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Pirates, Mammoths, Flying Bananas, and Skylarks: Helicopter Envelopment Operations in the Small Wars of Algeria, Angola, and Rhodesia, 1954-1979

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Introduction

- 1 From humble beginnings as a utility aircraft used mainly for the evacuation of wounded from the battlefield, starting in the early 1950s the helicopter became an integral part of counterinsurgency (COIN) operations in Asia and in Africa. The two continents being the scene for communist-inspired insurgencies seeking to end the colonial occupation of mainly French and British-controlled territories, small-sized insurgent groups active in these areas adopted irregular forms of warfare to attack much larger, and more organised, military forces. The conflicts in question therefore referred to as asymmetric conflicts, insurgents would employ tactics intended to confuse the enemy by carrying out a series of small-scale attacks against the administrative structures of the colonial powers in often isolated areas before moving on to larger targets. The battles between small and large armed forces being compared by Vietnamese general Nguyen Giap as a struggle between an elephant and a tiger, insurgents also drew on tactics designed by Sun Tzu and Mao Zedong, two of China's

most renowned military strategists. Similar tactics then being used by insurgent groups in the Algerian War, and by the Mau Mau in Kenya in the 1950s, many of the theories necessary for the counter-ing of insurgencies were also developed during this period. The theorists behind these strategies being Lieutenant-General Harold Briggs, and later David Galula, or Roger Trinquier, for example, it was noted that one of the most effective ways of reducing the insurgent's ability to wage war was to isolate him from local populations – the source of his support – and to extinguish rapidly any minor attack that risked increasing in size. This task requiring COIN forces to possess a high level of manoeuvrability, classical tools of warfare such as tanks, and the displacement of troops by truck were unsuitable as, more often than not, the insurgent's bases were to be found in dense jungles or in mountainous regions. In respect to these requirements, the helicopter's ability to take off and land in confined spaces, or to hover over a given area provided strategists the capacity to deliver ground troops to areas where enemy activity had been detected. Shortly, as we shall see, the helicopter then became capable of delivering fire while hovering over a target, with other tactics then being especially designed to exploit the helicopter's innate qualities.

- 2 The canon of literature relating to the use of the helicopter in COIN operations being complete,¹ plus any number of publications issued by national air forces, one tactic developed by the French in the Algerian War appears to have been somewhat neglected. The tactic in question being what is known as an “envelopment” operation, it came to be standard procedure to use this tactic when small colonial armies, contingents of national armies, or armies faced with international arms restrictions sought to overcome large numbers of insurgents. The latter case providing the opportunity to develop the study of envelopment operations into a wider-reaching study of the geopolitical context of central and southern Africa in the 1960s and 1970s, this article will seek to address issues such as why envelopment operations were innovated, who developed them, how the innovations were used, why these innovations were adopted by other colonial armed forces, and how these colonial forces contributed to the evolution of the tactic. Using a variety of documents taken from primary and secondary sources of a military and civilian nature, the objective of this article being to contribute to the existing literature

on the use of the helicopter in COIN operations, our chronological field will cover the period from 1954 to 1979 and we will focus our study on three conflicts in particular. The study of helicopter operations in Algerian War (1954-1962) the article then moves on to the study of COIN operations in the Angolan War of Independence (1961-1974), and the Rhodesian Bush War (1966-1979). The choice of conflict justified by French forces initiating the use of envelopment operations, the war in Angola (rather than Portugal's colonial wars in Mozambique or in Guinea Bissau) saw a far greater use of helicopter warfare. Portugal being subject to an arms embargo in the 1960s, thus enabling us to move into a wider political arena, Rhodesia was also subject to the same arms embargo. Rhodesia's choice of weapons therefore limited, it took envelopment operations to a new level and made them the centrepiece of its COIN strategy.

1. The invention of helicopter envelopment operations: the Algerian War, 1954-1962

- 3 Described as a "Savage war of Peace" by British historian Sir Alistair Horne,² the Algerian War of Independence (1954-1962) began on 1 November 1954 when soldiers loyal to the *Front de Libération National* (FNL) carried out a series of attacks against symbols of French rule. These attacks known collectively as the *Toussaint Rouge*,³ the next major action designed to challenge French authority in this part of northern Africa was the massacre of *pieds-noirs* at Philippeville in August 1955.⁴ Though the initial reply of French security forces was to seek revenge by killing to 12,000 Algerian villagers,⁵ the governor general of French Algeria Jacques Soustelle was acutely aware of the role psychological factors played in modern warfare and, after having visited Philippeville, he set about devising a plan emphasising the integration of France's Algeria's Muslim population within the French system.⁶ The Soustelle Plan never being fully implemented, the armed wing of the FNL, the *Armée Nationale de Libération* (ANL) reacted to these psychological attempts to block Algerian independence by holding a conference at Soummam in August 1956. Having carried out further attacks on urban targets that same month,⁷ but

seeing the scope for further activity repressed by the arrival of France's 10th Parachute Division, ANL commanders decided in Soummam that the most effective military strategy was to take the war away from urban centres such as Oran, Algiers and Constantine and focus its efforts on the mountains in the Aurès and Djurdjura, or Algeria's the high plateaux and valleys. In this way, the ANL believed it could evade French security forces and bolster its ranks by using local militias known as *Fellaghas* to brutalise local populations into either joining the movement or becoming sympathisers.⁸ Added to these typically Maoist methods of waging guerilla warfare,⁹ ANL strategists devised an organisational plan whereby Algeria was divided up into six regional commands, or *Wilayas*, that served as operational bases.¹⁰ Another decision made at Soummam was to create two formal political institutions; the National Council of the Algerian Revolution (CNRA), and an executive body known as the Committee of Coordination and Execution (CCE). While the CNRA was the governing body of the FLN and had the role of establishing internal legislation, the CCE was entrusted with directing operations in the field and coordinating rebel activities in the *Wilayas*.¹¹

4 As for the tactics used by the ALN, they resembled those encountered by the French in Indochina. Used unsurprisingly given that many ALN combatants had served in the Indochinese War and had first-hand experience of Maoist guerilla tactics,¹² the ALN chose to implement a three-phase insurgency strategy consisting, firstly, of carrying out small-scale ambushes and acts of terrorism; secondly, of carrying out more offensive actions once its own forces were large enough; and, thirdly, using conventional methods to meet the adversary head on. Despite the ALN implementing the first phase of this strategy, receiving regular supplies of arms,¹³ and using Tunisia and Morocco as additional operational bases, as of 1956 France enjoyed an overwhelming military superiority over the FLN.¹⁴

5 Gaining military superiority over such a short space of time can be explained by the fact that French strategists realised that modern warfare was an interlocking system of political, economic, psychological and military actions designed to overthrow one regime and replace it with another.¹⁵ Consequently, as illustrated by the Soustelle Plan, a significant effort was made to persuade Algeria's indigenous population that the French rather than the regime advocated by the

FLN was the most preferable of the two and that France would provide its needs. A second step was convincing Algeria's population that the FLN was the enemy, and demonstrating that any attempt to impose a regime by force would be met with superior force. Stages in this process included the recruitment of a home-grown, pro-French military force known the *Harkis*,¹⁶ and swamping Algeria with hundreds of thousands of metropolitan troops. Numbering nearly 400,000 by 1957, French regiments such as the elite 10th Parachute Battalion were taking part in efforts to secure the Algerian capital, Algiers. This battle of the Casbahs forcing the FLN into Algeria's countryside,¹⁷ French authorities also initiated a series of measures to ensure that the FLN found it difficult to recruit rural inhabitants. Indeed, Soustelle set up Special Administrative Sections (SAS) in 1955 as part of a hearts and minds programme, and increased the number of security forces serving in remote areas.¹⁸ Further organisational measures came through the *quadrillage* system. A system whereby urban as well as rural areas were divided up into geographical zones in which counter-terrorist operations could be organised on a local level enabling a faster reaction time when enemy activity had been detected. Efforts were also made to secure Algeria's borders from infiltration from Tunisia and Morocco. This was achieved through the construction of electrified fences known as the Morice and Challe lines completed in 1957 and 1959 respectively. Carrying 5,000 volts and 2.5 metres high, each line was equipped with state-of-the-art electronic detection systems, radars and searchlights making crossing into Algeria almost an impossibility. Moreover, the placing of anti-personnel landmines along the perimetres of the lines ensured that the FLN's operational areas were limited to Algerian soil. In addition to naval patrols carried out in the Mediterranean by the French Navy, the French therefore managed to stem the flow of weapons on to the battlefield.

