Essentials
of

AVIATION COMMUNICATION PRACTICE

Edited by
Deba Uwadiae

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DEDICATION

Dedicated to Tolu, Omoruyi and Abieyuwa.

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ACKNOWLEDGMENTS

It was after the Third Lagos Aviation Reporting Workshop in 1999 that I thought about putting together into a book all the papers delivered in all the workshops. The workshop came out of a desire to create a forum for aviation reporters, corporate affairs personnel, airport and airline managers, facilitators, and other stakeholders in the industry to meet and exchange ideas on how to move 'up' the aviation industry.

As an aviation correspondent for the Vanguard Media between 1994 and 1998, it was part of my campaign manifestoes in 1997 for the post of the Chairman of the League of Airport and Aviation Correspondents (LAAC) to organize such a forum if elected. Though I did not win, I did not let the dream die.

However, it was the success of the first workshop in November 1997 that motivated me to continue the exercise of contributing to the advancement of knowledge in the aviation industry. Despite my seeming inexperience then, the Murtala Mohammed International Airport, gave the Conference hall, while the Nigerian Aviation Handling Company (NAHCO) and the Transworld Security Systems gave some funds towards the inaugural workshop. Subsequent workshops were supported by the Nigerian Immigration Services, the Airport Police Command, Associated Aviation Limited, Jawan Enterprises, El-Bezaleel, and Nigeria Airways Limited. All these organizations supported me in sowing the seed that has grown into this tree of a book and I am thankful to them.

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I am grateful to all the contributors for the faith they have in his noble project and all of whom a special position is reserved for in this book; and also my alma mater, the Nigerian College of Aviation Technology, Zaria where I was a student in the 1995 Airport Correspondents' Course.

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I cannot end this acknowledgment without giving due honour to God Almighty who, at every moment, works things out for the good of those who love him.

FOREWORD

Since the Wright Brothers pioneered flight in the early years of the last century, the world has been fascinated by the magic of the big-machine bird soaring through the skies. That pioneering flight was not just a monumental engineering revolution, it was indeed a very giant step for mankind, and signaled the coming of the Global Village. In a metaphysical sense, the aircraft – and the subsequent development of flight covering vast distances was a liberator of the human spirit for adventure.

Commercial flights on a global scale enable millions of people to be moved from one place to the other, within national, continental, and inter-continental boundaries. Thus, today, the aviation industry is one of the major industries that drive the world economy. And one indicator of a poorly developed economy anywhere is the virtually primitive stage of its aviation industry.

The first flight into Nigeria, according to historical records, was achieved in the 1920s. But it was not until the 1940s that full-scale commercial flight began in the country with the establishment of the West Africa Airways Corporation. Nigeria was a major stakeholder in the WAAC. However, a year after independence in October 1960, the First Republic Government of Prime Minister Abubakar Tafawa Balewa established Nigeria Airways Limited, which became the national carrier. And for the next 20 years, the airline had a monopoly of scheduled domestic flights. Complementing its operations were chartered flights operated by a sundry number of small private airlines.

But with the beginning of the deregulation of the aviation industry in the country in the early 1980s, Nigeria Airways gradually but steadily lost its monopoly of scheduled domestic flights. And the nightmare of regularly stranded passengers at airports, fighting for boarding passes became a thing of the past. Today, there are many private commercial airlines licensed to operate scheduled domestic flights; and one of them, BELLVIEW, has in the past three years been operating international flights, mainly to Europe.

As it were by natural laws, nothing is perfect, and can never be. Hence the development of aviation with the groundbreaking efforts of the Wright Brothers and many other people after them has been dogged from the start by problems of safety. The early years of aviation recorded many accidents, with aircraft either, literally, exploding or dropping from the sky. These accidents created doubts about the reliability of aviation technology and made millions of people develop the "fear of flying". Even with the dramatic technological leaps in the development of modern aircraft of all kinds, this fear of flying is still very much prevalent even among the people of developed countries, whose lives are shaped by the wonders of science and technology from cradle to grave. So just imagine, say a Boeing 747, the largest commercial aircraft in operation today, dropping from the sky with a full load of passengers and crew. It was always a dramatic and horrifying spectacle, made even more so by instant television coverage by global news networks like the ubiquitous CNN and BBC.

But the facts present a very different reality. Globally, compared to travelling by road, flying is the safer means of transportation. The difference is even more pronounced in Nigeria, where road accidents involving motor vehicles of all types occur daily. No less than 20,000 people are killed on our roads every year due mainly to bad roads, reckless driving habits of Nigerians, and the generally poor conditions of vehicles that ply our roads. Despite these horrific statistics on road accidents, there is hardly anybody who suffers from the syndrome of fear of travelling by motor vehicle. This can partly be explained by the fact that road accidents do not command the same intensive, saturated coverage by the press as aircraft accidents, especially the ones involving the 'big birds' crashing down from the sky. Yet, aviation safety regulations are the most rigorous of any transportation system in the world

today. And flight personnel, including pilots, engineers, cabin crew, and the ground crew are usually very thorough professionals subjected to the most exact standards of training.
In Nigeria anybody can obtain a driving without ever showing up at the licensing office, not to talk of undergoing any driving test. Not so in aviation, where the professionals are trained and retrained regularly and evaluated to determine their general fitness for their highly skilled jobs.
So also, the aircraft. It must undergo mandatory checks and maintenance schedules all through its operational lifespan. As a regular traveler on domestic and international commercial flights, there is nothing more assuring to me than the sight of a pilot and engineer inspecting an aircraft before take-off and after landing, which is clear evidence, if any was needed, that no pilot would fly a plane that he knows is not in the right condition.
Unfortunately, the explosive growth of commercial aviation in Nigeria has not been matched by professional press coverage of the industry. In the last thirty years, there have been many instances where the press misreported events in the industry, including accidents. This is, however, not due to any deliberate inclination by the press to cause mischief. Lapses in press coverage of the industry are mainly because of ignorance of the news media of the operational dynamics of the industry which is highly technical, and technology driven. Hence when a pilot aborts a flight after take-off for various reasons, including a routine fixing of a problem, to ensure the safety of the aircraft and, therefore, the passengers, you usually find the press reporting it as “averting an air crash”. Yet motorists routinely pull up by the side of the road to change a flat tyre or abort their journeys to fix a problem or potential problems in their vehicles.
Most people are unfamiliar with aviation’s arcane technicalities and its business terminologies. For instance, how many journalists, including aviation correspondents, know the differences between a wet lease and a dry lease? Or the intricate, seamless working relationships among air-traffic controllers, meteorologists, also known as the weathermen, and other groups of aviation specialists that ensure that an aircraft can take off, fly and land safely? This is why the initiative to organise the Annual Lagos Aviation Reporting Workshop in November 1997 was a very timely and positive intervention.
The workshops have produced the materials that have given birth to ESSENTIALS OF AVIATION COMMUNICATION PRACTICE. The book is a compendium of various papers by various experts on different aspects of the aviation industry, and the publication of such a book has long been overdue. When Deba Uwadiae first discussed his idea of publishing the book with me, I thought he was crazy. My initial thought about it was: “Who will be interested in such a book?” But the more I thought about it, it dawned on me that Deba, a very serious, focused journalist whom I have known for many years, was onto something illuminating. Until I read the book. I didn’t know which part of an aircraft is the fuselage. I had always associated fuselage with an aircraft’s fuel tanks.
There has long been a crying need for the huge gap in the knowledge of the press about the aviation industry in Nigeria to be filled. And this book will, certainly, achieve that. Hopefully, too, it will spur the emergence of more such books in the future.
This is imperative because once the press is well informed about the aviation industry, it will be better equipped to inform the public and correct many of the misconceptions about the industry.

NOSA IGIEBOR
LAGOS
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PAPERS AND CONTRTIBUTORS

1. Airport Configuration: Free and Restricted Zone by Sule Ozenua, Managing Director, Federal Airports Authority of Nigeria, FAAN.

2. ICAO and the Nigerian Civil Aviation Structure by Ibrahim Auyo, Managing Director, Nigerian Airspace Management Agency, NAMA

3. Reporting Aviation Agencies by Haruna Zakari, Director General Nigerian Civil Aviation Authority, NCAA

4. Aircraft Parts and Functions by Gbolahan Abatan, Chief of Maintenance, Associated Aviation Limited.

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11. Challenges and Expectations by Emmanuel Ukpong former Aviation Correspondent, Guardian Newspapers.

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17. Corporate Management and Strategies for Ideal Image by Phil Osagie, Chief Executive Officer, JSP Corporate Communications.

18. Managing the Media by Chris Aligbe, General Manager, Corporate Affairs, Nigeria Airways.

19. Crisis Management and Media Expectations by Sylvester Oputa, General Manager, Corporate Affairs, Federal Airports Authority of Nigeria, FAAN

CHAPTER 1

INTRODUCTION

AVIATION COMMUNICATION

December 17, 1903, after the Wright brothers completed successfully the fourth trial in the first controlled man-carrying mechanical flight in history in Kitty Hawk, South Carolina, United States of America, the brothers, Orville and Wilbur dispatched a wire to their father informing him of their accomplishment and urging him to inform the press about the feat. Their father did but only a few editors were said to have "paid any attention to the history" while those that did "embroidered the story with facetious embellishments".

This could have been probably due to the earlier dashed expectations of the American Public and press from the efforts of Samuel Pierport Langley who was granted $50, 000 in December 1898 to build a man-carrying Aerodrome.

Five years, therefore, went by before the citizens of the USA accepted the fact the Wright brothers had flown in 1903.

A magazine editor, A. I. Root who picked interest in the activities of Orville and Wilbur traveled to Dayton to see the Wrights fly. He was privileged to have observed the first circular flight on September 20, 1904 and published it in his magazine called "Gleanings in Bee Culture" in the January 1905 issue thus signaling the beginning of the special reporting of aeronautics.

In Nigeria, the Kano Chronicle, a monthly publication in the 1920s reported the first flight into the city of Kano in 1925. Though controversies still rage over whether the flight landed first in Maiduguri or Kano, the report of the event by the Kano Chronicle Newspaper confers on it was the first to report aeronautics in Nigeria.

Between that first flight and the independent era, the Nigerian media never failed to report occasional events such as the commissioning of airports, new appointments, plane crashes, and the purchase of new aircraft.

When in the late 1970s it became obvious that the only local scheduled flight operator, Nigeria Airways, could no longer cope with the demands of the public the media vigorously campaigned for the deregulation of the industry. It was characteristic of the time to see in the media passengers 'fighting' to get on board an aircraft.

The deregulation led to the government granting scheduled flight licenses to private operators two decades ago and the expansion of the industry and its activities subsequently.

The expansion brought media attention and interest. More reporters were deployed to cover the Murtala Mohammed International Airport, Ikeja in Lagos especially.

Also, the parastatals and airline operators brought in corporate affairs managers to handle their relationship with the media.

Conflicts and clashes of interest characterized this relationship. While the reporters reported what should be news the corporate affairs managers see most of the news written out of ignorance of the technicalities of the industry.

The study of this relationship as regards the contributions of the two groups of communicators to the development of the industry led to an annual forum where they can interact and discuss issues of mutual benefit to them and the aviation sector. This gave birth to the Annual Lagos Aviation Reporting Workshop on November 17, 1997.

Between November 17, 1997, and September 14, 2000, 18 papers relevant to the operations of aviation reporters, public affairs managers, airport and airline managers, facilitators, and allied businesses were delivered and they formed the bulk of Essentials of Aviation Communication Practice.

Several areas meet the needs of every stakeholder in the industry beginning from the history of aviation in Nigeria through the airport configuration, aircraft parts, and functions, relevance of meteorology to flight operations, prevention, and investigation of incidents/accidents, issues of aviation development, corporate management and crisis management to the role of the media (press) and the foreign and local airline operators in Nigeria.

Essentials of Aviation Communication Practice is not merely to teach the budding reporter about the rudiments of writing aviation stories but to serve as tools to apply for effective aviation communication amongst all stakeholders in the industry.

CHAPTER 2

HISTORY OF AVIATION IN NIGERIA

Aviation records indicate that Civil Aviation started in Nigeria about the same time it took off in most developed countries. The 1948/49 annual report in Civil Aviation Department briefly touched on the development of Civil Aviation in Nigeria from its inception in 1936 until March 1949.

