgotten), Lt. Chanthasone (sp?) (surname forgotten), and Lt. Phumano Nosavan (son of Lao General Phoumi Nosavan) (Phoumano never flew a single combat mission upon his return to Laos from the US).” (E-mail dated 14 June 2009, kindly sent to the author by Col. Al Shinkle).

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

78 E-mail dated 14 June 2009, kindly sent to the author by Col. Al Shinkle.

79 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://history.state.gov/historicaldocuments/frus1964-68v28/d13).

80 Moody, The great adventures, Prelude, p.2

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

28 combat missions.83 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.84 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 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 armormen, by RO personnel.”85 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. 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 if situation should deteriorate badly.”86 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.”87 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 Lao Air Force. He then left for RLAF headquarters at Savannakhet.88

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.89 They had flown T-28s, but

84 Moody, The great adventures, Prelude, p.3.
89 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
had little weather and gunnery experience. These pilots belonged to the Royal Thai Air Force, but were on loan to the Royal Lao Air Force because of pilot shortage – a program that was to be continued until 1975. They were mainly based at Vientiane, where they 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. The first T-28s delivered to the RLAF bore the Erawan, that is the insignia of the Royal Lao Air Force consisting of three white elephant heads in a red roundel, a red line circling the rear fuselage between the Erawan and the fin, and RLAF-style four-digit serials that normally consisted of the last four digits of its former USAF or US Navy serials, and in the early years, it seems that these RLAF T-28s were only based at Savannakhet and Vientiane. In later years, T-28s loaned to the Royal Lao Air Force under a Military Assistance Program bore the Erawan, but had no red line around the rear fuselage and kept their full USAF serials. The Erawan these aircraft bore was detachable, so that the aircraft could also be used elsewhere. 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. By mid-May 64, more than a dozen graduates flew daily bombing and reconnaissance missions

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 [sicl. the US Embassy at] Bangkok should approach RTG [sicl. 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 268, in: http://history.state.gov/historicaldocuments/frus1964-68v28/d50).

91 Because of pilot shortage, Royal Thai Air Force personnel, with their governments approval, were trained and 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://history.state.gov/historicaldocuments/frus1964-68v28/d268). But the program was indeed continued until 1975, when all training operations were brought to an end (Moody, The great adventures, Prelude, p.3).
92 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 Doctor and 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.”
93 T-28s that bore this type of serials include: “8234”, “8146”, “8162” (documented by slides taken by John Wiren probably in 1964/5), “8346” (see the video by Ed Eckholdt at 0.02.37 and 1.23.11 minutes), and “8276” (see http://forum.keypublishing.co.uk/attachment.php?attachmentid=109384&d=1136433134).
94 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.”
95 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).
96 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).
97 See the photos of T-28s wearing a detachable Erawan on the side of the fuselage and the explanation in Davis, Laos: The Secret War, in: http://www.preservingourhistory.com/Laos.html . A photo of USAF T-28s lined up at Udorn and wearing USAF insignia can be found at http://members.tripod.com/chancefac/Laos/AirCraft/t-28sUdorn.htm.
98 Castle, At war, p.67; Leary, Outline - Air America in Laos, 1964, p.5.
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 Triangle⁹⁸ –, but they could also be in the panhandle,⁹⁹ for which, normally, the Lao-piloted RLAF T-28s of Savannakhet were responsible. So, on 28 October 64, Thai-piloted RLAF T-28s bombed and strafed North Vietnamese villages in the Mu Gia Pass area.¹⁰⁰

John Wiren standing on the wing of one of the T-28s (“8162”) bearing the old RLAF colors, taken at Savannakhet in August 1964
(UTD/Wiren/B2)

MAP T-28Ds in RLAF colors, including “0-13470”, taken by Ed Eckholdt in 1965
(photo kindly submitted by Joe Hazen)

⁹⁸ Castle, At war, p.74.
⁹⁹ 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 Vietnam], and CAS [that is by the CIA], in corridor area south Mugia 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://history.state.gov/historicaldocuments/frus1964-68v28/d123).
¹⁰⁰ Leary, Outline - Air America in Laos, 1964, p.40.
Former Air Intelligence Officer Lt./Col. Al Shinkle, who served in Laos from 13 October 64 - 10 August 66 with the Royal Lao Air Force at Savannakhet and wherever B/Gen Thao Ma went in Laos,\textsuperscript{101} recalls: “When I arrived in Savannakhet in Oct 64, the RLAF had about twelve T-28s on the flight line. Maybe that was because of the planned beginning of RLAF bombing attacks on twenty-two targets that B/Gen Thao Ma, AIRA Colonel Robert L. F. Tyrrell, and USAF Air Commando Captain Don Randle had researched at meetings in the AIRA Office, Vientiane over the previous two weeks. B/Gen Thao Ma was the one who made the final decision as to which targets to hit. He started with Mu Gia Pass. Please bear in mind that before he attended a French flying school in Morocco, Ma had been a Force Armee Royale (FAR) paratrooper and his last combat duty had been a combat jump into the NVA-held Mu Gia Pass area. The ceasefire of that time halted the FAR paratroopers about one hundred meters from the top of Mu Gia Pass. Ma was and was not a superstitious man.... depending on the subject. He may have chosen to begin the fight against the NVA enemy where he had last fought them at Mu Gia Pass. Regardless, on 14 Oct 64 Ma led twelve RLAF T-28 fighter-bombers on the first RLAF major attack against the Ho Chi Minh Trail. This preceded his taking responsibility for the Royal Kingdom of Laos Government to request of the US Govt that we ‘assist’ him in attacking the enemy in Laos. Neutralist Prime Minister Souvanna Phouma violently and verbally abused Ma for having done this, but from this ‘authority’ the US began Operations Barrel Roll, Rolling Thunder, Steel Tiger, etc. Ma was used by the US to provide this ‘authority’ and then abandoned by the US in deference to the CIA wanting the RLAF for its own uses.”\textsuperscript{102}

But the arrival of the Water Pump detachment at Udorn did not only mean an improved air power for the Royal Lao 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.\textsuperscript{103}

Air America’s T-28s

A further step in extending the strength of the RLAF 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 RLAF colors to make them indistinguishable from the Lao T-28s,\textsuperscript{104} and the civilian pilots

\textsuperscript{101} E-mail dated 13 June 2009, kindly sent to the author by Col. Al Shinkle.

\textsuperscript{102} E-mail dated 14 June 2009, kindly sent to the author by Col. Al Shinkle.

\textsuperscript{103} Trest, Air Commando One, pp.142, 163/4, and 210/1.

\textsuperscript{104} 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://history.state.gov/historicaldocuments/frus1964-68v28/d48).
would be individually hired by the Royal Lao Government. 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 RLAF, “fly them up to Vientiane with bombs [...] and let them be operated by US civilian pilots.” So on 18 May 64, the 4 Water Pump T-28s were loaned to the RLAF. 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.” The authorization was given the same day. Immediately, 5 Air America pilots – Rick Byrne, Ed Eckholdt, Joe Hazen, Thomas G. Jenny, and John C. Wiren, who were joined by Don Romes shortly there after – were recruited to fly 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 Lao Air Force to protect the US government from violating the Geneva Accord Agreement. The rational 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.”

These Air America pilots, called the A-Team flying for the Tango program, 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), and then go on a mission designated by the US Embassy and Air America’s Flight Information Center. The T-28s themselves that were flown by Air America pilots were based at Udorn, and some of them were unmarked, as it seems. On 20 May 64, the State

105 Leary, Outline - Air America in Laos, 1964, pp.11/2.
106 Castle, At war, p.69.
108 After 2 days of training out of Udorn on 22 (with Joe Potter) and 23 (with Bill McShane) May 64, Ed Eckholdt flew only 7 T-28 missions – air strikes and cover for rescue missions – until 9 June 64; then he left the T-28 program (Log book of Ed Eckholdt, in: UTD/Leary/B44F13; Ed Eckholdt, interview made by William M. Leary on 24 September 1987; the notes of Prof. Leary are preserved at UTD/Leary/B44F13).
109 Donald R. Romes was at Bangkok in May 64, when he heard about the T-28 program. He immediately went to Udorn and talked to Earl Jones. Five pilots had been training for two days and were ready to go on a mission. Jones said that it was too late for him to join, but he agreed to let Romes fly a photo recon T-28. This part of the program never worked out, but Romes was then allowed into the regular T-28 operation (Donald R. Romes, telephone interview made by William M. Leary on 19 May 1990; notes of Prof. Leary preserved at UTD/Leary/B43F5).
110 Ed Eckholdt, video tape, at 01.23 hours; letter dated 18 April 2002, sent by John Wiren to the author. Wiren, “It takes five to Tango”, in: Air America Log, vol.17, no.4, p.5.
111 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).
112 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).
113 Letter dated 18 February 2001, kindly sent to the author by John Wiren.
114 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”.
115
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 Word Pump T-28s were turned over to the Laotians,\(^{117}\) and the same day, they were replaced by 5 T-28s and 5 RT-28s\(^{118}\) 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,\(^{119}\) probably to allow Lao students to attack targets within Laos, as only RLAF pilots were allowed to fly strike missions inside Laos.\(^{120}\) On 22 May 64, the Water Pump unit began T-28 refresher training for the six Air America volunteers for 2 days,\(^{121}\) and the program included training for bombing, strafing, and napalm drops.\(^{122}\) Some of Water Pump’s new T-28s continued to be used to train new pilots,\(^{123}\) while others were picked up by Air America or (Thai) RLAF pilots and flown to Vientiane, their official base. It seems that sometimes, Air America pilots also flew RLAF T-28s in the original colors, as is documented by some photos,\(^{124}\) but most of the time, they used T-28s based at Udorn.\(^{125}\)

\(^{117}\) 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.

\(^{118}\) 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). According to Pratt, *The Royal Lao Thai Air Force 1954-1970* (CHECO Report), p.16, 6 T-28s and 4 RT-28Ds arrived only on 22 May 64.

\(^{119}\) 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.

\(^{120}\) Moody, *The great adventures*, Prelude, p.3.

\(^{121}\) Some of these Air Commandos of Udorn - like Joe Potter and Bill McShane - later joined Air America (Wiren, *Tango*, p.5).

\(^{122}\) Castle, *At war*, p.70; Leary, *Outline - Air America in Laos*, 1964, pp.7+13; Trest, *Air Commando One*, p.142.

\(^{123}\) Water Pump T-28s known to have been used for training and believed to have been delivered ex MACV in May 64 are: “0-40044” flown by Joe Hazen on 22, 23, and 24 May 64 (e-mail dated 13 September 2003 sent by Joe Hazen to the author); “0-40456” flown by Joe Hazen on 26 May 64 (e-mail dated 13 September 2003 sent by Joe Hazen to the author); a photo showing its training role in 1965 can be seen in: [http://www.ravens.org/kham/Kham1965TrainingUdorn.jpg](http://www.ravens.org/kham/Kham1965TrainingUdorn.jpg); “0-40482” flown by Joe Hazen on 26 March 66 (e-mail dated 13 September 2003 sent by Joe Hazen to the author); a photo showing this MACV aircraft in VNAF colors is published in Dorr/Bishop, *Vietnam air war debrief*, p.19; “0-40533” believed flown by Richard Crafts (who gives it as “14-313”) on training flights out of Udorn on 14 and 17 September 64 (log book of Richard Crafts, in: UTD/Leary/B44F6); and possibly also already “0-46244”; a photo showing this MACV aircraft in VNAF colors as “46244” can be seen in: [http://vnaf.net/](http://vnaf.net/); a photo of Water Pump T-28 “0-46244” after its crash (“Bad day at Waterpump”) can be seen in: Don Moody, *The great adventures of Bob and Don*, Prelude, p.4, at: [http://ravencpac.com/ravens/Adventures/Episode0000.htm](http://ravencpac.com/ravens/Adventures/Episode0000.htm). From 14 to 20 April 65, Air America pilot Allen Rich received his T-28 training at Udorn on T-28D “0-17610”, T-28B “0-38137”, T-28B “0-38352”, and T-28B “0-37724” according to his log book (in: UTD/Rich/B1).

\(^{124}\) 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 “8346”. 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).

\(^{125}\) The following T-28s can be seen on the video tape by Ed Eckholdt: “0-13470” ex 51-3470; “8346” ex BuA 138346; from Ed Eckholdt’s log book T-28B “044” (probably “0-40044”), flown on 22 and 23 May 1964, “741” (probably “0-17741”), used on 24-26 May and 6, 8, and 9 June 1964, as well as “446” (probably “346”, i.e. “346”/BuA 138346) flown on 7 June 64 can be added; others appear in the log book of Rich Crafts: “310-716” (probably “0-30716”), flown on 10 September 64; “113-554” (identity unknown, but not 51-3554), flown on 11 September 64; “018-219” (possibly “0-38219”), flown on 12 September 64; “14-313” (identity unknown, possibly BuA 140533), flown on 14 and 17 September 64; “013-776” (probably “0-13770”), flown several times between 15 September 64 and 23 June 65; “344” (probably “0-38344”), flown several times between 11 November 64 and 3 May 65; “338” (probably “0-38338”), flown several times between 21 November 64 and 28 March 65; “0-13771”, flown several times between 28 December 64 and 21 May 65; “706” (probably “0-13706”), flown on 26 February 65; “0-13777”, flown several times between 12 March 65 and 18 April 66; “0-
17617”, flown several times between 29 March 65 and 10 April 66; “0-17869”, flown several times between 31 March and 26 December 65; “0-13698”, flown on 4 and 25 April 65; “0-38352”, flown on 5 April 65; “0-13656”, flown on 21 and 30 April 65; “0-17610”, flown on 21 April 65; “0-17741”, flown on 20 and 22 April 65, and 8 June 65; “0-13518”, flown several times between 19 December 65 and 14 January 66; “0-13470”, flown on 28 December 65, 31 January, and 17 and 18 February 66; “0-17753”, flown on 29 and 30 December 65; “UDN-1” (identity unknown), flown on 6, 15, and 16 January 66; and “UDN-2” (identity unknown), flown on 8 March and 20 June 66; still others were identified from the log book of Allen Rich: “0-13476” ex 51-3476; “0-13511” ex 51-3511; “0-13656” ex 51-3656; “0-17610” ex 51-7610; “17678”, ex 51-7678; “0-38352” ex BuA 138352; “710” ex “0-17710”; “724”, that is “0-13724”; “758” ex “0-13758”; “137” ex BuA 138137; “352” ex BuA 138352; “0-40044” ex BuA 140044; 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” ex BuA 137751; “346” ex BuA 138346; “0-40546” ex BuA 140546; “650” ex 51-7650; “791” ex “0-13791”; “042” ex BuA 140042; “0-13743” ex 51-3743; “0-13478” ex 51-3478; “0-46244”; and “482” ex BuA 140482; 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; “8234” ex BuA 138234; “8146” ex BuA 138146; and “8162” ex BuA 138162. For details see my file: RLAFL T-28s within my e-book The Aircraft of Air America.

126 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 Office at Vientiane. “Authorized complement - three officers, one of which is stationed at Savannakhet with the RLA. In addition, there are five (previously nine) officers on temporary duty as Assistant Air Attaches assisting in T-28 activities. Some 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://history.state.gov/historicaldocuments/frus1964-68v28/d135).

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

128 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 civilans) 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 RLAFL 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://history.state.gov/historicaldocuments/frus1964-68v28/d59).


130 Castle, At war, p.70; Leary, Outline - Air America in Laos, 1964, pp.13/4; Trest, Air Commando One, p.142; Conboy / Morrison, Shadow war, p.109; Ed Eckholdt, interview made by William M. Leary on 24 September 1987; the notes of Prof. Leary are preserved at UTD/Leary/B44F13.
next mission, they hit some trucks, but Hazen took a round through the cockpit and Jenny took eight rounds in the fuselage.” Other strike missions followed: So they flew over the PDJ looking for trucks and tanks. Ed Eckholdt also recalls an attack on a pickup truck loaded with fuel drums north of Xieng Khouang. 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. 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 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

131 Interview with Thomas G. Jenny, conducted by Prof. William Leary at Atlanta, GA on 24 May 1988, written resume, in: UTD/Leary/B43F3.
132 Ed Eckholdt, interview made by William M. Leary on 24 September 1987; the notes of Prof. Leary are preserved at UTD/Leary/B44F13.
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.”

