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Air Force Operations in Counterinsurgency Campaigns in the Northeast of Nigeria, 2013-2021

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Abstract

The Nigerian Air Force (NAF), through air strikes and air support, conducted a series of operations in the northeastern states of Adamawa, Borno and Yobe targeting Boko Haram hostile activities, within the period 2013 to 2021. However, there is a paucity of extant works on the role of the NAF, which seems to give more attention to the role of the Army alone. The study analyses the impact of the NAF in air and ground operations through targeted campaigns such as Operations BOYONA, Zaman Lafiya, Lafiya Dole and Hadin Kai. The research employed a descriptive analysis framework of data collected from oral interviews, defence manuscripts, academic journals, books, and internet sources. The study revealed the Air Force's crucial role in counterinsurgency campaigns through diverse means. The Air Force conducted more than 2.045 air strike missions in over 2,098 hours. Additional aircraft like the Alpha-Jets L-39ZA, F7Ni and Mi-35 attack helicopter were used to destroy insurgent hideouts. The principle that all military services should be self-sustaining is seen in the Air Force carrying out ground operations of its own. The study highlights some significant challenges facing Air Force counterinsurgency operations in the northeast. The study concludes that the role of the Air Force in counterinsurgency campaigns has significantly improved the number of pilots, special forces and advanced military hardware crucial to counterinsurgency victory. It also notes that the significant challenges could mar the success of this counterinsurgency operations effort in the northeast if not adequately addressed.

Keywords: *Counterinsurgency operations, Air Force Operations, Nigerian Air Force, Boko Haram*

Introduction

The theory supporting the use of the Air Force or air power as a formidable approach for total victory in warfare was first postulated by Giulio Douhet in the early 20th century in the face of the First World War.[1] In World War I, the Germans engaged the air force in strategic bombing against the British military forces, targeting its cities and naval bases. This bombardment was carried out with the aid of airships. According to Omissi, the air control of some nations over others presented the aircraft and air forces as an instrument for repeatedly drawing or provoking conflicts against adversaries who had no air forces of their own.[2] Later campaigns in Malaya, Algeria, Vietnam, Afghanistan and Iraq kept air power at the centre of counterinsurgency (COIN) while leaving its value deeply contested.[3] Between 2013 and 2021, the Nigerian Air Force (NAF) fought one such campaign against Boko Haram insurgency in the northeast of the country.

As the insurgents began controlling large areas of Borno, Yobe and Adamawa from 2013 to 2014, the federal government declared a state of emergency in these three states in May 2013, and from then on, the military response depended heavily on air power. Terrain, long distances, long engagement with insurgent tactics, dispersed insurgent groups and vulnerable ground supply routes all gave aircraft a role that ground forces could not easily fill. Due to the escalation of the crisis, the Air Force was formally brought in by the Goodluck Jonathan administration in 2013 to the ongoing joint task force operations.[4] These operations include BOYONA, Zaman Lafiya, Lafiya Dole and Hadin Kai. It is pertinent to note that although these operations succeeded each other, they are not the same, as each operation comes with its own unique mandate. The timely gathering of intelligence for strategic air strikes and close air support for ground forces has recorded significant headway for air components in the northeast despite the burgeoning challenges faced. The study closes in 2021, when the death of Abubakar Shekau altered the insurgency's internal balance and the NAF's force structure changed with the arrival of new platforms.

The literature on Nigerian COIN operations rests overwhelmingly on cases involving the role of the army and the victories attributed to the army despite the COIN operation being a joint task force operation.[5] [6] [7] [8] The assumptions embedded in COIN studies, that the Army is the main or only military instrument, with the Air Force as nothing more than an appendage, can no longer hold in the Nigerian insurgency setting. Also, these existing studies capture the role of the Air Force in African wars of the 20th century, airpower in peacekeeping operations, the Nigerian Civil War and the role of airpower in early Nigerian COIN operations before the activation of the Air

Task Force (ATF). These come mainly from the social sciences, which rarely treat the NAF as an institution with its own doctrine, capability constraints, command arrangements and capacity to learn.[9] Where air operations appear, they usually do so as isolated episodes, such as a notable strike or a support role requested by army ground troops, rather than as an integrated element of the campaign. As far as the available scholarship shows, the period from 2013 to 2021 has not been analysed as a whole. It spans the collapse of ground-component momentum in 2014, the recovery of 2015 with multinational cooperation, the reorganised operations of the later 2010s and the introduction of new capabilities, yet no study traces how air operations evolved across these phases, how they connected to ground, intelligence and regional efforts, and how their impacts and challenges in these strategic operations should be judged.

