

The



# Airmen

MAGAZINE OF THE NIGERIAN AIR FORCE

Vol 26

Jan - Apr 2019



Attaining New  
**HEIGHTS:**  
REACHING FURTHER





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# **GOODWILL MESSAGE**

## **CDS**

# *Goodwill Message*

from



**The Chief of Army Staff**

**LT GEN TY BURATAI** NAM OMM (BR) GSS psc(+) ndc(BD) FCMH FNHAM BA (Hons) MA Mphil

I am delighted to be associated with this special edition of the Airman Magazine, an in-house publication of the Nigerian Air force (NAF). The publication is timely since it serves as an authentic medium for information dissemination and public enlightenment on the NAF's activities, particularly as it marked its 55th Anniversary.

Indeed, the focus of this special edition on the 55th Anniversary has underscored the compelling need to have a platform through which the NAF would tell its stories. I have no doubt that this edition will serve as a worthy platform for information dissemination to members of the general public as we collectively confront and combat the numerous security challenges and criminalities we face today. The resolve to be professional can only be effectively enhanced through constant training and retraining. I therefore urge the NAF to sustain its well-known high standards of discipline and vigorous training while conforming to international best practices in all tasks when and wherever assigned.

On behalf of officers and soldiers of the Nigerian Army, I applaud the indefatigable Chief of the Air Staff, officers and men of the NAF for this noble initiative which will go a long way towards projecting the image of the Service. This magazine will in no small way positively showcase some landmark innovations, activities and achievements recorded by the NAF. It will be a medium through which the air force will communicate its renewed commitment as we collectively march forward to confront the challenges confronting our nation.

Finally, I commend the editorial board for packaging this special edition of the Airman Magazine. I also look forward to more publications of the magazine in the future.

Once again, congratulations!!!

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## VISION

“To reposition the NAF into a highly professional and disciplined force through capacity building initiatives for effective, efficient and timely employment of air power in response to Nigeria's national security imperatives”.

Air Marshal SB Abubakar DFS GSS psc(+) fwc fdc(+) MSc

## KEY DRIVERS

- Human capacity development through robust and result oriented training for enhanced professional performance.
- Robust logistics support and maintenance culture to sustain platforms and equipment serviceability.
- Reinforce a culture of self-reliance and prudent management of resources.
- Strategic partnerships with MDAs for enhanced research and development.
- Promote and inculcate the core values of integrity, excellence and service delivery.
- Focus on comradeship, regimentation and inter-Service cooperation.

# NIGERIAN AIR FORCE

*Willing Able Ready*

*From the Desk of  
the Chief of the Air Staff*



AIR MARSHAL

**SB ABUBAKAR** DFS psc (+) fwc fdc (+) MSc

I am most delighted to welcome our valued readers to another edition of the Airman Magazine, the fourth since my assumption of office as the 20th Chief of the Air Staff in July 2015. It may be recalled that the last edition of the Magazine brought to the fore some modest achievements recorded by this administration. Since that publication, the Service has equally witnessed many more developmental strides. However, this edition of the Airman Magazine is uniquely significant because it marks the 55th Anniversary of the Nigerian Air Force (NAF) as a professional force projecting air power, both within and outside the Country, in defence of Nigeria's territorial integrity while also providing assistance to civil authority, when called upon. As we commemorate this landmark Anniversary, we would also be opportuned to assess our stewardship of the Service over the past 4 years.

Upon assumption of office, I articulated my Vision for the Service, which is; "To reposition the NAF into a highly professional and disciplined force through capacity building initiatives for effective, efficient and timely employment of air power in response to Nigeria's national security imperatives". The Vision is anchored on 6 Key Drivers focused on: Human Capacity Development; Robust Logistics Support; Reinforcement of Culture of Self-Reliance and Prudent Management of Resources; Strategic Partnerships with MDAs for Enhanced Research and Development; Promotion and Inculcation of NAF Core Values as well as Comradeship, Regimentation and Inter-Service Cooperation. From the outset, I realized that the Service could not be properly repositioned in line with my Vision if it did not have the right structure, right manpower disposition, right equipment holding as well as the

appropriate welfare incentives for the personnel. Accordingly, we took steps to address these fundamental areas.

The desire to have the right structure occasioned an organisational expansion which entailed the unbundling of the erstwhile Training Command (TC) into 2 new Commands, namely; Ground Training Command (GTC) and Air Training Command (ATC), as well as the establishment of the Special Operations Command (SOC) along with its component units, amongst other major structural changes. Similarly, the quest for the right manpower disposition necessitated an increase in recruitment, which has led to the enlistment of 7,693 airmen/airwomen and commissioning of 669 officers over the last 4 years, to meet the manpower needs of the new structure by appropriately manning the newly created units to enable them adequately respond to security challenges in the Country. I must mention that another 206 Direct Short Service Commission (DSSC) officer cadets are currently undergoing training in Kaduna and we are on the verge of recruiting an additional 2,000 airmen/airwomen. To cater for these increases in recruitment, the facilities at the Military Training Centre (MTC) in Kaduna had to be expanded over the years to allow for the training of up to 2,500 personnel as against the previous capacity for just 500 per training cycle.

The need for the right equipment and more serviceable platforms is gradually being met with the gracious support of the Federal Government through the acquisition of 18 brand new aircraft as well as the provision of resources and logistics support that facilitated the reactivation of 13 other aircraft, with another 8 expected to come on stream soon. The reactivated aircraft have since been deployed to the Northeast and other Theatres to add impetus to the fight against insurgency and other threats, while others would also be available for deployment, upon completion of their overhaul, to enhance NAF's operational efficiency in the discharge of its constitutional roles. The Federal

Government has also ordered 22 additional new aircraft, which include 12 Super Tucano attack aircraft, an additional Mi-35M helicopter gunship as well as five other helicopters – 4 Agusta 109 Power attack helicopters and one Agusta 139W utility helicopter. Others are 3 JF-17 Thunder Multi-role fighter aircraft and a special mission aircraft recently ordered to enhance surveillance of Nigeria's maritime environment. This would bring the number of brand new aircraft acquired for the NAF by the current administration to an unprecedented 40; the largest of any administration since the President Shehu Shagari era. In the same vein, the imperative for the right welfare incentives has been met by the building and furnishing of new office and residential accommodation as well as renovation of some existing ones along with the establishment of new hospitals, equipment and infrastructure upgrades in our existing medical facilities as well as the establishment of new schools and expansion of existing ones in many NAF locations.

In continuation of these strides, we have, since the last edition, taken steps to further improve in our major areas of focus, especially in the area of human capacity development. It is gratifying to note, in this light, that many personnel have been trained both locally and abroad. This is aimed at developing competencies and skills across all NAF specialties, in order to make them more effective in ensuring the security of Nigeria and Nigerians. In particular, the NAF has trained personnel in different categories of aircrew functions. It is instructive to state that the Service has winged 92 pilots in the last 4 years while about 1,500 re-currency/advanced flying training courses have been conducted for NAF pilots, both locally and abroad.

The last 4 years of directing the affairs of the Service have undoubtedly been very challenging due to the numerous security issues we have had to grapple with as a Nation. However, in spite of these daunting security challenges, the NAF, working with sister Services and other security agencies, has continued to fulfil its constitutional mandate of ensuring security of our dear Nation. Our resolve and determination to rid the Nation of criminal elements and ultimately restore normalcy, especially in the Northeast and Northwest, is on course. To this end, in the past 4 years, we have made remarkable progress and recorded significant achievements in the fight against terrorism, insurgency and other forms of criminality in the Country. I must therefore appreciate the commitment of our gallant officers and airmen/airwomen who fight day and night to ensure peace and stability in our Nation.

Under my watch, the maiden edition of the International Air Power Seminar was organized by the Service. The Seminar provided a forum for experienced practitioners of air power across the globe to interact with their NAF counterparts on how to maximize air power in dealing with irregular warfare threats in the Country. The Seminar, I must confess, lived up to its billing as some of

the far-reaching resolutions have been implemented and have indeed started yielding tangible results. Furthermore, we have continued to enhance our Regiment and Special Forces (SF) capabilities with additional training and equipment to improve operations in the fight against insurgency and other forms of criminality, while also boosting our Base Defence and Force Protection capability. In this regard, about 4,000 Regiment and 1,000 SF personnel have been trained both locally and abroad in the past 4 years and we now have elements deployed in 14 States of the Country, especially in the Northeast and Northwest. With all of these remarkable achievements, just within the space of about 4 years, I am certain that you will better appreciate the trajectory of the NAF in "**Attaining New Heights**" and yet "**Reaching Further**" in its quest to discharge its statutory role of defending the territorial integrity of the Country.

The foregoing achievements would not have been possible without the unflinching support, enabling environment and resources provided by the Federal Government under the able leadership of the Commander-in-Chief of the Armed Forces of Nigeria, President Muhammadu Buhari GCFR. In the same vein, I wish to also express the profound gratitude of officers, airmen/airwomen of the NAF to the Honourable Minister of Defence, Mansur Dan-Ali, for his strategic guidance, while also appreciating members of the National Assembly, especially the Senate and House Committees on Air Force, as well as other stakeholders for supporting the NAF in the progress so far made.

Regrettably, between the last edition and now, we have lost some of our gallant officers and men who paid the supreme price in the line of duty while defending our Nation. I want to assure you that their selfless sacrifices and gallant efforts at keeping Nigeria as one indivisible entity will never be in vain. We will continue to remember and honour our fallen heroes while sustaining the NAF tradition of taking care of their families.

I want to assure all Nigerians that the NAF, functioning in synergy with other Services and security agencies, will continue to work assiduously towards peace and security in the Northeast, Northwest and all other parts of the Country where security challenges exist. As we celebrate yet another milestone in our professional Service, let me use this opportunity to also congratulate us all on this auspicious occasion and for the great feats achieved in the last 55 years!

Let me conclude by expressing my appreciation to the Airman Editorial Team for their untiring efforts to come out with yet another well-packaged edition of this publication. I enjoin you to please keep up the good work.

Finally, it is with great delight that I once again welcome our esteemed readers to this 55th Anniversary edition and wish you all happy reading!

# **GOODWILL MESSAGE**

## **CNS**

GOODWILL MESSAGE FROM

**Ag IGP MOHAMMED ABUBAKAR ADAMU, NPM, mni**  
INSPECTOR GENERAL OF POLICE  
FEDERAL REPUBLIC OF NIGERIA



**O**n behalf of the entire officers of the Nigeria Police Force, I wish to express my heartfelt congratulations to the Chief of Air Staff, Officers and Airmen of the Nigerian Air Force, on the occasion of its 55th Anniversary.

The Nigerian Air Force has over the years grown to maintain remarkable resilience in protecting the Nation's vast air space and fighting crimes alongside the Nigeria Police Force and other security agencies. It has effectively curtailed the increasing sophistication of criminal activities, especially in the troubled North-Eastern and North-Western parts of the country.

As an arm of the Nigerian Armed Forces, it has been discharging its constitutional responsibility of protecting Nigeria from both internal and external aggression, while at the same time, ensuring sustainable peace and

stability through active operations in regional and global peace support missions.

It has recorded so many firsts in its operational mandate, in particular the suppression of the insurgency in the North East and uncommon collaboration with the Nigeria Police Force in joint operations of fighting kidnapping, cattle rustling and other crimes in parts of the country.

Let me commend the successive visionary leadership of the Nigerian Air Force for its gallantry, patriotism and sacrifices. And also note that their dedication to the service of our fatherland is an invaluable contribution to the outstanding growth witnessed by the Nigerian Air Force.

Once again, congratulations! We wish you happy and rewarding celebrations!

*From the Editor-in-Chief*

Air Commodore

**Ibikunle Daramola** DSS psc(+) nswc MSc

Director of Public Relations and Information

**I**t is with great pleasure that I welcome our highly esteemed readers to the 27th edition of the Airman Magazine, your veritable companion for information about the Nigerian Air Force (NAF). This edition, being the first since my appointment as Director of Public Relations and Information (DOPRI), promises to be more informative and educative while consolidating on previous publications. The 27th edition of the Airman Magazine coincides with the 55th Anniversary of the NAF which was established in April 1964 by an Act of Parliament. Over the years, the NAF has evolved, under the leadership of 19 different foreign and indigenous Service Chiefs, into a highly respected professional air force. Indeed, the NAF is reckoned with, in Africa and globally, for projecting air power beyond the shores of Nigeria in furtherance of national and regional security imperatives.

The current NAF leadership, under the headship of Air Marshal Sadique Abubakar, the 20th Chief of the Air Staff (CAS), is driven by a Vision to reposition the NAF into a highly professional and disciplined force. The dogged determination of the CAS to achieve this vision, over the last three and a half years, has resulted in giant strides in the areas human capacity development, logistics support as well as research and development. Other areas of remarkable accomplishment include acquisition of new platforms, reactivation of moribund aircraft as well as development of infrastructure in NAF Bases across the Country. All of these laudable advances have contributed immensely to restoring the past glory of the Service and indeed taking it to new heights. Notwithstanding these successes, the NAF is still striving to reach even further.

This 27th edition is therefore aptly titled “Attaining New Heights: Reaching Further”. In it we bring to our readers reports on some of the most recent achievements of the current NAF leadership, including some thought-provoking and stimulating highlights of the maiden NAF International Air Power Seminar. The 3-day Seminar, with the theme; “Air Power in Irregular Warfare: a Framework for Understanding and Responding”, attracted a large turnout of subject experts from over 20 countries, who shared their experiences in the employment of air power in combating insurgency. It was indeed a huge success. The display of air power capability by the NAF during Nigeria’s 58th Independence Anniversary Celebration is also featured in this edition. Sadly, the Service lost one of its brilliant and experienced fighter pilots, Squadron Leader Bello Mohammed Baba-Ari, during the rehearsals for the aerial display in Abuja. Accordingly, this edition includes a tribute to the late senior officer, who has already been honoured with the naming of a Pilots’ Crew Room Building in Maiduguri and a Block of Officers’ Accommodation in Abuja after him. The tribute was penned by one of his colleagues.

This edition also captures the CAS’ Awards Night 2018, which was organised to honour the late 5 crew members of the Mi-35M Helicopter that crashed in Damasak on 2 January 2019, while providing close air support to troops of 145 Battalion. Thirteen other deserving NAF personnel and civilians who distinguished themselves in their areas of responsibilities in

the course of the year as well as retiring officers of air rank who had served the Nation meritoriously were recognised and appreciated.

Some thrilling moments of the decoration ceremony of newly-promoted senior officers and 4 exceptional Senior Non-Commissioned Officers (SNCOs) to Flight Lieutenant are also highlighted. In addition, the unprecedented level of aircraft reactivation by the current NAF administration for operational effectiveness does not go unnoticed in this edition. The NAF, with the assistance of the Federal Government in providing the needed resources has taken a quantum leap in the reactivation and acquisition of new platforms as well as research and development which has greatly bolstered the Service’s capability in the fight against insurgency and other forms of criminality in the Country.

As part of the strategic partnership with other air forces to further boost its operational capabilities and capacity development, the CAS recently travelled to some friendly countries with which Nigeria enjoys bilateral relations. In all these visits, the NAF stands to benefit greatly in the areas of training as well as maintenance and logistics support, among others, for enhanced professional performance. In the area of personnel welfare, more office and residential accommodations have been built across NAF units, with many more personnel now comfortably accommodated. Our Hospitals and Medical Centres have been further upgraded with state-of-the-art equipment, while recreational facilities for enhanced physical fitness of personnel have been provided in more NAF locations.

Aside the educative and informative articles for the delight of our valued readers, this edition also features a lecture titled “The Future of Air Warfare in the Nigerian Air Force: My Vision”, delivered by the CAS at the Armed Forces Command and Staff College, Jaji for students of Senior Course 40. As customary, we also present news stories on activities from the various NAF Commands along with coverage of medical outreaches conducted by the NAF in some parts of the country to alleviate the plight of host communities and internally displaced persons, in furtherance of its role of promoting good civil-military relations. The NAF has undoubtedly attained new heights as it celebrates its 55th Anniversary and is undeniably reaching further for more glorious achievements in the years ahead.

Let me, on behalf of the Editorial Team, thank the CAS for his enormous support in making this edition of the Airman Magazine a huge success. Also, I want to thank our highly respected readers and advertisers for their unalloyed support over the years and for believing in us. I wish you all happy reading.

# *Goodwill Message*

from



## **THE CHIEF OF DEFENCE INTELLIGENCE**

**AIR VICE MARSHAL MS USMAN** DSS psc(+) fdc(+) BSc MSc

The Nigerian Air Force is the ultimate portrait of the future of the Armed Forces of Nigeria. Proud, confident, forward thinking, innovative, dependable, diligent and dedicated. The only Service to have been conceived by an independent Nigeria, our Air Force stands tall amongst its peers for all the right reasons. This is due in part to a culture of excellence that was thrust upon the men and women that began the Nigerian Air Force, a gold standard that has been delicately nurtured and passed along to succeeding generations by a combination of outstanding leadership and an obsession for being the best. I am honoured to be part of this remarkable heritage.

An astonishing heritage that includes participating with distinction in all major military campaigns Nigeria has been involved in. At its infancy, Nigerian Air Force pilots, engineers and technicians showed their mettle in the endeavour to preserve Nigeria's unity during the civil war. Thereafter, the Air Force's extraordinary expeditionary missions ensured operational success in our campaigns in Liberia and Sierra Leone. Most importantly, the heroism and sacrifices of our officers, airmen and airwomen in Operation Zaman Lafiya and Operation Lafiya Dole have contributed significantly to our national enterprise to defeat terrorism and preserve the safety and security of our people. The

Nigerian Air Force has recognized that it must prepare for future contingencies even while actively resolving today's challenges. It has thus expanded its focus to encompass relevant developments in the air and cyber domains, as well as the special operations spectrum to enable it protect its increasing capacity to project air power in the ever evolving battle space. Already, the amazing feats of today's Nigerian Air Force leadership are laying a solid foundation for tomorrow's air warfighters through a well-articulated vision and execution guided by prudent utilization of resources. I am thus assured that the Nigerian Air Force would remain the quintessential source of security and pride to the people of Nigeria. I am also confident that our upcoming men and women will continue to honour the Air Force and the country with their service.

At 55 years old, the Nigerian Air Force's history is the shortest amongst the Services. Nonetheless, it is also the success story worthy of the most celebration. Therefore, on behalf of the Intelligence community, I offer our congratulations to the leadership, officers, airmen and airwomen of our esteemed Air Force. We thank you for your exemplary service, and we wish you an exceptional future of preserving the security and prosperity of our great nation.



# Goodwill Message

from



Air Vice Marshal

**LS ALAO** GSS psc(+) fdc(+) MBA MSc mnim mcips  
**COMMANDANT**  
**ARMED FORCES COMMAND AND STAFF COLLEGE**

I am delighted to extend my goodwill in this special edition of the Airman Magazine published to mark the Fifty Fifth Anniversary of the Nigerian Air Force (NAF). It undoubtedly, provides me with a platform to felicitate with the Chief of the Air Staff (CAS) and indeed the entire NAF Family for the outstanding achievements recorded in the employment of NAF assets towards the defence of Nigeria's territorial integrity. Pursuant to the CAS' Vision, the NAF is being repositioned into a highly professional Force capable of effective and timely employment of air power in response to Nigeria's national security imperatives. To this end, the NAF has made giant strides in projecting both soft and hard air power while collaborating with other Services and relevant agencies. In the first instance, the NAF has achieved enviable milestones in human capital development, including pioneering research in avionics and fostering the development of indigenous aeronautics technology. The Service has also undertaken several humanitarian endeavours such as medical outreaches, support to displaced persons and aid to civil authority. All these efforts are certainly well appreciated by the thousands of people that have benefitted immensely from the gracious actions and gestures of the NAF.

The last 10 years have been quite challenging for Nigeria, considering the plethora of security threats that have besieged the country, which threaten our fledgling democracy, national identity and collective existence as a sovereign nation. It is gratifying to note that the NAF has risen to the occasion by enhancing its combat effectiveness and operational capacity to eliminate these threats to national security in synergy with other institutions. The NAF has acquired and reactivated several platforms which are being deployed across the country for training and

operational purposes. It has equally developed and adapted several air platforms, devices and weapons systems in its quest to project air power in the North East and other theatres of operations.

The foregoing epitomizes the NAF's commitment to its overarching mission of ensuring the integrity of the Nigerian airspace while retaining a credible capacity to fulfill other air power tasks as mandated by national defence and security needs. Also impressive is the NAF's engagement in the deepening of democracy, particularly through the distribution of electoral materials across the nation, even at very short notice. These commendable achievements are undoubtedly driven by the commitment of its officers and men who are working tirelessly to herald a new vista in the Service. Undoubtedly, the NAF has done very well in this dispensation and I must say it is a pride to an Airman. The Airman Magazine has always showcased and chronicled the activities and achievements of the Service, as well as the personnel working assiduously behind the scene to make it all happen. I therefore commend the efforts of the Editorial Team and indeed, every contributor for producing such excellent work.

On behalf of the staff and students of the Armed Forces Command and Staff College, I once again offer my hearty congratulations to the CAS and personnel of the NAF on the occasion of the Fifty Fifth Anniversary publication. I also wish to use this opportunity to express our sincere appreciation to the CAS on the massive support the College is receiving from the NAF even as I restate our commitment to producing well-trained military personnel who are willing, able and ready to utilize their professional knowledge for the security and defence of our great nation. Please accept the assurances of my highest considerations and best wishes.

# RECOUNTING THE GAINS

## NIGERIAN AIR FORCE INTERNATIONAL

# AIR POWER SEMINAR 2018



*Flt Lt O Lawal*

The first-ever International Air Power Seminar may have come and gone, but its gains illuminate beyond the shores of the African continent. Over 20 countries from different regions of the world took part in this remarkable 3-day gathering of think-tank of air power. They all came together to share their experiences on the employment of air power in combating irregular warfare. Countries such as Jordan, Saudi Arabia, Pakistan and others, which have been conducting counter-insurgency operations for decades, were able to share some of the techniques they have been employing in the fight, which have helped such countries to contain the ugly trend. It is never surprising that the Nigerian Air Force (NAF), which is always seeking to maintain a strategic advantage over the enemies of the Nigerian state, through the evolution of new strategies for the employment of Air Power, would organise an international air power seminar of this magnitude. The theme of the Seminar

was "Air Power in Irregular Warfare: a Framework for Understanding and Responding." Apart from the international delegates, who graced the occasion, the presence of the Commander-in-Chief of the Nigerian Armed Forces, President Muhammadu Buhari, Members of the Federal Executive Council of Nigeria, security experts, defence attachés as well as retired and serving Nigerian military officers, added the much-deserved abeyance and colour to the event, which took place at the NAF Officers' Mess and Suites, Kado, Abuja from 19 to 21 November, 2018.

The epoch-making event featured 10 presentations in five sessions from countries with similar threat situations and two specialists. The presentations were followed by open and candid discussions by experienced minds who were present throughout the three days of the Seminar leading to the articulation of practicable resolutions to identified gaps which



The President, Commander-in-Chief of the Armed Forces, Federal Republic of Nigeria, Muhammadu Buhari (middle front row) in a group photograph with other dignitaries at the NAF International Air Power Seminar 2018



President Muhammadu Buhari delivering his keynote address during the NAF International Air Power Seminar 2018

can be referred to as the gains of the NAF Maiden International Air Power Seminar. Some of these resolutions include the need to employ a whole of government approach in the fight against insurgency; sustenance of Civil Military Cooperation and Civil Military Relations efforts in order to win the hearts and minds of the population; sustenance of investment in the welfare of officers and men to enhance operational efficiency; and the sustenance of research and development (R&D) efforts towards developing or enhancing military industrial complexes. Other resolutions include the need for Governments and Armed Forces to adopt measures to deny adversaries the use of the cyber space to generate and disseminate fake and deep fake news and the need for Air Forces to improve on intelligence gathering as a critical capability in irregular warfare and many others.

While declaring the Seminar open, President Muhammadu Buhari, who was the Special Guest of Honour, commended the

leadership of the NAF for bringing together Air Power practitioners from all over the world to Nigeria to discuss and find practical ways to reinvigorate the fight against insurgency.

He particularly noted that the Seminar was quite timely, in that, since the outbreak of the Boko Haram crisis in the Northeast of Nigeria, the NAF and, indeed, the Armed Forces of Nigeria have been engaged in conducting counter insurgency operations that have challenged the Services' doctrine, tactics, training, Order of Battle and Force Protection architecture. According to him, "Seminars like this are necessary for Armed Services like the NAF to draw from the experiences of other armed forces that have either previously or are currently engaged in counter insurgency operations". The President, who used the opportunity to canvass for the "whole of nation approach" for a successful counterinsurgency operation, noted that there must be unity of efforts across Ministries, Departments and Agencies (MDAs). Immediately after declaring the event open, the President, in company of other dignitaries, toured the historical photo gallery, which displayed pictures showcasing the activities and the achievements of the NAF over the years.

In his comments, the Honourable Minister of Defence (HMOD), Mansur Dan-Ali, who was also present at the opening ceremony of the Seminar extolled the contributions of the NAF to the defence of the territorial integrity of Nigeria, while noting that the Ministry of Defence (MOD) was not unaware of both the kinetic and non-kinetic efforts the NAF has been expending in support of the counterinsurgency operations which have been instrumental to curtailing the insurgents and making life more meaningful for the victims. The HMOD seized the opportunity to reaffirm the readiness of the Ministry to continue to ensure the optimum utilization of resources in the procurement of equipment and other requirements for the Services in prosecuting the counterinsurgency operations. He also used the opportunity to thank all officers, airmen and airwomen of the NAF for the consistent and professional manner in which they have been handling all the operations in which they are involved. He added that the International Air Power Seminar perfectly fits into the MOD's vision of ensuring synergy and cooperation, not just within the Services but across MDAs, in support of the nation's political objectives.

The Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, who was the chief host, stated that the hosting of the maiden edition of the NAF International Air Power Seminar was necessitated by the security situation in Nigeria, the rapidly changing dynamics in the international arena and the evolving approach to warfare which require careful understanding of the threats and response options available for the projection of Air Power in addressing National Security imperatives. According to him, the changing character of warfare has emphasized the need for a change in the way armed forces approach warfare engagements. "While the engagement in conventional or regular warfare remains a possibility, the global predominant threat to nations has become more irregular in nature", he added. Air Marshal Abubakar took the opportunity to thank the Federal Government of Nigeria for creating the enabling environment for the enthronement of professionalism in the Service which, he affirmed, has led to enhanced operational effectiveness as well as the optimization of local technology through R&D.





President Muhammadu Buhari GCFR (middle), the Minister of Defence, Mansur Dan-Ali and Chief of the Air Staff, Air Marshal Sadique Abubakar on arrival at the NAF International Air Power Seminar 2018



Cross section of dignitaries at the NAF International Air Power Seminar 2018



Cross section of some foreign dignitaries during the NAF International Air Power 2018



Cross section of some participants during the NAF International Air Power Seminar 2018



Brigadier General Sayem Olayyan Alharbi of Royal Saudi Air Force, presenting a paper at the NAF International Air Power Seminar 2018



Cross section of participants during the Seminar



Air Vice Marshal Olufemi Faloyin(retired) rounding off the interactive session of papers 7 and 8 during the NAF International Air Power Seminar 2018



Cross section of representatives of some invited foreign Chiefs of the Air Staff during the NAF International Air Power Seminar 2018 held in Abuja



The Vice Chief of the Air Staff Pakistan Air Force, Air Marshal Aasim Zaheer responding to a question during the Seminar



The Chief of the Air Staff, Air Marshal Sadique Abubakar presenting a memento to the Special Guest of Honour, President Muhammadu Buhari at the Seminar



President Muhammadu Buhari being conducted round the Historical Photo Gallery display at the Seminar



President Muhammadu Buhari being conducted round the Historical Photo Gallery display at the Seminar



The former Chief of Defence Staff, Air Chief Marshal Oluseyi Petinrin admiring his pictures on display at the Historical Photo Gallery.



Some invited foreign Defence Advisers being conducted round the Historical Photo Gallery.



The Chief of the Air Staff presenting a souvenir to Air Cdre Ozkan Edip Akgulay



The Chief of the Air Staff, Niger Republic, Colonel Boulama Issa fielding questions from news men while the Chief of the Air Staff, Air Marshal Sadique Abubakar looks on



The Atilogwu Cultural dancers doing what they know how to do best



The Akwa-Ibom Ekemini Cultural Troupe performing during the NAF International Air Power Seminar Cultural Night



The Tiv Cultural Troupe on display



The Chief of the Air Staff, Air Marshal Sadique Abubakar in a warm handshake with one of the invited guests during the Cultural Night



The Chief of the Air Staff, Air Marshal Abubakar with one of the invited guests during the Cultural Night



Some of the guests at the Cultural Night



Some of the dignitaries during the Cultural Night



The President Mess Committee, Air Vice Marshal Kingsley Lar presenting a portrait to the Chief of the Air Staff, Air Marshal Sadique Abubakar during the Cultural Night

# **GOODWILL MESSAGE**

## **NDC**



## NIGERIA AT 58: NAF DISPLAYS CAPABILITY DURING INDEPENDENCE DAY CELEBRATION

The Nigerian Air Force (NAF) displayed its air capabilities through breathtaking fly past, during the 58th Nigeria Independence Day Anniversary Celebration on 1 October 2018 at the Eagle Square Parade Ground, Abuja. The ceremony which had in attendance the President, Commander-in-Chief of the Armed Forces, President Muhammadu Buhari, as the Special Guest of Honour also featured displays by the Nigerian Army, Nigerian Navy, Nigerian Police and other security agencies. However, the fly past by the NAF became the centerpiece of the celebration as the crowd marveled at the various air displays by the NAF pilots which further cemented the capability of the NAF in defending the territorial integrity of Nigeria as well as projecting air power outside the country in support of the Federal Government foreign policy objectives. A total of 22 air assets, ranging from combat, Intelligence, Surveillance and Reconnaissance (ISR), transport as well as trainer aircraft took part in the exercise.

The fly past commenced with the Skyhawk Formation by 3 Mi-35M attack helicopters. The helicopters flew past with so much precision, flying at low level and demonstrating the combat capability of the aircraft and was later followed by 3 Super Mushshak trainer aircraft, which flew past in a Rainbow

Formation. Immediately after the Super Mushshak, 3 Diamond DA-40 also flew past in a Diamond Formation, while 2 Augusta 109 Light Utility Helicopters (LUH) and 2 Eurocopter 135 Helicopter (EC-135) flew past in Falcon Formation with one of the Augusta Helicopters carrying the Nigerian National Flag. The fly past continued with the Sentinel Formation, which was achieved by the ATR 42 MPA and 2 Beechcraft KA-350i.

Thereafter, the NAF C-130 Hercules, flanked on the left by 3 L39-ZA aircraft and 3 Alpha Jets at the right, flew past in Unity Formation. The L-39ZA aircraft, which flew past on the right of the C-130 Hercules, carried a trail of green, white and green smokes, to signify Nigeria's National Colour. Shortly after, the 3 Alpha Jets returned in 3-ship Eagle Formation and performed a Bomb Burst maneuver. The lead aircraft saluted the Commander-in-Chief with an aileron roll into the sky. The L-39ZA also returned in a 3-Ship Formation to perform another Bomb Burst manouevre, with all the 3 aircraft performing distinct aerobatic maneuvers, which left the spectators spell bound.



The Unity Formation made up of C-130, L-39ZA and Alpha Jet aircraft



President Muhammadu Buhari inspecting the parade



NAF personnel on parade



The CDS and Service Chiefs at the Independence parade



The Falcon Formation of Augusta 109 LUH and EC-135



Cross section of senior military officers at the parade



President Muhammadu Buhari signing the anniversary register



President Muhammadu Buhari laying wreath during 2019 Armed Forces Remembrance Day Celebration in Abuja

## 2019 ARMED FORCES REMEMBRANCE DAY CELEBRATION

**A**s part of activities marking the 2019 Armed Forces Remembrance Day Celebration in honour of our fallen heroes who paid the supreme price in service to our great Nation, Jumaat prayers were held on Friday, 11 January, while an Inter-Denominational Church Service was held on Sunday, 13 January. The Celebration climaxed on 15 January 2019, with the Remembrance Day Parade/Wreath Laying Ceremony presided over by the Commander-in-Chief of the Armed Forces

of the Federal of Nigeria, President Muhammadu Buhari, with the Vice President, Professor Yemi Osinbajo and other top government functionaries in attendance, including the Honourable Minister of Defence, Mansur Dan-Ali, Chief of Defence Staff, General Gabriel Olanisakin, Chief of the Air Staff, Air Marshal Sadique Abubakar, as well as other Service Chiefs and heads of paramilitary organizations and security agencies.



Vice President Yemi Osinbajo laying wreath during 2019 Armed Forces Remembrance Day Celebration in Abuja



(From r - l) CAS, Air Marshal SB Abubarkar, CNS, Vice Admiral IE Ibas, Rep of COAS, and CDS, General AG Olanisakin laying wreath during 2019 Armed Forces Remembrance Day Celebration in Abuja



Widow of late Lt Col Abu Ali laying wreath on behalf of widows during the 2019 Armed Forces Remembrance Day Celebration in Abuja



Guard of Honour mounted by Members of the Armed forces and Nigerian Legion,



Cross section of widows at 2019 Armed Forces Remembrance Day Celebration in Abuja



Cross section of Presidents and members DEPOWA, NADWA, NOWA & NAFOWA at 2019 Armed Forces Remembrance Day Celebration in Abuja



Cross section of dignitaries during national anthem at the church service to mark 2019 Armed Forces Remembrance Day Celebration in Abuja



(centre) Vice President Yemi Osinbajo with other senior government officials during prayer session to mark 2019 Armed Forces Remembrance Day Celebration in Abuja



(From r - l) Former IGP, Idris, CAS, Air Marshal SB Abubarkar, Minister of Interior, Lieutenant General AB Danbazau and Honourable Minister of Defence, Mansur Dan-Ali during juma'at prayer to mark 2019 Armed Forces Remembrance Day Celebration in Abuja



Muslim ummah during juma'at prayer to mark 2019 Armed Forces Remembrance Day Celebration in Abuja



Chief of the Air Staff, Air Marshal Sadique Abubarkar presenting award of recognition to Mrs Baba-Ari, wife of late Squadron Leader Bello Baba-Ari during the CAS Award Night

## CAS' ANNUAL AWARDS NIGHT 2018: NAF HONOURS 5 CREW MEMBERS OF MI-35M HELICOPTER CRASH, LATE BABA-ARI, OTHERS

The Nigerian Air Force (NAF) on 26 January 2019 honoured the 5 crew members of the Mi-35M helicopter that crashed in Damasak, Borno State on 2 January 2019 while providing close air support to troops of 145 Battalion. The 5 deceased crew members were honoured alongside, the Late Squadron Leader Mohammed Bello Baba-Ari, a fighter Instructor Pilot who died during rehearsals for aerial display for Nigeria's 58th Independence Celebration, as well as 13 other deserving NAF personnel and civilians who had distinguished themselves in their areas of responsibilities in 2018. The humanitarian efforts of the Nigerian Air Force Officers' Wives Association (NAFWA) were also specially recognized with an award presented to the National President of the Association, Hajiya Hafsat Abubakar. Similarly, the most collaborating civilian institution in the area of Research and Development (R & D) was recognized while officers of air rank who retired from active service between September 2017 and January 2019 were also honoured to mark their years of invaluable contributions to the NAF and meritorious service to the Nation. The deserving personnel were honoured at the Chief of the Air Staff's Annual Awards Night for 2018. The CAS Awards Night is an annual event which provides a forum to appreciate and recognize NAF personnel and civilian staff who

have distinguished themselves and made remarkable difference in the course of the year. It was a spectacular night to behold as the honourees filed out one after the other to receive their awards.

Speaking during the colourful ceremony, the Guest of Honour, the Secretary to the Government of the Federation (SGF), Mr Boss Mustapha, represented by the Honourable Minister of



Cross section of dignitaries at the CAS Award Night



Awardees on stage to receive award of recognition at CAS Award Night



Chief of the Air Staff, Air Marshal Sadique Abubakar presenting award of recognition to Squadron Leader Thomas Akinbohun during the CAS Award Night



Minister of Foreign Affairs, Mr Geoffrey Onyeama presenting award of recognition to next of kin to late Flight Lieutenant Perewei Jacob during the Award Night



Next of Kins of 5 crew members of the ill-fated Mi-35M helicopter being honoured during the Award Night

Foreign Affairs, Mr Geoffrey Onyeama, commended the CAS, Air Marshal Sadique Abubakar, for his foresight and for encouraging excellence by ensuring that those who have contributed to the success of the NAF are recognized and rewarded. According to him, recognition and awards are effective management tools that motivate personnel who are doing well to keep up the work whilst also challenging those performing below expectations to redouble their efforts.

The SGF stated further that, "It is glaring that the NAF has made huge sacrifices through the commitment, dedication and perseverance of its personnel in the defence of our Nation. The conduct of sustained air operations, both night and day, by the NAF is significantly responsible for the successes recorded so far in our war against insurgency and other criminalities. I therefore wish to commend the CAS for the high level of professionalism being displayed by the NAF", he said. While congratulating all award winners and urging them not to rest on their oars, the SGF encouraged other personnel, who may not have received an award, not to despair. He noted that with perseverance and hard work their day of recognition would also come.

In his remarks, the CAS stated that the occasion was meant to celebrate personnel who showed courage in the face of terror and exhibited strength where others saw fear; personnel who applied ingenuity where others perceived impossibility. He emphasized that the operational successes achieved particularly in the outgone year, 2018, would not have been possible without

the dogged determination, commitment and sacrifices made by officers and airmen/airwomen of the Service. According to him, the personnel operated under very demanding and tough conditions in the various theatres of operations, with some unfortunately paying the supreme sacrifice. "We will not fail to recognize the sacrifices of our colleagues who in the course of duty to this great country paid the supreme price. Let me assure you that their sacrifice is not in vain as it has further spurred us to remain focused and ever determined in realizing a secure, peaceful and prosperous Nigeria. To the families of our deceased colleagues, be rest assured that you are not forgotten. The NAF will continue to provide the necessary assistance and support in appreciation of the sacrifice of your loved ones", the CAS reiterated.

Air Marshal Abubakar reminded the awardees not to lose steam or rest on their oars. He urged them to keep up the good work while also stating that the contributions of all other NAF personnel to the progress of the Service were not unnoticed. "The NAF cannot be strong and effective without our collective contributions no matter how modest they may be. Hence, believe in yourselves and try to be better than you have been", he said. The CAS, who expressed his sincere appreciation to the Commander-in-Chief of the Armed Forces of the Federal Republic of Nigeria, President Muhammadu Buhari, for his visionary leadership and continued support for the NAF, and also congratulated the Chief of Administration, Headquarters NAF, Air Vice Marshal Kingsley Lar, and his Team for putting together a colourful event.

For the senior officers' category, Wing Commander Mohammed Umar, Squadron Leader Sunkanmi Akinbohun and Squadron Leader Ubong Sunday were honoured with the CAS Award while Flight Lieutenant Ibrahim Goni and Flying Officer Jeremiah Dogonzo won the junior officers' category. For the Senior Non-Commissioned Officers' (SNCOs) Category, Warrant Officer Shuaibu Yusuf, Sergeant Samanja Ishaya and Sergeant Alabi David were honoured, while Corporal Adeleke Abiodun and Lance Corporal Shinku Godwin received the awards in the Non Commissioned Officers' (NCOs) Category. Mr Goke Akande and Mr Emmanuel Ngene won the senior civilian staff and junior civilian staff category, respectively, while University of Maiduguri

emerged the most collaborating civilian Institution of the year 2018. In the same vein, Air Commodore Olufemi Odeyinde, Group Captain Olayinka Oyesola and Air Commodore Paul Efanga were recognized for emerging best overall and Best All-Round Participant, Second Overall in Order of Merit and Third Overall in Order of Merit at the National Defence College (NDC) Course 26, respectively. Squadron Leader Fredrick Oyenusi was equally recognized for emerging the Best Overall in Order of Merit at the Armed Forces Command and Staff College Senior Course 40 and winning the "Tie of Merit" for attaining a "B" Grade on the course.



The Permanent Secretary Ministry of Defence, Mrs Nuratu Batagarawa presenting award of recognition to Air Commodore Olufemi Odeyinde for emerging best overall at NDC Course 26



The Permanent Secretary Ministry of Defence, Mrs Nuratu Batagarawa presenting award of recognition to Group Captain Olayinka Oyesola for emerging Best All-Round Participant at NDC Course 26



Chief of the Air Staff, Air Marshal Sadique Abubarkar presenting award of honour to retired Air Vice Marshal Ajibola Jekennu during the Award Night



Cross section of dignitaries at the Award Night



Plateau State cultural troupe showcasing their dancing skills during the Award Night



Minister of Foreign Affairs, Mr Geoffrey Onyeama making his remarks during the CAS Award Night



Chief of the Air Staff, Air Marshal Sadique Abubakar, being assisted by Mrs Gwani to decorate Air Vice Marshal James Gwani

## NAF DECORATES NEWLY PROMOTED SENIOR OFFICERS, ELEVATES 4 EXCEPTIONAL SNCOS TO FLIGHT LIEUTENANT

Following the approval by the Air Force Council of the promotion of some senior Nigerian Air Force (NAF) officers to the next higher ranks, the NAF, on 11 December 2018, decorated 14 Air Commodores and 36 Group Captains with their new ranks of Air Vice Marshal and Air Commodore, respectively, at the Headquarters NAF Abuja. Additionally, for the first time in the history of the NAF, 4 Senior Non-Commissioned Officers (SNCOs), who were granted concessional commission, were decorated with the rank of Flight Lieutenant for their exceptional performance and contributions to the NAF over the years. Notable among the 4 newly commissioned officers is Flight Lieutenant Aniemeka Enem, who had earlier been promoted to the rank of Air Warrant Officer in 2017 for his various contributions to Research and Development in the NAF as well as for emerging as the overall best graduating doctorate student at the Babcock University, Ogun State.

The Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, who, alongside other dignitaries and the spouses of the beneficiaries, decorated the officers, noted that the promotion of the senior officers and concessional commissioning of the 4 SNCOs were premised on their past performances and the resolve of the Service to constantly reward excellence. Speaking particularly on the concessional commissioning, the CAS stated that the beneficiaries, who had each put in not less than 33 years of outstanding meritorious service to the nation, had been found to possess exemplary leadership qualities. He noted that their commissioning was a reward for hard work and would also serve as motivation for other airmen/airwomen to aspire for such rare elevation. In order to ensure the newly commissioned officers

quickly come to terms with their new status, the CAS gave directives that they be immediately moved from SNCOs' quarters into officers' quarters at their various units.

Speaking further, Air Marshal Abubakar highlighted that the increasingly complex and challenging security environment required the Service to put forward its very best at all times. He therefore noted that promotion could no longer be business as usual. According to him, "while time on rank would, understandably, continue to be central, factors such as merit, productivity, establishment vacancy, deployability and, to some extent, geographical spread have combined to raise the bar and make the race even more competitive". He explained further that, in the discharge of military responsibilities, the demands on members of the Armed Forces are unique, requiring, in some instances, paying the supreme price. Thus, he said, "it is very important that the Services are led by persons of exceptional leadership qualities so as to eliminate or minimize costly mistakes in the fog of war, which is even higher in the case of the Air Force given the complex nature of air operations".

The CAS specially applauded the spouses and family members of the celebrants while imploring them to sustain the support to enable them excel in their new, higher responsibilities. He ended his remarks by tasking the newly promoted officers to brace up for the challenges ahead especially in the collective resolve to regenerate the NAF and secure Nigeria and Nigerians. He urged them to continue to apply their skills, experience, commitment and time when and wherever it is demanded. He also reminded them that the taxpayers, who would bear the additional cost of the elevation, expect more from them. He stressed that they

would therefore need to critically interrogate every process, procedure and strategy being used today to ensure Nigeria's sovereignty is not undermined.

Earlier in his opening remarks, the Chief of Administration (COA), Air Vice Marshal Kingsley Lar, noted that the occasion was another milestone in the career development of some of the officers who were able to scale through the painstaking screening process and the approval by the Air Force Council. According to him, the selection process culminating in promotion is usually an exhaustive one which involves applying

stringent criteria for elevation, especially to the prestigious air rank. He explained further that several qualities and conditions are used to determine an officer's eligibility for promotion; the most critical of these being merit. He however pointed out that it does not mean that the officers who were not promoted are not fit but for the constraint of establishment vacancies. The COA noted that elevation comes with higher responsibilities and therefore enjoined the newly decorated officers to be more diligent, committed and accountable in the discharge of their duties as well as in their interactions with their professional colleagues and civilians.



Chief of the Air Staff, Air Marshal Sadique Abubarkar, being assisted by Mrs Muktar to decorate Air Vice Marshal Musa Mukhtar



Chief of Defence Intelligence, Air Vice Marshal Sambo Usman being assisted by Mrs Effiom to decorate Air Commodore Eneabong Effiom



Chief of Policy and Plans, Air Vice Marshal Emmanuel Anebi being assisted by Mrs Shinkafi to decorate Air Commodore Ahmed Abdullahi Shinkafi



Chief of the Air Staff, Air Marshal Sadique Abubarkar, being assisted by Mrs Ogunnubi to decorate Flight Lieutenant SA Ogunnubi



Cross section of newly decorated senior officers and their spouses during the decoration ceremony



Chief of the Air Staff, Air Marshal Sadique Abubarkar making his remarks during the decoration ceremony



Chief of the Air Staff, Air Marshal Sadique Abubarkar in a group photograph with newly commissioned Flight Lieutenants



Chief of the Air Staff, Air Marshal Sadique Abubarkar and his Principal Staff Officers in a Group Photograph with newly decorated Air Vice Marshals

# NAF LAYS TO REST CREW MEMBERS OF MI-35M HELICOPTER CRASH



Firing of 21 gun salute in honour of 5 crew members of the ill-fated Mi-35M helicopter

The Nigerian Air Force (NAF) on 8 January 2019 laid to rest the bodies of the 5 fallen heroes who died in the Mi-35M helicopter that crashed in Damasak, Borno State on 2 January 2019 while providing close air support to troops of 145 Battalion. The deceased personnel, who were buried with full military honours at the National Military Cemetery in Abuja, are; late Flight Lieutenants Pereowei Jacob (Captain) and Kaltho Paul Kilyofas (Co-pilot), Sergeant Auwal Ibrahim (Flight Technician), Lance Corporal Adamu Nura (Gunner) and Aircraftman Meshack Ishmael (Gunner).

Speaking during the burial ceremony, which had in attendance the Honourable Minister of Defence, Mansur Dan-Ali, the Chief of Air Staff (CAS), Air Marshal Sadique Abubakar, stated that the 5 gallant heroes lost their lives in the pursuit of the peace which we often take for granted. He saluted their courage stating that their deaths must spur the NAF to rededicate itself to even greater service to the Nation while strengthening our collective resolve to expose and fight all agents of destabilization and extremism in the society. Air Marshal Abubakar emphasized that all members of the Service must throw everything they have into the fight against terrorism to ensure that our departed colleagues did not die in vain. "We must do everything possible to bring the ongoing insurgency in the North East to an end that is favourable to our nation", he said.

The CAS restated the commitment and unalloyed loyalty of the NAF to the Commander-in-Chief of Armed Forces of Nigeria, President Muhammadu Buhari, in his efforts at tackling the security challenges facing the Nation. Air Marshal Abubakar

Remains of 5 crew members of the ill-fated Mi-35M helicopter laying in state

ended his remarks by praying for the repose of the souls of the fallen heroes, who, he re-emphasized, had paid the supreme price in pursuit of the peace and security of their fatherland. He said they would be fondly remembered for their invaluable service to the Nation and humanity. He therefore encouraged their families to take solace in the knowledge that the Nation grieves with them, while praying that time would ease their present pains.

The Chief of Administration Headquarters NAF, Air Vice Marshal Kingsley Lar, while reading the citation of the 5 deceased personnel, noted that both pilots were members of 58 Regular Course of the Nigerian Defence Academy.

According to him, they were exceptional and seasoned pilots who had great passion for their jobs and carried out assigned tasks diligently. He remarked that Sergeant Ibrahim Auwal was a dedicated Flight Technician while Lance Corporal Nura Adamu and Aircraftman Meshach Ishmael were committed Regiment personnel, who had participated in several air combat missions against Terrorists' locations within the Northeast Theatre of Operation. Paying tribute to the fallen heroes, the Commander 115 Special Operations Group (115 SOG), Air Commodore Elijah Ebiowe, extolled their sterling qualities noting that their patriotism, bravery, hard work and dedication to duty were glowing testaments that exemplify one of the NAF's Core Values of "Service before Self". While praying for the peaceful repose of their souls, Air Commodore Ebiowe remarked that "they gave their today for our tomorrow". He said the Service and, indeed, the entire nation owed them an unending debt of gratitude.

Other dignitaries present at the burial ceremony included the representatives of the Permanent Secretary Ministry of Defence, Chief of Defence Staff and other Service Chiefs, along with other serving and retired senior military officers. Also,

present were the National President Nigerian Air Force Officers' Wives Association (NAFOWA), Hajiya Hafsat Abubakar, along with other members of NAFOWA as well as friends and families of the deceased personnel. Other

highlights of the event included the presentation of National Colours to the deceaseds' Next-of-Kins by the CAS, laying of wreaths by dignitaries and the representatives of the families of the late personnel as well as the customary 21 gun salute and playing of the last post. Faith services had earlier been conducted by Group Captain (Reverend) Dogo Gani, Director Chaplaincy (Protestant) Headquarters NAF, and Group Captain Luqman Lawal, the Director Islamic Affairs Headquarters NAF, before the caskets were lowered into the ground.



Remains of 5 crew members of the ill-fated Mi-35M helicopter being lowered to the grave



Chief of the Air Staff, Air Marshal Sadique Abubarkar presenting national colour to Mrs Perewei Jacob wife of late Flight Lieutenant Perewei Jacob



(Right - left) the CAS, Air Marshal SB Abubakar, HMOD, Mansur Dan-Ali, Rep of CDS, Rear Admiral SAG Abbah and Perm Sec MOD, Mrs Nuratu Batagarawa at the burial ceremony



Honourable Minister of Defence, Mansur Dan-Ali laying wreath in honour of the fallen heroes



Chief of the Air Staff, Air Marshal Sadique Abubarkar laying wreath in honour of the fallen heroes



Mrs Perewei Jacob wife of late Flight Lieutenant Perewei Jacob laying wreath in honour of the fallen heroes



Next of Kin to Flight Lieutenant Kalso Paul Kilyofas laying wreath in honour of the fallen heroes



Next of Kin to Air Craft Man Ismael Meshach laying wreath in honour of the fallen heroes



President, Nigerian Air Force Officers Wives' Association (NAFOWA), Hajiya Hafsat Abubakar condoling families of late heroes



Chief of the Air Staff, Air Marshal Sadique Abubarkar making his remarks during burial ceremony of 5 crew members of ill-fated Mi-35M helicopter



# FALLEN BUT NOT FORGOTTEN

*With tears and spectacular aerial display, NAF Pilots sent-forth Baba-Ari at the 2018 Nigerian Independence Day Celebration*

## **Flt Lt O Lawal**

**D**uring an aerial display rehearsal ahead of the 58th Nigeria's Independence Day Celebration scheduled for 1 October, 2018 at the Eagles Square in Abuja, Squadron Leader Bello Baba-Ari, who was in charge of the F-7 aerobatic display team, paid the ultimate prize when his aircraft collided with another. The unfortunate incident, which left Baba-Ari's colleagues devastated and eternally dampened, occurred precisely on 28th September 2018, less than 48 hours to the annual national celebration.

Ordinarily, one would have thought that the crew would abandon the display and return to their Base in Markurdi, where the F-7 aircraft is based, often referred to as the "Home of the Tigers". Rather, all the members of the NAF air and ground crew including pilots and engineers of all the platforms associated with the planned air display insisted on continuing with the exercise as a final display of respect for the late Baba-Ari.

Somewhat and in what may be described as an uncommon personal decision to demonstrate an unequalled show of courage and distinctive professionalism, Baba-Ari refused to eject from the aircraft immediately the collision occurred. According to the former spokesperson for the Nigerian Air Force, Group Captain Shehu (rtd) noted that Baba-Ari has shown exceptional courage as he was able to pilot the damaged aircraft away from built-up areas which would have resulted in a bigger disaster that would have claimed lives of many innocent Nigerians.

Group Captain Shehu succinctly put the narrative thus: "With a badly-disabled aircraft and with only a few seconds before the aircraft lost all the remaining power and control and plummeted into the ground; knowing that he was flying over built-up areas, he knew he still had to do something: not just eject to save his life, rather, he steered the aircraft away from all built-up areas, with his badly-wounded aircraft, while his trained eyes scurried the earth for a possible crash site devoid of human habitation!"

Without doubt, Baba-Ari apparently knew the risk he was taking as a well-trained pilot, that the more time he spent in his damaged aircraft, the less chances of him bailing out and saving himself, but Baba-Ari, within those remaining split seconds, knew it was not only about his life. It was more about the lives of people on the ground. He eventually found a safe place with no humans in sight among the hills in Katampe area of the Federal Capital Territory, Abuja. Sadly, there was no more time or altitude for him to eject and save himself so, he heroically died when his aircraft finally plummeted into the mountains.

Few days after the ugly air collision, the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, on 2 October 2018, hosted the crew members at the Air Marshal MD Umar Blue Room at the Headquarters of the NAF in Abuja, where he commended them for their courage, resilience and dexterity in effectively executing the mission in spite of the unfortunate air mishap.

Indeed, the CAS could not mask his admiration for the pilots and other crew members for their show of professionalism. He noted that the Nigerian populace was, indeed, appreciative of their efforts and commitment in carrying out their constitutional responsibilities. The CAS also admitted that the hazardous nature of the military profession, especially air operations, implied that the element of risk could never be totally eliminated. He concluded by thanking them for remaining focused despite the tragic incident that cost the NAF the loss of one of its finest and very promising senior officers and encouraged them to always remain dedicated in the performance of their assigned tasks in spite of circumstances under which they carry out their national assignment.



The Chief of Defence Staff, General Gabriel Olonisakin flanked by the Comptroller-General of Nigeria Customs Service, Col Hameed Ali (rtd) and the Chief of the Air Staff, Air Marshal Sadique Abubakar on guided tour of facilities at the GIDC during the commissioning ceremony.

## OPERATIONAL EFFECTIVENESS: NAF COMMISSIONS NEWLY ESTABLISHED GEOSPATIAL INTELLIGENCE DATA CENTRE IN ABUJA

The Nigerian Air Force (NAF) recently, commissioned a new, state-of-the-art Geospatial Intelligence Data Centre (GIDC) at the Headquarters NAF Abuja. The GIDC is to further enhance the ongoing Intelligence Surveillance and Reconnaissance (ISR) efforts in the North East and other parts of Nigeria. The Centre, which is equipped with high-tech computer hardware and software, would improve NAF capacity for acquisition, exploitation, analysis and interpretation of imagery and geospatial information to provide actionable intelligence for the Armed Forces and other security agencies.

In his remarks, the Chief of Defence Staff (CDS), General Abayomi Olonisakin, who was the Guest of Honour at the commissioning ceremony, commended the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, for the laudable initiative. He stated that the new Centre would undoubtedly add value to the efforts of the Armed Forces of Nigeria (AFN) in better securing the Country and making it a safer place for all. He also expressed delight with the readiness of the NAF to make the products of the Centre available not only to the AFN but also to other security agencies like the Nigerian Immigration Service (NIS) and the Nigerian Customs Service (NCS), who could use it to determine old and new border crossing points used by illegal immigrants or smugglers. The CDS also noted that the Centre could not have come into being at a more auspicious time than now with various areas of disturbance in the Country, while adding that it was indeed a testimony of prudent management of resources by the leadership of the NAF.



The Chief of Defence Staff, General Gabriel Olonisakin cutting the tape to commission the newly established Geo-spatial Intelligence Data Centre

While making his remarks, the CAS, Air Marshal Abubakar, stated that the establishment of the NAF GIDC was as a result of the resolve of the Service to continue to build capacity across the spectrum of operations so as to bring the fight against terrorism and other forms of criminality in the Country to an end as soon as possible. He reiterated that the Centre would employ and deploy satellite and other cutting-edge technologies, including sophisticated and high-value computer software, to gather and analyse data to produce intelligence in support of NAF and joint operations across the Country. The CAS added that, in its effort to operate at par with militaries all over the world, the NAF embarked on the worthwhile endeavor by leapfrogging from traditional means of intelligence gathering to the use of space-borne platforms in the production of actionable intelligence for

operational effectiveness. The CAS, who used the opportunity to express his profound gratitude to the Commander-in-Chief of the Armed Forces, President Muhammadu Buhari, for his continued support and encouragement to the NAF, also thanked the Minister of Defence, Mansur Dan-Ali, the CDS as well as local and foreign partners, for their collaboration through which the project became a reality.

The CDS, CAS and other dignitaries, including the Comptroller-General (CG) of the NCS, Colonel Hameed Ali (retired), were conducted on a guided tour of facilities in the GIDC. One of the highlights of the ceremony was the presentation of one of the products of the Centre, printed satellite images of specific areas of interest, to the CDS and CG NCS.



Nigerian Air Force personnel on duty at the main laboratory of the new GIDC



The CDS, CAS and other dignitaries been briefed by Fg Offr Ugochukwu Ezech on the operational activities of the GIDC Laboratory



The Group Managing Director/CEO of RESLARC Group Nigeria, Dr AA Usman briefing the CDS, CAS and other dignitaries during the commissioning ceremony



Dignitaries viewing live satellite imageries at the main laboratory of the GIDC during the commissioning ceremony



The Chief of the Air Staff, Air Marshal Sadique Abubakar presenting a printed copy of captured satellite images of specific area of interest to the Chief of Defence Staff, General Gabriel Olonisakin



The Chief of the Air Staff, Air Marshal Sadique Abubakar presenting a printed copy of captured satellite images of specific area of interest to the Comptroller-General of Nigeria Customs Service, Col Hameed Ali (rtd)



The Chief of Defence Staff, General Gabriel Olonisakin; Chief of the Air Staff, Air Marshal Sadique Abubakar; Comptroller-General of Nigeria Customs Service, Col Hameed Ali (rtd) and other dignitaries in a group photographer shortly after the commissioning ceremony of the new GIDC



# **THE FUTURE OF AIR WARFARE IN THE NIGERIAN AIR FORCE: MY VISION**

A lecture delivered by the Chief of the Air Staff, Air Marshal Sadique Abubakar  
at Armed Forces Command and Staff College Jaji



NAF UAV pilots poses in front of CH-3A UCAV during an operation in the North East

## INTRODUCTION

It gives me great pleasure to visit this prestigious institution again to have the opportunity to interact with this set of distinguished future military leaders. As a former Directing Staff, I always regard my being here a home coming. I am indeed thankful to the Commandant, Armed Forces Command and Staff College for inviting me to present my vision for the Nigerian Air Force as it relates to the future of air warfare. It is my hope, therefore, that at the end of my presentation, you would have a clear picture of what we should expect from the Nigerian Air Force in the future. Accordingly my presentation is titled: "My Vision for the Nigerian Air Force".

Before the invention of the aircraft in 1903 by the Wright Brothers, land and sea were the only environments in which war was fought. The introduction of the bomber aircraft into warfare

during the Italo-Turkish war of 1911-1916 changed the nature of warfare forever. This signalled the addition of a third dimension to the battle space and a new form of combat power came into being. Since then, the practice of warfare has been undergoing a radical and continuous change. A famous land commander of the era, Field Marshal Erwin Rommel "the Desert Fox", made the following insightful observation about air power:

We had learned one important lesson during this operation .... This was that the possibilities of ground action, operational and tactical, become very limited if one's adversary commands the air with a powerful air force and can fly mass raids by heavy bomber formations unconcerned for their own safety. ... Anyone who has to fight, even with the most modern weapons, against an enemy in complete command of the air, fights like a savage against modern European troops, under the same handicaps and with the same chances of success. ... The fact of British air superiority threw to the winds all the tactical rules which we had hitherto applied with success. In every battle to come, the strength of the Anglo-American air force was to be the deciding factor.

Over time, air power's dominance of warfare has repeatedly been proven in operations and campaigns affirming the notion that no military operation can succeed against an adversary with superior air power.

Recently and with Nigeria's military involvement in broader security, the unending requirements to safeguard our communities underscores the need for adaptive strategies that will give us the comparative advantage over our current and future adversaries. The ability to constantly formulate such strategies lies in a sound vision, which is vital to strategic leadership. Drawing from the perspective of General David Petraeus, one-time commander of the coalition forces in Iraq, strategic leadership is "leadership exercised at a level of an organization where the leader truly determines the azimuth for the organization, charts the organization's path and develops the direction that the organization is going to go. It entails conceiving

the right vision, communicating the vision effectively through the breadth and depth of the organization, overseeing the implementation of the vision, and determining how the vision needs to be refined, changed, augmented, and then repeating the process over again.” Accordingly, to set and actualize a vision requires a constant interplay of the inseparable triad of strategic leadership, strategy formulation and influence. Likewise, a vision can be regarded as a precursor to mission command because it takes into account the military problem and visualizes the end state in ways that harness the initiative and innovation of all members of the team.

I am aware that part of the deliverables of this lecture is to enable you, students of Senior Course 41, to reflect on my vision for the Nigerian Air Force, so as to gain strategic insight into contemporary challenges and the future direction of the Service. Whereas most of your engagements here in the College are centered on the operational level of war and warfare, an understanding of the strategic level is imperative because successes achieved at the tactical and operational levels, that do not support the aim at the strategic level, are short-lived and without meaning. As observed by the great theorist and military strategist Carl von Clausewitz, “the purpose of war is to serve policy. Unchecked by reason, unguided by policy, the nature of war is to serve itself.” Indeed, events of World War I, the war in Iraq and the strategic stalemate in Afghanistan are simple contemporary examples of war for war's sake. On this note, this presentation will provide an avenue to evaluate the preparedness of the NAF in response to Nigeria's current and future security imperatives. I will however, lay my emphasis on counter-terrorism/counter-insurgency and anti-banditry operations in the North East, North West and North Central regions respectively, since these threats remain heavily reliant on air power for their resolution.

## CONCEPTUAL CLARIFICATION

Before I go into my presentation, it is necessary to define the concepts of Air Power, Air Warfare, Mission, and Vision as would be employed in this presentation. Although there are many definitions of these concepts, the one given here will suffice.

a. **Air Power.** Air power is the ability of a nation to assert its will via the air medium. It includes a nation's ability to deliver cargo, people, destructive missiles, and war making potentials through the air to a desired destination to accomplish a desired task. The military instrument by which a nation applies its air power is an air force. In peace time, air power could be used to implement a nation's national policy. In time of hostilities, air power is used for the establishment of command of the air, which according to Giulio Douhet, “is the only means to victory, and without it, military and naval operations are doomed, along with the nation”.

b. **Air Warfare.** Air warfare could be referred to as military operations using manned and unmanned aircraft, conducted to disable an opponent's military or degrade his will to fight. Tactically, it includes support of land and sea forces by aerial observation of the enemy; directing the fire of naval and ground weapons; and transporting troops, equipment and supplies. Strategically, air warfare includes combat between fighter planes and bombardment of enemy factories, communications systems and population centers.

c. **Mission.** Within the context of this presentation, a mission is defined as the founding



objective of an organization. It is an operational task usually assigned by a higher authority. The mission of an organization is spelt out in its mission statement, which is a written declaration of its mandate or central purpose. A mission usually remains unchanged over time; and should be easy to communicate and understood by all stakeholders.

d. **Vision.** A vision is a tool for providing direction through the development of a cohesive plan that allows the pursuit of activities that lead an organization forward and ensure judicious use of resources. A vision spells out what is envisioned by the leadership in terms of direction, values and growth. It should inspire, build loyalty and be aligned with the mission of the organization for consistency and organizational synergy. A vision is different from a mission in that vision is the effect while mission is the cause.

## NIGERIAN AIR FORCE MISSION STATEMENT AND STATE OF THE NIGERIAN AIR FORCE

In stating the mission of the NAF, let me first highlight the roles of the Service as specified in the Act of Parliament which established the NAF in 1964. This will enable me situate my vision in line with NAF statutory responsibilities. The responsibilities of the NAF have been broadly re-enacted in Section 217 Sub-Section 2 of the 1999 Constitution of the Federal Republic of Nigeria, while Section 1 of the Armed Forces Act (AFA) CAP A20, Laws of the Federation of Nigeria 2007 broadened them. The Constitution charges the Nigerian Air Force with the following:

- a. Defending Nigeria from external aggression.
- b. Maintaining its territorial integrity and securing its borders from violation on land, sea and air.
- c. Suppressing insurrection and acting in aid to civil authority to restore order, when called upon by the President but subject to such conditions as may be prescribed by an Act of the National Assembly, and
- d. Performing such other functions as may be prescribed by an Act of the National Assembly.

These constitutional provisions are appropriately catered for within the broad spectrum of air power application. Also, the provisions of the National Defence Policy (NDP) Chapters 5 -17 require emphasis here because it states among others that:

“..the primary responsibility of the Nigerian Air Force is the defence of the Nation and the protection of vital economic interests by air”.

Consequently, the totality of the statutory and Defence Policy provisions translates to a mission for the NAF which, summed-up in military strategic and operational context is:

“To ensure the integrity of the airspace by gaining and maintaining control of the air while retaining a credible capacity to fulfil other air power tasks, demanded by Nigerian national defence and security imperatives”.

## CAS VISION

Bearing the mission of the Service in mind, I articulated my vision for the NAF on assumption of office as the Twenty-first Chief of the Air Staff as follows:

“To reposition the NAF into a highly professional and disciplined force through capacity building initiatives for effective, efficient and timely employment of air power in response to Nigeria's national security imperatives”.

Having realized that my vision should be expressed in visible signs and works that will bring the desired impact on the activities of the NAF and facilitate the fight against national security threats, I incorporated some key drivers towards the actualization of the Vision. These key drivers have served as a guide as well as benchmarks for assessing my stewardship. They are as follows:

- a. Human capacity development through robust and result oriented training for enhanced professional performance.
- b. Robust logistics support and maintenance culture to sustain platforms and equipment serviceability.
- c. Reinforce a culture of self-reliance and prudent management of resources.
- d. Strategic partnerships with MDAs for enhanced research and development.
- e. Promote and inculcate the core values of integrity, excellence and service delivery.
- f. Focus on comradeship, regimentation and inter-Service cooperation.

The application of airpower in modern warfare, coupled with its unique characteristics of mobility, ubiquity and lethality, requires it to play a leading role in the defence of the nation. Hence, the overarching security concept of Nigeria encompasses addressing trans-national threats, insurgency, terrorism, militancy, proliferation of arms and response to natural disasters. In order to maintain our role as a formidable force in protecting the country, the NAF has developed robust institutions with capacity for developing indigenous technology as well as improving the quality of available human resources. This is aimed at the effective defence of Nigeria's security interests.

## STATE OF THE NIGERIAN AIR FORCE

At the height of its glory between 1975 and 1988, the Nigerian Air Force had developed into a well-trained and robust force, capable of undertaking operations across the tactical spectrum of air power, with the exception of air-to-air refueling. However, with the military's incursion into politics, the Nigerian Air Force witnessed a decline and decay in the state of its air assets and operational capabilities. Following the return to democracy, the

Nigerian Air Force has witnessed a steady increase in its operational capabilities and thankfully, the Service once again holds aircraft fleet with the ability to perform a variety of air power roles including advanced combat training.

Currently, the serviceability status of operable aircraft in the Service is well over 76 per cent. Although this places the NAF's standard above that of the UN and air forces of some developed nations, we are still striving for improvement. However, the array of platforms available falls far below our optimum requirement. Equipping and sustaining a balanced air force, therefore, is one of the greatest challenges facing the Nigerian Air Force today. Let us now consider the response options of the Nigerian Air Force in times of interventions. These options are in 3 broad situations; peacetime, crisis and war.

## NIGERIAN AIR FORCE RESPONSE IN PEACETIME

Notwithstanding the fact that conceptually and by orientation, air forces are war-fighting tools of statecraft, they also have the capacity to respond to threats in peacetime. These responses include among others: Deterrence, Disaster Relief operations, Air Transport, as well as Maritime and Border patrols. I will however focus on just deterrence and disaster relief operations.

a. **Deterrence.** Deterrence is “the prevention from action by fear of consequences....a state of mind brought about by the existence of a credible threat of unacceptable counteraction.” While it is likely that some contemporary adversaries may not be deterred by the military means available to a state, the nature of contemporary security threats infers a deeper synergy in the use of all elements of national power to strengthen deterrence. Whether or not airpower can deter people from joining an insurgency or terrorist group remains an open question. While there is no technological “quick fix” to the problems of terrorism and insurgency, airpower could provide the persistent surveillance and attack capability needed as part of any comprehensive strategy to counter these non-state challenges. Accordingly, Nigerian Air Force Intelligence Surveillance and Reconnaissance missions in collaboration with the Nigerian Maritime Administration and Safety Agency (NIMASA) have deterred illegal activities in the nation's maritime environment, and provided a safer environment for stakeholders in the maritime sector to operate, thus, increasing economic prosperity for the country.

b. **Disaster Relief Operations.** When disasters occur in any form, speedy response is vital. Air power can play a key role in alleviating human suffering by providing search and rescue services, medical evacuation of the sick and injured as well as delivering food, medicines, and other supplies in the shortest possible time. For example, the NAF took active part in the relief efforts of the National Emergency Management Agency (NEMA) in delivering relief materials to victims of flooding in various parts of the country in 2012 and 2017, mainly in Benue State. Similarly, the NAF also airlifted relief materials for victims of the mud slide disaster in Sierra Leone in 2017. At present, the NAF provides similar responses in the various areas of operations across the country.

## NIGERIAN AIR FORCE RESPONSE IN CRISIS SITUATIONS

Air power offers a wide range of response options during crisis situations some of which include; punitive air strikes, aid to civil authority and support for friendly governments.

a. **Punitive Air Strikes.** In crisis situations, air power could be used for punitive air strikes short of full-fledged war. This can be as a response or reprisal against attacks by state-sponsored guerrilla or terrorist groups. Within this context, punitive air strikes are used as instruments of military coercion. The American political scientist and scholar of the coercive strategies of airpower, Robert Pape, defines coercion as “efforts to change the behavior of an adversary by manipulating costs and benefit.” Coercion and deterrence focus on influencing the adversary’s decision making ability. However, while deterrence seeks to maintain the status quo by discouraging an adversary from changing his behavior, coercion seeks to force the opponent to alter its behavior. Nigerian Air Force air strikes in the North East have devastated and coerced the insurgents by limiting their freedom of action to operate openly and en masse, as was the case previously. Equally, these punitive strikes have eradicated the insurgent’s “frontline” leadership and logistics bases, thereby reducing their operational capability.

b. **Aid to Civil Power.** Airpower is a powerful instrument that could be employed during crisis to aid civil power especially when tackling non-state actors and dangerous criminal gangs. To this end, the NAF has deployed its air assets in active support of various internal security (IS) operations nationwide. Accordingly, NAF ISR and ground attack assets have decimated some criminal camps and hideouts harboring pipeline vandals in the Southern axis of Nigeria, while several cattle rustlers have been apprehended and neutralized in the ongoing Operation WHIRL STROKE. Before then, security agencies could hardly penetrate these camps to engage the heavily armed criminals as they were well fortified and also to avoid high casualties. Airpower, however, has paved the way for surface forces to continuously achieve the aims of the operation.

c. **Support for Friendly Governments.** The deployment of air assets to a friendly government

facing either internal or external threats can help tilt the balance of power in favour of such government. This is a useful crisis management ploy to provide timely moral and physical support to such friendly governments, thereby strengthening their resolve in times of tension. Undoubtedly, the deployment of NAF air assets to Senegal as part of the Nigerian contingent of Economic Community of West African States Military Intervention in Gambia (ECOMIG) to enforce the 1 December 2016 Gambian Election mandate provided the impetus that led to a quick and peaceful resolution of the problem.

## NIGERIAN AIR FORCE RESPONSE IN WARTIME

The unique ability of air power to concentrate military power, when and where it is needed is a dominant feature of modern warfare. Airpower can be used to strike at the sources of an enemy's power, the links between the enemy's sources of power, the fielded forces themselves, or all 3 targets types simultaneously. Accordingly, airpower offers commanders a wide range of options across the operational spectrum. This spectrum ranges from independent operations aimed at achieving the immediate operational objectives of the air campaign to other missions in support of the operational requirements of surface forces.

Wartime missions could take one of many forms, ranging from Command, Control, Intelligence, Surveillance and Reconnaissance (C2ISR), to Air Defence, Ground Attack, Deep and Battle Field Interdiction, Close Air Support, and Airlift of Personnel and Materiel. I am aware that you will delve more on these concepts as you progress in your course. Indeed, looking at the essence of airpower, which holds that only airpower can apply great power quickly to any tangible target, it is evident that options for using airpower in peace and war are virtually unlimited. Airmen have long regarded flexibility as the key to airpower whereas in reality, the reverse is closer to the truth: airpower is the key to flexibility. Unfettered by geography or topography, only an airman's global worldview can fully capitalize on the unlimited options and opportunities that airpower presents.

## CONTEMPORARY CHALLENGES FOR THE NIGERIAN AIR FORCE

From the foregoing, there is no gain saying that the NAF is a key contributor to our national security. However, a number of challenges constitute impediments to our desired efforts to provide the required services as enshrined in the constitution. The contraction of the nation's economy is a huge challenge



NAF Alpha Jet aircraft taxiing for takeoff during an operation

affecting Ministries, Departments and Agencies (MDAs) of Government. Accordingly, budgetary allocations to the NAF would invariably determine the speed at which the NAF is able to overcome its major challenges which include; insufficient platforms, lack of a military industrial complex, inadequate manning and changing character of warfare.

## PLATFORMS AND AIRCRAFT SERVICEABILITY

Intensive air operations across different theatres in the country and the need to meet the requirements for training have placed high demand on the number of platforms available to the Nigerian Air Force. The insufficiency of platforms to meet assigned tasks, coupled with a substantial number of aged offensive air assets in the Nigerian Air Force have compelled the Service to look inwards at indigenous Research and Development to maintain, revive and employ these assets in various theatres of operation. As a result of efforts at reactivating our platforms, the NAF successfully reactivated 13 aircraft which were hitherto grounded for lack of spares and other maintenance challenges. Suffice to say that some of the spares were provided through local R&D. Details of platforms reactivated under this administration include 1 x Falcon, 1 x Beechcraft, 2 x Mi-24V/35P, 1 x ATR-42 MPA, 2 x DO-228, 2 x L-39 ZA, 2 x EC-135, 1 x F7-Ni and 1 x C-130 H ac. Similarly, reactivation work is on-going on some aircraft, which include; 1 x C-130H, 3 x Alpha Jet, 1 x Mi-35P and 1 x EC-135 helicopter.

The support provided by the Federal Government since 2015 for acquisition of additional platforms for the NAF cannot be over emphasized. The Federal Government has supported the NAF to increase its aircraft holding through acquisition of new platforms. The NAF has acquired a total of 44 platforms since the inception of this administration. Of this quantity, 28 platforms have already been delivered while 16 are expected in the last quarter of 2018 to 2019. These platforms have in no small way improved the capacity of the NAF to train its personnel as well as deliver on the mandate of protecting the lives and properties of Nigerians. The NAF has also received support through budget provisions which has enabled the Service to maintain and reactivate various platforms in our inventory. Details of platforms acquired since 2015 are as follows:

- a. 5 x Mi-35M Gunship helicopters
- b. 10 x Super Mushshak trainer aircraft.
- c. 2 x AW-101 Augusta Westland helicopters (donated to the NAF by the Federal Government).
- d. 2 x Bell 412 helicopters.
- e. 3 x DO-228 (received from the Nigerian Immigration Service).
- f. 3 x EC-135 helicopters (received from NNPC).



g. 3 x Dauphins.

h. 4 x Augusta 109 Power and 1 x AW139.

In the same vein, the Federal Government has also paid for 12 x Super Tucano aircraft from the United States of America expected to be delivered from year 2019. The enormous cost of aircraft acquisition and maintenance infers that such undertakings would need to be carved out as extra budgetary expenditure, while expecting platform maintenance and upgrade to be transferred from recurrent expenditure to capital expenditure.

## LACK OF MILITARY INDUSTRIAL COMPLEX

The nexus between industrial innovation and organization to military power dates back to the early origins of modern industrialization. Since both domains supply each other with worldviews, ideas and schemes of action, the division of what is military and what is civilian in terms of technology, techniques and practices is largely construed. Whereas the quality of manpower engaged in the security and defence of a state is vital to the success achieved in responding to threats, the availability of the necessary equipment, weapons and ammunition needed to perform the assigned task is also important.

In a bid to secure their territorial integrity and sovereignty, states leverage on their military industrial complex to arm their armed forces, or undertake weapons acquisition abroad. Notwithstanding the means utilized to meet the demands for military hardware, the cost of modern airpower is staggering, and as a result the number of aerial weapons systems available has dwindled over time. Indeed, the absence of military industrial complex in Nigeria makes the Nigerian Air Force dependent on purchase of most of its defence equipment from foreign countries. This has economic and security costs for the nation especially in terms of depletion of foreign exchange and low operational readiness.

## QUALITATIVE MANNING

Allied to the challenge of aircraft serviceability is the issue of manning. Manning is a critical aspect in the functioning of the NAF. Being a highly technical force, the NAF is expected to balance its manpower needs in 2 main areas which are, Air and Ground operations. Accordingly, NAF personnel are required to undertake their professional fields and at the same time carry out basic ground duties.

The heightened internal security challenges have further necessitated the deployment of a large percentage of NAF technical manpower other than the Regiment for IS operations. Indeed, this is having dire consequences on air operations. Consequently, the NAF has undertaken a robust build up, training and equipping of the NAF Regiment Specialty so as to remove the burden from NAF technical manpower that are most times engaged in IS operations.

## CHANGING CHARACTER OF WARFARE

The modern era has imposed 2 types of warfare on the Nigerian Air Force, namely conventional and unconventional warfare. Both types of warfare are fundamentally different in that they require different strategies, force structure, weaponry, training and tactics. In addition, they require different mental approaches, differ in ways; ranging from the conceptual to technical, and have their own purposes, control mechanisms, centers of gravity, operational methodologies, and measures of effectiveness.

Conventional warfare emphasizes large unit operations and a reliance on firepower. Strategies in conventional warfare revolve

around perceived centers of gravity of the antagonists, and both sides struggle and maneuver their forces to defend their own centers of gravity while attacking those of the enemy. The military objective in conventional warfare is to bring the struggle to a quick and decisive conclusion. Unconventional warfare on the other hand is revolutionary, fought for political control of states, and requiring a mix of political, economic, psychological and military operations to drain support away from insurgents and build support for the government. Indeed, the military portion of the mix often plays a supporting role, and therein lies both a dilemma and an advantage. Time is a key weapon for insurgents as they seek a protracted conflict that heaps more discredit upon the government. Accordingly, the most important difference between unconventional and conventional warfare is that the centers of gravity for both sides are the same- the population of the nation under siege.

In the face of these 2 forms of warfare, numerous military functions in situations short of war such as humanitarian relief, search and rescue, raids and peacekeeping also task the capabilities of the Nigerian Air Force. Whereas airpower can provide dominance in conventional warfare, the impact of airpower is not nearly so self-evident in unconventional warfare for several reasons. First, the duality of insurgencies which encompasses the equal importance of military and nonmilitary struggles dilutes the impact of all military efforts including airpower. Second, insurgents' tactics minimize lucrative targets for massive firepower that the Nigerian Air Force can bring to bear. Third, and most important, compared to other forms of war, only few resources and little planning is required by insurgents to create massive political effects. Notwithstanding these challenges to the Nigerian Air Force, airpower will continue to remain the key ingredient in these forms of warfare.

## **NIGERIAN AIR FORCE POLICYTHRUST**

The NAF policy thrust is guided by geostrategic considerations and attendant threats and contingencies. Additionally, the NAF mission and vision, as well as the NAF's 10-year Strategic Plan play important roles in fashioning the policy thrust. Apart from the defence of Nigeria's territorial airspace, bolstering friendly regimes and participation in sub-regional and regional defence initiatives in support of Government's wider international commitments, there are several tasks to be prepared for. For instance, the NAF must be prepared to make tough decisions to ensure that own forces acquire the required capabilities in line with the 10-Year Strategic Plan of providing adequate assets for combat air operations and maritime air surveillance of the nation's Exclusive Economic Zone. Similarly, the NAF would need to accommodate new technologies, strategies and equipment towards improving capability and quick response. Due to time constraint, I shall look at the use of precision munitions in operations, information warfare, force structure, logistics and maintenance, human capacity development, and aid to civil authority.

## **PRECISION MUNITIONS IN OPERATIONS**

A central focus in the policy thrust for the Nigerian Air Force of the future is the development a new sense of "airmindedness," and bringing the mature capabilities of air power to bear in joint operations. Of special interest is the employment of precision guided munitions which have redefined the principle of mass for airmen. The current employment of airpower by the NAF infers a horizontal conceptualization of the elements of air campaign due to the need to mass sufficient resources to accomplish a mission.



With precision munitions redefining mass, the Nigerian Air Force of the future should be able to undertake vertically integrated air campaigns. Vertical integration infers the simultaneous, coordinated and integrated execution of strategic interdiction and other air power missions to build synergies that would make air campaigns far more effective than they have ever been in the past. Indeed, achieving this synergy will require a full integration of space capabilities and plans with traditional air and surface operations.

The use of precision munitions coupled with control of the air portends air power's ability to provide heavy firepower for light specialized surface forces, round the clock with accuracy equaling or exceeding that of heavy surface weapons. This would bolster the capacity of the NAF Special Operations Forces to fight on equal terms with heavily armed enemy deep behind the front lines. In furtherance of this policy thrust, from a total of 12 x Mi-35M helicopters expected, the Service has already acquired 4 x Mi-35M Attack Helicopters, while an additional helicopter is currently in the production line and expected to be delivered soon. In the same vein, efforts are ongoing for the delivery of the Super Tucano Light Attack Aircraft and acquisition of the Yabhon Flash 20 Remotely Piloted Aircraft.