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. 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, 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. 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.” As a consequence, an expansion of the T-28 operations in Laos was recommended. 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 the necessity to “maintain internationally his neutral position and to maintain the Geneva Accords.”

133 Wiren, “It takes five to Tango”, in: Air America Log, vol.17, no.4, p.5.
134 Castle, At war, p.66.
135 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://history.state.gov/historicaldocuments/frus1964-68v28/d116).
136 Castle, At war, pp.70+66.
137 See the detailed story entitled The great adventures of Bob and Don, written by Don Moody, former commander of the AOC of Luang Prabang.
140 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 Plaines des Jarres. He asked that my attaches be in touch with appropriate RLG officers to work out plans for T-28 program which 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
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 Lao Air Force was a primary task of the Air Commandos,141 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 a 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.”142 These three prongs were to come from Luang Prabang, Vientiane, and Muong Soui, converging on Sala Phou Khoun.143 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.144 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,145 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 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.”146


143 Conboy / Morrison, Shadow war, p.111.


145 “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.” Memorandum dated 27 June 64 from the Joint Chiefs of Staff to Secretary of Defense McNamara (US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 102, in: http://history.state.gov/historicaldocuments/frus1964-68v28/d102).


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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”. 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. 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”. 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 C-123s airlifted 1 Thai 155mm, 5 Thai 105mm guns, and a 279-man Royal Thai Army composite artillery battalion from Korat to Muong Soui (Project 008). Among the Air America who flew in the Thai troops from Korat to Muong Soui was Joe Hazen, who arrived at Korat on 3 July 64 flying Caribou “401”. He recalls: “There were 3~4 aircraft on this mission, which was to carry Thai troops and equipment to Muong Soui, Laos. We did the same the next day. Fred Walker was our leader. I recall the USAF operations officer, a major, did not want give us fuel or clearance unless he knew where we were going, which was secret at the time. Fred gave him a number to call in Bangkok, which was the US Embassy office of the Air Attache. The major spoke his piece, then snapped to attention, clicked his heels like Colonel Klink in the tv series Hogan’s Heroes, said ‘yes, sir’ several times and hung up. He said we could have all the gas we wanted and did not want to know where we were going or anything about the mission. The next day we did the same and all went smoothly.”

Air America Caribou “401” in the early sixties
(UTD/Wiren/B2)

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148 Aircraft status report as of 7 July 64 in: UTD/Kirkpatrick/B1F1.
150 Conboy / Morrison, Shadow war, p.111.
151 E-mail dated 26 January 2015, kindly sent to the author by Joe Hazen.
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 RLAF (U-4 “2714”) and acted as a Forward Air Controller who directed the B- and C-Team T-28s. Other US Forward Air Controllers were also brought into Laos to direct the attacks. Air America transports (3 Caribous; 3 C-123s, several UH-34Ds) 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.152 On 30 July 64, the crossroads at Sala Phou Khoun were conquered by the combined pro-Western forces, and Operation Triangle had successfully achieved its goal.153

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 Moung 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 Search And Rescue operation around UG 025528, that is the place where the RT-28 had crashed.154 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 on 18 August 64, 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 he 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,155 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 that occasion, even the Air America-piloted T-28s were authorized by Ambassador Unger to use napalm. The whole rescue operation was coordinated by Fred

152 Leary, Outline - Air America in Laos, 1964, pp.22+7+24-26; Castle, At war, p.73/4.
153 Conboy / Morrison, Shadow war, p.112.
154 Castle, At war, p.74; Trest, Air Commando One, p.142/3; Leary, Outline..., 1964, pp.27-29.
155 “There were three pilots on this mission: Me as lead and Wiren and Byrne as wingmen (e-mail dated 25 March 2013 kindly sent to the author by Joe Hazen).
Walker circling over the site in Air America Caribou “443”. At 17.20 hours 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. 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.

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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”. 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, 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.

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156 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).

157 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://history.state.gov/historicaldocuments/frus1964-68v28/d127).

158 Castle, At war, pp.73-76.

159 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).
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, Bill McShane, Dick Nolan, and Joe Potter, and others like Allen Rich joined the program even in 1965. Tom Jenny recalls Abrams, Blalock, Burke, Tom Crews, Tony Durizzi, and Tom Gullett. Leary also mentions Lyons and Jim Rhyne. The chief pilot of this second group was Tom Jenny. Between May 1964 and May 1966, a total of 20 Air America T-28 pilots graduated from Water Pump. 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. 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. 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

163 Interview with Thomas G. Jenny conducted by Prof. William Leary at Atlanta, GA on 24 May 1988, written resume, in: UTD/Leary/B43F3.
164 Leary, “T-28 Chronology”, in: UTD/Leary/B41F8; see also Jim Rhyne, Interview conducted at Clayton, NC on 13 October 90 by Prof. Bill Leary, p. 2, in: UTD/Leary/B47F9.
166 Leary, Outline - Air America in Laos, 1964, p.18. Sometimes, those T-28s even bore Royal Thai Air Force insignia, especially when they had to land at Vientiane. Robert Campbell, former technician of Det.1, 606 ACS, recalls the 1967/8 period: “I flew in the aircraft on two separate occasions while I was assigned to Udorn. Both times we stayed within the borders of the country. Both times the aircraft did not display any insignia […] Additionally, the pilots were Americans. No rank was displayed. Since no rank was displayed I assumed they were Air America pilots although I suppose they could have been D1, 606ACS pilots. But the aircraft themselves were parked in the D1, 606ACS parking area. I understood that the aircraft were rotated in and out of Laos so phase maintenance could be done at Udorn. Sometimes the aircraft left Udorn armed, other times unarmed. I understood that when the aircraft flew to Vientiane they had Thai insignia. Upon arrival the insignia was removed. Sometimes a RLAF insignia was inserted, other times the holder was left empty. As I recall, all the T-28’s that flew from Savannakhet did not display insignia. They were flown by RLAF pilots. The exception to that was when an aircraft returned from phase maintenance. An American pilot did a test flight within sight of the base and when the RLAF pilots were watching. A Buddhist priest blessed the plane, the test run was made, and then the RLAF pilots would pilot the plane.” (E-mail dated 06 July 2006 kindly sent to the author by Robert Campbell)
167 Leary, Outline - Air America in Laos, 1964, p.47; Castle, At war, p.165, note 68.
RLAF T-28 “0-91526” with Air America pilot Richard Byrne in front and Berl King in the rear seat, taken at Udorn, reportedly in 1964, but probably in 1966 (UTD/Leary/B77F2, former photo no. 1WL1-27-11-PB163)

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. 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. But there was another way that allowed Air America pilots to fly attack missions. Tom Jenny recalls: “There were a lot of missions. Most were only nominally SAR. Often, Lair and Landry would be in a Twin Beech. The target would be identified, helicopters would report incoming fire, and T-28s would attack. They often would get secondary explosions. The T-28s received mainly small arms fire. Once, with Wiren, he was attacking trucks between Ban Ban and the NVA border when he saw large orange baseballs coming at the aircraft. Wiren called out 37mm fire.”

Reinforcing the Royal Lao 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.” This relationship started in 1964 with the Water Pump training program described above, whose personnel were the Detachment 6 of

168 Leary, Outline - Air America in Laos, 1964, p.15; Trest, Air Commando One, pp.163/4.
169 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 (at: http://history.state.gov/historicaldocuments/frus1964-68v28/d188) and 197 (at: http://history.state.gov/historicaldocuments/frus1964-68v28/d197).
170 Interview with Thomas G. Jenny conducted by Prof. William Leary at Atlanta, GA on 24 May 1988, written resume, in: UTD/Leary/B43F3.
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. 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 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 RLAF commander, and to be the commander of the AOC at L-54. In the beginning, this also meant that he had the function of a Forward Air Controller, flying in a RLAF 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 RLAF U-17: “This included finding targets by flying visual recce in the area around Nam Bac and up the Nam Ou River”. This particular U-17 was probably “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, “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.

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. 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 a doctor or medic, who were attached to a native fighter squadron. 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).”

More T-28s for the Royal Lao 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 RLAF. 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 RLAF 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 RLAF had 33 T-28s. and this was still the number of T-28s available in September 1964. It has not been disclosed, in which way these T-28s joined the fleet of the Royal Lao Air Force. But, probably, most if not all of them were loaned to the RLAF thru the Military Assistance Program that officially supported Thailand, that is thru the US Military Assistance Advisory Group in Thailand, whose Deputy Chief, Joint United States Military Assistance Advisory Group, Thailand, normally abbreviated as “DEPCHEF”, was responsible for all Military Aid to be sent to Laos. Most if not all of these aircraft came from surplus MACV stocks, 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, because the date indicated in the Assignment Records only indicates the date of an administrative act, that is the day when the process of transferring an aircraft began by cancelling it from list of aircraft that are in regular USAF service. From documents covering the 1972/3 period, we do know that in the case of a T-28 destined for Laos, it could take another 3-4 months until that particular aircraft would actually be in use out of Udorn. 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

179 Leary, Outline - Air America in Laos, 1964, p.12; Trest, Air Commando One, p.143.
180 Moody, The great adventures, Prelude, p.3.
181 Pratt, The Royal Laotian Air Force 1954-1970 (CHECO Report), p.15; a total of 37 T-28s have been identified that were all delivered to the RLAF in 1964, some of them are known to have been flown by Air America pilots, others were flown by B-Team and C-Team pilots out of Vientiane and Savannakhet, and 4 or 5 of them were probably Water Pump training aircraft. These T-28s are: “0042”, “3771”, “8146”, “8162”, “8234”, “8276”, “8346”, “0-40036”, “0-40039”, “0-40040”, “0-40044”, “0-40456”, “0-40482”, “0-40533”, “0-46244”, “0-37751”, “0-37767”, “0-38113”, “0-38136”, “0-38137”, “0-38219”, “0-38316”, “0-38338”, “0-38344”, “0-38352”, “0-13678”, “0-13706”, “0-13758”, “0-13764”, “0-13768”, “0-13770”, “0-13772”, “0-13777”, “0-13791”, “0-13792”, “0-13796”, and “0-17870”. To these have to be added the 4 original Water Pump T-28s loaned to the RLAF on 20 May 64; they are believed to have been “17616”, “17622”, “17635”, and “17863”. All aircraft are given here in the way they were probably painted, but in most cases, this has not been proven by photo evidence. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.
182 Castle, At war, p.53.
183 According to Leary (Air America Chronology: 1964, at http://www.utdallas.edu/library/uniquecoll/speccoll/aamnote/aam64.pdf ), the RLAF received 16 former Vietnamese Air Force T-28s in May 64 (p.12 on the web) and 17 more in June 64, “bringing the force to 41 aircraft” (p.45 on the web), 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://history.state.gov/historicaldocuments/frus1964-68v28/d123).
soon as possible. 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. 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. 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.” And the T-28 fleet was constantly growing: In November 64, there were 27 T-28s in Laos, of which 22 were in operation, in late December 64, the RLAF had 40 T-28s, 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 North Vietnamese troops. 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 Lao 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.

The total number of T-28s supplied to the Royal Lao Air Force is unknown: Moody presumes that at the end, the RLAF had received 60 T-28Ds but it is known that by 30 June 1972, no less than 258 T-28s had been delivered to the RLAF – and this was for sure not the total number, because T-28s continued to be delivered to the RLAF until 1974. As to the loss rate, it was quite low at the beginning, 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

185 Apart from the austerely 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 USAF C-47A “24178” flown in RLAF markings can be seen at http://members.tripod.com/chancefac/Laos/AirCraft/RLAFC-47.htm.
191 Liebchen, MAP Aid to Laos 1959-1972, p.179.
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.”

But then, the situation changed: Already from July 64 to the end of the year, 8 RLAf T-28s and 2 Water Pump T-28s were lost, so that more T-28s were urgently needed. On 24 January 65, the Royal Lao Air Force lost 9 T-28s plus 1 U-17, when a fully loaded RLAf T-28 exploded on the ramp of Vientiane’s Wattay airport. Two days later, the Royal Thai Air Force loaned 10 T-28s to the United States for operation in Laos. 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 day were destined for the same customer, we must believe that in 1965, at least 37 USAF T-28s were delivered to Laos in a Military Assistance Program: one

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193 An unknown T-28 was shot down on 14 July 64, followed by another unknown T-28 on 16 July 64 (Log book of Allen Rich, in: UTD/Rich/B1) – possibly during missions flown against the Ban Ken bridge (see Pratt, The Royal Laotian Air Force 1954-1970 (CHECO), p.20); 4 unknown T-28s were shot down in August 64, the first one, an RT-28, on 14 August at UG 025528 on western end of PDI, 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 PDI, 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://history.state.gov/historicaldocuments/frus1964-68v28/d122); and the forth 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, 2 T-28s, “1213” and “0-37751”, were lost, one of them 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, 2 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). One of 2 Water Pump T-28s that crashed on a flight from Saigon to Udorn on 25 November 64 (Leary, Air America Chronology 1964, p.81). According to Hobson (Vietnam air losses, p.12), this already happened on 19 November 64, involving 51-7870 plus another T-28D – apparently “53-8113” – when both aircraft were on a fact-finding mission to Danang. T-28 “0-17863” was lost in Laos on 4 December 64, and on 22 December 64, RT-28 “0-13764” was shot down near Xieng Khouang Ville (Leary, Outline - Air America in Laos, 1964, p.48). For more details see my file: RLAf T-28s within my e-book The Aircraft of Air America.

194 The RLAf T-28s lost on 24 January 65 were “8146”, “8234”, “8346”, “0-13678”, “0-37767”, “0-38136”, “0-38338”, “0-40036”, and “0-40039”; the RLAf U-17 lost was 64-14868. For more details see my files: RLAf T-28s and RLAf U-17s within my e-book The Aircraft of Air America.

195 See the Telegram dated 26 January 65 sent from the US Embassy in Thailand to the Dept. of State (document 160), in: http://history.state.gov/historicaldocuments/frus1964-68v28/d160. No less than 15 former Royal Thai Air Force T-28s are known to have been in RLAf service around 1965. But as most of the original T-28s that were delivered to the RLAf from the Royal Thai Air Force inventory in 1963 and in the early months of 1964 could not be identified with certainty, the unidentified 3 surviving aircraft are probably also among the 15 former RThAf T-28s listed in this section. The remaining 2 ex RThAf T-28s were probably delivered at a later date. The following 4 T-28 were leased in January 65: “0-13656” (flown by Richard Crafts out of Vientiane on 21 April 65); “0-13698” (flown by Richard Crafts out of Savannakhet on 4 April 65); “0-13724” (flown by Allen Rich on 20 April 65); and “0-17678” (flown by Allen Rich on 25 April 65). Another 6 ex-RThAf T-28s may have been leased in January 65 or may have been part of the original T-28s: “1225” (noted in 1965/6); “0-17610” (flown by Allen Rich on 16 April 65); “0-17617” (flown by Richard Crafts out of Udorn on 29 March 65); “0-17621” (lost in Laos on 25 March 65); “0-17650” (flown by Joe Hazen on 14 August 65); and “0-17806” (lost in Laos on 19 May 65). The remaining 5 ex-RThAf T-28s were apparently turned over to the RLAf in 1965 or later: “0-17753” (flown by Richard Crafts out of Udorn on 29 and 30 December 65); “0-17763”; “0-17774” (noted at Sakannakhet on 10 October 65); “0-17777” (noted at Sakannakhet on 16 October 65); and “0-17779” (noted at Sakannakhet on 16 October 65). For details see my file: RLAf T-28s within my e-book The Aircraft of Air America.
T-28 on 17 February 65,\(^{196}\) three T-28s on 4 March 65,\(^{197}\) five on 17 March 65,\(^{198}\) six on 22 March 65,\(^{199}\) seven on 29 April 65,\(^{200}\) three on 11 May 65,\(^{201}\) three on 18 October 65,\(^{202}\) four on 4 November 65,\(^{203}\) and five on 18 November 65,\(^{204}\) but at least 23, probably even 32 additional T-28s were delivered to the RLAF in 1965 from other sources.\(^{205}\) Apart from the 9 RLAF T-28s destroyed at Vientiane on 24 January 65, 21 more RLAF T-28s are known to have been lost in 1965,\(^{206}\) including 2 Air America-piloted T-28s lost on 14 May 65,\(^{207}\) and on 4 June 65,\(^{208}\) and one Air America piloted T-28 based at Udorn 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.\(^{209}\) 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 Udorn.\(^{210}\)

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 Laos, that is 7 on 1 February,\(^{211}\) 3 on 3 February,\(^{212}\) 1 on 14 July,\(^{213}\) 3 on 21 July,\(^{214}\) and 3 on 7 August 66.\(^{215}\) In 1966, the RLAF also

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\(^{196}\) T-28D 51-3463. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{197}\) T-28D 51-3470, 51-3472, and 51-3511. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.