Theoretical/Conceptual Framework

Counterinsurgency

The U.S. Counterinsurgency Guide describes counterinsurgency as military and civilian efforts that are undertaken simultaneously to defeat and contain insurgency and the causes of the insurgency. The US Army's Joint Publication 3-24 (2009, updated in 2018)[10] defines counterinsurgency as a method to counter every form of organised use of subversion and violence to seize, nullify, or challenge political control of a region. This views counterinsurgency as a form of intrastate security measure.[11] In consequence, Dozie Nwanna stresses that counterinsurgency strategies are designed to help save the affected population from insurgent violence, reinforce the legitimacy and capacity of government institutions, and eliminate the insurgents' influence over a region by countering the tactics they use to create fear and submission among the population. Hence, Counterinsurgency (COIN) operations are often composed of intelligence work, covert attacks and collaboration with the general population.[12]

Galula, in his treatise, *Counterinsurgency Warfare,*[13] explains that counterinsurgents hold a virtual monopoly on tangible assets, such as material resources and legitimate power. On the other hand, insurgents lack power but have the advantage regarding intangible assets such as ideology and a general lack of responsibility. While counterinsurgents are powerful, they are obliged to uphold law and order, which limits their potential action.[14] On the other hand, insurgents lack power, but they are much freer to violate both their promises and social norms. Insurgents also decide

when and where the conflict will begin since they become insurgents through their contentious actions. Indeed, a counterinsurgency exists only in reaction to an insurgency.[15]

Air Force Operations

The Air Force's operational capability has been termed '*Airpower,*' and the presence of the Air Force in operations is called the use of air components. Air Force operations, thus, consist of the application of military aviation and strategic theory to the realm of aerial warfare and close air support. Airpower began with the advent of powered flight early in the 20th century.[16] British doctrine defines airpower as, "the ability to project power from the air and space to influence the behaviour of people or the course of events."[17] Airpower, in operational terms, is often assessed in relation to the degree of control a belligerent exercises over the airspace. A force that enjoys virtually uncontested control of the skies may be said to possess air supremacy, while a substantial but less absolute degree of control constitutes air superiority. Where neither side can establish a decisive advantage, the situation may be characterised as air parity. Conversely, when a force is unable to exercise effective control of the airspace, it may be described as operating under air denial or as being air-incapable. Such a disadvantage can severely constrain its operational freedom and increase its vulnerability to enemy action, although defeat is not necessarily inevitable.[18]

The Nigerian Air Force (NAF), also known as the aviation force of Nigeria, is the air branch of the Armed Forces of Nigeria (AFN). The Nigerian Air Force, with roughly 18,000 personnel as of 2021, 12 Chinese Chengdu F-7s, 11 Dassault-Dornier Alpha Jets, 12 Embraer EMB 314 Super Tucano, Helicopter gunships, armed attack drones, and military transport aircraft, is the youngest branch of the Armed Forces of Nigeria and one of the biggest in Africa. The Nigerian Air Force came into the northeastern counterinsurgency scene in 2013.[19]

The Nigerian Air Force before the Insurgency

The history of the NAF as an institution with more than five decades of operation behind it, shaped by dependence on foreign help, experience of large wars, and recurring problems of sustainment, explains both what the service could draw on after 2013 and why COIN efforts persisted. The NAF was established by the Air Force Act of 1964, and it began as an air arm assembled with outside assistance, notably

from West Germany.[20] Its origins lay in an embarrassment of the early 1960s: when Nigerian troops deployed to the Congo and Tanganyika, foreign air forces had to carry them, and this strengthened the case for a national air arm. From the beginning, therefore, the service relied on external suppliers, trainers and operators, a pattern that would recur.

The Nigerian Civil War (1967–1970) turned a young transport-oriented force into a combat service and exposed this dependence. Draper's study of the air war shows that the NAF overshadowed and outclassed the Biafran Air Force for much of the conflict, but it did so with an inventory built mainly around MiG-17s, Il-28s and L-29 Delfins that were crewed by mercenaries.[21] The federal side's air superiority was real, yet it rested on foreign pilots and Soviet-bloc supply rather than on an indigenous capability. The war also left a legacy relevant to later counterinsurgency. Bombing of Biafran markets, schools and hospitals drew wide international criticism and damaged Lagos's standing, and the shooting down of a Red Cross DC-7 on 5 June 1969 during the effort to interdict the night relief airlift into Uli became one of the war's best-known air incidents.[22] Questions of target discrimination and civilian harm, which dominated debate on NAF strikes in the northeast, were already present in the service's first major campaign.

After 1970, oil revenue financed a much more substantial air force, with MiG-21s and later Jaguars and Alpha Jets joining the inventory.[23] The service also gained expeditionary experience. In the 1990s it supported the Nigerian-led ECOMOG operations in Liberia and Sierra Leone with close air support, interdiction and airlift, including strikes in the defence of Freetown in January 1999.[24] This was valuable operational experience, but its character matters. These were regional intervention and peace enforcement operations against factions that were largely conventional in organisation and fought in different terrain. They did not amount to a sustained, internal counterinsurgency on Nigerian soil, and the NAF had no tested doctrine for such a war.

The decades before 2009 also saw the erosion that scholars of the Nigerian military have described more generally. Long periods of military rule politicised the armed forces and drew the services into coups and rivalries, while resources and attention were diverted from professional development.[25] Maintenance and serviceability suffered, and the 1992 crash of a NAF C-130 in Lagos, which killed well over a hundred people, is often cited as a symbol of the fleet's condition.[26] Procurement from the late 1990s onward, including Chinese-built F-7 fighters, brought new

platforms, but acquisitions were not always matched by spares, training, munitions and the surveillance and targeting systems that counterinsurgency requires.

By 2009, when Boko Haram's uprising turned violent in Maiduguri, the NAF was therefore a service with a long record, regional combat experience and a diverse but uneven fleet. As the following chapters argue, it lacked an air-ground doctrine for internal COIN, enough serviceable aircraft, adequate ISR and precision capability, and settled procedures for limiting civilian harm. Each of these shortcomings, inherited from the pre-insurgency period, shaped how the air campaign unfolded after 2013.