## **INFORMATION WARFARE**

The growth, proliferation, and application of information technology infers that an information campaign is integral to any current conflict and will dominate future wars. Wars will be won by the side that enjoys and can exploit more information while making information expensive for its opponent. Equally critical is the ability to obtain accurate information within own organization while providing or inserting inaccurate data in the adversary's systems. Akin to this is the relevance of near real-time information while delaying the enemy's information loop. In his analysis of future warfare, the Russian Military Theorist Major General Vladimir Slipchenko asserted that "the impending sixth generation of warfare, with its centerpiece of superior data-processing to support precision smart weaponry, will radically change military capabilities, and once again, radically change the character of warfare." Given this envisaged dominance of information warfare, what then is the outlook for information warfare in the Nigerian Air Force of the future?

Russian operations in Crimea have proved that with proper timing, messaging, and targeting, social media has the potential to manipulate the outcome of a conflict and "win" a complex engagement. The Nigerian Air Force in the future should have the capability to disrupt the flow of information over networks and electromagnetic spectrum as well as manage human-to-human information. In this regard, information warfare in the

Service would comprise activities to encourage a desired audience to act or not act in a manner that is beneficial to the interest of the nation. On the part of the Nigerian Air Force, this will require integrating the narrative for information warfare in the military decision-making process for operations. Also, it would need an increased potential for responsibility among airmen to make the right decision at the right time; and an obligation to take up the mantle of the “strategic corporal” knowing that their actions are open to public scrutiny and could have second and third order effects.

## FORCE STRUCTURE

In the face of a very uncertain future, the Armed Forces of Nigeria must be prepared to deal with conventional and unconventional warfare. Armed with the definition of the two fundamental threats with which our military forces would have to deal with, we can begin to estimate the size and kind of forces we will need. Effective military forces cannot be designed, built, procured, trained and educated quickly. A standing force made too small, a reluctance to recognize an emerging threat, and a prolonged decision to react could combine to give an aggressive adversary an insurmountable lead in military capability. Thus, a robust and offensive force structure is key to the effectiveness of the Nigerian Air Force of the future.

There are at least three major factors which should influence the decision making process; threat analysis, geography and funding. The future force structure of the Nigerian Air Force is important lest the Service be caught with the wrong force structure at the wrong time and be unable to get to the right place. The future force structure of the Nigerian Air Force must therefore, provide the most accessible and effective force person-for-person and weapon for weapon. This will require extensive infrastructure, including manning and funding for intense and realistic training and professional education of Nigerian Air Force personnel. Additionally, it will be hinged on a robust Research and Development program to produce the needed requirements for the force.

Having evaluated the Nigerian Air Force's exploits in the counter insurgency operations in the North East, it was observed that the Service was not properly structured to bring about the desired results. Accordingly, the Special Operations Command was established in Bauchi while the defunct Training Command was unbundled into the Air Training Command in Kaduna and Ground Training Command in Enugu. Under the Special Operations Command, Quick Response Groups, a Regiment Group and a Composite Group were established to increase the

Nigerian Air Force's reach, and shorten response time to emergencies. In the same vein, the recruitment infrastructure of the Service was expanded to support the training of 3,500 recruits biannually as against 500 recruits in the past. With this turnout from the recruitment process, it is envisaged that the new Commands and units will be populated sufficiently for the Service to derive the expected benefits. Likewise, the establishment of the Air and Ground Training Commands is aimed at boosting specialization in training by increasing the focus, depth and extent of training for Nigerian Air Force personnel.

## LOGISTICS AND MAINTENANCE

Countries whose overall level of economic development is low and are relatively backward in the aviation industry limit their aircraft production capability to 3 basic options of purchase (buy), indigenous development (build), or espionage (steal) in their efforts to develop a modern air force. For countries in this situation, all 3 options have significant limitations. Therefore, buying imported aircraft allows a developing country to obtain more advanced aircraft than its indigenous aviation industry can produce. It also offers a relatively fast way to build its air force's combat capability, although in practice it may take 4 to 5 years from the time a deal is signed until a unit is equipped with new aircraft at which point it reaches an initial operational capability.

Equally, the purchase option can improve the acquiring air force's human capital and overall capabilities. However, the relatively high cost of purchase, limited transfer of technology in the aviation sector, and continuing dependence on foreign suppliers portend disadvantages for this option. Similarly, buyers are limited to the aircraft that the supplying countries are willing to sell, thus, making the supplier maintain a long term competitive advantage in military aviation technology and a measure of airpower dominance over their customers.

The indigenous development option requires significant investment in research and development, thus, demanding both capital and technological knowledge. The key advantages of this option are that a developing country can master the technologies required to design and build an aircraft, limit its reliance on imported spares and technologies, and diffuse some benefits of aircraft research and development as well as production into the broader economy. Over time, indigenous production can lay the foundation for a domestic aviation industry capable of designing, producing, and potentially exporting complete fighter aircraft. However, a developing country's aviation industry may only be able to produce low-



NAF armament personnel arming an Alpha Jet prior to a mission

quality aircraft with limited combat capability and the long period required to learn to develop and produce a modern fighter may yield aircraft that are obsolete before they are fielded.

A developing country can also use clandestine means to steal design and technology information on aircraft and aircraft components that it lacks the knowledge to design and produce domestically. The “steal” option can be used to gain blueprints or examples of weapons to use in reverse engineering a subsystem or to develop countermeasures that make the threat of advanced aircraft less effective in combat. This option offers the potential to acquire advanced systems or technologies that other countries are unwilling to sell. In some cases, it could allow a country acquire advanced technology without spending funds on its own research and development. However, the “steal” option cannot provide a developing country the ability to absorb or replicate stolen systems or technologies without technological support from the manufacturer. Also, surreptitious means of access can at best provide haphazard and potentially incomplete access to systems and technology which could send a country's aviation industry down a blind alley. Of the 3 main avenues to technology procurement, the indigenous development or “build” option is the only one with the potential to stimulate innovation and create a broad-based domestic aviation industry from a low initial starting point. Simply buying aircraft from other countries, without plans to reverse engineer or coproduce, does not help a developing country move towards self-reliance.

The policy thrust for the Nigerian Air Force of the future in terms of logistics, aircraft and equipment maintenance therefore, is a hybrid approach that integrates and synergizes the benefits of the “buy” and “build” options. In this regard, indigenous development founded on the frameworks of reverse engineering and coproduction is the envisaged aim. In realization of the fact that the effectiveness of the Nigerian Air Force in the long term is hinged on the extent of the growth of Nigeria's home-based technology, especially the development of a Military Industrial Complex, the NAF Research and Development Policy was formulated. This policy led to the establishment of the Air Force Institute of Technology which runs postgraduate engineering and other logistics related programs in various aeronautical, aerospace and allied disciplines; and the establishment of the Air Force Research and Development Center in 2015 for large scale research activities. Furthermore, the Nigerian Air Force also fosters the innovative talents of its personnel through the Inter-Command Research and Development competition; and has signed 24 Memoranda of Understanding with selected Universities and research institutes to tap into the intellectual capacity and skill sets that abound in these organizations.

Accordingly, these policy thrusts have solved some specific maintenance problems facing the Nigerian Air Force. Firstly, the Service now produces a better version of the hydraulic accumulator diaphragms for its Mi-35 Helicopter fleet at a cost of twenty-five thousand Naira each as against the cost of \$106,000.00 demanded by the Original Equipment Manufacturers for 6 diaphragms which comes to approximately \$18,000.00 each. Secondly, the incompatibility problem of the camera and multi-function display on the Augusta Helicopter was modified and resolved at a cost of 5 Million Naira as against the cheapest offer of 158 Million Naira demanded by foreign maintenance firms. Thirdly, the Service now has local capacity to replace the electrolyte for the airborne alkaline batteries of its F-7Ni aircraft. Another success achieved include the production of anti-skid test benches to rectify anti-skid related snags on the



Alpha Jet aircraft. In the same vein, the Nigerian Air Force now collaborates with Innoson Group of Companies to mass produce brake pads and rivets for the Alpha Jet aircraft which were unavailable due to closure of its production lines abroad.

Indeed, the Nigerian Air Force has made breakthroughs in the field of armament such as:

- a. Locally weaponizing and reconfiguring 3 x Alpha Jets to carry both western and eastern bloc rocket launchers.
- b. Weaponizing 2 x EC-135 civil helicopters.
- c. Weaponizing the L-39ZA trainer aircraft to deliver weapons.

Other achievements embarked upon in the quest for indigenous development are as follows:

- a. NAFSA Eagle Aircraft Project.
- b. Repair of ATR-42 MPA Components.
- c. Repairs of RC Mugin RPA.
- d. Development of Rocket Launchers.
- e. Production of Operational 30.1mm Rocket and Launcher.
- f. Modification of 22 Tube Alpha Jet Rocket Launcher Using Super Puma Rocket Pod System.
- g. Development of Rocket Parameter Measuring System.
- h. Production of Unmanned Ground Vehicle which the Nigerian Air Force has acquired patent right from National Office for Technology Acquisition and Production (NOTAP).
- i. Development of Hexacopter.
- j. Arming of Bell-412 Helicopter.

The indigenous development drive of the Nigerian Air Force has reduced the Service's dependence on foreign Original Equipment Manufacturers for some components of its platforms and equipment. It has also saved cost and foreign exchange as indigenous production is undertaken at a relatively lower cost and spares delivery are timely. Accordingly, the operational readiness of the Service is enhanced and the limited platforms available are utilized efficiently to project airpower in fulfillment of Nigeria's security imperatives.

## HUMAN CAPACITY DEVELOPMENT

Human beings are the most important resource in an organization and the quality of personnel in the Nigerian Air Force will to a large extent, determine the effectiveness of the Service in meeting its constitutional roles. For the Nigerian Air Force of the future, nowhere is the importance of quality human resources crucial like in the spheres of operational design and strategy formulation. Operational design is a process of iterative understanding and problem framing that supports commanders and staff in their application of operational art with tools and a methodology to conceive of and construct viable approaches to operations and campaigns.

Commanders who are skilled in the use of operational art provide the vision that links tactical actions to strategic objectives. More specifically, the interaction of operational art and operational design provides a bridge between strategy and tactics, linking national strategic aims to tactical combat and noncombat operations that must be executed to accomplish these aims. Sir Winston Churchill aptly captured the murkiness of war and warfare to leaders when he stated "...The statesman who yields to war fever must realize that once the signal is given, he is no longer the master of policy, but the slave of unforeseeable and uncontrollable events. Antiquated war offices, weak, incompetent or arrogant commanders, untrustworthy allies, hostile neutrals, malignant fortune, ugly surprises, awful miscalculations – all take their seats at the council board on the marrow of a declaration of war." Indeed, while Churchill's caution is focused at the grand strategic level, it also holds true at the military strategic and operational levels.

Developing human capacity also requires acquiring the critical skill set necessary to discharge a function, as well as providing the enabling environment for a balanced mental, physical and spiritual state of being for personnel. In terms of skill sets, the Nigerian Air Force from 2015 till date has trained 82 pilots in foreign and local flying schools to support operations across the country, while the Service has resumed the annual air weapons competition in Makurdi.

To boost personnel effectiveness, the Nigerian Air Force places emphasis on upgrading personnel accommodation, health care, sporting activities, dependents education, and post retirement life. Accordingly, more than 58% of the Nigerian Air Force personnel are now accommodated in the barracks as against 25% in 2015. Nigerian Air Force schools and hospitals have been upgraded and equipped with state of the art facilities, sporting facilities have been provided in Nigerian Air Force Bases, while the Non-Commissioned Officer's Post Housing Scheme was introduced with 60 personnel being the pioneer beneficiaries. Indeed, the Nigerian Air Force will continue to place premium on Professional Military Education and human capacity development now and in the future.

## MILITARY AID TO CIVIL AUTHORITY

Current capabilities for disaster response in the Nigerian Air Force are insufficient, thus, making Military Aid to Civil Authority a critical capability for the Air Force now and in the future. Military Aid in this regard most often refers to consequence management after a disaster. In the face of insufficient assets for military operations, the Nigerian Air Force must be poised to aid civil authority when called upon. Accordingly, the policy thrust of the Service is threefold. First is to position medical services to conduct immediate medical support for missions. Secondly, to increase the number of airlift assets in the future inventory of the Nigerian Air Force to provide first-response airlift. Third, to build a highly robust Regiment Specialty that would effectively

and professionally undertake Internal Security operations on behalf of the Service.

Already, the Nigerian Air Force is making inroads to meet these objectives in a vigorous way. For instance, in terms of medical services, the Nigerian Air Force has established Level 2 Hospitals in Bama and Dalori where surgical intervention services are provided for internally displaced persons, while medical outreach programs were conducted in several communities across the country. In the same vein, the Nigerian Air Force conducted skills acquisition programs for IDPs, airlifted relief materials for distressed persons and extracted vulnerable and aged person from high risk areas. These efforts which are aimed at winning the "hearts and minds" of the populace do not only endear the people to the Nigerian Air Force, but also create effects in ways that reinforce the will and commitment of the civil authority to the wellbeing of the citizenry. In summary, the long-term vision of the Nigerian Air Force in terms of aid to civil authority is to develop the capacity and capability to efficiently engage in a 3-Block war on a grand scale, where humanitarian, peacekeeping/ stabilization and combat operations are conducted simultaneously.

## CONCLUSION

I have discussed the Nigerian Air Force and its place in the national security matrix, highlighting the mission of the Nigerian Air Force, its current state and contemporary challenges. Thereafter, I delved into my vision for the Nigerian Air Force and the policy thrust of the Service towards actualizing my vision. At the top of the hierarchical layers of decision making and planning relating to conflict is vision, followed by strategy, operations and tactics. Achieving effective vision and strategy is more difficult and more important than having good operations and tactics. For it is possible to win at the tactical and operational levels of war and at the same time lose at the visionary and strategic levels as witnessed in the Vietnam War. Without a clear vision of what we hope to accomplish, a strategy for bringing all elements of national power to bear to achieve an objective cannot be developed.

Accordingly, the Nigerian Air Force is being repositioned to cope with emerging challenges now and in the future. Judging by all I have said so far, I foresee a transformed Nigerian Air Force with the capacity to effectively deliver on its constitutionally assigned mandates through application of technological innovation and strategic partnerships, reinvigorated with strategic thinking to develop the critical capabilities the Service must be prepared to provide in the future. Before I take my seat, let me leave you with these words from the Greek historian and general, Thucydides, who during the Peloponnesian war, observed the import of Professional Military Education such as what you are embarking on here in the Armed Forces Command and Staff College, and I quote "The Nation that makes a great distinction between its scholars and its warriors will have its thinking done by cowards and its fighting done by fools"

On that note, I want to use this opportunity to wish you a most fulfilling course of study and encourage you to redouble your efforts to actualize your individual career aspirations and also add value to our society. Thank you for your attention and God bless.



## NAF SUCCESSFULLY CONDUCTS IN-HOUSE 400 HOURS INSPECTION ON F-7 AIRCRAFT

Instituting a robust maintenance culture for the sustenance of platforms and equipment serviceability is an important part of the policy thrust of the current Leadership of the Nigerian Air Force. This imperative has received another boost with the successful in-house conduct of 400 hours scheduled maintenance inspection on an F-7 fighter trainer aircraft by engineers and technicians of the 131 Engineering Group (131 Engr Gp) Makurdi. This was recently revealed, when the Chief of the Air Staff, Air Marshal Sadique Abubakar, conducted an

operational visit to NAF Base Makurdi, and the proposed site for the 21 Quick Response Wing (21 QRW) in Agatu, Benue State.

The Commander 131 Engr Gp, Air Commodore Pius Oahimire, while briefing the CAS, stated that the conduct of such a high level maintenance inspection by NAF personnel, without foreign assistance, was a landmark and historic achievement. He noted that the feat had only been made



possible through the current NAF Leadership's intensive human capacity development initiatives which had empowered the technicians with the necessary skills and confidence to do the job. He therefore thanked the CAS for creating the enabling environment that facilitated the realization of the feat including the provision of necessary resources and approval of special allowances for the aircraft technicians involved in the inspection. Speaking further, the Commander stated that the in-house inspection had cost the NAF N3 Million; whereas over N30 Million would have been required if done by the Original Equipment Manufacturer (OEM) or an external maintenance repair facility. The 400 hours scheduled inspection was completed in 3 weeks and involved the removal, servicing, testing and re-installation of the aircraft engine and other major components. The CAS, who was accompanied by other senior officers from Headquarters NAF, was received by the former Air Officer Commanding Tactical Air Command, Air Vice Marshal Oladayo Amao.



NAF Engineers and Technicians during in-house conduct of 400 hours scheduled maintenance inspection on F-7 fighter trainer aircraft



SGOH and others Inspects the Light Weighth Helicopter

# NAF SHOWCASES NEW RESEARCH AND DEVELOPMENT BREAKTHROUGHS AS AIR FORCE INSTITUTE OF TECHNOLOGY GRADUATES 257 STUDENTS

The Nigerian Air Force has recorded more Research and Development (R&D) breakthroughs, which were showcased during the 47th convocation ceremony of the Air Force Institute of Technology (AFIT) Kaduna on 27 July 2018. The projects included a prototype Oleo-Pneumatic Shock Absorber for Unmanned Aerial Vehicles (UAV), an Automatic Solar Tracking System and a Rocket Launcher Circuit Test Box. Others were a prototype of Light Weight Helicopter, an Unmanned Hexacopter as well as the adaptation and installation of BO-105 Helicopter guns on the Bell 412 Helicopters recently handed over to the NAF by the Federal Government. The convocation ceremony also featured the award of diplomas and degree certificates to 257 graduating students comprising 102 NAF personnel, 2 Nigerian Army personnel, 3 Nigerian Navy personnel and 150 civilians.

The Secretary to the Government of the Federation (SGF), Barrister Boss Mustapha, who was the Special Guest of Honour, was taken on a guided tour of the exhibition stand for the new R&D breakthroughs. During the tour, he was informed that the Oleo-Pneumatic Shock Absorber was designed and produced by

AFIT students, using entirely locally sourced materials. The system has been comprehensively tested and would be used on UAVs that would be subsequently produced by the NAF. Furthermore, the Automatic Solar Tracker was designed by AFIT students to maximize the harvest of solar energy while the Rocket Launcher Circuit Test Box was developed to test continuity in rocket launchers in aid of maintenance activities on NAF's fighter aircraft.

The SGF and other dignitaries were also briefed that an R&D Team from AFIT had also successfully weaponized the Bell 412 Helicopters by adapting the guns that were procured in the 1970s for the now de-commissioned BO-105 Helicopters. Two pods, comprising 2 guns each, have already been installed on one of the Bell 412 Helicopters and successfully test fired, both on the ground and in the air, thereby saving the nation considerable foreign exchange that would have otherwise been expended in purchasing and installing new guns. Another significant breakthrough on display was the multipurpose Unmanned Hexacopter, which was designed and constructed in-house by a team of AFIT staff and students led by Flight Lieutenant



Cross Section of Dignitaries at the 47TH AFIT Graduation



Cross Section of Graduands at the AFIT 47TH Convocation Ceremony

Nkemdilim Ofodile. The Hexacopter, which was again successfully demonstrated, is designed for both military and civilian applications such as aerial surveillance, mapping, policing operations and pipeline monitoring, among others.

Speaking during the ceremony, the SGF expressed delight with the giant strides made by the NAF in the areas of human capacity development and R&D. He commended the NAF leadership for the progress in AFIT, especially the synergy of effort between military and civilian institutions. He noted that this type of synergy exemplified one of the policies of President Muhammadu Buhari, which is to create indigenous technological capacity in the military and civilian spaces in Nigeria towards engendering joint research efforts. He noted that AFIT was well positioned to continue to provide a pool of qualified manpower that would ensure sustainability of the Nigeria Air project. He then charged the graduating students to aim to be globally competitive and gear up to conquer the world.

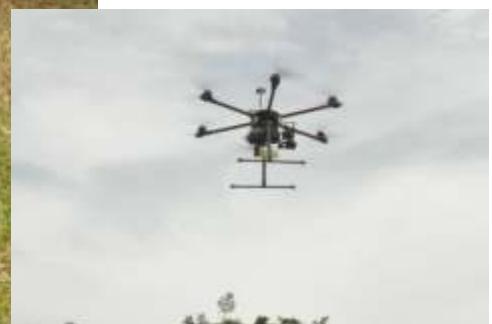
Earlier, while declaring the convocation ceremony open, the Chairman of the AFIT Governing Council and Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, specially thanked President Buhari, for assenting to the Bill, which effectively

transformed AFIT to the status of a degree awarding university. He equally thanked the National Assembly for the passage of the Bill. He noted that there is the need for private sector participation with a view to mass producing the R&D products to enable the nation maximally benefit from NAF's R&D efforts. In his welcome address, the AFIT Commandant, Air Vice Marshal (AVM) Cletus Udeagulu, thanked the SGF for accepting to grace the occasion and also appreciated the CAS for being the focal point of support that had enabled the Institute to record such remarkable achievements. He further revealed that the Institute was poised to commence degree programmes with effect from the 2018/2019 Academic Session.

Heads of other academic institutions as well as the Executive Secretaries of the NUC and NBTE delivered goodwill messages during the ceremony while prizes were presented to the best graduating students in the various departments. The event also featured the ground-breaking ceremony of the Air Marshal Sadique Baba Abubakar Way, which would serve as the new entrance to the Institute.



Hexacopter Designed by a Team of AFIT Staff and Students



Hexacopter Designed by Team of AFIT Staff and Students During a Test Flight



Secretary to the FGN Presenting plaque to one of the Best Graduating Students



Air Marshal Sadique Abubakar Presenting a Memento to the SGOH



Secretary to the FGN Inspects the Oleo-Pneumatic Shock Absorber for UAV



SGOH Inspecting an Automatic Solar Tracking System



Dignitaries and Students in a Group Photograph at AFIT Convocation Ceremony



Honourable Samson Okwu inspecting the newly reactivated communication control unit of the F7 Aircraft

## NIGERIAN AIR FORCE RECORDS NEW FEATS IN RESEARCH AND DEVELOPMENT, BOOSTS AIRCRAFT MAINTENANCE CAPABILITY

The Nigerian Air Force (NAF) has recorded new breakthroughs in its Research and Development (R&D) efforts, leading to further enhancement of its aircraft maintenance capability. This became apparent when the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, in company of the Chairman House Committee on Air Force, Honourable Samson Okwu, visited various NAF units in Makurdi. The R&D feats included the reactivation of the Communications Control Unit (CCU) of the trainer version of the F-7Ni fighter aircraft. The CCU, which enables instructor pilots and trainees to communicate with each other and the control tower while on training missions, had resulted in the grounding of the aircraft thereby hindering training of fighter pilots. Ordinarily, the CCU costs about forty thousand dollars (about 15 Million Naira) and would require a minimum of 10 months for delivery to the NAF. However, through the ingenuity and resourcefulness of NAF engineers and technicians at the recently established NAF Central Avionics Overhaul Calibration Centre (CAOCC), the faulty CCU was repaired locally in a record time of just one week. The Commander NAF CAOCC, Group Captain Osichinaka Ubadike, while briefing Honourable Okwu, the CAS and senior officers, stated that the Centre was able to repair 3 units of CCU at the cost of three hundred thousand naira.

A similar feat was recorded by the Engineering Wing of 101 Air Defence Group (ADG), where the old, unserviceable Cathode Ray Tube (CRT) Rear Cockpit Head-Up-Display (HUD) of the F-7Ni aircraft was replaced with a modern Liquid Crystal Display (LCD) HUD at a cost of One Hundred Thousand Naira, as against about Two Hundred Thousand Dollars (about 80 Million

Naira) that would have been required to procure the same unit from abroad. Air Cdre Precious Amadi, former Commander of 101 ADG, accompanied by one of his officers, subsequently conducted a test flight and performed some aerobatics with the FT-7Ni aircraft to demonstrate the efficacy of the repairs/modification on the two aircraft systems. At the 131 Engineering Group (Engr Gp), the Commander, Air Commodore Pius Oahimire, revealed that the Unit's recently reactivated Machine Tools Workshop had helped to modify the Battery Cart for the F-7Ni fighter aircraft. Hitherto, the cart always broke down after about a year of use thus requiring significant lead time to replace the batteries from overseas vendors. However, the Unit was able to modify the cart by fabricating accessories that would enable the use of local and readily available batteries, thereby reducing cost and downtime. The 131 Engr Gp had also designed and constructed a Foreign Objects Debris (FOD) Picker that would help to clear all ferrous FODs from the apron for enhanced safety.

While in Makurdi, the Guest of Honour, Honourable Okwu, seized the opportunity to commission two recently completed projects. The first was a newly constructed and furnished block of 10 x single room flats for single officers, which was named after retired AVM Ahmed Iya, who was also present at the event. The second project was the newly constructed and equipped Cancer Screening Centre at 161 NAF Hospital. The Centre, which was named after a deceased former Director of Medical Services (DMS), late Air Commodore Emmanuel Nkanor, is equipped with modern diagnostic equipment and support infrastructure. In his remarks during the commissioning, Honourable Okwu



The Commander 131 Engineering Group, Air Commodore Pius Oahimire, briefing the dignitaries during the visit

stated that the two projects were testimonies of the sensitivity and responsiveness of the NAF's leadership to the welfare needs of its personnel. He urged the benefitting officers of the SOQ to ensure they maintained the accommodation and charged them to rededicate themselves to accomplishing assigned tasks. He said he was excited that the services provided by the Cancer Screening Centre would not only impact positively on the health of NAF personnel but would also be accessed by the citizens of Benue State. He also expressed great satisfaction with the level of results achieved by the NAF in R&D.

Earlier, the CAS had commended the Air Officer Commanding Tactical Air Command (AOC TAC) and the various Commanders for the R&D feats, which he noted had further enhanced NAF's aircraft maintenance capability. He stated that these were evidences that the nation had the necessary capacity to provide innovative solutions to most of its challenges, if we all are, individually and collectively, committed and motivated. Air Marshal Abubakar further stated that his desire was to enhance professionalism by meeting the welfare needs of NAF personnel, being cognizant that the human being was the most critical element in any working system. He disclosed that Cancer Screening Centres were being established in NAF Hospitals across the country to provide effective and affordable avenues for early diagnosis, screening, treatment and palliative care to reduce the scourge of the disease. He stated that two more Centres would soon be established at the NAF Hospitals in Benin and Port Harcourt. The CAS restated his commitment to ensuring that Benue State, and the country at large, is liberated of all forms of criminality, which adversely affect our economic, social and cultural well-being.

In his welcome address, the former AOC TAC, AVM Oladayo Amao, thanked the CAS for always attending to the needs of the Command and consistently taking action to address areas of infrastructural deficit in NAF Base Makurdi. The Air Commodore Nkanor Centre is the fourth of such Centres that had been established by the NAF in the past 3 years, the others being located at Abuja, Maiduguri and Bauchi.



A Foreign Object Debris (FOD) Picker Box and Newly Modified F7 Aircraft Battery Cart



Newly Reactivated Communications Control Unit of the F7 Aircraft



The CAS, Air Marshal Sadique Abubakar and other dignitaries listening to a brief by one of the pilots at 101 Air Defence Group



The CAS, Air Marshal Sadique Abubakar, making a remark during the visit



Cancer screening equipment at the IBI NAF Hospital in Makurdi



Laboratory Equipment at the IBI NAF Hospital in Makurdi



The CAS and other dignitaries in front of the newly commissioned Air Commodore EJY Nkanor Cancer Screening Centre, IBI NAF Hospital, Makurdi



Newly commissioned and furnished single room flats for single officers in Makurdi



Chairman House Committee on Air Force, Honourable Samson Okwu, unveils commissioning plaque at the newly established Cancer Screening Centre



The former Air Officer Commanding Tactical Air Command (ADC TAC), Air Vice Marshal Oladayo Amao, making his remarks during the operational visit of the CAS to the Command

# NAF ACCOMPLISHES FIRST IN-COUNTRY OVERHAUL OF MI-35P HELICOPTER GUNSHIP, REACTIVATES AN ADDITIONAL EC-135 HELICOPTER

The Nigerian Air Force (NAF) has successfully accomplished the first in-country overhaul of one of its helicopter gunships, the Mi-35P NAF 531. This was revealed during the acceptance ceremony held for the helicopter at NAF's 115 Special Operations Group (SOG), Port Harcourt. The Mi-35P Helicopter was one of the critical air assets being employed in the counterinsurgency operations in the Northeast before it was grounded, having become due for scheduled overhaul. Also restored to serviceability was an EC-135 Helicopter, NAF 548, which became unserviceable in March 2018 because of the need to undergo an engine modular change. The reactivation works on both helicopters were carried out in the hangar of 115 SOG by NAF engineers and technicians, who worked closely with some foreign technical partners.

Speaking during the acceptance ceremony, the Air Officer Commanding Tactical Air Command, Air Vice Marshal Oladayo Amao, stated that the 2 newly reactivated helicopters would augment the number of air assets available for counterinsurgency operations and other Internal Security operations in the country. He also expressed appreciation to the Chief of the Air Staff, Air Marshal Sadique Abubakar, for his vision of undertaking the Life Extension Programme (LEP) of the Mi-35P Helicopter locally and for authorizing timely release of resources to achieve the objective. According to him, it was the first time the LEP of the Mi-35P Helicopter would be locally accomplished, a feat that had not only resulted in costs savings but also enhanced the capacity of NAF technical crews. He then disclosed that a similar major maintenance work had commenced on Mi-35P Helicopter NAF 530.

In his remarks at the event, the CAS stated that the process of reactivating the 2 helicopters was deliberately designed to ensure that the Technical Assistance Groups (TAG) exposed NAF technicians to every stage of the maintenance work, as part of efforts by the current NAF leadership at human capacity building. "The work, which began on 27 February 2017, sets a new beginning for the NAF along its journey to a culture of self-reliance", Air Marshal Abubakar proudly stated. He then thanked members of the TAG for not only tutoring NAF technicians but also assisting in the repairs of unserviceable Ground Support Equipment. The CAS also congratulated the beneficiaries of the on-the-job training and then urged them to make maximum use of the newly acquired skills as they prepared to undertake the Periodic Depot Maintenance of Mi-35P Helicopter NAF 530. The CAS acknowledged that the day's achievements would not have been possible without the untiring efforts of personnel of 115 SOG, the support of the National Assembly and the enabling environment created by President Muhammadu Buhari.

The highlight of the ceremony was the Functional Check Flights (FCFs) carried out on the 2 newly reactivated helicopters, after appropriate ground checks by the technical crews. The Commander 115 SOG, Air Commodore Elijah Ebiwe, led 3 other NAF pilots in flying the 2 newly reactivated aircraft. Subsequently, Air Commodore Ebiwe confirmed that the FCFs

revealed that all necessary parameters on both helicopters were within limits thereby paving way for the presentation of aircraft documents and formal acceptance of the aircraft. The 2 helicopters have since been deployed for operational duties. Meanwhile, the CAS seized the opportunity to also commission some projects executed by the Unit towards enhancing the welfare of personnel.



Newly overhauled MI-35P Helicopter Gunship during a test-flight



EC-135, NAF 548, after engine modular change



CAS Presenting a memento to the Leader of TAG



The Newly Reactivated C130 Aircraft

## NAF REACTIVATES ANOTHER C-130H AIRCRAFT AS CAS COMMISSIONS NEW PROJECTS IN LAGOS

The Nigerian Air Force (NAF) has successfully completed the in-house life extension programme on one of its C-130H aircraft, NAF 913 thereby improving the airlift capability of the Service. According to the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, the NAF would continue to intensify efforts at reactivating unserviceable aircraft in its inventory to enhance its operational effectiveness. He stated this while assessing the progress of work on the in-country Periodic Depot Maintenance (PDM) of another NAF's C-130 aircraft at 631 Aircraft Maintenance Depot (ACMD) during his operational visit to Lagos. The CAS, who was accompanied on the operational visit by senior officers from NAF Headquarters, also inspected and commissioned some projects at the Sam Ethan Air Force Base (SEAFB) Ikeja and the Armed Forces Resettlement Centre (AFRC) Oshodi.

At 631 ACMD, the CAS was briefed by the Commander, AVM Moses Oniledi, that the Depot had also successfully overhauled two C-130H aircraft engines while the in-country PDM of the second C-130H, NAF 917, had reached an advanced stage. Responding, the CAS noted that the reactivation of NAF 913 was another major feat recorded by the current NAF leadership to further improve NAF's capability to provide logistics support across multiple theatres of operations. He therefore commended the Commander and personnel of the Unit while equally thanking President Muhammadu Buhari for providing the enabling environment for the NAF to raise the serviceability

status of NAF operable aircraft from about 31 per cent in 2015 to an average of 80 per cent as at date.

While in Lagos, Air Marshal Abubakar visited AFRC Oshodi, where he was conducted on a tour of projects executed by the outgoing Commandant, Air Vice Marshal (AVM) Ajibola Jekennu. One of the significant achievements was the redesign and reconstruction of 2 blocks of trainees' hostels from the erstwhile dormitory style accommodation to appropriately furnished 2-occupant self-contained accommodation. Air Marshal Abubakar expressed his delight at the people-centred leadership style of AVM Jekennu and commended him particularly for the steps taken to enhance the welfare of the trainees, most of whom had served the nation for 35 years. In his remarks, AVM Jekennu, said that the massive infrastructural development witnessed in the NAF and the mandate given to him by the CAS to bring positive change to AFRC, inspired his performance at AFRC. The CAS, who is a member of the AFRC Governing Board, later commissioned the newly renovated and expanded AFRC Officers' Mess.

The CAS also commissioned 2 newly completed and furnished officers' residential accommodation at SEAFB, one of which is a block of 6 x 3 bedroom flats, which was named after late Air Commodore Emmanuel Akinbayo who died on 4 February 2018 while serving as Commander 553 Base Services Group (BSG) Enugu. The wife of the late senior officer, Mrs Oluranti Akinbayo

joined the CAS in unveiling the plaque of the building. The second building is a block of 10 by one bedroom flats for single officers. The CAS, while speaking during the event, reiterated the commitment of the current Federal Government Administration towards meeting the welfare needs of personnel. He emphasized that no modern war could be effectively prosecuted without credible air power capability and this could not be achieved without effective logistics support. He therefore urged personnel of Logistics Command to rededicate themselves to their constitutional roles and charged them to remain apolitical while exercising their legitimate rights to vote for the candidates of their choice.

While in Lagos, Air Marshal Abubakar inspected some old blocks of airmen's residential accommodation that required various levels of repair works. He immediately tasked the Air Officer Commanding Logistics Command (AOC LC) to assess and submit the requirements for renovating the buildings. The CAS also seized the opportunity to visit a fish farm being run by barracks youths under his initiative known as 'Barracks Youth Empowerment Through Agriculture'. Before departing from Lagos, Air Marshal Abubakar held stimulating interactive sessions with officers as well as airmen and airwomen of NAF units in Lagos area.



CI30 Aircraft Under Reactivation at 631 Aircraft Maintenance Depot



The CAS, in company of other NAF senior officers, inspecting one of the facilities at the 631 Aircraft Maintenance (ACMD) Depot in Lagos



The CAS, Air Marshal Sadique Abubakar, in company of other NAF senior officers, inspecting a locally made Aircraft Jacking System at 631 ACMD in Lagos



A locally made Aircraft Jacking System at the 631 ACMD Lagos



The Commander, 631 ACMD, AVM Moses Onilede, briefing the CAS and the former Air Officer Commanding Logistics Command, Air Vice Marshal Remigius Ekeh



Newly reconstructed trainees' blocks at the Armed Forces Resettlement Centre (AFRC) in Oshodi



The CAS, Air Marshal Sadique Abubakar, cutting the tape to commission the newly reconstructed trainees' blocks at the Armed Forces Resettlement Centre (AFRC) Oshodi



The former Commandant AFRC, Air Vice Marshal Ajibola Jekennu, presenting a memento to the CAS during the visit



The CAS, Air Marshal Sadique Abubakar, inspecting some of the products of the skill acquisition programme made by trainees at the AFRC in Oshodi



The CAS, Air Marshal Sadique Abubakar, cutting the tape to commission Air Commodore EO Akinbayo Officers Accommodation at Sam Ethan Air Force Base (SEAFB) in Ikeja



Newly commissioned Air Commodore EO Akinbayo Officers Accommodation at SEAFB in Ikeja



The CAS, Air Marshal Sadique Abubakar, inspects a fish farm which is run by youths under the Base Youth Empowerment Through Agriculture (BYETA) in Ikeja



The CAS, Air Marshal Sadique Abubakar, in a group photograph with beneficiaries of the BYETA and other NAF senior officers



## REACTIVATION OF AIRCRAFT HANDED OVER BY NIGERIA IMMIGRATION SERVICE REACHES ADVANCED STAGE

The Nigerian air Force (NAF) has successfully reactivated 2 of the Do-228 aircraft handed over by the Nigeria Immigration Service (NIS). The Chief of the Air Staff, Air Marshal Sadique Abubakar, during on-the-site inspection visit to 431 Engineering Group, NAF Base Kaduna to witness the extend of work done on the aircraft. Furthermore, preliminary inspections have been conducted on the airframe of one of the 3 aircraft received from the NIS reviled that the aircraft had been heavily corroded before it was handed over and therefore Beyond Economic Repairs. In addition, the faded paintings on both aircraft have been replaced with military paint schemes to minimize corrosion and in preparation for subsequent deployment to operational theaters.

The NAF is now awaiting the delivery of the required Time Change Items and other aircraft spares to enable the conduct of mandatory outstanding scheduled inspections on both aircraft. Apart from its usefulness as a light liaison transport aircraft, the Do-228 could be employed for Intelligence, Surveillance and Reconnaissance missions in the counterinsurgency and other operations in the country. Consequently, by the time the reactivation is completed, the operational effectiveness of the NAF would be further boosted and the hitherto grounded aircraft prevented from total decay.



NAF Technicians working on one of the Do-228 Handed over by the Nigerian Immigration Service



CAS inspects one of the aircraft



The Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar and the Azerbaijan Deputy Minister of Defence and Commander of the Azerbaijan Air Force (AzAF), Lieutenant General Ramiz Tahirov in a group photograph with the entourage of the CAS and other members of the AzAF

## CAS VISITS AZERBAIJAN, SEEKS PARTNERSHIP IN TRAINING, DEVELOPMENT OF MILITARY INDUSTRIAL COMPLEX

The Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, recently led a delegation of senior Nigerian Air Force (NAF) officers on a visit to Azerbaijan to seek strategic partnership in capacity building and development of Nigeria's military industrial complex with a view to further boosting NAF's operational effectiveness in the fight against insurgency and other forms of criminality in the country. The visit, which took place from 5 - 8 February 2019, was on the invitation of the Azerbaijani Deputy Minister of Defence and Commander of the Azerbaijan Air Force (AzAF), Lieutenant General Ramiz Tahirov, who, along with other senior officers from AzAF, hosted the CAS and conducted him on a tour of facilities at the Gala Air Base and the Aviation Repair Factory located in Nasosna Air Base, where the AzAF carries out up to 4th Line Maintenance of aircraft in its inventory. One of the immediate benefits of the visit is the acceptance by the AzAF to provide simulator training slots for NAF pilots on the Mi-35M Helicopter and L-39ZA aircraft. The first set of NAF pilots are expected to commence their simulator training before the end of February 2019.

The CAS was accompanied on the visit by the Air Officer Commanding Mobility Command, Air Vice Marshal (AVM) Peter Uzezi, Chief of Logistics Headquarters NAF, AVM Aminu Yakubu, the Chief of Staff Air Training Command, Ayoola Jolasinmi, the Deputy Director of Training (Air) HQ NAF, Air Commodore Esen Efanga as well as Nigeria's Defence Adviser to Islamabad, Brigadier General Nasiru Mukhtar.



Cross section of NAF delegates in a meeting with its AzAF counterpart during the visit



Cross section of NAF delegates and members of AzAF during a briefing before embarking on a tour of facilities at the Gala Air Base and Aviation Repair Factory at the Nosana Air Base



The CAS and other NAF delegates being conducted round facilities at the Gala Air Base and Aviation Repair Factory at the Nosana Air Base



The CAS and the Azerbaijan Deputy Minister of Defence / Commander of the Azerbaijan Air Force while exchanging mementoes

# REGIONAL SECURITY: CHIEF OF SOUTH AFRICAN ARMY VISITS CAS, PLEDGES ENHANCED SECURITY COOPERATION



The Chief of the Air Staff, Air Marshal Sadique Abubakar welcoming the South African Chief of Army Staff Lt Gen Lindile Yam to HQ NAF

**A**s part of his working visit to Nigeria, the Chief of South African Army, Lieutenant General (Lt Gen) Lindile Yam, paid a courtesy visit to the Chief of Air Staff (CAS), Air Marshal Sadique Abubakar, at Headquarters, Nigerian Air Force (NAF), Abuja. During the meeting, both leaders held discussions on issues bordering on Nigeria and South Africa security cooperation with a view to promoting peace and stability on the African continent.

The South African (SA) Army Chief emphasized the need to reinforce collective responses to security threats, particularly the menace of terrorism and other transnational crimes to jointly promote peace and socio-economic growth on the African Continent. He commended the efforts of the NAF in the fight against terrorism in Northeast and other internal security threats in Nigeria, noting that the NAF had also showcased great capability with recent projection of Air Power to ensure Sub-Regional stability. Speaking further, Lt Gen Yam lauded the efforts of the CAS at repositioning the NAF into a highly professional and well respected fighting force, as evidenced by the various operational achievements recorded in recent times.