According to the book "Aerodromes Plans and Particulars as at 1st September, 4", written by the then controller of Civil Aviation, Mr. H.E. Walker, there were 31 "Airports" existing in Nigeria at that time. Most of these "Airports" were under the control of the Nigerian Government, except Apapa, Ikeja, Kano South, and Maiduguri which were controlled by the British Royal Airforce. Twenty of these "Airports" were manned by Aerodrome Control Officers whose primary functions were not Air Traffic control.

As of 1944, there were no radio communications, especially for civil operations, but there were some simple, though limited rules to guide pilots.

1. Circuit Rule - Left Hand
2. White flag at mast - Permission to land
3. White flag at mast - Landing Prohibited
4. Red and Yellow chequered board - ATS

E.H. Coleman arrived in Nigeria in October 1950 to assume the post of Director of Civil Aviation for the British colonies in West Africa. Under him, 28 aerodromes were operational in the country, and these were divided into 4 categories.

Category I - The International airports at Kano and Lagos

Category 11 - Aerodromes at Maiduguri and Port Harcourt used regularly by domestic traffic and occasionally by International Traffic.

Category IV - Aerodromes used only occasionally and emergency landing strips.

By 1951 Airport managers who were designated as Airport Commandants had been appointed for Lagos and Kano Airports. Functional though limited in scope, controlled airspaces were established around Lagos and Kano airports. The services provided by Air Traffic Control service were not definitive as they are today. Aerodrome Flight Information (AFIS) was the order of the day.

EVOLUTION OF NIGERIA AIRWAYS

Flight operations into and within the Nigerian territory from the early days of Civil Aviation encouraged the formation of a regional airline among the Anglophone countries of West Africa. The West African Airways Corporation (WAAC) was born in 1946 to serve the Gambia, Ghana (Gold Coast), Nigeria, and Sierra Leon. The corporation started its operations with a single, wet-leased, Dove aircraft. By March 1951, the corporation had a fleet of sixteen (16) Aircraft made up of:

(a) Eleven (11) Doves
(b) Two (2) Wayfarers
(c) Two (2) Bristol 170 Freighters
(d) One (1) Marathon

These aircraft were used mainly on domestic and West Coast routes. At Independence in 1957, Ghana decided to form her own National Airline. This came into force in 1958 with the formation of Ghana Airways Limited. The Nigerian Government, on account of her sustained interest in the continuity of the airline's services, invited British Overseas Airways Corporation (BOAC) and the Elder Demster Shipping Lines to participate in the ownership of the WAAC. Shares for the ownership were:

1.	Nigerian Government	51%
2.	BOAC	33%
3	Elder Demster Shipping Lines	16%

The Nigerian Government, when the country became independent in 19601 felt that Nigeria should have a truly National flag carrier. Thus, in 1961, the shares of BOAC and Elder Demster shipping lines were acquired. The WAAC (Nigeria) Limited became Nigeria Airways Limited under Certificate of Incorporation number 1704 of 1961. Thus, Nigeria airways, a limited liability company was born. For a very long time, Nigeria Airways enjoyed the monopoly of operating scheduled passenger services on domestic routes. The company, being the National flag carrier had to operate all designated routes whether they were profitable or not. In the early days, there was minimal competition on the domestic routes because of very few airline operators, and these could only operate non-scheduled charter services. Nigeria Airways graduated from the use of Doves and DV-3 through FK-27 and FK-28 to B-737 on the domestic and West Coast routes.

International routes had been covered by aircraft types like the VC-10, B727, B707, DC-10, A310, AND A320. A lot of these aircraft had been phased out by the company leaving the B-737 for domestic operations, DC-10, and A-310 for international passenger services.

OTHER AIRLINES IN NIGERIA

For a very long time, charter operators were limited in number and scope. Such companies as Pan African Airlines, Aerocon1rectors, and Bristol Helicopters were the main non-schedule operators. Sudan Interior Mission (SIM) and Sudan United Mission (SUM) were operating mainly hospital and merry flights within the West African Sub-region with their headquarters at Miango near Jos.

Other domestic operators like Afrax, Gas, Kabo, Okada Air, Hold Trade, ADC, Harco, Harka, Concord, EAS, Flash, Zenith, and Express Imani made their debut much later. Records

available indicated that over one hundred airlines registered in the decade 1980-1990. Some of these Airlines now have licenses to operate scheduled charter flights.

AIRPORT DEVELOPMENT

Before 1970, Nigeria could only boast of two International Airports worthy of that name. The Kano International Airport commissioned in 1956 was the best, followed by the refurbished Lagos Airport. Ilorin Airport, which was to serve as an alternative to both Lagos and Kano paved the way for massive airport development that this country witnessed in the seventies.

Hitherto, little better than landing strips were turned into modern aerodromes with capacity for B737 or heavier aircraft. The days of the Public Works Department (PWD) maintaining runways and other facilities were suddenly over. The birth of yet another parastatal under the Ministry of Transport and Aviation became a reality. The Nigerian Airports Authority (NAA) came into existence in 1978 with 14 airports under her care.

Many of these airports have proved to be economic wastes because their establishments were based more on Socio-political rather than economic reasons. The derivable income of many of them is not enough to sustain the huge maintenance cost. Many hitherto viable airports are losing patronage on account of the development of inter-city dual carriageways, the unreliability of scheduled services, excessive delays at airports, and prohibitive flying costs.

However, some airport developments are still going on, especially under –late sponsorship - Katsina and Imo airports are good examples.

AIR NAVIGATION AND SAFETY SERVICES

The Kano Flight Information Centre was providing flight information service as far North as latitude 22°N where traffic was handed over to Malta, and up to about, 1,000 miles south of Kano. The area of operation of Kano covered the major routes across the Sahara desert, the equatorial rain forests, and parts of the South Atlantic. 1950 statistics showed that Kano handled 6,010 aircraft than each of the airports, with Kano handling a great number of over flyers.

The first indigenous controller, Mr. V.A. Huberts was appointed on 12th July 1950. He rose to become the first African Head of Civil Aviation – The Controller of ground services. By the mid 50's most of the existing departments and sections had been fully established and manned. To the generality of public, however, Civil Aviation at that time was synonymous with Nigeria Airways. This could not but be* so since the then Civil Aviation Department (CAD) was not operating as a Private Sector organization requiring much publicity. This department had to become a full-blown parastatal in 1986 to overcome a lot of the bureaucratic tendencies that were bugging the Aviation industry. The Federal Civil Aviation Authority with its six directorates was born. The parastatal was saddled with responsibilities ranging from regulatory, through safety to the provision of essential Air Navigation Services.

More recently, the NAA and the FCAA were merged into The Federal Airport Authority of Nigeria (FAAN). This new parastatal is leading Civil Aviation in Nigeria into the 21st century with a lot of hope.

(*A lecture notes at the 1995 Airport Correspondents' Programme at NCAT, Zaria*)

CHAPTER 3

AIRPORT CONFIGURATION: FREE AND RESTRICTED ZONE

By Sule Ozenua

An airport represents different things to different people even though its primary function is to facilitate the movement by air, of passengers and cargo to different destinations within and outside international boundaries.

Intrinsic in this basic function is the capacity to stimulate business and industrial growth both locally and internationally. This explains the attraction of socio-economic development around airports wherever they are located, whether in developed or developing countries.

The business of aviation, which airports represent, is a very serious, highly technical, and safety-oriented business. It is also highly regulated by set international standards that are rarely compromised. Aviation is also interwoven with national security since the airspace and airports are avenues through which the territorial integrity of countries could be undermined, politically, socially, and economically.

At the same time, an airport is a veritable vehicle for the promotion of national image, tourism, and international friendship. It is an open national monument to which all well-meaning citizens can claim a sense of belonging. Such citizens have a right to engage in one form of legitimate business or another at the airport without delving into such technical and highly restricted areas as aeronautical or airport management.

Members of the public also have the right to accompany travelling relatives or friends to airports and even stay with them till the time of flight departure. The movement of such people is, however, restricted to certain areas of the airport or terminal building. The passengers themselves do not have unlimited access to all parts of the terminal building when they enter the restricted zone, in the same manner that the access allowed to airport staff is determined by the nature of their functions at the airport. That explains the different categories of on-duty cards issued to airport staff at our international airports especially.

To the concessionaire, car hire operator, bank official, and the average airport user, the airport is one big business arena where he freely transacts daily business. The same, to an extent, could also be said of airline operators. The area of the airport where such business and free public movement is allowed is generally referred to as a free zone. I must quickly add, however, that the free zone is relative, at least to the extent that it is out of bounds to undesirable elements and loiterers who have no genuine purpose of being at the airport. Touts belong to this category of “airport users”.

But there are people whose daily routines centre around the maintenance and regulation of international aviation (ICAO) standards at which airports must operate. Some staff of the Federal Airport Authority of Nigeria (FAAN), the Nigeria Airspace Management Agency (NAMA), the Nigeria Civil Aviation Authority (NCAA), other departments of the Federal Ministry of Aviation, and some security agencies fall under this category. The engineering and operational staff of the airlines and handling companies also belong to this category. Their area of operation is collectively termed a restricted zone because access to it is restricted to authorized staff only.

It is worth noting that it is not the staff of these establishments that have access to the restricted zone. Those who are qualified to operate in the zone are also not permitted to be there when they are off duty, that is how restricted the zone could be!

The aviation industry worldwide thrives on symbiotic relationships amongst related agencies because the success of one is invariably determined by the cooperation of others. None of the sister aviation establishments could do without another. This presupposes that for Nigeria to truly satisfy the standards of the International Civil Aviation Organization (ICAO) which emphasizes on safety of human lives, these various establishments must work in concert. For example, the aircraft pilot, relying just on his expertise and long experience in flying, cannot guarantee flight safety, if the aircraft engineer and technician do not certify his aircraft as airworthy. Neither can the flight crew, including the pilot, engineer, navigator, and all, talk meaningfully about flight safety in the absence of the air traffic: controller, the meteorologist, or even the security man at the airport, who ensures that dangerous weapons and explosives are not smuggled into the aircraft for purpose of sabotage and other activities inimical to aircraft safety. We all know, of course, that no aircraft can land safely on a runway that is not properly maintained by engineers or fitted with major landing and visual aids that are operated by qualified personnel. We also know that flight safety cannot be guaranteed without adequate fire cover. The area where these sensitive functions are performed cannot be assessed by just anybody.

FAAN recognizes this reality even though the Authority has the singular privilege of most of the infrastructure from which these other agencies operate, apart from being the sole provider of infrastructure in the airport-free zone.

This onerous responsibility would be better understood from the backdrop of FAAN's statutory functions, the responsibility of balancing activities in the two zones without undermining the importance of any of them. This is more so because the two zones need each other for meaningful airport operations. And of course, because the two constitute the two major sources of revenue (aeronautical and non-aeronautical) to the Authority.

The statutory functions of FAAN are:

a. To develop, provide and maintain at Airports necessary services and facilities for the safe, orderly, expeditious, and economical operation of airport transport.

b. To provide adequate conditions under which passengers and goods may be carried by air and under which aircraft may be used for other gainful purposes and prohibit the carriage by air of goods of such classes as may be prescribed.

c. To prohibit the installation of any structure that by its high position is considered to endanger the safety of air navigation.

d. To charge for services provided by the Authority at airports.

e. To provide accommodation and other facilities for the effective handling of passengers and freight.

f. To develop and provide facilities for surface transport within airports.

g. To carry out at the airport (either by itself or by an agent or in partnership with any other) such economic activities as are relevant to air transport.

h. To carry out air transport (either by itself, its agents, or in partnership with another person) and such other commercial activities which are not relevant to air transport but which in the opinion of the authority may be specified in this sub-section.

i. To provide adequate facilities and personnel for effective security at all airports.

j. Generally, it creates conditions for the development of the most economic and efficient manner of air transport and the services connected with it.