\(^{201}\) T-28D 51-3467, 51-3518, and T-28A 51-3608. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{202}\) T-28D 51-3476, 51-3743, and 52-1220. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.


\(^{204}\) T-28D 50-308, 50-311, 50-312, 50-314, and 51-3468. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{205}\) According to Liebchen (MAP Aid to Laos 1959-1972, p.158). 32 former VNAF T-28s were delivered in FY 1965, i.e. between 1 July 64 and 30 June 65, of which at least 9 have been identified so far. The 9 former MACV T-28s were: “668”; “0-37647”; “0-38331”; “0-38345”; “0-38351”; “0-40449”; “0-13617”; “0-13735”; and “0-17710”. Others are probably within the number already listed for 1964, and still others may have come from the Royal Thai Air Force that were later returned. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{206}\) For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{207}\) On 14 May 65, Dick Nolan was hit in his T-28 “51-3756” during a SAR mission. He made an emergency landing at LS-36, ran off the end of the runway, and flipped over. The aircraft was heavily damaged, but Nolan was OK (Leary, “T-28 chronology”, in: UTD/Leary/B41F8).

\(^{208}\) On 4 June 65, Joe Potter was hit in his T-28 “51-7610” during the SAR for US Navy pilot Ilg. His rocket pot caught fire. He bailed out and was picked up by an Air America helicopter (Leary, “T-28 chronology”, in: UTD/Leary/B41F8).

\(^{209}\) See the report by Tom Hoppe in Davis, Across the Mekong, pp.100-102.

\(^{210}\) The scene is shown on the video tape by John Tarn at 0.37 40 minutes.

\(^{211}\) According to the USAF Assignment Records, the following 7 T-28Ds were transferred from SMAAR to TL MAP on 66032, i.e. on 1 February 66: 50-281, 50-285, 50-287, 50-297, 50-298, 50-301, and 50-306. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{212}\) 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, 50-309, and 50-310. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{213}\) RT-28D-5 49-1531. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.
received 30 additional T-28s from other sources—most of them from MACV, i.e. the MAP for South Vietnam. In May 66, 18 T-28s and some 12 C-47s had their base at Savannakhet. The introduction of Project 404, however, meant that more Air Commandos could be stationed in Laos and work for the Royal Lao 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, later known as the 56th Special Operations Wing, still based at Nakhon Phanom. 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. Officially, only the Lao pilots were flying the T-28s; unofficially, the Americans flew only maintenance test hops on the T-28. But “sometimes those test hops had strange configurations.” And this was only the beginning: “During the air war in Laos,” Moody notes, “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 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.

This obvious augmentation of air power for the Royal Lao Air Force was, however, opposed by several losses. A total of 16 RLAF T-28s is known to have been lost in 1966, including an unknown number of T-28s shot down during the fighting around Na Khang (LS-

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214 According to the USAF Assignment Records, 3 T-28Ds were transferred from SMAAR to TL MAP on 66202, i.e., on 21 July 66: 49-1508, 49-1523, and 49-1526. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

215 On 7 August 66 (66219), 3 T-28D-5s were transferred from SMAAR to TL MAP: 49-1496, 49-1500, and 49-1504. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

216 Liebchen, MAP Aid to Laos 1959-1972, p.160. Of these 30 “second hand” T-28s, 12 have been identified so far: new Water Pump T-28s; “0-40579”, new attack T-28s: “0-17611”, “0-17677”, “0-17739”, “0-17746”, “0-17773”, “0-21187”, “0-21208”, “0-23498”, “0-37644”, “0-40547”, and “0-40580”. Others may have been listed before or may be listed later, as the exact delivery date of the “second hand” T-28 is not known. Two T-28s came from the Royal Thai Air Force – “UDN 1” and “UDN 2” – but their identities are unknown. For more details see my file: RLAF T-28s within my e-book The Aircraft of Air America.


218 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).

219 Trest, Air Commando One, p.182.

220 Moody, The great adventures, Prelude, p.3.

221 Moody, The great adventures, Episode 1, p.7.


223 Trest, Air Commando One, pp.163/4.

224 For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.
A major loss occurred on 21 October 66: As General Thao Ma, the commander of the Royal Lao 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-28s took off from Savannakhet and bombed targets around Wattay Airport, the Army Barracks, and Chinaino 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. 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.”

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”. The T-28s that had been confiscated were later handed over to Water Pump.

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 in Military Assistance Programs. A total of 36 of these T-28s is known to have been delivered to the Royal Lao Air Force, that is four on 31 January 67, four on 7 February 67, one on 8 February 67, one on 13

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

226 “B/Gen Thao Ma had had a serious disagreement with FAR M/Gen Abhay Koupasith (‘Fat K’ in my personal dictionary) due to Fat K and FAR Chief of Staff Ouane Rattikoun removing Ma from command of the RLAF and transferring Ma to an obscure ‘staff’ position in Vientiane. Fat K and Ouane wanted the RLAF C-47 fleet made available to them for smuggling opium from Burma, and which was carried into Laos, to the US Military market in South Vietnam (and the rest of the world too). Ma stood firm and refused to allow the RLAF C-47s to be so used.” (Email dated 14 June 2009, kindly sent to the author by Col. Al Shinkle).

227 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: The Secret War, in: http://www.preservingourhistory.org/Laos.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://history.state.gov/historicaldocuments/frus1964-68v28/d262). An updated paper 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://history.state.gov/historicaldocuments/frus1964-68v28/d264).

See also Conboy / Morrison, Shadow war, pp.156-58.

228 See Davis, War Pilots Remembered, at http://www.preservingourhistory.com/Pilots.html, p.8, where Thao Ma is commemorated as a Laotian Patriot.

229 See Hamilton-Merritt, Tragic mountains, pp.145-146, for the battle around LS-36 in 1966. Wrecks of two T-28s shot down are on the video tape by John Tarn at 0.18.15 and 0.53.42 minutes.

230 See Module, 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).

231 See Moody, The great adventures, Episode 2, pp.5/6.

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

233 All of the five T-28Ds transferred (TL) to MAP from SMAAR, McClellan AFB, on 67031 (= 31 January 67) are known to have gone to the RLAF: 50-288, 50-292, 50-294, and 51-3562, and 51-3680. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

234 All of the four T-28Ds transferred (TL) to MAP from SMAAR, McClellan AFB on 67038 (= 7 February 67)
February, \(^{236}\) one on 20 and two on 23 March 67,\(^{237}\) four on 20 July 67,\(^{238}\) two on 14 August 67,\(^{239}\) four on 7 September 67,\(^{240}\) three in late October 67,\(^{241}\) two on 7 March 68,\(^{242}\) two on 11 March 68,\(^{243}\) two on 15 March 68,\(^{244}\) two on 21 March 68,\(^{245}\) and two on 27 March 68,\(^{246}\) but probably some of the remaining T-28s, which had also been transferred to a Military Assistance Program in 1967, also 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.\(^{247}\) 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-S4) by rocket launchers and automatic weapons fire.\(^{248}\) 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.\(^{249}\) Eight people were killed in the attack.\(^{250}\) 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.\(^{251}\) The damaged airplanes were shipped down to the Air America facility at Udorn

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\(^{235}\) T-28D 50-257 (msn 171-63) of NAMCO, Columbus, TL for NAS (=Naval AS?) on 67039 (= 8 February 67); probably to the RLAF, as it was destroyed while in RLAF service. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{236}\) T-28D 50-254. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{237}\) T-28D 50-259 was transferred on 20 March 67 and 50-220 as well as 50-223 on 23 March 67. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{238}\) The four T-28D-5s transferred from McClellan AFB to TL for MAP on 67201, i.e. on 20 July 67, were: 50-214, 50-219, 50-228, and 50-232. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{239}\) T-28Ds 50-212 and 50-213. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{240}\) T-28Ds 50-197, 50-199, 50-207, and 50-210. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{241}\) Two T-28Ds were transferred (TL) from McClellan AFB to the MAP on 67297, that is on 24 October 67: 49-1648 and 49-1723, followed by a third T-28D, that is 49-1624 on 67299, that is on 26 October 67. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{242}\) Both T-28Ds were transferred (TL) from McClellan AFB, Sacramento CA, to MAP on 68067, that is on 7 March 68: T-28D 51-3558 and 51-7801. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{243}\) Two T-28D-5s were transferred from NAMCO, Columbus, to MAP on 68071, i.e. on 11 March 68: 51-3500 and 51-3552. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{244}\) Both T-28Ds were transferred (TL) from NAMCO, Columbus, to MAP on 68075, that is on 15 March 68: 50-289 and 50-303. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{245}\) T-28Ds 50-262 and 50-278. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*

\(^{246}\) Two T-28D-5 were transferred from NAMCO, that is from North American Aircraft, Columbus, to MAP on 68087, that is on 27 March 68: 50-226 and 50-246. For details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America.*


\(^{248}\) Two Air America UH-34D – H-F (msn 58.1166) and H-31 (msn 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).

\(^{249}\) Moody, *The great adventures*, Episode 2, pp.2/3.


\(^{251}\) The 6 T-28s destroyed at Luang Prabang in the night of 1 to 2 February 67 were 50-287, 50-306, 50-308, 50-
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.”

252 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 Prabang. As all T-28s involved seem to have borne USAF-style serials, they were 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. On 16 July 67, there was another sapper attack at Luang Prabang, and this time, 9 T-28s were destroyed.253 Missions flown by RLAF T-28s on 11 March 68 included air strikes flown against the enemy forces who had

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

309, 50-317, and 49-1526 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011). Photos contained in the papers of Allen Rich (Air America Archives) and in Davis, Laos: The Secret War, in: http://www.preservingourhistory.com/Laos.html, show the wreck of T-28 “0-00306”. The best documented victim of this attack was T-28D “0-91526”; 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 seems also to have been the T-28 looking like “3625” that can be found on a photo on John Tarn’s video tape at 0.21.10 minutes. This aircraft seems to have been rebuilt later, 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).

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

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 Moung Soui (LS-108) were in danger. The NVA offensive ended only with the monsoon season of 1968.254 This increased activity also meant a higher number of T-28s lost. In addition to the double shock of Luang Prabang mentioned above, where 15 T-28s were destroyed, 21 more T-28s are known to have been lost between January 67 and the end of February 1968: Two RLA\textsuperscript{T} T-28s from Luang Prabang were shot down north of Nam Yu in northern Laos in late March 67, when they flew cover for a CIA infil mission in northern Laos; one of them was lost.\footnote{Moody, \textit{The great adventures}, Prelude, pp.6/7, and Episode 2, p.8; Robbins, \textit{Ravens}, p.43-45; Na Khang fell on 28 February 69 (Conboy / Morrison, \textit{Shadow war}, p.208).} Three RLA\textsuperscript{T} T-28s were said missing in the Tha Thom (LS-11) area on 23 February 68, but the total number of T-28s lost in that battle seems to have been five.\footnote{Moody, \textit{The great adventures}, at http://ravenfac.com/ravens/Adventures/Episode0002.htm (Episode 2, p.7): “In less than five minutes they shot down two T-28s and killedLt Pheuak the flight leader, who was one of my new replacement pilots. Lt. Pheuak was shot down on his first pass to clear out the area around the LZ where the ground fire was coming from. My aircraft was hit trying to cover the retreating H-34s. The 12.7s were hammering me pretty good and I took a round in the propeller housing that caused the engine to over speed. There was no alternative but to shut down the engine to keep it from disintegrating. As luck would have it, I was alive and had the aircraft safely on the ground, but in a rice paddy somewhere in northern Laos.” The T-28 of Lt. Pheuak seems to have been 50-307 shot down on 25 March 67 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011), while Don Moody’s downed T-28 seems to have been recovered later, as this list does not mention any other T-28 lost the same day.} Another fifteen RLA\textsuperscript{T} T-28s were lost in the same period of time, but under unknown circumstances.\footnote{Moody, \textit{The great adventures}, Prelude, pp.45-46; Robbins, \textit{Ravens}, p.261, and 51-3508 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).}

Air America’s Udorn Thailand base and the RLA\textsuperscript{T} T-28s

But Air America did not only supply pilots to fly the Royal Lao Air Force T-28s, the Company’s maintenance facility at Udorn also maintained these aircraft, although it was not the only facility to do this. Former Air Intelligence Officer Lt./Col. Al Shinkle, who served in Laos from 13 October 64 - 10 August 66 with the Royal Lao Air Force at Savannakhet and wherever B/Gen Thao Ma went in Laos,\footnote{Entries in the log book of Allen Rich, in: UTD/Rich/B1. Even 5 T-28s are known to have been lost not on 23, but on 21 February 68 – probably the aircraft mentioned by A. Rich: 50-197, 50-213, 50-228, 50-261, and 51-3508 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).} recalls: “The T-28s flown by the RLA\textsuperscript{T} were maintained at two locations: Savannakhet by a combination of USAF enlisted men and by RLA\textsuperscript{T} mechanics. Some, but not all, of the USAF personnel were assigned in a PCS status to the Detachment 6, 1st Air Commando Wing, Project Water Pump, Udorn, Thailand and were TDY to Savannakhet. The original Air Commando detachment under Major Drexel B. (Barney) Cochran had only about forty total assigned personnel and it was necessary to supplement their numbers with TDY from other USAF units. I was from Hdqrs, 2nd Air Division, Saigon. Some of the men were from a Bangkok unit (I think it was the 35th Support

255 Moody, \textit{The great adventures}, at http://ravenfac.com/ravens/Adventures/Episode0002.htm (Episode 2, p.7): “In less than five minutes they shot down two T-28s and killed Lt Pheuak the flight leader, who was one of my new replacement pilots. Lt. Pheuak was shot down on his first pass to clear out the area around the LZ where the ground fire was coming from. My aircraft was hit trying to cover the retreating H-34s. The 12.7s were hammering me pretty good and I took a round in the propeller housing that caused the engine to over speed. There was no alternative but to shut down the engine to keep it from disintegrating. As luck would have it, I was alive and had the aircraft safely on the ground, but in a rice paddy somewhere in northern Laos.” The T-28 of Lt. Pheuak seems to have been 50-307 shot down on 25 March 67 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011), while Don Moody’s downed T-28 seems to have been recovered later, as this list does not mention any other T-28 lost the same day.
256 Entries in the log book of Allen Rich, in: UTD/Rich/B1. Even 5 T-28s are known to have been lost not on 23, but on 21 February 68 – probably the aircraft mentioned by A. Rich: 50-197, 50-213, 50-228, 50-261, and 51-3508 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).
Group), and other USAF units. I recall that Bill Falconer came from a unit in Japan. The primary maintenance was done at Udorn by the 432nd Support Group. When they had a plane ready for use by the RLAF, it was flown to Savannakhet by whatever pilot was available and who had permission to venture into Laos (Geneva Conventions considered). B/Gen Ma never knew from one day to the next how many T-28s would be available for combat flying. During my time with B/Gen Ma the average number of available T-28s was 12-15. However, I also recall that at one time while I was there, we had thirty-eight T-28s at Savannakhet. That was after the first few classes of RLAF trainee pilots had graduated from Water Pump.”