The CAS responded by assuring the SA Army Chief of NAF's readiness to further build on the existing cordial relationship between the Armed Forces of both countries. He also promised to support all efforts aimed at promoting peace and regional stability in Africa. Air Marshal Abubakar noted that the various achievements recorded by the NAF were due to the unprecedented support it had received from the Federal Government.



The Chief of the Air Staff, Air Mshl Sadiqe Abubakar presenting souvenir to the South African Chief of the Army Staff, Lt Gen Lindile Yam



The Chief of the Air Staff, in a group photograph with the South African Chief of Army Staff his entourage and other senior officers

## THE CHIEF OF THE AIR STAFF AT THE AFRICAN AIR CHIEF CONFERENCE IN MOROCCO



The Chief of the Air Staff, Air Marshal SB Abubakar presenting a paper during the African Air Chiefs Conference in Morocco



Cross section of African Air Chiefs and other senior officers at the conference



The CAS making a presentation to his host during the visit



the CAS, Air Mshl SB Abubakar during one of the briefing sessions at the conference

## CHIEF OF THE AIR STAFF AIR MARSHAL SB ABUBAKAR'S MAKING A PRESENTATION AT THE 10TH INTERNATIONAL DEFENCE EXHIBITION AND SEMINAR IN PAKISTAN





# Goodwill Message

from



## Maj Gen AB Adamu

DSSTSM Bsc Msc MBA FCNA FNIM FCE pfd FCIFCN ACTI

Chairman Military Pensions Board

I am most delighted to identify with the Nigerian Air Force (NAF) on this occasion of the publication of yet another remarkable edition of the Airman Magazine and the celebration of its 55th anniversary. The Airman Magazine over the years has continued to enlighten the general public on the committed efforts of the NAF in the defence of the territorial integrity of our father land.

The Magazine has effectively projected the role of the NAF in the on-going Counter Insurgency Operation in the North East as well as numerous activities that serve as key drivers in the repositioning efforts of the incumbent Chief of the Air Staff (CAS) Air Marshal SB Abubakar DFS. I have therefore no doubt that this edition would throw more light on the repositioning efforts of the CAS and the commendable contributions of the NAF to the National Defence Architecture. While commending the editorial team for attaining very high quality both in print and content, I fervently implore the team to continue to sustain the high level of quality of the Magazine in subsequent editions.

On behalf of the entire Officers, Men and Civilian Staff of Military Pensions Board, I wish to extend our esteem regards to the CAS as he marches forward with his vision of “repositioning the NAF into a highly professional and disciplined force through capacity building initiatives for effective, efficient and timely employment of air power in response to Nigeria's National security imperatives.”



# RESTORING PEACE FROM THE AIR

*Wg Cdr BI Okon*

The modern battle space has shifted from its traditional locations where conventional procedures facilitated defined operational fields. The asymmetric nature of today's conflict has obliterated the clear distinction between combatants and non-combatants thereby necessitating the application of real-time intelligence to identify fighters who often disguise as civilians. The deployment of Intelligence, Surveillance and Reconnaissance (ISR) platforms is therefore critical to modern warfare. A preview of the Iraqi war and most irregular warfare within the present century would invariably reveal the critical role played by air power. Consequently, the operations of the Nigerian Air Force (NAF), being the air component of the military, are critical to the successful restoration of peace in the conflict environment. A look at some of the successes of the Air Task Force (ATF) of OPERATION LAFIYA DOLE would buttress the assertion that

the restoration of peace, in today's asymmetric warfare, is often decided in the air.

The ATF, for instance, on 15 June 2018, successfully neutralized some Boko Haram Terrorists (BHTs) at Parisu and Takwala, both in Borno State. The mission followed the discovery, by NAF ISR platforms, of activities of BHTs in the 2 locations. Consequently, the ATF detailed 2 NAF Alpha Jet aircraft, armed with rockets and cannons, to interdict the locations. Overhead the objective, the NAF fighter aircraft acquired and attacked the objectives with rockets and cannons. At the end of the mission, it was observed that the attack platforms successfully engaged the remnants of the terrorists hibernating within the settlements and consequently neutralized them.

On 3 August 2018, the ATF again conducted a successful attack on a Boko Haram Terrorists' Hideout in DABAN MASARA in

Borno State. The surgical air strikes were conducted on the strength of credible intelligence which indicated that remnants of BHTs on the Lake Chad Islands were hiding out in settlements at the Southern part of the lake, including DABAN MASARA, and were amassing in some buildings for a meeting. An air interdiction mission was therefore planned and executed to destroy 2 out of the green roofed buildings within DABAN MASARA that were identified as BHT rendezvous points. Upon receiving the intelligence, the ATF dispatched a NAF Alpha Jet aircraft, along with an ISR platform, to attack the 2 buildings where the BHTs were gathered with bombs. Overhead the area of interest, the Alpha Jet successfully released its bombs on the targets in successive strikes leading to massive destruction of the target buildings as well as the neutralization of several BHTs.

At BULAGALAYE and KWAKWA, both in Borno State, the ATF of Operation LAFIYA DOLE, on 15 July 2018, successfully neutralized several BHTs. The successful air strikes on both locations were a result of efforts to trail and neutralize fleeing terrorists after Nigerian Army (NA) troops had repelled the attack on their location around BAMA. Upon receiving reports of the attack, the ATF scrambled an ISR platform and the Alpha Jet aircraft to locate the fleeing terrorists. Consequently, the insurgents, who were seen assembled at a staging area in BULAGALAYE, began to disperse upon sighting the attack platforms. However, the NAF fighter aircraft acquired and attacked the fleeing insurgents with bombs and rockets. As a result of the air strikes, the BHTs were neutralized while their vehicles and weapons were destroyed, leading to a thick cloud of black smoke. Intelligence reports later revealed that a smaller bunch of the BHTs had re-assembled in a settlement known as KWAKWA and ATF conducted a wave of strikes on the location. Overhead KWAKWA, the ISR platform successfully identified the terrorists' location and vectored the attack platforms to the target area, which was attacked with bombs and rockets.

Following the successful attacks at KWAKWA, further massive day and night attacks were subsequently carried out against remnants of BHTs and their facilities by ATF. The daytime mission around the fringes of Sambisa was executed after ISR had confirmed that BHTs were regrouping to launch attacks against troops in the general area. Accordingly, the ATF detailed an Alpha Jet which attacked the location and destroyed the settlement while several BHTs were neutralized.

Operation LAFIYA DOLE also recorded further gains through air interdiction operations designed to wipe out remnants of Boko Haram Terrorists (BHTs) within the fringes of Lake Chad. The ATF also conducted air strikes on BHT camps at Zanari and Tunbun Rego in Borno State. The air strikes at Zanari were planned and executed based on intelligence reports indicating that the BHTs had established a training camp in the village and were converging in an area prior to departing for an attack on own troops locations around the Lake Chad area. Accordingly, the ATF scrambled 2 NAF Alpha Jet aircraft for a pre-emptive strike on 2 specified locations within Zanari, where the BHTs were assembled.

The current respite enjoyed by the middle belt axis of Nigeria could be partially attributed to the response by the Chief of the Air Staff, Air Marshal Sadique Abubakar, to the directive by the Commander-in-Chief, President Muhammadu Buhari, to employ air power assets to the lingering crisis and banditry within the area. The subsequent introduction of Operation WHIRLSTROKE brought the criminality under control. It can therefore be said that, the continual application of air power, under the current leadership of the NAF, with the increasing serviceability status of the aircraft and the support enjoyed by the NAF from the current political leadership, would invariably bring in peace from the air.



Agusta 109LUH Helicopter used for close air support

# OPERATIONAL EFFECTIVENESS: AIR OPERATIONS RECEIVE BOOST AS NAF GRADUATES ADDITIONAL PILOTS

The efforts of the Nigerian Air Force (NAF) at ensuring enhanced operational effectiveness in the prosecution of the ongoing war against insurgency in the Northeast as well as combating various forms of criminality in other parts of the country has received another boost, with the graduation of 7 pilots of Basic Flying Course 18 at the 403 Flying Training School (403 FTS) Kano. The graduation also witnessed the decoration of a graduate of United States Air Force (USAF) Specialized Undergraduate Pilot Training (SUPT) with NAF pilot wings; hence, in all, 8 pilots were decorated with wings having demonstrated the professional competence in handling fixed winged aircraft. This brought the total number of pilots that have been winged within the past 3 years to an unprecedented 90.

In his keynote address, the Guest of Honour at the occasion, the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, stated that the graduation ceremony and overwhelming resurgence of young pilots in the NAF were testimonies that his vision to reposition the NAF into a highly professional and disciplined force through capacity building initiatives for effective, efficient and timely employment of air power in response to Nigeria's national security imperatives has indeed become a reality. He noted that following extensive trainings, platform acquisitions and reactivation of grounded aircraft as well as resuscitation of unserviceable equipment, the NAF could now mostly fulfill its roles across the spectrum of air power tasks. The CAS added that the rebuilding process would continue as the Service continued to strive to consolidate by enhancing its manpower capacity and improving upon the

serviceability status of aircraft in NAF inventory.

Air Marshal Abubakar noted, in particular, that a lot had been achieved in the critical area of human capacity development. According to him, "We recently graduated 11 pilots from Westline Aviation of South Africa, 10 pilots from International Aviation College Ilorin while 43 student pilots have completed their ab-initio flying training at 401 FTS Kaduna. Meanwhile, 27 student pilots are currently undergoing ab-initio flying training at 401 FTS while 6 have just departed for helicopter training in South Africa. Furthermore, 700 Special Forces personnel have been trained for the defence of NAF mission critical assets, while many personnel are undergoing engineering and other specialized Air Force related trainings both at home and abroad", he added. He noted however, that the strategic importance of NAF indigenous training institutions towards the attainment of his vision could not be overemphasized. He highlighted, for instance, that the local training of the 7 pilots had saved Nigeria close to 6 Million US Dollars that would have been spent if they had been trained abroad. He therefore commended the Commander 403 FTS and his team of instructors for their commitment and dedication in ensuring completion of the training. He urged them to sustain the momentum for subsequent courses. Speaking further, Air Marshal Abubakar congratulated the graduands for realizing their dreams through hard work and dedication but reminded them of the need to prepare themselves to justify the efforts and resources expended on their training.



The GDH, CAS, Air Marshal Sadique Abubakar in a group photograph with the newly winged Pilots

Earlier, the Commander 403 FTS, Air Commodore Ananaba, who welcomed dignitaries on behalf of the Air Officer Commanding (AOC), Air Training Command, lauded the CAS for his leadership acumen and doggedness that saw to the in-house maintenance of 2 x L-39ZA trainer aircraft which aided the successful completion of the training. He assured the CAS of the readiness of the School to continue to keep up with its mandate which is the conduct of basic flying training on jet aircraft leading up to the award of pilot wings. The Commander added that 403 FTS, since inception, had successfully trained 175 pilots, including some from Sister African countries such as Ghana and Zimbabwe. He stated that the 7 graduating pilots had undergone intensive flying training in general aircraft handling, instrument flying, navigation, formation flying and night flying notching up an average of 149 sorties each to complete the Course.

The graduation ceremony was preceded by an aerial display involving four L-39ZA flown by the graduating pilots as well as a

static display showcasing Research and Development projects executed by 403 FTS, which included a rocket launcher tester for the L-39ZA aircraft, a locally designed and constructed 3-in-1 aircraft components test bench as well as a Flight Training Management System (FTMS) software. Other highlights of the event included the award of certificates and decoration of the new pilots with wings as well as the presentation of awards to graduating pilots that distinguished themselves on the course. In this regard, Flying Officer Muyideen Salami emerged Best in Academics while Flying Officer Edward Wukari was given the award for the Best in Flying. Flying Officer Clement Obiahu emerged as the Best Overall graduating pilot. Among the dignitaries at the event were the Secretary to the Kano State Government, Alhaji Usman Alhaji, who represented the Executive Governor of the State and a representative of His Royal Highness, the Emir of Kano, Alhaji Muhammad Sanusi II, as well as serving and retired senior military officers.



The Secretary to the State Government Kano State, Alhaji Usman Alhaji presenting the best overall graduating pilot award to Fg Offr CC Obiahu



The GOH winging the best overall graduating pilot, Fg Offr CC Obiahu



Wg Cdr EE Osuwa briefing the GOH and invited guests on the functionality of Ejection Seat during the BFC I8 Graduation Ceremony



Sqn Ldr MB Basawa briefing the GOH and invited guests on the latest R&D projects by 403 FTS during the BFC I8 Graduation Ceremony



Aerial display by the Cobra Pilots during the BFC I8 Graduation Ceremony



The GOH and invited guests watching the Aerial display by the Cobra Pilots



NAF young pilots in preparation for a mission

## OPERATION THUNDER STRIKE 2: CAS COMMENDS YOUNG NAF PILOTS, URGES THEM TO REMAIN RESOLUTE

The Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, has commended pilots and other personnel who participated in Operation THUNDER STRIKE 2 for their commitment, courage and doggedness in the fight to prevent the Albarnawi group of Boko Haram Terrorists (BHT) from establishing a foothold in the Lake Chad Green fringes. The CAS, who was at the Headquarters of the Air Task Force (ATF) of Operation LAFIYA DOLE in Maiduguri to monitor the progress of Operation THUNDER STRIKE 2, urged the young pilots to remain focused and unrelenting in their quest to safeguard the territorial integrity of the country. While assuring the young pilots of the commitment of the NAF in ensuring serviceability of various platforms in its inventory, Air Marshal Abubakar also stated that the welfare needs of the pilots, and indeed all NAF personnel, would continue to receive priority attention.

The steadily increasing number of young pilots who are flying various NAF platforms is a radical transformation from what obtained in the recent past when senior officers of the rank of Air Vice Marshal and Air Commodore were compelled to fly combat missions due to scarcity of young aircrew. It is imperative to state that most of these young, intelligent and courageous combat and operational support pilots, who are flying NAF platforms in the various theatres of operation, including the Northeast and Northwest, are junior officers of the ranks of Flying Officer to Squadron Leader within the age bracket of 25 to 33 years. They now fully man all components of the air operations ranging from combat; Intelligence, Surveillance and Reconnaissance (ISR) as well as air mobility missions, while the senior pilots provide the needed guidance and operational directives. These committed young and energetic pilots conduct multiple missions daily and often remain airborne for several hours monitoring incidents and providing air support to the surface forces.

The foregoing is evidence that the CAS vision of 'Repositioning the NAF into a highly professional and disciplined force through capacity building initiatives for effective, efficient and timely employment of Air Power in response to Nigeria's national security imperatives' is being achieved. In the last 3 years, the NAF has produced 90 young pilots, both male and female, most of whom have subsequently been deployed to various theatres of operation across the country. Additionally, for the first time in the history of the NAF, one of the female pilots is currently undergoing fighter pilot training in the United States of America. Many more young officers are also currently undertaking pilot training both locally and abroad to further bolster NAF's operational capability.

Operation THUNDER STRIKE 2, which commenced on 3 September 2018, is an independent air interdiction operation aimed at destroying vestiges of BHT around the fringes of Lake Chad. It is a follow up to Operation THUNDER STRIKE 1, which was launched on 14 May 2018, to attack selected BHT locations that are inaccessible to surface forces on account of the swampy nature of the terrain in the aforementioned areas during the period of the rainy season.



CAS Addressing a Cross Section of NAF Young Pilots

# **OPERATIONAL VISIT: CAS TOURS NAF UNITS IN KATSINA STATE, EXPRESSES SATISFACTION WITH ONGOING OPERATIONS IN THE NORTH WEST**



The CAS being received by AVM Sampson Akpasa during the operational visit to Special Operations Command

The Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, undertook an operational visit to Nigerian Air Force (NAF) units in Katsina State to get first-hand updates on the progress of Operation DIRAN MIKIYA as well as assess facilities at the Presidential Helipad and NAF Quick Response Wing (QRW) in Daura. The CAS, who was accompanied on the visit by other senior officers from NAF Headquarters, was received at the Umar Musa Yaradua International Airport Katsina by the former Air Officer Commanding Special Operations Command (AOC SOC), Air Vice Marshal Samson Akpasa.

While briefing the CAS in Katsina, the Air Task Force (ATF) Commander Operation DIRAN MIKIYA, Air Commodore Ayoola Jolasinmi, noted that the Task Force had flown over 300 hours since the operation began on 31 July 2018 and had recorded several successful missions, neutralizing many of the armed bandits and destroying several of their camps. As a result, the bandits had been denied freedom of action and could no

longer mass up to attack innocent civilians. This, he noted, had resulted in substantially restoring peace in the affected areas. Responding, the CAS expressed satisfaction with the progress of the effort and urged the ATF to sustain the momentum of operations.

Similarly, The Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, earlier conducted an operational visit to Katsina for preliminary assessment of the progress of OPERATION DIRAN MIKIYA. The visit afforded the CAS the opportunity to obtain first-hand information on the status of troops, aircraft, ground support equipment and logistics support facilities that had been deployed to ensure the effective conduct of the Operation. The CAS, who was accompanied on the visit by senior officers from Headquarters Nigerian Air Force (HQ NAF), was received at the Umar Musa Yar'adua Airport in Katsina by the then Air Officer Commanding Special Operations Command, Air Vice Marshal Samson Akpasa.

The Air Component Commander (ACC) OPERATION SHARAN DAIJ, Air Commodore Ayoola Jolasinmi, while briefing the CAS and his team on the conduct of the operation, stated that the intensive operation was aimed at locating and neutralizing armed bandits and other criminal elements with a view to restoring normalcy in Zamfara State and the Northwest as a whole. He also briefed the CAS and his entourage on the current administrative and logistics situation in the theatre of operation as well as the detailed plan to ensure the success of the Operation towards protecting lives and properties of the civil populace. He emphasized that all troops and attack aircraft would operate strictly within the ambit of the specified Rules of Engagement (ROE), in line with global best practices.



The CAS in a firm handshake with ATF Comd, Op DIRAN MIKIYA, Air Cdre Ayoola Jolasinmi on his arrival at the UMY Int. Airport.

The CAS also expressed satisfaction with the logistics and administrative arrangements so far made to ensure the success of the Operation. He assured the ACC that the NAF would continue to provide all that was needed to sustain the morale of participating personnel towards the overall success of the Operation. He then directed that air power's inherent lethality and firepower should be employed to dominate the area and sustain the onslaught on the armed bandits to end the killings and restore peace to the affected areas.

It would be recalled that the NAF, in compliance with the President's directives, deployed additional air assets and troops to Katsina and Gusau and thereafter commenced OPERATION DIRAN MIKIYA.



The CAS in a handshake with some VIPs at the Umar Musa Yaradua Int. Airport.



Newly constructed residential units at the Presidential Helipad, Daura.



Newly constructed units at the NAF Quick Response Wing, Daura.



Courtesy visit by CAS to the Emir of Daura, Alhaji Umar Farouk Umar





# ARMED BANDITRY IN NORTHWEST: OPERATION 'DIRAN MIKIYA' TO THE RESCUE

The role of Air Power in modern warfare, whether joint or combined operations cannot be overemphasised. It is a decisive factor and fundamental component of military element of national power. The Nigerian Air Force (NAF) has been in the fore front of the fight against insurgency, criminality and other internal security operations in the country. It has also projected air power beyond the shores of Nigeria as part of efforts to preserve peace in Africa and most especially, the West African Sub-Region. The NAF as a matter of fact has been involved in many operations whether independently or jointly with other security agencies and in all of these, it has left no one in doubt that it is capable of defending the territorial integrity of the country by air. Conscious of the imminent threat armed banditry and cattle rustling could pose to the territorial integrity of the country if not curtailed and ruthlessly dealt with,

the Commander-in-Chief of the Armed Forces of the Federal Republic of Nigeria, President Muhammadu Buhari gave a marching order to security forces to flush out armed bandits terrorising some villages in the North West and most especially in Zamfara State.

On 29 July 2018, the NAF C-130Hercules touched down at the Umar Musa Yar'adua Airport in Katsina State bringing required logistics facilities, ground support equipment and troops signalling the commencement of Operation DIRAN MIKIYA in Zamfara State. Other air assets such as helicopter gunships and Intelligence, Surveillance and Reconnaissance (ISR) platforms were not left out in the deployment. The choice of Katsina as operating base for NAF platforms was predicated on its proximity to Zamfara State for effective and immediate



An Alpha Jet fighter pilot preparing for a mission

response. It is an intensive air operation aimed at locating and neutralizing armed bandits and other criminal elements in the Northwest with a view to restoring normalcy in the affected areas. According to the former Air Officer Commanding (AOC), Special Operations Command (SOC), who was also the overall Commander of the Operation, Air Vice Marshal Samson Akpasa, the Operation, which is being conducted in close coordination with other security agencies, would be executed with precision and high intensity to quickly degrade the armed bandits and pave way for the return of normalcy in the affected areas. He emphasized that "there would be no hiding place for the armed bandits" as the NAF would be employing all the means at its disposal to detect the movement and locations of the armed bandits.

Few months into the Operation, the NAF in collaboration with other security agencies have recorded significant successes against the bandits. On 1 August 2018, NAF combat aircraft neutralized several armed bandits during air attacks near Mashema Village and, at another location 4km Southeast of Yanmari, both in Zamfara State. Also on 1 August 2018, ground troops, while on clearance operations near Mashema, came in contact with a group of armed bandits at a location West of Mashema Village and therefore requested for air support. Accordingly, a NAF fighter aircraft from Katsina and a helicopter gunship from Gusau were scrambled. The 2 aircraft subsequently pursued the fleeing bandits and thereafter neutralized them in follow-up attacks.

Similarly, while on armed reconnaissance on 2 August 2018, a NAF combat helicopter located over twenty armed bandits dressed in black attire with stolen cattle in their custody, in an

open field near Yankari and Hayin Alhaji villages. The bandits, a few of whom were mounted on motorcycles, began to disperse on hearing the sound of the helicopter but were engaged by the helicopters' machine guns. Several armed bandits were neutralized in the air attack.

The NAF on 9 August 2018 destroyed some bandits hideouts in Sububu Forest while on 10 August 2018, a combat helicopter on a reconnaissance mission spotted a group of bandits, armed with automatic weapons mounted on motorcycles, at a location about 6km Northeast of Birnin Magaji in the Eastern part of Zamfara State. From all indications, the armed bandits were advancing for an attack on Birnin Magaji. Accordingly, the armed bandits were effectively neutralized. Furthermore, the Air Task Force on 11 August 2018 also conducted another successful attack that neutralized armed bandits at Rugu Forest. The mission was initiated based on credible intelligence that a location on the fringes of Rugu Forest near Ajia, in the Eastern part of Zamfara State, was being used by the bandits as a logistics staging area for the supply of arms and ammunition.

Also, between 15 and 18 August 2018 several identified hideouts of a notorious armed bandit kingpin were successfully degraded. The attacks, which were executed in support of ground troops in Sector 2 of Operation SHARAN DAJI, were planned based on actionable intelligence that the kingpin and his group of armed bandits were using an abandoned primary school in Shamashale as well as some makeshift settlements in nearby Rugu Forest in the Eastern part of Zamfara State as bases for their operations.

During attack at Shamashale on 15 August 2018, some bandits carrying sophisticated high calibre weapons were seen trying to flee the area. Some were on motorcycles carrying AK-47 rifles and, rather than dropping their weapons and surrendering, attempted to shoot at the helicopters; hence they were neutralized. Items recovered from the armed bandits include 2 General Purpose Machine Guns (GPMGs), 2 AK 47 rifles, 100 rounds of 7.62mm ammunition and 2 mobile phones.

The NAF Air Task Force on 23 August 2018, successfully executed air strikes that destroyed more armed bandit camps in Daji Bawar and Sunke Villages in Zamfara State. The strikes were planned on the heels of intelligence reports indicating that some bandits who had survived the intensive air assaults on their various hideouts at Shinkafi, Galadi, Ajia, Shamashalle and other areas of Zamfara State had relocated to Anka Local Government Area of the State. Accordingly, the ATF embarked on intensive ISR missions to confirm the exact location of the new camps. Eventually, the criminal elements were observed to have pitched there tents at Daji Bawar and Sunke Villages. They were engaged leading to the destruction of the camps and their means of transport while scores of them were killed. Troops of Sector 3 Operation SHARAN DAJI later confirmed that over 30 armed bandits were neutralized while many others suffered injuries.

## OPERATIONAL EFFECTIVENESS: CAS VISITS OPERATION WHIRL STROKE, INDUCTS MI-35P HELICOPTER INTO THEATRE OF OPERATION

The Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, in continuation of the series of visits being undertaken to assess and enhance the operational effectiveness of Nigerian Air Force (NAF) units across the country, visited NAF units in Makurdi. The visit equally afforded the CAS the opportunity to visit the Headquarters of Operation Whirl Stroke (OPWS) as well as interact with NAF personnel deployed for the operation. The Chairman House Committee on the Air Force, Honourable Samson Okwu, also accompanied the CAS on the visit. During the visit, the CAS and other senior officers were briefed by both the Joint Task Force Commander, Major General Adeyemi Yekini, and the Air Component Commander/Deputy Force Commander OPWS, Air Cdre Precious Amadi. The briefing highlighted the successes recorded since the establishment of the Operation, which had led to a reduction in violence in the 3 states under the Force's area of responsibility, namely Benue, Nasarawa and Taraba States.

In his remarks, the CAS stated that the NAF was committed to ensuring the security of lives and properties of all Nigerians. He stated that the NAF had therefore contributed about 300 Special Forces personnel to OPWS along with the deployment of an array of fighter aircraft, Mi-35 helicopter gunships as well as Intelligence, Surveillance and Reconnaissance platforms to bring an end to the security challenges in the State. Furthermore, the CAS expressed satisfaction with the level of progress achieved in the operation and commended the Commander, officers and men of OPWS for the successes so far achieved. He assured them that the NAF would continue to provide all necessary support to ensure even greater results in the operation. The CAS also thanked President Muhammadu Buhari for creating an enabling environment for the NAF to continue to carry out its constitutional roles.

One of the highlights of the visit was the formal induction of the Mi-35P helicopter gunship, NAF 531, for combat duties in OPWS, as part of NAF's contributions towards curbing violence in Benue State and environs. It would be recalled that the helicopter was recently declared serviceable following the completion of in-country overhaul/life extension programme carried out by NAF engineers and technicians, who worked closely with some foreign technical partners. Nevertheless, a prerequisite for the induction of the helicopter into combat was the conduct of a successful live firing/range classification exercise. The exercise had to hold to ascertain the effectiveness of the helicopter's weapon systems and also exercise the pilots and other crew members on weapons delivery. Accordingly, the Commander 115 Special Operations Group Port Harcourt, Air Commodore Elijah Ebiwe, led the team of pilots that conducted the weapons delivery and range classification exercise, which took place at the NAF Range, Kwenev, near Makurdi. Air Commodore Ebiwe subsequently confirmed that the exercise was successful, with the helicopter's weapons systems performing within expected parameters.



The newly reactivated Mi-35P helicopter being armed before the weapon delivery exercise in Makurdi



The JTF Comd Op WHIRL STROKE, Maj Gen Adeyemi Yekini briefing the CAS during the visit to HQ Op WHIRL STROKE in Makurdi



The Commander 115 SOG, Air Cdre Elijah Ebiwe briefing the CAS and the Chairman House Committee on Air Force, Honourable Samson Okwu during the visit

# MINISTRY OF AGRICULTURE PARTNERS NAF IN BARRACKS EMPOWERMENT PROGRAMME



The Minister of Agriculture, Chief Audu Ogbe making his remarks during the courtesy visit



The Chief of the Air Staff, Air Marshal SB Abubakar alongside his Principal Staff Officers playing host to the Minister of Agriculture, Chief Audu Ogbe and his entourage at Headquarters, Nigerian Air Force



(Centre) the Minister of Agriculture, Chief Audu Ogbe in a group photograph with the Chief of the Air Staff, Principal Staff Officers and the Minister's entourage

The Federal Ministry of Agriculture and Rural Development is poised to partner with the Nigerian Air Force (NAF) to empower the families of NAF personnel in the various Bases through the provision of equipment for the enhancement of agriculture. This was revealed when the Honourable Minister of Agriculture and Rural Development, Chief Audu Ogbe, paid a courtesy call on the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, at his Office in Headquarters (HQ) NAF Abuja.

In his remarks, Chief Ogbe stated that the Ministry intends to distribute equipment in formations and Units to engage the wives of NAF personnel, through the NAF Officers' Wives Association (NAFWA), in activities such as rice milling, cassava processing, fruits and vegetables produce as well as the production of milk, in the near future. "I am happy to inform you that we have a new arrangement with the Government of Brazil, Islamic Bank and the European Development Bank for the project of agro-development in every State of the Federation and all the locations where the Armed forces are operating", the Minister said. He added that the Ministry has been able to secure a loan of \$1.2 billion, part of which would be used to procure 10,000 tractors; some of which would be made available to the NAF for ploughing and preparation of land. According to the Minister, other items to be procured include harvesters, soil testing equipment and irrigation facilities.

Chief Ogbe also noted that machinery for the processing of agricultural produce would also be acquired. "It is not enough for us to be self-sufficient in raw material production, but it is time we add value not only for local consumption, but for export", he remarked. He said the objective was to empower the families of the men and women working hard to secure the nation, which, in turn, would holistically help in securing the nation.

The CAS, in his response, congratulated the Honourable Minister for the giant strides recorded in the Agricultural Sector of the Country within the past 3 years. He thanked him for his commitment to empowering the families of personnel which, he said, would key into NAF's already existing framework for the enhancement of agriculture in the country through the Barrack Youth Empowerment (BYETA), which was established in NAF Bases across the country to encourage agricultural entrepreneurship.



# ACCIDENTS AND SAFETY IN AIRCRAFT HANGAR AND FLIGHT LINE ENVIRONMENT

By: AVM CU Omolu

## INTRODUCTION

The Industrial Revolution of the early Eighteenth century was a time of dramatic change; from hand tools and handmade items, to modern factories that used power-driven machines and assembly line techniques to roll out well made products. The worker became more productive and prices of manufactured goods dropped, and life generally improved. But the Industrial Revolution also proved harmful somewhat. Pollution of our environment increased and working conditions became more unsafe. Workplace accidents became an everyday occurrence as workers were required to operate complex machines.

Little wonder the public is inundated, daily, with such front-page headlines as "Crane Collapse Kills Seven in China", and more recently the news of September 2017, "Two Seriously Injured in Airplane Maintenance Accident". Captions such as these, though striking, seldom get our attention unless we

happen to know those involved. The International Labour Organization statistics of workplace mishaps worldwide for 2016 alone stated a worker died every 15 seconds and an estimated total of 313 million injuries were recorded. Available statistics also showed that in Canada, over 1,000 people lose their lives while a sad toll of over 1.5 million people are injured in workplace accidents each year. Similar statistics holds for most industrialized nations of the world. These everyday occurrences should nevertheless remind us of some painful facts that hundreds of people get injured or sometimes lose their lives at workplaces each year in Nigeria.

Negligence on the part of man has been identified as one of the main causes of workplace accidents. Neglecting to wear personal protective gear while working in potentially hazardous work environment, for instance, could cause serious accidents which can profoundly affect the rest of one's life. Many

construction workers have fallen to their death simply because their safety belts were not fastened. One would sometimes ask "Where did these people leave their common sense?" "Couldn't they see the dangers?" Unfortunately, accidents will happen when some uncanny facilitators are present. According to Murphy's Law of inevitability "If anything can go wrong, it will".

By the same token, safety experts, because of the colossal waste in terms of human and material, have toiled over the years to fashion out methodologies to enhance safety in workplaces. Through research works, a number of theories have been propounded. Though none till date have been universally accepted, they have no doubt helped man make great strides in averting preventable accidents especially in workplaces. Safety awareness lectures, periodicals, bulletins and publications are some of the media through which safety experts have tried to reach the worker; such that they have

become regular features in most forward looking and staff-oriented organizations such as the Nigerian Air Force. The need to remind aircraft engineering personnel of the safety responsibilities they owe themselves, their colleagues and the Nigerian Air Force and vice versa, is the purpose of this article. Accordingly, the article will cover conceptual clarification of workplace accident and aircraft hangar and flight line environment. Thereafter, human factors in the hangar and flight line environment, safety procedures, rules and facilities will be discussed. Finally, aircraft hangar and flight line safety guidelines will be highlighted. This article will focus on aircraft engineering safety in NAF aircraft hangar and flight line environment. The use of the term aircraft engineering personnel will include personnel of armament specialty.

## CONCEPTUAL CLARIFICATION

In order to ensure a clear understanding of this article, workplace accident and hangar and flight line environment will be conceptualised. The relationship between the two concepts will also be established.

**Workplace Accident.** According to Occupational Safety and Health Administration, "workplace accident is an unplanned event that results in personal injury or property damage". This definition focuses more on effect of workplace accident on human and material and does not cover activity that could qualify the event as occurring in the workplace. It is therefore not adequate for this article. On the other hand, Eurostat explains workplace accident as "a discrete occurrence during the course of work which leads to physical or mental harm". Though, Eurostat went further to explain the phrase "during the course of work" to mean whilst engaged in occupational activity or during time spent at work, it did not touch on damage to property or equipment. Therefore, it is also considered unsuitable for this article. Synthesizing from the foregoing, this article shall consider workplace accident as "unplanned event whilst engaged in occupational activity that results in personal injury or damage to property or equipment". This definition is therefore adopted for this article.

**Aircraft Hangar and Flight Line Environment.** The National Institute of Building Sciences defines aircraft hangar is "a shade structure that protects all or parts of aircraft from the elements". This definition is restrictive in that it has only one dimension to aircraft hangar; which is the provision of protection. It is therefore not adequate for this article.

On the other hand, Noel Williams et al conceives aircraft hangar as "building or structure, in which any part of or all of an aircraft ...is housed or stored and in which aircraft might undergo service, repair or alteration". Though this definition emphasizes both aircraft storage and maintenance, it does not talk about the flight line. It is therefore not suitable for this article. On the other hand, Wikipedia defines flight line as part of an airport around the hangar where aircraft can be parked and serviced. Therefore, the definition of aircraft hangar and flight line environment adopted for this article, will be "a building or structure and space around it where aircraft can be parked and serviced".

**Relationship between Workplace Accident and Aircraft Hangar and flight line Environment.** Workplace accident can result in serious injury with negative consequences on the well-being and productivity of the worker. This can be attributed to the presence of hazards and risks in the workplace. While hazards are things that can potentially cause damage or health consequences, risk is the likelihood that the worker may be harmed by coming in contact with hazards. On the other hand, hangar and flight line environment, are workplaces where aircraft are typically housed, parked and serviced with latent hazards and potential risks. Risks in the hangar and flight line environment can either increase or decrease depending on how frequently maintenance personnel are exposed to hazards. Workplace accident, as a broad umbrella, encompasses all of hazards, risks and accidents in the course of occupational activity. In the same vein, hangar and flight line environment involve, among others, accidents resulting from the interplay between hazards and risks. It can therefore be deduced from the foregoing, that the more aircraft maintenance activities occur in the hangar and flight line environment the more the risk of workplace accident. Hence, the hangar and flight line environment influences workplace accident, and there is a direct relationship between them.

## HUMAN FACTORS IN AIRCRAFT MAINTENANCE

Although accidents rarely result from a single failure or action, human factors have been identified to directly cause or contribute to many workplace accidents in the aviation industry. It has been universally agreed that about 80 per cent of maintenance mishaps involves human factors. If they are not detected, they can

cause unpleasant events, injuries, waste time, and workplace accidents. Safety experts originally focussed on the pilot community, however, human factors awareness has spread to the sphere of maintenance personnel. In-depth reviews of workplace accidents in aviation reveals time and again that a series of human errors were allowed to build until the accident occurred.

If the chain of events is broken at the maintenance level, the likelihood of the accident occurring can be drastically mitigated. Due to a number of aircraft maintenance-related workplace accidents in the late 1980s and early 1990s, Transport Canada identified twelve human factors that degrade people's ability to perform effectively and safely, which could lead invariably to workplace accidents. These twelve factors, known as the 'Dirty Dozen' were eventually adopted by the aviation industry as a straight forward means to discuss safety in aircraft maintenance environment.

It is important to know the 'Dirty Dozen', how to recognize their symptoms, and most importantly, know how to avoid or contain risks produced by them. They are follows:

- a. Lack of communication.
- b. Complacency.
- c. Lack of knowledge.
- d. Distraction.
- e. Lack of teamwork.
- f. Fatigue.
- g. Lack of resources.
- h. Pressure.
- i. Lack of assertiveness.
- j. Stress.
- k. Lack of awareness.
- l. Norms.

**Lack of Communication.** Lack of communication is a key human factor that can result in incorrect or faulty actions during aircraft maintenance. Lack of communication between technicians could lead to maintenance errors and result in workplace accidents. This is especially true during procedures where more than one technician performs a maintenance task, especially during change of shift. It is critical that accurate, complete information be exchanged to ensure the job is completed without any step being omitted. Knowledge and speculation about a task must be clarified

and not confused. In order to mitigate workplace accident, each step of the maintenance procedure must be performed in accordance with the aircraft's maintenance manual as though only a single technician carried out the task.

**Complacency.** Complacency is a human factor in aircraft maintenance that typically develops over time. As a technician gains knowledge and experience, a sense of self-satisfaction and false confidence might arise. A repetitive task, especially during inspection, may be overlooked or skipped because the technician has performed the task a number of times without ever finding a fault. Accordingly, supervisors should enforce the use of maintenance manuals to ensure no step in the procedure is omitted in order to prevent workplace accidents.

**Lack of Knowledge.** Lack of knowledge when performing aircraft maintenance can result in a faulty procedure or repair that could result in workplace accidents. Differences in technology from aircraft to aircraft and updates to technology and procedures on a single aircraft also makes it challenging to acquire knowledge required to perform aircraft maintenance. Consequently, supervisors are to ensure that aircraft engineering personnel are conversant with the contents of aircraft maintenance manuals to ensure they carry out maintenance in a manner that does not result in workplace accidents.

**Distraction.** A distraction while performing maintenance on an aircraft may disrupt the procedure. About 15 per cent of maintenance related errors are caused by distractions. Distractions can be mental or physical in nature. They can occur in the hangar or flight line environment. Something as simple as a cell phone call or a new aircraft being pushed into the hangar can disrupt the technician's concentration on a job. Less visible is a difficult family or financial matter or other personal issues that may occupy the technician's thought process as he performs his job. Mental distraction can significantly degrade the personnel's performance and could lead to workplace accident. Thus, technicians must recognize when attention to the job at hand is being diverted and ensures that work continues correctly.

**Lack of Teamwork.** Lack of teamwork can also compromise safety during aircraft maintenance. Closely related to lack of communication, teamwork is

required in aircraft maintenance in many instances. Sharing of knowledge, coordinating maintenance functions and working with flight crew to troubleshoot or test aircraft are all executed better in an atmosphere of teamwork. Often associated with improved safety in the workplace, teamwork involves all stakeholders understanding and agreeing on actions to be taken to minimise or eliminate workplace accidents.

**Fatigue.** Fatigue is a major human factor that has contributed to many maintenance errors resulting in workplace accidents. Fatigue can be mental or physical in nature. Emotional fatigue also exists and it affects mental and physical performance. A person is said to be fatigued when a reduction or impairment in any of the following occurs: cognitive ability, decision-making, reaction time, coordination, speed, strength, and balance. Fatigue reduces alertness and often reduces a person's ability to focus and hold attention on the task being performed and it has been known to cause workplace accidents. Suggestions to help mitigate the problems caused by fatigue include looking for symptoms of fatigue in one's self and in others. Have others check your work, even if an inspector's sign off is not required. Avoid complex tasks during the bottom of circadian rhythm. Sleep and exercise daily. Eight to 9 hours of sleep daily are recommended to avoid fatigue.

**Lack of Resources.** Lack of resources can interfere with ability to complete a task because there is a dearth of material supply and support. In aircraft maintenance, proper tools and spare parts are mandatory to avoid workplace accidents. Any lack of resources to safely carry out a maintenance task can result in workplace accidents. Within an organization, ensuring availability of appropriate tools for aircraft maintenance is just as important as having the proper spare part when needed. Having the correct tools means not having to improvise in order to prevent workplace accidents.

**Pressure.** Aircraft maintenance tasks require individuals to perform in an environment with constant pressure to do things better and faster without mistakes. Aircraft engineering units must help personnel manage all of the tasks that are to be completed so that all maintenance, while done in a timely manner, are completed correctly with prevention of workplace accidents being the ultimate goal. Sacrificing quality and

safety for the sake of time should not be tolerated or accepted. If given a repair job with a specific time limitation which do not seem realistic or compromises safety, personnel should bring it to the attention of the appropriate superior authority and openly discuss a different course of action.

**Lack of Assertiveness.** Assertiveness is the ability to express your feelings, opinions, beliefs, and needs in a positive, productive manner and should not be confused with being insubordinate. The direct result of not being assertive could ultimately lead to workplace accidents and cost people their lives. Lack of assertiveness in failing to speak up when things do not seem right has resulted in many fatal workplace accidents. This can easily be changed by promoting good communication between colleagues and having an open relationship with supervisors and the leadership.