Table 1: Significant Changes in the NAF before the Insurgency (1964–2009)

Phase	Significant changes	Statistical Implication
Founding, 1961–1964	The idea of a national air arm arose after foreign air forces had to fly Nigerian troops to the Congo and Tanganyika. The service was created with West German help.	Established under the Air Force Act, 18 April 1964 (the NAF's own history gives only the year).
Civil war, 1967–1970	A transport-oriented force became a combat arm. Soviet-bloc aircraft arrived through Egypt, were flown by Egyptian and later European contract pilots, and drew international criticism for bombing civilian targets.	MiG-17 deliveries via Egypt to Kano from 13 August 1967, MiG-15UTI trainers, and six Il-28 bombers. MiG-17 numbers are disputed (eight versus an offer of seventeen). About 200 Soviet technicians accompanied the aircraft. European contract pilots replaced the Egyptians by spring 1969.
Oil-funded expansion, 1970s–1980s	The force was re-equipped with transport, interceptor and strike aircraft, and it acquired its Alpha Jet ground-attack fleet.	Six C-130 Hercules in the 1970s; 24 MiG-21MF and six MiG-21UM in 1975; a contract for 12 MiG-21bis in October 1984. The Alpha Jets were acquired in the early 1980s. Jaguars operated from Makurdi from 1984 to 1991.

Contraction and expeditionary use, 1990s	Economy measures grounded or stored major types, yet the NAF flew regional operations.	Jaguars withdrawn in 1991 as an economy measure; MiG-21s mothballed during the 1990s; MB-339s put into storage. Air strikes supported ECOMOG in Liberia and Sierra Leone, including the defence of Freetown in January 1999.
Partial renewal, 2000s	Chinese-built fighters replaced the MiG-21s, but the fleet remained small and mixed.	12 F-7NI and 3 FT-7NI paid for in 2005 and delivered in 2009–2010. Nigerian Air Force +4

Source: Field Survey

This pre-insurgency table runs from the founding of the NAF to the first Boko Haram violence in 2009. Across this period, the fighter and strike force peaked in the 1970s and 1980s and shrank to about 15 Chinese-built F-7 fighters by 2010, while the service came to depend on foreign supply and sometimes foreign crews.

Overview of Air Components in the Northeast Operations

Air components have a crucial role to play in modern counterinsurgency warfare, which is evidently not on par with its role in conventional warfare. During the Nigerian Civil War air campaign, the Nigerian Air Force, though in its infancy stage, had the potential to contribute to a swift and decisive victory. In fact, scholars argue that without the use of Air Force in several operations, such as air to air attack, and the bombardment of planes used in delivering supplies to the Biafran side, it would have been difficult for the Federal Government to win the war against Biafra.[27] [28] Thus, the traditional functions of air components in warfare involve hitting critical targets, destroying command and control functionality, and impeding the enemy's ability to supply and deploy to its forces.[29] In the case of the Nigerian northeast, air component operations against counterinsurgency took a different toll, as it is already established that counterinsurgency campaigns differ from conventional warfare campaigns. An attempt to rely on conventional warfare tactics and strategies will be counterproductive.[30]

The Nigerian Air Force operations in the northeast have been characterised by air strikes, ground forces operations, close air support, joint task force operations, logistics and MEDEVAC, collaborations with civil authorities and other non-military agencies, as well as humanitarian assistance. These are the roles which give the Air Force much of its potency and relevance as it engages in counterinsurgency campaigns, where many of its greatest strengths can no longer be employed due to the asymmetric nature of insurgency.

The *Boko Haram* ideology represented a religious-political aspiration, which aims to create and establish an Islamic republic, whose leadership felt they needed to topple the northern political system and establish their own order, which is based purely on Islamic principles, as they believe the constituted sovereignty of the Nigerian state has been taken over by dishonest Muslims and politicians who adhere to Western values and style of governance. The immediate causes of the insurgency, to further buttress, are religious motivation, which supports a radical interpretation and practice of Islam; corruption in governance, even by northern politicians; and psychological motivation, which involves discontent among northern youths with life and achievement and also not being involved in the religious and political leadership by the older elites.[31]

In the year that *Boko Haram* became violent in February 2009, the Government engaged the insurgent groups by deploying the Police force, which arrested the belligerents after causing rancour in the state of Borno, following a clash between Mohammed Yusuf's convoy and the Police after the former had refused to adhere to the government's instructions on the use of helmets by all motorcyclists. The group became extremely violent in the months that followed killing scores of civilian, policemen and attacking police bases.[32] However, as Gompert and Gordon put it, the Armed forces are required when insurgents have become overwhelming that police and constabulary forces are no longer sufficient to provide security.[33] In June 2011, Nigeria established a special counterterrorism Joint Task Force (JTF). Two army battalions, 650 Air Force officers, 750 Navy officers, 1,500 police officers and 500 Department of State Service (DSS) agents composed this formation.[34] In May 2013, Nigeria implemented emergency rule in the impacted states of Adamawa, Borno, and Yobe in response to this threat. The deployment of roughly 3,000 troops to supplement the 5,000 forces already present in the area came next.[35]

With the intensification of counterinsurgency campaigns in 2013, the role of the Air Force became very evident and crucial. It has an estimated platform of 15,000 personnel and 98 aircraft, including 10 fighters/interceptors, 10 fixed-wing attack