- 6 The implementation of the quadrillage system and the implantation of the Morice and Challe lines represented the beginning of a heyday for French aviation and, in particular, rotary wing operations in Algeria.¹⁹ The process towards transforming the helicopter from auxiliary to central actor began in the Korean War and the Malayan Emergency with the French realising the potential for helicopters to provide air mobility for ground troops. Effectively, they had wit-

nessed how US Marines had been transported into battle aboard Sikorsky S-55 “Chickasaw” during the Korean War,²⁰ and had gained first-hand experience of heliborne insertion operations through the assignment of one of its higher-ranking officers, Déodat du Puy-Montbrun, to the British Special Air Service in Malaya in November 1952.²¹ These experiences prompted the French Army into commissioning a study in December 1953 whose goal was to examine the effectiveness of heliborne operations in irregular warfare.²² Along with similar investigative studies carried out by strategists of the French *Aviation Légère d’Observation d’Artillerie* (ALOA) late that year, the results of the studies indicated that vertical takeoff and landing (VTOL) aircraft could indeed play an important role in the different phases of modern warfare. More specifically, the particularities of the helicopter meant that it could be used for the vertical envelopment of enemy forces,²³ infiltration missions, to transport troops quickly into hot zones or to establish a bridgehead in enemy territory.²⁴

- 7 In terms of how these lessons and innovations were implemented in the Algerian War, a conflict that started just a few months after war in Indochina, the French began to codify, organise and optimise their rotary wing operations.²⁵ The first step, therefore, was to revise the structure of the centralised 5th Air Region and to break it down into smaller units, while the second consisted of overhauling an ageing aviation stock.²⁶ These smaller decentralised air regions being called *Groupes Aériens Tactiques* (GATACs),²⁷ to speed up reaction time and to increase flexibility, a sub-division of these five larger units were advanced air commands (AACs). These units were initially made up of *Escadrilles d’Aviation Légère d’Appui* (EALA) using Harvard T-6s, MS.500s or Trojan T-28Ds, but with the creation of *Détachements d’Intervention d’Hélicoptères* (DIH) and *Groupements Mobiles d’Hélicoptères* (GMH), this fixed-wing stock was complemented with the purchase of around 300 helicopters. Which type of helicopter in each unit depended on whether it was commanded by the *Aviation Légère de Terre* (ALAT), or by the *Armée de l’air*.²⁸ Additionally, the French set up refueling and rearmament points throughout the GATACs.²⁹ This was an important aspect given that if a helicopter was lighter with fuel it could carry more men, the dispersed location of DIHs and refueling points meant that helicopter units and com-

mandos could be placed on a fifteen-minute alert or even five minutes if enemy activity was on the increase in a given area.³⁰

- 8 Though Colonel Marceau Crespin of the ALAT can be credited with increasing the mobility of the French Army by using Piasecki Vertol H-21Cs³¹ as troop carriers as early as May 1955,³² two colonels in the French Air Force (AA) can be considered to having been central in the development of the helicopter from mere armed troop carrier to veritable assault weapon. The first, Colonel Felix Brunet was the commander of the *Escadrille d'Hélicoptères 2* (EH2) at Oran-La Sénia,³³ while the second, Colonel Alexis Santini was the commander of the Helicopter Training Division from 1956.³⁴ Later, he replaced Brunet as commander the commander of EH2 helicopter squadron.
- 9 His motto being "Combattre et sauver" or fight and rescue, Brunet's experimentation with arming helicopters began as early as 1955 after an episode that saw ground troops pinned down in the Aurès mountains. Piloting a Bell H-47, Brunet had the idea of placing a man in each of the helicopters casualty panniers so that they fire on the enemy as the aircraft circled.³⁵ The enemy defeated using this strategy, but the Bell being vulnerable to enemy fire, Brunet, aided by Captain Emile Martin, set to work on designing a weapons system for a Sikorsky H-19 Chickasaw. It carried a 20mm Matra cannon, two .50 calibre machine guns, and a 7.5mm light machine gun. The H-19 found to be unlikely to be able to bear the weight of heavy machine guns needed for ground attacks, Brunet turned towards Sikorsky's more powerful H-34 Choctaw. The choice of helicopter made the next stage was to find the weapons most suited for carrying out ground attacks. One concern was that the traditional axial weapons already available would reduce the speed of the H-34 so weapons specialists fitted a lighter, tubular gun carriage to an MG 151 cannon, a German-manufactured 20mm weapon used by the Luftwaffe in WWII. However, not possessing a recoil damping mechanism and its size limiting the capacity to stock ammunition, the gun carriage was finally replaced with a modified carriage mounted on a rubber-cushioned inertia plate and using a recoil brake system. The initial weapons configuration was for the cannon to be mounted in the cargo doorway while a Browning 12.7mm 6P50 machine gun was placed in the right-hand side port.³⁶ Later modifications included replacing the modified MG 151 with an Oerlikon 20mm cannon,³⁷ and

mounting rocket launchers on the starboard and port platforms. This weaponry composed of 6 LRAC 73 anti-tank missiles, a pod containing 12 SNEB air-to-ground 68mm rocket projectiles were placed underneath. Armament such as this carried on both sides on the aircraft led to it being nicknamed the Mammoth.

- 10 Santini's contribution to the development of heliborne operations came through his having the foresight to use Sikorsky's H-34 instead of the H-21C used by the ALAT. Indeed, the H-21C, or "Flying Banana" lacked the performance and manoeuvrability needed in ground attacks,³⁸ making it unsuitable for operations such as vertical envelopment. A tactic consistently used in a wide range of future conflicts, vertical envelopment consisted of using an armed H-34 (nicknamed the "Pirate") to make strafing runs over an area of enemy activity or to disperse *Katiba* (platoon) sized units while other H-34s (nicknamed "Auroch") would land and offload a cargo of paratroopers or Foreign Legion soldiers known collectively as the *réserve générale*.³⁹ Forming a ring around the enemy, the objective of an envelopment operation was to take the enemy by surprise, engage him in combat, and to cut off his means of escape. Often preceded by jets showering an area with cluster bombs and followed by search and destroy and sweeping operations carried out by troupes de secteur (sector troops), vertical envelopment tactic proved to be particularly effective after the introduction of the Challe Plan in February 1959.⁴⁰ An Air Force General, Challes's plan was to put in place an all-encompassing and unified strategy to simultaneously defeat the ANL and win over the general population.⁴¹ In asphyxiating the movement of the enemy and resulted in one of France's most successful periods of the Algerian War in terms of military gains. In the end, though, military dominance amounted to nothing as France grew tired of a conflict that was costly in lives and money.