**Stress.** Aircraft maintenance is a stressful undertaking due to many factors. For instance, most organizations in the industry are desirous that aircraft are serviceable and flying. Fast-paced technology that is ever-changing can induce stress in aircraft engineering personnel as they are expected to be fully acquainted with the latest equipment and procedures. Other stressors include working in dark, tight spaces, lack of resources to get maintenance done correctly and long work hours. The ultimate stress in aircraft engineering is knowing that the job at hand, if not done correctly, could result in catastrophic accidents.

**Lack of Awareness.** Lack of awareness is defined as a failure to recognize all the consequences of an action or lack of foresight. In aircraft engineering, it is not unusual to perform the same maintenance tasks repeatedly. After completing the same task multiple times, it is easy for aircraft engineering personnel to become less vigilant and develop a lack of awareness for what they are doing and what is happening around them. Therefore, to avoid occasions of workplace accidents, each time a task is completed it must be treated as if it were the first time.

**Norms.** Norms is short for "normal," or "the way things are normally done." They are unwritten rules that are followed or tolerated by most NAF aircraft engineering establishments. Negative norms can detract from the established safety standards and cause workplace accidents. Some norms are unsafe in that they are non-productive or

detract from the productivity of the group. Taking shortcuts in aircraft maintenance, working from memory, or not following procedures are examples of unsafe norms. Any behaviour commonly accepted by the group, whether as a standard operating procedure or not, can be a norm. Accordingly, supervisors are to ensure that aircraft engineering personnel adhere to the same standards and not tolerate unsafe norms in order to minimise workplace accidents.

## **SAFETY PROCEDURES, RULES AND FACILITIES**

Safety in hangar and flight line environment is to be considered under two aspects: protection of health and protection of equipment such as aircraft. To manage health and safety requires the formulation and implementation of procedures and rules and the provision of facilities and equipment which will eliminate or at least reduce workplace accidents to a significant extent. As a general rule, the implementation of safety in aircraft maintenance environment requires the establishment of safety procedures, safety rules and provision of safety facilities. In addition to aforementioned, continuous safety training to constantly remind and inculcate safety consciousness in aircraft engineering personnel is crucial in eliminating workplace accidents in the hangar and flight line environment.

**Safety Procedures.** Safety procedures could include the following:

- a. Rules for operating equipment safely or for handling/ using/ storing substances.
- b. Training arrangements for new personnel or for personnel transferred to a new section.
- c. Acquainting personnel and visitors of safety rules.
- d. Safety inspections and medical examinations.
- e. Action to be taken in the event of fire or explosion.
- f. Procedure for reporting and following up accidents, damage and dangerous occurrence.
- g. Maintenance of accident records and statistics.

**Safety Rules.** Safety rules are drawn up for maintenance personnel to follow to minimize risk of workplace accidents. As with procedures, rules will need to reflect particular identifiable hazards

arising from processes, substances, equipment and buildings. The areas which may be covered by specific safety rules could include:

- a. Handling of potentially hazardous equipment and substances.
- b. Use of personal safety equipment such as guards, face shields, goggles, helmets, aprons and other forms of protective clothing.
- c. Maintenance of equipment and machinery.
- d. Implementation of proper housekeeping, plan-cleanliness, tidiness and provision of waste bins.
- e. Prevention of fire and explosion and elimination of sources of ignition.
- f. Instructions in the event of fire outbreak and accidents.

## **Safety Facilities and Equipment.**

The main areas to which consideration should be given in the provision of adequate safety facilities to mitigate workplace accidents include adequate lighting and ventilation in workplaces, medical services, cleaning and maintenance, personal protective equipment, fire prevention equipment and safety signs.

## **HANGAR SAFETY**

Hazardous materials and heavy machinery are part of the hangar environment. Accordingly, working around aircraft in a hangar involves special safety precautions to minimize workplace accidents. The key areas to be considered are:

- a. Personal protective equipment.
- b. Safety Signs.
- c. Safety colours.
- d. Hangar fire safety.
- e. Overhead crane safety.
- f. Compressed air safety.
- g. Foreign object debris.
- h. Workshop safety.

## **PERSONAL PROTECTIVE EQUIPMENT**

Personal protective equipment shall be used whenever there are hazards that can cause workplace accidents through absorption, inhalation or physical contact. The following are some guidelines for the

use of personal protective equipment to protect against workplace accidents:

- a. Personnel shall use protective helmets when working in areas where there are potentials for injury from falling or flying objects and bumping head against a fixed object. Typical examples of such areas include warehouses and when working with overhead cranes.
- b. Personnel exposed to high noise levels shall wear specifically designed noise protector depending on the type of noise encountered.
- c. Leather boots approximately 8 inches in height with close fitting top and rubber soles shall be worn by aircraft and armament engineering personnel while working in the hangar or flight line.
- d. Personnel exposed to high traffic environment or flight line operations during hours of darkness, periods of reduced visibility or as part of construction, shall use reflective vests.

## **SAFETY SIGNS**

Safety signs are intended to draw attention rapidly to objects and situations that can cause workplace accidents but they do not replace the need for proper accident-prevention measures. Most of the safety signs are self-explanatory; so, they do not, in general, require the use of words. This purpose can only be realized if the following assumptions are fulfilled:



- a. The dimensions of the signs have to be adequate in relationship to the surrounding area. It is useless to fix a smoking prohibition sign with a diameter of 20cm on a hangar door.
- b. Personnel can read and interpret the signs without reflecting on their meaning.
- c. The signs can be recognized

under various weather and lighting conditions. Pale colours should be renewed when necessary.

d. Safety signs are not to be hidden by objects or obstacles.

## SAFETY COLOURS

Safety colours establishes the safety identification colours and design principles for safety signs and safety markings to be used in workplaces and in

RED		MEANING	EXAMPLE OF USE
(a)	(b)		
Stop Prohibition	Emergency Stop Emergency Stop Prohibition signs (This colour is also used for fire fighting equipment and its location.)		
<b>YELLOW OR ORANGE</b>			
(a)	(b)	MEANING	EXAMPLE OF USE
Caution Risk of Danger	Indication of hazards (Fire, explosion, radiation, chemical, etc.) Warnings of thresholds, low-passenger and obstacles		
<b>GREEN</b>			
(a)	(b)	MEANING	EXAMPLE OF USE
Safe Condition	Escape routes Emergency exits Emergency showers First-aid and medical stations		
<b>BLUE</b>			
(a)	(b)	MEANING	EXAMPLE OF USE
Mandatory Action	Obligation to wear personal safety equipment		

public areas for the purpose of workplace accident prevention, fire protection, health hazard information and emergency evacuation. It also establishes the basic principles to be applied when developing standards containing safety signs. The four universally accepted safety colours are red, yellow or orange, green and blue. Their meanings are highlighted in the table below.

## HANGAR FIRE SAFETY

The following guidelines shall be followed to assure fire safety in aircraft hangar:

a. The hangar and workshops shall not be heated, lit or entered with open fire.

b. Storage of fuels, oils, easily inflammable or self-igniting material in the hangar is prohibited. This does not apply to fuels and oils contained in aircraft

tanks, air cart or in fire-proof containers.

c. Inflammable material shall be stored in prescribed containers and at the prescribed places, and the containers shall be clearly marked.

d. Air heaters and fuel-driven ground equipment may be used in the hangar and workshops provided the equipment is operated under supervision.

e. Smoking is only allowed in specially provided areas.

f. Fire-fighting equipment shall be provided in the hangar and workshops in accordance with guidelines provided by firefighting authorities of the airport.

g. Fire-fighting equipment shall be easily accessible and usable and shall be inspected regularly by units' safety committee.

h. Personnel shall be regularly acquainted with the use of the fire-fighting equipment.

i. Oxygen bottles shall not be stored in the hangar.

j. To suck up spilled fuels and oils only saw dust or sand shall be used. The saw dust or sand shall then be remove as quickly as possible.

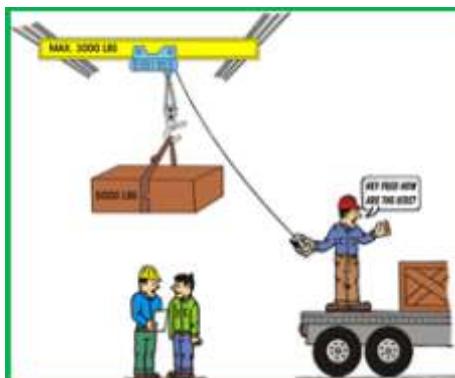
k. Sand shall not be used for fire-fighting.

l. Piling up of used rags and inflammable waste is not allowed in hangar and workshops.

m. The location of the fire-fighting equipment, the escape routes and the emergency telephone numbers shall be clearly marked and identifiable.

## OVERHEAD CRANE SAFETY

Workplace accidents can occur if overhead cranes are not regularly



inspected and properly used. Serious injury or fatality may occur when struck by load hoist by overhead crane. The following are some safety tips for overhead crane operators to follow while operating the crane to move loads:

a. Do not engage in any activity that will divert your attention.

b. Do not lift, lower, or transport load with the crane or hoist until all personnel are clear of the load and the load's path.

c. Verify that the load, crane and hoist will clear all obstacles before moving or rotating the load.

d. Do not move loads over personnel.

e. Do not lift, lower, or transport personnel by means of the crane.

f. Slowly inch the hook into engagement with the load to eliminate wire rope slack and reduce impact loading of the crane and hoist.

g. Avoid unnecessary inching and quick reversals of direction.

h. Lift the load only a few inches to verify that the hoist braking system is functioning properly before continuing with the lift.

i. Avoid swinging of the load or hoist hook when the bridge trolley or hoist is traveling.

## COMPRESSED AIR SAFETY

Compressed air in the hangar or bottled is commonly misjudged and not recognised as a hazard because people often think of air as harmless. The following dos and don'ts apply when working with or around compressed gases:

a. Only qualified, trained and authorized personnel shall operate air compressors and/or repair or adjust pressure regulating equipment.

b. Compressed air shall not be used to clean self or clothing while on your body.

c. Compressed air shall not be used for cleaning purposes except when regulated to 30 pounds per square inch or less.

d. Before servicing aircraft tyres, air bottles or landing gear struts, maintenance personnel shall:

(1) Inspect air lines and fittings for defects before each use.

(2) Wear proper personal protective equipment in accordance with the local installation directives.

(3) Install serviceable and calibrate pressure regulators to prevent over-pressurization or over-inflation of components.

(4) Avoid bending or kinking air hose lines.

(5) Place air hose lines where they minimize tripping hazards and/or protected against damage caused by equipment or vehicles rolling over them.

## FOREIGN OBJECT DEBRIS

Foreign Object Debris (FOD) often causes Foreign Object Damage (FOD). Majority of instances, foreign object debris can be attributed to lack of standards in an organization, staff complacency or disregard for procedures. Foreign object debris can come in many forms anywhere in the hangar and flight line environment and can produce disastrous effects if not identified and removed. In severe cases, foreign object debris can directly cause workplace accidents. Foreign object debris prevention is an essential element in all aircraft maintenance activities and it is the responsibility of every aircraft and armament maintenance personnel.

Regular foreign object debris walk or sweep are effective means of eliminating the menace of this phenomenon.

Foreign object debris walk or sweep involves a physical inspection and cleaning of areas in the workshop, around the hanger and flight line environment. Aircraft and armament engineering units could develop reward systems to reinforce the behaviour the Nigerian Air Force wish to sustain. The reward could be in form of:

- a. Monthly award to the personnel with the most significant foreign object debris finding of that month.
- b. Recognizing personnel for coming forward when a tool is missing.

## WORKSHOP SAFETY

Keeping the workshop orderly and clean is essential to elimination of workplace accidents and efficient maintenance. The highest standards of orderly work arrangements and cleanliness should be observed in hangar workshops. The following dos and don'ts apply to workshop safety:

- a. Unsafe use of hand and power tools can injure personnel or damage equipment. Therefore, supervisors shall enforce strict adherence to procedures prescribed for their use.
- b. Tools shall be kept in suitable toolboxes when not in use and the boxes stored in the tool store.



c. Appropriate personal protective equipment, such as goggles, face shields, hard hats, gloves, respirators and safety-toe boots, shall be provided for personnel and their use enforced.

d. Floors shall be cleaned at all times to provide safe walking and working surfaces.

e. Spills shall be cleaned as they occur.

f. Electrical cords and air hoses shall be stored when not in use.

g. Loose fitting clothing or other apparels that may be caught in moving machinery shall not be worn.

h. Conductive articles of jewellery and clothing such as watchbands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, metal headgear or metal frame glasses, shall not be worn when they present electrical hazards from contact with exposed live connections.

## FLIGHT LINE SAFETY

Safety is a primary concern during flight line operations as there are several potential hazards and risks existing around the flight line environment. Some examples include but not limited to taxiing aircraft, spinning rotors or propellers, fire hazards, the elements (sun, rain, cold, or lightning), dehydration and heat exhaustion. The recent aircraft ground handling incidents in some aircraft engineering units are grim reminders of how vulnerable to workplace accidents flight line operations are when applicable standards and procedures are not observed. Therefore, aircraft and armament engineering personnel performing maintenance on the flight line are to maintain high degree of alertness around them while adhering strictly to guidelines governing whatever activity they are engaged in. To minimise incidences of workplace accidents in flight line operations, there is need to



remind personnel of some basic safety procedures. In addition to procedures extracted from relevant aircraft maintenance manuals or local operating procedure, the following basic safety procedures shall be observed by aircraft engineering personnel in the conduct of following flight line operations:

- a. Aircraft refuelling.
- b. Aircraft towing.
- c. Engine ground run.
- d. Aircraft taxiing.
- e. Aircraft parking.
- f. Aircraft mooring.

## AIRCRAFT REFUELING

During refuelling or defueling, a number of specific safety rules must be observed in order to prevent fire or explosion. The premise on which refuelling/defueling operation can be conducted safely are as follows:

- a. Minimum distance between the aircraft to be refuelled and other aircraft should be observed (refer to the aircraft maintenance manual).
- b. Sufficient free space for fire-fighting vehicles shall be provided. The minimum distance from hangar or building is 15m.
- c. Fire-fighting equipment shall be placed within 25m of refuelling point.
- d. Refuelling vehicles shall be positioned 6m from the aircraft in order to prevent crashes.
- e. The refuelling vehicle should be parked on the windward side of the aircraft, if possible.
- f. Prior to fuel transfer, aircraft and refuelling vehicle shall be grounded in accordance with

local operating procedure in order to discharge static electricity.

- g. The engine of the refuelling vehicle must not be shut down during refuelling.
- h. Refuelling/defueling is generally prohibited when an aircraft is armed, during oxygen servicing and when in hangars.

## AIRCRAFT TOWING

Movement of large aircraft around the flight line environment and inside the hangar is usually accomplished by towing with a tow vehicle. Towing aircraft can be a hazardous operation, causing workplace accidents, if done recklessly or carelessly. Aircraft engineering units are reminded that specific instructions for each aircraft type are detailed in the manufacturer's maintenance instructions and should be followed in all instances. However, the following instructions outline the general procedure for towing aircraft:

- a. All aircraft tow team members are to be familiar with all the towing procedures for the aircraft being towed.
- b. The supervisor shall brief the tow team using a checklist covering safe movement of the towed aircraft before commencing the towing operation.
- c. The tow team supervisor shall be in complete command and will take the nose walker position, which will ensure surveillance of the towing procedures and performance of other team members.
- d. Only authorized and qualified vehicle operator shall be in control of the tow vehicle at all

times during aircraft movement.

e. Technicians shall not cross a tow bar connected to both the aircraft and the tow vehicle, nor ride on the outside of a moving aircraft, tow bar or tow vehicle.

f. No person(s) should try to board or leave a towed aircraft or tow vehicle.

g. Qualified personnel, authorized by the supervisor, shall be in the pilot's seat to operate aircraft brakes and must follow the supervisor's signals.

h. Chocks shall be maintained near the tow vehicle and aircraft for emergency use throughout the towing operation.

## ENGINE GROUND RUN

Danger areas exist in front of, at the side of, at the rear of and beneath rotating propellers, turning rotors, and running jet engines. Red stripes on the fuselage or on the engine nacelles mark the rotation plane of the turbine wheels or the propellers and thus the danger zones. To prevent workplace accidents, engines shall not be started in hangars except in aircraft shelters. The following "dos and don'ts" apply when conducting engine ground run:

- a. Prior to starting, nobody is allowed within the disc area of the propellers and ground equipment shall be removed from the disc area.
- b. Personnel are to observe the danger areas while ground running engines. The danger zone varies from aircraft to aircraft (please refer to applicable manuals for manufacturer's instructions). It should be noted that danger zones both in front and at the rear stretches as the engine revs from idle to maximum take-off power.
- c. If prior to starting or after shutting down an engine the propeller is rotated manually, no part of the body except the hand shall be within the propeller disc area. Especially after shutdown of warm engines, rotating the propeller by hand might bear a risk since the engine might restart because of a defective switch, a short-circuit, or a leaking fuel control shut-off valve.
- d. For helicopters, the personnel standing by a helicopter starting



Logisticians refueling NAF platforms

or shutting down are to keep clear of the rotor disc area as it is possible for rotor blade to dip below head height while turning.

e. Personnel are to keep clear of helicopter tail rotor disc area.

f. A fire safety guard equipped with sufficient fire protection equipment shall be posted during functional check runs.

g. All engine ground run operation shall only be performed by maintenance personnel having had an adequate instruction and holding a special licence. In helicopter operations, only flight crews are to perform engine ground run as a turning rotor is considered aircraft in flight.

h. Hats or bump caps will not be worn in an engine intake danger zone, as defined for the specific aircraft.

i. An observer posted sideward in front of the engine to be started shall have constant contact with the person in the cockpit via the ground crew headset. In case an aircraft is not equipped with such an external communication system or in case of failure of that system, hand signs shall be used.

## AIRCRAFT TAXIING

As a general rule, only rated pilots and certified airframe and engine technicians are authorized to start, ground run, and taxi aircraft. All taxiing operations should be performed in accordance with applicable local regulations to eliminate workplace accidents. It should be noted that only flight crew are permitted to taxi the C-130 aircraft in the Nigerian Air Force. Technicians are to serve as marshals only. The following provide basic instructions on taxi signals and related instructions.

a. Although the pilot is ultimately responsible for the aircraft until the engine is stopped, a marshal can assist the pilot around the flight line.

b. The standard position for a marshalling technician is slightly ahead of the cockpit. Personal protective equipment should include eye protection when marshalling helicopters.

c. The marshalling technician must stay far enough ahead of the aircraft's nose to remain in the pilot's field of vision. Approaching

helicopters within 8m on any side is not permitted, until the engines have been shut down and rotors have come to a complete stop.

d. The taxi signals to be used should be studied by both air and ground crews until they can be executed clearly and precisely.

e. The signals must be given in such a way that the pilot cannot confuse their meaning. Remember that the pilot receiving the signals is always some distance away and must often look out and down from a difficult angle. Thus, the marshal's hands should be kept well separated, and signals should be over-exaggerated rather than risk making indistinct signals.

f. If there is any doubt about a signal, or if the pilot does not appear to be following the signals, use the "stop" sign and begin the series of signals again.

g. Taxi signals are usually given at night with the aid of illuminated wands. Night signals are made in the same manner as day signals with the exception of the stop signal. The stop signal used at night is the "Emergency Stop" signal. This signal is made by crossing the wands to form a lighted "X" above and in front of the head.

## AIRCRAFT PARKING

Aircraft should be headed, as nearly as possible, into the wind, depending on the locations of the fixed, parking-area tie-down points. Small aircraft should be tied

down after each flight to preclude damage from sudden wind gusts. Take utmost care when parking aircraft in relation to other parked aircraft, it should be in accordance with provisions of applicable maintenance manuals. The following provides basic instructions on aircraft parking.

a. Position the aircraft on a level surface and marking the footage of the designated parking area is essential.

b. Designate an area for helicopter landing/parking, which minimizes possibility of damage to surrounding facilities and aircraft parked on or around the flight line.

c. Set parking brakes.

d. Do not set parking brakes during cold weather, when accumulated moisture may freeze brakes or when brakes are overheated.

e. Choke Main Landing Gear tyres.

f. Moor the aircraft in gusty or stormy weather.

g. If aircraft is parked for extended period, danger of wheel bearing corrosion exists. To prevent this, the aircraft should be periodically moved by pushing or towing.

h. To prevent deformation to tyres, the wheels should be periodically repositioned as described above.

i. The frequency of the movement will depend on prevailing weather condition.



NAF DA 42MPP aircraft

However, it is advisable that movement should be performed daily in cold weather and weekly in warm weather.

## AIRCRAFT MOORING

46. In certain weather conditions, particularly in high winds, it is advisable to park the aircraft inside the hangar. If aircraft must be left outside, it should be tied-down. Aircraft are usually provided with picketing rings or attachment points under the wings and tail for mooring. The following steps shall be taken when mooring aircraft on the apron:

- a. Position the aircraft on a level surface.
- b. Set parking brakes.
- c. Do not set parking brakes during cold weather, when accumulated moisture may freeze brakes or when brakes are overheated.
- d. Aircraft should be headed, as nearly as possible, into the wind and secured from the picketing points to suitable ground anchor points such as heavy concrete blocks or tie-down points on the apron.
- e. Cable or nylon rope of adequate strength should be used

where possible. For large aircraft, picketing cables and tension meter are delivered with the aircraft as accessories. The tension meter is used to apply a pre-load to the cable.

- f. The cable or nylon should be attached to the wing mooring points and their opposite ends secured to ground anchor or concrete blocks.
- g. During gusty or high wind conditions, mooring lines may require periodic tightening to prevent excessive movement of aircraft.
- h. Install pitot tube covers and air inlet covers to prevent entry of foreign materials.
- i. Attach static ground cable to tie-down ring on the wing and the ground anchor.

## CONCLUSION

Carelessness on the part of man has been recognised as one of the main sources of workplace accidents. Ignoring to wear personal protective equipment, for instance, could cause serious or fatal accidents. Unfortunately, these accidents will happen when some strange facilitators are present. "If something can go wrong, it will".

Although accidents rarely result from a single failure or action, human factors were identified to directly cause or contribute to many aviation accidents. It is universally agreed that about 80 percent of maintenance mishaps involve human factors. The consensually agreed human factors affecting aircraft maintenance are lack of communication, complacency, lack of knowledge, distraction, lack of teamwork and fatigue. Others are lack of resources, pressure, lack of assertiveness, stress, lack of awareness and norms.

Safety in hangar and flight line environment is to be considered under two aspects: protection of health and protection of equipment. To manage health and safety requires the formulation and implementation of procedures and rules and the provision of facilities and equipment which will ultimately eliminate or at least reduce risks to large extent. In addition, continuous safety training to constantly remind and inculcate safety consciousness in aircraft and armament engineering personnel is of utmost importance. Safety procedures in the hangar and flight line is essential because it is in these areas that human factors in aircraft maintenance are most profound.

## ARGENTINA SEEKS TO STRENGTHEN RELATIONS WITH NIGERIAN AIR FORCE

The Argentine Ambassador to Nigeria, Mrs Maria De Carmen Squeff, has expressed the willingness of Argentine Government to deepen the existing cordial relationship with the Nigerian Air Force (NAF) in relevant areas such as aircraft acquisition, training as well as surveillance and radar technology. This was revealed today, 28 February 2019, while on a courtesy visit to the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, at the Headquarters NAF, Abuja.

The Ambassador emphasized the strong desire of her country to strengthen the relationship with Nigeria beyond economic and political collaboration. She noted that Argentina, beyond being renowned for meat production and excelling in the game of football, among others, has over the years, developed significant capability in aircraft manufacturing and radar technology which has helped the country to better secure its land and maritime borders, whilst also contributing immensely to the successes recorded in the area of agriculture. She explained that the NAF could explore the opportunities inherent in Argentina to strengthen Nigeria's capability in surveillance and radar technology to further build on the successes so far recorded in the counter insurgency operations in the Northeast of the country.

In his response, the CAS thanked the Ambassador for offering the NAF such a great opportunity to improve on the relationship between the two countries while noting that the Service was always ready to explore all avenues to further professionalize and build needed capacity.





The CAS, Air Marshal Sadique Abubakar, firing Tavor assault rifle at the newly commissioned small arms shooting range at the NAF Base in Bauchi

## NAF COMMISSIONS AIR, SMALL ARMS SHOOTING RANGE IN BAUCHI

As part of Bauchi State Government's contribution to human capacity building in the Nigerian Air Force (NAF), the Executive Governor of the State, Alhaji Mohammed Abubakar, has donated land within the Lame and Bura Forests to the Service for the establishment of an Air Range. The Governor announced this during the commissioning ceremony of an outdoor small arms shooting range and other projects executed by the NAF at its Base in Bauchi. The other projects commissioned during the event included 2 blocks of Commanders' Quarters, one block of 6 x 2 bedroom Married Senior Non-Commissioned Officers' Accommodation, one block of 10 single room Non-Commissioned Officers' Accommodation as well as the Quarter Guard, entrance way and Gate of Headquarters Special Operations Command (SOC). A historical Photo Gallery building constructed by the Commander 251 Base Services Group was also commissioned yesterday.

While speaking during the ceremony, the Bauchi State Governor, who was the Special Guest of Honour, said the NAF had done remarkably well in dealing with most of the security challenges confronting the nation. He added the NAF had always demonstrated professionalism and discipline in the conduct of

its operations while making invaluable sacrifices to ensure peace and security in the country. The Governor seized the opportunity to once more thank President Muhammadu Buhari for approving the establishment of SOC and the NAF Base in Bauchi. He equally appreciated the Chief of the Air Staff (CAS) for his untiring efforts at emplacing necessary facilities in the Base, including the NAF Reference Hospital, which according to him was already proving quite beneficial to Bauchi State residents. Furthermore, he commended NAF's various medical and humanitarian outreach programmes, which he said "had impacted positively on the well-being of members of the host communities". He therefore pledged the State Government's commitment to continue to support the NAF.

In his remarks, the CAS, Air Marshal Sadique Abubakar, expressed immense gratitude to the people of Bauchi State for their hospitality and support to the NAF. He noted that the asymmetric challenges facing the nation had necessitated the establishment of the SOC, and units under its command, in order to sharpen the NAF's response capability in Internal Security and counterinsurgency operations. Air Marshal Abubakar noted that the NAF had trained over 2,000 Special Forces personnel to



bridge the gap between force projection and force protection, with 1,000 of these personnel deployed, along with air assets, alongside other security agencies in the North East, North Central, South-South, South East and the North West. Speaking further, the CAS noted that he was rejigging air operations in Zamfara State with additional air assets being deployed in support of Operation Sharan Daji with a view to further dealing decisive blows on armed bandits. He therefore thanked President Muhammadu Buhari for providing the enabling environment that had facilitated the purchase 18 brand new aircraft as well as the reactivation of 13 previously unserviceable ones in just 3 years, thereby enhancing NAF's ability to meet national security imperatives.



The former Air Officer Commanding Special Operations Command (AOC SOC), Air Vice Marshal Ismaila Kaita, firing a Tavor assault rifle at the newly commissioned small arms shooting range at the NAF Base Bauchi

Earlier in his welcome address, the former Air Officer Commanding SOC, Air Vice Marshal Ismaila Kaita, said the NAF had undergone unprecedented transformation in terms of expansion and capacity building under the current leadership. He noted that the shooting range and the residential buildings being commissioned were only a fraction of the positive developments taking place in the Service, which had spurred NAF personnel towards the effective performance of their duties. Highlight of the occasion was a special range classification exercise at the shooting range, where the SGOH and other dignitaries tested their marksmanship ability using the Tavor assault rifle and the FN pistol at 50m and 25m ranges respectively.



The Emir of Bauchi, HRH Dr Rilwanu Suleiman Adamu firing a pistol at the newly commissioned small arms shooting range at the NAF Base in Bauchi



Newly constructed entrance gate at HQ SOC Bauchi



Newly constructed Quarter Guard stand at HQ SOC Bauchi



Newly constructed 6 x 2 bedroom Married Senior Non-Commissioned Officers' Accommodation in Bauchi



Newly constructed Commanders' Quarters at the NAF Base, Bauchi



The Executive Governor of Bauchi State, Alhaji Mohammed Abubakar, cutting the tape to commission the newly constructed accommodation



Inside of the newly constructed Commanders' Quarters at the NAF Base, Bauchi

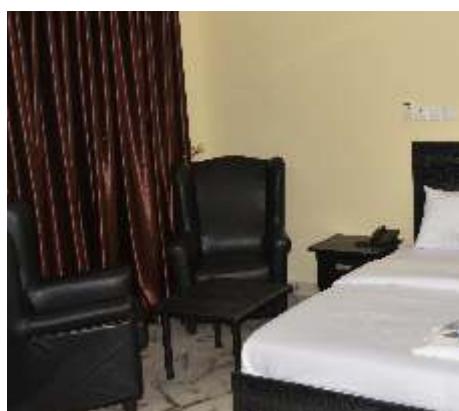


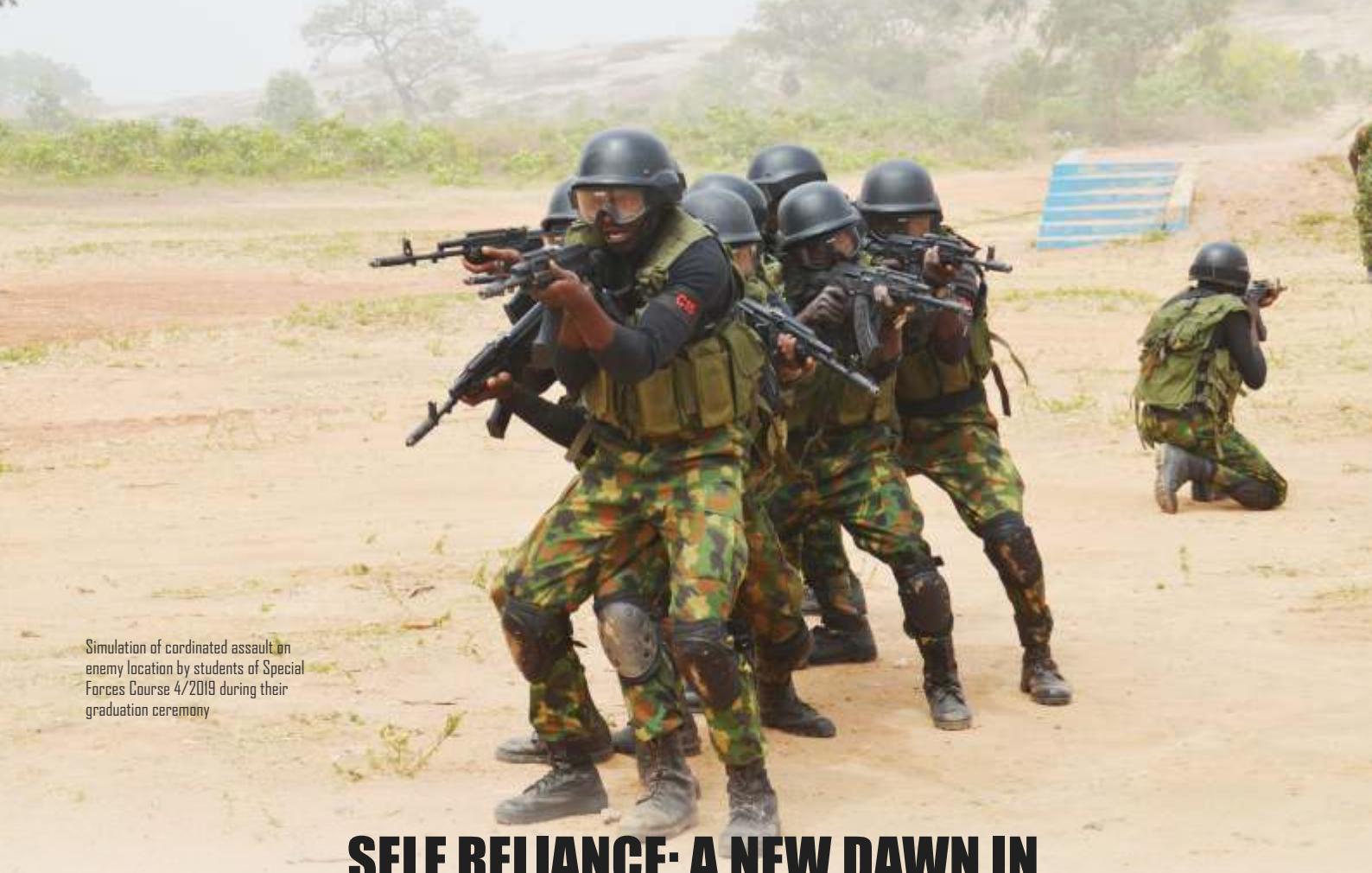
The newly constructed historical Photo Gallery at the 251 Base Services Group



Dignitaries being conducted round the newly constructed historical Photo Gallery at the 251 Base Services Group







Simulation of coordinated assault on enemy location by students of Special Forces Course 4/2019 during their graduation ceremony

# SELF RELIANCE: A NEW DAWN IN SPECIAL FORCES TRAINING

The Nigerian Air Force (NAF), recently graduated another batch of Special Forces (SF) personnel to boost Internal Security (IS) operations in the country. The 175 graduating students of SF Course 4/2019 successfully completed the 10-week rigorous and intensive training in asymmetric warfare at the Regiment Training Centre (RTC), Kaduna. Significantly, this is the first time in the history of the NAF that SF personnel would be trained wholly by NAF Instructors thereby actualizing one of the key drivers of the Chief of the Air Staff's Vision of "reinforcing a culture of self-reliance and prudent management of resources". Before now, the NAF had engaged the services of an Israeli Company, the Four Troops Team, to train NAF SF personnel, aside overseas' training in various countries such as Belarus, China and Pakistan.

In his remarks at the graduation ceremony, the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, stated that in the last 4 years, the NAF had made deliberate efforts to reposition the Service into a highly professional fighting force, with the training of over 1,000 SF personnel as part of the overall strategy for its capacity building initiatives. The CAS promised to sustain the training of SF personnel to enhance NAF force projection posture, while also improving its Base Defence/force protection capability. Air Marshal Abubakar, who expressed satisfaction with the quality of the training, noted that NAF SF personnel were making huge impacts in the fight against terrorism and armed banditry across the country. According to him, examples of these achievements include the recent arrest of armed bandits at Birnin Gwari in Kaduna State as well as the professional conduct

of NAF personnel deployed to support the Nigerian Police in providing security during the recently concluded General Elections.

While unveiling the new accoutrements and insignia of the NAF Regiment as well as the new nickname of the SF – 'the PANTHERS' -, the Director of Regiment HQ NAF, Air Commodore Babatunde Phillips, highlighted how the specialty had been transformed over the past 4 years with massive capacity building initiatives. He said that the transformation had resulted in raising the number of NAF SF personnel from less than 300 in 2015 to a well-trained, well-equipped and well-motivated force of over 1,000; along with 44 SF instructors also recently trained.



The Chief of the Air Staff, Air Marshal Sadique Abubakar presenting award to Flying Officer Olawale who emerged as the Best Graduating student of Special Forces Course 4/2019



Simulation of coordinated assault on enemy location by students of Special Forces Course 4/2019 during their graduation ceremony



Graduating students of Special Forces Course 4/2019 conducting unarmed combat exercise during their graduation ceremony



Conduct of fire obstacle crossing exercise by students of Special Forces Course 4/2019 during their graduation ceremony



Students of Special Forces Course 4/2019 conducting dry drill on weapon handling during their graduation ceremony



The Chief of the Air Staff, Air Marshal Sadique Abubakar delivering his address during the Graduation ceremony



Cross section of the graduands of Special Forces Course 4/2019 during the graduation ceremony



The Chief of the Air Staff, Air Marshal Sadique Abubakar and other invited guests in a group photograph with the Commandant, Instructors and graduating students of Special Forces Course 4/2019

# NAF HOLDS AEROMEDICAL EVACUATION AND ADVANCED TRAUMA LIFE SUPPORT TRAINING WORKSHOP IN BAUCHI

The Nigerian Air Force (NAF), has held a 5-Day Aeromedical Evacuation and Advanced Trauma Life Support Training Workshop for 37 medical personnel drawn from NAF units across Nigeria. The training, which was held at the 261 NAF Reference Hospital Bauchi, is part of efforts to further enhance the capacity of NAF personnel to provide effective aeromedical evacuation and advanced life support services within Operation LAFIYA DOLE as well as other Theatres of Operation in the country.

Speaking during the opening ceremony, the Chief of Medical Services, who was represented by the Director of Public Health and Humanitarian Services NAF Headquarters, Group Captain Azubuike Chukwuka, stated that the workshop was aimed at equipping NAF personnel with the necessary skills to provide effective aeromedical evacuation services to injured persons, especially at the front lines and theatres of operations. He said it was also aimed at ensuring that NAF Aeromedical Evacuation Teams and paramedics are appropriately trained to effectively man the Accident and Emergency Units in NAF Hospitals across the country. Group Captain Chukwuka therefore urged participants to make the most of the training with a view to applying the knowledge gained to save lives, thereby boosting troops' morale.

The training exercise is in line with one of the key drivers of the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar's vision which is aimed at creating needed capacities in every NAF professional specialty to enhance the ability of the Service to effectively carry out its constitutional roles. The workshop exposed the selected medical personnel to the complexities involved in providing real time first aid to casualties before evacuation in real battle situations. Other areas covered during the workshop include Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS). Facilitators at the Workshop include American Heart Society certified consultants from the Jos University Teaching Hospital as well as resource persons from NAF Headquarters Medical Services Branch. One of the highlights of the workshop was a practical demonstration of casualty evacuation of injured troops using a NAF Bell 412 Helicopter.



NAF Medical personnel during a Casualty Evacuation Simulation Exercise



Simulation of the CASEVAC Excercise



CPR Simulation Exercise



## NIGERIAN AIR FORCE OFFICER BREAKS OVER 20 YEARS RECORD AT ARMED FORCES COMMAND AND STAFF COLLEGE, EMERGES TOPS DURING COURSE

**A** Nigerian Air Force (NAF) officer, Squadron Leader Fredrick Oyenusi, has won the prestigious "Tie of Merit", which is only awarded to a distinguished student of the Armed Forces Command and Staff College (AFCSC), Jaji, who obtains a 'B' grade. Squadron Leader Oyenusi's feat, which had not been recorded for over 20 years, was recognized during the graduation ceremony of Senior Staff Course 40, which took place at AFCSC Jaji. Squadron Leader Oyenusi also won 4 additional awards namely the Best in Tri-Service Terms, Best Commandant's Paper, Best Director's Paper in the Directorate of Air Warfare (DAW) and the First in order of Merit in DAW. The senior NAF officer, who is a C-130H

aircraft pilot, holds 2 Masters degrees; one in Aerospace Vehicle Design and the other in Safety Engineering, both from 2 different universities in the United Kingdom, namely Cranfield University and Aberdeen University respectively. It is equally worthy of note that, in order of merit, 5 NAF officers were in the top 6 positions, ahead of their Army and Naval counterparts, at the end of the course. In addition to Squadron Leader Oyenusi, who came first, Squadron Leaders Austin Idoko, Hakeem Sarki and Chinedu Mbam occupied the second, third and fourth positions overall while Squadron Leader Fulus Kaze emerged sixth overall.

AFCSC is a Joint Service institution established to produce



President Muhammadu Buhari presenting a gift to Squadron Leader Fredrick Oyenusu, while the Commandant Armed Forces Command and Staff College (AFCSC), Air Vice Marshal Lawal Alao, looks on



President Muhammadu Buhari making his remarks at the event



Squadron Leader Fredrick Oyenusu displays his trophies



Cross section of dignitaries at the graduation ceremony of Senior Staff Course 40 at the AFCSC

operational-level military officers of the highest professional standard as well as to ensure standardization of Staff Duties in the Nigerian Armed Forces. The Senior Staff Course, in particular, is aimed at preparing selected officers of the rank of major and equivalent in the armed forces for higher responsibilities both in staff and command appointments. President Muhammadu Buhari, who was the Special Guest of Honour at the Graduation Ceremony, restated the Federal Government's commitment to prioritize the training of Armed Forces personnel, noting that they remained the bastion of national unity. He also congratulated the graduating students and charged them to apply the knowledge they had acquired to make honest and useful contributions to national development.

Earlier in his remarks, the Commandant AFCSC, Air Vice Marshal Lawal Alao, mentioned that the graduands of Senior Course 40 comprised 182 officers from the Nigerian Armed Forces, relevant Federal Government institutions and 11 sister African countries. Also present at the ceremony were the Executive Governor of Kaduna State, Honourable Ministers for

Defence, Interior as well as that of Budget and Planning Service Chiefs, Inspector General of Police, senior serving and retired military officers and other dignitaries.

The Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, speaking after the event, stated that he was very delighted with the performance of NAF officers on the course. He added that he was especially pleased with Squadron Leader Oyenusi's record-breaking achievement, which reflected the 3 core values of the NAF namely "Integrity first, Service before self and Excellence in all we do". The CAS then promised that the current leadership of the NAF would sustain efforts at human capacity building as tangible dividends were being yielded for enhanced professional performance.