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aircraft, 42 transport aircraft, 35 trainer aircraft, 38 helicopters, and nine attack helicopters as of 2013.[36] Amongst these available platforms, the NAF has committed to the campaigns in the northeast: Alpha jets, CH-3 UAVs, F-7Nis, Mi-35s, G222S, C130S, DO-228s, ABT-18s, Agusta 109s, King Air-350s, L39-ZAs, the Super Puma Combat Support helicopter, and the ATR-42 Surveillance aircraft. In 2013, the NAF reactivated 13 of its original 24 Alpha Jets to support counter-insurgency missions against Boko Haram. These jets have been actively involved in various operations, including air strikes and reconnaissance missions. In 2016, Nigeria ordered three JF-17 Thunder multi-role fighter aircraft from Pakistan. These aircraft were delivered and formally inducted into service in May 2021, enhancing the NAF's operational capabilities. In 2017, Nigeria secured a deal to acquire 12 A-29 Super Tucano aircraft from the United States. These aircraft are designed for light attack and reconnaissance missions, suitable for counter-insurgency operations. The NAF has incorporated various helicopter models, including the Mi-171E and Agusta 109P, to support troop transport, medical evacuation, and close air support roles.

Table 2: Significant changes in the NAF during the insurgency (2013–2021)

Phase	Significant changes	Impact
2013–2014: Degraded starting point	The first measures to restore grounded aircraft began.	13 of the 24 original Alpha Jets were made serviceable again from 2013. Fleet serviceability was later put at about 35 per cent in 2015 (see the next row).
2015–2016: Reactivation under a new administration	Grounded platforms were reactivated, a logistics support structure was set up, and new attack helicopters, armed drones and surveillance aircraft were added.	Serviceability was about 35 per cent in 2015, according to the Chief of Air Staff. Spares and airframes were bought from the United States and later France. The Mi-24/35 fleet is counted at between 15 and 26 depending on the source.
2017–2018: Costly error and constrained supply	The Rann bombing exposed weaknesses in targeting and coordination and led to a board of inquiry. The Super Tucano sale stalled in Washington.	Rann, 17 January 2017**:** MSF counted at least 52 bodies and about 200 wounded in its first report. It later confirmed 90 deaths, with local reports of up to 170. Six Nigerian Red Cross workers were among the dead, and about 43,000 displaced people were sheltering at the camp. A six-officer board of inquiry was set up.
2019–2021: Capability and doctrine build-up	New fighters and light attack aircraft arrived, pilot training expanded, and the service introduced new doctrines.	Three JF-17s were inducted on 20 May 2021, and 12 A-29 Super Tucanos were delivered by October 2021. The service chief reported 38 new aircraft inducted, serviceability up from about 35 to about 72 per cent by September 2021, 173 pilots trained in six years with 155 more in training, and 11 new doctrines. Nigerian Air Force +2

Source: NAF magazine *Airman*

The serviceability, aircraft, pilot and doctrine figures come from the Chief of Air Staff, as reported in a news summary of the NAF magazine *Airman*. They are the service's own claims, as well as other claims that come from the NAF's publications, Nigeria's

budget documents, and humanitarian and conflict-event datasets such as ACLED. With an overview already established, the paper will focus on interrogating the impact of targeted air strikes, the role of ground operations in boosting air component operations, and the challenges facing such operations in the northeast.

Targeted Strikes and Implications in Northeast Counterinsurgency Operations

The role of the Air Force in carrying out targeted air strikes and close air support cannot be expressed without referring to the constitutional mandate of the Armed Forces and the Nigerian National Defence Policy, which gives the mandate for the Armed Forces of Nigeria to protect and defend Nigeria's territorial integrity from external threats on the ground, air and sea, as well as curbing its internal security challenges.[37] [38] The Defence Policy specifically gives the Air Force the mandate to engage in force projection, force protection, force sustenance and cooperation, which translates to targeted air strikes, close air support, defence of its base and military assets, ground operations in a single service or joint operations mostly by its Special Forces, Military Aid to Civil Authority (MACA), humanitarian assistance, Logistics/MEDEVAC and collaborations with non-military agencies.[39]

Advocates of the power of the Air Force have argued that through targeted or precision air strikes, wars can be won quickly and more efficiently than hundreds of highly skilled ground forces put together with days of operation allotted to them.[40] Simply employing the air force's air supremacy in aerial bombardment on enemy positions, enemy leaders, communication systems, economic infrastructure, major hideouts, platforms and supplies, victory can be strategically ascertained. This significant role in firepower does not, however, come without its challenges. The first major operation by the Nigerian Air Force against insurgency in the northeast began in 2013, following the escalation of *Boko Haram* activities in the region. Prior to this, operations by the Armed Forces of Nigeria against Boko Haram in the northeast began from 2010 to 2012, of which the Air Force was a part, in a broad Joint Task Force, known as Operations Flush and ORO I-III.[41]