As to maintenance of RLAF aircraft carried out by Air America at that period of time, no contract stating this in a clear way is available at the time of writing, 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 Lao Air Force, that already in September 65, RLAF C-47s were repaired by Air America teams at the crash-site, while RLAF 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. 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 RLAF 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 RLAF 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.” 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. 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.” The students presented by DEPCHIEF were probably RLAF pilots and mechanics, as DEPCHIEF was responsible for the military aid to the RLAF. 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 RLAF personnel. But then it mentions “any agreements of a classified nature pertaining to this contract” which

260 E-mail dated 14 June 2009, kindly sent to the author by Col. Al Shinkle.
262 Video tape made by John Tarn at 0.16.16 and 0.37.48 minutes.
263 E-mail dated 2 April 2002 kindly sent to the author by Jack Forney.
264 “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).
could be set forth by the Procurement Contracting Officer, 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”. 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, 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, 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, but Air America’s Paul M. Severson flew it again between 1 and 5 October 65 on missions out of Vientiane. When “417797” was destroyed during take-off from Vientiane, Laos, on 11 October 65, the

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266 Contract AF 62(531)-1841, in: UTD/Kaufman/B1F9, quotation taken from p.3.
268 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).
270 E-mail dated 9 September 2003 sent by Joe Hazen to Erik Carlson who kindly forwarded it to the author.
accident appeared on an Air America list called “Company operated aircraft lost or destroyed”, 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. But when no Air Commando pilot was available to fly a RLAF aircraft, Forward Air Controllers in Laos used Air America or Continental PC-6 Porters. For example, when Na Khang (LS-36) became home of several CIA men in 1965 – Tony Poe, John Teague, and Stan Monnie –, they directed 15 daily B-Team T-28 sorties dedicated to MR II from an orbiting Air America or Bird & Sons Porter. And that is what also happened after the U-17 flown by Bob Downs was taken back to Savannakhet from Luang Prabang in late 1966: “I had no 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. ”

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.”

As far as Air America is concerned, these Air Commandos used Udorn-based Porters assigned to contract 59-069 with CEECO and since 1966 to USAID contract 713. The first recorded flight of a contract airliner acting as a FAC aircraft occurred on 9 September 64, when a Bird & Sons Porter dropped smoke grenades to mark a target for a T-28 strike near Ta Vieng. LTC Robert A. Farmer, USAF (CCT) Retired, who was sent to Long Tieng in May 1966, describes one of those “Butterfly” missions flown in Air America Porter N12235: “We were way out in the east of Laos, and the weather was marginal. I was sitting in the back seat of the Air America Porter, monitoring Jim Stanford as he was controlling air strikes. He was, as I remember, just coming on to the job and this was his check ride. This mission was flown in support of General Vang Pao; he was deeply concerned about an enemy troop position nearby, and wanted us to deal with them. The strike aircraft arrived, and sure enough we weren’t able to put them on target because of the weather, so we returned to 20-Alternate to refuel and prepare for the scheduled afternoon strikes. While there, we decided that if the weather was still bad, we would do whatever we could to help General Vang Pao and his beleaguered Mao soldiers. I had some grenades, so while they were refueling, I collected them from my room. Jim and I bent the grenade handles outward, and very lightly taped them with a small strand of masking tape so they wouldn’t go off until they hit the ground. On the

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272 In: UTD/CIA/B51F12. The aircraft took off with controls locked, as the check off list was not used.
273 Moody, The great adventures, Episode 1, p.5+6.
274 Conboy / Morrison, Shadow war, pp.128/9.
275 Moody, The great adventures, Episode 1, p.7.
276 Moody, The great adventures, Episode 3, p.3.
277 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).
278 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 (msn 556); all of them were based at Udorn (List “Status of aircraft” as of 8 April 66 [in: UTD/Kirkpatrick/B1F1] and 5 May 66 [UTD/Hickler/B1F2]).
279 Conboy / Morrison, Shadow war, p.137, note 30.
second trip out the weather was not any better, and the air strike aircraft aborted once again. At that point we decided to use what we had, so flew back over the enemy position. I opened the back window, and as we passed along the enemy ridge I began pulling the pins and tossing the grenades out the window. Just as the fourth grenade left my hand, there was a bang near me. Jim and the pilot both looked back sharply. I thought maybe they were afraid that I had dropped one of the grenades in the aircraft, or one had gone off near the plane. I quickly assured them that everything was OK with me, and the pilot immediately banked left – away from the ridge. As we circled around, we decided we could do more, so I loaded my M-16, and prepared to fire it out the right rear window. I’m not sure how many passes we made, but I managed to empty four magazines into the position before we decided that we were pushing our luck, and started back. When we arrived home, at Long Tieng (20-Alternate), I crawled under the aircraft and found a bullet hole under my seat. Looking down the top of the empennage I found the exit hole.**

On some occasions, Air America pilots also flew Air Force Cessna O-1s and U-17s. The small number of aircraft used corresponded to the fact that in these early days, only half a dozen of “sheep-dipped”, 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, who flew in Air America piloted aircraft in civilian clothes and 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 – 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.

**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.” The end of the “Butterflies”, however, arrived from

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281 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 RLAF or to the USAF Military Assistance Program.
282 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.
283 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.”
284 Robbins, The Ravens, pp.49/50; Trest, Air Commando One, p.193; Conboy / Morrison, Shadow war, p.154.
285 Telegram dated 8 November 65, sent from the US Embassy in Laos to the Commander in Chief, MACV
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.286 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 bore 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.287

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 downed288 – and the other one was maintenance. 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 damage289 – but little regular maintenance was done, until, in late 1968, after a number of engine failures, Raven Ron Rinehart grounded 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 –.

286 Trest, Air Commando One, p.193.
288 The rescue of Ron Rinehart (“Papa Fox”) by an Air America helicopter is described in Robbins, The Ravens, pp.72-75.
289 Robbins, The Ravens, pp.57+77.
some Raven O-1s, plus an Air America C-123K and C-130A at Long Tieng
(with kind permission from Chuck Baird)

the maintenance was limited, 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”. 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.

USAF T-28s over Laos: the “Zorros”
But the T-28s of the Military Assistance Program supporting the RLAF 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. 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. Very soon, they began to fly night interdiction missions over the Ho Chi Minh 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 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. Officially, seven of the original T-28s of 606th ACS were assigned to the

290 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.
291 Robbins, The Ravens, pp.75-78.
293 One of these T-28Ds, 49-1582 (msn 159-94), of 606 ACS, NKP, crashed near Nakhon Phanom on 23 October 66 during a training flight (Hobson, Vietnam Air losses, p.79).
294 According to the USAF Assignment Records, these T-28Ds were: 49-1559 (msn 159-71); 49-1561 (msn 159-73); 49-1569 (msn 159-81); 49-1571 (msn 159-83); 49-1572 (msn 159-84); 49-1582 (msn 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 (flying accident); 49-1583 (msn 159-95); 49-1586 (msn 159-98); 49-1591 (msn 159-103); 49-1599 (msn 159-111); and T-28D-5 49-1621 (msn 159-133).
295 Trest, Air Commando One, pp.182+191/2+195; Moody, The great adventures, Episode 3, p.1.
56th Air Commando Wing, Nakhon Phanom, on 31 May 67 as an act of “reconciliation”. 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 fraged 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. More T-28s were added and more T-28s were lost in accidents, while some others were transferred to a Military Assistance Program. As a total, the 56th ACW at Nakhon Phanom had 10 A-26s

296 These seven T-28Ds were: 49-1569 (msn 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 (msn 159-83); after service with the 56th Special Operations Wing (56 SOP WG, NKP) since 3 August 68 (68215), this aircraft was transferred to a Military Assistance Program on 2 October 68 (68275); 49-1572 (msn 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 (msn 159-98); crashed near the Ho Chi Minh Trail on 28 January 68 (Hobson, *Vietnam air losses*, p.134); officially to status “TN” on 3 January 69; 49-1591 (msn 159-103), to 56 SOP WG, NKP, on 68215; transferred to an MAP on 69003, that is on 3 January 69; 49-1599 (msn 159-111), to 56 SOP WG, NKP, on 68215; this aircraft was transferred (TL) to an MAP on 68265, that is on 22 September 68; 49-1621 (msn 159-133), to 56 SOP WG, NKP, on 68215; to TL on 15 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).

297 Trest, *Air Commando One*, p.196. According to the USAF Assignment Records preserved at Maxwell AFB, AL, the T-28D of 606 ACS that was destroyed on 17 January 67 (Hobson, *Vietnam air losses*, p.86), but officially written off (TA) on 18 January 67 (67018) was 49-1604 (msn 159-116), which had been transferred from McClellan AFB to 606ACS, NKP, on 67017, that is the very day before its crash.

298 According to the USAF Assignment Records, T-28D 49-1543 (msn 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.

299 T-28D 49-1559 (msn 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 (msn 159-70) had been transferred from IACW, 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.

300 According to the USAF Assignment Records preserved at Maxwell AFB, T-28D 49-1561 (msn 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...
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.  

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.  

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.” 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”. Colonel Robert Tyrell, AIRA, said: “I report to the Ambassador proposals for air strikes that come to us from the Laotian military forces and in turn, I submit to US commands the requirements for air strikes approved by the Ambassador, which supplements the RLA capability.”

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. 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. This was probably the beginning of the ground-based Direct Air Support Center (DASC) and the Airborne Battlefield Command or Control Centers (ABCCC). The ABCCC coordinating all air strikes had been a USAF EC-47, and since 1967, it was a Udorn-based 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 (msn 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 68, 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.

302 Castle, *At war*, pp.54/5.
305 Colonel Tyrell quoted by Castle, *At war*, p.88.
306 Castle, *At war*, p.70.
307 Castle, *At war*, p.89.
308 According to the USAF Assignment Records preserved at Maxwell AFB, AL, two C-47Ds of 2AD were based at Udorn in 1965: 43-49373 (msn 26634) on 65181, that is on 30 June 65, and 45-887 (msn 34147) on
EC-130E. 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. 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. When a target chosen by the Raven had been approved, ABCCC would call in RCAF T-28s or a RCAF AC-47 or USAF F-105 jet fighters out of Takhli. 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. While the fighters were on station, their operation would be 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. 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. Already on 15 August 68, the CIA’s Deputy Director of Plans had requested that more USAF ARDF (Airborne Radio Direction-Finding) aircraft be made available for CIA operations in Laos.

65314, that is on 10 November 65. In 1966, C-47D 43-48388 (msn 25649) of 606 ACS was assigned to Udorn service on 31 July 66 (66212). In 1967, 4 C-47Ds were operated by the 432d Tactical Reconnaissance Wing, Udorn, that by the same unit that later also operated the ABCCC C-130Es: 43-48492 (msn 25753), 43-48946 (msn 26207), 43-49701 (msn 26962), and 45-887 (msn 34147), which left the 432d 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 Barrel 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 (msn 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).

309 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 (msn 3770), 62-1820 (msn 3783), 62-1836 (msn 3799), and 62-1857 (msn 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 432d 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.

310 Robbins, Ravens, pp.398+400; the call-sign “Cricket” was used between 600 and 1800 hours, “Alley Cat” between 1800 and 600 hours (Conboy / Morrison, Shadow war, p.312 note 77).

311 Robbins, Ravens, pp.10+18+283.
312 Robbins, Ravens, pp.10+155+268.
313 Robbins, Ravens, pp.13+175+176+76.
314 Robbins, Ravens, pp.10+79.
The 1968-73 period

The period that followed the Tet Offensive of January 68 was characterized by two things in Laos: First, the Communist aggression in Laos increased, as the North Vietnamese now brought big guns and entire battalions into Laos, resulting in a similar strategy on the pro-western side that, to a certain extent, replaced the old guerrilla strategy. Then, beginning in 1969, the traditional pattern of the war in Laos – during the dry season Communist troops would advance to the west, but during the rainy season they would be pushed back to the east by pro-western troops supported by Air America aircraft – no longer worked, as then, the Communist troops continued their attacks during the rainy season.  

Second, since 20 October 69, a subcommittee of the Senate Committee on Foreign Relations lead by Missouri Senator Stuart Symington began closed hearings on the war in Laos, whose transcripts were released to the public in April 1970. So the war in Laos was no longer a secret war. All that meant greater participation of US-paid Thai ground forces and more US air power in Laos.

Already since early 1968, Vang Pao’s Hmong army, who had originally been conceived as a guerrilla force, had shouldered the majority of the Royal Lao government responsibility for ground attacks in northeastern Laos. So they were reorganized into 300-man “Guerrilla Battalions” of three 100-man companies each and Groupements Mobiles of three to six battalions. But due to the many casualties the Hmong had suffered over the years, Vang Pao had to recruit even 13 or 14 year old boys. As the Royal Lao Army remained incapable or unwilling to fight the North Vietnamese, the United States began to recruit Thai volunteers thru “Headquarters 333”, and by April 1971, at least twelve Thai volunteer SGU battalions had served in Laos.

Air America felt these changes by receiving stronger USAF support in paramilitary operations, but also by new transport duties, as between 1970 and 1974 the Company transported entire battalions of Thai volunteers (project Unity) between their training camps in Thailand and battle fields and outposts in Laos where these Thai volunteers were deployed. Finally, in late 1971, Air America’s maintenance facility at Udorn began to maintain a fleet of 10 former US Army Bell UH-1Ms that were flown by Thai pilots on medevac missions to support the Thai Unity volunteer forces fighting in Laos.

Supporting the “Secret war” on the ground

As in the 1962-68 period, Air America UH-34Ds in Laos were used to airlift troops and to bring them close to the point where they had to flight. Often, those military operations of the late sixties were characterized by the same type of cooperation between the various partners as has been shown above for Operation Triangle of 1964. On 23 March 69, for example, Operation Duck was launched against a Pathet Lao base hidden in a cave on the side of Phou Labo, southeast of Mahaxay. Two SGU companies of 115 men each belonging to the SGU “Red Battalion” were airlifted close to the cave by seven USAF CH-3Es, three USAF UH-1s, and eight Air America UH-34Ds. The USAF also provided cover: six A-1Es escorted the helicopters, and eight F-105s plus four A-1Es all directed by two O-2s working as Forward Air Controllers attacked the enemy between the helicopter landing zone and the cave. Instructed to destroy the complex, the irregulars ran up and then retreated south, as the operation met unexpected resistance. The evacuation of the Hmong troops was mostly done by the Air America UH-34Ds, as five of the USAF CH-3Es sustained major battle damage and had to return to base. The bulk of the irregulars walked southwest onto Route 122 and were rescued the following day. Other operations involving the Air America UH-34Ds

316 Kirk, Wider war, p.228.
317 Castle, At war, pp.98/9.
318 Castle, At war, pp.110-12.
319 Castle, At war, pp.2/3; Conboy / Morrison, Shadow war, p.444.
320 Conboy / Morrison, Shadow war, pp. 303/4.
321 Castle, At war, pp.92/3; Conboy / Morrison, Shadow war, p.218.
(that, among others airlifted a 105mm howitzer Pa Doung to a clearing on Phou Ke), RLAF (T-28s), and USAF (AC-47 gunships) aircraft in 1969 included operation Raindance, which succeeded in taking the area of Xieng Khouang between 12 March and late April 69, but on 23 May 69, Communist troops reconquered the area. The same can be said about joint operations in the south of Laos, where Thateng (LS-210) in MR4, which was attacked by North Vietnamese forces since 27 November 68, was defended by USAF and US Navy jets and assisted by RLAF and Air America H-34s thru the end of March 69, and where, in operation Left Jab, a fleet of 3 Air America UH-34Ds, 5 USAF CH-3Es and 3 USAF UH-1F Green Hornets tried to block the Sihanouk Trail for several days in June 69.

