



HELICOPTERS AS AN INSTRUMENT OF WAR DURING THE MALAYAN EMERGENCY 1948-1960

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ABSTRACT

Helicopter as an instrument of war in counter insurgency warfare in Malaysia had its origin during the Malayan emergency 1948-1960. Three helicopters, the Dragonfly, made an entry into Malaya in March 1950 at the request of the Commander-in-Chiefs Committee of the Far East Land Forces on 8 March 1949. The primary role of these helicopters then was for casualty evacuation of wounded troops sustained during operations against the communist terrorists (CTs). Their ability to operate from unprepared areas expanded their roles as an ideal platform for air mobility of troops, supplies, and search and rescue. The flexibility of transporting the troops made the CTs no longer invincible in their own safe havens. More importantly, the morale of the troops was kept high knowing that they would be evacuated fast for medical treatment in the event they were wounded. This article discusses the roles of helicopter during the Malayan emergency. Most of the references are records from the Royal Air Force (RAF), books, and online information. This paper highlights the contributions of helicopters towards the successful ending of the emergency.

Keywords: Counter insurgency, Commander-in-Chief of Far East Land Forces, communist terrorists, Malayan emergency, Royal Air Force helicopter squadrons

1.0 INTRODUCTION

The first recorded employment of the helicopter as an instrument of war took place during World War II. A 2-seater Sikorsky helicopter, YR-4B, flew a casualty evacuation (casevac) mission in Burma (Myanmar). The mission involved the rescue of a pilot of a Vultee L-1 Vigilant aircraft with three wounded British soldiers on board which was shot down by the Japanese sixty miles behind the enemy line in Burma in April 1944. US Army YR-4B helicopter, flown by 2nd Lt Carter Harman, had to make four sorties over two days, 25-26 April 1944, to evacuate them (Boyne, 2011).

The uniqueness of the helicopter with the ability to operate from an unprepared and confined landing area contributed to the success of this first Combat Search and Rescue mission. The life-saving ability of the helicopter got the attention of the British Commander-In-Chief Committee (C-in-C), GHQ Far East Land Forces (GFELF), Singapore. The British was then involved in the suppression of the communist insurgency in Malaya in 1948. .

With the end of WW11, Malayan Communist Party (MCP), under the leadership of its Secretary General, Ong Boon Hwa, popularly known as Chin Peng, launched an armed campaign to liberate Malaya from the colonial power and form a Democratic Republic of Malaya (Chin Peng, 2003). The campaign involved the terrorizing and killing of the populace, including the British, as well as exercising an economic sabotage, such as destroying rubber trees and tin mines

The state of turmoil led the British to declare a state of emergency throughout the country on 18 June 1948 (Emergency Brought by Communist, 2011). With the declaration, the British reciprocated by deploying her military assets to Malaya in order to combat the communist insurgents. The army was reinforced from the Commonwealth forces, namely Rhodesia (Zimbabwe), Fiji, Australia, and New Zealand. In addition to army units, Australia and New Zealand committed their air and naval assets in support of the British. The air assets in support of the operations comprised of fixed wing transport aircraft and bombers, but no helicopters. Transport aircraft were deployed to transport troops, airdrop supplies, and medical evacuations of casualties from prepared landing strips. The bombers provided offensive air support by bombing targeted areas.

2.0 HELICOPTERS AS AN INSTRUMENT OF WAR

On 8 March 1948, C-in-C sent a message to the Ministry of Defence (MINDEF), UK, requesting for three helicopters to be sent to Malaya (Royal Air Force, 1949a). His justification for the urgent presence of these helicopters was for casevac missions. Wounded soldiers during encounters with the communist terrorists (CTs) had to be carried out by stretchers from the operation areas by the troops to the nearest vehicle-accessible road before being transported to the hospital for medical treatment. This situation hampered the progress of the operations and there were occasions when operations had to be abandoned.