The escalation of *Boko Haram* activities in 2013 threatened the fabric of the Nigerian State, especially in the northeast region, more than experienced since 2009. As the insurgency reached a critical point at this time, it threatened the stability of Northeastern states like Adamawa, Borno and Yobe. The government deployed the Air Force under the umbrella of Operation Boyona, in pursuit of the nation's territorial and border security.[42] Operation Boyona then became Operation Zaman Lafiya in late 2013,[43] to reflect the nature of intensified insurgency threats in the northeast and

the desire of the government that all people dwell in peace, although not adequately conceptualising the ideology of *Boko Haram*. By mid-2015, Operation Zaman Lafiya was changed and became Operation Lafiya Dole (OPLD). This new operation modified the Nigerian Air Force component of the joint operation in the northeast into an Air Task Force (ATF) that could now embark on independent missions.[44] Lafiya Dole then became Operation Hadin Kai in 2021.[45] Lafiya Dole was basically upgraded to Hadin Kai to reflect the nature of Nigeria's internal security challenge, which possesses a flavour of trans-border reality.[46] The menace of *Boko Haram,* though springing up in Nigeria, has extended to transborder communities of Niger, Cameroon and Chad. Hadin kai thus means cooperation or collaboration, which implies joining forces through interagency collaboration and joint military efforts through a Multi-National Joint Task Force (MNJTF) with neighbouring nations impacted by the menacing syndrome of *Boko Haram*. Air strikes and close air support began when the NAF deployed Alpha Jets and F-7 fighter jets for counterinsurgency operations in the northeast. The operations focused on targeting insurgent hideouts, providing air support for ground forces and conducting surveillance in Borno, Yobe, and Adamawa states.

In 2013, Air strikes were conducted in Sambisa Forest and the Mandara Mountains, aiming to dismantle training camps and hideouts. The NAF also facilitated logistics and troop movements, supporting the Nigerian Army's ground operations. NAF employed the use of its platforms Mi-35P, the Mi-24V and Agusta 109 LUH in the actual engagement of the insurgents during counterinsurgency operations include to carry out close air support, armed reconnaissance, insertion and extraction of troops as well as psychological air operation. The Super Puma helicopter was also employed for the insertion and extraction of troops.

Prayero noted that with the escalation of *Boko Haram* activities, the NAF Mi-35P helicopters have been called upon to neutralise training camps and, in addition, NAF regiment personnel along with personnel of the 3 Services were involved in cordon and search, mounting of roadblocks and raids of suspected Boko Haram hideouts and camps. All of which led to about 34 major engagements occurring between the JTF of operations Hadin Kai in Maiduguri and Yobe.[47] In 2015, with a new government prioritising security, the NAF expanded its role by incorporating additional aircraft like the Mi-35 attack helicopters and reactivating grounded fleets. Due to the various air operations conducted, independently and in support of ground troops, particularly in Operation Lafiya Dole, a decline in civilian casualties from 4,000 in 2015 to 1,965 in 2017 and 785 in 2018 marked a sequence of growing counterinsurgency victories.[48] In July 2015, the Air Task Force conducted 2,045 Air strike sorties in 2,098 hours. It used the

Alpha-Jets, L-39ZA, F7Ni and Mi-35 helicopter gunships for AI missions and 669 CAS missions in over 823 hours.[49] These sorties were conducted to directly attack the insurgents and destroy their assets, further degrading their capacity to launch attacks. The air attacks also exacted extensive damage on belligerents' camps and hideouts, leading to the liberation of the Sambisa Forest and adjoining locations like Gobara, Dure, Yuwe, Bama, Biu, Gwoza and Madagali from the Shekau Faction of *Boko Haram*.[50]

These 2015 airstrikes, in fuel consumption alone, were estimated to be around ₦328.4 million. The Nigerian Air Force reported that its Alpha Jets consumed 1,227,982 litres of fuel across 974 sorties, at a reported price of ₦280 per litre. The resulting fuel expenditure was ₦343,834,960.[51] This demonstrated the potentially substantial cost of sustained air operations during Operation Lafiya Dole alone. These costs included aviation fuel, aircraft maintenance, weapons and ammunition, personnel, spare parts, and the transportation and technical support required to keep aircraft operational. The reported ₦343.8 million spent on Alpha Jet fuel in the first quarter of 2017 and the ₦2.738 billion reported for sustaining the air component during 2016 provide further evidence of the financial demands of the campaign.[52]

A medical study of operations in 2015 recorded 209 military and Civilian Joint Task Force casualties treated at a field hospital. Of these, 183 injuries (87.9%) were attributed to enemy fire, while 19 (9.1%) were attributed to friendly fire. The risk of mistaken targeting, as documented by Amnesty International in June 2015, showed allegations of serious violations by Nigerian security forces during the counterinsurgency campaign. Also, in the earlier days of COIN operations, if the Boko Haram insurgents kill one soldier, the military will retaliate by killing more than ten *area boys* in a retaliatory move, usually when the insurgents are long gone into the difficult bushes;[53] civilians therefore suffered retaliatory operations rather than precision-guided air strikes backed by intelligence fixed solely on insurgent groups and locations.