2. The Evolution of Helicopter Envelopment Operations: Angola, 1961-1974

- 11 Whereas Portuguese ruler Antonio Salazar had so far refused to bow to international pressure on the question of Angolan independence

and had even amended its constitution so that overseas territories were considered as *de facto* provinces, the recent independence of several African countries and the use of arms to achieve this objective alerted led Portugal's military authorities to believe that the advent of insurgency in its own colonies was inevitable. Consequently, by 1959 these authorities had begun to make preparations to mount an effective counterinsurgency strategy. A start was made when six Portuguese officers were sent to the *Centre d'Instruction de Pacification et Contre-Guerilla* at Arzew in Algeria to study French efforts in countering insurgency.⁴² It was an inauspicious start, however, as the report these officers presented on their return to Lisbon warned that Portugal was ill-prepared for irregular warfare and that immediate action should be taken to address the issue.⁴³

- 12 As was the case with France, Portuguese commanders had recognised that the ability to deploy air power was an essential aspect of any strategy designed to keep insurgents at bay and stop them from keeping the initiative on the battlefield. Concurrently with sending its officers for instruction in Algeria, then, in 1959 the *Força Aérea Portuguesa* (FAP) moved several C-47 transporters and PV-2 Harpoons to Luanda,⁴⁴ and Portuguese authorities ordered the construction of two new airfields the following year.⁴⁵ The fear that Angolan nationalists would soon turn to the use of arms was cemented in March 1961 when a movement calling itself the United Peoples of Angola (UPA) launched a series of attacks against Portuguese settlers in northern Angola.⁴⁶ The Portuguese military responding to these attacks by deploying troop-carrying DC-3s and Beechcraft 18 spotter planes to complement the FAP's existing fleet, official Portuguese forces were backed up by the conversion of civilian aircraft and the creation of a civilian unit called the *Formações Aéreas Voluntárias* (FAV).⁴⁷ Comprised of Piper Clubs and Auster D.5s, the FAV flew a number of sorties over the coming months firing handguns from the cockpit windows of the aircraft.⁴⁸
- 13 The next step taken to increase Portuguese air power came when two army battalions and two operational air squadrons (Esquadra 91 and 93) were transferred to bases around the Angolan capital, Luanda. The aircraft of these two squadrons consisting of F-84 Thunderjets and Harpoon P-V2s, in May 1961 the FAP attacked enemy positions in the Dembos Mountains using fragmentation bombs and nap-

alm supplied by the United States Air Force (USAF).⁴⁹ Following these raids, the first paratroop operations took place in August in the Uíge Province (northwestern Angola).⁵⁰ These operations intended to disperse concentrations of rebels holed up in urban areas and to force them into the countryside, it is significant that this point that the FAP increased the diversity of aircraft at its disposal by adding Alouette IIs and Dornier 27s.⁵¹ Based at Luanda's *Base Aérea 9*, at *Aérodromos Base 3* in the Uíge Province, and at *Aérodromos Base 4* at Henrique de Carvalho in northern Angola's Lunda Sul Province.⁵² The decentralisation of air operations being one elements that modified Portugal's approach to the conflict, events taking place outside of the country were to lead to the FAP acquiring an updated version of the Alouette II and building on the innovations introduced by France in Algeria. The first major event was the support given to the National Front for the Liberation of Angola (FNLA) by the People's Republic of China (PRC) from 1964,⁵³ while a second was the involvement of the United States.⁵⁴ Followed by Cuban involvement to support the rival Popular Movement for the Liberation of Angola (MPLA) in 1965,⁵⁵ its arrival sparked the direct intervention of South Africa in 1966.⁵⁶

- 14 South African involvement in Angola is crucial to understanding why and how Portuguese forces were able to introduce the use of envelopment tactics into its overall air strategy. The story starts with the creation in March 1966 of a third nationalist party in Angola, the National Union for the Total Independence of Angola (UNITA), and continues with this movement's links to a nationalist movement in South West Africa (SWA), the South West Africa People's Organisation (SWAPO. Having been appointed to administrate the former German colony of South West Africa (SWA) in 1918, its southern neighbour South Africa was keen that the country remain free of communist-inspired insurgency lest this have a direct influence on the internal affairs of South Africa itself. The ruling National Party's domestic policies were already being challenged by the African National Congress (ANC), so what it did not want to see was any further challenge aided and abetted by regional nationalist movements that made maintaining stability even more complicated. Despite these wishes, and the desire that SWA act as a bulwark against communism,⁵⁷ 1960 saw the emergence of a socialist and Marxist-Leninist inspired movement intent on causing as much disruption as possible for South

African security forces and gradually forcing South Africa so as the country could become an independent nation.

- 15 Whereas SWAPO's activities were mainly restricted to those of a more political nature in the years immediately after its formation, in late 1966 its armed wing, the South West African Liberation Army (SWALA),⁵⁸ clashed with South African Police counterinsurgency forces at Omgulumbashe in northern Namibia. The result of this confrontation being a overwhelming victory for security forces, it nonetheless confirmed suspicions that guerilla activity in the area was on the increase and convinced the authorities that security measures would have to be reinforced.⁵⁹ There was, however, a particular geographical issue linked to ensuring that the SWALA did not gain a foothold in the area. Indeed, the groups principal operational zones centred on a slice of land called the Caprivi Strip. While this was not a serious issue in itself, what was problematic for security forces was that the strip bordered Angola, Botswana, and Zambia. The Portuguese not having complete military authority over Angola and both Botswana and Zambia now independent nations,⁶⁰ their proximity to the Caprivi Strip meant that SWALA forces could easily find refuge after having carried out attacks. Here, a kinship that had developed between UNITA's Jonas Savimbi and the SWAPO's Sam Nujoma proved to be mutually beneficial to both movements. In effect, SWAPO provided weaponry to UNITA,⁶¹ while the latter provided food and shelter for SWALA units passing through UNITA territories to attack or flee South African security forces.⁶²
- 16 Until its security forces intervened in 1966, as mentioned above South African security forces had not intervened directly in the Angolan conflict. Indirectly though, since 1961, the year when South Africa became a republic, it had sought to increase ties with remaining colonial powers not just because it became the subject of a UN arms embargo, but also because it wanted to establish stronger ties with like-minded nations involved in the fight against the spread of communism. As for the weapons, South Africa signed an agreement with France resulting in the delivery of 7 Alouette IIs, 33 Alouette IIIs, and 16 Mirage jet fighters,⁶³ and as for links with remaining colonial powers it approached Portuguese authorities. In July 1961, in effect, the South African Minister of Defence J.J. Fouché visited Lisbon to discuss the possibility of a cooperation between the FAP and the

South African Air Force (SAAF).⁶⁴ Followed closely by further discussions in April 1962 to look at the possibility of establishing a radio communications network between the two countries,⁶⁵ in November 1963, Angola's State Defence Police (PIDE) began to provide South African secret services with intelligence linked to SWAPO incursions taking place along SWA's border with its northern neighbour.⁶⁶ Co-operation between South Africa and Portugal continued with an agreement to share intelligence, and in 1964 it led to transfers of a more unsophisticated nature when Portuguese officials requested that South Africa supply spare parts for their Alouette IIIs.⁶⁷ Just as the H-34 had a impact on the ways French forces could meet the challenge of a highly mobile and elusive enemy in Algeria, the addition of Alouette IIIs to Portugal's war effort was telling when it came to developing tactics for use against FNLA insurgents in northern Angola and against the MPLA's military wing, the People's Armed Forces of Liberation of Angola (FAPLA), when it moved its operational bases from Cabinda to the Bié Plateau just east of Luanda.⁶⁸