Note that paragraphs a, b, c, and d, highlight FAAN's responsibility in the restricted zone while paragraphs "g" and "h" draw attention to their role in the free zone. The other paragraphs apply to the two zones. FAAN's functions are classified into three broad areas namely:

LANDSIDE FACILITIES

a. Land Transportation system, including, access roads, internal roads, car officials, vehicles, cargo trucks, maintenance vehicles, equipment, etc.
b. Land Telecommunication Networks i.e telephones, radios, Wakie-talkie, etc.
c. The security network system in the public areas.
d. Power supply and distribution including emergency supply.
e. Water Supply and Distribution Network.
f. Sewage treatment and Garbage Disposal System.

TERMINAL BUILDING FACILITIES

a. Flight Information and general communication system
b. Passenger Processing and Baggage Check-in facilities
c. Baggage - Conveying System
d. Lighting, Fire-Prevention, Cooling, and System
e. Anti-Sabotage and Anti-hijacking Security System
f. Airline Offices, Restaurants, Shops, and general concessionaires provide services amenities and necessities for the travelers
g. Water Supply to toilets, offices, etc.

AIRSIDE FACILITIES

a. Airfield Pavement includes runways, taxiways, aprons, crash roads, services roads, and their drainage network.
b. Airfield lighting includes approach lighting, runway lighting, stop-way lighting, taxiway lighting, apron lighting, etc.
c. Aircraft fueling facilities
d. Aircraft maintenance facilities
e. Airside Security Network facilities

All these efforts are geared towards ensuring excellent and functional infrastructure, safety of aircraft and passengers and enhancing airport facilitation, which encourages commercial flight operations. Apart from these efforts, the authority is also embarking on a number of major projects that would ensure excellence in its services.

So, I would crave your indulgence to limit my discourse to the nature of free and restricted zones and what FAAN has done to transform them into what they ought to be and the best of what they can be, in the overall interest of aviation and allied business in Nigeria.

FAAN's facilities and services are designed to meet international (ICAO) standards. On the landside, for example, the development of structures around the airport is controlled, in keeping with acceptable height limits, Airports terminal buildings and other civil infrastructure are also designed in a manner that would always ensure the effective security control of passengers and other airport users within restricted areas of the building. All commercial and operational facilities at all our airports are designed with consideration for the safety of all users. Thus, terminal buildings, warehouses, office complexes, hangers, petrol stations, aviation fuel depots, hotels, etc. are developed strictly within the provision of ICAO regulations, regarding height and other obstruction clearances.

In addition to the in-house technical studies usually carried out by all related Departments (Engineering and Operations), FAAN obtains a certificate of clearance from the Federal Ministry of Aviation. All these are done to ensure structures developed at airports would not constitute obstructions. Apart from paying attention to the development of facilities at airports, care is also exercised in letting out space to various users.

Airport Management consistently monitors the activities of concessionaires at Terminal Buildings and the surrounding areas to ensure that their trading operations do not hamper facilitation. Because of the need at most airports to provide more first-class commercial property, the Authority now takes an active part in this investment by setting funds for them. At some domestic airports, airline buildings are being developed directly by the Authority for lettable offices with provision for additional car parks.

On the airside, airfield pavements which include runways, taxiways, and aprons are always designed to meet specified international standards in size, structural strength, and good quality riding surfaces for different sizes of aircraft. The pavements are marked to assist as visual aids to pilots while grass is cut regularly and drainage provided, to enhance the life span of the airfield pavements and also control bird hazards. Fences and patrol roads are also provided within the airfield operational areas for effective security control of the movement of unauthorized vehicles, people, and even animals which could be hazardous to safe aircraft operation.

Runway lighting (visual aids) is crucial for aviation safety, and it is categorized according to the nature of the aircraft using the runway. In this country, all runways designed for international operations have category 2 airfield lighting, while those for domestic operations have category 1 except the new ones such as Owerri Airport, where night operations have not commenced. To ensure that power is always available to always operate these facilities, all airports in the country have sufficient and serviceable stand-by generators that serve as backup to power supply from the national grid.

FIRE SERVICES

Fire services at airports are also categorized according to firefighting capacity and this is usually associated with the level of airport operations. The result is that domestic airports have categories lower than those of international airports. The highest category obtainable in the country today is Cat 9 and this is available at the Murtala Muhammed and Mallam Aminu Kano Airports. What should gladden our hearts, however, is that all our airports in the various

categories including the airfield serving the National College of Aviation Technology, Zaria, are now adequately equipped to combat fire incidents promptly and effectively. All of them have sufficient bore holes for independent water supply, apart from the public water supply, which in most cases, acts as a backup to our independent water supply.

The principal objective of the fire and safety services is to save lives and property in the event of an aircraft incident or accident. For this reason, the provision of means of dealing with an aircraft accident or incident occurring at, or near an aerodrome assumes primary importance. To achieve this objective, therefore, a plan is designed for each airport titled "Airport Emergency Procedure" and the essence of this plan is to prepare an aerodrome or airport to cope with an emergency, thus minimizing the effects of an emergency, particularly in respect of saving lies and maintaining aircraft operations.

The airport emergency plan sets forth the procedure for coordinating the response of various agencies or services that could be of assistance in responding to the emergency. Such vital agencies include medical ambulance services, aircraft operators, the military, other security services, and the Police. The duties and responsibilities of each of the supporting agencies are spelt out in the plan.

This paper will therefore attempt to describe modern concepts of safety, facilities, and equipment in airports and their application to aircraft and passengers for safe, efficient, orderly, and economic flight operations and security in the aviation world requires the setting up of a Safety and Security Committee comprising all the relevant agencies in the airport, whose responsibility it is to plan and coordinate the response of participation of all members including airline operators, government agencies and concessionaires to eliminate all elements of obstructions and inhibitions to smooth air transportation. Every Airport Management, through Committees issue instructions and regulations dealing with the arrangements designed to meet the safety and security needs of the airport and periodically reviews these instructions/guidelines in line with changing situations. The major airports in this country are provided with all the necessary Safety and Security facilities and equipment to enhance operations and achieve a high standard of safety and security at our airports.

AVIATION SECURITY (AVSEC)

Aviation Security has become an important part of Civil Aviation Worldwide and relevant equipment required to enhance the job are:

1. Metal Detectors
2. X-ray Screening Machines
3. Closed Circuit Television (CCTV)
4. Walkie-talkie
5. Surveillance Vehicles

SURFACE MOVEMENT AREA

The equipment and facilities associated with surface movement area are used on the Runways, Taxiways, Links, and Aprons and are the following:

1. Runway and Taxiway Lighting

2. Apron Lighting
3. Runway and Taxiway Markings
4. Push Back/Two Vehicles
5. Sweepers
6. Tractors for Grass Cutting
7. Follow Me Vehicles

TERMINAL BUILDING/FACILITATIONS

It is equally important to highlight the strategic relevance of the Terminal Building/Facilitation in the overall maintenance of safety and security at the airports. From the design, stage provisions are made for adequate ventilation, enough exit Doors, and lift systems for easy evacuation of human and material resources during emergencies. Other relevant facilities provided to further strengthen safety and security arrangements are:

1. Perimeter Road/Fence
2. Adequate Water Supply System
3. Conveyor Belts
4. Cooling Systems
5. Weighing Scales
6. Fixed Fire Installations in the case of High rise buildings like MMA, MAK1A, etc.

The importance of continuous and reliable power supply particularly to the essential Units/areas could be assessed by imagining sudden power failure to the Airfield Lighting System when an aircraft is on a final approach, especially at night or in bad weather conditions. It is to avoid such potentially dangerous situations which are inimical to air navigational safety, that motivated the Authority's huge investment in Power supply through a direct connection to the national grid and provision of backup generators at our airports.

Similarly, the airfield pavements constitute a vital factor in the maintenance of air navigational safety because of the concentration of various safety measures on the pavements. Consequently, an adequate maintenance progamme is carefully designed and periodically carried out to effectively protect the pavement strength, geometric dimensions, surface friction, strip, and markings against erosion and premature disintegration. Grass cutting of runway and taxiway strips and clearing of shrubs and trees along the approach paths are also vital aspects of our programme designed to achieve an appreciable level of safety at the airports, as also is the Birds Control measure.

The effective maintenance of these airports' facilities and equipment involves purposeful and timely identification of fault indicators and the provision of adequate funds to execute programmed maintenance schedules, to guarantee uninterrupted services.

SPARES

In modern Management, maintenance vote funding for spares is defined as a ratio of the worth of goods, facilities, or equipment. Some parts of the equipment are to be replaced at specified regular intervals as stipulated by the engineering rules of the manufacturers.

MANPOWER

Having examined in detail the various structures designed to achieve a high level of safety and security standards at our airports, there is a compelling need to relate the role of qualified manpower in the overall actualization of the set standards. It is imperative therefore that the choice of manpower is highly selective Given the necessity for conformity to international standards and recommended practices. In a developing environment like ours where technological changes occur at a rate faster than available facilities can cope with, only highly skilled and proficient manpower can harness available resources to cope with the challenges of today's air transport demand for safety and security. That explains FAAN's huge investment in manpower development and training, especially under the current transformation programme- of the Authority.

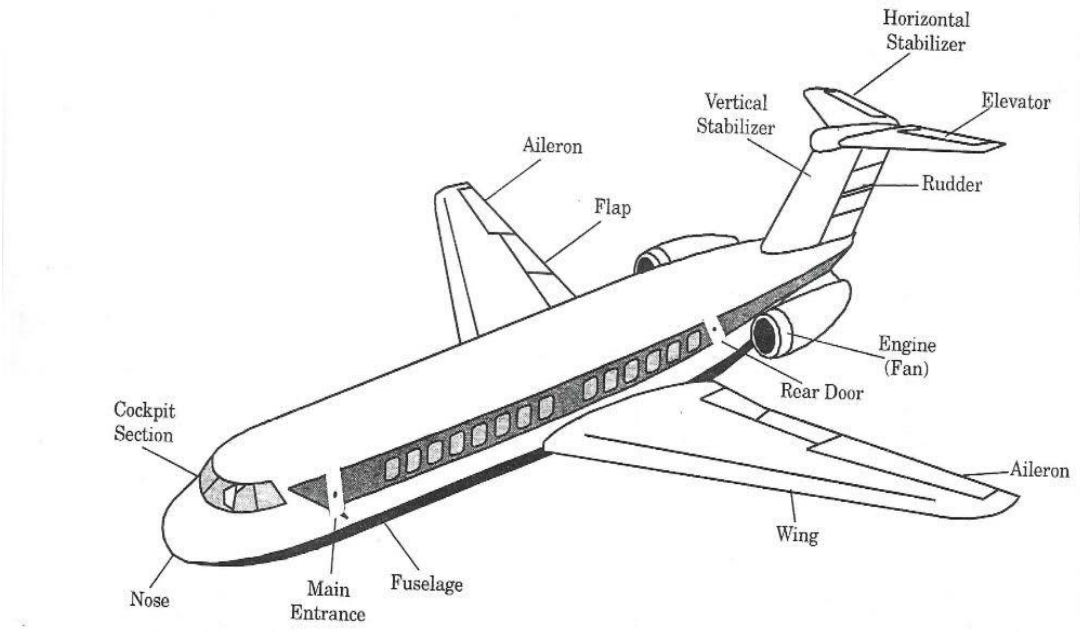
Finally, as part of our concerted effort to promote aviation safety in the country, FAAN has identified all abandoned facilities at every airport in the country and has already begun to reactivate as many of them as possible, to supplement existing facilities. We at FAAN are grateful to the Federal Government for introducing the Transformation Programme which would harness the Authority's resources in airport management, for the greater good of the aviation industry. The relative success of the new FAAN in the area of aviation safety since its inception about nine months ago bears testimony to this.

I am confident that for these airports and facilities, the best is yet to come, given the resolve of the entire staff and management of FAAN to realize our vision of being amongst the top 50 airport groups in the world by the year 2010.

(Airport Configuration: Free and Restricted Zone by Sule Ozenua, Managing Director, Federal Airports Authority of Nigeria, FAAN.)

AIRCRAFT AND ITS PARTS

AIRCRAFT AND ITS PARTS,



NOTE: THE AIRCRAFT RESTS ON ITS WHEELS/LANDING GEARS/UNDER CARRIAGE WHEN ON GROUND

C H A P TE R 4

AIRCRAFT PARTS AND FUNCTIONS

By Gbolahan Abatan

An aircraft is an object that moves people or goods from one point to another through the air. It can be used for two types of operations: -

1. Military operations and.
2. Commercial operations
3.

M1LITARY OPERATION: In a military operation, it is used to transport goods, and troops, for bombing and reconnaissance missions.