In 2018, some roads under Operation Lafiya Dole, such as Maiduguri-Damboa-Biu, Maiduguri-Bama-Banki, etc., were rendered unusable.[54] The NAF, through unarmed Reconnaissance missions, facilitated the expeditious response of ground troops to threats along this axis and further supported the troops in countering such threats. As a result of these efforts, in March 2018, Roads Konduga-Bama, Bama-Banki and Bama-Gwoza were reopened to commuters after being closed for over 3 years.[55] The Nigerian Air Force, on January 3rd 2018, commenced the provision of extensive air operations in support of the Theatre Command of OPLD's combined clearance

operation into Sambisa, in concert with troops of the Cameroon Defence Forces.[56] As at 26 January 2018, the Air Task Force conducted over 70 airstrikes, 15 Close Air Support, 27 MEDEVAC, 87 ISR, 70 Armed Reconnaissance and Air logistic missions in furtherance of support for troops' ground manoeuvres, leading to the successful clearance of the Sambisa Forest.[57]

By the year 2020, NAF had flown an unprecedented 26,200 operational hours in the counter-insurgency operations in the Northeast, deploying air assets as well as NAF Regiment. The Air Task Force of Operation Lafiya Dole destroyed a *Boko Haram* logistics storage facility and neutralised several of their fighters at Yamud along the Gulumba Gana-Kumshe axis of Borno State. This operation was executed on the heels of credible intelligence reports indicating that the settlement was a stronghold, where the hostile forces store their logistics and assemble to launch attacks. Through the continuous use of aerial surveillance and reconnaissance missions, a significant number of insurgents within the settlement were identified, and some compounds that were being used as storage facilities and meeting venues were hit.

The month of August 2020 saw a series of air strike operations carried out by the Air Task Force, eliminating scores of Islamic State of West Africa Province (ISWAP), which is known to be one of the splinter groups of *Boko Haram* fighters destroyed compounds housing them at Tongule in the Lake Chad area of Northern Borno. The air strikes were conducted following credible Human Intelligence (HUMINT) reports indicating hostile activities in the village. On August 17, the ATF of Operation Lafiya Dole neutralised scores of insurgents and destroyed their hideouts and logistics structures at Tumbuma Baba and Boboshe in Borno State. This was achieved in air strikes executed on the first day of missions of a new subsidiary Operation of the larger Lafiya *Dole,* codenamed "HAIL STORM", which is an air interdiction operation aimed at taking out identified ISWAP and *Boko Haram* targets in the Lake Chad and Sambisa Forest areas of Borno State. The insurgents fled from Tumbuma Baba to Sabon Tumbun due to the impact of the ceaseless air strikes at the former, which was a nearby settlement, as intelligence from HUMINT had shown.

Thus, the Nigerian Air Force fighter jets, close air support jets and helicopter gunships dispatched by the ATF to attack and *recce* several locations in the northeast scored devastating hits on *Boko Haram* settlements in the northeast region, killing several of the insurgents, destroying their structures and resources, thus curbing the progression of insurgency in the area.

Targeted Ground Operations and Implication in the Northeast

The Nigerian Air Force has engaged in ground operations in the Northeast, particularly in the fight against *Boko Haram*. While the NAF's primary role is air superiority and aerial warfare, it has also been involved in combat, single-service roles and support roles, which basically comprise Force Protection and Special Forces operations which all mostly happen on the ground, a responsibility akin to its Regiment. The NAF established and deployed Special Operations Forces (SOF) to conduct ground operations, including base defence, search-and-rescue missions, and counterinsurgency efforts. A case in point is the defence of the NAF Base in Maiduguri, which was attacked by *Boko Haram* in 2013. The failure of the Armed Forces, headed by the Army, to provide the base defence during this attack led to the creation of the NAF Regiment Forces, which has continued to provide defence to all NAF bases in the northeast.[58]

The drive of the Nigerian Air Force to further bridge capacity and capability gaps in the fight against insurgency and armed banditry in the Country has received a fresh boost with the graduation of several batches of Special Forces (SF) and Combat Search and Rescue (CSAR) personnel. The establishment of the Regiment Training Centre (RTC) Annex in Bauchi and the graduation of its students in 2022, comprising 162 students of the SF Course 7/2020 and 41 trainees of CSAR Course 3/2020, further stresses the necessity of boosting counterinsurgency operations through advanced training provided by the Air Force.[59] By 2020, the NAF RTC had graduated nine SF Courses, having conducted 7 SF Courses and 2 SF Instructors' Courses, while the 2020 CSAR Course was the third batch, following the graduation of the second set in May.[60] These specialised courses of the NAF Regiment, as stated by an Army General of Operation Whirl Stroke, were the major reason why, as force commander, he made sure that over 80% of his troops and security aide were coming from the NAF Special Forces and the Navy Special Forces because of the visible expertise these forces had.[61]

Another special training of the Regiment worthy of note to aid the collaboration between air and ground operatives is the Air Ground Integration (AGI). In joint operations, the AGI lectures and training help the pilots to communicate effectively with the Army ground troops specifically, as the pilots find it very difficult to communicate with the ground troops who are not air-minded and not familiar with the terminology used by the pilots. The regiment personnel are thus embedded into the Army ground troops in counterinsurgency operations, especially where

deployment of air platforms will be involved; they are able to communicate and give directions on the ground.

Strategic Attempts to Boost Air Components

To boost the air component in counterinsurgency operations in Nigeria's northeast, the Nigerian Air Force has undertaken several strategic initiatives aimed at improving effectiveness, precision in air combat operations and overall operational capability in counterinsurgency efforts. These efforts focus on the procurement of advanced military hardware to modernise military air assets, improvement in personnel training for pilots, Special Forces and joint armed forces training to enhance coordination with ground forces. Also, the disbursement of funds to aid these infrastructures is rife with counterinsurgency efforts. These attempts are discussed further.