In one incident, security forces (SF) with the strength of two companies, each about 80 strong, were ambushed by the CTs, resulting with 13 wounded and three killed. The army had to deploy 104 troops to evacuate the casualties (Royal Air Force, 1949b). The burden of manually carrying the wounded through the Malayan jungle delayed the victims from getting immediate medical attention. Young stressed that it would require a small force “one whole day to traverse two miles” (Royal Air Force, 1949b, p. 1). The slow process would severely affect the morale of the troops; the second of the 10 principles of war – “Maintenance of Morale” (Ministry of Defence, 2001, pp. 3-2). This delay was due to the density of the jungle, which was described by Chapman (1974):

a myriad tree-trunks rose straight upwards with no apparent decrease in thickness - that was the most extraordinary thing - for a hundred or a hundred and fifty feet before they burgeoned into a solid canopy of green which almost entirely shut out the sky (p. 24).

Back in London, the request for the helicopters was entrusted upon the Royal Air Force (RAF) to study the requirement with the view of establishing a flying unit for casevac missions. The helicopter model that was available then and could meet GFELF requirement was a 4-seater Westland Dragonfly, a derivative of US-made Sikorsky S-51. The other models in contention were the British-made Bristol Sycamore and Fairey Gyrodyne. However, these two models were still in the development stage and would be available only in mid-1950 (Royal Air Force, 1949c).

Initially, GFELF rejected the Dragonfly since it was believed that this helicopter was not suitable for casevac roles. The basis of the rejection was based on the opposition of the Medical Directorate. Unlike the Sycamore and Gyrodynes, where a maximum of two stretcher-case casualties could be placed inside the helicopter, Dragonfly had to carry two stretcher cases externally in panniers secured on the port and starboard of the fuselage. The Medical Directorate opined that the external load factor could deprive the patients from getting attention whilst in flight (Royal Air Force, 1949d). After taking this limitation into consideration, GFELF stated their preference of Gyrodynes. However, Air Cdr Tuttle of the RAF rebutted this reservation by quoting;

Surely not all the evacuees will need attention in flight and perhaps we should bear in mind that if the alternative is to die in the jungle or be evacuated on the outside of a S.51, there should be little question as to which course should be adopted (Royal Air Force, 1949e, p. 1).

Furthermore, they were advised to accept the Dragonfly as an interim measure. GFELF finally relented on being told that all the helicopter models were still in the research stage and no trials in tropical climates had been carried out. Moreover, performance during in-country trials did not meet the claims of the manufacturers (Royal Air Force, 1949f). The Gyrodynes, on the other hand, would only likely be available in 1951 (Royal Air Force, 1949f). The Air Ministry further stressed to the GFELF that “the Army feel that this is better than nothing” (Royal Air Force, 1949d, p. 1).

With the agreement of the GFELF to have the three Dragonflies, RAF now faced the problem of sending the helicopters since they still did not have Dragonfly in their inventory then. The issue was resolved by diverting three S-51 Dragonfly from the Royal Navy (RN) production line (Royal Air Force, 1949e). In the manpower planning for the new unit in Malaya, RAF planned to send four pilots and 25 engineering crews. On checking personnel records, there were only four helicopter pilots who were still in service; Flt Lt K. Fry, Flt Lt A. J. Lee, Flt Lt J. R. Dowling, and Flt Lt B. Trubshaw who was due to retire. Thus, RAF had to be satisfied with this shortcoming and the three pilots were sent for a 15-hour familiarisation course on Dragonfly at Airborne Forces Experimental Establishment while the engineering crew attended technical training at Westland (Dowling, 1987). The three Dragonfly were officially handed over by Westland to the RAF on 2nd March 1950 for shipment to Malaya (Royal Air Force, 1950a).