- 17 Sud Aviation's Alouette SA.316A and SA.316B versions proved themselves to be far more capable than their predecessor the Alouette II. For a start its Turbomeca Artouste IIIB turboshaft produced 870 hp compared to the Alouette II's 530 hp. The Alouette III could carry six passengers as opposed to the Alouette II's four, and what is more it was able to cruise at a higher speed (210 km/h compared to 185 km/h). Added to the passenger capacity was the possibility of carrying a heavier payload. These aspects were essential when it came to the question of providing infantry soldiers with rapid and relatively safe access to insurgent operational areas. Before, transport carrying aircraft were subject to the variables that could affect paratroop drops (injury on landing, missing landing zones, etc.), but by using VTOLs landing zones (LZs) could be pinpointed to ensure a safer and quicker arrival in areas where enemy activity had been detected.
- 18 The development of helicopter tactics used by the FAP in Angola and Portugal's other overseas territories went through a similar process to that witnessed in Algeria. There were concerns linked to the vulnerability of helicopters to ground fire especially in the landing and recovery phases, so a priority for Portuguese technicians was deciding which type of weapon was best suited given its weight and the effect it would have on the helicopter's motion. After a number of un-

successful attempts using hand-held ArmaLite AR-10s, Mauser MG-42s, and Browning M3s, it was decided that the most suitable option for the provision of heavy firepower was to use the French-manufactured Matra MG-151 cannons. Used by the ALAT on the H-21C and by the *Armée de l'air* to arm H-34 "Pirates", the MG-151 was a particularly effective option given its high rate of fire (680 to 740 rpm).⁶⁹

- 19 Whereas Portugal's connections with South Africa meant that the FAP acquired thirteen more Alouette IIs in 1968,⁷⁰ a typical Portuguese heliborne operation consisted of using a flight of five helicopters to insert sections of four men into areas where enemy activity had been detected while using a helicopter gunship (nicknamed the *helicanhão*) to provide covering fire.⁷¹ If it was decided that tactical operations were needed to clear a particular area, the FAP would firstly use a Dornier to survey the terrain in order to calculate which zones presented optimal conditions for a surprise attack. Usually, this comprised of finding terrain that would provide visual cover for the arrival of five helicopters and drown out the noise of their rotors. With the FAP's helicopter squadron (*Esquadra 93*) kept on standby at bases in Luanda (BA9) and other locations, once a formation had been deployed its arrival at a LZ would be preceded by the gunship which would make strafing runs of a given area and clear the way for the troop carriers. Often accompanied by a second formation of helicopters plus support aircraft such as the Dornier 27, envelopment tactics were followed by sweeping operations that could last for some days after operations began.
- 20 The addition in 1969 of SA-330C Puma helicopters meant that although Portugal was well-equipped to meet the demands of modern counterinsurgency warfare, by 1968 the cost of its wars in Angola, Mozambique and Guinea-Bissau amounted to around \$300,000 per day and represented around 50% of Portugal total annual budget.⁷² And, while in Angola Portuguese forces continued to mount large-scale military operations in 1970 (operations *Zaga* and *Zumba*) and in 1972 (Operation *Attila*), domestic concerns over the policies of the *Estado Novo* regime led to Prime Minister Marcello Caetano being overthrown in a military coup. Replaced in the aftermath of the Carnation Revolution by General Antonio de Spínola, negotiations at Alvor, Portugal in January 1975 led to Angola obtaining its independence in

November of that year. Despite Portugal's adoption of the tools of modern war, ultimately, and in a similar fashion to what ended the Algerian War, the battle to hold on to colonial possessions was lost not in the field but on the streets of metropolitan cities such as Lisbon.

3. Fireforce: perfecting helicopter envelopment operations in the Rhodesian Bush War, 1964-1979

- 21 Despite Harold MacMillan's "Wind of Change" having blown across most of Africa granting independence to most of its nations,⁷³ by 1965 the white minority regime that governed the British colony of Southern Rhodesia (now Zimbabwe) still refused to bow to international pressure and extend the franchise to the majority. Dissent had been growing amongst the indigenous population leading to isolated instances of civil obedience, but by and large the ruling Rhodesian Front (RF) remained untroubled by any significant attempt to dislodge it through armed force. Two aspects of the contemporary political context in southern Africa strengthened the RF's resolve. One was the massacre of whites during the Mau Mau uprising in Kenya in the 1950s, while the other was the election of the Labour Party in Great Britain, a party unsympathetic to Southern Rhodesia's specificities. In order to avoid further interference from London, on 11 November 1965, Prime Minister Ian Smith issued the unilateral declaration of independence (UDI). With this, all political links to Great Britain were severed and Southern Rhodesia became Rhodesia.
- 22 In terms of armed challenge to the Rhodesian government, as in many other colonies its roots were to be found in the growth of Black political activism of the 1950s. In Rhodesia, activism came through organisations such as the Southern Rhodesia National Party (SRNP) in 1957, which then morphed into the National Democratic Party in 1960 (NDP), and two opposing parties the following year. The first was the Zimbabwean African People's Union (ZAPU) led by Joshua Nkomo, while the second was the Zimbabwe African National Union (ZANU) led by Robert Mugabe, Herbert Chitepo and the Reverend Ndabaningi Sithole.⁷⁴ Throughout what would become known as the Rhodesian

Bush War, both received support either from the USSR and China along with a variety of radical African regimes and the OAU.

- 23 Facing these groups was one of the most powerful armed forces in the region. Three battalions of infantry were created in 1948 following a general strike and a revision of Rhodesia's military capacity. Whereas one of these battalions became the Rhodesian Light Infantry (RLI) in 1961, two other units created in 1961 were C Squadron of the Special Air Service (SAS), and an armoured car squadron named the Selous Scouts. In 1973, the Selous Scouts became a specialised counter-insurgency unit composed of both black and white Rhodesians. Another unit was the Rhodesian African Rifles (RAR) recruited from the black African population. Created in 1940, the RAR had fought in Burma during WWII and, along with the South East Asia Volunteer Unit (later C Squadron SAS) took part in operations against Communist insurgents during the Malayan Emergency. The RAR also played a role in the 1956 Suez Crisis when they assisted British and French forces, and in Rhodesia the regiment was often used to suppress civil unrest in support of the British South Africa Police (BSAP), a paramilitary force created in 1889. This was another security force unit comprising both black and white Rhodesians, and its experiences of warfare included supporting the British during the Second Boer War (1899-1902) and fighting German forces in the neighbouring German East Africa during the First World War.
- 24 The Rhodesian Air Force (RhAF) was also one of the most powerful air forces in southern Africa. When Ian Smith, a former Battle of Britain pilot, declared independence, the RhAF was made up of 1 Squadron (operating Hunter FGA.9s), 2 Squadron (operating Vampire FB.9s), 3 Squadron (operating C-47s), 4 Squadron (operating Provost T.52s), 5 Squadron (operating Canberra B.2/T.4s), and 7 Squadron based near Salisbury (Harare) which operated Alouette III helicopters. As with French forces in Algeria, and Portuguese forces in Angola, the latter became an integral part of Rhodesian strategy in the war against ZANLA and ZIPRA.
- 25 The first serious incursions of a war known as the Second Chimurenga by rebel groups were sporadic and were easily repulsed by Rhodesian security forces. The deadliest confrontation occurred in August 1967 near Lake Victoria when around 90 ZAPU guerillas

were killed, and in this operation (Operation Nickel), RhAF Alouettes played an important role as did Provosts and aircraft of the Police Reserve Air Wing (PRAW).⁷⁵ A second major encounter in these early years of the war involved Hawker Hunters of 1 Squadron that strafed guerillas during the unit's first operation sortie the same month, and a third eventuated in March 1968 when Vampires carried out similar operations against guerillas who had crossed the border from Tanzania, one of ZAPU's main operational bases, the other being Zambia.