COMMERCIAL OPERATION: A commercial aircraft is used for freight, that is movement of cargo and for passengers' movement.

AIRCRAFT TYPES

There are two types of aircraft. These are jet-engine aircraft and turboprop-engine aircraft. The turboprop aircraft has propeller blades attached to the front or back wings. In an aircraft like the Piaggio, the propeller blades are at the back and its function is referred to as ‘pusher’.

MANUFACTURERS

Aircraft manufacturers include Mcnell Douglas, Cessna, Embraer, British Aerospace, Airbus Industry of France, Lockheed Aircraft, Boeing Airplane Company, Beech Aircraft, Twin-coach, etc.

AIRCRAFT IN NIGERIA

In Nigeria, we have the Boeing series which are the Boeing 727, B737, B747, DC-DC-10, BAC 1-11, Airbus series which include Airbus 310, 320, Cessna Citation, Shorts 360, Dornier 228, and many trainer aircraft. Dornier

PARTS OF AIRCRAFT

External Part

Fuselage: This is the cabin area of the aircraft to that all other parts of the aircraft are attached. It is the part that houses the passengers.

Baggage Compartment: This part is built into the fuselage. It is under it in most aircraft.

Nose: The front of the fuselage is referred to as the nose. It has the Radome (a portmanteau of radar and dome) which protects and carries all the avionic systems like the radar.

Entrance Door: This can be in the front or at the back of the aircraft depending on the size of the craft. In an aircraft with propeller blades, the door must be behind the blades. There are

emergency doors that can only be used during emergencies. They are located on both sides of the fuselage.

Wings: The two wings are attached to the sides of the fuselage. The wings can serve as storage for fuel and in some designs, such storage can be under the belly of the aircraft.

Flaps: The flaps which are attached to the wings are to extend the flow surface of the wings for take-off and landing.

Ailerons: The ailerons which are also attached to the wings are for controlling- the aircraft when maneuvering to turn; to bank either to the left or to the right.

Engine: In some designs, the engine is attached to the wings while it is attached to the front of the aircraft in some, and the tail in others. It is the powerhouse of aircraft. It enables the aircraft to move and fly. The engine can be that of the jet model or the turboprop model. There can be up to four engines in an aircraft depending on the size. For example, the Boeing 747 has four engines, B737 and BAC1-11 have two engines, B727 and DC- 10 have three engines and trainer aircraft like Cessna has one engine located at the nose.

Tail: At the tail of the aircraft are the vertical and horizontal stabilizers. The vertical stabilizer carries the rudder for the vertical movement of the aircraft while the horizontal stabilizer controls the upward and downward movement of the aircraft.

Landing Gear/Wheel: There are two types of landing gear attached to the aircraft. They are non-retractable landing gear and retractable landing gear.

Non-re tractable landing gears are on smaller aircraft like trainer aircraft. They do not go into the wheel well and they constitute a little bit of drag on the aircraft while in flight.

The retractable landing gear is in bigger aircraft. They retract into the wheel well and with the door closed up to give a smooth flight thereby reducing drag.

Internal Part

The internal part is divided into two sections. They are the Cockpit section and the cabin section.

Cockpit Section: This is the front of the aircraft allocated to the flight crew.
The crew comprises the pilot, co-pilot, and in some cases flight engineer and the pilot observer. Inside the cockpit are the flight instruments-Flight Data Recorder, Cockpit Voice Recorder (Black Box), Traffic Alert System, Collision Avoidance System, Altitude Alert system, and various kinds of avionics equipment.
The pilot monitors all the components in the aircraft from the cockpit to have pre-knowledge of any fault that occurs.

Cabin Section: The cabin section is occupied by the passengers. It is subdivided into two sections as well. These are the normal passengers' cabins and the executive passengers' cabins. Depending on the configuration, some aircraft are classified into the first class cabin, business class cabin, and economy class cabin. The cabin has a galley where the cabin crew prepares the food/snacks for the passengers. The convenience is also in the cabin for passenger comfort.

MAINTENANCE REQUIREMENT

Maintenance is the backbone of airline operations. The aircraft has to be maintained regularly to meet the recommended standard set by the International Civil Aviation Organisation (ICAO). There are three major types of maintenance required of an aircraft.
These are unconditioned monitoring, conditioned monitoring, and hard-time monitoring.

UNCONDITION MONITORING gives room for a particular part of the aircraft to operate until it finally breaks down. This part will not have any severe defect on the airworthiness of the aircraft in case of failure.

CONDITION MONITORING monitors the completion of the part and then replaces it when the lifespan of the aircraft part expires whether the part is still functioning or not.

HARD TIME MONITORING is a specific period where a part has to be changed or certain maintenance has to be carried out on the aircraft. Sometimes the circles and calendar months. Whichever applies first is adhered to. There is a work pack that must be followed. Also, there is a percentage of tolerance for maintenance, but it is not encouraged.

TYPES OF CHECKS
A-Check is done every 400hours or six months whichever comes first
B-Check is done after l,200 hours or one year whichever comes first
C-Check is a semi-major check
D-Check is more like a complete overall of the aircraft. In this case, all the parts are stripped, inspected, replaced, corrected, coupled back, checked, tested, and released for operation.

RELEVANCE TO REPORTING
Every aviation reporter and public relations officer must be properly educated on these parts and their functions so that when an incident or accident occurs the reporter / PRO will know what he/she is talking about. A wrong report will have a damaging effect on the industry.

(Aircraft Parts and Functions by Gbolahan Abatan, Chief of Maintenance, Associated Aviation Limited.)

CHAPTER 5
PREVENTION AND INVESTIGATION OF INCIDENTS/ACCIDENTS
By Remi Faminu

As it might have been repeated time and time at seminars and various workshop groups, please permit me to repeat that, the absolute aim of investigating civil aircraft accidents is just to determine the circumstances and causes of the mishap with the main objective of trying to prevent the recurrence of a such accident in the future. The purpose of investigating incidents and accidents, therefore, is not the aim of apportioning blame or laying a basis for litigation.

While it is humanly possible to investigate all incidents and accidents in aviation, it is found from experience worldwide, that it is not humanly possible to eradicate incidents and accidents from occurring in aircraft. If not so, the accident to the Air France Super Sonic Transport Concorde flight No. 4590 at Gonesse would not have occurred, because everything that was humanly necessary had been done for the past 31 years to maintain faultless service to the aircraft's airworthiness. No matter what preventive maintenance or engineering modifications are incorporated into aircraft, accidents will always occur irrespective of training and other programmes put in place to assist in our human endeavours to stop accidents from occurring.

Accidents will always occur because of man and machine interface commutation gap. The machine cannot communicate with man in the real sense of saying, "hey look here boss, my head is aching today, so be subtle on your acceleration command", or say, "my legs are hurting, or my pylon bolts are beginning to slack and therefore need to be retightened according to specifications". The majority of the accidents or incidents are human factor related which are often errors in judgment contributed to by fatigue, task overload, discomfort, misinformation, and other factors. Some 80 to 90 percent of accidents are human factor-related or contributory causes, while the balance of 10 to 20 percent are related failures, which could not be perceived because of the lack of main/machine interface understanding as I have previously explained above.

Apart from man/machine interface problem, another intrinsic factor in an accident, which affect man and his machine is the weather. The weather is fairly predictable around the equator and quite accommodating to our flying activities if properly respected and understood. Weather-related accidents have not been predominant within our airspace, but it had, to some extent, been contributory factors to our accidents.

Aviators can only minimize or abate the number of accident occurrences or at least, reduce the substantiality of destruction to property and life by putting into practice what pilots and ground personnel imbibe during training. For example, a pilot during his training spends a considerable amount of time learning about the vagaries of meteorology and the intricacies of his machine, but precious little time is devoted to studying the most vulnerable part of the system - himself. There are no s. self-appraisals for the pilots to properly evaluate their capabilities to fly at any given time.

Some years ago, many aviation companies in Europe and America made some moves towards subjecting their pilots to body biorhythms before flying. This method of ascertaining the state of sound mind in sound body before airborne has been shelved because it has its shortcomings too.

In the direction of preventive maintenance, the aircraft manufacturers have come out with producing manuals, alerts, and service bulletins, which have, however, forestalled some accident occurrences. But these do not and cannot completely wipe out accidents from occurring worldwide In addition to the preventive documents produced by the equipment manufacturers, the
The International Civil Aviation Organization (ICAO) has also produced many annexes and manuals, which if strictly adhered to, will drastically reduce the number of accidents.

Some of these annexes are:

Annex 2	Rules of the air
Annex 6	Operation of aircraft
Annex 8	Airworthiness of aircraft
Annex 11	Air Traffic Services
Annex 17	Security Safeguarding International Civil Aviation Against Acts of Unlawful Interference.
Annex 18	Safe Transportation of Dangerous Goods by Air
Annex 13	Aircraft Accident Investigation.

Please note that besides these annexes, there are many other documents such as:

Doc.9137-AN/898	Birds control at our airport
Doc.9157-AN/901	Aerodrome Design Manual
Doc.9136-Part 2	Pavement surface condition

Even after all the contents of the above annexes have been complied with,
ICAO recognizes the fact that accidents will still occur and, therefore, recommends that each member state put in place a National Aircraft Accident Investigation Agency. These agencies are mandated to take charge and inquire into the immediate and remote causes of any pertinent accident within their respective airspace and then make recommendations to prevent the recurrence of such mishaps in the nearest future. From the point of view of aircraft accidents investigation in Nigeria, let me share with this audience my personal opinion about our aviation safety consciousness. To me, it seems like we don’t learn any lesson from our accidents, and I have reasons for making such a claim. If I may cite from records the following occurrences within our airspace, this audience All agree or disagree with my assertion. In these instances, recommendations were made but they were neglected and the consequences had been catastrophic each time the accident was repeated time and time again:

Report No. CIA-120. Accident to the Nigeria Airways Airbus A-310 registered 5N-AUG at Port Harcourt Airport runway 21 on the 8th of September 1987.

The immediate cause of the accident: Runway side run-off (This could have been an accident)

Remote devastating factor: The open massive trench close to the active runway shoulder immediately trapped the left main landing gear and substantially damaged the airplane.

Recommendation: The trench at runway 21 should be filled immediately and the surface be brought to the load-bearing status that the runway design specifies.

Perhaps we need here to define the demarcation between an incident and an accident. An accident is an occurrence associated with the operation of an aircraft, which takes place between the time that a person boards the aircraft with the intention of flight, and when the person has disembarked. Or if any person is fatally or seriously injured as a result of being directly or indirectly in contact with the aircraft; or when the aircraft itself is substantially damaged; or if a third party's property is seriously damaged or destroyed as a result of an aircraft coming in contact or a part falling thereof.

On the other hand, an incident is, simply defined, an aircraft occurrence other than an accident. To continue citing instances of the accidents which had occurred within our national airspace, exactly one year and one month after the above accident, the mishap repeated itself to another Nigeria Airways registered aircraft:

Report No. CIA-140. Accident to the Nigerian Airways Boeing 737-200 registered.

5N-ANW at Port Harcourt International Airport Runway 21 on the 15th of October, 1988.
(This could also be an accident)

Immediate cause: Fast rate of descent led to high G-force impact with the Runway and the aircraft lost nose-wheel directional Control.

Remote devastating factor: Excavation of dangerous and outrageous trench alongside runway 03/21.

Recommendation: The treacherous trenches on the runway 03/21 be filled- up or turned into a covered culvert so that the shoulder is brought back to its original aircraft weight-bearing specification.

As if we have not learnt enough from our accidents, the third accident at Port Harcourt International Airport happened again:

Report No. CIA-148: Accident to the Okada Air BAC1-11 aircraft registered 5N-AOT at Port Harcourt International Airport on the 7th of September 1989 (This could have been an accident too)

Immediate cause: The aeroplane made a three-point touch down on the runway and lost directional control owing to nose-wheel tyres burst.