Governor Nasir El-Rufai of Kaduna State donated a plot of land to the NAF senior officer and also conferred the honorary citizenship of Kaduna on him, in recognition of his excellent performance.



Commandant AFCSC, Air Vice Marshal Lawal Alao, presenting a memento to President Muhammadu Buhari during the graduation ceremony



The Chief of Naval Staff (CNS), Vice Admiral Ibok-Ete Ibas and the Chief of the Air Staff, Air Marshal Sadique Abubakar



The representative of SGOH, Mr Boss Mustapha presenting the award of the best all round participant to Group Captain Olufemi Odeyinde (now an Air commodore)

## NAF OFFICERS SWEEP MERIT AWARDS AS NATIONAL DEFENCE COLLEGE GRADUATES PARTICIPANTS OF COURSE 26

A total of 6 prizes were received by the Nigerian Air Force (NAF) participants at the National Defence College (NDC) Course 26 graduation ceremony held on 3 August 2018 in Abuja, with 3 of them emerging 1st, 2nd and 3rd overall in order of merit. The Grand Prize, which is the President and Commander-in-Chief's Prize for best all round and first in order of merit, was won by Group Captain Olufemi Odeyinde, who also bagged the Commandant's Prize for best research paper on the topic: 'Cyber Warfare and National Security in Nigeria: The Armed Forces of Nigeria in Perspective'. The second Prize in order of merit, which is the Honourable Minister of Defence Prize, was won by Group Captain Olayinka Oyesola while Group Captain Paul Efanga was adjudged third in order of merit with the Chief of Defence Staff's prize. Also, a NAF officer, Group Captain Felix Uwakara won the Brazilian Government Prize while Group Captain Abdulrasheed Kotun bagged the Chief of the Air Staff's Prize.

The NDC Course 26, was attended by 136 participants with 26 senior officers from the NAF, 54 from the Nigerian Army, 26 from Nigerian Navy, 4 from the Nigeria Police, 10 from Strategic Institutions/MDAs as well as 16 International Participants. So far,

the College has trained a total 404 officers from the NAF since its inception in 1992. The former Commandant of NDC, Rear Admiral Adeniyi Osinowo conferred the granduands with the Fellowship of National Defence College (fdc), followed by presentation of certificates to the fellows by the Special Guest of Honour (SGOH), President Muhammadu Buhari who was represented by the Secretary to the Government of the Federation, Mr Boss Mustapha. The occasion, which had the Honourable Minister of Defence, Mansur Dan-Ali, Service Chiefs and other dignitaries in attendance, also witnessed the unveiling of the NDC Book Series titled 'Strategic Lenses' which is NDC's flagship publication.

In his speech during the ceremony, President Buhari congratulated the participants for the successful completion of the Course and urged them to utilize the national strategic values they had imbibed during the course for the security, growth and development of the nation. The President reminded them that their various Services and establishments would be expectant that they would bring the knowledge, skills and expertise acquired during the course to bear on the performance of their responsibilities. Speaking further, SGOH

lauded the visionary leadership and vibrancy of the NDC, as the foremost strategic training institution in the nation, for preparing senior military and civilian officers for operational and strategic level responsibilities both nationally and internationally.

It would be recalled that Squadron Leader Fredrick Oyenusu of the NAF broke an over 20 years record by winning the prestigious “Tie of Merit”, awarded to students of the Armed Forces Command and Staff College (AFCSC), Jaji for rare distinguished performance, and also won 4 additional awards with 5 other NAF officers also distinguishing themselves during the graduation of Senior Staff Course 40. The achievements of the NAF officers at AFCSC and NDC are proofs that the Chief of the Air Staff, Air Marshal Sadique Abubakar's, human capacity development initiatives are yielding tangible results for enhanced professional performance and national development.



Gp Capt Olufemi Odeyinde (now an Air Commodore) displaying his duo Awards of the Grand Prize and Commandant Prize for the best research paper



The representative of SGOH, Mr Boss Mustapha delivering his address during the graduation ceremony



Cross section of participants during the graduation ceremony



The representative of the President presenting Award to Gp Capt Felix Uwakara who won the Brazilian Government Prize



The CAS in a warm hand shake with Gp Capt WM Maigida

# CAS TASKS OFFICERS TO GENERATE INNOVATIVE IDEAS, AS NIGERIAN AIR FORCE WAR COLLEGE GRADUATES THIRD SET OF PARTICIPANTS

The Chief of the Air Staff (CAS), Air Marshal Sadique Baba Abubakar, has tasked officers to generate new ideas and provide innovative solutions that would give competitive advantage to Nigeria over its adversaries. The CAS gave the charge during the graduation ceremony of the third set of participants of the Nigerian Air Force War College (NAFAWC) Makurdi. The 19 graduating participants, who are of the rank of Wing Commander and its equivalent in the other Services, had undergone 6 months of intensive training in the application of Air Power in both joint and independent operations. They comprised 16 senior officers from the NAF, one from the Nigerian Army (NA) and 2 from the Nigerian Navy (NN).

Speaking during the graduation, Air Marshal Abubakar, who was the Guest of Honour at the ceremony, congratulated the graduating participants for surmounting yet another hurdle in the quest for excellence. He noted that the current NAF leadership placed high premium on capacity building initiatives aimed at developing competencies and skills of personnel of all specialties in order to add value to efforts at ensuring the security of lives and properties of Nigerians. The CAS further stated that the quality of personnel would, to a large extent, determine the effectiveness of the Service in meeting critical considerations for Nigeria's defence and national security imperatives.

While challenging the graduating participants to bring to bear the skills and lessons acquired during the course in their future deployments, the CAS stressed that they needed to exploit clear and critical thinking to produce vigorous, thoughtful and

innovative approaches, thereby adding value in the way things are done. He opined that the complex battlespace in counterinsurgency and counter terrorism operations, requires precision in targeting as well as effective coordination with surface forces while understanding the limitations of Air Power. The CAS stated that he was happy that the College had adequately equipped the participants with the knowledge to navigate this complex landscape. Speaking further, Air Marshal Abubakar said the Service, on its part, would continue to support the activities of the College, within the limits of available resources, to provide realistic and result-oriented training. According to the CAS, the College was established to bridge the gap in the quality of workforce that transit from the tactical to the operational and strategic levels in the NAF. "I am happy to note that the pioneer graduates of this College who recently graduated from the National Defence College (NDC) performed excellently on the course. I am therefore, optimistic that in the near future, the Service will begin to feel the impact of establishing this College through better application of strategic planning and implementation of doctrines to move the NAF to greater heights", the CAS said. Air Marshal Abubakar appreciated the President and Commander-in-Chief of the Armed Forces, Muhammadu Buhari, whose support and exemplary leadership in the face of contending economic priorities made the establishment of the College realizable.

Earlier in his welcome address, the former Commandant of the College, who is now the Air Officer Commanding Tactical Air Command, Air Vice Marshal John Baba, thanked the CAS for his initiative and tenacity that led to the establishment of the



Cross Section of Participants of Air War Course 3/2018

College on 5 September 2016. He equally expressed the appreciation of the College for the encouragement and support that had enabled it to continue to broaden the knowledge and capacity of successive sets of participants in air operations while also providing impetus for enhanced inter-Service coordination during joint operations. He advised the graduands to continue to build their capacities even after graduation, as knowledge acquisition is a continuous process.

The NAFAWC, which is the highest military training institution in the NAF, also seeks to equip officers with in-depth understanding of how to translate national strategic objectives into operational directives. During the Course, participants were taught Air Power Principles and Concepts, Warfare Studies,

Fundamentals of Strategy, Warfighting and Wargaming as well as Land and Maritime Warfare Studies.

One of the highlights of the ceremony was the presentation of prizes to participants who had distinguished themselves during the course. Wing Commander Abdullahi Abu received the CAS' Award for emerging first in order of merit on the course and also bagged the Commandant's Award for the Best Individual Research Project. Wing Commander Valentine Oraeki won the Best in Air Power Award while Lieutenant Colonel Aliyu Adamu won the CAS' Award as the Best Graduating Participant from Sister Services.



AVM Nurudeen Balogun presenting a price to Wg Cdr Abdullahi Abu



CAS Presenting gift to Wg Cdr Valentine Oraeki



The CAS Presenting gift to the best graduating participant from sister service, Lt Col Aliyu Adamu



Cross section of dignitaries at the ceremony



The CAS and other dignitaries in a group photograph with participant and directing staff of Air War Course 3/2018



AVM John Baba presenting the Commandants award to Fg Offr IA Adepoju

## INCLUCATE GOOD SAFETY HABITS IN AIRCRAFT OPERATIONS, CAS URGES GRADUANDS OF FLIGHT SAFETY OFFICERS' COURSE

The Chief of the Air Staff (CAS) Air Marshal Sadique Baba Abubakar has urged safety officers to seize every opportunity to work with commanders in the field to help inculcate good safety habits and practices in aircraft operations, both now and in the future. This, he said would be their own contributions towards improving readiness of the Nigerian Air Force (NAF) which would in turn enhance safety and security of lives in the country at large. He stated this at the graduation ceremony of Flight Safety Officers' Course 2/2018 of Nigerian Air Force Institute of Safety (NAFIS) held at 401 Flying Training School, Nigerian Air Force Kaduna. The CAS who was represented by the former Chief of Standards and Evaluation, Air Vice Marshal (AVM) John Baba said apart from producing safety officers for the NAF, the Institute has raised another stream of young safety thinkers who would ensure the desired paradigm shift towards thinking safety and acting safety, both now and in future. "These new entrants with the right mindset of safety in the Aviation Industry would undoubtedly add value to the NAF Safety Culture and enhance her crew efficiency in flight operations thereby making aviation industry safer", the CAS said.

Considering the number of modules conducted and their rich content, caliber of resource persons; which include experienced

and safety trained pilots, air traffic controllers, works professionals, seasoned aircraft engineers and flight surgeon as well as the theoretical and practical exercises undertaken during their 12 weeks course, the CAS said the graduands have had effective and quality safety training. This he said is in line with one of the key drivers of his vision which is "human capacity development through robust and result-oriented training for enhanced professional performance". He therefore congratulated the graduating participants for their doggedness and determination throughout the course. He urged them to do everything humanly possible to be good ambassadors of the Institute through professionalism and exemplary conduct in order to justify the resources that went into their training. The CAS commended the exemplary leadership of the Air Officer Commanding (AOC) Air Training Command AVM Muhammad Suleiman for his effective supervision of the Institute and its programmes. He also congratulated the Commandant of Institute and his team of safety thinkers, officers, airmen/airwomen and civilian staff for constructively assisting our erudite and committed crew of resource persons, in molding the graduands into the present status. He stated that the Institute is truly a hub of excellence in safety training and has aptly provided an opportunity for human capacity development, not only for the Service but for the entire nation and other

international aviation partners.

Earlier in his welcome address, the Commandant of NAFIS Air Commodore Edward Adedokun revealed that in the past, the NAF relied on foreign institutions for the training of its safety personnel. While some aspects of safety training is still being conducted abroad, it is heart-warming to note that since the Service took the initiative to localize safety training with the establishment of the Nigerian Air Force Institute of Safety on 1 April 2010, well over 550 personnel have been trained at the Institute. He stated that in country training has afforded the NAF the opportunity to train more personnel at comparatively lower cost and has the benefit of hands-on training in own environment.

He disclosed that the Flight Safety Officers Course 2 is special, as all the 45 participants are student pilots who have completed their primary flying training on both fixed-wing platforms and the helicopters and are waiting for their basic flying training. Recalling the achievements of NAFIS, Air Commodore Adedokun said this year alone, the Institute has trained 123 personnel including pilots, air traffic controllers, operators of unmanned aerial vehicles, aircraft and armament engineers as well as personnel from the regiment, admin, air police, intelligence, pharmacists and other paramedics, supply, communications and Information Technologists. We have also trained radar operators, finance personnel as well as commanders, commandants, directors and command evaluation

officers on different aspects of safety relevant to their specialties and air operations in general. He thanked the CAS for continually providing the resources required to execute their safety training programmes.

The ceremony was attended by the AOC Air Training Command, Commanders of Co-located NAF Units, friends of the Institute and traditional heads of host communities. Awards were given to students who distinguished themselves during the course. Flying Officer EO Ugwoke clinched the CAS Award while the AOC Air Training Command and Commandant's Awards went to Flying Officers AS Duryumsu and IA Adepoju respectively.



Cross section of graduands of Flight Safety Course



Cross section of officers and invited guests to the graduation ceremony



The CAS award winner Fg Offr EO Ugwoke receiving the award from the G.O.H



The G.O.H presenting the AOC ATC Award to the winner Fg Offr AS Duryumsu.



Fg Offr OO Oke being presented with a certificate by the G.O.H at the event



Cross Section of Recruits During Quick March at the Ceremony

## NATIONAL SECURITY: NAF ENLISTS NEW SET OF AIRMEN, RECRUITS 7,644 NIGERIAN YOUTHS IN 3 YEARS

One of the prerequisites for the Nigerian Air Force (NAF) to continually meet the imperatives of its constitutional roles is an adequate strength of vibrant manpower. To this end, as part of the ongoing process of building and sustaining the necessary human resource base to meet national security imperatives, the NAF has graduated another set of recruits, comprising 1,558 young men and women of Basic Military Training Course (BMTC) 39/2018. The colourful Passing Out Parade (POP), which took place on, 14 September 2018, at the NAF Military Training Centre (MTC) Kaduna, had the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, as the Guest of Honour and Reviewing Officer. In his address at the occasion, the CAS disclosed that the NAF had trained a total of 7,244 young Nigerians as airmen/airwomen and 400 young graduates as officers since assumption of office of the current NAF leadership in July 2015. According to him, the effort is aimed at boosting the capacity of the Service to sufficiently curtail insecurity in the country while also implicitly keying into the Federal Government policy of job creation for young Nigerians.

While charging the new airmen/airwomen to be resilient, tough, courageous and apolitical in the performance of their duties, Air Marshal Abubakar stated that the 6 months training was deliberately structured to be rigorous in order to expose them

to near real-life scenarios of what the nation expects from them after graduation. He affirmed that the NAF would continue to encourage personnel to be innovative and subordinate their personal interests to those of the Service and the Nation. Speaking further, the CAS reminded the graduands of the enormous tasks ahead of them as they are joining the Service at a time when the Armed Forces is involved in several operations to curtail insecurity across the country. "As the gains of our troops are being consolidated, you may be deployed to the operational theatre to contribute your quota to our national security. I urge you to operate within the rules of engagement as enumerated in the code of conduct for armed forces personnel involved in internal security operations. You must respect and protect the innocent and law abiding civilians whom you are paid to defend. Treat them with respect and protect their rights. It is by so doing that you will be discharging your professional and constitutional duties", he said.

Air Marshal Abubakar, while reiterating the need for NAF personnel to submit themselves to civil authority in accordance with democratic tenets, also warned the passing out recruits not to allow themselves to be used by any subversive elements in the society to compromise national security. "We must therefore resist the temptation to brutalize or engage in physical contacts

with civilians. Our duty is to protect all Nigerians irrespective of their ethnic, religious or political inclination". The CAS then expressed the profound gratitude of the NAF to the Commander-in-Chief of the Armed Forces, President Muhammadu Buhari, for continually giving priority attention to the operational and logistics needs of the Service. He pledged NAF's unalloyed loyalty and total commitment towards ensuring the peace and prosperity of the nation.

One of the highlights of the event was a silent drill demonstration by the passing out recruits. The ceremony also featured the presentation of awards to the 3 best graduating recruits. The award recipients were Aircraftwoman Rita



Cross section of recruits and the CAS during the ceremony

Oformah, Aircraftman Victor Achilonu and Aircraftman Ebenezer Makinde, who won the CAS, Air Officer Commanding Ground Training Command and Commandant's Awards for emerging first, second and third in order of merit. It is noteworthy that this is the second time in history and second consecutive year that a female graduating recruit has won the CAS Award. The ceremony witnessed large turnout of dignitaries including the representative of the Executive Governor of Kaduna State, serving and retired senior officers as well as families and friends of the newly enlisted airmen and airwomen.



CAS presenting an award to the Best Passing Out Recruit



CAS addressing passing out recruits during the ceremony



Cross section of recruits during silent drill demonstration



CAS, dignitaries and passing out recruits at the ceremony

# NAF UPGRADES CRIME LABORATORY, ADVOCATES SCIENTIFIC APPROACH TO CRIME FIGHTING

The Nigerian Air Force has reactivated, expanded and upgraded its Crime Laboratory located at its Provost Investigation Group, after 30 years of inactivity and disuse. The resuscitation of the crime laboratory is to enable the employment of a more scientific approach to investigation of crimes in the NAF. The Chief of the Air Staff, Air Marshal Sadique Abubakar, revealed this during a 2-day Conference for NAF personnel of the Air Provost Specialty, with the theme 'Scientific Approach to Crime Prevention: A Prerequisite for Contemporary Air Police Operations'. The Conference, which was aimed at acquainting Air Provost personnel with scientific methods of tackling contemporary security challenges.

Speaking during the Conference, the CAS observed that, the traditional methods of policing had become less effective due to the influence of technology in the perpetration of crime. According to him, the NAF had therefore started building the capacity of Air Provost to effectively employ scientific approaches in all facets of its critical competencies. The CAS further stated that 16 Air Provost personnel had undergone a 2-week core investigative skills and interviewing course while another set of 16 personnel would also begin the Crime Scene Investigation course before the end of the year. The courses, which were being conducted in conjunction with reputable foreign partners from the United Kingdom, would reinforce the culture and efficacy of scientific approaches to policing in the NAF. The CAS further disclosed, that the NAF was expanding the use of Military Working Dogs to boost the physical security of NAF Bases while also working towards integrating them into the conduct of Combat Search and Rescue operations as well as rejuvenating NAF Provost's Explosive Ordnance Detection capability.

Delivering his lecture on the theme of the Conference, the Guest Speaker, Dr Ona Ekhomu, who is a renowned security Consultant, stated that it was imperative for Nigeria to adopt scientific approach to crime fighting instead of the traditional methods. According to him, Nigeria is yet to have full forensic law and this, he said, had hampered investigation of serious crimes in the country. The Guest Speaker also identified lack of crime database, poor funding, skill and capacity gaps, lack of infrastructure and inadequate security awareness programmes as some of the challenges to crime prevention in the country. He commended the NAF leadership for upgrading its crime laboratory, which he advised, should be developed to include ballistic and biometric data capture, storage and analysis capability. During the interactive session, participants agreed that there was the need for synergy among all security agencies to stem the tide of criminality in the country.

Earlier in his welcome address, the Chief of Administration, Air Vice Marshal Kingsley Lar, represented by the former Director of Legal Services, AVM Mahmoud Ahmed, said there was no alternative to the adoption of a scientific approach to crime prevention and detection. "It has always been the belief of the NAF leadership that the current security challenges in the country necessitate a review of the operational approach of the Service in meeting its security and defence imperatives", he said. In attendance at the opening ceremony were Air Provost personnel, both serving and retired, as well as provost officers from sister Services and the equivalent from para-military organizations.



Cross section of Participants during the Conference at Air Marshal MD Umar Blue Room, Abuja



Cross section of Participants at the 2 day Conference



The Guest Speaker, Dr Ona Ekhomu, making a presentation during the Conference



The Air Provost Marshal, HQ NAF, Air Cdre Bakari, moderating the interactive session during the 2 day Conference



The Chief of Air Staff, Air Marshal SB Abubakar, delivering his keynote address at the Conference



Cross section of participants at the 2 day Conference



CAS presenting a souvenir to the Guest Speaker at the Conference



The Air Secretary, AVM Mahmoud Ahmed presenting an award to the immediate past Air Provost Marshal, Air Cdre CD Dola (rtd)

# CDS COMMENDS NAF AS EXERCISE OMO OLOJA HOLDS IN LAGOS

The Chief of Defence Staff, General Abayomi Olonisakin, has commended the Nigerian Air Force for its continued delivery of credible Air Power in the North East and other parts of the country as well as across the West African Sub-Region. The CDS gave this commendation during the Logistics Command (LC) Air Logistics Support Simulation Exercise (SIMEX) held at 631 Aircraft Maintenance Depot (631 ACMD), Lagos. The SIMEX dubbed "OMO OLOJA", meaning "the Trader" or "Peddler of Goods", was designed based on the need to provide rapid airlift of humanitarian relief materials to a fictitious nation of 37 provinces which had been devastated by natural disaster.

In his keynote address, the CDS, who was Guest of Honour at the event, expressed delight to flag-off such a significant exercise because of the importance of logistics to the successful conduct of contemporary military operations. "Without logistics, success cannot be guaranteed. You may plan the most audacious battle, manned by the most highly skilled personnel with the most advanced weapon systems; but if you don't have ordinary drinking water for the troops, or lack the capacity to move men and materiel to the right place at the right time; all may come to nothing. That is why it is often said that 'if you don't have logistics you don't have anything'", he said. Speaking further, General Olonisakin lauded the NAF for its robust human capacity building initiatives which had enabled the Service perform its constitutional roles creditably. He also commended the CAS for organizing the SIMEX which, he said, would further build NAF's capacity to provide efficient and timely logistics support for the effective conduct of operations of the Nigerian Armed Forces. The CDS also seized the opportunity to thank the Commander-in-Chief of the Armed Forces, President Muhammadu Buhari

GCFR, for making the modernization, re-equipping and continuous training of the Nigerian Armed Forces a top priority.

In his opening remarks, the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, stressed the importance of Air Power in modern warfare not only in offensive and defensive roles but also in collection of credible and timely intelligence as well as the swift and efficient airlift of forces within and across theatres of operation. He noted that the security challenges currently facing the country and the West African Sub-Region would continue to make Air Power imperative for the effective discharge of Nigeria's obligations in ensuring sub-regional stability, as demonstrated during the Gambian crisis. The CAS described air logistics support as one of NAF's core functions that would continue to make this possible. He added that, it had become imperative that without air logistics support, it was virtually impossible to successfully prosecute modern warfare. Accordingly, the CAS said the NAF would continue to conduct realistic, practical and functional training exercises, like Exercise OMO OLOJA, to ensure it was fully prepared to provide necessary logistics support to meet national security imperatives as well as in support of humanitarian relief operations in aid to Civil Authority. The CAS ended by thanking the CDS for reviewing the SIMEX and providing guidance for its effective conduct.

Earlier in his welcome address, the former Air Officer Commanding LC (AOC LC), Air Vice Marshal (AVM) Remigius Ekeh, stated that Exercise OMO OLOJA was aimed at practising participants in the conduct of a medium scale airlift operation with a view to enhancing coordination between operations, logistics and aircraft engineering staff for the effective and efficient execution of air logistics operations. AVM Ekeh also



Load Masters loading some logistics onto the NAF C130 Hercules aircraft during the SIMEX dubbed "OMO OLOJA"

disclosed that similar training exercises would be conducted by other NAF Commands in line with their core functions. He thanked the CAS for choosing LC as the vanguard of these series of training exercises across the Service.

The SIMEX also featured briefings from the Exercise Director and Heads of the various Cells who gave details of their

various roles in facilitating the movement of a total of 400,000 lbs of relief materials using designated aircraft and ground transportation. Highlight of the event was the loading and airlift of some consignments of relief materials by the C-130H heavy airlift aircraft.



Cross section of participants during Exercise OMO OLOJA in Lagos



Load Masters loading some items onto the NAF C-130 Hercules aircraft



The NAF C-130 Hercules aircraft taxiing in preparation for takeoff during Exercise OMO OLOJA in Lagos



The Chief of Defence Staff (CDS), General Abayomi Olonisakin, inspecting items loaded onto the C130 aircraft



The Chief of Defence Staff, General Abayomi Olonisakin, making his remarks at the event



Front view of Headquarter Air Training Command

## OPERATIONAL EFFECTIVENESS: CAS COMMISSIONS NEW HEADQUARTERS AIR TRAINING COMMAND COMPLEX, OTHER FACILITIES IN KADUNA

In continuation of his visits to Nigerian Air Force (NAF) units across the country to assess operational effectiveness, the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, visited Kaduna. The units visited include the Military Training Centre, NAF School of Medical Sciences, Air Force Comprehensive School (AFCS) and the Air Force Institute of Technology (AFIT). While in Kaduna, the CAS, who was accompanied by senior officers from NAF Headquarters, also commissioned the newly constructed and furnished Headquarters Air Training Command (HQ ATC) Complex and HQ ATC Principal Staff Officers (PSOs) Quarters as well as a new Sport Complex at AFCS Kaduna.

While speaking during the commissioning ceremony, the CAS said that the HQ ATC Complex and other facilities being commissioned were further evidences that his vision for the NAF was gradually being realized. He noted that upon assumption of office, he had determined that he would reposition the NAF into a highly professional and disciplined force for effective, efficient and timely employment of air power in response to Nigeria's national security imperatives. He noted that he had recognized at the time that the Service could only be repositioned if it had the right structure, right manpower disposition, right equipment holding as well as the right welfare incentives.

Speaking further, Air Marshal Abubakar remarked that the desire to have the right structure led to the unbundling of the erstwhile Training Command (TC) into 2 Commands, namely Ground Training and Air Training Commands (GTC and ATC), among other major structural changes made within the past 3 years. Similarly, the quest for the right manpower disposition necessitated an increase in recruitment, which has led to the recruitment of 7,244 airmen/airwomen and commissioning of 400 Direct Short Service Commissioned officers in the last 3 years to meet the manpower needs of the new structure and populate the new units created to adequately respond to security challenges in the country. In addition, the need for the right equipment, he noted, was gradually being met with the gracious support of the Federal Government through the acquisition of 18 brand new aircraft as well as the provision of resources and logistics support that facilitated the reactivation of 13 other aircraft, with another 2 expected to come on stream soon. Lastly, the imperative for the right welfare incentives has been met by the building and furnishing of new office and residential accommodation as well as renovation of some existing ones along with the establishment of new hospitals and schools in many NAF locations across the country.

Air Marshal Abubakar said it was gratifying that HQ ATC could now be moved back into NAF Base Kaduna after about 40 years



Newly Commissioned HQ ATC Office Complex



Newly commissioned Principal Staff Officers quarters at HQ ATC



The CAS Unveiling the Commissioning Plaques of the New HQ ATC



Office of the AOC ATC in the new HQ Building

of occupying a building in town. He noted that this would not only enhance administrative convenience but also improve operational effectiveness. He therefore commended the Logistics Branch and NAF Works Centre for completing the project on schedule. He urged the Air Officer Commanding (AOC) and staff of HQ ATC to ensure the complex was properly maintained.

In his welcome address, the former AOC ATC, Air Vice Marshal Mohammed Idris, expressed the profound appreciation of the officers and airmen/airwomen of the Command to the CAS for his tremendous support and exemplary leadership. He thanked the CAS for numerous projects that had been executed in the Command's area of responsibility, which ensured conducive living and working environments for personnel to effectively contribute to the accomplishment of assigned tasks. The AOC pledged that the personnel of ATC would continue to work hard, train hard and put Service before self in the performance of their duties.

The new HQ ATC Complex consists of offices for the AOC, PSOs and other staff as well as conference rooms, an operations room and restaurants for both officers and men, while the PSOs Quarters consists of 10 furnished blocks consisting of 2 units of 2 bedroom flats each. The new Sport Complex at AFCS Kaduna, which was only recently upgraded into a boarding school last year, has a football field and running track with a pavilion as well as volleyball, basketball and handball courts. As part of the operational visit, the CAS also inspected ongoing remodeling of the former hospital into NAF School of Medical Sciences Facilities at NAF Base Kaduna as well as some projects executed by the Commandant AFIT at the Institute.



Newly Constructed Basketball Court for Students of AFCS Kaduna



New Sport Parvillion for Students of AFCS Kaduna

# NAF COMMISSIONS NEW ACCOMMODATION FOR PERSONNEL IN OWERRI AS IMO STATE GOVERNOR PROMISES MORE SUPPORT

In the continuing drive to provide its personnel with the most conducive working and living conditions for optimal efficiency, the Nigerian Air Force (NAF), commissioned new accommodation and electrification projects at the NAF 211 Quick Response Group (211 QRG), Owerri. The newly constructed and furnished block of 10 x single room transit quarters for Non-Commissioned Officers (NCOs) and electrification project were part of the first phase of developments to be executed on the land donated to the NAF by the Imo State Government for the establishment of a Base in Owerri.

Commissioning the projects, the Executive Governor of Imo State, Owelle Rochas Anayo Okorocha, who was represented by the Secretary to the Imo State Government, Sir George Eche, expressed the gratitude of the Imo State Government to President Muhammadu Buhari for approving the establishment of the 211 QRG in the State. He said that, as part of its commitment to ensure the Unit's smooth take-off, the Imo State Government had donated land and an office complex to the NAF in December 2016, and also subsequently donated the Owerri North Specialist Hospital. He expressed delight that the NAF had reciprocated the State Government's kind gestures by contributing significantly to the enhancement of security in the state. The Governor also commended the NAF for commencing the development of the land to provide accommodation for its personnel. "I believe this is the first step towards full development of the place into a standard NAF Base", he said.

Speaking earlier, the Chief of the Air Staff (CAS), Air Marshal Sadique Baba Abubakar, stated that his desire to reposition the NAF into a highly professional and disciplined fighting force for effective, efficient and timely employment of air power had necessitated a tweaking of the NAF's erstwhile organizational structure. This reorganization, he noted, had led to the establishment of the Special Operations Command (SOC) and its component units, which include 211 QRG Owerri as well as QRGs in Ipetu-Ijesha in Osun State, Gusau in Zamfara State and a Combat Search and Rescue Group at Kerang in Plateau State, along with Quick Response Wings (QRWs) at Doma in Nassrwa State, Nguroje in Taraba State and Agatu in Benue State. The CAS noted further that the establishment of these units had enhanced NAF's response capability in dealing with national security threats, in conjunction with sister Services and other security agencies. He went on to state that, in order to

ensure effectiveness within the new structure, the Service had continued to build human capacity in all areas to enhance the NAF's operational capability. Accordingly, the NAF had trained a total of 82 pilots and was also boosting its Special Operations and Force Protection capabilities with the training of another batch of 500 personnel at the Regiment Training Centre in Kaduna, most of whom would be deployed to the various QRGs, including Owerri, upon completion of their training.

The CAS therefore thanked President Muhammadu Buhari for the immense support that had empowered the NAF to function effectively and facilitated the acquisition of 18 brand new aircraft as well as the reactivation of 13 others in the Service within the last 3 years. The CAS also thanked the Government and good people of Imo State for their unwavering support to the NAF, while specially commending Governor Okorocha for his personal commitment to ensuring that the NAF was well established in Imo State by approving the donation of land, an office complex and a hospital. Earlier in his welcome address, the former Air Officer Commanding (AOC) SOC, Air Vice Marshal (AVM) Samson Akpasa, who was represented by the Chief of Staff SOC, AVM Mohammed Tanko, stated that the construction of the block of transit accommodation would motivate personnel to continue to put in their best to enhance the collective operational capacity for the attainment of NAF objectives.

The CAS, along with other senior officers, had earlier paid a courtesy visit to the Imo State Governor at the Government House in Owerri. During the visit, Governor Okorocha stated that he had always been a believer in the primacy of air power and the decisive advantages it confers in warfare. He commended the CAS for the NAF's immense contributions to the success in the fight against insurgency in the North East as well as ongoing efforts to deal with armed banditry in Zamfara and other states in the North West. The Governor stated that he was equally satisfied with the contributions of 211 QRG towards enhancing security in Imo State. He said he would therefore continue to provide all necessary support to the NAF to enable it more effectively carry out its roles in the State. The CAS thanked the Governor for the continued support the NAF had enjoyed from the Government and good people of the state and pledged the commitment of the Service towards ensuring peace and stability in the country.



Front view of the newly constructed and furnished block of 10 x single room transit quarters for Non-Commissioned Officers at 211 QRG NAF Owerri



Newly provided 4x500KVA transformer for 211 QRG, NAF Owerri



The CAS, Air Mshl SB Abubakar presenting a plaque to the SGOH, the Acting Chief Justice of Nigeria, Justice Tanko Muhammed

## NAF HOLDS 3-DAY LOAC RETREAT, PROMISES TO CONTINUE CONDUCTING OPERATIONS IN ACCORDANCE WITH INTERNATIONAL BEST PRACTICES

The Nigerian Air Force (NAF) has reassured Nigerians of its commitment to continue to conduct its operations in adherence to the Rules of Engagement (ROEs) as enshrined in the constitution of the Federal Republic of Nigeria and the International Laws of Armed Conflict (LOAC). This was revealed by the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, on 26 March 2019, during the Opening Ceremony of a 3-day 2019 Law of Armed Conflict Retreat for NAF Field Commanders and Legal Officers holding at the Air Marshal MD Umar Blue Room Headquarters NAF, Abuja. The Retreat, which has the theme "The Law, the Courts vis-a-vis the Military Commander in Counter Insurgency and Counter Terrorism Operations", was aimed at equipping participants with requisite knowledge on current and emerging legal trends as well as issues associated with human rights in the conduct of internal security operations. It also provided an avenue for NAF Legal Officers to meet and interact with their colleagues from within and outside the Service.

Day One of the Retreat had the Acting Chief Justice of Nigeria (CJN), Justice Ibrahim Mohammed, as the Special Guest of Honour for the Opening Ceremony and featured the presentation of 3 papers. The first paper titled "Command and

Individual Responsibility in Counter Terrorism and Counter Insurgency Operations" was delivered by Professor Dakas CJ Dakas (SAN), the second paper on the topic "Human Rights in Counter Terrorism and Counter Insurgency Operations" was delivered by Mr Femi Falana (SAN) while the third on "Rules of Engagement in Counter Terrorism and Counter Insurgency Operations" was presented by Group Captain Sadeeq Shehu (retired). Other guests at the event included the representatives of the Attorney-General of the Federation (AGF) and President Nigerian Bar Association (NBA) as well as members of local and international Non-Governmental Organizations. Also present were distinguished legal practitioners and scholars such as Mr Robert Clarke (SAN) and Professor Usman Tar, amongst many other eminent personalities and senior military officers, both serving and retired.

While welcoming dignitaries to the Retreat, the CAS assured all that the actions of the Service would continue to be guided by the principles of the LOAC which form part of both domestic and international humanitarian laws that regulate the conduct of armed hostilities. Air Marshal Abubakar explained that the operations of the Service are always guided by these principles including; the justification for involvement, the use of minimum

force, protection of lives and property, recording and keeping of evidence, timely intervention, domination of Area of Responsibility and cooperation. According to him, "these principles require that before the NAF is involved in any operation, it must be sanctioned by appropriate superior authority and, when deployed, it only applies the use of force when necessary in the circumstance to ensure safety of lives and property". He added that the NAF has continued to work with the civil authorities and other security agencies to build public confidence and quicken the restoration of normalcy in conflict situations. "We do all these in conformity with applicable Rules of Engagement which are in line with international best practice", he explained. Air Marshal Abubakar also noted that the NAF had ensured that its field/operations commanders keep records of actions taken and ensure timely intervention to prevent unnecessary loss of lives and destruction of property. He remarked that the NAF had taken proactive steps by establishing secured areas/bases to operate from in order to enable freedom of action while denying same to the enemy. The CAS further noted that the NAF, in its non-kinetic role, had carried out medical outreach programmes in 40 different locations in the country, including the North East, treating a total of 303,305 patients in the last three and a half years. He said the Service had also established Level I hospitals at Internally Displaced Persons (IDPs) Camps at Dalori and Bama in Borno State.

Speaking further, Air Marshal Abubakar reiterated that Legal Retreats have become recurring activities in NAF's annual Calendar of Events because of the Service's realisation that the success of any institution depends largely on the understanding and application of the laws under which it is established. To this end, the NAF, he said, has, since 2016, organized annual legal retreats for its legal officers, fighter pilots and field commanders. According to him, this year's edition was particularly unique because the Service had not only brought together its own legal officers and field commanders as well as academicians, the diplomatic community and the judiciary under the same roof, but also had the honour of having the Acting CJN as the Special Guest of Honour. The CAS maintained that such Retreats were very essential for the Service given the fast-changing Twenty First Century environment and NAF's increasing involvement in quelling one form of crisis or the other. He further noted that the demand for probity and accountability for military actions or inactions was on the rise. As a result, "in line with LOAC protocols, we always ensure that our commanders respect and honour natives, their families, faith as well as customs. Our field commanders also ensure adequate coordination of movement

of persons to avoid making them casualties in theatres of operation, while also protecting private property from arson, looting and theft. In addition, we ensure that commanders and troops do not partake in illegalities when deployed on operations. As a Service, we know that the violation of LOAC is a breach of both international laws and the laws of Nigeria; as such we always endeavour to operate within the confines of LOAC", he emphasised.

In his remarks, the acting CJN expressed delight to be invited to the event and commended the CAS for introducing and consistently organizing the LOAC Retreat since assuming office. He noted that nothing was more important than acting within the ambits of the laws in whichever role one finds himself. He added that the NAF and indeed the entire Armed Forces of Nigeria (AFN), which were established to serve and be accountable to the Nigerian people, have the responsibility of adhering to their ROEs in line with the laws as well as international best practices. He noted that the AFN must accordingly continue to adhere to the LOACs during military operations. The CJN could not hide his admiration for the spread of professionals present at the event as the Retreat brought together distinguished legal luminaries from all over the Country under a single roof. He noted that this kind of encompassing Retreat would drive home the point that it is only through cross-agency collaboration that the collective objective of protecting and defending the populace within the ambits of the law could be achieved. Justice Tanko added that the military was very critical to the success of any democracy in the world noting that Nigerians were indeed appreciative of the sacrifices that the Nigerian Military was making to keep the Country united. "Our thoughts are with our Servicemen who have paid the ultimate price in this process. Their sacrifices will never be in vain", he said. Accordingly, before departing HQ NAF, the acting CJN in company of the CAS and other dignitaries visited the NAF Memorial Arcade, mounted in honour of all aircrew who had made the supreme sacrifice in the course of duty, to pay their respects.

In his remarks, the representative of the AGF, the Deputy Director Public Prosecution, Ministry of Justice, Mr Nadi Barkun, while noting that terrorism is one of the worst armed conflicts Nigeria had encountered after the Civil War, commended the NAF for showing exceptional commitment and professionalism in the protection of Nigeria's territorial integrity. The second and third days of the 2019 NAF LOAC Retreat featured brainstorming sessions and interactions between NAF legal officers and the leadership of the Directorate of Legal Services.



Cross section of Senior Officers and other participants at the Retreat



The Ag CJN, Justice Tanko Muhammad delivering his keynote address during the Retreat



The CAS, Air Mshl SB Abubakar delivering his opening address during the Law of Armed Conflict Retreat



Cross section of resource persons at the Retreat



Professor Dakas CJ Dakas (SAN) delivering his lecture at the Retreat



Femi Falana (SAN) delivering his lecture at the Retreat



Gp Capt Sadeeq Shehu (rtd) delivering his lecture at the Retreat



Robert Clarke (SAN) reviewing paper presented by Femi Falana (SAN) at the Retreat



Air Cdre PB Philips making a contribution during the interactive session



The CAS, Air Mshl SB Abubakar presenting a plaque to the Professor Usman Tar one of the Paper Reviewer at the Retreat

# NATIONAL UNIVERSITY COMMISSION APPROVES FULL-TIME DEGREE PROGRAMMES FOR AFIT



The Executive Secretary NUC, Professor Abubakar Adamu Rasheed, Presenting one of their publications to the CAS during the courtesy visit by the CAS to NUC



The ES NUC, Prof. Abubakar Rasheed welcoming the CAS and his team



The CAS, Air Marshal Sadique Abubakar responding to the remarks by the ES NUC



The Executive Secretary NUC and the CAS in a group photograph with NUC Principal staff officers and visiting team from NAF

**T**he National University Commission (NUC) has approved the commencement of full-time undergraduate and post-graduate programmes for the Air Force Institute of Technology (AFIT), Kaduna with effect from 2018/2019 academic session. The NUC conveyed the approval through a letter to the Institute dated 31 July 2018 and signed by Dr GB Kumo, Director of Academic Planning on behalf of the Executive Secretary, NUC. The approval came after a 3-day Resource Assessment visit to the University by a team of assessors from 17 to 19 July 2018. The undergraduate courses approved include Bachelor of Engineering (B.Eng) degrees in Aerospace Engineering, Mechanical Engineering, Electrical and Electronics Engineering, Information and Communication Technology, Automotive Engineering and Civil Engineering. Other degree courses to be offered include Bachelor of Science (BSc) in Accounting, Business Administration, Cyber Security,

Economics and Marketing. Also, the Institute would also be offering Post Graduate Diplomas (PGD) in Aerospace Engineering, Electrical and Electronics Engineering Construction Technology, Logistics and Supply Chain Management as well as Master of Science (MSc) in Aerospace Vehicle Design and Thermal Power.

It would be recalled that on 5 December 2017, the bill establishing AFIT was signed into law by the President, Commander-in-Chief of the Armed Forces, President Muhammadu Buhari. A tertiary institution with a blend of military and civilian staff and students, AFIT is accredited by the NUC, Council for the Regulation of Engineers in Nigeria (COREN) and Nigerian Society of Engineers (NSE). The Institute is also a Nigerian Civil Aviation Authority (NCAA) Approved Training Organisation for the conduct of Initial Aircraft Licence Preparatory Course. Since its establishment in 1977, with the initial name 'NAF Technical and Support Supply School', AFIT has been providing technical training to personnel of the NAF, other sister Services, members of the civil populace and personnel of the armed forces of sister African countries.