The first crated helicopter, together with the three pilots and the initial 13 engineering crews, boarded the ship for Singapore on 5th March 1950; the other two helicopters were shipped on 9th March (Royal Air Force, 1950b). All the three helicopters arrived in Singapore in April 1950. After assembling and air tested at Seletar in April and May, the first Dragonfly made a maiden flight over Singapore on 22nd April. Once the helicopters were certified airworthy, FEAF Casualty Evacuation Flight (CEF), the genesis of the RAF helicopter squadrons, was formed on 1st of May 1950 at Kuala Lumpur, being the first of its kind operating. The unit moved to its permanent base in Changi on 22nd May and began operational trials immediately (Dowling, 1987). In the trial report, Fry, Officer Commanding, commented that “all three aircraft are rough production models – badly built and requiring many modifications” (Royal Air Force, 1950c, p. 2).

The trial included the fitment of the external panniers on both sides of the fuselage and the use of the detachable hoist. The pilot reported encountering difficulty in manoeuvring the helicopter when operating in confined spaces. Furthermore, it had a traumatic effect on the

casualty flying in an enclosed metal coffin-like pannier with the sight of whirling rotor blades through a small perspex panel, made worse by the vibration of the helicopter. This problem was resolved through the use of a coffin-shaped basket which was strapped on the cabin floor. However, this reduced the number of lying down casualties to one per flight. The use of the detachable hoist was not practical due to the weight limitation of the aircraft, in the event the helicopter was unable to land at the pick-up point (Royal Air Force, n.d.a). In view of these drawbacks, the panniers and the hoists were not used throughout the Dragonfly's presence in Malaya (Dowling, 1987).

After the two months of trial, this vertical lift flying machine made an entry as an instrument of war in counter insurgency (COIN) warfare. In addition to its primary role of providing aeromedical evacuation, CEF was given the additional roles of "communication or light resupply and pilot training" (Royal Air Force, n.d.b, p. iv). For command and control, CEF was placed under command of Air Headquarters (AHQ), Far East Air Force (FEAF), Singapore (Dowling, 1987).

With the introduction of the helicopters, the AHQ issued a directive for the ground troops on the procedures of requesting casevac missions. These include the need for the ground troops to move the casualty to a location determined by the Army's Auster light aircraft. Once the troops were at the predetermined location, it would then direct and escort the Dragonfly to the pick-up point. This technique was employed to reduce the flight time of the helicopter in the search of the pick-up point (Royal Air Force, 1950d).

The first mission of the CEF involved the picking up of a British soldier who was shot in the foot when the night train on which he was aboard was ambushed. He was evacuated from Segamat airfield to Changi by a Dragonfly on 14th June 1950. This casevac mission marked an "inaugurating RAF helicopter operations a few weeks before the first American operational helicopters sorties in Korea" (Dowling, 1987, p. 40). This was followed by medevac mission involving a Gurkha soldier suffering from glandular fever from a jungle clearing in Johore on 19th June 1950 ("Briggs' plan in Malaya", 1950). Although CEF was still at its infancy stage, by 11th December 1950, it had evacuated a total of 20 casualties (Royal Air Force, 1950e).

The Army began to realise the potential of the helicopter as a platform for troops carrier when two Dragonfly were deployed for casevac and extraction missions of the security forces (SF) involved in Ops Helsby in February 1952. The SF participating in this operation were a mixed force of three squadrons of Special Air Services (SAS), Malayan Police, and a Royal Marine Commando. Of the three SAS squadrons, Alpha, Bravo, and Charlie, Bravo Squadron's personnel were parachuted down as a blocking force until the foot patrols arrived on the scene.

This operation was part of Briggs Plan of resettling the Orang Asli (the indigenous people) from the remote Belum valley bordering the state of Perak and Thailand, in addition to flushing out the terrorists, and destroying their bases and farms. In this operation, on 8 February until 9th March 1952, the SAS suffered 21 casualties and they were evacuated to Grik, a 45-minute flight from Belum. Due to the difficulties in traversing the jungle, sickness and exhaustion, the SAS patrol was extracted by the Dragonfly to a location of about 10-minute flight time as compared to three or four days to march to the location (Dowling, 1987).