Remote destructive cause factor: The runway shoulder should be brought up to the original load-bearing standard as recommended by the ICAO document 9157-AN/901 part 1.

Now if one may ask; what is your proclamation? Do we or do we not learn from our incidents and accidents?

I have been mandated to talk also about what should be the prompt step when an incident/accident is reported. When an aircraft accident is known, a prompt step to take is for the members of the public to report the accident to the police force or any other branch of the Nigerian armed forces, whichever is nearer to the site of the occurrence. Then the men in uniform will take charge and condone off the area from the inquisitive spectators and then get the information about the accident to the airport as soon as practicable.

From our experience, men of the police force are usually the first to have the hint of an aircraft falling off the sky into a remote area away from the Air Controller's jurisdiction. The reason for the above statement of 'taking charge' is to help protect the ground marks and other physical features caused by the accident. The same is expected of the members of the press corps if such members are endowed with the knowledge and experience of what to do when an accident occurs.

Since landmarks are only clearly visible in the early stages of the accident, the pressmen and women could do a lot to help restrict the movement of public spectators from trampling on these marks. Spectators can also be prevented from carrying away as souvenirs any broken aircraft parts or components. As far as practicable enough, we expect broken parts of the accident aircraft, so that such pieces can be used for accurate wreckage distribution mapping. Removing these parts or components may obliterate some relevant and important evidence, so we prefer they rather be left in a position where they will make meaning and relevance to investigators when they arrive at the spot of the accident.

Also, AIB likes to liaise with friendly news-media agents in order to help the investigators in locating eye and ears witnesses, or in finding missing wreckage parts or components. Reporters may also assist investigators in disseminating information to the local residents, who might have seen something fall from the sky or who might have heard strange sounds when the aircraft was in distress. We always respect and prefer the presence of friendly pressmen to the presence of the ordinary members of

the public whose primary purpose of being present is to be spectators at the site. Ironically, when an accident happens, there is always friction generating heat between us. The reason is that members of the press do have an obligation to perform their legitimate work too, just as much as the investigators – the press reports to the public, while the investigators report to the honourable minister of aviation.

Occasionally, we do find pressmen over excited and objectionable in that they will want their accident reports to hit the news and carry the information which they are seeking from you to hit the front pages of their newspapers before your preliminary report gets to the honourable minister's table. We also learn from experience that they don't have much capacity for confidentiality, because they always spill the beans when you least expected and they do this because they owe much to their organization as much as we do to our own too. So, can't blame them much, Things often fall apart when a reporter wants you to divulge valuable information, which you consider warranting detailed analysis.
Otherwise, the information you give to them 'on condition' will be blown open as the front-page headline in the evening newspaper or television screen. To them, nothing like "off the record" comments. I tell you; some reporters can hardly hold such an allegiance if he or she knows that the information can make their news medium sell more than the other media reporters.

When should the preliminary report be out?
Well, I will say that the preliminary report on an accident should be ready as soon as possible and that means when the heat of the accident is still | on. I will say within two to three days, the preliminary report should be ready for the minister's perusal and, don't forget, this depends on the seriousness and the importance of the accident. The seriousness of the case might be such that the minister of aviation may want to urgently brief the president on the true situation of the accident. The preliminary reports must be released in good time so that facts of the accidents are made known to the public as this will either confirm or debunk any speculative impression which might have been flying around. The time element before the preliminary report is presented still depends on how many days the investigators remain on site. The inspector may want to make sure that the immediate necessary raw data and information from eyewitnesses and the surviving members' crew are extracted before rushing home to prepare the preliminary report.

Another good question being asked is, how soon should the final report take before being made public?
After the preliminary report, then we can expect the release of the final report, which may take several weeks or months, but this time interval cannot be categorically specified. The period of waiting for the report to out depends on, taking into consideration many factors, such as how long does it take to locate the black boxes? (Flight data recorder and cockpit voice recorder).

Sometimes, one may have to wait for important recuperating eyewitnesses to recover from injuries before such witnesses can be interviewed or allowed to give evidence.

Another delaying factor is if and when the black boxes are recovered, they have to be flown abroad for data read-out. For example, the procedure of the read-out currently dictates that the AIB physically conveys the boxes to the developed friendly ICAO member state to decipher the coding of the Digital Flight Data Recorder (DFDR) and the Cockpit Voice Recorder (CVR). In this aspect, I must confess that we have been receiving enormous technical support from international bodies such as National Transportation Safety Board (NTSB) in America, Royal Aircraft Accident Investigation Branch (AAIB), Farnborough, United Kingdom, Bureau Enquires Accidents in France, and the Transportation Safety Board of Canada (TSBC). Apart from the above list, Russian Federation and Germany and a few others allow us to use their readout set-ups.

AIB has to seek permission to gain access to these assisting facilities to use their laboratories. Some may ask us to wait for the next available time slot before they can attend to our case because their laboratories are busy with other accidents. In some cases, such as Bureau Veritas in Paris, France, the facility is located within a military base outside Paris and the security is tighter than the civilian ones.

Clearance can only be obtained after you arrive in the country because your passport will be needed to seek the necessary permission, which will enable you to enter the base. The NTSB and the AAIB will always slot us into their laboratories as soon as space is available and very soon too. We must remember that they are constantly having their accident too and also besides Nigeria, other third world countries do seek help from the NTSB while some other smaller countries in Europe do use the AAIB facility in Farnborough. All these clearances, when put together, take some time thereby extending our waiting time for the report to be ready.

When we are speaking about the black boxes, we need to remember too that these boxes do not reveal the cause of an accident in isolation. The obtained data only provides an additional source of evidence to the investigator who then has to correlate the new evidence with that which is already on the ground. All these processes take time, which cannot be calculated or
predicted, because all necessary data must be in place before writing the final report. I also like to add that, even after the report has been written and forwarded to the Honourable Minister of Aviation for approval and release to the public, the necessary approval may not come as quickly as we expect, because the Honourable Minister may have other more important state matters to attend to. When the Honourable Minister has approved the report, then the AIB is at liberty to forward the draft to the government printers for printing, but now, things are just a little bit faster than what they used to be in the past because we can now use any other publishing house or other printers to reproduce the document. When they are eventually ready, copies are normally available for purchase at the AIB office.

Let me take this opportunity to announce the latest report which is available for sale:

1. Report on the accident to the Bristow Helicopters Bell-212 aircraft registered 5N-AJL at Port Harcourt.

2. Report on the accident to the Pan African Airlines Cessna 208 Caravan registered 5N-PAN at Warri's old airstrip. Report on the accident to the CAFU Citation-501 registered 5N-AVM at MMA runway 19L.

(Prevention and Investigation of Incident/Accident by Remi Faminu, Assistant Director, Accident Prevention, and Investigation Bureau)

CHAPTER 6

METEOROLOGY: RELEVANCE TO FLIGHT OPERATION

By Egwu O. Egwu

INTRODUCTION

In popular terms, the weather is the condition of the environment that we experience on a day-to-day basis. Weather plays a significant role in the lifestyles of people and infrastructure around the world. It is the responsibility of the Meteorological services to ensure the safety of life, protection of infrastructure, and the well-being of people in flight. Consequently, the forecasts and warnings provided by meteorological services are often timely, reliable, and comprehensive.

The total air mass of about ninety-five percent (95%) is contained in the lowest 20km of the atmosphere. The domain of meteorology as well as aviation is within this thin layer of the atmosphere. Within this layer is where all our weather is produced and where air navigation is taking place. Knowledge of the properties and behaviour of this part of the atmosphere is essential in this study.

The rapid development of meteorology and aviation during the last century has proved to be mutually beneficial. Meteorology has continued to play an important role in the sustained effort to improve the safety and efficiency of air navigation. It is obvious to note that the contributions of technological advancement have made flying possible under almost all atmospheric conditions, aviation is still the weather-sensitive industry in the world. The prompt and reliable supply of the weather forecast and products are very vital for (the flight plan) decision-making process of flight operations.

Critical meteorological conditions have often affected the smooth operation of flights. The importance of weather, wind cloud cover, precipitation, and harmattan dust haze is governed by physical laws. Theoretical and practical accomplishments in meteorology have affirmed that the state of the atmosphere in the future time is predictable with reasonable accuracy given sufficient data for the initial situations. Aviation is meteorology's largest customer in many countries of the world including Nigeria. Meteorological information contributes to the safety and comfort of passengers, to the protection of aircraft and equipment, to choosing the safest, fastest, and most economical routes, and to the maintenance of regular schedules.

Aviation involves the movement of vehicles through the air. Accordingly, the characteristics of air, its structure, and processes affect these vehicles and must be understood, monitored, and forecast especially those phenomena hazardous to aircraft such as thunderstorms, downbursts, tornadoes, hurricanes, turbulence, wind shear, icing, haze or fog. Different weather phenomena prevail in different regions of the earth, and annual, seasonal, and daily variations have also to be taken into account.

Weather affects a variety of different airborne activities involving not only supersonic or wide-bodied jets or turboprop or piston-engine aircraft, but also helicopters, micro lights, gliders, hand-gliders, para-gliders, parachutists and also to a certain extent model and remotely controlled aircraft.

All these are weather-sensitive in different ways. To ensure safe operations in all-weather situations, National Meteorological services throughout the world are obliged by law to make

meteorological observations and to establish and maintain monitoring and warning systems in their countries. This weather service to aviation is known as aeronautical meteorology. WMO set standards and guidelines for meteorological services for aviation through its commission for Aeronautical Meteorology. ICAO, the International organisation responsible for Civil Aviation regulations, cooperates closely with WMO in these matters and common regulations are agreed to by both organisations.

AIRCRAFT OPERATIONS AND AERONAUTICAL METEOROLOGY

Jet and supersonic aircraft on long-distance flights, cruise at altitudes in the upper and lower stratosphere where to a large extent they are above the weather. The weather affects them mainly in the take-off and climb phases and the descent for approach and landing.
Shorter-distance flights usually operate in the lower and middle troposphere to 8 km (27,000 ft) and are thus more affected by the weather. Since its the sole responsibility of the pilot to decide whether he should fly or not, information must be available to him on the present and expected weather for the time and area of intended operation.

Therefore, meteorological services for the aeronautical community provide information on current weather as well as a forecaster. They do this through a system of observations, analyses, and forecast services. Global and/or region observational data are collected at meteorological centres like Ikeja, which analyse the data and prepare regional or local forecasts for various users, enhanced and made more detailed by their knowledge of local meteorological features such as dust haze or mountain valley circulation.

HOW AERONAUTICAL METEOROLOGY SERVES DIFFERENT KINGS OF AVIATION

Both the meteorologist and the users must perfectly understand the possibilities and limitations of forecasting for each particular type of flight. The meteorologist makes his forecast by examining the current meteorological situation and its expected future evolution, extrapolated by various means such as observing the upwind situation, calculating advective motions, or computing and developing physical parameters by numerical simulation and forecast models. The result is an area forecast, the quality of which is only as good as the impute information.

The pilot often expects forecast to have a much higher resolution in space am in time than is generally possible, and this can present a real problem to mutual understanding. Many weather events are strictly localised, and since the forecast probably covers a large area, a pilot might encounter a certain forecast phenomenon, or he might miss it entirely. This can engender a loss of confidence in the pilot in the accuracy of the forecast.

All air traffic is normally provided with a complete set of meteorological information as defined in the WMO Technical regulations. But the different categories of air traffic need different (and usually supplementary) meteorological advice.

Supersonic and high-flying jets are usually employed for intercontinental flights and, at their cruising levels between 8km (27,000ft) and 18km (60.000ft) they are relatively independent of the weather except for deep convection in tropical areas. But during long-distance flights of up to 14 hours, the general upper-airflow pattern plays a crucial role in flight planning and decisions on diversions. Hence, the forecast and alternate aerodromes are of critical importance.
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Shorter-range jet, turboprop, or piston-engine aircraft flying distances of between about 300 and 3000 km need meteorological support for a time interval of a few hours. Operating mostly under instrument flight rules (IFR) up to an altitude of some 8km (27,000 ft), this traffic is more affected by the weather in the lower and middle troposphere fronts, thunderstorms, and squalls, with all the accompaniment phenomena dangerous to aircraft such as turbulence icing, hail shear, lighting and so forth. It is essential to have a combination of good short-range forecasting together with nowcasting methods by observation of the weather in the upwind region and extrapolation of trajectories to the area of operation, through either ground observations air reports, or information from radar and satellites.