A good example of the old “Leap-frog technique” used in the early seventies was Operation Maharat of March 1972. At that time, Long Tieng was again under pressure and Sam Thong was again falling to the enemy. In that situation, task forces in MR 1 and MR 5 teamed together, trying to liberate Route 13 leading from Vientiane (L-08) to Luang Prabang (L-54) and further north. Their purpose was to clear the Route of Communist troops who held Sala Phou Khoun (LS-260) – a typical “Leap-frog” type operation that lasted from 10 to 16 March 72. “On 10 March, BG 131 [= Bataillon Guerrier 131 from Luang Prabang] began the first phase of Maharat by moving to Phu Chia, 30 kilometers west of Sala Pha Khoun. Five days later, 80 heliborne Commando Raiders made a predawn landing at Xieng Ngeun; by 0700 hours, BG 121 [= another unit from Luang Prabang] arrived at the village aboard a truck convoy. The raiders then reboarded choppers and reoccupied Kiou Kacham without opposition. Again, BG 121 followed in their wake, while artillery and BG 122 [a third unit from Luang Prabang] moved into Xieng Ngeun as a reserve force. On the following day, the commandos were lifted nine kilometers east of Kiou Kacham. BG 121, again, arrived on their heels. Then, as Thonglith’s column advanced from the south, BG 122 was heli-lifted into the hills overlooking Sala Phou Khoun from the west. In short order, Maharat sped on to an anticlimax as the Luang Prabang battalion walked east to the intersection and linked up with the two roadbound columns. Sala Phou Khoun, they found, was already abandoned by Communist forces.”

A similar example of “Leap-frog” strategy in the south was Operation Fa Ngum, whose purpose was to loosen the North Vietnamese (= PAVN) grip on Route 23 leading from Pakse (L-11) east to Paksong (L-05) in MR 4. “Looking to make a bigger impact, Pakse Unit on 1 April [1972] completed plans for Operation Fa Ngum (in honor of the first Lao king), a heliborne infiltration behind 9 Regiment to cut its lines of supply and force PAVN to withdraw east. Picked for the operation was GM 32 [on loan from MR 3], thoroughly refitted since its MR 4 operations late the previous year. […] Boarding choppers, GM 32 was airlifted without incident a landing zone just east of Ban Gnik. From there the regiment headed southwest toward the suspected location of the 9 Regiment headquarters. After covering five kilometers, the MR 3 irregulars uncovered extensive trails, supply dumps, and wire communications. Clashes increased, as did incoming PAVN heavy-weapons rounds. Antiaircraft fire and heavy foliage, however, precluded effective close air support. After one week, GM 32 began to emerge from the western edge of the Bolovens. In exchange for suffering heavy casualties, communication intercepts confirmed that GM 32’s maneuver had forced the entire 9 Regiment to withdraw 15 kilometers east of Laongam.”

However, the late sixties and the early seventies also brought two new elements to Air America’s support to the ground forces: One of them was the fleet of Bell 205s. They could carry passengers or cargo, had seat armor, and a hoist and inertia reels could be installed.

322 Conboy / Morrison, Shadow war, pp.209-11.
323 Conboy / Morrison, Shadow war, pp.221-23.
324 Conboy / Morrison, Shadow war, p.337.
325 Conboy / Morrison, Shadow war, p.337.
326 Conboy / Morrison, Shadow war, pp.340/1.
327 Aircraft and avionics information as of 1 April 73, in: UTD/Kaufman/B1F14.
Although these helicopters were assigned to contract no. AID-439-713, they in fact flew 12 Hmong troopers and other SGUs from one position of the battle field to another – comparable Air America Bell 205 XW-PFF plus one more at Ban Keun in 1968, taken by Harry Casterlin (former photo no. 1-WL1-28-26-PB399, preserved at UTD/Leary/B77F2)
to the UH-1s of the US Army Airborne Cavalry Divisions in South Vietnam. This technique was called “leap frog” and consisted of transporting SGUs behind enemy lines. The Bell 205s were also used to supply isolated outposts and gun positions with all types of goods including arms. This type of helicopters was introduced to Air America Laos in 1967.

Air America Bell 205 XW-PFG after dropping troops (UTD/Leary/B75F12, former photo no. 1WL1-28-5-PB44)
Another helicopter introduced to Air America’s fleet with team insertion in mind was the Sikorsky S-58T Twin Pack. Air America’s 5 aircraft arrived between March and July 1971 and were used to transport Hmong troops and to carry heavy slide loads like crates of ammunition. Each aircraft could carry up to 12 passengers or cargo, had an armor plate, a hoist, and inertia reels and could also carry sling loads. The aircraft were further provisioned for augmented cockpit window armor, an F/M armored seat, and an external fuel tank. They also had modified inlet ducts with an EAPS particle separator installed.

In 1972, a heavy transport helicopter joined Air America’s fleet, the Boeing CH-47 Chinook. All Air America Chinooks had armor plates and IFR capability. Essentially, there were four types of missions flown by Air America’s Chinooks: First, they were used as troop carriers within Laos, and in this configuration, they could carry 32 passengers, to quote one example: On 20 January 73, two Air America Chinooks were used to transport troops to reopen the Vientiane-Luang Prabang highway. In another configuration, they could carry wounded out of a battle area, then they could be equipped with 24 litters, while 2 attendants could take care of the wounded. In still another configuration, they could carry cargo and even small vehicles, and so they had roller conveyor tracks and inertia reels. They could also rescue besieged people and lift heavy equipment with its hoist winch, including downed aircraft like a Twin Otter or even a C-46 fuselage estimated to weigh about 13,000 pounds and they could transport large outside cargo in a sling. Indeed, the primary mission of the Chinook probably was to transport large external sling loads from Udorn, Thailand to isolated positions in Laos. An Air America Chinook could move a 155MM gun with ammunition and crew from one position to another in one trip; the crew and ammunition were loaded inside and the gun outside to a cargo hook. Sometimes, even four cargo hooks were used in order to transport four different loads to four different places.

**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.

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328 Parker, *Covert ops*, pp. 49, 230.
329 Aircraft and avionics information as of 1 April 73, in: UTD/Kaufman/B1F14.
330 Aircraft and avionics information as of 1 April 73, in: UTD/Kaufman/B1F14.
332 Aircraft and avionics information as of 1 April 73, in: UTD/Kaufman/B1F14.
333 Hutchison, *Chinooks*, p. 4.
Air America Chinook with a sling, taken by Gary Gentz
(former photo no. 1-WL1-28-7-PB79, now preserved at UTD/Leary/B74F14)

Air America Chinook “016” carrying a big gun, taken by Gary Gentz
(UTD/Leary/B74F14, former photo no. 1WL1-28-7-NB76)

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 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.”

**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.” Air America’s first Twin Otter, N774M, arrived at Udorn in late 1971, where Air America engineers installed a LORAN C that was later replaced by an improved LORAN version. Used on Taiwan in May 71 for familiarization flights by RoCAF pilots, N774M saw heavy use in the Laotian panhandle in the summer of 1971, where it proved to be ideal for clandestine insertions of Commando Raiders: “While doing low-level resupply drops in the day, we would use the time to scout for suitable Commando Raider drop zones. While

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334 E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.
335 E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.
overflying such clearings, we would pinpoint the location on our LORAN C; that allowed us to return after dark and make a pinpoint insertion. We did this mostly in the vicinity of Saravane and around the Bolovens.”

In November 71, Air America’s second Twin Otter, N5662, arrived at Udorn and was immediately repainted in dark blue “night” colors. With its new APQ-115 Terrain Following Radar (TFR), it could “approach a drop zone at an altitude of just 59 meters, pull up to 248 meters as the paratroopers exited the plane, then descend back to 59 meters before they could be pinpointed by PAVN radar.” On 25 July 72, N5662, “its radar temporarily removed while on a daytime resupply mission southwest of the Plaine des Jarres, hit the side of a mountain, killing the crew.” TFR missions would not restart until 10 September, when another specially equipped Twin Otter arrived at Udorn – N6868, which, as before, flew the standard resupply missions by day and special drops by night.

“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. In the late sixties, “at times, the Caribou and C-123s were used to drop 250-pound bombs on enemy positions (less frequently, 500-pound bombs out of the C-123s). The missions would come up from time to time, at the request of the customer at 20A or LS-108. The customer would levy the requirement: Hit the enemy over that ridgeline. The missions would be flown at dusk so that you could see the target but have less chance of being hit by groundfire. There were a few nighttime time-and-distance drops with the C-123. A few missions involved drops of 55-gallon drums of fuel that were ignited by T-28s.” This type of combat missions flown by Air America’s transport aircraft also 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. 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

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336 Air America Twin Otter pilot Jim Pearson, quoted in: Conboy / Morrison, Shadow war, p.380.
337 Conboy / Morrison, Shadow war, pp.381.
338 Air America Twin Otter N5662 crashed at coordinates TG 8827 into a small hill north-east of Tha Tam Bleung (LS-72), Laos, 95 miles north of Vientiane, on 25 July 72, after encountering poor weather conditions, killing the pilot, Benjamin Frank Coleman, First Officer John Thomas Grover and kicker Thanom Khanthaphengxay. Kicker S. Kingklad was injured. The aircraft was on a resupply flight for troops in contact under the provisions of Contract F04606-71-C-0002, carrying a cargo of 2,780 pounds of palletized rations, and was attempting to fly under a low ceiling; when it hit the ground; in an apparent attempt to abort its pass toward the drop zone due to the weather, it appears that N5662 probably broke left into a steep left bank followed by an apparent aircraft stall. The aircraft left wing tip dug into the ground and the aircraft crashed at approximately 250345Z (XOXOs of 25 and 26 July 72, in: UTD/Hickler/B27F2; Accident report, in: UTD/Anthony/F4).
339 Conboy / Morrison, Shadow war, pp.381; for details about Air America’s Twin Otters see the Twin Otter file with my The Aircraft of Air America.
341 Robbins, Air America, pp.135-37.
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 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.”

Dropping Commando raiders

In late 1968, the CIA began to train at Pitt’s Camp in Thailand groups of guerrillas from Savannakhet (MR 3) and Long Tieng (MR 2) who were to become a special elite of Commando raiders. By early 1970, the first cycle of trainees had been repatriated to camp Whiskey-3 east of Savannakhet, waiting for their first mission. “At the end, the advisors gambled on the hardest of targets: a PAVN training camp near Rao Qua, 14 kilometers northeast of the Nape Pass inside North Vietnam. Selecting 30 of the 100 available commandos, the strike force – call-signed Chicken Fight – was provided five 60mm mortars and 50 rounds. To get to its target, Chicken Flight was lifted to the border by Air America Bells. […] On occasion Air America, as an ostensibly nongovernment entity, ranged just past the customer was on board watching the con from the USAF’s 21st SOS (Special Operations Squadron) based at Nakhon Phanom in Thailand. Commando raiders destined to attack the Sihanouk

342 E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.
343 See the file Air America in Thailand – since the days of CAT within my History of Air America.
344 PAVN = People’s Army of Vietnam, i.e. the North Vietnamese army.
345 Conboy / Morrison, Shadow war, p.238.
346 Conboy / Morrison, Shadow war, p.241; see also http://aircommandoman.tripod.com/id11.html. Known CH-3E Knives of the 21st Special Operations Squadron include: 62-12579 (destroyed in Laos, 6 Nov 69); 63-09676 (survived, to Wright-Patterson AF Museum); 63-09681 (destroyed, 13 Aug 70 ground fire near Ubon, Thailand); 63-09689 (destroyed in Thailand 19 Jan 69); 63-09691; 64-14222 (destroyed in Laos, 6 Oct 69); 64-14223; 64-14237 (destroyed in Laos, 26 Feb 69 last sensor drop mission loss); 65-5691 (destroyed 27 June 69); 65-15692; 65-15695; 66-13287 (destroyed in Laos, 24 Oct 70); 66-13288 (destroyed in Laos, 3 Feb 70); 66-13291; 66-13292 (survived, to Tunisian AF); 66-13293; 66-13294 (destroyed in Laos, 30 Mar 68); 66-13295 (destroyed in SVN. 23 May 68); 66-13296; 67-14702 (destroyed in Laos, 15 Jan 69); 67-14703 (survived, to Warner Robbins AFB Museum); 67-14718 (survived, to Tunisian AF) – Known CH-53Cs Knives of the 21st Special Operations Squadron include: 68-10925 (destroyed 15 May 75 during Mayaguez rescue); 68-10926 (destroyed 15 May 75
Trail were also inserted from Nakhon Phanom (T-55) by Air America Bell 205s. Many Air America flights bringing “infils” – sometimes in North Vietnamese Army attire – to their area of operation or picking up “exfils” to fly them back home, departed and returned to Long Tieng (LS-20A, officially LS-98). In September and October 1970, French N. Smith not only made the usual med-evac flights picking up wounded and the usual Search and Rescue flights looking for downed pilots, but in his Bell 205, he also performed several in- and exfiltrations of commando raiders to and from enemy territory – most of them out of and back to Long Tieng, but also one in- and exfiltration to the Sihanouk Trail out of Nakhon Phanom (T-55).347

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Extracts from the log book of French N. Smith showing in- and exfiltration missions (Log book formerly located in: UTD/Leary/B10F5, now in: UTD/Leary/B48F6)

during Mayaguez rescue; 68-10929 (destroyed 18 Feb 71); 68-10931 (destroyed 01 Mar 71); 68-10933 (destroyed 13 May 75 Udorn, Thailand); 70-1627 (destroyed 15 May 75 during Mayaguez rescue); 70-1628 (destroyed 24 Jan 75) – see http://usafbpa.org/experiences/knifetales/21stknifetales.html and http://www.helis.com/database/sqd/1017.

“During infiltration, most Savannakhet commandos relied on helicopter support, both contract airline and USAF, to get them near their target. In many cases, Air America Bells landed the assignment. ‘The Commando Raiders were the only ones that could get the Bells on demand,’ said one of their advisors. One Bell pilot, Air America Capt. Ed Reid, was a veteran of several Commando Raider insertions: ‘We would normally land them on mountain-top pastures near the Mu Gia or Ban Karai [63 kilometers southeast of Mu Gia] Passes. Each Bell could take five to eight men, all dressed like the enemy and armed with AK-47. Shortly before landing, we would have them pile their boxes of grenades near the side door, so when we hit the landing zone, they could kick out the boxes and everybody would be offloaded within 10 seconds.’ Although most operations fell within the region, the MR 3 Commando Raiders remained eligible for export to other parts of the country. In the fall of 1970, for example, one Savannakhet team was shipped to Long Tieng, then lifted by Bells to a landing zone near Dien Bien Phu. That mission had less than stellar results because the team was inserted at the wrong coordinates and spent several days walking in circles before being lifted out. More successful were the occasional cross-border missions from MR 3 into North Vietnam. Most of these were shallow forays against PAVN convoys and rest camps. As a makeshift long-distance weapon, the raiders were given .30-caliber machine gun tripods with the guns replaced by four tubes containing air-to-ground rockets. Fixed to a battery, the rockets could be fired from mountaintop vantage points onto PAVN targets in the valleys below. In time, the rocket missions grew more sophisticated as the raiders were given eight-shot pods outfitted with fat bike tires. Dropping off a squad of commandos with a pod in hand, the infiltration chopper would idle nearby while the raiders wheeled their load to the mountain’s edge, fired the missiles, and sprinted back for immediate extraction.”