## NAF APPOINTS NEW SPOKESMAN AS AVM ADESANYA BAGS DIPLOMATIC APPOINTMENT

The Nigerian Air Force (NAF) has appointed Air Commodore Ibikunle Daramola as the new spokesman to manage its public affairs activities with effect from 2 August 2018. The new Director of Public Relations and Information (DOPRI) took over from Air Vice Marshal (AVM) Olatokunbo Adesanya, who has been at the helms of Information management in the NAF since April 2017. AVM Adesanya has since departed the country, following his appointment as Nigeria's Defence Adviser (DA) to Moscow, Russia.

Air Commodore Ibikunle Daramola was the Commander, 041 Communications Depot, Shasha, Lagos before his recent appointment. He is a member of the Nigerian Defence Academy (NDA) Regular Course 39 and was commissioned into the NAF as a Regular Combatant officer in September 1991. Air Commodore Ibikunle Daramola holds a Master of Science Degree in Telecommunications Engineering from New Jersey Institute of Technology, Newark, New Jersey, United States of America and a Post Graduate Diploma in Telecommunications and Electronics Engineering from Obafemi Awolowo University, Ile-Ife. Air Commodore Daramola also holds a Bachelor of Science in Mathematics from NDA and a Certificate de Langue Francais from Alliance Francaise.

Since joining the NAF, the DOPRI has attended many military and civil professional courses, some of which include Electronics Engineering Officers' Basic Course at 320 Technical Training Group, now Air Force Institute of Technology (AFIT), Kaduna as well as Junior and Senior Staff Courses at the prestigious Armed Forces Command and Staff College (AFCSC), Jaji. He was also a participant at the National Defence Course, National Defence University in Islamabad, Pakistan. He has also participated in several short courses, seminars and workshops within and outside Nigeria.

The new NAF Spokesman has served in various units and Commands of the NAF. He was the Deputy Research Officer at the NAF Research & Development Centre and Chief Instructor Electronics Engineering Maintenance School at AFIT. Air Commodore Ibikunle Daramola was a Directing Staff, AFCSC, Jaji, Deputy Director Communications, Headquarters NAF (HQ NAF). He had a brief stint as the Deputy Director Plans, HQ NAF, Abuja. He is happily married and blessed with children. At his leisure time, the new DOPRI loves reading and listening to gospel music.



AVM Olatokunbo Adesanya (right) with Air Cdre Ibikunle Daramola during the handing and taking over ceremony



The former DOPRI AVM Adesanya (5th right) and the incumbent DOPRI Air Cdre Ibikunle Daramola (5th Left) in a group photograph with officers and other staff of the Directorate

# COURTESY VISITS TO MEDIA ORGANISATIONS BY THE DIRECTOR OF PUBLIC RELATIONS

The Director of Public Relations and Information (DOPRI), Nigerian Air Force (NAF) Air Commodore Ibikunle Daramola assumed office on 2 August 2018. He took over from the erstwhile DOPRI Air Vice Marshal Olatokunbo Adesanya who has since resumed as the Defence Adviser to Moscow. Upon resumption, the DOPRI visited some media organisations in Abuja. The aim of the courtesy visit was to discuss issues of mutual interest and explore areas of collaboration in the fight against insurgency and other forms of criminality in the country.



The Director General, Nigerian Television Authority (NTA), Yakubu Ibn-Muhammed with the DOPRI, Air Cdre Ibikunle Daramola during the DOPRI courtesy visit



The Director General, Nigerian Television Authority (NTA), Yakubu Ibn-Muhammed with the DOPRI, Air Cdre Ibikunle Daramola and other senior NAF officers and management staff of the NTA



The Director General Federal Radio Corporation of Nigeria, Mansur Liman discussing with the DOPRI, Air Cdre Ibikunle Daramola during the DOPRI visit



The former Director Defence Information Brig Gen John Agim making a remark while the DOPRI, Air Cdre Ibikunle Daramola listens during a courtesy visit to the Defence Headquarters



The DOPRI, Air Cdre Ibikunle Daramola, presenting a copy of the Airman Magazine to the Managing Director DAAR News Services, Mr Imoni Amarere

# NAF PARTNERS APRA IN HUMAN CAPACITY DEVELOPMENT, TRAINS PERSONNEL IN STRATEGIC PUBLIC RELATIONS

The Nigerian Air Force (NAF) in the past three years has not left anyone in doubt of its resolve to reposition the NAF into a highly professional and disciplined fighting force. To this end, the current NAF leadership has made unprecedented efforts to improve the capacity of its personnel for enhanced service delivery to surmount current and emerging security challenges in the country. The Service has made strategic partnerships with ministries, departments, agencies and institutions both at home and abroad for enhanced research and development as well as training its personnel for improved professional performance. One of the institutions the NAF has partnered with in the last three years to train its Public Relations and Information personnel is the African Public Relations Association (APRA). The Association helps in creating an enabling professional environment for accurate perception, goodwill and understanding of necessary and effective performance of public relations practice in Africa. To further consolidate on the existing mutual relationship between it and the NAF, the Association on 30 July 2018 paid a courtesy call on the Chief of the Air Staff, Air Marshal Sadique Abubakar in his office at the Headquarters, NAF, Abuja.

While speaking during the visit, the APRA President stated that the Association was established to foster unity through interaction and exchange of ideas amongst public relations (PR)

practitioners in Africa as a whole. He said APRA was strongly committed to selling 'Positive Africa' through the instrumentality of the PR profession. Speaking further, Mr Badejo-Okusanya said that the APRA was glad that the current NAF leadership had not only made giant strides in the fight against the Boko Haram Terrorists and other security threats but had also professionally deployed various PR tools in disseminating information on its operations to the public, thereby projecting a positive image of the Service. He noted that this had further doused tension in the country while greatly contributing to the level of awareness and education of the public on the roles of the NAF and other security agencies. Speaking further, the APRA President stated that the Association was particularly interested in exposing NAF personnel, including non-PR officers, to the importance of PR as a strategic management tool.

In his response, the CAS lauded APRA for its role in helping to project a positive image of Africa. He noted that the NAF, being fully aware of the critical role that information management plays towards the success of modern military operations, had placed particular emphasis on accurate and timely dissemination of information. Air Marshal Abubakar, however, admitted that there was the need to further build the capacity of NAF PR and Information personnel while also exposing non-PR officers to appropriate training that would enable them perform their



The Chief of the Air Staff, Air Marshal SB Abubakar presenting a souvenir to the President of APRA Mr Yomi Badejo-Okusanya during his visit to HQ NAF

various roles more effectively. He therefore welcomed the offer of partnership from APRA and went further to express the readiness of the Service to leverage on the training opportunity to develop the capacity of NAF personnel for enhanced professional performance.

The Association recently conducted a 5-day Strategic Public Relations training for Information/PR and non-PR officers of the NAF. The Seminar which was held at the NAF Officers' Mess and Suites, Kado Abuja had as its theme, "Best Practices in Public Relations, Communication, Information Management and Stakeholder Management". The Seminar lived up to its billings as

experts and experienced professionals in PR were on hand to ensure that the NAF got value for its money. The Conference equipped participants with new skills to face various challenges in the course of their jobs while exposing them to contemporary techniques in modern day strategic communication as well as new trends in PR practice. The Seminar no doubt would further boost the realization of the CAS vision, "to reposition the NAF into a highly professional and disciplined force through capacity building initiatives for effective, efficient and timely employment of air power in response to Nigeria's national security imperatives".



Cross section of participants during the Strategic Public Relations Seminar



The APRA President, Mr Yomi Badejo- Okusanya delivering a paper during the Strategic Public Relations Seminar



The Director of Administration, Headquarters Nigerian Air Force, AVM Nelson Calmday making remarks during the opening ceremony of the Strategic Public Relations Seminar



The APRA president, Mr Yomi Badejo- Okusanya presenting a souvenir to the Director of Administration, AVM Nelson Calmday during the Strategic PR Seminar



The DOPRI, Air Cdre Ibikunle Daramola (2nd Left), APRA President, Mr Yomi Badejo-Okusanya (2nd Right) with other resource persons posing with the copies of the NAF documentaries during the Seminar



NAF participants in a group photograph during the Strategic Public Relations Seminar

# MINISTRY OF LABOUR ACCREDIT NAFIL TAILORING WORKSHOP, RECOMMENDS IT FOR N-POWER PROGRAMME

The Federal Ministry of Labour and Employment has accredited the Nigerian Air Force Investment Limited (NAFIL) Tailoring Workshop in Kaduna and recommended it for the training of the N-Power programme of the Federal Government in tailoring and garment making. With this accreditation, the NAFIL Tailoring Workshop would be able to offer Trade Test Certificates to its graduands. The accreditation certificate was presented in Kaduna by the Representative of the Minister of Labour and Employment, Mr Ibrahim Jibia, who is the Director Skills Development and Certification Department. The Director commended the efforts of the NAF for initiating such a laudable programme to enable youths acquire skills in tailoring and garment making. He urged other members of the Armed Forces to emulate the NAF to assist youths to become employers of labour through skills acquisition. Mr Ibrahim Jibia recalled that he led a team to assess the equipment and the overall environment of the workshop in September 2018 for the purpose of accreditation. According to him, "this is the only place we have visited for this kind of exercise and are satisfied even in our first visit". He therefore expressed satisfaction on the participation of the local community in the tailoring workshop.

In his remarks, the Managing Director NAFIL, Air Vice Marshal (AVM) Abubakar Bagare stated that NAFIL was the initiative of the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar to primarily make the NAF self sufficient in uniform production. He stated that it was in line with one of the key drivers of the CAS vision which is "human capacity development through robust and result oriented training for enhanced professional performance". AVM Bagare revealed that the NAF was to contribute 300 Million Naira to establish the workshop with a foreign partner. He said NAFIL ceased the initiative and established the workshop with less than 45 million Naira thus abiding by one of the CAS key drivers which is "Reinforce a

culture of self-reliance and prudent management of resources". He further disclosed that the workshop since inception has been an avenue to train NAF personnel, their wards and members of the host community. He therefore added that the workshop has produced over 52,000 pairs of uniforms for the NAF and other security organizations.

Speaking during the event, the Air Officer Commanding Air Training Command, AVM Muhammad Suleiman said NAFIL had not only provided the means to save hard earned foreign currency but had created an avenue for the development of NAF personnel, their wards and the host community. He extolled the leadership quality of the CAS in domesticating NAF operations in order to harness abundant potentials in the Service. With a total staff strength of 106 comprising one officer, 37 airmen/airwomen and 68 civilians, the workshop runs round the clock in 3 shifts with 92 various types of industrial cloth making machines.



NAFIL tailors making uniforms for NAF personnel at the NAFIL tailoring workshop



Director Skills Development and Certification Department Mr Ibrahim ML Jibia presenting the accreditation certificate to the MD NAFIL, AVM AB Bagari (right)



AVMs AB Bagare (4 right), MZ Suleiman (5th right) & Mr Ibrahim ML Jibia(5th Left) in a group photograph with senior officers and staff of the ministry

# TACTICAL AIR COMMAND HOLDS SAFETY WEEK: PERSONNEL CHARGED TO BE SAFETY CONSCIOUS

In a concerted effort aimed at instilling personnel of the Command the culture of adhering to stipulated safety standards and procedures while performing their duties, the former Tactical Air Command, Nigerian Air Force Makurdi recently held its safety week at the Nigerian Air Force Base Makurdi. Delivering his remarks while flagging off the safety week, the Air Officer Commanding, Tactical Air Command, Air Vice Marshal Oladayo Amao stated that, "the whole idea of the safety week is the initiative of the Chief of the Air Staff, Air Marshal Sadique Abubakar aimed at addressing issues of operational as well as infrastructural safety". Leveraging on this, Air Vice Marshal Amao charged personnel of the Command to always adhere and put into practice stipulated safety regulations while discharging their assigned duties.

The theme of the safety week was titled, "Inculcating Safety Culture for Enhanced Operational Effectiveness". During the weeklong exercise, personnel benefited immensely from papers presented including practical demonstrations to effectively inculcate safety culture desired. At the opening ceremony, a paper titled, "Risk Assessment and Decision Making for Aircrew" was presented. Specifically, there were presentations and practical demonstrations on fire safety, hazard identification among other safety issues. Apart from officers and airmen, the members of Nigerian Air Force Officers Wives Association (NAFOWA) and Airmen Wives Association (AWA) were also in attendance.



Air Cdre LM Danzangi, former Comd 151 BSG illustrating some points with a map during his presentation



Cross section of airmen/airwomen during the safety week



The former ADC TAC, Air Vice Marshal Oladayo Amao making his remarks.



Air Cdre UK Abdullahi, the former Command Operations Officer making contribution



Cross session officers during the safety week

# NAFOWA TAC CHAPTER DONATES FOOD ITEMS AND PROVISIONS TO ORPHANAGE HOME

In line with its motto: "Service to Humanity", the Nigerian Air Force Officers Wives Association (NAFOWA), Tactical Air Command (TAC) Chapter Makurdi recently donated some food items and provisions to Tivid Orphanage Home International Makurdi, Benue State.

Speaking during the occasion, the former Chairperson of NAFOWA TAC Chapter, Mrs Elizabeth Amao stated that the humanitarian donation was made primarily to assist in meeting some of the needs of the children. She further prayed to God to fulfil the destines of the children and help them to become future leaders of our country. Delivering her Vote of Thanks, the Proprietress of Tivid Orphanage Home, Evangelist Favour Adah Paul thanked Mrs Amao for assisting the Orphanage home with the food items and provisions.



A group photograph of members of NAFOWA TAC Chapter including Proprietress and children of Tivid Ophanage Home

## CADETS OF NDA REGULAR COURSE 67 VISITS TACTICAL AIR COMMAND

Nigerian Defence Academy (NDA) Kaduna Cadets of Regular Course 67 took a quantum leap to widen their professional knowledge on Tactical Air Command operational capabilities, Command structure including facilities and equipment when they visited the Command on a training tour. Speaking during the occasion, the former Air Officer Commanding, Tactical Air Command, Air Vice Marshal Oladayo Amao enjoined the cadets to remain focussed in their training and academics adding that by so doing

they will fulfil the required conditions to realize their dreams to become commissioned officers of the Nigerian Armed Forces and thereafter contribute their quota to make the NAF great.

In the course of the very fulfilling training visit to the Command, the Cadets were conducted on a guided tour of collocated units within Tactical Air Command. These include 101 Air Defence Group, 131 Engineering Group, 141 Communications Group and Nigerian Air Force School of Air Intelligence.



The former AOC TAC AVM IO Amao (left) presenting a plaque to the Team leader from NDA, Col Mohammed



L-R Seated (5th) Air Cdre UK Abdullah the Rep AOC TAC in a group photograph with Comd 101 ADG, Team from NDA and NDA Regular 67 Cadets



The President of 301 HAG Cooperative Multi-purpose Society, Group Captain BR Amuda making remarks after receiving the Award

## 301 HAG COOPERATIVE MULTI-PURPOSE SOCIETY RECEIVES NATIONAL AWARD

**T**he 301 Heavy Airlift Group Cooperative Multi-purpose society of Nigerian Air Force, on 26 November 2018 received a National Award as the "BEST MOST MANAGED COOPERATIVE SOCIETY" in Nigeria.

The award was presented at a dinner night organized by the Cooperative Rating and Award Society of Nigeria (CRASON) at the NECA event center Alausa, Ikeja, to honour the various cooperative societies in the Nigeria who have distinguished themselves with outstanding performances in terms of management within the year under review.

The event was also aimed at recognizing the contributions of Cooperative Societies in Nigeria with regards to the Economic growth and Development in the Country.

In his remarks, the Guest of Honour, Honorable Minister of Agriculture and Rural Development, Chief Audu Ogbeh, who was represented by the Director, Federal Ministry of Agriculture, Mrs Olayinka Akeredolu, stated that Cooperative Societies contribute immensely to the growth of Nigerian Economy, she urged all registered Cooperative Societies in the Country to engender policies and operating mechanisms that will better the

lives of their members and show solidarity to the Nation by investing in Agriculture. She further said that, "the Award is to motivate and encourage you to do more, and for those who might not receive any award tonight, you are also encouraged to do more and perform better in the future."

Amongst the 2018 awardees, 301 Heavy Airlift Group Cooperative Multi-Purpose Society emerged as the best most managed Cooperative Society in Nigeria. Receiving the Award on behalf of 301 HAG cooperative society, the President, Group Captain Bamidele Razaq Amuda thanked the organizers and dedicated the Award to the Chief of the Air staff, Air Marshal Sadique Abubakar.

It is noteworthy to know that, this was the maiden edition of such an event in the Country. Also present at the occasion were, Governors of Lagos State and that of Gombe who were represented and other top dignitaries in Cooperative affairs in the Country, such as managers of Cooperative Societies in Nigeria.

# NAF PLAYS A MAJOR ROLE IN SAFE GUARDING THE COUNTRY - AVM IDRIS

The immediate past Air Officer Commanding (AOC) Air Training Command (ATC), Nigerian Air Force, Air Vice Marshal (AVM) Mohammed Idris has said that the Nigerian Air Force (NAF) has played a major role in curtailing the excesses of the enemies of the State, who have no respect for the lives of innocent Nigerians. AVM Idris made this assertion during handing and taking over ceremony between him and the incoming AOC, ATC, AVM Muhammad Suleiman at the Headquarters, ATC in Kaduna. He stated that posting in the NAF is a way of injecting new ideas, vigour and adding value for better implementation of the NAF objectives. He reiterated that the mandate of the Command is to train pilots for the NAF. According to him, during his tenure, several pilots were trained at ab-initio, basic and tactical levels to ensure that the NAF remains in the sky in order to bring to bear the capability of its platforms. He therefore disclosed that the NAF under the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar has been in the forefront in supporting the Government to curtail the myriad of security challenges facing the country. AVM Idris thanked the CAS for giving him the opportunity to serve and also appreciated the Commanders and Commandants of co-located units in Kaduna for their support. He therefore urged them to equally render such support given to him to his successor.

In his remarks, the in-coming AOC ATC, AVM Muhammad Suleiman urged all officers and airmen to put in their best in order to continually build the Command and by extension the NAF to greater heights. Commenting on the security situation in Kaduna, AVM Suleiman stated that the NAF would increase her security surveillance and diligence with a view to making the State conducive to all. He thanked the CAS for granting him the opportunity to contribute his own quota in making the NAF the pride of the nation.

Before his present appointment, AVM Suleiman was the Director of Operations, Headquarters NAF, Abuja. He had held other several appointments which include, Acting Chief Flying Instructor at 401 Flying Training School, Kaduna, Squadron Pilot at 101 Presidential Air Fleet, Director, Test and Quality Assurance, Air Force Research and Development Centre, Commander 88 Combat Reconnaissance Group, Chief of Staff, HQ Tactical Air Command Makurdi, before his present appointment as the AOCATC.



AVM Mohammed Idris handing over the Symbol of Authority to AVM Muhammad Suleiman during the handing and taking over ceremony

# CAOCC IS DEAR TO THE NAF LEADERSHIP –CAS

The Chief of the Air Staff (CAS) Air Marshal Sadique Abubakar has revealed that the Central Avionics Overhaul and Calibration Centre (CAOCC) established to conduct third and fourth line maintenance of avionics components, electrical and instrument systems of all Nigerian Air Force (NAF) aircraft is a unit very dear to the heart of the Nigerian Air Force leadership. He made this assertion during the graduation ceremony of Avionics Components Maintenance Course at the 401 Flying Training School Cadets Crew Room in Kaduna. He stated that the Course which has very rich and broad contents would contribute to sustainable NAF air operations for enhanced national security. He further said that the course would ensure self reliance in the maintenance of avionics, electrical and instrument components of NAF platforms as well as aid in reducing foreign dependency.

Speaking on behalf of the CAS, who was the Guest of Honour, the Air Officer Commanding Air Training Command, Air Vice Marshal Muhammad Suleiman said in a bid to ensure the Centre was equipped to accomplish established objectives, the Avionics Maintenance Repair Course was proposed to enhance the human capacity and proficiency of the Centre. This he said was in tandem with one of the key drivers of the CAS vision which is “human capacity development through robust and result-oriented training for enhanced professional performance”. He therefore urged the graduands to be good ambassadors of

Centre by imbibing the attitudes of professionalism and excellence in all they do in order to justify the resources invested in their training. He extolled the CAS for his exemplary leadership which has endeared all NAF personnel to be innovative and resourceful.

In his welcome address, the Commander of the Centre, Air Commodore Sani Rabe said though the Centre began as a product of CAS' vision to promote self-reliance in avionics maintenance but has transformed into a hub of innovation and a leading driver for human capacity development on avionics related challenges in the NAF. The Commander disclosed that the Centre has lived up to expectation, given its numerous achievements in the repair of avionics components for the NAF. He stated that the 6 weeks course exposed the 19 participants to basic electronics principles and practices, hands-on troubleshooting and repair techniques, switches mode power supplies, audio control panel, very high frequency communication system and a couple of other aircraft systems as well as avionics test benches. He therefore thanked the CAS for making the Centre fulfill her dream as well as contribute her quota in the overall NAF scheme of operations. The event was attended by Principal Staff Officers of Air Training Command and Commanders of co-located NAF Units.



Cross section of graduands at the occasion



Cross section of senior officers and airmen at the graduation ceremony



The Commander Central Avionics Overhaul and Calibration Centre, Air Cdre Sani Rabe in a chat with the GOH at the event



The GOH presenting a certificate to Fg Offr AA Sabo during the Graduation Ceremony



AVM Muhammad Suleiman presenting a certificate to Sgt Ajadotuigwe IA at the ceremony



The GOC 82 Div Maj Gen Emmanuel Kabuk presenting a plaque to the AOC GTC AVM Idi Amin during the visit

## AOC GTC VISITS GOC 82 DIV ENUGU

**T**he Air Officer Commanding Ground Training Command, Air Vice Marshal Idi Amin has reiterated that the current security challenges being faced by the Nation require collaboration among the security Agencies. He made this disclosure during his visit to the General Officer Commanding 82 Division, Nigerian Army, Major General Emmanuel Kabuk in his Office at the 82 Division Headquarters, Enugu. Air Vice Marshal Idi Amin went further to reaffirm NAF readiness to continue to work in conjunction with the Div and other security agencies "for effective responses" in meeting the contemporary security challenges. The AOC, who was accompanied by some of his Principal Staff Officers said his visit to the GOC was aimed at building a strong partnership aimed at enhancing inter-Service co-operation. He however, expressed his appreciation to the GOC for his continued assistance to the Command in meeting set objectives.

In his response, Major General Kabuk noted the cordial relationship existing between the NAF and the Division and

promised to sustain it. He outlined a lot of successes recorded in Nigerian Army joint operations with NAF in meeting emerging security challenges in Enugu state.



Cross section of Army Officers during the visit



The AOC AVM Idi Amin in a group photograph during the visit

# RTC WINS MAIDEN GTC INTRA-COMMAND R&D COMPETITION

The Regiment Training Centre (RTC) has won the maiden Ground Training Command Intra-command Research and Development Competition held at the 405 HCTG Conference hall on 27 November 2018 in Enugu. The Unit presented a locally fabricated puncher and improvised Extractor rubber for the sustenance of NAF Tavor Assault rifle. The assessment Team from the Enugu state University adjudged the RTC R&D project the best. The military Training Centre took 2nd position while 551 NAF Station Jos came 3rd. Other results were 553 BSG 4th while 563 NAFH and NAFSFA came 5th and 6th respectively.

In a welcome remarks, the Air Officer Commanding Ground Training Command, Air Vice Marshal Idi Amin said that the competition was in fulfilment of one of the key drivers of CAS vision of strategic partnership with MDAs for enhanced research and Development.

While declaring the competition open, the AOC said R&D is necessary to build capacity and induce local production of air craft spare and other critical equipment needed for continuous operation of the NAF

The AOC said that the competition is aimed at bringing together the units to showcase their R&D project in a way to encourage NAF personnel in the unit to look inward, be innovative and resourceful while carrying out their assigned duties.

AVM Idi Amin further said that the competition was to promote total quality management of NAF total platform and equipment thus saving more foreign exchange for the country.

In a brief remarks, the representative of the GOH Group Captain SM Shinkafi said the Intra-Command R&D competition would dove-tail into the Inter-Command Competition schedule for February 2019 where all the Commands in the NAF would showcase their R&D projects and a winner would emerge.



The AOC GTC, AVM Idi Amin making his remarks during the R&D competition

## PHOTO NEWS



The Governor of Enugu State Rt Hon. Ifeanyi Ugwuanyi presenting a plaque to the Air Officer Commanding Ground Training Command Air Vice Marshal I Amin during the visit



The Governor of Anambra State Chief Willie Obiano parenting plaque to the AOC GTC AVM I Amin



The Commandant AFCS Agbani briefing AVM Ibrahim Yahaya the ongoing projects in the School premises

# CHANGE OF BATON AT HQ LC

By CPL SIMON FT

Sequel to the recent changes at the top echelon in the Nigerian Air Force, the new Air Officer Commanding Logistics Command (AOC LC) Air vice Marshal Abdulganiyu Adeyinka Olabisi took over the mantle of leadership of the Command on 25 January 2019. The event took place at the AOC Conference Room HQ Logistics Command.

At the event, the new AOC LC thanked Almighty God for given him the grace to take over the mantle of leadership at the Command and also thanked the outgoing AOC for the job well done. He also commended him for his sagacity in discharging his duties and carrying out the Command tasks to the best of his ability.

He therefore appealed to the various Commanders under Logistics Command, Commanders of co-located Units in Lagos, Principal Staff Officers of (LC), Officers, Airmen and civilian Staff to give him if not more, the same cooperation they gave to the former AOC especially now that the general election is quite approaching. He further stated that the former AOC was leaving a legacy behind by creating a good name for the Command and urged that all hands must be on deck to continue to sustain his efforts.

Also speaking at the event, the former AOC AVM RN Ekeh expressed his joy and happiness to have been successfully handed over the command to a capable hand that will sustain the progress of the Command that has been supplying all the logistic needs of the service. He also expressed his appreciation to the Chief of Air Staff (CAS) for giving him the opportunity to serve the command.

He urged the incoming AOC not to relent in his efforts of actualizing the vision of the CAS at the Command level and also to solicit support from the state government and other security

agencies for optimum results of protecting lives and properties, adding that Lagos state has been calm and peaceful for the past one year.

He also appealed to the personnel and civilian staff of the Command to accord the incoming AOC the same cooperation they accorded him during his tenure.

AVM Remigius Nnamdi Ekeh is now the Chief of Standards and Evaluation (COSE) HQ NAF. Highlight of the event was the presentation of the Command colour as a sign of authority to the new AOC, presentation of gift to former AOC and group photograph.



AVM RN Ekeh presenting a momentum to DG NEMA, Mr Mustapha Maihaja



AVM RN Ekeh in a group photograph with DG NEMA and his team, COS and PSDs shortly after the visit



# DRUG ABUSE AND OPERATIONAL READINESS OF THE NIGERIAN AIR FORCE: THE WAY FORWARD

GP CAPT DO BABALOLA

## INTRODUCTION

One of the basic requirements of a military force is the physical, mental and psychological wellbeing of its troops. In pursuit of this, military forces ensure that personnel are protected from activities and habits such as drug abuse (DA) that pose threats to their good health. The abuse of substances such as alcohol, tobacco and other drugs by military personnel has been found to be detrimental to combat health requirement. Expectedly, the operational capability of the military can only be assured when troops are in a good state of health. Thus, some combat forces institute deliberate policies to curb DA among its troops thereby enhancing the operational readiness (OR) of the fighting force.

Drug abuse refers to the harmful use of psychoactive drugs. Drug abuse entails the non-medical use of prescription medications to produce euphoric effects. The common psychoactive drugs abused in the military include opioid analgesics such as codeine and tramadol while marijuana, cocaine and other stimulants are the most commonly used illicit drugs. The quest to reduce physical stress associated with military service often predisposes personnel to DA. Drug abuse progresses to addiction, mental disorder and death which become detrimental to the OR of the NAF.

Operational readiness implies readiness for immediate combat or manoeuvres. It is concerned with the state of preparedness of forces in battle. A force is said to be operationally ready when it has adequate equipment and manpower for operations.

Medically, sound manpower is a critical component of any fighting force. Thus, some countries institute policies and programmes aimed at curbing DA among troops to ensure personnel are in a good state of health for combat deployment thus enhancing the OR of the force. Evidently, the need to curb DA among troops in order to boost the OR of a fighting force has assumed worldwide significance.

The DA indices of the USA military were relatively poor in 1980 with about 30 per cent of personnel found to be abusing illicit drugs. In response, the Government instituted a zero tolerance policy for drug abuse in 1982 and also commenced random drug testing among troops with dishonourable discharge and criminal prosecution meted out to personnel with positive drug test. The implementation of this policy significantly reduced incidences of DA among personnel to 3.5 per cent in 2000. However, it was observed that by 2008, the incidence of DA had resurged to about 11 per cent among troops, this time; the drug found to be abused were prescriptions drugs particularly opioid analgesics. This period coincided with the operational engagement of troops in the war against terror in Afghanistan and Iraq which resulted in an increase in combat related injuries necessitating prescription medications. In response, the Government instituted a policy to improve access to education, prevention and treatment interventions for drug abusers. In addition, the policy limited the duration of opioid drug prescriptions and ensured that pharmacists monitored the administration of opioids medications to personnel. The implementation of this policy reduced DA incidence to 4.7 per cent in 2015. Expectedly,

the control of the incidence of DA in the USA military has ensured the continued availability of operational ready troops in pursuit of military objectives.

South African Defence Forces (SADF) also experienced DA challenges among her personnel in the early 1990s and therefore instituted some DA control measures which reduced the incidence to 2 per cent. However, by 2008 the DA problem resurged to 10 per cent. The drugs of abuse included illicit drugs like cannabis and heroin as well as prescription medications such as morphine and codeine. In order to curtail the growing DA problem, the SADF introduced more stringent DA testing regime which involved snap testing of at least half of the SADF personnel each year. The new policy also provided for the dismissal of personnel found positive to any banned substance. The execution of this policy reduced the incidence of DA in SADF to 3.4 per cent by 2014. Obviously, the introduction of the strict DA control policy significantly preserved adequate able bodied manpower in readiness for the operational deployment of the SADF.

In a bid to curtail incidences of DA and enhance the OR of the Armed Forces of Nigeria (AFN) personnel, the Armed Forces Act of 2004 in section 65 (2) proscribes the illegal use and possession of substances of abuse among personnel. The Act considers the wrongful use and possession of substances of abuse as serious offences to be tried only by court marshals while convicts faced up to 21 years imprisonment. In addition, the present NAF leadership instituted a zero tolerance policy for illicit drugs among personnel. Consequently, toxicological screening of prospective recruits into the NAF was introduced as well as snap testing of personnel suspected to be involved in DA. Despite the provisions of the law and policy implementation by the NAF, incidences of DA among personnel persist, thereby undermining the OR of the NAF. For instance, a DA survey carried out in 2015 at Sam Ethan Air Force Base



Ikeja, revealed that 18.7 per cent of NAF personnel were involved with the abuse of Marijuana. In addition, in 2017, a medical personnel and 3 members of aircrew were found to be involved with illicit substances of abuse. Furthermore, there are widespread incidents of DA involving prescription medications such as pentazocine, tramadol and codeine among NAF troops particularly those involved in combat operations.

The purpose of this paper therefore, is to propose ways to curtail the spread of DA practices among personnel in order to boost the OR of the NAF. The paper is limited to illicit and prescriptions drugs and would not cover other substances of abuse. The paper will first define some concepts, consider an overview of DA in Nigeria and subsequently discuss commonly abused drugs capable of undermining the OR of the NAF. Thereafter, predisposing factors, signs of DA and adverse health effects of DA would be examined before considering the way forward towards curbing DA thereby enhancing the OR of the NAF.

## CONCEPTUAL DEFINITIONS

The key variables are DA and OR which are the independent and dependent variables respectively. These variables will be conceptualised and their relationship established.

**DrugAbuse.** The WHO defines DA as the harmful use of psychoactive drugs resulting from non-medical use. The use of psychoactive drugs often results in dependence syndrome, increased tolerance and sometimes a physical withdrawal state. This definition focuses on the harmful use of psychoactive drugs resulting from non-medical use, it is considered apt and therefore adopted for this paper.

**Operational Readiness.** Faloyin defines OR as the state of preparedness and efficient deployment of forces in battle. A force is said to be operationally ready when 75 per cent of its equipment and manpower are available for operations. This definition emphasises manpower and equipment as critical requirements for OR, hence it is adopted for this paper.

**Relationship between Drug Abuse and Operational Readiness.** The control of the harmful use of psychoactive drugs by personnel ensures a good state of preparedness of troops. Similarly, the availability of at least 75 per cent of troops for any military operation is dependent on the existing number of medically fit personnel. Conversely, the practice of DA among personnel limits the availability of healthy troops thus undermining the OR of the NAF. Hence the control of DA enhances OR and vice versa. Consequently, there is an indirect and strong relationship between DA and OR. The description of the 2 variables thus sets the stage to consider an overview of DA in Nigeria.

## OVERVIEW OF DRUG ABUSE IN NIGERIA

The use of mind altering substances of natural origin has been known since the prehistoric times. For centuries, man has tried to either complement some pleasant features of life or escape from the unpleasantness of life by using fermented liquor and different plant product. For example, drinking of palm wine and locally brewed alcohol such as 'ogogoro', 'burukutu' as well as chewing of different stimulating plants and their products in Nigeria have been known for ages.

This was the trend of substance use in Nigeria until after the Second World War in the 1940s when cannabis was introduced through the war veterans who brought back the cannabis seed from Malaysia and Burma now Myanmar. The abuse of drugs, such as phenobarbitone, pethidine and cannabis were reported

between 1940 and 1950s. In the 1960s, isolated reports of DA problems were also reported by the few psychiatric hospitals at that time. The 1970s and 1980s witnessed the introduction of other drugs like cocaine, heroin, amphetamines and opioids such as codeine and morphine. This trend changed in the 1990s to include the abuse of non-conventional drugs. The increase in DA made the Government to respond by establishing the National Drugs Law Enforcement Agency (NDLEA) in January 1990.

The efforts of the NDLEA notwithstanding, the involvement of youths in DA has taken a wide and dangerous dimension. Adolescents and youths of both sexes between the ages of 13-35 years constitute the high-risk group for DA in Nigeria. Also, the vulnerable groups for DA include students, the unemployed, artisans, commercial sex workers, long distance drivers, street children and those involved in stressful activities such as military personnel. More Nigerian youths are now becoming drug addicts, while Nigeria is gradually moving from a drug consuming nation to a drug producing one. For instance, the NDLEA, discovered some clandestine laboratories for the illicit production of methamphetamine in Lagos and Delta States in 2011 and 2016 respectively. The Delta State clandestine laboratory was similar to those found in Mexico with capacity of 3,000 - 4,000 kg methamphetamine per production cycle.

Furthermore, it is estimated that as at 2017, more than 6 million bottles of codeine cough mixtures are sold on a daily basis in the North western Nigeria to people who abuse drugs. There are also reports of drug addicts murdering chemists' shop attendants who refused to sell codeine to them. In addition, recent findings reveal that people now abuse prescription drugs more than they abuse illicit drugs. The prevalence of DA has now become so grave that the use of a single substance is no more common. Rather, most drug abusers in Nigeria now take a combination of substances to achieve euphoria effect. According to the NDLEA, majority of patients who visit their rehabilitation facility are those who have used combination of substances. Some drug abusers take cocaine, heroin, codeine, cannabis and alcohol all at the same time. Consequently, DA poses a health challenge capable of undermining the OR of the NAF. The overview of DA in Nigeria has expectedly brought to the fore commonly abused drugs capable of undermining the OR of the NAF.

### COMMONLY ABUSED DRUGS

Virtually any substance whose ingestion can result in euphoric feeling can be abused. Many are aware of the abuse associated with legal substances like alcohol or illicit drugs like marijuana and cocaine. However, the growing trend of abuse of prescription medications such as pentazocine and tramadol has not received needed attention. Unfortunately, the Nigerian regulatory control is weak resulting in the availability of a wide range of psychoactive drugs for non-medical purposes.

The AFN and indeed NAF personnel is also exposed to the danger posed by the uncontrolled availability of these drugs. Cocaine, marijuana, methamphetamine and others like codeine syrups and tramadol capsules are now commonly found in military barracks, schools and with local traders that sell provisions in kiosks around military formations. There are 7 most commonly abused drugs among NAF personnel. These are tobacco, alcohol, cannabis, opioids, sedatives and amphetamine type stimulants and cocaine.

a. **Tobacco.** Tobacco is the dried leaf of tobacco plant. The main ingredient in tobacco is nicotine which



is an additive substance. Tobacco is consumed in different forms such as cigarette, pipe, snuff and cigar. It also has different street names like feg, cigar, stick and taba. Tobacco is socially acceptable, easily available and it is the most common drug of abuse among youths.

b. **Alcohol.** Alcohol is a colourless volatile flammable liquid which is produced by the natural fermentation of sugars. Alcohol is the psychoactive ingredient in beer, whisky, spirit, wine, liquor and locally brewed alcoholic beverages such as palm wine, pito, barikutu kwaya and ogogoro. Alcohol is readily available and socially tolerated.

c. **Sedatives and Depressants.** Sedatives and depressants are substances that induce sedation by depressing the central nervous system thereby reducing irritability or excitement. They are mostly available as prescription medications and are often medically prescribed for insomnia but are abused for their intoxicating effect. Examples include diazepam, flunitrazepam, and librium.

d. **Amphetamine-Type Stimulants (ATS).** Amphetamine-Type Stimulants are drugs that keep people awake, energised and alert. ATS can make one overactive, agitated or even psychotic. ATS is the term used for amphetamine and a group of drugs that have amphetamine-like stimulant effects. ATS are used medically but have a high abuse potential. They include amphetamine sulphate (speed), dexamphetamine (Dexedrine), methamphetamine (crystal meth) and ephedrine. ATS have been used in wars to keep soldiers alert and are also abused by students particularly during examination period in order to stay awake at night.

e. **Cannabis.** Cannabis is a tall plant used in 3 main forms which are hash oil, hashish and marijuana. Marijuana is derived from the dried flowering tops, leaves, stems and seeds of the Cannabis plant. Marijuana is a psychotropic drug and remains the only illicit drug cultivated in Nigeria. Cannabis has both stimulating and depressing effects. Marijuana is smoked in hand-rolled cigarettes (joints), or in a pipe (a bong). It has several street names such as Igbo, stone, weed, wee-wee, Garja, Grass, Marijuana, Pot, Kaya, and Morocco.

f. **Cocaine.** Cocaine is a white powdery substance which is a highly addictive strong stimulant mostly used as a recreational drug. There are 4 different types of cocaine which are the powder, freebase, crack cocaine and the liquid form. Cocaine could be snorted,

inhaled as smoke or injected as a solution. Cocaine has rapid onset of euphoric action and its effects wears off quickly resulting in repeated use of the drug leading to addiction. Street names of cocaine include crack, aunty nora, charlie, oko(Stone), mojo, flake and paradise.

**g. Opioids.** Opioids are psychoactive alkaloid substances obtained from the opium poppy plant. Opioids are naturally occurring and can be synthesized. Opium and the drugs obtained from it including the synthetic ones are called opioids. Medically, opioids are prescription medications primarily used for pain relief, anaesthesia, suppression of diarrhoea and cough. There are 3 classes of opioids which include natural opiates, synthetic opioids and semisynthetic opioids. These opioids are explained as follows:

(1). **Natural Opiates.** Basically, the term opiate refers to natural substances derived from opium such as morphine and codeine. According to the WHO, codeine is the safest and the most widely used opiate in the world. However, it is addictive and many individuals become physically dependent on the drug after extended and repeated use. Examples of natural opiates include codeine, morphine and thebaine. Morphine is the most active opiate and has very effective pain relief actions but it is also very addictive. The euphoric effects of morphine could last for 4 - 6 hours.

(2). **Synthetic Opioids.** Synthetic opioids are novel psychoactive substances that have opiate-like effects. Synthetic opioids are produced using chemicals not found in the opium poppy plant or morphine. Examples of synthetic opioids are tramadol, pentazocine, pethidine (meperidine), fentanyl and methadone.

(3). **Semisynthetic Opioids.** Semisynthetic opioids are synthesized from both synthetic and natural opiates. Semi synthetic opioids were developed as safer alternatives to natural and synthetic opioids however; they have the same side effects as other opioids. Examples of semisynthetic opioids include hydrocodone, oxycodone and heroin. Heroin produces a very intense euphoria which lasts for a very short duration of between 15 and 30 minutes. Heroin is one of the most dangerous drugs in the world. It could be snorted, smoked or injected.

The prevalence of DA in Nigeria as outlined in Table I revealed a huge problem in the North West. Incidentally, the North West which includes Kaduna and Kano States accommodates many important NAF formations and units such as recruit, regiment and cadets training institutions. The huge DA problem of the North West implies wide availability of drugs of abuse which could easily find use with personnel who are eager to seek solace from the intense physical stress of military training. Personnel and cadets could therefore engage in DA activities which will ultimately cause health deterioration thereby undermining the OR of the NAF. The discussion of commonly abused drugs necessitated the need to explore predisposing factors and signs of DA.