Single-engine aircraft, helicopters, and microlights mostly operate under visual flight rules (VFR) at altitudes up to 3km (10,000 ft) and over a shorter distance (up to 1000m). This type of aviation in recent years has shown a relatively high rate of weather-related accidents. 300 (0-3 km) together with normal meteorological forecasting and nowcasting methods, should help towards better flight planning for these small aircraft.

IMPACT OF SOME SPECIFIC WEATHER PARAMETERS ON FLYING AIRCRAFT

Various combinations of atmospheric parameters result in different types of weather conditions that affect aircraft operations. During the landing and take-off of aircraft, pilots require weather information on the present state of the weather at the airport environment, particularly along the runways. This information, known internationally as QAM, is issued to the Control Tower by the meteorological Services every thirty minutes.

It contains information on:

1. QAM = Time for trend landing forecasting1
2. QAN = Surface wind speed and direction
3. QBA = Horizontal Visibility
4. QBB = Clouds (base and amount)
5. QNY = Actual weather, e.g. harmattan haze, fog, thunderstorm, or rain
6. QNH = Atmospheric pressure
7. QMU = Air temperature
8. RVR = Runway Visual range (Critical Horizontal Visibility Value)

Given this information, it becomes the pilot's responsibility to decide whether the existing state of the reported parameters meets the aircraft minimum for take-off, landing, or otherwise. In the case where horizontal visibility is poor e.g., 800m or less, such as in fog, thick harmattan dust haze, or severe squally thunderstorm, the flight may have to be cancelled, postponed, or diverted to an alternate airport in the interest of safety.

The issue of poor visibility (horizontal and vertical) as an enemy to safe flight brings us to the main subject matter of this Meteorology “Relevance to Flight Operations”.

EFFECT OF DUST HAZE ON FLIGHT OPERATION

The seasonal occurrence of harmattan dust haze atmospheric pollutants affects West Africa during the winter months of November to March. Unlike the other pollutant fog, however, dust haze can affect a much larger area of the region as a continuous enveloping “blanket” at the same time. Both pollutants very often reduce visibility to less than 1000m. Most times, these

low values fall below the critical landing and take-off values, thus restricting aircraft movement in local and international airports.

Harmattan dust haze is most well-known and notorious for its frequent disruption of the Aviation Industry. For example, in his study Omotosho showed the effect of harmattan dust haze, in the first week of January 1987 Nigeria Airways alone had five outright delays. The corresponding figures for the same week in February 1987 are one and fourteen. In the same vein, in 1997, 1999, and late January - February 2000, etc the effects of harmattan dust haze on the aviation industry resulting from reduced visibility values when taken into consideration, the financial and human loss will be staggering. This is apart from the enormous loss to the business community in terms of lost business opportunities.

Following pertinent sections of ICAO regulations, no aircraft is expected to land or take off when visibility is below a certain limit, depending on the type of aircraft and the instrument landing system (ILS) available at the airport. During severe harmattan dust haze visibility can de deduced as low as 200, while the lowest visibility limit for most is 800m, below which take-off or landing is prohibited.

From the foregoing, it is clear that thick dust haze constitutes a menace to aircraft operations, especially concerning safety. In recognition of this implication to safety, the Department of Meteorological Services has determined Visibility Targets at all airports to enable weather observers to make accurate visibility observations. Further to making this visibility more accurate, the department recently put in place Runway Visual Range equipment popularly known as RVR at Abuja International Airport, and that for Lagos International Airport is near completion.

GUIDELINES FOR PILOTS IN ASSESSING THE EFFECT OF THICK HARMATTAN DUST ON FLYING OPERATION

It is common knowledge that the International Civil Aviation Organ' has set international standards on weather minima for various t of aircraft taking into consideration the landing aids available at airports. We believe that if these standards are adhered to, safety in aviation operations during dust haze will be realized. It is sad to note that here in Nigeria, there is a practice of “Go, look syndrome” by some of our pilots under known weather minima not advisable for landing or take-off. This practice brings nothing other than disaster resulting either wastage of fuel, operation time, and in worst cases, loss of lives and property during a forced landing.

EN-ROUTE WEATHER PRODUCTS

Air travel is becoming more and more common due to globalization and the development of the tourism industry, hence the need for flight operations to have confidence in the en-route weather forecast issued by the Department of Meteorological Services. The en-route weather forecast provided to aviation operations contains vital information such as more timely and accurate forecasts and warnings of hazardous weather including wind flow, charts at the upper level, jet streams, front, thunderstorm, wing sheer, microburst, turbulence, icing, volcanic ash as well as terminal aerodromes (TAF) forecast. The availability of high-quality meteorological information provided by en-route weather forecasts will remain an essential factor in maintaining the efficiency and safety of flight operations. Negligence regarding existing or

expected weather conditions will always lead to waste time and unnecessary deviations, damage to aircraft and even loss of life.

Given the huge capital investments and high operating costs of modern aviation, airlines should make every effort to avoid any risk to the smooth execution of flight schedules.

Governments make valuable contributions to the infrastructures of aviation establishing meteorological observations and offices at aerodromes and this has a positive effect on the development of the national economy. Meteorological services for air navigation have been proven to be very cost-effective. The repair cost of one case of a squally gust to parked aircraft of an airliner easily exceeds the annual salary of 10 qualified meteorologists. The unfortunate destruction of trainer aircraft at NCAT, Zaria in the recent past is an example of such a cost-benefit analysis.

A close relationship with other branches of meteorology is essential for the optimal benefit of aeronautical meteorology from the advances in atmospheric sciences technology. Advances in aviation technology may seem to make flying less weather-sensitive but new aircraft designs are faced with new weather problems. However, meteorological information will continue to remain essential for air transport operations irrespective of advancements in science and technology.

WAFS

The long-term objective of the aeronautical meteorology i§ to ensure the worldwide provision of cost-effective and responsive meteorological service through cooperation with the International Civil Aviation Organisation, (ICAO) and the International Air Transport Association (IATA).

The introduction of wide-bodied aircraft and the centralization and automation of flight operations contributed to the need for addressing these technological and economic changes. The meteorological needs of aviation, in particular, could no longer be satisfied by the traditional provision of en route forecasts from the departure point for Area individual flights. To address the new challenge the development of an area Forecast System (AFS) was introduced. Advance-
in telecommunication, computer technology, and science, and in particular, improvement in numerical weather prediction models lent the required support for the establishment of the World Area Forecast System (WAFS).

In 1984 the WAFS started being implemented to provide high-quality, timely, and high resolution enroute meteorological forecasts in standardized formats. The global coverage of WAFS satellite broadcasts become fully operations in 1996 and a large number of WAFS satellite terminals were installed in over 120 countries including Nigeria to access the WAFS data by the end of 1999.

TAKE-OFF

One of the most basic aviation requirements in the field of meteorology is the availability of reliable and representative observation at aerodromes. Essential data for take-off and landing are wind direction and visibility, weather and cloud height, temperature, and pressure. Wind observation is used for the selection of runways (landing is not generally flowed when a

crosswind exceeds 45km/h and for determination of the maximum allowable take-off and landing weights).

Temperature is important because of the engine performance and required take-off speed. High temperatures mean lower air density. The thinner air has reduced carrying power resulting in the need for higher take-off speeds and consequently more runways if runway length is insufficient take-off weight has to be reduced. This is particularly important in the case of aerodromes in a hot climate such as ours. A change in temperature of 30c to 31c corresponds to 2000kg. Reduction in maximum take-off weight for a B-747. Relative to the total weight of the aircraft 2000kg may not appear important, but it represents the weight of four passengers and the fuel to carry them over 9000km (across the Atlantic). Maximum take-off weight also depends on the wind during take-off. An air temperature of 15C and a headwind of 18km/h (l8knot) permit a 5200kg higher take-off eight than that possible under calm conditions. If, for technical reasons, an aircraft has to take off in the direction of the wind, the penalty for a un/h (5knots) tailwind is 9000kg.

LANDING

The maximum landing weight is determined on the basis that the aircraft must be brought to rest within 60 percent of the available length of a dry, clean runway. Maximum landing weight depends on the elevation of the aerodrome, the wing along the runways, the air temperature, and the state of the runways.

The development of electronic landing systems has drastically improved the capability to continue operations even when runways are contaminated by standing water. Automated landings are nowadays routinely carried out with a runway visual range of as little as 125 meters.

Not all aircraft and not all aerodromes are equipped with landing systems of the required precision. There are exceptions when automated landings are not permitted such as in fog conditions especially when crosswinds are stronger than a gentle breeze (18km/h).

The impact of weather phenomena is particularly important during approach and landing. The rapid transmission to the landing aircraft of current values of wind direction, wind speed, and gustiness as well as the visual range along runways and taxi tracks is indispensable.

SERVICE CHARGES/COST RECOVERY

Meteorological services provide very many responsibilities in the national economy but one of its primary tasks is still the services of the aviation industry. Many developing countries still have aviation as their major user of meteorological information and products.

Early in the history of aviation, it was agreed that in the interest of safety, regularity, and efficiency, each country would provide agreed-upon services for international civil aviation such as air traffic services, search and rescue aeronautical telecommunication, and meteorological services. These services are to be paid for by international aviation usually through the collection of fees for landing at an airport in a country (landing fees) and fees charged for overflying a country’s territory (en-route charges).

The ICAO's Chicago convention which provided for charges for facilities provided for international air navigation (including charges for meteorological services) is legally binding, without exemption on the Government, who has signed the convention. That department of meteorological services
is yet to benefit directly from these cost recovery charges partially due to its present status. It is hoped that as soon as this status is changed to a revenue-generating status it will get its fair share of the landing and en-route charges.

CONCLUSION

One major challenge to the meteorology community is to be able to provide aviation operators with more timely and accurate forecasts and warnings of hazardous weather including thunderstorms, wind shear, microburst at the end in the vicinity of aerodromes, as well as information on icing turbulence and volcanic ash at vari6us phases of flights.

Air travel is becoming more common due to globalization and the development of the tourism industry. Improvements in the forecasting and warning of en-route meteorological hazards such as turbulence, icing, volcanic ash, and tropical cyclones are of high priority to the meteorological community.
Aeronautical meteorology will continue in the future to enhance the understanding and awareness of the impact of aviation on the environment.

The installation of Doppler radar at aerodromes will make possible the early location of the systems capable of generating down draughts and wind shear. The new generation of meteorological satellites is a powerful tool for detecting and monitoring hazardous weather.

The astronomical costs of the initial expense and operation of a fleet of modern airlines combined with a competitive market in air transport should ensure that commercial aviation makes optimum use of meteorological information before and during flight. The scientific and technical developments in meteorology indicate that present and future aviation requirements will be met with greater confidence. Aviation will continue to require support from meteorology in its operations.

(Meteorology: Relevance to Flight Operation by Egwu O. Egwu, Assistant Director, Department of Meteorological Service)

CHAPTER 7

ISSUES OF AVIATION DEVELOPMENT

By Dr. Ona Ekhomu

INTRODUCTION

On the 7th of November 1997 family members and friends of some of the 143 victims of ADC flight 086 made public their grief on the pages of newspapers. This marked the first anniversary of the crash of ADC 086 in the murky water of Ejirin, Itoikin, Lagos State. ADC Boeing 727 passenger aircraft was on a scheduled flight from Port Harcourt to Lagos when it crashed a few minutes from its Ikeja destination. Not one single body has been recovered from that fatal crash.

Aside from the frequent disasters in Nigeria's air space, the dismal shape of the Aviation Industry is a constant reminder of the need to fix up this critical sub-section before it collapses. This paper reviews the state of the industry to determine the future of aviation in Nigeria. The role of aviation reporters in stemming the decline of the industry and then ensuring its linear progress will be postulated. We contend that aviation reportage is quite mature even though it is a relatively new area of news reporting. The insights are deep, and the language is arcane. The reporters do a good job of enlightening the flying public about the state of Nigerian aviation. However, aviation reporting is yet to reach the level of mature reflection where it can avail policymakers of a menu of policy alternatives to fix up the ailing industry. We advocate that aviation reporters form a partnership with the public to get the industry to reform itself, in the face of the government's inability to make positive policy changes.