348 Some commando missions into North Vietnam were failures like the one to Lang Mo in late October 70 or the one to a PAVN rest camp just inside North Vietnam in April 71; in both cases, the raiders had been in- and – as far as possible – exfiltrated by Air America Bell helicopters.349 In November 1972, at about the same time that some of Air America’s S-58Ts trained to make the wire tap mission to Vinh a success,350 Air America Bell 205 pilot French Smith was also at PS-44 – training camp of the mission to Vinh, but also home camp of a unit of commando raiders –, apparently to pick up some commando raiders for a Special Project that was to use infra-red glasses on a night infiltration. As the commando raiders were to be launched out of Nakhon Phanom (T-55), this was probably another mission to the Sihanouk Trail.351

Infiltration with infra-red glasses: Entries from the log book of French Smith for Nov. 72 (in: UTD/Leary/B48F6)

348 Conboy / Morrison, Shadow war, pp.241/2.
349 Conboy / Morrison, Shadow war, p.242.
350 See my file Air America in Laos II – military aid, Part II.
351 French N. Smith, Log book, in: UTD/Leary/B48F6. In an interview with Prof. Bill Leary, French Smith recalled that in 1972, he was given special training with night vision glasses for an infil mission. There was no side vision - only directly ahead. The mission was flown in November 72 (French N. Smith, Interview, conducted by Prof. Bill Leary, Corpus Christi, TX, on 25 July 85, in: UTD/Leary/B48F6.).
A special target – and that since the spring of 1967 – was Dien Bien Phu. After several failures in 1967 and 1968, the next outing was planned for early 1970, using some 32 of the newly graduated Commando Raiders, who were to be flown to their target by 4 Air America Bell 205s and 3 Bell 204Bs. On 21 February 70, the crews of the seven helicopters were briefed by the CIA and required to sign a secrecy form.\textsuperscript{352} The Air America crews included Dick Casterlin, Ken Wood, Ed Reid, Reuben Densley, Julian “Scratch” Kanach, Phil Goddard, Nikki Filippi, Wayne Knight, and Bob Noble.\textsuperscript{353} “On the following day, the helicopters rendezvoused at Long Tieng, then flew east to Pha Khao. There the commandos were waiting at the airfield, their PAVN dress and AK-47s giving them all the looks of a North Vietnamese platoon. With them were early two-shot versions of the makeshift rocket pods later used along the Trail. The batteries and rockets themselves were carried separately for fear of static electricity igniting them during flight. Onloading while the choppers idled, the strike force was airborne in minutes. In the lead was Phil Goddard, skimming the treetops as co-pilot Nikki Filippi navigated a course from the left seat. The rest of the aircraft tagged close behind while maintaining radio silence. Their transponders had even been removed out of concern that energy they emitted would be detected by PAVN radar near Dien Bien Phu. Refueling en route from fuel bladders previously airdropped at a STOL strip northeast of Luang Prabang, the choppers pressed on as the sun dipped low. Apart from a near collision by two ships, the armada flawlessly picked its way to the designated landing zone west of Dien Bien Phu, just inside the Laos border. From there, the commandos turned in a professional performance, slipping close enough to their target to direct a volley of rockets onto the PAVN headquarters below. Special intelligence sources later indicated that the projectiles struck during an officer’s meeting. On 24 February, the Bell fleet retraced its steps and collected the raiders. The Air America crews were later awarded cash bonuses for their contribution to the mission’s success."\textsuperscript{354}

It was not until 1971 that Air America acquired its first Twin Otter. 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. Jim Rhyne ran the program, assisted by Berl King. Clyde Moorehouse was Chief Pilot of the Twin Otter program, and Jim Pearson was Chief Pilot of Special Projects on the Twin Otter, and also on the program was Don Romes.\textsuperscript{355} 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 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 supplies. During all this maneuvering back and

\textsuperscript{352} Conboy / Morrison, \textit{Shadow war}, p.243 and p.246, note 18. Conboy / Morrison say that the fleet consisted of 5 Bell 205s and 2 Bell 204Bs, but one of Air America’s 5 Bell 205s had already been destroyed in 1968.

\textsuperscript{353} Conboy / Morrison, \textit{Shadow war}, p.246, note 20.


\textsuperscript{355} E-mail dated 2 July 2005, kindly sent to the author by Jim Pearson. Donald R. Romes, telephone interview made by William M. Leary on 19 May 1990; notes of Prof. Leary preserved at UTD/Leary/B43F5.
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.”

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

Before the commando raiders were dropped, Air America S-58Ts would infiltrate a small team that was to serve as a reception party. The dangers of those infiltration flights are well illustrated by a commendation that the CIA sent to Air America for the mission accomplished on 20 August 72. On 26 August 1972, Mr. William E. Nelson of the CIA sent the following message to Air America’s Managing Director Paul C. Velte: “Dear Paul, I would like to express my sincere thanks and admiration to your aircrews that made possible the airborne

356 E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.
infiltration of Lao irregular forces deep into enemy territory north of the Plain of Jars an 20 August. Flying at night over enemy-controlled territory in less-than-favorable conditions, two S-58T helicopters successfully inserted a small ‘pathfinder’ team that acted as a reception party for airborne troops who were later parachuted. There were several factors that made this difficult mission even more hazardous. During the helicopter infiltration the lead S-58T pilot experienced problems with his long range navigational system, but continued the mission until the system could be restored. On the return flight the second helicopter lost its automatic stabilization system and artificial horizon instrument, making flight under the prevailing instrument conditions extremely dangerous. Without extremely well-qualified and professional aircrews this mission could not have been accomplished. The positive attitude and dedication of these crews to their assigned missions continue to be the hallmark of our operations in Southeast Asia. Please extend my sincere appreciation to the crews who made this mission a success. William E. Nelson.”

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 horns’ 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 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

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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! ”

“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.”

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 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

358 E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson; this seems to have been the raid on 25 July 71 shortly described in Conboy/Morrison, Shadow war, p.380.
359 E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.
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 CBU’s on them until they hated their mothers.”

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”.

Reinforcing the Royal Lao 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. 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. In 1968/69, a new Joint Operations Center (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.” 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

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360 E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.
361 E-mail dated 5 September 2005, kindly sent to the author by Jim Pearson.
362 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.
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. 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 Houlai 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.”

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). 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.”

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

Once again, no exact numbers are available for those T-28s that were added to the fleet of the Royal Lao 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. No less than 29 T-28s are known to have been delivered between April 68 and the end of the year, 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 number goes up to 35 T-28s delivered to the RLAF between April 68 and the end of the year. So we have 2 T-28s delivered on 4 April, 1 on 28 May, 3 on 4 June, 2 out of 5 on 27 June,

367 Kirk, Wider war, pp.236/7.
369 T-28Ds 49-1753 and 50-216. For details see my file: RCAF T-28s within my e-book The Aircraft of Air America.
370 T-28D 49-1740. For details see my file: RCAF T-28s within my e-book The Aircraft of Air America.
371 T-28Ds 49-1699, 49-1704, and 49-1717 were all transferred from McClellan AFB to MAP on 68156, that is on 4 June 68. For details see my file: RCAF T-28s within my e-book The Aircraft of Air America.
372 Of the 5 T-28Ds transferred from McClellan AFB to MAP on 68179, that is on 27 June 68, only T-28Ds 49-1608 and 49-1622 are known to have gone to the RLAF immediately, while the other 3 T-28s – 49-1687 (msn 159-199), 49-1688 (msn 159-200), and 49-1702 (msn 159-214) – probably went to the Royal Thai Air Force in 1968; T-28D 49-1702 joined the RLAF only in December 1972. For details see my file: RCAF T-28s within my e-book The Aircraft of Air America.
1 out of 3 on 11 July,\textsuperscript{373} 3 out of 4 on 13 August,\textsuperscript{374} 2 out of 3 on 22 August,\textsuperscript{375} 1 on 15 September coming from Nakhon Phom,\textsuperscript{376} and 4 on 17 September, probably all of them to General Vang Pao’s Hmong troops,\textsuperscript{377} 3 out of 4 on 24 September 68,\textsuperscript{378} and 5 in late September and early October 68, coming from the 56th Special Operations Wing of Nakhon Phom.\textsuperscript{379} The delivery of 2 more T-28Ds – scheduled for 8 October 1968 – was postponed to 1970.\textsuperscript{380} More than 30 RLAF T-28s are known to have been lost in 1968.\textsuperscript{381}

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 Phom, in order to make space for additional A-1s and A-26s,\textsuperscript{382} 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 an 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 thru 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.\textsuperscript{383} 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

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\textsuperscript{373} On 68193 (= 11 July 68), 3 T-28Ds were transferred (TL) from SMAAR, McClellan to MAP: Of these, only 49-1612 is known to have gone to the RLAF; the other two – 49-1584 (msn 159-96) and 49-1601 (msn 159-113) – probably went to the Royal Thai Air Force in 1968; only on 1 December 72, 49-1584 also joined the RLAF. For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America.*

\textsuperscript{374} The three T-28Ds transferred (TL) from SMAAR, McClellan AFB to MAP, that is to the RLAF on 68226 (= 13 August 68) were: 49-1510, 49-1514, and 49-1529. For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America.*

\textsuperscript{375} On 68235 (= 22 August 68), 3 T-28Ds were transferred (TL) from SMAAR, McClellan to MAP: Of these, only T-28D 49-1551 and 49-1553 are known to have gone to the RLAF. The third T-28D – 49-1554 (msn 159-66) – is believed to have gone to the Royal Thai Air Force in 1968, before it went to the Khmer AF in 1972/73. For details see my files: *RLAF T-28s and Khmer Air Force T-28s within my e-book The Aircraft of Air America.*

\textsuperscript{376} T-28D 49-1621 (msn 159-133) was transferred to the 56th Special Operations Wing, Nakhon Phom, on 68215; it was transferred (TL) to MAP on 15 September 68 (68259) and flew with the RLAF and as a Raven aircraft. For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America.*

\textsuperscript{377} T-28Ds 49-1600, 49-1613, 49-1627, and 49-1631 were all transferred from SMAAR, McClellan AFB to MAP on 68261, that is on 17 September 68, serving with the RLAF and / or as Raven aircraft. For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America.*

\textsuperscript{378} On 24 September 68 (= 68268), the following four T-28Ds were transferred (TL) from SMAAR, McClellan AFB, to MAP/Laos, Udorn: Of these, T-28Ds 49-1637, 49-1638, and 49-1716, are known to have been flown by the RLAF or as a Raven aircraft; the forth T-28D was 49-1706 (msn 159-218), but its use by the RLAF is not documented. For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America.*

\textsuperscript{379} On 21 September 68 (= 68265), T-28D 49-1599 and on 23 September 68 (= 68267), T-28 49-1543 were both transferred (TL) to the RLAF (MAP) from 56SOP WG, NKP, to MAP; T-28D 49-1571 on 68275, that is on 1 October 68; T-28D 49-1561 on 68278, that is on 4 October 68; finally T-28D 49-1583 on 68279, that is on 5 October 68. For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America.*

\textsuperscript{380} T-28Ds 49-1724 and 49-1731. For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America.*

\textsuperscript{381} For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America.*

\textsuperscript{382} 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, at: *http://history.state.gov/historicaldocuments/frus1964-68v28/d371*) recommends that all of the 12 T-28s flown by the 606th Air Commando Squadron at Nakhon Phom at that time should be deleted to make space for additional A-1s and A-26s.


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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 Soui. 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. 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. 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 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.”

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. 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, followed by a 6th T-28 on 28 December 69. These were the first 6 of 22 T-28s promised, and they arrived at Udorn in late December 69 in crates. The Ravens began to use a lot of T-28s coming from other sources like the regular RLAF, Water Pump, the 56th Special Operations Wing at Nakhon Phanom and even unknown sources – one of them being T-28D “0-00242”. Others were rebuilt from the status of wreck they

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384 Kirk, Wider war, pp.228-30.
385 Robbins, Ravens, pp.58+168.
386 E-mail dated 4 January 2002 sent to the author by Frank Bonansinga.
387 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 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.”
388 T-28D-5 49001591 was later transferred to the Steve Canyon program as a Raven aircraft, not wearing the Erawan, but a badge on the fin; a photo can be seen in: http://www.ravens.org/gene72-2.jpg
389 They were: T-28Ds 50000275, 50000283, 50000295, 51003521, and 51007552 are known to have flown for the RLAF or as Raven aircraft. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.
390 This was T-28D 50000273.
392 T-28D “0-00242”, i.e. 50-242 (msn 171-48) was delivered from NAMCO, Columbus, to TL to the US Navy on 3 March 67; it is not mentioned in the USAF Assignment Records for 1968 (reel AVH-9) or 1969 (reel AVH-11), but is known to have worked at Moung Soui, Laos, as a Raven aircraft in 1969. For more details see my file: RLAF T-28s within my e-book The Aircraft of Air America.
had had for several years. More than 25 RLAF T-28s are known to have been lost in 1969.\footnote{For more details see my file: \textit{RLAF T-28s within my e-book The Aircraft of Air America.}} Hmong fighter Ace Lee Lue was shot down in his T-28 on 12 July 69 during the battle for Muong Suoi (L-108),\footnote{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: \url{http://www.geocities.ws/koratmahknut/warinlaos/hmonglao/theday.htm}. The T-28D involved was probably 49-1627.} and there were also T-28 accidents, whose aircraft were apparently later rebuilt: 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.\footnote{For these two accidents, see the log book of Allen Rich (in: UTD/RichB1).} In 1969, there were already five Air Operations Centers in Laos, that is at Savannakhet, the RLAF headquarters, at Vientiane,\footnote{In 1969, Lao-piloted RLAF T-28s were also based at Vientiane (Robbins, \textit{Ravens}, pp.141+164).} at Luang Prabang, at Long Tieng, and at Pakse,\footnote{Robbins, \textit{Ravens}, p.147.} but \textit{Water Pump} T-28s were not only kept at these places, but usually also at Korat and Ubon in Thailand.\footnote{Robbins, \textit{Ravens}, p.168.}

Strategically, 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 \textit{About Face} in the fall of 1969. Since 1966, Muong Soui (L-108), the Neutralists HQ located on the western edge of the Plain of Jars, was used as a forward staging base for B-Team T-28s, and 3 kilometers east of Muong Soui, at Ban Khay, a Thai Special Requirements battalion with their 155mm howitzers was based. This explains why North Vietnamese sappers attacked Muong Soui in February 67, April 68, and again in February 69. As to the battle for Muong Soui (L-108), the plan was for the Neutralist troops to move out from Muong Soui, 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 in June 69. Air support would 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.\footnote{Robbins, \textit{Ravens}, p.212/3.} But after some days of heavy fighting, Muong Soui and neighboring Ban Khay had to be evacuated on 27 June 69.\footnote{Conboy / Morrison, \textit{Shadow war}, pp.207/8, and 211/2.} 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.\footnote{Robbins, \textit{Ravens}, p.147.} So, on 1 July 69, Vang Pao launched operation \textit{Off Balance} to regain Muong Soui, sending in the 8 T-28s at his disposal,\footnote{For many years, the USAF was opposed to allowing the Hmong to fly T-28s. Former Air Intelligence Officer Lt./Col. Al Shinkle, who served in Laos from 13 October 64 - 10 August 66 with the Royal Lao Air Force at Savannakhet and wherever B/Gen Thao Ma went in Laos, recalls: “A further complication was that the CIA wanted the RLAF T-28s made available to them and under their command and control to support their efforts with M/Gen Vang Pao in and around the Plaine des Jarres (PDJ). This CIA effort was blocked until Aug 66 by me and then the CIA arranged for me to be transferred to another job in Thailand due to ‘mainly political’ reasons” (E-mail dated 14 June 2009, kindly sent to the author by Col. Al Shinkle).} lead by Lee Lue, where they bombed the enemy until July 69.\footnote{Robbins, \textit{Ravens}, pp.173+180.} On 11 or 12 July 69, Vang Pao’s brother-in-law Lee Lue was shot down and killed during the battle, and 4 days later, Vang Pao reluctantly aborted \textit{Off Balance}.\footnote{Conboy / Morrison, \textit{Shadow war}, pp.213/4 give 11 July, Chaophakhao Red (“The day we lost Lee Lue”, in: \url{http://www.geocities.ws/koratmahknut/warinlaos/hmonglao/theday.htm}) gives 12 July as the date. The aircraft involved seems to have been RLAF T-28 49-1627, which was reportedly \textit{lost in Laos on 11 or 17 July 69} (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).} 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 Ambassador Godley, as it had been under Ambassador 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.405 But in spite of this more direct type of control, which was closer to the actual battlefield,406 at the end L-108 was lost in June 69.407 As to Operation About Face (Kou Kiet or “Redeem Honor” in Lao),408 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,409 as well as by Ravens and by RLAF T-28s operating out of four Lima Sites in enemy-held territory.410 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.411 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.412

In 1970, at least 16 T-28Ds were added to the Military Assistance Program for Laos, all of them between 15 and 28 January 1970, and all of them are known to have flown for the RLAF or as Raven aircraft.413 As to losses suffered in 1970, more than 25 T-28s were lost in 1970,414 including one shot down in the Luang Prabang (L-54) area on 25 February 70,415 3 T-28s lost during the battle for Sam Thong in late March 1970,416 a Luang Prabang-based T-28 shot down over the Chinese Road in March 1970, while flying at 10.000 feet on the way to support Lima Site 118A,417 and one Lao-piloted T-28 shot down on 13 November 70, when returning to Luang Prabang.418

As to the areas where RLAF 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 time.419

In early 1970, Muong Suoi was even the center of T-28 operations, where Major

405 Robbins, Ravens, p.187.
406 In 1969, Bob Downs checked the area around Moung Soui in his T-28 (Moody, The great adventures, Prelude, p.12).
407 Moody, The great adventures, Prelude, p.16.
408 Conboy / Morrison, Shadow war, p.214.
409 During the first week of September 69, 5 USAF UC-123Ks staging from Udorn flew 28 defoliant sorties in an effort to destroy Communist rice fields in and around the Plain of Jars (Conboy / Morrison, Shadow war, p.216).
410 Robbins, Ravens, p.188.
411 Castle, At war, pp.105/6; Conboy / Morrison, Shadow war, pp.214-17.
413 These 16 T-28Ds were: 49001503, 49001506, 49001519, 49001633, 49001677, 49001698, 49001724, 49001731, 5000240, 5000304, 51003485, 51003588, 51003787, 51007493, 51007696, and 51007793. For more details see my file: RLAF T-28s within my e-book The Aircraft of Air America.
414 For more details see my file: RLAF T-28s within my e-book The Aircraft of Air America.
416 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.”
417 The pilot, Lt. Liao Phaysane, was missing in action and never recovered (Moody, The great adventures, Episode 3, p.8).
419 Castle, At war, p.106.
Jesse E. Scott worked from January to late February 70, and during this time, RLAF 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. And there were other T-28 activities as well: During the first week of January 1970, two Thai-piloted RLAF T-28s headed northwards, bombing a truck convoy on Route 46, registering 15 confirmed vehicle kills. 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.