### PREDISPOSING FACTORS AND SIGNS OF DRUG ABUSE

The presence of certain factors predisposes personnel to DA. The identification and prevention of these factors could reduce the incidence of DA among NAF personnel. In addition, persons who abuse drugs are known to be associated with certain distinct signs which often identify them as drug users. These predisposing factors and signs of drug abuse are discussed in subsequent paragraphs.

**Predisposing Factors to Drug Abuse.** There are many factors that contribute to the prevalence of DA practices among NAF personnel. They include:

a. **Experimental Curiosity.** Curiosity to experiment the unknown facts about drugs motivates some personnel into drug use. Sometimes, people indulge in DA activities just for the fun of it. However, the first experience of DA usually produces a state of euphoria which in turn motivates them to continue.

b. **Peer Group Influence.** Peer pressure plays a major role in influencing many adolescents into DA. This is because as adolescents try to depend less on parents, they show more dependency on their friends.

c. **Psychological Stress Arising from Military Operations.** The physical and psychological stress arising from military operations particularly the North East operations have pushed some personnel into the use of drugs. The numerous sights of human remains and experiences of violent deaths of fellow comrades cause untold stress to personnel. Additionally, some personnel claim they are encouraged in mission areas to take drugs in order to improve their boldness in confronting insurgents. However, this practice ultimately hinders the OR of the NAF.

d. **The Need for Energy to Improve Performance.** The prevalent insecurity in Nigeria has increased the demand for military operations and alertness of personnel. In addition, the rigorous demands of military training tend to push some personnel to take succour in drugs thus undermining the OR of the NAF.

e. **Availability of Drugs of Abuse.** It is increasingly becoming easier to obtain drugs of abuse including prescription drugs. In addition, some patient medicine stores and provision shops in mammy markets are known as sources of drugs commonly abused by personnel. The ineffectiveness of drug control in Nigeria therefore has debilitating effects on the

Table I.

Prevalence of Drug Abuse in Nigeria

Serial (a)	Geo-political Zone (b)	Prevalence (%) (c)
1.	North East	8.54
2.	South South	11.46
3.	North Central	11.71
4.	South East	13.50
5.	South West	17.32
6.	North West	37.47

Source: Hamisu Mamman et al, Journal of Biology Agriculture and Healthcare 2014.

preparedness of troops.

f. Emotional and Psychological Stress. Some personnel who are experiencing family frustration, economic depression and various anxieties of life sometimes resort to drugs of abuse in order to forget their problems.

**Signs Observed in Persons who Abuse Drugs.** There are a number of signs that identify people who abuse drugs. These signs range from the possession of certain items to peculiar behaviour exhibited by drug users. Some signs observed in persons who abuse drugs include:

- a. Possession of drug paraphernalia such as pipes, rolling papers, syringes, cough syrup bottles and peculiar plant or seeds. In addition, the odour of drugs or other 'cover up' scents could be indicative of DA.
- b. Identification with drug culture through reading of drug related magazines, use of drug slogans and exhibition of resentment when DA discussions are held.
- c. Signs of physical deterioration such as memory lapses, short attention span and difficulty in concentration. Others include poor physical appearance, slurred or incoherent speech and indifference to personal hygiene. Persons who abuse drugs usually also have bloodshot eyes and dilated pupils.
- d. Change in behaviour is a classical sign associated with persons who abuse drugs. It is characterised by distinct downward performance at work, increased cases of AWOL, indiscipline behaviour and involvement in crimes.

## ADVERSE HEALTH EFFECTS OF DRUGABUSE

**Drug Abuse is associated with physical and mental health challenges.** In addition, hazardous use of drugs of abuse could cause significant social problems for the user. There are general problems related to drug abuse and also specific health hazards from individual drugs. These 2 adverse health effects would be discussed in subsequent paragraphs.

**General Problems Related to Drug Abuse.** There are a number of problems commonly exhibited by persons who abuse drugs. These hazards however, depend on the frequency of drug use by the individual. Consequently, there are problems



associated with acute intoxication and chronic use of drugs. These 2 categories of problems are discussed as follows:

- a. **Acute Intoxication.** Problems associated with acute intoxication could occur as a

result of a single episode of drug use and may include: Acute toxic effect, ataxia, vomiting, fever, confusion, overdose and loss of consciousness. Others include accidents, unintended sex and unsafe sexual practices.

b. **Regular and Chronic Use.** A variety of problems could occur from regular and chronic use of drugs. These problems range from physical and mental health issues to social problems which are often severe. Other problems related to regular and chronic drug use include: Specific physical and mental health problems, tolerance, anxiety, mood swings and irritability. Others are cognitive problems related to memory or attention, cravings and increased desire to use drugs.

**Specific Health Hazards from Individual Drugs.** There are a number of specific health hazards associated with drugs of abuse which are experienced by persons who abuse these drugs. The risks associated with these drugs range from mild discomforts to death. The specific health hazards of tobacco, alcohol, cannabis, opioids, ATS and cocaine are discussed in subsequent paragraphs:

a. **Tobacco.** Smoking of tobacco products is a risk factor for a number of serious long term health problems and increases the severity of complications of other health problems such as high blood pressure, diabetes and asthma. Some risks associated with the use of tobacco products include: Premature ageing and wrinkling of the skin, low fitness and longer recovery times after having a cold or flu, respiratory infections and asthma. Others are high blood pressure and diabetes mellitus, chronic obstructive pulmonary diseases including heart disease, stroke and vascular diseases.

b. **Alcohol.** Alcohol consumption is a risk factor for a wide range of health problems and harmful use of alcohol is a major cause of premature illness, disability and death. The risks associated with the use of alcohol at unsafe levels include: Hangovers, aggressive and violent behaviour, accidents and injury, nausea and vomiting, reduced sexual performance and premature ageing. Others are permanent brain damage leading to memory loss, stroke, cognitive deficits, disorientation and suicide.

c. **Cannabis.** Cannabis is the most widely consumed illicit drug globally. Although, cannabis overdose and toxicity occurs, the likelihood of death due to cannabis intoxication alone is very low. Death and over dosage sometimes occur when cannabis is combined with other drugs. Cannabis use is associated with numerous negative health consequences such as: Problems with attention and motivation, anxiety, paranoia, panic and depression. Others are decreased memory and problem solving ability, high blood pressure, heart disease and chronic obstructive pulmonary disease.

d. **Opioids.** Opioids are central nervous system depressants. There are street (non-prescribed) opioids such as heroin and opium. However, opioids can also be prescribed and are generally used in the medical management of pain. The use of non-prescribed opioids can result in many health hazards, particularly as they are generally injected or smoked. Prescribed opioids

on the other hand can also cause health hazards particularly when used more frequently or at higher doses than prescribed. Some risks associated with the use of opioids include: Drowsiness, constipation, tooth decay and irregular menstrual periods, difficulty concentrating and remembering things. Others are depression, reduced libido, impotence, tolerance, dependence and withdrawal symptoms. Overdose and death could also result from respiratory failure.

e. **Amphetamine-Type Stimulants.** Amphetamine-Type stimulants have similar effects as cocaine however; its use could lead to a wide range of physical and mental health problems. Some health risks associated with the use of ATS drugs include: Insomnia, loss of appetite, weight loss, dehydration, reduced resistance to infections, mood swings, difficulty concentrating and remembering things. Others are permanent damage to brain cells, liver damage, brain haemorrhage and sudden death from cardiovascular acute conditions.

f. **Cocaine.** Cocaine is a stimulant drug and its use is associated with a wide range of physical and mental health problems. Cocaine effects have a rapid onset and can wear off relatively quickly which can result in a tendency towards multiple use of the substance within a single session by users of the drug. Some risks associated with the use of cocaine include: Insomnia, palpitations, headaches and weight loss, intense craving and stress from the lifestyle and aggressive or violent behaviour. Others include psychosis after repeated use of high doses and sudden death from cardiovascular acute conditions. Drawing from the adverse health effects of DA, it has become necessary to proffer the way forward for curbing DA for enhanced OR of the NAF.

## THE WAY FORWARD

The effective prosecution of NAF operations is dependent on the presence of healthy personnel to man critical equipment and carryout necessary military actions. The presence of adequate manpower in support of NAF operations is gradually being threatened by the increasing involvement of NAF personnel in DA. This trend is inimical to the maintenance of national security as it erodes the ability of the NAF to respond to national security challenges.

In order to curb the growing cases of DA among personnel and preserve the OR of the NAF, a number of ways have been proposed. The proposed way forward include random drug evaluation, psychological support for personnel deployed in combat areas and control of prescription drugs in NAF health facilities. Others include, monitoring of patent medicine stores and illegal drug sources in NAF bases and the establishment of DA support and information centres. These are discussed as follows:

a. **Random Drug Evaluation.** The NAF has instituted pre-recruitment toxicological screening for prospective personnel which is commendable. In addition, there is a need to commence random drug evaluation for serving personnel such that each personnel undergoes drug screening at least once every 2 years. Furthermore, drug evaluation could be conducted before foreign deployment, after any

incident and on demobilization of troops from combat areas. Random drug evaluation could also be conducted if there is any good reason to suspect drug use.

b. **Psychological Support for Personnel Deployed in Combat.** The NAF recently commenced mental health demobilization screening for personnel exiting combat areas which is commendable. In addition, there is a need to deploy clinical psychologists to combat areas to provide DA preventive and therapeutic support to personnel. This would not only serve as preventive action against the spread of DA among personnel, it would also enhance early detection and support to affected personnel. Moreover, clinical psychologists would be of help to personnel suffering from other psychological issues.

c. **Control of Prescription Drugs in NAF Medical Facilities.** The abuse of prescription drugs particularly opioids such as tramadol, pentazocine and codeine has been on the increase. This necessitates instituting strict control of prescribing and dispensing practices of these drugs in NAF medical facilities. Pattern of prescription drug use by personnel ought to be individually monitored such that those found to have received suspicious trend and doses of prescription drugs from NAF hospitals are closely examined for DA.

d. **Monitoring of Patent Medicine Stores and Illegal Drug Sources in NAF Bases.** There are many patent medicine stores in mammy markets and other business locations within NAF bases. These stores often illegally stock prescription medications. They therefore serve as a ready source of prescription medications to persons who abuse drugs. In order to curb this practice, there is a need to monitor and supervise the activities of patent medicine stores in NAF bases. The co-located NAF hospitals through the pharmacists could be tasked with monitoring the activities of these stores to ensure they do not serve as repository of drugs of abuse.

e. **Establishment of DA Support and Information Centres.** It is not enough to institute punitive measures for drug abusers but it is much more important to provide support, care and information to personnel who require help to overcome DA. In addition, timely information on antidotes and critical DA information could save lives. Consequently, there is a need to establish help lines for DA related cases and create cells in NAF medical facilities where personnel could get access to support and information.

## CONCLUSION

The incidence of DA is a growing problem in Nigeria with illicit and prescription medications being drugs commonly abused. A number of factors including the physical stress associated with military service predispose to DA. There are some risks associated with drugs of abuse including physical deterioration, brain damage and death. A number of suggestions have been proffered to curb DA in order to enhance the OR of the NAF. These include random drug evaluation, psychological support for personnel deployed in combat and control of prescription medications in NAF medical facilities. Others are monitoring of patent medicine store and other illegal drug sources and establishment of DA support centre.

# NIGERIAN AIR FORCE EXTENDS MEDICAL OUTREACH PROGRAMMES TO TARABA, ZAMFARA STATES



NAF Medical Team conducting medical checks on a patient during the medical outreach

The Nigerian Air Force (NAF), as part of efforts aimed at boosting civil-military relations and winning the hearts and minds of locals in conflict areas extended its humanitarian services to parts of Taraba and Zamfara States. The medical outreach to Taraba State was held at Nguroje and Gembu in Sardauna Local Government Area of the State. The outreach, which witnessed a huge turnout of residents, was in two phases, with the first two days held at Nguroje Model Comprehensive Health Centre, where NAF medical personnel attended to the healthcare needs of locals. The third and final day of the outreach, which was held at the Baptist Hospital located in Gembu, was devoted to carrying out surgeries on patients. During the 3-day medical outreach, a total of 1,375 patients were attended to while 10 general surgeries and 27 eye surgeries were carried out on patients. Furthermore, 100 eyeglasses, 150 treated mosquito nets and other assorted drugs were given out to patients in addition to the conduct of mass de-worming.

In a related development, the NAF had earlier conducted a similar medical outreach at Zurmi Local Government Area of Zamfara State, as part of steps being taken by the current NAF leadership to promote civil-military relationship. During the 3-day medical outreach at Zurmi, a total number of 1,635 patients were treated of various ailments. Besides, NAF surgeons conducted a total of 20 general surgeries as well as 12 eye surgeries, free of charge, on members of the community at the

Zurmi General Hospital. Additionally, 100 eyeglasses were given out to patients while 150 treated mosquito nets were distributed to different families.

It is worth recalling that the NAF recently established quick response groups and wings in different parts of the country to bring security closer to those in remote places, in particular. One of the latest of such establishments is the 23 Quick Response Wing in Nguroje, Taraba State, to which NAF Special Forces were deployed on 12 May 2018.



Cross section of patients waiting to be treated during the medical outreach



Influx of patients into Nguroje Model Comprehensive Health Centre during the medical outreach



Patients waiting to be attended to during the medical outreach



Patients waiting to receive their eye glasses from NAF Optometrist during the medical outreach



A NAF Medical personnel attending to an Octogenarian during a medical outreach



NAF Pharmacist administering drugs



NAF medical team carrying out surgical operation on a patient during the medical outreach

# 2,000 FLOOD VICTIMS BENEFIT FROM NAF MEDICAL OUTREACH IN KATSINA



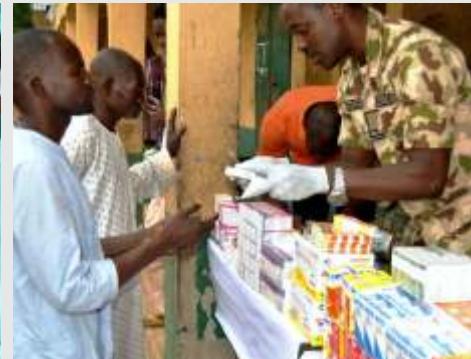
Internally Displaced Persons at Jibia Central Primary School, venue of the medical outreach



Some IDPs being attended to during the medical outreach in Jibia, Katsina State



NAF Surgeons carrying out surgical operation on a patient during the medical outreach in Jibia, Katsina State



Patients receiving prescribed medication during the medical outreach in Jibia, Katsina State

The Nigerian Air Force (NAF), as part of its civil-military relations activities organized a 3-day medical outreach for an estimated 2,000 Internally Displaced Persons (IDPs) in Katsina State. The medical intervention programme was an initiative of the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar. The medical outreach was conducted at Jibia Central Primary School in Jibia Local Government Area of the State, as part of the NAF humanitarian efforts at mitigating the plights of the victims affected by the flood that ravaged some parts of Katsina State and rendered thousands of residents homeless.

The medical programme attracted a large turnout of beneficiaries who expressed satisfaction with the medical services received from the NAF Medical Team. The people also expressed their gratitude to the NAF for the humanitarian gesture and for remembering them in their time of need. The medical services provided during the outreach included mass de-worming of children, medical checkups, distribution of treated mosquito nets, eye glasses and drugs while patients with surgical cases were also operated upon.

Speaking during the event, the Director of Public Health and Humanitarian Services, Headquarters NAF, Group Captain

Azubuike Chukwuka, said the NAF was in Katsina to provide humanitarian services for the victims of the flood. According to him, "Following the directive of the CAS to extend our humanitarian services to the persons affected by the recent flood by bringing medical team to attend to them, we intend to be here for three days and we hope to attend to 2,000 patients and perform about 40 surgeries".

The Head of Local Government Administration in the State, Alhaji Almustapha Idris Dan-Musa, appreciated the NAF for the kind gesture and the provision of free healthcare for the people of Jibia. According to him, the medical outreach was a great relief to his people who had lost lives and properties to the flood.



NAF Pharmacist administering drugs to patients during the medical outreach in Jibia



A NAF Optometrist attending to a patient with eye problem during the medical outreach



NAF Optometrist applying medication to a patient during a medical outreach in Jibia



A patient being assisted after undergoing surgical operation during the medical outreach in Jibia



NAF Surgeons operating on a patient during the medical outreach in Jibia



Some of the patients after undergoing eye surgeries in Jibia, Katsina State

# 4,600 IDPs BENEFIT FROM MEDICAL CARE, SURGERIES AS NAF SPECIAL MEDICAL INTERVENTION IN ZAMFARA ENDS

About 4,600 Internally Displaced Persons (IDPs) benefited from medical care and surgeries at the Special Medical Outreach organized by the Nigerian Air Force (NAF) in Shinkafi, Zamfara State. The Medical Outreach which lasted for 7 days at the Marafa Umaru Primary School, Shinkafi, witnessed a large turnout of patients who were treated for various ailments and conditions. Apart from the 4,600 outpatients who were treated for various ailments, several medicated eyeglasses and hundreds of treated mosquito nets were also distributed. Additionally, the NAF Medical Team carried out a total of 103 general and eye surgeries at the Shinkafi General Hospital. An initiative of the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, it was aimed at alleviating the plights of the victims of armed banditry in the State as well as winning the hearts and minds of members of the affected communities.

Speaking during the flag-off ceremony, the Governor of Zamfara State, Abdulazeez Yari Abubakar, who was represented by the Commissioner for Health, Alhaji Lawal Liman, expressed gratitude to the NAF for the humanitarian gesture. He commended the laudable efforts of the NAF under the leadership of the CAS, Air Marshal Sadique Baba Abubakar, in responding promptly to the needs of his people. According to him, the medical outreach was a great relief and would complement the efforts of the State Government in alleviating the suffering of the IDPs.

The NAF Medical Team was led by Group Captain Azubuike Chukwuka, the Director of Public Health and Humanitarian Services, Headquarters NAF. According to him, the Special Medical Outreach was an initiative of the CAS designed to alleviate the untold hardship being experienced by the IDPs in Zamfara State. "We were in Zamfara State for 7 days and were able to attend to about 4,600 patients while those that needed surgeries were operated upon", he said. It would be recalled that the NAF on 29 July 2019, in compliance with the directives of the Commander-in-Chief of the Armed Forces of the Federal Republic of Nigeria, President Muhammadu Buhari, deployed additional troops and air assets, along with the necessary ground support equipment and logistics, to Katsina and Gusau in support of anti-armed banditry operations in the Northwest.



NAF Medics carrying out tests on a patient during the Medical Outreach



NAF Medics attending to patients during the Medical Outreach



Cross section of persons waiting to benefit from the NAF Medical Outreach



NAF Medic carrying out eye examination on a patient during the Medical Outreach



Leader of NAF Medical Team answering questions from members of the press



Commissioner for Health, Zamfara State, Alhaji Lawal Liman, while answering questions from members of the press

# NIGERIAN AIR FORCE ORGANISES 3-DAY SPECIAL SURGICAL INTERVENTION FOR IDPS IN BARKIN LADI

The Nigerian Air Force (NAF), as part of efforts to alleviate the plights of Internally Displaced Persons (IDPs) affected by the violence in parts of Plateau State, had a 3-day special surgical intervention programme as well as medical outreach in Barkin Ladi Local Government Area (LGA) of Plateau State. The special medical outreach, which was held within the vicinity of the Church of Christ in Nations (COCIN) Hipan in Barkin Ladi, attracted a large turnout of IDPs as well as residents who expressed gratitude to the NAF for its humanitarian gesture and concern for the wellbeing of Nigerians. During the 3-day outreach, patients with surgical needs were operated on by the NAF surgeons at the 563 NAF Hospital Jos while patients with other medical needs were treated and given drugs as deemed necessary. Medicated glasses and treated mosquito nets were also distributed during the exercise. A total of 3,000 patients benefited from the special intervention by the NAF medical team.

The 3-day medical outreach was attended by the Director of Health, Barkin Ladi LGA, Mr Badung Daylop, who represented the Executive Chairman of Barkin Ladi LGA, Honourable Dickson Chollom. The Chairman appreciated the laudable effort of the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, in rendering humanitarian services through the provision of free healthcare to the people of the LGA. He noted that the medical outreach had brought great relief to his people after the recent ordeals. During the medical outreach, the medical team from NAF Headquarters and 563 NAF Hospital, Jos conducted medical check-ups on the patients and screened those who potentially had surgical cases and thereafter immediately conveyed them to 563 NAF Hospital, where surgeries were carried out. Furthermore, eyeglasses and drugs were distributed to patients. Other medical activities carried out were deworming of little children as well as distribution of treated mosquito nets.

It would be recalled that the NAF on 25 June 2018, deployed an Mi-35P combat helicopter and an Intelligence Surveillance and Reconnaissance (ISR) aircraft to Plateau State in support of efforts aimed at quelling the crisis that erupted in the State. The medical intervention was a follow-up to the earlier deployment as part of NAF's efforts at enhancing civil-military relations.



NAF Medical Team carrying out surgical operation on a patient during the medical outreach



Oral check being conducted on a patient during the NAF medical outreach in Barkin Ladi, Plateau State



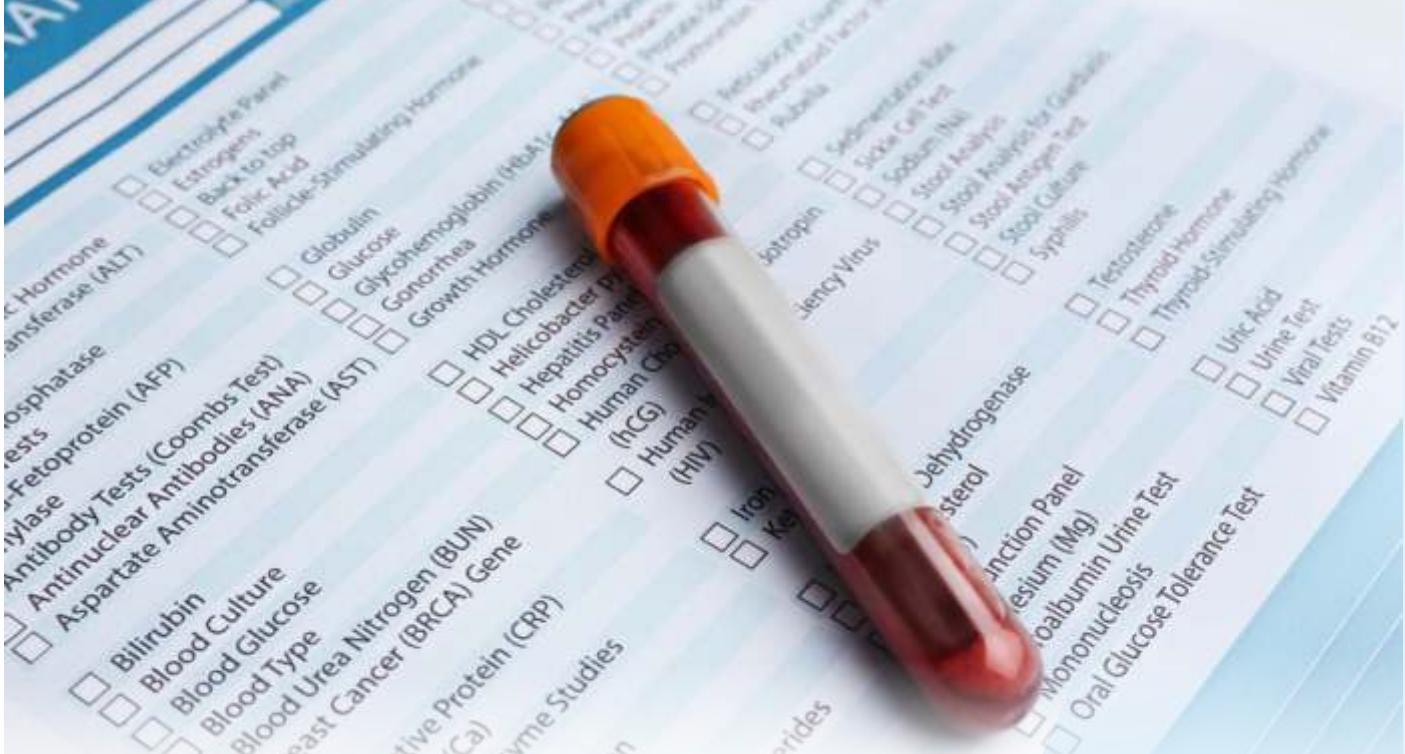
NAF Optometrist conducting eye check on a patient in Barkin Ladi, Plateau State



Some patients being administered drugs during the NAF medical outreach in Barkin Ladi, Plateau State



Patients waiting to be attended to during the Medical Outreach



# FACTORS AFFECTING LABORATORY TEST RESULTS

Gp Capt CC OHANELE

## INTRODUCTION

According to Johns Hopkins University School of Medicine, in Baltimore, medical error is the third leading cause of death in the United States. While patient safety remains a struggle in many areas of healthcare, laboratory medicine has been a leader in reducing error, with an estimated total error rate of 0.33 per cent, the lowest in diagnostic medicine. Furthermore, major advances in automation and instrumentation have helped reduce laboratory-associated errors over the last decade. Remarkably, however, pre-analytical errors currently account for up to 75 per cent of all mistakes. It is then imperative that laboratory medicine professionals must keep expanding their focus to what is happening outside of the laboratory.

Some of the major factors that could affect laboratory results exist outside the control of the laboratory in most cases. There is therefore, the need to fully involve all stakeholders, particularly the clinicians and patients in enhancing the quality of laboratory results. The purpose of this paper is to remind stakeholders of the pre-analytical factors affecting laboratory results. The paper shall outline the complexity of medical laboratory and pre-analytical factors affecting lab results. It is assumed that most readers are conversant with the medical terminologies used in this paper

## COMPLEXITY OF MEDICAL LABORATORY

Investigations in medical laboratories comprise pre-analytical, analytical and post-analytical phases. Each of these phases consists of different elements, which must be carefully handled and controlled to guarantee the right result. Elements of each phase include the following:

- Pre-analytical Phase.** Procedures under the Pre-analytical Phase include patient/client preparation, sample collection, personnel competency test evaluations, sample receipt and accessioning and sample transport.
- Analytical Phase.** Analytical Phase is when the actual laboratory examination is carried out. It

includes testing and Internal Quality Control (IQC) procedures.

- Post-analytical Phase.** Procedures under this phase include collation, reporting and release of results as well as other record keeping.

The 3 phases of laboratory investigation are coordinated by laboratory management. These, and effective data capturing and management as well as professional handling of safety and customer service issues add to the complexity of a medical laboratory. The complexity of the laboratory means that many factors could affect the outcome of a test.

**Factors Affecting Laboratory Tests.** Among the factors that could affect laboratory tests and results are laboratory environment, knowledgeable and competent staff, reagents and equipment. Other factors include Quality Control (QC), communications, process management, occurrence management and record keeping. Each of these factors must meet a minimum standard, be carefully controlled and managed to guarantee the effectiveness and efficiency of the laboratory. Consequently, any of these factors that fall short of the expected standard is a potential source of error.

**Sources of Error in a Laboratory.** The major sources of error in the laboratory include personnel, patient or client (sample source), environment, material suppliers, equipment, process or techniques, information, physical damage or contamination and microbial contamination. When all sources of error are managed well, the products of the laboratory are results that are accurate, precise, and reliable in an environment that is efficient and assures confidentiality.

## PRE-ANALYTICAL FACTORS AFFECTING LAB RESULT

Procedures or activities in the pre-analytical phase are performed neither entirely in the medical laboratory nor under the control of laboratory personnel. Thus, they are harder to monitor and improve. Before now, laboratories often have focused on

improving areas under their direct control while leaving pre-analytical activities to healthcare professionals who have little to no formal training in laboratory medicine. The revised ISO 15189:2012, Medical Laboratories: Requirements for Quality and Competence, has expanded its pre-examination procedures section. This requires laboratories to include pre-collection and collection activities, specific instructions to patients and users, and sample transportation, processing, and storage. There are 4 categories of pre-analytical variability. These are test ordering, patient preparation, specimen collection and specimen processing, transportation, and storage.

**Test Ordering.** Ordering the wrong test is wasteful and potentially harmful to patients. Providers order inappropriate tests for a variety of reasons, including confusion over tests with similar names. For example, ordering 25-hydroxyvitamin D versus 1, 25-dihydroxyvitamin D or Fasting Blood Sugar (FBS) instead of Full Blood Count (FBC). Other areas of problem in test ordering include unnecessary duplicate order, transcription errors during order entry and misinterpreted verbal orders, which occur when physicians/clinicians do not place test orders themselves. To deal with problems in this phase of testing, laboratories must engage hospital staff to promote appropriate test utilization. This brings to the fore the need to have a laboratory test utilization committee that draws from hospital-wide resources and influences clinicians' test ordering behaviour.

**Patient Preparation.** One of the most challenging activities among the pre-analytical phases is patient preparation. This is because it encompasses variables that typically occur before the individual arrives for his or her sample collection. Patient preparation factors include diet, exercise/posture and time of sampling.

a. **Diet.** Food ingestion is a significant source of pre-analytical variability. This depends on the analyte and time between meal ingestion and blood collection. For instance, caffeine, alcohol, vegetarianism, malnutrition, and starvation have significant impact on commonly measured analytes. Similarly, an overnight fasting period of 10 to 14 hours prior to blood collection is optimal for minimizing variations in many chemistry tests.

b. **Exercise and Posture.** Exercise deranges analytes like aspartate aminotransferase, lactate dehydrogenase, creatinine kinase, and aldolase. This is due to skeletal muscle release. Patients should therefore, be instructed to avoid moderate to strenuous exercise prior to specimen collection for certain analytes. Posture is also known to affect outcome of some investigations. For example, prolonged bed rest sometimes dramatically affects hematocrit, serum potassium, and protein-bound constituents.

c. **Time of Sampling.** Blood concentrations of various analytes change during the course of the day. These cyclical variations can be significant. Thus, the timing of sample collection should be strictly controlled in order to obtain reproducible results. It has been observed that serum iron increases by as much as 50 per cent from morning to afternoon. Conversely, serum potassium decline from morning to afternoon by an average of 1.1 mmol/L. Generally, hormones such as cortisol, renin, aldosterone, and corticotropin are especially impacted by this circadian variation. Timing of sample collection is especially critical for therapeutic drug monitoring, which requires trough levels for most analytes. There is need to develop protocols to specify an ideal time of sampling for each test. The actual time of draw must then be carefully documented.

**Specimen Collection.** Elements critical to specimen collection include obtaining appropriate quantity of sample by a competent person using the right technique for specified test. Most of the factors highlighted below are based on blood sample collection.

a. **Over / Under Filled Tubes.** It is very important that all tubes with anticoagulants/additives be filled to the correct blood to additive ratio in order to obtain accurate results. For example, 90 per cent of the maximum volume of the tube is required.

b. **Improper Use of Tourniquet.** Leaving a tourniquet on a patient for too long can cause incorrect blood test results. Do not leave tourniquet longer than one minute. Platelet count and creatinine are some of the tests most affected by this factor. Formation of petechiae could also result. There are certain tests, such as lactate and renin, in which a tourniquet must not be used at all or the results could be elevated.

c. **Improper Mixing of Tubes.** Improper mixing of sample tubes is a major source of error in laboratory result. Mix all tubes using gentle and full inversions immediately post collection. It is necessary to mix 3 to 4 times for blue top sodium citrate tubes, 5 times for red top tubes and 8 to 10 times for all other tubes. Improper mixing of tubes can cause inaccurate results and/or require specimen recollection. It could also cause sample clotting or haemolysis.

**Sample Processing, Transport and Storage.** It is good practice to allow serum to clot before centrifugation (30 - 60 min). Centrifuge specimen, separate within 2 hours, and avoid excessive transport time to analysis, which could result in haemolysis. Blood samples should be stored and transported in blood collection tubes in vertical position. This promotes complete clot, reduces agitation, haemolysis and stopper contamination. Liquid samples must be transported in leak proof plastic bags or cups. Moreover, samples for certain investigations such as serum bilirubin need to be protected from light.

## CONCLUSION

The complexity of the laboratory means that many factors could affect the outcome of a test. Each of these factors must meet a minimum standard, be carefully controlled and managed to guarantee the effectiveness and efficiency of the laboratory. Any of these factors that falls short of the expected standard is a potential source of error. When all sources of error are managed well, the products of the laboratory are results that are accurate, precise, and reliable in an environment that is efficient and assures confidentiality.

It is necessary to have a test utilization committee that draws from hospital-wide resources and influences physicians' test ordering behaviour. Stakeholders also need to inform patients to observe an overnight fasting period of 10 to 14 hours prior to blood collection. This is useful in minimizing variations in many chemistry tests. Furthermore, the timing of sample collection could be strictly controlled in order to obtain reproducible results. Protocols to specify an ideal time of sampling for each test needs to be developed. Other specimen collection factors that could affect quality of laboratory results include over/under filled tubes, improper mixing of tubes and wrong use of tourniquet.



NAFOWA President, Hajia Hafsat Abubakar being assisted by the Representative of DEPOWA President presenting starter pack to a graduand

## SKILLS ACQUISITION: NAFOWA EMPOWERS 260 YOUTH, WOMEN IN ABUJA

The Nigerian Air Force Officers' Wives Association (NAFOWA) recently graduated 260 participants from the tenth edition of its Skills Acquisition and Vocational Training Programme. The graduands included 130 youths and 130 women, who were largely unemployed or underemployed, from within the Nigerian Air Force (NAF) Bases in Abuja and their surrounding communities. The beneficiaries received their certificates during the colourful graduation ceremony, which took place on, 13 February 2019, at the NAF Base, Bill Clinton Drive, Abuja, after 12 weeks of intensive training in various vocational trades including Computer Appreciation, Tailoring, Makeup Artistry, Hairdressing and Barbing, Catering, Leather Shoes and Bags Production, Bead Making, Soap and Disinfectant Production, Aluminium Works, Event Decoration, Photography and Videography as well as Soft Furnishings.

Speaking at the graduation ceremony, the Guest of Honour, the Chief of the Air Staff (CAS), Air Marshal Sadique Abubakar, applauded NAFOWA for its initiative, noting that it is in tandem with one of the key drivers of his vision; which is 'human capacity development through robust and result oriented training for enhanced professional performance'. He further stated that, 2,310 women and youths have so far benefited from the skills acquisition and vocational training since inception and have established various businesses in NAF Barracks across the country. The programme, according to him, was a means to financial independence, self-reliance, prosperity

and personal development. He noted that when the acquired skills are combined with other forms of academic endeavour, it offers infinite options and opportunities for employment.

Speaking further, Air Marshal Abubakar observed that the empowerment of dependents by NAFOWA has impacted positively on NAF operations, as it helps to keep the home front stable thereby ensuring full commitment on the part of the personnel in the discharge of their duties. The CAS commended NAFOWA for the successful completion of the tenth edition of the programme and appreciated the programme facilitators for their efforts, support, tolerance and encouragement. He also urged the beneficiaries to



Cross section of graduands



cross section of starter packs for the graduands



The guest of honour, Air Marshal SB Abubakar inspecting varieties of beads made by graduands



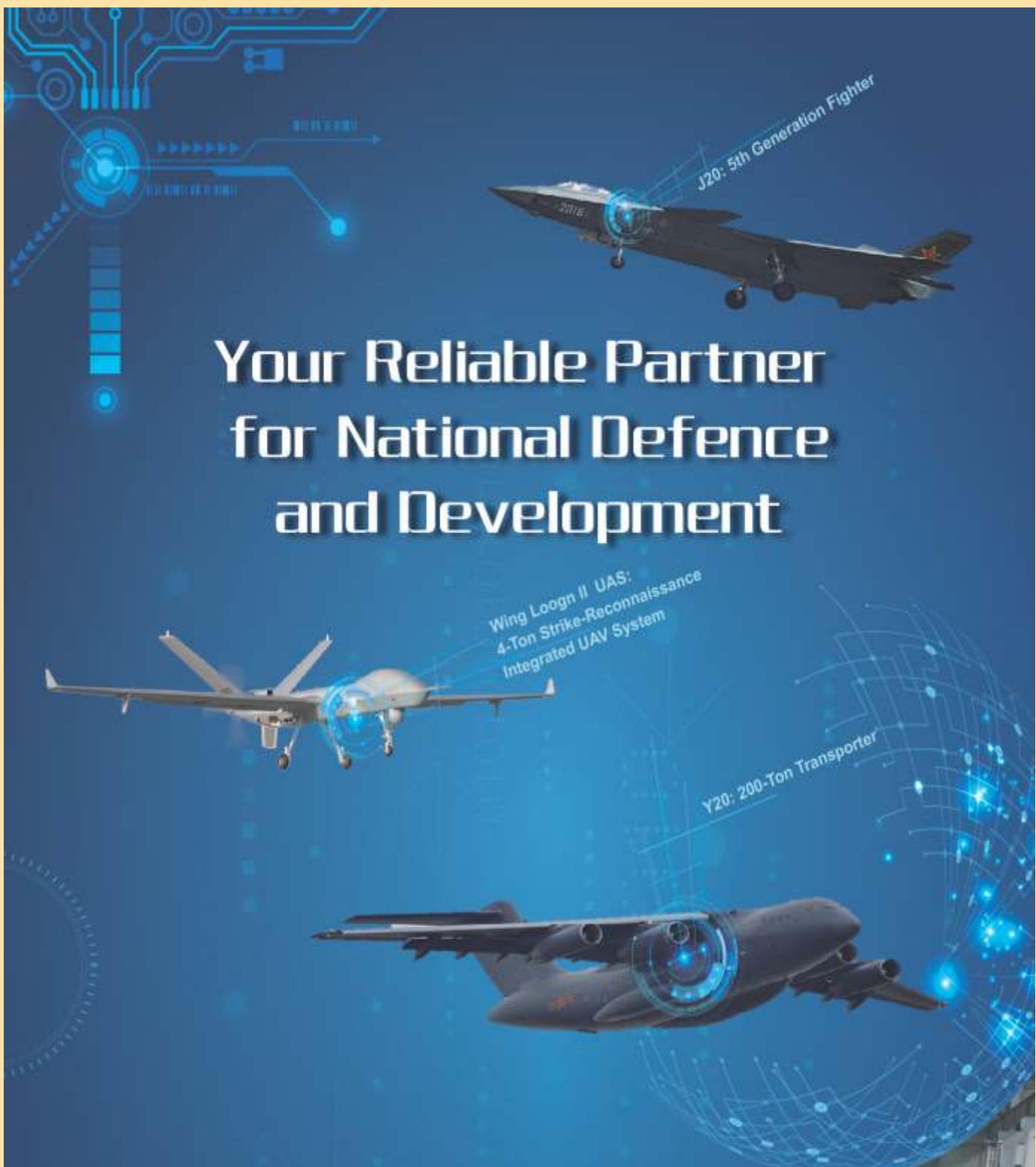
The guest of honour and other dignitaries being conducted by the NAFOWA President on inspection of catering stand

make good use of their starter packs and appealed to NAFOWA to monitor the beneficiaries' progress with a view to ensuring that the objective of the programme was achieved.

Earlier in her welcome address, the NAFOWA National President, Hajiya Hafsat Abubakar, noted that in her quest to provide service to humanity, in line with the NAFOWA's motto, she had explored a number of options that would add meaningful value to the lives of women and youths in NAF Bases across the country. However, all of these options required considerable financial and human capital; neither of which, she said, was readily available to the Association at the time. Notwithstanding, she said she was determined not to accept the status quo and therefore took ambitious steps to raise the necessary resources for the commencement of the skills acquisition programme and also went further to provide support to IDPs in the Northeastern part of the country. She stated further that the journey had taken the Association through 10 locations since the launch of the maiden edition of the programme at NAF Base Makurdi in May 2016. These include Maiduguri, Kaduna, Lagos, Port Harcourt, Bauchi, Benin, Azare, Kainji and now Abuja, training over 2,300 women and youths in the process, including widows and orphans. She seized the opportunity to thank all NAF personnel for the over 10 million Naira contributed voluntarily during the Second and Third

Quarters of 2018, which, she said, assisted in the provision of starter packs for the graduating students. She also thanked the CAS for his continued support and encouragement. Hajiya Abubakar stressed that the Association would continue to keep the spirit of 'service to humanity' alive by embarking on similar projects that touch lives positively and make a difference to daily existence.

The event featured various cultural dances as well as a presentation by pupils of the NAFOWA Little Angels School NAF Base Abuja. The Guest of Honour and other dignitaries were also conducted on an inspection tour of an Exhibition of products made by the graduating students. The major highlight of the event was the presentation of appropriate starter packs, comprising laptop computers, digital cameras, kitchen appliances, aluminum bending equipment, grinding machines, hair dryers, make-up kits and sewing machines, among others, to the graduating students. Among the dignitaries at the event were Branch Chiefs and other senior officers from Headquarters NAF, heads and representatives of Defence and Police Officers' Wives Association (DEPOWA), Nigerian Army Officers' Wives Association (NAOWA), Naval Officers' Wives Association (NOWA) and other sister organizations as well as the representative of the President of the National Council of Women's Societies (NCWS) Nigeria.



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