Procurement of Advanced Military Hardware

To boost Air components for seamless operations, the Nigerian Air Force advanced the case for funding to acquire some new platforms to accentuate its capacity for local training and combat air and ground operations in fulfilment of its constitutional mandate to protect and defend Nigeria's territory. As Kotun puts it, this initiative propelled the Federal Government of Nigeria to procure 10 x Super Mushshack fixed-wing trainer aircraft to train new pilots in-country, 4 x Diamond DA 40 and 2 x Mi-35 M helicopters, for combat operations.[62] The Federal government supplemented the growing air assets with over 2 x Bell 412 EP helicopters. These helicopters were reconfigured to perform intelligence gathering and reconnaissance missions, medical evacuation, troop movement and other logistical roles which will aid the operational effectiveness of air components in the counterinsurgency campaigns in the northeast.

Similarly, the newly acquired Mi-35 M attack helicopter has critical upgrades which give it superior combat features over the Mi-24V, which the NAF relied upon for close air support of all ground forces as part of strengthening inter-agency collaborations. Also, the installation of executive seats on the C-130 aircraft,[63] 10 x Pakistan Aeronautical Complex aircraft in 2018, 3 xJF-17 Thunders and a return of 15 previously grounded aircraft to service with the help of foreign technical assistance teams.[64] Some of these newly added platforms are equipped with night operations capability, possessing night vision goggles and a higher-performance glass cockpit

display, which improve the impact of air offensive and defence operations. As Jeff Zani puts it, the possession of night vision goggles, the installation of advanced high-definition cameras with control vans and a Mikano generator installed, which provides 24-hour surveillance of a theatre of operation, which observed and surveyed targets in real time which were not visible to the human eye, thereby forming a blind spot, gave operational advantage to his operation. The presence of this advanced military hardware and equipment served to curb the casualties that could result for operational personnel in the field and also guard against civilian casualties.[65]

Improvement in Personnel Training

Training establishments in Nigeria for the Armed Forces include the Nigerian Defence Academy at Kaduna, the Armed Forces Command and Staff College, Jaji, and the National Defence College at Abuja, which is the apex military training institution for the armed forces.[66] While specifically for the Nigerian Air Force, such establishments are the Flying Training School, Regiment Training Centre, Ground Training Centre, Helicopter Group, Logistics Group and Special Operations Command for training in operational strategy and tactics needed in fighting.[67] The two major fighter training arms of the Air Force include the Pilots Training and Regiments Training. As asserted by Kotun, pilot training in the Nigerian Air Force came to a standstill in 2010, contrary to the primary function of the 401 Flying Training School (FTS) was to carry out ab initio flying training which was meant to equip pilots from the foundation on the rudiments of flying, rather the 401 undertook screening Student Pilots shortlisted for primary training outside of the Nigerian Air Force.[68]

In December 2016, the NAF received four Super Mushshak aircraft, officially handed over and inducted into the NAF fleet at the 401 FTS in Kaduna. The Pakistani Chief of Air Staff, Air Chief Marshal Sohail Aman, and the NAF Chief of Air Staff, Air Marshal Sadique Abubakar, attended this event. Also, the Diamond DA-40 and DA-42 aircraft were incorporated into the training program and were upgraded from a grossly inadequate 3 in number to 15 aircraft of the DA-40 sort during the Air Marshall Sadique Abubakar administration.[69] By 2020, the school had graduated multiple batches of student pilots, training over 145 pilots in primary flying training in a space of five years after it was revived, contributing to the NAF's efforts in addressing security challenges across the country.[70]

For the training of the ground forces of the NAF, the Regiment Training Centre is responsible for this, and comprises departments such as Military Training, Force Protection, Special Operations and the Regiment Training Centre Annex in Bauchi, where special forces training is conducted.[71] Regiment training boomed during the administration of Air Marshal S.B. Abubakar. The *Boko Haram* attack on the NAF Base in Maiduguri in December 2013 gave birth to the training of the regiments with advanced weapons. This attack led to two helicopter platforms being burnt on the ground and three decommissioned military aircraft being incapacitated.[72] This necessitated the Nigerian Air Force to invest in the training of its own regiment, and since then there has not been a successful attack on the NAF base in the northeast.
Also, the enhanced training of the Regiments in Force Protection in Complex Air Ground Environment (FPCAGE) has significantly increased the security of the military bases in the northeast. The Regiments provide this kind of training because of the threat from the LTTE (Low Tech Threat Environment) along the runway; the insurgents could take advantage of this to wait at the runway since aircraft are vulnerable during egress and ingress, and attack the aircraft. The regiments therefore are responsible for clearing several kilometres from the runway to deter any possible threats on the ground so that no MANPADS (Man-Portable Air Defence System) by belligerents would be able to bring down an aircraft.[73]

Challenges Facing Air Operations in the Northeast

While air operations have been critical to the success of counterinsurgency against *Boko Haram* in the northeast, the Nigerian Air Force faces several challenges which have threatened the effectiveness and objectives of its operations in the region. The significant challenges are analysed.

Inadequate Training in Counterinsurgency Warfare

Counterinsurgency operations are asymmetric warfare. Training in asymmetric warfare is quite peculiar and a deviation from the training norm obtainable in conventional warfare training and strategy. It is important to note that the success of air component operations against insurgency requires specialised training, joint training and exercises with other relevant security agencies and not just a single-service training or operation.[74] However, within the study period, there was little such specialised training or joint exercises conducted. For instance, according to a report from the Directorate of Training HQ NAF, between 2015 and 2019, which characterised an increase in involvement in NAF counterinsurgency operations, less

than 12 per cent of her training activities was devoted to counter terrorism or counterinsurgency training by some operational units.[75] Within the same period, joint training and exercises with other security agencies had less than 7 per cent of the total training activities conducted. This low level of training in some NAF units has revealed the inadequacy of asymmetric warfare training for the NAF personnel, with its attendant consequences on inadequate performance of the air component in ongoing counterinsurgency operations in the northeast.