In addition to this air mobility role, Dragonfly was used as a crop sprayer with toxic chemical over CTs cultivation plots in the jungle. The first spray operation was done in Kluang and Labis area in Johore on 31st August 1953 but discontinued after 1954 due to a shortage of helicopters (Jackson, 1999). An additional task was also given to assist in the survey work on

the proposed construction of the East-West Highway linking Perak and the state of Kelantan on the east coast of Malaya in January 1951 (Dowling, 1987).

The success of the extraction of the troops convinced the C-in-C FARELF of the roles of the helicopters as a platform for the insertion and extraction of troops. This led to a request for more helicopters, especially a larger type whose primary role was to provide air mobility in transporting troops for tactical deployment. The approval of this request saw an increase in the strength of the Dragonfly to 18 by the end of 1953. As for the larger helicopter, the type that could meet the requirement was the Westland Whirlwind, a derivative of Sikorsky S-55. This helicopter was designed to carry 10 men or six stretchers (Crosby, 2012).

However, the Whirlwinds were still under production and would be ready only in late September 1954. The other alternative was the Naval Air Squadron's Sikorsky S-55 helicopters which could carry five fully armed troops or three stretcher cases and two walking patients. This helicopter was fitted with a winch and had a cargo hook for under slung loads with a maximum weight of 800 pounds. These helicopters were acquired under US Aid Programme as part of the NATO anti-submarine force. However, deployment of these helicopters for COIN operation in Malaya had legal implications. The legal provision forbid the use of the US-made helicopters, under American Aid, for colonial dependency, in this case, Malaya (Dowling, 1987).

The pressure from General Templer, High Commissioner of Malaya cum Director of Operation (February 1952-October 1954), had the British circumvent the legal provision on the basis that "it was considered necessary for the RN to operate the S-55s while they were in Malaya" (Dowling, 1987, p. 76) which was agreed by the American in October 1952. With this agreement, No. 848 Squadron of the Naval Air Squadron with 10 US-built S-55, arrived at Sembawang, Singapore, aboard HMS Perseus, a Colossus-class light fleet aircraft carrier, on 8th January 1953. By this time also, January 1953, CEF had been elevated to No. 194 (Helicopter) Squadron with six Dragonfly in its inventory; the seventh helicopter arrived in March. The roles of No. 194 Squadron were expanded as follows:

- a. *the tactical movement of troops, including the reinforcement of outposts;*
- b. *tactical reconnaissance;*
- c. *casualty evacuation from forward areas;*
- d. *search and rescue.*

(Dowling, 1987, pp. 59-60)

Both the squadrons, No. 194 and No. 848, co-located at Sembawang, came under the operational control of No. 303 Wing which was established on 2nd February 1953. However, on 1st May 1953, No. 303 Wing with the two flying squadrons and its administrative services, moved to RAF Kuala Lumpur whilst the squadron's second line servicing moved in April 1953. The move was necessary to ease the complex structure of command and control of these flying assets.

The organisational structure of the helicopter air assets had the squadrons' headquarters located at Sembawang; second line servicing for Dragonfly at Changi; administrative services provided by Tengah; tasking by Advanced HQ at Kuala Lumpur (Dowling, 1987). Furthermore, it would help to reduce the transit flying hours since most of the operations against the CTs were in the central and northern part of Malaya. No. 303 Wing was disbanded

when Kuala Lumpur was upgraded to RAF station and AHQ Malaya moved from Singapore to Kuala Lumpur in February 1954.

In 1953, 10 4-seater Bristol Sycamore helicopters made an entry in Malaya as part of No. 194 Squadron. This was followed by the arrival of 20 Westland Whirlwind helicopters. A new squadron, No. 155, was established in September 1954 at Kuala Lumpur to accommodate the Whirlwind helicopters. With the arrival of the Sycamore and Whirlwind helicopters, the services of the Dragonfly were discontinued in 1956, which also saw the withdrawal of the No. 848 Squadron, popularly known as the 'junglies', from Malaya in December 1956 after a tour of nearly four years (Benson, 2012, p. 19).