In 1971, at least 8 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. 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 “MAP” at the same time, 24 of them are believed to have become Raven aircraft, while the others probably all went to the Royal Thai Air Force. The new Raven T-28s are also listed on the Air America maintenance list of 1 April 1972, but are not distinguished from the T-28Ds of the first group. According to official statistics, the RLAF – including the Raven program – even received a total of 46 T-28s in 1971 and January 72. So, it cannot be excluded that some of the T-28Ds believed to have been destined for Raven use, actually went to the RLAF instead, as the RLAF insignia borne on the T-28Ds were detachable. Ten RLAF T-28s are known to have been destroyed in 1971: 2 T-28s burnt at Vientiane on 8 February 71, 3 T-28s were destroyed at Ban Dong Hene (LS-54) on 9 March 71, when the location was under a rocket attack, one T-28 was shot down in late October 71, when bombing enemy positions around Long Tieng, and another 2 T-28s were shot down on 1 December 71, when the North Vietnamese Army attacked the Plain of Jars bases, and another 2 T-28s were destroyed in 1977.


Conboy/Morrison, Shadow war, p.315.


They were: 00137639, 00137738, 00137757, 00137773, 00138208, 00138232, 00138249, and 00138258. For more details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

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

According to Liebchen (MAP Aid to Laos 1959-1972, pp. 99+115), the RLAF had received a total of 196 T-28s by 31 December 70 and a total of 242 T-28s by 3 February 72; the difference is 46.

See the photos of T-28s wearing a detachable Erawan on the side of the fuselage and the explanation in Davis, Laos: The Secret War, in: http://www.preservingourhistory.com/Laos.html.

Log book of Allen Rich, in: UTD/Rich/B1; one apparently was 49-1503, the second T-28 may have been 49-1698 given as lost between 7 and 11 February 71 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).


were shot down on 18 and 19 December 71 during the battle for Long Tieng. But besides the 4 T-28s identified for the 8 February and 18/9 December 71 losses, a total of 24 additional T-28s are known to have been lost between January 71 and the end of January 72.

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 at 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. 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. 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.

As to the T-28s that joined the RLAF in 1972, no less than 76 T-28s were maintained by Air America at Udorn in April 72, of which only 26 are believed to have been Raven T-28s, leaving a total of 50 RLAF T-28s on the list. In June 72 and July 72, a total of 8 new T-

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431 Hamilton-Merritt, Tragic mountains, p.274. The T-28s involved were probably 51-7763 and 0-37729, both given as lost on 18 or 23 December 71 (“Aircraft All Loss by Tail number”), pages 135-287, no date, Folder 15, Box 10, Garrett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011.

432 Known T-28 losses of the period were: “0-00242” on 1 or 14 Jan.71; “0-919151”, “0-919163”, and “0-13787” on 31 Jan. 71; “0-91600” on 2 Feb. or 8 March 71; “0-00295” on 4 March 71; “0-00257” and “0-91612” around 18 March 71; “0-13608” on 1 April 71; “0-91716” on 15 April or 14 May 71; “0-17779” on 29 April 71; “0-13485” and “0-13552” on 2 May 71; “0-13706” on 20 May 71: “0-91510” on 2 or 5 August 71; “0-00304” on 25 August 71; “0-38174” on 27 or 31 August 71; “0-17779” on 12 or 16 Sept.71; “0-17777” on 21 or 23 Sept.71; “0-00303” on 1 October 71; “0-00226” on 9 Oct.71; “0-13588” on 17 January 72, but this T-28 was later rebuilt; “0-00219” on 19 Jan.72; and “0-13531” on 29 Jan.72. For more details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

433 Hamilton-Merritt, Tragic mountains, pp.253-55.

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

435 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.

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

437 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, 0-17767, 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, 0-00271, 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, 0-38208, 0-38232, 0-38249, 0-38258, and 0-38259).
28D-10s are listed for the first time in the lists of aircraft maintained by Air America at Udorn;\(^{438}\) they had been transferred from NASPF, Pensacola, on 22 February 72 and 15 March 72, and most of them are documented as being operated in Laos to at least 1 June 73.\(^{439}\) At least one T-28D – “0-38259” – was leased from the US Navy in April 72.\(^{440}\) On 1 December 72, no less than 14 new T-28s were listed for the first time among the aircraft maintained by Air America at Udorn.\(^{441}\) On 26 June 72, one Hmong T-28 was shot down and exploded, while bombing enemy positions at Sam Thong.\(^{442}\) Among the RLAF T-28s that suffered accidents in 1972, was T-28D “0-00271”, which crashed into the Air Operations Building at Long Tieng on 17 August 72.\(^{443}\) and 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.\(^{444}\) Another 19 RLAF or Raven T-28s were destroyed in Laos in 1972 under unknown circumstances,\(^{445}\) and 5 more RLAF and Raven T-28s were lost during the first 2 months of 1973.\(^{446}\) 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

\(^{438}\) Lists of Assigned and maintained aircraft at Udorn of 1 June 72 to 1 June 73, in: UTD/Bisson/B5, microfilm reel 24.

\(^{439}\) Two T-28Ds were transferred from NASPF, Pensacola, to TL MAP on 72053 (22 February 72); they are listed as maintained by Air America Udorn already on 1 June 72 (List of Assigned and maintained aircraft at Udorn of 1 June 72, in: UTD/Bisson/B5, microfilm reel 24): 00153654 to the RLAF probably flying as “0-53654” 1 June 72 to 1 June 73; later to the Philippine AF as “153654”; and 00153658 to the RLAF probably flying as “0-53658” 1 June 72 to 1 June 73; later to the Philippine AF as “153658”. Six T-28s were transferred from NASPF, Pensacola, to TL MAP on 72075 (15 March 72); they appear in the Udorn lists only on 1 July 72: 00153643 to the RLAF probably flying as “0-53643” 1 July 72 to 1 September 72; later to the Philippine AF as “153643”; 00153646 to the RLAF probably flying as “0-53646” 1 July 72 to 1 June 73; later to the Philippine AF as “153646”; 00153648 to the RLAF probably flying as “0-53648” 1 July 72 to 1 June 73; later to the Philippine AF as “153648”; 00153650 to the RLAF probably flying as “0-53650” 1 July 72 to 1 December 72; later to the Philippine AF as “153650”; 00153655 to the RLAF probably flying as “0-53655” 1 July 72 to 1 June 73; later to the Philippine AF as “153655”; 00153659 to the RLAF probably flying as “0-53659” 1 July 72 to 1 June 73; later to the Philippine AF as “153659”. The manufacturer’s serial numbers of these T-28s are unknown. For more details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{440}\) T-28D “55-138259” was maintained by Air America, Udorn, on 1 April 72 (List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2) and still on 1 June 73 (List of Assigned and maintained aircraft at Udorn of 1 June 73, in: UTD/Bisson/B5, microfilm reel no. 24), but according to the US Navy cards, T-28 BuA 138259 struck off charge by the Navy only on 28 October 83 (e-mail dated 4 May 2009, kindly sent to the author by Sid Nanson).

\(^{441}\) On 1 December 72, there were 6 new T-28Bs at Udorn, probably used for training, whose official serials were: 51-37679, 51-37762, 51-38135, 51-38181, 51-38192, and 51-38325; 4 new T-28Ds: 51-3632, 51-3656, 51-3700, and 51-3722; and 4 new T-28D-5s: 49-1584, 49-1702, 49-1749, and 50-250 (List of Assigned and maintained aircraft at Udorn of 1 December 72, in: UTD/Bisson/B5, microfilm reel 24).

\(^{442}\) Hamilton-Merritt, Tragic mountains, p.287. This was possibly T-28D “0-38208”, officially given as “55-138208”, which was reportedly lost in Laos on 24 or 29 June 72 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).

\(^{443}\) For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{444}\) The Accident report and photos can be found in: UTD/CIA/B61F3; other photos are preserved in: UTD/Anthony/F6.

\(^{445}\) They were: “0-00219” on 19 Jan. 72; “0-13531” on 29 Jan.72; “0-40579” on 3 Feb. 72; “0-37677” on 3 or 6 April 72; “0-38208” and “0-40023” on 24 or 29 June 72; “0-37675” on 26 or 31 Aug. 72; 5 T-28s in September 72: “0-91621” and “0-53643” on 10 or 14 Sept. 72; “0-17552” on 14 Sept.; “0-00240” on 16 or 21 Sept.; and “0-37693” on 24 or 28 Sept. 72; “0-38270” on 18 or 19 Oct. 72; “0-13476” on 25 Nov. 72; “0-00294” on 27 Nov. 72; “0-00250” on 29 Nov. 72; “0-53650” on 7 Dec. 72; “0-37738” on 15 Dec. 72; and “0-13680” on 28 Dec. 72. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.

\(^{446}\) They were: “0-17493” on 10 Jan. 73; “0-37666” on 12 Jan. 73; “0-37713” on 4 Feb. 73; “0-37769” on 6 Feb. 73; and “0-91744” on 20 Feb. 73. For details see my file: RLAF T-28s within my e-book The Aircraft of Air America.
doggedly some two miles back up the Ridge. But as Sam Thong (LS-20) and Phou Pha Xiai were still occupied by enemy forces, Vang Pao ordered his Hmong T-28s to hit these gun positions in June 1972.\textsuperscript{447} 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.\textsuperscript{448} In the south, North Vietnamese and Pathet Lao forces moved from the Bolovens Plateau down Route 23 and into the valley, advancing to 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.”\textsuperscript{449}

**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 brother-in-law of Vang Pao, whose courageous and daring 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.\textsuperscript{450} 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.\textsuperscript{451} 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”.\textsuperscript{452} 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 17 September 68.\textsuperscript{453} 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-

\textsuperscript{447} Hamilton-Merritt, *Tragic mountains*, pp.284 and 287.

\textsuperscript{448} Hamilton-Merritt, *Tragic mountains*, pp.300/1.

\textsuperscript{449} Robbins, *Ravens*, pp.305, 312, and 323.

\textsuperscript{450} Robbins, *Ravens*, pp.181-84; Moody, *The great adventures*, Prelude, p.8. A description of the battle of Muong Suoi (L-108) can be found in Moody, Prelude, pp.10-16. The T-28 in which he was shot down was probably \textbf{0-91627}. For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America*.

\textsuperscript{451} Moody, *The great adventures*, Prelude, p.4.


\textsuperscript{453} 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 17 September 68: Two of them are positively Hmong T-28s, that is \textbf{0-91600} (photo in Hamilton-Merritt, *Tragic mountains*, p.165) and \textbf{0-91627} (photo in Robbins, *Ravens*, pp.120-21), while the other two, that is \textbf{0-91613} and \textbf{0-91631}, are believed to have been used by Hmong pilots as well. For details see my file: *RLAF T-28s within my e-book The Aircraft of Air America*.
28s flew continuous bombing missions against the North Vietnamese.\(^{454}\) 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\(^{455}\)**

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 606\(^{th}\) Air Commando Squadron at Nakhon Phanom, in order to make space for additional A-1s and A-26s.\(^{456}\) 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 size 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. Initially, these B-52 strikes only hit the Ho Chi Minh Trail, but in February 1970, USAF B-52s attacked the Plain of Jars for the first time.\(^{457}\) These increased air combat activities also required a larger scale of coordination: Already on 13 February 1968, the 7\(^{th}\) ACCS (Airborne Command and Control Squadron), equipped with EC-130Es, was constituted and then activated on 1 March 1968. They initially operated out of Udorn, until moving to Korat Royal Thai Air Force Base on 15 April 72. The 7\(^{th}\) ACCS provided airborne combat command and control in South East Asia from 1 March 1968 to 15 August 1973.\(^{458}\)

Air strikes by smaller USAF aircraft and by RLAf T-28s however continued to be called 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.\(^{459}\) 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.\(^{460}\) But at that time, only Cessna O-1s and Cessna U-17s were operated, and very little is known about the individual Raven aircraft flown in those days.\(^{461}\) They either bore the Erawan or were unmarked, and normally, they used a 4-digit\(^{462}\) and sometimes also 3-digit\(^{463}\) abbreviation of their USAF or US Army serial. Later, Raven O-1s

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\(^{454}\) Robbins, *Ravens*, pp.70-74.

\(^{455}\) The activities oft he Ravens are well shown by the documentary *Birds of a Feather* that can be viewed online at [http://www.t28trojanfoundation.com/karl-polifka.html](http://www.t28trojanfoundation.com/karl-polifka.html).

\(^{456}\) 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; at [http://history.state.gov/historicaldocuments/frus1964-68v28/d371](http://history.state.gov/historicaldocuments/frus1964-68v28/d371)) recommends that all of the 12 T-28s flown by the 606\(^{th}\) Air Commando Squadron at Nakhon Phanom at that time should be deleted to make space for additional A-1s and A-26s.

\(^{457}\) Kirk, *Wider war*, pp.239-43.

\(^{458}\) See [http://en.wikipedia.org/wiki/7th_Airborne_Command_and_Control_Squadron](http://en.wikipedia.org/wiki/7th_Airborne_Command_and_Control_Squadron); on 22 May 1974, the 7\(^{th}\) ACCS moved to Clark AFB in the Philippines.

\(^{459}\) Moody, *The great adventures*, Episode 3, p.3.

\(^{460}\) Robbins, *Ravens*, p.78.

\(^{461}\) The following O-1s are known to have been operated in the 1968/69 period: “2857” (lost 7 Nov.68, killing Raven Charles D. Ballou); “2943” (lost 21 Nov.68); “2885” (lost 27 Nov.68, killing Raven “Hoss” McBride); “2577” (lost 13 Jan.69); “2855” (lost 20 April 69, killing Raven John Bach); “2566” (lost 18 Aug.69); “2937” (lost 6 Nov.69); “2666” and “5044”, which were probably both transferred to the RThAF in 1971; and “2899” (lost 20 June 72). For more details see my file: *RLAF O-1s* within my e-book *The Aircraft of Air America*.

\(^{462}\) 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/](http://www.ravens.org/) the fate of these aircraft is unknown.