For instance, the unfortunate Army drone misfire which led to a casualty of over 71 persons in Tudun Biri, Kaduna on December 3, 2023[76] is a case in point which highlights the significance of specialised and joint training of the Armed Forces. Such training will promote a value for each service's operational capability rather than presuming to operate independently even beyond the confines of primary roles.

Although NAF is doing much in the training of its pilots and regiment personnel in counterinsurgency operations, with emphasis on training both in-country and abroad, such as Special Forces and pilots' advanced training in Egypt, Israel, Pakistan, the UK, South Africa, and Belarus, and also training instructors brought in from foreign nations to train the nation's forces, thus, by reason of this training, far more successes were recorded between 2015 and 2019. However, training was watered down due to stereotypes, prejudices and sometimes military bureaucracy experienced in the leadership structure of the Armed Forces, with the Air Force not left out of this at the close of 2019, which was rounding up the administration of Air Marshall Sadique Abubakar. This is due to a lack of funds, provision of training aids/kits and also incentives for training instructors, which will go a long way in aiding their commitment and morale on the job, especially when instructors need to engage in extreme physical activities for effective comprehension by students.

Inadequate Platforms and Low Serviceability of Platforms

The effective performance of NAF in counterinsurgency operations is hindered by an inadequate number of platforms and military hardware such as fighter jets, helicopters, UAVs, missiles and combat weapons. Nigeria possesses a land mass of 923,768 square kilometres; thus, the country requires a large number of fleets to effectively survey its territory and detect insurgents' hideouts and movements, which are not usually coordinated. Air Marshall S.B. Abubakar's administration as Chief of Air Staff connoted a period of remarkable successes against insurgency, as more advanced weapons were purchased during this period. Before this period, the Nigerian Air Force had only FN rifles and G-3, which are outdated weapons not able

to effectively engage the insurgents. The addition of advanced weapons to the NAF military hardware by CAS Abubakar from 2015 included the CAK-103, M-96, ARN-T5 assault rifle, Tavor assault rifle, Alexander sniper weapons, etc.[77] However, from 2020, the inventory of NAF aircraft began to spiral downwards. As surmised by Prayero,[78] the total number of Mi-35P/M and the Super Puma aircraft fleet is just slightly under 10, with the carrying capacity of either aircraft able to airlift only approximately a section of men. Samaila, in the same vein, stresses that the Air Force would require a minimum of 12 helicopters in the class of the Super Puma alone to be able to adequately determine the positive outcome of counterinsurgency operations with air components.[79]

Nigeria's foreign policy also affects the outcomes of the serviceability of previously acquired platforms, the purchase of new military hardware, as well as training in counterinsurgency operations. This is because Nigeria stands non-aligned to any of the foreign power blocs of the West or the East, which has an implication for national defence and security, vis-à-vis counterinsurgency operations in the northeast. The various training of its forces in various world nations creates a multiplicity of doctrines, which constrains the armed forces from enforcing a general doctrine which can be consolidated in consonance with Nigeria's geo-strategic environment and foreign policy. Some platforms in Nigeria have been grounded due to non-serviceability or replacement of those platforms, as the nations from which Nigeria got them have not provided the expected support to Nigeria. For instance, some Russian-based aircraft have not been serviced due to Nigeria's stance of non-support for the Russian war in Ukraine.

From 2015 to 2021, Operation Hadin Kai, especially its preceding operation, suffered marginal losses associated with air and ground combat. One Alpha Jet, two Mi-35Ps, two Chengdu F-7 Nis, about two Mi-17s, one A109LUH, among others, have been destroyed by accidents or shot down on battlefields.[80] In 2019, one Mi-35M was lost with all five crew members due to an anti-aircraft attack, where *Boko Haram* insurgents shot down the aircraft during a close air support mission of Hadin Kai.[81]

Conclusion

Counterinsurgency operations only continues to persist as long as insurgency activities and attacks continue to remain rife. The Nigerian Air Force counterinsurgency operations in the northeast states of Adamawa, Borno and Yobe have achieved remarkable successes, though its successes have continued to dwindle as a result of the impact of a series of challenges within the study period of

2013 to 2021. Such hinderances to its successes have been due to different administrations both at the military and civil levels, the changing dynamics and patterns of attacks by the insurgents and the adverse impact it has on the lives of the population that make up the various counterinsurgency theatres. The objectives of training and the acquisition of advanced military hardware, particularly from the year 2015, have significantly impacted on suppressing and, in some territories, totally curbing of the activities of insurgencies through successful airstrikes and ground operations. The rise in pilot and regiment training has not only led to the achievements the Air Force attained in single-service operations in the study area, but also in joint service operations. However, the strategic attempt to boost the air component has been watered down due to burgeoning challenges which continue to debilitate counterinsurgency operations, such as the low serviceability of military platforms, inadequate joint training and exercises with other security agencies. Some remote challenges also include existing prejudices and biases giving superiority and accolades to one service over the other, which can threaten the morale of forces, limited awareness of civil-military relations on both sides and inadequate armed UAVs (drones) to reduce the cost of loss of human resources.

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