When the demands for the helicopters were reduced with the withdrawal of the CTs to southern Thailand, the number of helicopters were reduced. No. 194 and No. 155 Squadrons were disbanded in June 1959 in Kuala Lumpur but reformed as No. 110 Squadron with eight Whirlwinds at Butterworth in August 1959. By this time, 13 Sycamores were grounded and stored at Seletar due to problems involving the rotor blades (Dowling, 1987). By October 1964, the Squadron was withdrawn to Seletar, except for one Whirlwind for SAR role, before being deployed to Sabah and Sarawak due to the Indonesian Confrontation over Malaysia (Dowling, 1987).

3.0 CHALLENGES ENCOUNTERED

The pioneers of the CEF had to face many challenges when they first arrived in Malaya, operating an untested aircraft in a densely forested operation theatre. In the early stages, except for Fry and Dowling, the pilots were formerly fixed wing pilots and their helicopter flying hours were only gained during the 50-hour conversion course done at Westland plant by a test pilot. Although these pilots recorded 50 hours of conversion, there were those who had only six or seven hours dual instruction. In fact, one had just over four hours. Thus, both Fry and Dowling were given the responsibility of training these pilots to qualify as operational pilots.

But the main challenge in using helicopters during the Malayan emergency was the lack of experience among the aircrew. It was a factor which contributed to the loss of helicopters and lives due to crashes. In one incident, a Dragonfly was totally written off due to a pilot's error in October 1952. The newly posted pilot had put his helicopter firmly on the landing point in a clearing when the ground collapsed (Dowling, 1987). In another incident, a Dragonfly narrowly escaped a forced landing in the jungle due to fuel starvation. Had it not been for the familiarity of the area exhibited by Lt (Police) Follows, the crew and the passenger would not have been spared their lives (Follows, 1999). Follows, posted as commander of Police Field Force (PFF) platoon at Fort Brooke in the interior of Malaya in October 1954, had hitched a ride back on a Dragonfly from Ipoh to Fort Brooke after attending a meeting in Ipoh. The flight from Ipoh to Fort Brooke was a familiarisation flight for the two new pilots; the flight time was less than half an hour.

After flying for some time, Follows could not see the two prominent landmarks of Fort Brooke, the peaks of Korbu and Raya mountains, during the half hour flight. On checking with the pilot, he was told that they were lost and in the process of searching for a clearing for crash landing since the fuel was running low. Fortunately, Follows' experience of the area saved them when he recognised the landmark for Fort Telanok and the helicopter managed to land safely. After refuelling, he was flown to Fort Brooke. The AHQ FEAF was particularly concerned of this setback and this led them to issue a directive stipulating the prerequisites

required before a newly converted fixed wing to helicopter pilots were sent to Malaya. In the directive, pilots had to have a minimum of 1,000 hours in fixed wing aircraft and had to undergo a successful 100-hour of helicopter conversion course (Concepts Division, 1963).

Other than the aircrew error, all the three models, Dragonfly, Sycamore, and Whirlwind, were detected with technical defects. For example, in January 1953, a newly arrived Dragonfly, flown by a new pilot with a senior policeman and an Army officer on board, lost a rotor blade at 3000 feet owing due to a fracture in the rotor head, killing all the three on board. This occurrence had all the Dragonfly to be grounded. They were cleared to fly only after the cause of crash was remedied. Sycamores had problems with the wooden rotor blades which suffered a deterioration due to climatic conditions (Dowling, 1987).

As for the Whirlwind, its weight limited the payload offered. This problem led the Air Officer Commanding (AOC) Malaya to write sarcastically to the Director of Operational Requirements (Air), MINDEF, “that your wretched Whirlwind is a complete washout, mainly because of its average increase in weight of 374 pounds above the S-55 and its fantastic fuel system...Apart from this the workmanship and inspection of the aircraft has been appalling” (Dowling, 1977, p. 77). This complaint was raised because the helicopter did not deliver its capabilities as advertised. The situation was aggravated due to delay in getting spares, hence affecting the availability of helicopters in meeting the operational requirements.