- 26 If political events taking place in a wider political arena strengthened Rhodesia's position in the early 1970s,⁷⁶ and a secretive military alliance with Portugal and South Africa strengthened it even further.⁷⁷ Simultaneously, China was increasing its commitment to nationalist forces and more sophisticated Soviet weaponry was being supplied to rebel forces in Africa.⁷⁸ Furthermore, the independence of Mozambique in 1975 presented another challenge. With the FAP having withdrawn, ZANLA forces had more freedom to roam along the Mozambican border with Rhodesia and the frequency of incursions began to increase.
- 27 The RhAF responded by firstly striking ZANLA camps inside Mozambique itself. Its existing fleet of aircraft was bolstered by the purchase of twelve BN-2 Islander light utility aircraft, 35 Alouette IIs and IIIs, and Cessna FTB.337Gs.⁷⁹ A second RhAF strike took place on 28 February 1976 when Hawker Hunters attacked a ZANLA base at Pafuri in Mozambique, while a third was carried out in May 1976 against guerillas operating from Botswana who had damaged the Botswana-Bulawayo railway line. Later that month, the RhAF attacked a ZIPRA arms depot in Mozambique, and in August the Selous Scouts killed 600 ZANLA rebels also in the former Portuguese colony.⁸⁰ Rhodesian forces having by now defined four main operational areas in the north-east (Hurricane), in the east (Thrasher), in the south-east (Repulse), and in the south-west (Tangent), the most significant development as far as countering the movement of rebel forces and their contact with local populations was the Fire Force mission. Indeed, Rhodesian security forces comprising just under 43,000 members, the over 400,000 square miles of territory that had to be secured presented a daunting task.

- 28 The development of Fire Force missions began as early as February 1974 when military planners decided to implement strategies used by the Portuguese in Angola. Firstly, instead of using the conventional battalion model of three companies and four platoons, each battalion of the RLI was remodeled so that it was made up of four thirty-man platoons. Secondly, each platoon was then broken down so it contained not eight-man squads, but smaller units made up of four commandos and called "Sticks". The reasoning behind the decision to use smaller squads was that the Alouette III was central to the Fire Force mission as a whole and could only carry four passengers plus the pilot. A second development came with the establishment of observation posts inside each operational zone and the creation of forward airfields and Joint Operational Centres (JOCs). Initially these centres were found near Umtali (now Mutare) in the east, Mount Darwin and Mtoko in the north-east, and at Buffalo Range airfield in the south-west. However, as enemy incursions increased, temporary bases were also set up in the Honde Valley, Shabini, Fort Victoria and in the capital, Salisbury.⁸¹
- 29 A typical mission involved the participation of four Alouette IIIs, a C-47 troop carrier plus a Cessna (Lynx in the RhAF). One of the Alouettes was equipped with a Matra 20mm cannon (the K-car) and transported the operation commander and the gunner, while the others (G-cars) carried four troops armed with either machine guns or rifles. In an organised strike on rebel positions, the Alouettes would take off some 10-15 minutes before the C-47 due to the latter's greater speed once in the air. As it was usual for larger guerilla groups to break up at the sound of approaching helicopters, or be alerted by inhabitants of the area, the strategy was to fly in low and to disembark as quickly as possible. If guerillas were visible, they would be attacked beforehand by the K-car, but all missions involved encircling an enemy position so as to ensure that guerillas did not escape into the surrounding area. This was done by using paratroopers dropped by the C-47 and a second wave of troops called the "Land Tail" could be transported to the zone to sweep the area if the terrain permitted this type of operation.
- 30 In spite of Rhodesian forces being able to hold out against rebel forces until early 1979, as was the case with France and Portugal beforehand, a mixture of international pressure or a growing number of

better equipped rebel forces plus a shortage of manpower made Rhodesia's position increasingly untenable. It had tried to compensate for this lack of manpower by recruiting US Vietnam War veterans, Australians, New Zealanders, British and a company of around 200 French mercenaries, the 7 Independent Company, but in the end the odds were overwhelmingly stacked against them. Indeed, it has been estimated that by January 1979, there were as many as 12,000 guerillas inside Rhodesia while another 22,000 ZIPRA and 16,000 ZANLA guerillas lie in wait outside the country.⁸²

- 31 In order to face up to the inevitable, in March 1978 Smith sought to reach an agreement with moderate African nationalist leaders Bishop Abel Muzorewa, Ndabaningi Sithole and Jeremiah Chirau. However, unhappy with this Internal Settlement agreement, ZANU and ZAPU acting in unison as the Patriotic Front promised to keep fighting until it had attained military victory. Despite Muzorewa becoming Prime Minister in April 1979 and despite the country being renamed Zimbabwe-Rhodesia, as a demonstration that nationalist military forces would use virtually any means to achieve their goals for a completely independent Zimbabwe, ZANU's armed wing ZIPRA had shot down two unarmed Vickers Viscount civilian airliners in September 1978 and February 1979 respectively. To appease these groups and to reach a peaceful conclusion, British Prime Minister invited representatives from all sides to London in late 1979. The subsequent Lancaster House Agreement signed on 21 December 1979 brought an end to the existence of Rhodesia. Elections held in February 1980 saw the arrival of Robert Mugabe as president of the newly created Zimbabwe. This was a position he would hold until he was ousted from power in November 2017.

Conclusion

- 32 A far cry from its humble beginnings as a utility aircraft used in case-vac operations, the helicopter evolved into a veritable, and iconoclastic weapon of warfare. This iconic status attained through cinematic projections of the role of the helicopter in the Vietnam War, the adaptations this VTOL underwent in the 1950s and 1960s transformed the development of military strategies implemented to confront the challenges of irregular warfare. Effectively, the guerilla could no

longer seek a safe haven in familiar terrain, and neither could he feel that he was out of reach and able to act indiscriminately among local populations. Furthermore, when the guerilla did venture out to attack his enemy, he could be sure that sooner or later a heliborne operation would be launched to stop him in his tracks.

- 33 Still very much a part of contemporary conflict, the development of helicopter warfare made an inestimable contribution to the way war was waged in African colonial conflicts. Providing a kill rate in Rhodesia of up to 80 to 1,⁸³ the evolution of the helicopter enabled armed forces to switch from conventional to irregular methods in order to gain the upper hand over an enemy little concerned by an obligation to engage in a frontal war. However useful the helicopter was in irregular warfare, any contribution it did make was ultimately hobbled and negated by political embattlement and psychological conditioning: all three of the wars we have presented in this paper resulted in a loss for supposedly superior military forces.

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eter Books, 1985); C. R. Shrader, *The First Helicopter War: Logistics and Mobility in Algeria 1954-1962* (Westport, Conn: Praeger, 1999); Colonel B. Mason, "Army Apache Helicopters and Air Force Expeditionary Forces: Implications for Future Military Operations", Occasional Paper No.22, Center for Strategy and Technology, Air War College, June 2001; S. S. McGowen, *Helicopters: An Illustrated History of Their Impact* (ABC-CLIO, 2005).