POLICY PROBLEM

This paper contends that the aviation industry is in crisis. Indications of this crisis include jet fuel shortages, decaying aviation infrastructures, dwindling airline fleet, frequent air mishaps, severance of direct air link between the USA and Nigeria by the US government, ban against Nigerian aircraft by the British DOT, and the reciprocal ban of BA by the Nigerian government, lack of navigational aids, official cover-up of the causes of plane crashes, mismanagement of the national carrier, lack of aviation policy.

Consistency, inadequate passenger handling at airports, lack of training facilities for operations personnel, extortion of money from the travelling public by uniformed personnel at the airport, and other ills too numerous to mention. If the industry continues in its present trajectory of decline, it will eventually die.

Aviation is the cornerstone of modern economic and social contact. Just as the internet has turned the world into a global communications village, aviation technology has shrunk the world in spatial terms. A business executive can depart Lagos on ADC or Bellview at 7.00 am and arrive in Abuja at 7.50 am in time to make an 8.30 am business appointment in the Central Business District and can catch a return flight at noon out of Abuja and meet up for a Victoria Island appointment at 2 pm. And at 10.35 pm depart to Amsterdam for a meeting. No other transport mode is that efficient. A road trip to Abuja from Lagos lasts 8-10 hours, while the Federal Capital city is not linked by inland waterways or railways.

The policy issue is the evident rapid decline of the aviation industry in Nigeria and an urgent need to fix it. Aviation is experiencing a boom elsewhere in the world while it is dying in Nigeria – a country with a large population and ready market. This policy issue leads up to our policy problem of solving Nigeria's aviation riddle which will be captured in three related policy questions.

POLICY QUESTION NO. 1
Can aviation reporters, through a series of strategies, tactics, and programmes save the aviation industry from certain death?

POLICY QUESTION NO 2
Can aviation reporters contribute meaningfully to national economic development through their activities in the aviation sub-sector?

POLICY QUESTION NO 3
Can the public become more involved in issues of aviation development in Nigeria?

NEED FOR AIR TRAVEL
Air travel is a safe, fast, and efficient means of transport. It is far superior to any other means of passenger travel as long as the distance travelled is more than 100km. As economic activities have grown around the country and the globe, air travel has become a necessity.
The demand for air travel (Da) is influenced by its price (Pa), the price of other goods (P 1, P2.....P), and the level of travel income (Y).

Da = f (Pa, PI, P2.....P Y)

Since transport costs go beyond money costs and include passenger time costs, waiting for cost, and insecurity, aviation has been largely favoured by the upper income travelling public because of a lower factor cost. The emphasis is on Upper Income since a subsistence farmer could not care less about the time cost of travel. If there is a donkey available, he will ride it. In other words, it is not the total income that influences travel demand by individuals but rather income above some threshold subsistence level.

According to the logic of the economics of transport, people wish, in general, to travel so that some benefit can be obtained at the final destination - the trip itself is to be as short as possible.

This value-maximizing behaviour of the air traveler contributes to the growth of the aviation sub-sector. Individuals travel because they want to benefit from social, educational, recreational, employment, and other opportunities which become accessible with movement.

Seven main reasons have been advanced for the modern man's desire for travel.

- The heterogeneity of the earth's surface means that no one part is capable of providing all the products people wish for.
- The continuation of modern society and the high level of material well-being rely upon a high degree of productive specializations.
- High-quality transport permits the exploitation of major economies of scale
- Transport also serves a political and military role
- Without transport, social relationships and contacts are normally very restricted. Transport permits social intercourse, and with it may come a better understanding of the problem and attitudes of geographically distant groups.

- Modern transport has widened cultural opportunities permitting people to examine the artistic treasures of other countries and explore their national heritage.
- Transport is desired to permit people to live and work apart-specifically, it permits the geographical separation of employment from leisure.

While air transport cannot cater for door-to-door travel or heavy freight movement, it is the fastest method of transport available to cover vast distances. It is so important that no modern economy can thrive without a strong aviation sub-sector. Figure 1 shows the Budgetary Allocation for transport from 1987-1990. Air transport is disfavoured with 8.1% of the total budgetary allocation compared to 82.3% for land transport or 9.6% for water transport. Despite the high need for air transport, sectorial funding has been low and this has resulted in the crisis being described in this paper,

Figure 1

BUDGETARY ALLOCATION TO THE TRANSPORT SECTOR 1987-1990

SUB-SECTOR	**1987**	**1988**	**1989**	**1990**	**TOTAL** (N'000)
Land Transport	275,791	420,120	325,462	354,373	1,375,746
Water Transport	160,563	1,063	7,000	44,361	160,519
Air Transport	21,110	64,436	16,750	32,050	134,347
TOTAL	312,953	547,662	379,212	430,784	1,670,612

Graph
Source: Federal Ministry of Transport. Digest of Transport Statistics 3rd Edition, Lagos Nigeria DPRS. 1991. P6

STRUCTURE OF THE AIR TRANSPORT INDUSTRY
Civil aviation activities in Nigeria can be divided into three functional segments: -

- International air transport
- Domestic air transport
- Specialised services

INTERNATIONAL AIR TRANSPORT
The role of this functional segment is to provide the essential links between Nigeria and foreign countries and to connect Nigeria with the international network of airline services. The goal is to provide both direct of indirect access to all points of the world. In pursuit of the international air transport function, the Federal Government has established a network of international airports equipped with navigational aids. Nigeria participates in the international airline market through the national flag earner – Nigeria Airways. ADC Airlines and Bellview Airlines also operate international charter services.

NIGERIA AIRWAYS
Civil Aviation in Nigeria began in 1936 with Imperial Airways which was later renamed the British Overseas Airways Corporation (BOAC). The BOAC then operated a weekly flight that was suspended during World War II. In 1946, the West Africa Airways Corporation (WAAC) was established. Nigeria Airways was incorporated on 23rd August 1958 with the disbandment of WAAC. Nigeria Airways had a fleet of Doves, Herons, DC3, and Piper Aztec aircraft when it was founded.

In 1962, Nigeria Airways modernized its fleet by procuring 5nos. pressurized turboprop Fokker Friendship (F27) planes. The airlines subsequently acquired Fokker 28 (72 Seater, twin-engine) plane and then the inter-continental Boeing 707 and medium-range Boeing 727. The airline improved to DC 10 aircraft to ferry 275 passengers daily to London. As demand continued to mount, the airline embarked upon a wet lease agreement to expand its fleet.

A former Managing Director of Nigeria Airways wrote:
"Public and official criticism of Nigeria Airways' performance are legion and persistent. The national carrier is criticized for flight delays and cancellations, poor services on board, and baggage retrieval services, to name a few".

The airline's managing director blamed its poor performance on the frequent turnover of Chief Executives of the national carrier (each CEO averaged 24 months in office); fleet shortage; and lack of aircraft maintenance hangar. Nigeria Airways planes are maintained in foreign hangars with charges paid in foreign exchange.

DOMESTIC AIR TRANSPORT
This segment facilitates the maintenance of commercial relations among different parts of the country, increases the effectiveness of national administration, and enhances the ability to deal with emergencies.

Domestic routes comprise main routes with adequate traffic densities to justify reasonable jet services, and regional or local services, providing access to smaller centres generating smaller traffic volumes.

SPECIALISED AIR TRANSPORT
This includes helicopter services, aerial surveys, and executive charter services. This service is patronized by major corporations, government agencies, and high-network individuals.

INFRASTRUCTURE
Air Transport infrastructure includes the following:

- Airports
- Air Traffic Control System
- Training/Maintenance Facilities

AIRPORT
Nigeria has a network of airports divided into International Airports and Local Airports. Airports exist in almost all major Nigerian cities including Lagos, Abuja, Kaduna, Jos, Sokoto, Kano, Port Harcourt, Calabar, Enugu, Benin, Ibadan, Ilorin, Maiduguri, Yola, and Owerri. Most of the airports were built during the 3rd and 4th Development plan periods. Most (of the airports have extended runways, taxiways, and aprons and are capable of handling large jets. Owerri airport was built by communal effort. The defunct Nigerian Airports Authority (NAA) created in 1976 by Decree No. 45 midwife the most rapid airport development project in the country. In the 3rd national Development plan period, 1975-1980, N800 million was expended on airport development. NAA was designed as a specialised organisation charged with the management of government investment in airports. In 1995, a new agency named FAAN was created by the merger of NAA and FCAA.

PROBLEMS AT AIRPORTS

Problems in Nigerian airports centre around inadequate passenger handling and security. The facilities are decaying faster than they can be fixed. The central air-conditioning system at MMA manufactured in 1975 is non-functional. The life span of 10 years ran out in 1985 and it is reported that spare parts are not available to effect repairs. The FAAN engineers have on occasion reactivated the A/C system, but its performance is epileptic. The six-storey air-tight terminal building is frequently hot and stuffy.

The terminal has 10,492 light fittings each carrying between two and six fluorescent tubes. Due to high upkeep costs, some burnt-out tubes are left unreplaced. A lot of the elevators at the MMA are not functional, while a bad sewage system makes the toilets unusable.

To reduce the incidence of thefts of passenger baggage, the original conveyor belt was reduced to a shorter one by FAAN engineers. However, the average waiting time for luggage is two hours on an international flight.

Lack of X-ray machines results in physical luggage identification and avoidable delays. Additionally, the menace of uniformed personnel at the airport is unbearable. They extort monies from passengers or delay them until they miss their flights. Uniformed personnel include Customs, Immigration, Airforce Police, FAAN, NDLEA, etc.

AIR TRAFFIC CONTROL SYSTEM

The air traffic control system comprises navigational aids and communications facilities. The airside infrastructure includes flight control, navigational aids communications, radar, etc.

Nigerian airports are equipped with adequate airside infrastructure. However, they are often in disrepair. The equipment includes:

- Instrument Landing System (ILS)
- Very high Omnidirectional Radio range (VOR)
- Non-Directional Radio Beacon (NDB)
- Distance Measuring Equipment (DME)
- Localiser
- Radio Detection and Ranging (RADAR)

In a 1992 NOTAM (Notice to Airmen) published by the then FCAA (Federal Civil Aviation Authority) MMIA which was equipped with an approached radar, ILS, DME, VOR, and Localiser, operated without the DME and VOR. The radar which had been recently reactivated was operating on a test basis. The ILS on the international runway 19R was unserviceable. In Kano, the radar, ILS, taxiway lights, and DME were unserviceable. In Calabar: approach light is bad, ILS is bad, NDB is unserviceable, and the Visual approach slope indication is unserviceable. In Port Harcourt: Navigational facilities not flight checked. The airside also suffers enormous communication deficiencies. The Lagos approach frequency 124.3MHz is becoming congested and has already been attacked by IATA.

There is no effective communication within Nigeria's national airspace. Control towers are unable to pass flight estimates from one airport to another. Some airports lack basic telephones. The aeronautic fixed nautical telecommunication network (AFIN) which links all airport aeronautical information services operates at 30% efficiency. This contrasts with the 97% efficiency stipulated by ICAO. The traffic services, ATS, and direct speech circuit are

unserviceable. As a consequence, data cannot be sent from one station to another on aircraft movement.

Recently, Captain Jerry Agbeyegbe, President of the National Association of Airline Pilots and Engineers (NAAPE) warned that air accidents have been due to unreliable navigational aids. He listed navigation problems:

- Inadequate communication
- Inadequate weather forecasting and reports
- Congested airspace especially at the airport terminal area
- Unserviceability of navigational and instrument approach aids.
- Inability to guarantee the reliability of these navigational aids that are serviceable due to their non-calibration.
- Irregular power supply and non-availability of standby power supply.

Declaring open the seventh African-Indian Ocean Regional Air Navigation (AF 17/RAN) meeting in Abuja in May 1997 Nigeria's Head of State, General Sanni Abacha said Nigeria was fully aware of its obligations and responsibilities under the Chicago Convention and had put in place extensive aeronautical infrastructure to facilitate air navigation in Nigeria.