With regards to the request for the services of the helicopters, all applications had to be channelled to the AHQ for approval. The AHQ exercised full control of the aircraft and would approve once they were satisfied that the helicopter was the “best suited and most economical means to achieve the desired results” (Concepts Division, 1963, p. 61). This ruling was understandable due the high cost of maintenance as compared to fixed wing aircraft, and furthermore, their availability was limited. The cost per hour of flight as compared to a light Pioneer and Auster fixed wing aircraft with both able to carry four people, including the pilot, or 800 pounds of cargo for the Pioneer, is as follows:

a.	<i>Whirlwind</i>	<i>USD218 per hour</i>
b.	<i>Sycamore</i>	<i>USD162 per hour</i>
c.	<i>Pioneer</i>	<i>USD 98 per hour</i>
d.	<i>Auster</i>	<i>USD 36 per hour</i>

(Concepts Division, 1963, p. 66)

The implementation of this strict ruling was experienced by Follows. When he was posted to Fort Brooke, he was driven from Ipoh to Cameron Highlands by a Land Rover where the troops from his platoon were waiting. From there, they had to walk for two days and one night to reach Fort Brooke. He had to undergo the same arrangement when he was required to attend a meeting at Ipoh. He and a section of his men had to traverse the jungle for three days to Cameron Highlands where a Land Rover was waiting for him to complete his journey. These experiences led him to cynically comment that “Mere fort commanders didn’t rate a chopper – they were for the joy-riders” (Follows, 1999, p. 152). This ruling was also experienced by Inspector Mong Khon. He and his platoon had to endure a boats’ ride of six hours from Grik to Fort Tapong in Belum Valley in early 1958. This boat trip could easily expose them to an ambush by the CTs (Khon, 2011).

4.0 CONCLUSION

Malayan emergency (1948-1960) marked a new era in the deployment of helicopters as an instrument of war in COIN warfare. From the initial and humble primary role of providing casevac missions, CEF's roles were expanded to among others, providing air mobility to the ground troops. The uniqueness of the helicopter in inserting and extraction of troops from the jungle, provided the element of flexibility in the deployment of the troops. This flexibility enabled troops to be deployed to the suspected CTs' safe havens; they were no longer invincible in their own turf. Most importantly, the presence of the helicopter boosted the morale of the soldiers knowing that they would be extracted out fast for medical treatment should they be injured. The morale element of the principles of war is of paramount importance during any campaign, even to the present day. This was demonstrated when a Malaysian Army Major has not stopped searching for a Sikorsky S61A-4 Nuri helicopter pilot who picked and sent him to the hospital when he was injured by booby traps on 6th October 1979. He had one of his legs amputated (Safini, 2017).

RAF helicopter force had to face numerous setbacks, such as flying untested helicopters, manpower shortage, inexperienced crew, and operating in mountainous terrain with dense tropical jungle. Unlike the Americans who operated in an almost jungle-free environment during Korean War, helicopter crews in Malaya had to operate "in the most difficult conditions of climate and terrain in the world, with grossly underpowered aircraft" (Dowling, 1987, p. 52). The experiences gained in Malaya were translated in the development of operational helicopter flying techniques in support of ground forces for the training of helicopter pilots (Central Flying School, n.d.). Throughout the period of the emergency, helicopters had lifted 110,000 troops, 19,000 passengers (in communication role), almost 5,000 casualties, and about two and a half million pounds of freight (Dowling, 1987).

Although the helicopters could not be claimed as the main factor leading to the ending of the emergency, they were however, "a major factor in the ultimate defeat, and finally became established as an essential element in fighting the guerrilla kind of war" (Dowling, 1987, p. 92). Their presence enabled the SF to launch offensive actions against the CTs' and flushing them out of their jungle hideouts (Clutterbuck, 1967). The indispensability of helicopters in COIN warfare was further demonstrated during the resurrection of the insurgency in Peninsular Malaysia, 1968-1989, as quoted by Jen Tan Sri Mohammed Hashim bin Mohd Ali (Retired), "Nuri played a major role in expediting our efforts in eliminating communist terrorists" (Sulaiman, 2016, p. 135).

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