2 A. Horne, *A Savage War of Peace* (New York: NYRB, 2006).

3 A literal translation is "Bloody All-Saints' Day". Generally considered as the beginning of the Algerian War, Algerian separatists carried out a series of seventy raids against police and army outposts, and industrial infrastructures. Seventy-one people lost their lives in the attacks.

4 The attack on Philippeville was the first major offensive carried out by the FNL. Seventy-one *pieds-noirs* (French citizens born in Algeria) were killed. Another attack occurred at El-Halia, a mining town also in the Constantine region where thirty-seven Europeans were killed. As an act of revenge and using the doctrine of "collective responsibility", French forces then ran amok and slaughtered local villagers. FLN estimates give the number of killed by the French forces at over 12,000. Horne, *op. cit.*, 122.

5 Estimates on the number of dead come from FLN sources. *Ibid.*, 112.

6 G. Bocca, *The Secret Army* (New Jersey: Prentice Hall, 1968), 1.

7 Attacks included that which took place in the rue de Thèbes in August and against a cafeteria in September. The first killing 80 people, the second against a local Milk-Bar resulted in the deaths of three people.

8 Though used by the French in Algeria, the term was considered as pejorative. The FLN typically used the term "junud" to describe its foot soldiers, "mujahideen" to describe its elite troops, and "musubilan" to describe auxiliary units. G. Meynier, *Histoire intérieure du FLN, 1954-1962* (Paris: Fayard, 2002), 154-160.

9 For more on these methods, see: Mao Tse-tung, *On Guerilla Warfare* (1937).

10 The areas covered by each Wilaya is as follows: Wilaya 1 (Aurès-Nementchas), Wilaya 2 (North Constantine), Wilaya 3 (Kabilyia), Wilaya 4 (L'Algérois), Wilaya 5 (L'Oranie), and Wilaya 6 (South Aumale).

11 Each Wilaya was subdivided into zones (*mintakas*), regions (*nahias*), sectors (*kasmas*), communes (*douars*) and hamlets (*mechtas*).

12 Shrader, *op. cit.*, 146.

13 In 1954, the Arab League of States made a commitment to assist other Arab states to gain independence. Cairo became one of the main hubs for the transfer of weapons into Algeria.

14 D. Galula, *Counterinsurgency Warfare: Theory and Practice* (Westport, Conn. & London: Praeger Security International, 1964), 68.

15 R. Trinquier, *Modern Warfare: A French View of Counterinsurgency* (Westport, Conn. & London: Praeger Security International, 1964), 5.

16 Estimates put the number of Harkis at some 300,000. "After 40 years of suffering and silence, Algeria's 'Harkis' demand a hearing", *Irish Times*, 31 August 2001.

17 For more on the Battle of Algiers, see: P. Aussaresses, *The Battle of the Casbah: Terrorism and Counter-Terrorism in Algeria, 1955-1957* (New York: Enigma Books, 2002).

18 Those tasked with the day-to-day running of Special Administrative Sections were known as "kepis bleus". They were supported by local Moghazni auxiliaries.

19 At first the French Army used a *ratissage* system whereby tanks, artillery and sometimes aviation was used to unearth enemy combatants from their hideouts in the Aurès Mountains or in Kabylia. Inflicting some losses, once operations were over, these enemy combatants would simply return and start all over again. A side effect of this strategy was that Algerians who supported the French were targeted for assassination thus encouraging other Algerians to join the FLN rather than suffer the same fate. The *quadrillage* system was an attempt to secure defined sectors of Algeria so as to eliminate insurgent activity and to reduce the recruitment of local populations into the ranks of the FLN. M. S. Alexander and J. F. V. Keiger, *France and the Algerian War, 1954-1962: Strategy, Operations and Diplomacy* (London: Routledge, 2002).

20 "Coalition Air Warfare in the Korean War, 1950-1953", *US Air Force History and Museums Program*, Washington D.C., 2005.

21 LCL Brault, "Le colonel Déodat du Puy-Montbrun nous a quittés (sic) : Parachutiste et pionnier de l'Alat, une histoire et un destin exceptionnels", 17 February 2009, available at <http://fncv-drome.over-blog.com/article-29151278.html>.

22 British helicopter operations in Malaya also had a significant influence over France's choice to turn to the use of rotary wing aircraft for air mobility. In November 1952, French colonel Déodat du Puy-Montbrun served with the British Special Air Service (SAS) in Malaya. Here, he took part in heliborne operations in the jungle earning the King's Medal. See, *ibid.*

23 *Rapport des missions en Corée et au Japon*, "Étude des formations d'hélicoptères de l'armée de Terre américaine", December 1963, quoted by P. Gaujac, "Du parachute à l'hélicoptère de combat", *Revue Historique des Armées*, 4 (1992), 66.

24 F. Bos, "Les Détachements d'intervention héliportés dans la guerre irrégulière", *Stratégique*, 93-96 (2009), 448.

25 Shrader, *op. cit.*, 77.

26 At the outbreak of war in 1954 the French Air Force was equipped mainly with air defence, ground attack and liaison aircraft. Aircraft included SE.535 Mistral jets, F-47 Thunderbolts, Vautours, Mystère IVAs attached to *Escadrilles de Chasse* or fighter squadrons (EC); AAC.1 Toucans and C-47s attached to *Escadrilles de Transport* or transport squadrons (ET); and Caudron C-445s and Martinets attached to liaison and observation squadrons or *Escadrilles de Liaison et d'Observation* (ELO).

27 The GATAC system had already been used in Indochina. As for Algeria, GATAC 1 covered the Constantine region; GATAC 2 covered the area around Oran; and GATAC 3 covered three areas around Algiers (Orléansville, Tizi-Ouzou and Aumale).

28 The French Army operated only four helicopters before June 1955 but by 1959 it possessed sixty-four Vertol H-21Cs; nine Sikorsky H-19s; thirty-eight Bell H-13s; and twenty-nine Alouette IIs. L. Bourgeois, *Le Matériel pendant la guerre d'Algérie* (Paris: Inspection du matériel de l'armée de Terre, 1987), as quoted in Shrader, *op. cit.*, 121. During this period, the Air Force operated Eighty H-34s, twenty-five Alouette IIs and a number of H-13s and H-19s, while Flotilla 31 of the French Naval Aviation operated thirty-six H-21s, H-5s, H-19s and H-34s.

29 A. H. Peterson, G. C. Reinhardt and E. E. Conger (eds.), "Symposium on the Role of Airpower in Counterinsurgency and Unconventional Warfare: the Algerian War", Memorandum RM-3653-PR, July 1963, 31.

30 *Ibid.*, 34.

31 In this respect, Crespin played an indirect role in determining the future of the helicopter as a France. Effectively, in late 1956, the Vertol Aircraft Corporation undertook a study commissioned by the French Ministry of Defence to evaluate the role of the H-21C. National Defence Committee for Scientific Action, France, Operations Research Group, "Report of the Operations Research Mission on H-21 Helicopter Operations in Algeria" (Morton, PA: Vertol Aircraft Corporation, April 1957), as quoted in Shrader, *op. cit.*, 77.

32 This operation consisted of a detachment of four helicopters transporting 3rd Foreign Parachute Battalion troops to Mount Chélia. "L'aviation légère de l'armée de Terre dans la guerre d'Algérie (1954-1962): organisation et emploi", defence.gouv.fr, 22 November 2017.