\(^{463}\) A photo of Cessna O-1 “937”, wearing small South Vietnamese Air Force insignia, can be found at [http://www.ravens.org/pictures/o1nape.jpg](http://www.ravens.org/pictures/o1nape.jpg); it was probably the same O-1 that then became “2937” with the Ravens in Laos. For more details see my file: *RLAF O-1s* within my e-book *The Aircraft of Air America*. 74
used normal USAF serials, like the Raven T-28s, 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. Ravens were absolutely forbidden to fly the T-28 in combat, but with the RLAF at Pakse in Military Region IV being ineffective, Raven pilot Tom Richards broke that role too. His sources

As to 1971, 24 T-28Ds that were 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, 2 on 30 June 71, 3 on 20 July 71, 5 on 10 October 71, 4 on 18 October 71, 4 on 11 December 71, and 4 on 20 July 71, 5 on 10 October 71, 4 on 18 October 71, 4 on 11 December 71, and 4 on

464 A photo taken at Pakse in March 71 showing Raven Cessna O-1F “0-728977”, that is former USAF 57-2897 of 504 TAS, Cam Ranh Bay, delivered to TL MAP on 5 March 71, can be seen at http://www.ravens.org/. It crashed at Ban Keun (LS-44) on 8 February 72. For more details see my file: RLA 0-1s within my e-book The Aircraft of Air America.

465 A photo of Raven T-28D-5 “0-91583” can be seen at http://www.ravens.org/people/gene72-2.jpg: it does not wear the Erawan.

466 Robbins, Ravens, pp.166/7.

467 Robbins, Ravens, p.59.

468 Former Water Pump T-28C “0-40456” 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, but went to the Philippine AF as “140456” in 1974 (?), and was sold to Business Air Charter, Portland, OR, as N2065J in August 1989. For more details see my file: RLA T-28s within my e-book The Aircraft of Air America.

469 A total of 8 Raven T-28Ds that came from the RLAF MAP are documented on photos: T-28D-5 “0-00276” crashed at Lima 36 (Na Khang, LS-36), but was rebuilt; 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; T-28D “0-91510” is pictured as a Ravens T-28 in: Moody, The great adventures, Prelude, p.5, and at http://airwarvietnam.com/udornt28.jpg; it was lost in Laos in August 71; T-28D “0-91523” is pictured as a Ravens T-28 in: http://www.ravens.org/iimcainf.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” was pictured as a Ravens T-28 in: http://www.ravens.org/; 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” is pictured as a Ravens T-28 in: http://www.ravens.org/people/gene72-2.jpg; it was lost on 12 October 71; T-28D “0-91600” is pictured as a Ravens T-28 in: Robbins, Ravens, pp.120-21 photo section, taken by Howard Mesaris probably in 1970; it was lost in February or March 71; T-28D “0-91716” is pictured as a Ravens T-28 in: Robbins, Ravens, pp.120-21 photo section, taken by Howard Mesaris probably in 1970; it was lost in April or May 71; and finally, T-28C “0-40533” 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; 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.

470 T-28D-10s “0-38268” and “0-37729”; for more details see my file: RLA T-28s within my e-book The Aircraft of Air America.

471 T-28D-10s “0-37769” and “0-38270”; for more details see my file: RLA T-28s within my e-book The Aircraft of Air America.

472 T-28D-10s “0-37646”, “0-37785”, and “0-38174” were all transferred from NASJA, Jacksonville, to TL on 20 July 71 (71172), but not to MAP; for more details see my file: RLA T-28s within my e-book The Aircraft of Air America.

473 T-28s “0-37673”, “0-37674”, T-28D “0-37697”, “0-37713”, and “0-37799” 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,
Evidence of its career with the Ravens exists only for three of these 24 T-28s, that is for “0-37713”, “0-37799”, and “0-38270”. As at the very same dates, other T-28s were transferred “to non-USAF” (TL) that ended up with the Royal Thai Air Force, 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.

In April 1972, no less than 3 Raven O-1As, six Raven O-1Ds, and 14 Raven O-1Fs 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: More than 40 Raven Cessna O-1s are known to have been lost in Laos, to which has to be added an unknown number of crashes, where the Raven O-1s involved were just damaged, but could later be rebuilt. At the same date, that is not to MAP; for more details see my file: RLAFT-28s within my e-book The Aircraft of Air America.

For details, see the RThAF files at http://www.thai-aviation.net/files/Air_Force_Detail.pdf, pp.41-43. 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 bore the abbreviated 3 or 4 digit serial or the full USAF serial prefixed by an O-; for more details, see the file: RLAFO-1 within my e-book The Aircraft of Air America.

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 bore the abbreviated 3 or 4 digit serial or the full USAF serial prefixed by an O-; for more details, see the file: RLAFO-1 within my e-book The Aircraft of Air America.

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 were destroyed prior to 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 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 “0-72976”; it was lost on 8 February 72. The delivery dates of 3 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, and 51-12776. 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; for more details see my file: RLAFO-1 within my e-book The Aircraft of Air America.

For details see my file: RLAFO-1 within my e-book The Aircraft of Air America.

The following list is only a selection of Raven O-1 losses or crashes: 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
in April 1972, 7 Raven Cessna U-17Bs\(^{484}\) 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.\(^{485}\) One more Raven T-28, delivered in November 72 from US Navy stocks,\(^{486}\) is known to have been T-28 “0-37762”, whose wreck was photographed in 1973 and can be seen at [http://members.bellatlantic.net/~ltcollaos.html](http://members.bellatlantic.net/~ltcollaos.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, and another one was shot down near Ban Na on 9 February 71, wounding Jim Hix.\(^{487}\) 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,\(^{488}\) most of them were destroyed. The cease-fire of 22 February 73 meant 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.\(^{489}\) However, the Ravens left Laos only in June 73, turning

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**January 70**, and this time, Fred Platt was injured (Robbins, *Ravens*, pp.143/4 and 209-12). Other Raven O-1 crashes known are (all quoted from Robbins, *Ravens*): One O-1 (probably 57-2871) 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, a Raven 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). For more details see my file: *RLAF O-1s* within my e-book *The Aircraft of Air America*.

\(^{484}\) 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 bore the abbreviated 4 digit serial or the full USAF serial prefixed by an O-; for their fates and for more details see my file: *RLAF U-17s* within my e-book *The Aircraft of Air America*. 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).

\(^{485}\) 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).

\(^{486}\) T-28B BuA 137762, struck off charge from US Navy records on 13 November 72 (e-mail dated 29 April 2009 kindly sent to the author by Sid Nanson), is listed as T-28B “51-37762” training aircraft from 1 December 72 to 1 June 73 (Lists of Assigned and maintained aircraft at Udorn of 1 December 72 to 1 June 73, in: UTD/Bisson/B5, microfilm reel 24).


\(^{488}\) 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 September 2002; and List of Assigned and maintained aircraft at Udorn of 1 April 72, in: UTD/CIA/B49F2). While 3 of them were destroyed, “0-37646” went to the Khmer Air Force. For more details see my file: *RLAF T-28s* within my e-book *The Aircraft of Air America*.

over FAC responsibilities to a cadre of RLAF protégé – call-signed Nakkatien, i.e. Kingfisher - whom they had been training since early 1972.\footnote{Conboy / Morrison, Shadow war, p.403.}

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.\footnote{Robbins, Ravens, pp.166-7 and 59.} 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)”\footnote{US Dept. of State, Foreign Relations of the United States, 1964-1968, vol. XXVIII, Laos, document 366, in: \url{http://history.state.gov/historicaldocuments/frus1964-68v28/d366}.} and so Royal Thai Air Force pilots continued to fly for the Royal Lao Air Force until 1975.\footnote{Moody, The great adventures, Prelude, p.3, in: \url{http://ravenfac.com/ravens/Adventures/Episode0000.htm}.}

**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,\footnote{Fax dated 7 August 2000 kindly sent to the author by B/G Aderholt.} 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 figures 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 (crash, 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.”\footnote{Contract F04606-71-C-0002-P00024, effective 1 July 71, pp. 2 and 60 (both quotations on p.60), in: UTD/Kaufman/B1F8.} 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.\footnote{A photo located at \url{http://i47.photobucket.com/albums/f178/HappyAsian/T-28a.jpg} and taken in February 1972 probably shows the T-28 fleet at Udorn.} As the O-1s and U-17s were aircraft used by the Ravens, one part of the T-28s managed by DEPCHIEF was 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,\footnote{The list dated 1 April 72 contains all aircraft “presently operated, maintained or supported by Air America, Inc., Udorn” (in: UTD/CIA/B49F2).} 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 (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)”.

So, until the very end if its Udorn operations, Air America was responsible for maintaining the USAF T-28s loaned to the RLAF thru DEPCHIEF.

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498 Contract F04606-71-C-0002-P00054, effective 1 July 72, pp. 2 and 11, in: UTD/Kaufman/B1F6.
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 Ravens handed their T-28s over to the Royal Lao Air Force in February 73,499 which probably meant another 21 aircraft.500 Others seem to have been added later in 1973. On 10 September 73, a total of 11

The RLAF O-1s, U-17Bs, U-6, and T-28s maintained by Air America at Udorn on 1 May 73 (List No. PLNG-UTH-73-134, pp. 3-4, in: UTD/Bisson/B5, microfilm reel no. 24)

T-28Ds were transferred from Naval Air Station, Pensacola, Florida (NASPF) to an unknown Military Assistance Program (MAP).501 While many of these aircraft were later flown by the Khmer Air Force,502 at least two of them found their way into the Air Force of Communist Laos,503 so had evidently been taken over from the Royal Lao Air Force. This means that

500 Ten T-28s (T-28Bs “0-37762”, “0-37799”, and “0-38352”, T-28Cs “0-40044”, “0-40456”, and “0-40533”, T-28D “0-13463”, as well as T-28D-5s “0-00276”, “0-17793”, and “0-91531”) have been documented as Raven aircraft, and 11 T-28s (T-28B “0-38305”, T-28D “0-38320” as well as T-28D-10s “0-37673”, “0-37674”, “0-37684”, “0-37697”, “0-37701”, “0-37709”, “0-37785”, “0-38201”, and “0-40019”) are believed to have been Raven aircraft; all of them were maintained by Air America Udorn still in March 73 (List of Assigned and maintained aircraft at Udorn of 1 March 73, in: UTD/Bisson/B5, microfilm reel 24).
502 Documented as in service with the Khmer Air Force in 1973/4 are T-28Ds 51007492, 51007505, 51007568, 51007586, and 51007637; for details see the Khmer Air Force files of The Aircraft of Air America.
503 T-28D “0-17521” (Previous history: T-28A 51007521 SMAAR, to 3380 M & S Group, Keesler AFB on 70117; to T-28D; to NASPF, Pensacola; to TL MAP on 73253 [10 Sept. 73], that is to the Royal Lao Air Force, probably as “0-17521”. Fate: transferred to the Air Force of the Laos People’s Army as “3403” in 1975 [?]; sold to A. Schmidt, Alice Springs, NT, as VH-DUK in August 93; regd. on 5 August 93) and T-28D “0-17576”
possibly the remaining 9 T-28Ds of this batch had also gone to the Royal Lao Air Force before being transferred to the Khmer Air Force. More T-28s joined the Royal Lao Air Force in 1973 and 1974.\textsuperscript{504} For the Cease-Fire Agreement of February 1973 did not at all mean the end of fighting in Laos: In the period between March 1973 and September 1974, no less than 15 RLAF T-28s – most of them T-28Ds – are known to have been lost: two in March 73,\textsuperscript{505} one in April 73,\textsuperscript{506} two in May 73,\textsuperscript{507} one in June 73,\textsuperscript{508} one in July 73,\textsuperscript{509} two in August 73,\textsuperscript{510} one in September 73,\textsuperscript{511} one in November 73,\textsuperscript{512} one in March 74,\textsuperscript{513} one in May 74,\textsuperscript{514} one in June 74,\textsuperscript{515} and the last one on 18 September 74.\textsuperscript{516}

(Previous history: T-28A 51007576 of SMAAR, to 3380 M & S Group, Keesler AFB on 70119; to T-28D; to NASPF, Pensacola; to TL MAP on 73253 [10 Sept. 73], that is to the Royal Lao Air Force, probably as “0-17576”. Fate: transferred to the Air Force of the Laos People’s Army as “3401” in 1975 (?); stored at Xieng Khouang airfield before 1984, until finally sold to Keith Death of Australia in 1988; the aircraft was dismantled, trucked to Savannakhet and finally to Bangkok, and then shipped to Sydney, where it arrived in January 1991; dispatched to its future owner in early 1991 who employed several months to rebuild it [Wilkinson, \textit{Trojans from Laos}, pp. 182-84]; sold to Guido Zuccoli, Toowoomba, Qld, as VH-ZUC in November 94).\textsuperscript{504} These probably included T-28D \textit{“0-17509”} (msn 174-362), which left NASPF, Pensacola, to MAP on 4 September 73 and apparently went to Water Pump as a training aircraft, as a photo shows it as “17509”, without the “O-”, but wearing the Erawan (at http://i47.photobucket.com/albums/hf178/HappyAsian/LaosT-28.jpg); no details of its service with the RLAF are known, but it found its way into the Air Force of Communist Laos as “3402” in 1975 (?). This was one of the T-28Ds that were stored at Xieng Khouang airfield before 1984, until finally sold to Keith Death of Australia in 1988; it was last reported as current and stored without registration by G. Glynn, NSW, in 2002 [Wilkinson, \textit{Trojans from Laos}, p. 184].

\textsuperscript{505} RLAF T-28D-10 \textit{“0-37674”} was lost on 9 March and RLAF T-28D-10 \textit{“0-40019”} on 30 March 73 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{506} RLAF T-28D-10 \textit{“0-37709”} was lost on 12 April 73 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{507} RLAF T-28D-10 \textit{“0-37684”} was lost on 25 May 73 and RLAF T-28B \textit{“0-37644”} on 28 May 73 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{508} RLAF T-28D-5 \textit{“0-00216”} was lost on 13 June 73 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{509} RLAF T-28B \textit{“0-37762”} was lost on 16 July 73 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{510} RLAF T-28D-10 \textit{“0-53648”} was lost on 6 August 73 and T-28D \textit{“0-17677”} on 20 August 73 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{511} RLAF T-28D-10 \textit{“0-38201”} was lost on 12 September 73 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{512} RLAF T-28D-10 \textit{“0-37757”} was lost on 19 November 73 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{513} RLAF T-28D-5 \textit{“0-17793”} was lost on 17 March 74 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{514} RLAF T-28D-5 \textit{“0-17696”} was lost on 29 May 74 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{515} RLAF T-28 \textit{“0-17746”} was lost on 24 June 74 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).\textsuperscript{516} RLAF T-28D-10 \textit{“0-53658”} was lost on 18 September 74 (“Aircraft All Loss by Tail number”, pages 135-287, no date, Folder 15, Box 10, Garnett Bell Collection, The Vietnam Archive, Texas Tech University, details kindly sent to the author by Sid Nanson on 2 June 2011).
Of these losses, the one of 20 August 73 was part of 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, seven RLAF T-28s taken over by Thao Ma and his six loyal ex-RLAF pilots to aid in the bombardment attack, took off to begin bombing missions, especially General Kouprasith’s villa at Chinaimo. 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 shot down by a truck-mounted machine gun and crash-landed short of the runway at Vientiane. While one of his supporters, Col. Bounleut, managed to escape to Thailand in a stolen RLAF U-17, General Thao Ma himself, although badly injured from the plane crash, was captured by General Kouprasith Abhay and head shot at Chinaimo barracks. And 60 of the leaders supporting his coup were also reportedly shot, after some had been captured and others surrendered to the authorities.517

Brig. Gen. Thao Ma’s coup of 20 August 73 as seen by Air America radio messages: At 0445Z or 11.45 local time, T-28s are reported to be attacking the Lao Army. The message of 0446Z reports that the Lao Army has taken the ramp and that Ma crashed in his T-28 (documents now preserved at: UTD/Leary/B35F5)

Brigadier General Ma’s death, here given as resulting from his crash, and a curfew
(all documents preserved at: UTD/Leary/B35F5)

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