33 Brunet took over this role from Déodat du Puy-Montbrun.

34 Nicknamed "*Le Sanguin*" or the "Fiery One", Alexis Santini commanded liaison squadron (escadrille de liaison) or ELA 52 in Indochina. Operating Hiller 360s, Santini was the husband of Valérie André, a fellow helicopter pilot and the first woman to become a General in the French Air Force.

35 P. Facon, "L'adaptation de l'armée de l'Air à la guerre d'Algérie: la lutte antiguérilla", paper presented at "Histoire de guerre aérienne", international conference, 10-11 September 1987 (Vincennes: SHAA, 1988), 327-341.

36 J. Moulin, "Sikorsky S.58/H-34 armé 3pirate", *Les avions de la guerre d'Algérie*, 2008, available at <http://avions-de-la-guerre-d-algerie.over-blog.com/article-20685086.html>.

37 Interview with Robert Houke, an H-34 operational pilot assigned to EH2 in 1959.

38 "Report of the Operations Research Mission on H-21 Helicopter Operations in Algeria".

39 The Alouette II and the Vertol often added to support in vertical envelopment operations. Entering into service in Algeria in 1957, the Alouette II could be fitted with air-to-ground AS-11 wire-guided missile. Designed by Nord Aviation, this type of weapon was very effective against rebels that had taken shelter in the caves of the Aurès mountains. Previous attacks using T-6s dropping napalm had failed to reach the inner-depths of the caves.

40 The Plan Challe was created alongside the Plan de Constantine. This envisaged a five-year economic plan that included the redistribution of land, agrarian reform, funding for education, and the creation of low-rent housing. Horne, *op. cit.*, 310-311.

41 H. Canuel, "French Counterinsurgency in Algeria: Forgotten Lessons from a Misunderstood Conflict", *Small Wars Journal* (2010), 8.

42 A. A. Heggoy, *Insurgency and Counterinsurgency in Algeria* (Bloomington: Indiana University Press, 1972), 176, in J. P. Cann, "Portuguese Counterinsurgency Campaigning in Africa, 1961-1974: A Military Analysis", Doctoral Thesis presented at King's College, London, February 1996, 98.

43 Cann, *ibid.*

44 V. Flintham, *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present* (London: Arms and Armour, 1989), 113.

45 D. R. Niccoli, "Atlantic Sentinels", *Air Enthusiast*, 73 (January-February 1998), in J. S. Corum and W. R. Johnson, *Air Power in Small Wars* (Kansas: University of Kansas Press, 2003), 275.

46 Portuguese forces responded to these attacks by bombing villages in the Icolo e Bengo and Baia de Cassange regions. Sources state that 17 villages were destroyed killing 20,000 people. L. M. Heywood, "Angola and the Violent Years, 1975-2008: Civilian Casualties", *Portuguese Studies Review*, 19/1-2 (2011), 315.

47 Flintham, *op. cit.*, 124.

48 *Ibid.*

49 J. Marcum, *The Angolan Revolution, Vol.1: The Anatomy of an Explosion, 1950-1962* (Cambridge, Mass. & London, The MIT Press, 1969), 229.

50 Flintham, *op. cit.*, 114.

51 The Dornier 27 was a short takeoff and landing (STOL) aircraft particularly useful for casevac operations.

52 Flintham, *op. cit.*, 114.

53 In 1962 the UPA merged with the Democratic Party of Angola (PDA) to form the National Front for the Liberation of Angola (FNLA). Its leader, Holden Roberto then established the Revolutionary Government of Angola (GRAE). 1962 is also the year when the Sino-Soviet split became official. The PRC supplied weapons and military advisors to the FNLA. S. B. MacDonald, *European Destiny, Atlantic Transformations: Portuguese Foreign Policy Under the Second Republic, 1974-1992* (London: Routledge, 1993), 56.

54 There are a number of reasons why the United States supported both the FNLA and Portugal at the same time. Johnson's administration believed that the FNLA represented a foil against the ambitions of the Soviet Union;

the USA was concurrently providing military and financial support to an anti-communist government in the Democratic Republic of the Congo (DRC); and Roberto was brother-in-law to one of the Congo's main political and military figures, Joseph Mobutu. As for US support for Portugal, this stemmed from denying the Soviet Union access to mineral resources in central Africa and the upholding of the Azores Agreement. Indeed, Angolan soil was rich in diamonds and US petroleum giant Gulf Oil had invested heavily in oilfields situated off the coast of Cabinda. An Angolan enclave, Cabinda in 1965 was under the control of the MPLA. As for the Azores Agreement, in 1951 the US gained the rights to use the Azores as a stopover for military operations.

55 The MPLA led by Agostinho Neto was Marxist-inspired and supported by the Soviet Union. In October 1961, Guevara met with Ben Youssef Ben Khedda, the president of the Provisional Government of the Republic of Algeria (PGRA). Agreeing to supply weapons, in January 1962 a Cuban cargo ship named the *Bahia de Nipe* arrived at Casablanca loaded with US-manufactured rifles, machine guns, mortars, and mortar rounds. These weapons were transported to an FLN base at Oudja, Morocco, a town situated near the border with Algeria. H. Prats, *Oral History, Archivos del Instituto de Historia de Cuba*, Havana, quoted in P. Gleijeses, "Cuba's First Venture in Africa: Algeria, 1961-1965", *Journal of Latin American Studies*, (1996), 160. The weapons in question had been captured by the Cubans following the failed Bay of Pigs invasion of April 1961. D. Renton, D. Seddon, and L. Zeilig, *The Congo: Plunder and Resistance* (London: Zed Books, 2007), 106.

56 Cuba also supplied weapons and training to Amilcar Cabral's PAIGC, the African Party for the Independence of Guinea and Cape Verde. The first supplies of Cuban weapons arrived in April 1965. In July and August of that year these weapons were supplemented by the arrival of more than 500 Cuban soldiers. E. George, *The Cuban Intervention in Angola, 1965-1991: From Che Guevara to Cuito Carnavale* (London & New York: Frank Cass, 2005), 27.

57 Botswana gained its independence in June 1966; Tanganyika became Tanzania in 1961; and North Rhodesia became Zambia in 1964.

58 SWALA changed its name to become the People's Liberation Army of Namibia (PLAN) in 1973.

59 K. Campbell, *Soviet Policy Towards South Africa* (London: Palgrave-Macmillan, 1986), 130.

60 Zambia gained its independence from the United Kingdom in 1964. Botswana, another British colony, became independent in 1966.

61 V. Amukwaya Shigwedha, "The Relationship between UNITA and SWAPO: Allies and Adversaries", *Journal of Southern African Studies*, 40/6 (2014), 1275-1287.

62 H. Campbell, "The Siege of Cuito Cuanavale", *The Scandinavian Institute of African Studies*, 10 (1990), 12.

63 "Visite du ministère de la Défense, Le Cap, 12 juin 1961", ministère des Affaires étrangères, Département des affaires politiques, Afrique-Levant, UN Series 8, Paris.

64 NARS, BTS, Box 74/29 (F1), Burgerlike Lugvaart en militêre verbindings. B: 02.10.61/E: 12.11.64. Letter from Portuguese army and air attaché in South Africa, Pretoria, 2 October 1961, in P. Correia and G. Verhoef, "Portugal and South Africa: Close Allies or Unwilling Partners in Southern Africa During the Cold War?", *Scientia Militaria, South African Journal of Military Studies*, 37/1 (2009), 58.

65 NARS, BTS, Box 74/29 (F1), Burgerlike Lugvaart en militêre verbindings. B: 02.10.61/E: 12.11.64: Top secret letter from Secretary for Foreign Affairs – Secretary for Defence, Cape Town, 9 April 1962, *ibid.*

66 AHD, PAA 58: Política Externa e Interna da África do Sul. Acção desenvolvida pela SWAPO: Secret document Informação No 606/SCCI/Assunto: Actividades Terroristas da SWAPO – South West African Peoples Organization', 2 November 1963, *ibid.*, 59.

67 NARS, BTS, Box 1/22/5, Vol 2, Angola: Defence. B: 05.04.61/E: 29.11.67: Secret letter from South African Consul General, Luanda – Secretary for Foreign Affairs, Pretoria, 14 September 1964, *Ibid.*

68 In 1965, MPLA leaders decided to move its operations base to Zambia. Zambian authorities permitted the unrestricted transit of weapons through their territory and allowed liberation movements to broadcast through the Zambian Broadcasting Service (ZBS). This was because Zambia was a major supporter of the OAU's desire to support liberation movements and believed that armed struggle needed to be backed up by an effective propaganda machinery. From 1973, the ZBS set up the "War of Words Channel" and allotted 45-minute slots to liberation movements in Angola, Rhodesia, South West Africa and South Africa. C. Chongo, "A Good Measure of Sacri-

fice: Aspects of Zambia's Contribution to the Liberation Wars in Southern Africa, 1964-1975", *Zambia Social Science Journal*, 6/1 (2015/2016), 10.

69 The Vektor GA-1 was also used by the Portuguese. A variant of the MG-151, the SADF used another variant produced by Denel.

70 ADN, File 2732.2: Top Secret secret letter, South African Defence Minister, Cape Town – Portuguese Defence Minister, Lisbon, 17 May 1968, in Correia and Verhoef, *op. cit.*, 60. In total, the FAP acquired 118 Alouette IIIs. P. Baxter, *SAAF's Border War: The South African Air Force in Combat, 1966-1989* (Solihull: Helion & Co., 2012), 48.

71 J. P. Cann, *Flight Plan Africa: Portuguese Airpower in Counterinsurgency, 1961-1974* (Solihull: Helion & Co., 2015), 242.

72 D. L. Wheeler, "The Portuguese Army in Angola", *The Journal of Modern African Studies*, 7/3 (October 1969), 425-439.

73 On 3 February 1961, British Prime Minister Harold Macmillan (Conservative) addressed the Parliament of South Africa stating that his government would not seek to impede the independence of African countries still under British rule. This address is often referred to as the "Wind of Change" speech.

74 Both the ZAPU and the ZANU had armed wings. There were the Zimbabwe African National Liberation Army (ZANLA), and the Zimbabwe People's Revolutionary Army (ZIPRA), respectively.

75 Flinham, *op. cit.*, 125.

76 In July 1969, Nixon and Kissinger laid out their policy for Southern Africa in National Security Study Memorandum (NSSM) 39. Otherwise known as the "Tar Baby" option, NSSM 39 declared that although *apartheid* and colonialism were unpleasant, they were on the other hand realities that should be accommodated in respect of a wider reaching geopolitical strategy known as *realpolitik*. For more, see: E. Lockwood, "National Security Memorandum 39 and the Future of United States Policy Toward Southern Africa", *A Journal of Opinion*, 4/3 (Autumn 1974).

77 The alliance in question is the Alcora Exercise. An acronym for *Aliança Contra as Rebeliões em Africa*, the immediate objective of the Alcora Exercise was to examine the ways in which the three countries in question could counter nationalist ambitions militarily. F. Ribeiro de Meneses and R. McNamara, "The Last Throw of the Dice: Portugal, Rhodesia and South Africa, 1970-74", *Portuguese Studies*, 28/2 (2012), 201-215.

78 The USSR began supplying surface-to-air missiles to the PAIGC in 1973. O. A. Westad, *The Global Cold War* (Cambridge: Cambridge University Press, 2012), 2015, 215.

79 By 1979, Rhodesia possessed around fifty Alouette IIIs. Some were provided by South African company Armscor under license from Aérospatiale. Parts were shipped from Toulouse and then assembled in South Africa. "Fireforce Exposed: the Rhodesian security forces and their role in defending white supremacy", published by Anti-Apartheid Movement [Aluka], November 1979, AAM Archive, available at http://psimg.jstor.org/fs/i/img/pdf/t0/10.5555/al.sff.document.aam00014_final.pdf, accessed 4 February 2021.

80 Flintham, *op. cit.*, 125.

81 C. Cocks, *Fireforce: One Man's War in the Rhodesian Light Infantry*, eBook edition (Helion & Company: Solihull, 2012), 45.

82 I. W. Beckett, "The Rhodesian Army: Counter-insurgency, 1972-1979", *Selous Scouts*, <http://selousscouts.tripod.com/rhodesian.part2.htm>, accessed 4 February 2021.

83 J. R. T. Wood, "Fire Force: Helicopter Warfare in Rhodesia: 1962-1980", available at <http://www.rhodesia.nl/firefor1.htm>, accessed 4 February 2021.

RÉSUMÉS

English

A series of small wars waged to obtain self-determination in north and sub-Saharan Africa from the early 1950s to the late 1970s presented a variety of challenges for colonial armies. Perhaps most importantly was the adoption by anti-colonial military forces of guerilla tactics designed not to confront an enemy directly, but to wage a war of attrition by making small-scale hit and run attacks. Often retreating to geographically isolated lairs to prepare the next attack on equally isolated military outposts, or to persuade local populations to become active or passive partisans, colonial forces then had to devise ways of delivering firepower in often mountainous terrain, or areas covered by dense forestation. With tanks and armoured carriers not suited to this role, the adaptation of the helicopter to provide air mobility gradually became an integral part of counterinsurgency strategies. The present article traces the history of this adaptation by focusing on three small wars in which developments in heliborne operations as a tool of counterinsurgency can be seen to their greatest extent.

Français

Une série de petites guerres menées pour obtenir l'autodétermination en Afrique du Nord et en Afrique subsaharienne, du début des années 1950 à la fin des années 1970, a présenté une variété de défis pour les armées coloniales. Le plus important est sans doute l'adoption par les forces militaires anticoloniales de tactiques de guérilla conçues pour ne pas affronter directement l'ennemi, mais pour mener une guerre d'usure en lançant des attaques éclair à petite échelle. Se retirant souvent dans des repaires géographiquement isolés pour préparer la prochaine attaque contre des avant-postes militaires tout aussi isolés, ou pour persuader les populations locales de devenir des partisans actifs ou passifs, les forces coloniales devaient alors trouver des moyens de délivrer leur puissance de feu sur des terrains souvent montagneux ou dans des zones couvertes de forêts denses. Les chars et les véhicules blindés n'étant pas adaptés à ce rôle, l'adaptation de l'hélicoptère pour assurer une mobilité aérienne est progressivement devenue une partie intégrante des stratégies de contre-insurrection. Le présent article retrace l'histoire de cette adaptation en se concentrant sur trois petites guerres dans lesquelles le développement des opérations hélicoptérées comme outils dans les contre-insurrections peut être vu dans toute son ampleur.

INDEX

Mots-clés

Opérations hélicoptérées, insurrection, contre-insurrection, guerre d'Algérie, guerre d'indépendance angolaise, guerre de Bush de Rhodésie du Sud

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