However, the President of NAAPE tends to disagree as he argues that "it is incontestable that majority of the accidents that have occurred have had unreliable navigational aids or their non-availability as a contributory factor".

He argues that other than the unreliability of navigational aids, ineffective safety oversight system is also causal of air crashes. He remarked that since the dismantling of the FCAA, the system has been undergoing one form of restructuring or the other as if to suggest that we are experimenting. The Flight Operation Department (FOD) of the Directorate of Safety Regulations and Monitoring (DSRAM) recently flew in one of its calibrating aircraft from Zurich where it had been undergoing the mandatory Check since 1996. Air safety in Nigeria will be improved with the commencement of flight checking of the nation's navigational aids. The aircraft, a Hawker Siddeley 125 with a console, is one of the three flight-checking planes owned by the department but has been grounded owing to a lack of maintenance checks. The other aircraft are a Super King Air and a Cessna. All the navigational aids in the country are currently out of the calibrating window.

The International Airline Pilots Association (IFALPA) recently classified the three major airports of Kano, Lagos, and Port Harcourt as "critically deficient".
The navigational aids ready for calibration include the Instrument Landing System (ILS) which takes a pilot to the decision height of 200 feet above sea level, the VOR (Very High-Frequency Omni Directional Radio Range) which provides navigational and approach guidance, and the Distance Measuring Equipment (DME) which provides the pilot with the distance between the aircraft and the runway.

TRAINING/MAINTENANCE FACILITIES

The third element of air transport infrastructure is training/maintenance. The pilots and engineers who operate the system must themselves be trained and retrained. The judgment that relevant personnel like pilots and traffic controllers make is responsible for most accidents. According to ICAO, 90% of all air crashes are caused by human error. About 65% of these are directly linked to flight crew errors.

The defunct FCAA in 1992 said that none of the private airlines operating in the country today is involved in any form of initial training. With the relative of seasoned pilots, airlines resort to using any available pilot. (Newswatch October 19, 1992, P.43).

By ICAO rules, a pilot is qualified for an air transport passenger license (TPL) after logging 1500 flying hours. The pilot can then take command of an aircraft. To receive the hours, he was required to fly as a first officer and a co-pilot under experienced pilots for 3 to 4 years. However, with the airline boom in Nigeria in the 1980s, some airlines promote individuals beyond their competence or "snatch" pilots with 'mouthwatering" offers from their competitors.
The Nigerian College of Aviation Technology NCAT which is responsible for pilot training has been crippled by poor funding and mismanagement. No new pilots are being trained domestically.

Passengers commonly judge the maintenance state of an aircraft by its externalities - condition of seats, cleanliness of the interior, and the state of the air-conditioning system. These have little bearing on the airworthiness of the aircraft. Some airlines cut corners with their maintenance. They bend rules to save costs. The aviation authority is aware that airlines cut corners in the area of maintenance. However, in the industry, it is the airline and not the regulator that has primary responsibility for adequate maintenance. The lack of a hanger makes it impossible to provide D or C-checks for aircraft locally. This has to be done overseas. The non-availability of spare parts also makes maintenance a big problem. Added to the lack of facilities is the lack of professionalism of Nigerian engineers who will sign off a plane that is not airworthy because they want to keep their jobs.

PLANE CRASHES
While air transport is safe and efficient, air mishaps often prove to be deadly, the Ejirin waters entombed 143 passengers in an accident that is speculated to have occurred because an air traffic controller put an outbound plane on a collision course with the inbound ADC 086.
In 1991, there were seven air accidents between March and September:

- Bristow Helicopter 212 in Eket, Akwa Ibom State (March 1991).
- Concord Airlines Fairchild F-227 at Lagos Airport in April.
- Nigeria Airways Boeing 737 in Lagos on August 8. 1991
- Aerocontractors DHC-6 crash in Warri.
- AIEP air at UAC farm in August

While air crashes have become fairly common in Nigeria, a few stand out and force us to consider safety as a cardinal issue in air transport development.

NAF-911
The C-130 crash of September 1992 resounded across the nation. The NAF 911 flight on its way to Kaduna to drop off visiting Command and Staff Students went down in Ejigbo swamp soon after take-off. The delay and rescue and lack of savage equipment resulted in the deaths of all the occupants of the plane, estimated at between 168 and 220.

ADC 086
The date was 7th November 1996. The flight was nearing its destination when suddenly it disappeared from the radar. It had crashed and taken 143 souls with it. The most tragic thing about this crash was the inability to find the bodies of the victims.

IBRAHIM ABACHA CRASH
The Head of State's son was on a private flight to Kano aboard a Presidential jet when the plane crashed at Dasauyi Village in Kano state killing all 13 occupants on board.

SAUDI ARABIA HOLDTRADE CRASH
In this air disaster, Nigerian pilgrims returning from the holy land died in the hundreds when their charter plane crashed. There was no survivor.

SEARCH AND RESCUE
Search and Rescue (SAR) is the backbone of loss mitigation after a crash has occurred. SAR coordinates the activities of different interested groups that want help. SAR aims at preventing airplanes from getting lost, finding lost airplanes and their occupants, and rescuing passengers, airplanes, and crew and persons trapped in flooded areas, tall buildings, or burning bushes. The Civil Aviation Flying Unit (CAFU) and the Fire Service personnel must be trained in crash drills at regular intervals to remind them of their | function during search and rescue situations. The federal government has recently established a Search and Rescue Department. Under the new scheme, there is an aeronautical unit which |will respond to all aviation emergencies.

EVALUATION OF AVIATION REPORTING
Aviation reporters have the duty of educating the public about aviation issues. Often, unless there is a spectacular air crash aviation issues normally take a back seat to crime stories, stock market stories, and energy stories. When their numbers are called following air disasters they usually perform creditably well.

We now answer our policy questions:
Can aviation reporters save the aviation industry from collapse?
More aggressive investigative reporting needs to be undertaken to compel the government to act. Aviation reporters must establish meaningful and developmental agendas and execute them. Lectures and symposia would be very useful in getting the word out.

Can aviation reporters contribute to economic development?
Once aviation can be placed in the national discourse, the political executives will act to avoid embarrassment. Positive action to develop aviation also contributes to economic growth.

Can the public become more involved in aviation issues?
However, Aviation reporters must provide leadership. It must use the public as a pressure group to stimulate industry reform or government funding and regulation.

CONCLUSION
This paper has viewed the aviation industry as an engine of growth and economic development if properly harnessed. However, aviation reporters must lead in shaping public opinion and stimulating public action. It must be assumed that government officials are unwilling to act unless needled into action. Aviation reporters and the public can form cooperation for success.

(Issues of Aviation Development by Dr. Ona Ekhomu, President of Transworld Security Systems)

CHAPTER 8

PERSPECTIVE AND STYLE

By Clifford Osagiator-Obude

INTRODUCTION

Since the Italian Leonardo Da Vinci designed through his study of flying birds the first concept of an airplane, the world has moved fast. Man by his nature is mobile except constrained by an external force, such as illness, imprisonment, and death. Man travels for various reasons, broadly for living existence and leisure. Living existence travels include work, business solicitations, promotions, and contacts development. Amongst leisure trips are sports, holidays, tourism, ceremonies such as marriage, burial, social outreach, and religious obligations. The advent of the airplane no doubt has assisted man's fulfillment of the biblical God's instruction: "go ye into the world and dominate it." The airplane has assisted mankind in dominating its environment.

The Airplane Journey

There is an advert sloganeering: Dinner in Lagos today, Breakfast in London tomorrow. Knowing fully well that the least distance between these two locations is in the excess of 5,000 Km, it is clear how this feat is achieved excluding such phenomena as astral travel, witchcraft, and angelic-spirit agility, which are not the object of this paper must cumulatively be highly sophisticated in technology, assets and facilities management, services reporting and sales promotion.

The myth and speed of technology explain why close relations of people who though have travelled by airplane previously, always take the last farewell kisses from their loved ones, before allowing them to embark on any airplane journey. It is like Oh my God! If wishes could always come true, air accident victims would prefer to climb higher unto God's bosom in the skies for immediate rest. Alas, they always come down. This is the "disaster".

The Airplane Business:

The plane business is elitist; not everyone can manage it. It is not for the lighthearted businessman. The business is highly regulated because we do not wish to have flying "iron" objects crashing into our living rooms again and again Similarly, the jet journey is also elitist; not everyone can afford it. It is not for the poor, as we are used to saying on this side of the world. Particularly gallivanting is the dressing, clothes, patterns, and passengers' carriage while going into the plane are usually like their Sunday best. They are more than those for going on a ship, train, car, or luxury bus. Flying across the air skies is expected to be in a luxurious and relaxed atmosphere, compare to cruising at a high altitude very close to the throne of the Almighty God.

Aviation Reporting

Reporting such an event requires a rudimentary knowledge of its complex technology. In every professionally organised trade, there is terminology, therefore an aviation reporter should know the terms of the aviation trade.

Though he is not expected to become an erudite or learned fellow or entirely specialised in the thermodynamics of jet engines, he must be able to argue it, describe it, support it and sell it as an easy essay to his informed readership, it is always good practice to assume that the reader knows everything alley. That he claims he knows all already, even if his previously held notions are fruits of gossip, quick mental picture eyeing of headlines, prejudiced opinion, and adverts jingles. Therefore this readership class is very critical and demands high professional discourse.

Through this style and attitudinal posturing, we are constantly kept on our toes to excel in our style and content. We aim to provoke further the readers' interest, create something new to stimulate their continued reading habit, sensitize the doubting Thomases to attempt reading and using the aviation industry services. Sensitize the stakeholders on the need to improve aviation industry performance, safety enforcement, flight schedule, consumer services, etc. In reality, the readership is knowledgeable to the extent it is informed by the aviation reporter. This credit is surmised in ego boosting, The aviation reporter's ability to break down complex terms into the simple everyday language of understanding is what in my modest opinion makes the great aviation novelist. However, to ensure aviation reporting does not become and end up as an all-comers affair, coupled with the need to lose focus of the industry operating environment, are compelling reasons for the air reporter to use and be a sticker to correct terms.

Aviation is an air travel means industry, a war-mongering industry, some call it defense air force and a sport, though a dangerous pass time for persons who are dollar loaded. It is expected that these further subdivisions of the industry require either different categories of reporters or the same reporter presenting his articles from different perspectives and styles.

The common issues among these are the runway or deck, varyingly called airstrip, airport, local, international, or military, etc. The passengers including the pilots, the ground services, the safety regulations, and the airplane itself as the means of accomplishing the journey. The purpose of a voyage might differ as above, and the aviation reporter is expected to have a constant mental working picture of the individual, the service concern(ed), the intermingling issues of safety standards, customer comfort and satisfaction, environmental protection, airplane efficiency, ground services performance, asset, and personnel management and in-flight information and products advertising. He is also to develop all seasonal concurrent situations, events, and demands into a decipherable and accessible data bank with graphical representation for quick analyses of trends and behaviour.

The aviation reporter is thus further called upon to describe where the journey started from, its destination, the aim of the journey, the class of passengers (civil, either passengers or sports amateurish, military), the size of the airplane, its salient features of comfort, in-flight information and features, highlighting the latest advances in airplane technology, landing, and take-off instrumentation and control, equipment maintenance, weather and meteorology information as they affect flight safety, strict adherence to all aspects of safety and environment protection. He should comment reasonably and discuss in detail within his journalistic purview articles, the issue of personnel training and development that are geared toward increasing service performance, customer comfort, public relations, flight regularity and reliability, and general safety.

He is not a learned colleague, as those of the bar would say, but he should be able to discuss passengers' tariffs, service terms, and conditions, insurance compensations, international cooperation agreements, lease agreements, landing rights, international conventions, etc. He is expected during his articles to promote the aviation industry generally and highlight its problems, but without scaring away the potential users. Accident statistics are usually very helpful for the potential traveler to determine the reliability of an operating concern and the airworthiness of its airplanes.

Aviation Reporting in Competition

In the advanced world, there are specialised aviation journals that tend to highlight or concentrate on one or more of the above issues. It is therefore in their attempt to meet the needs of this teaming elitist, specialised, critical, and informed readership that both television and newspaper media organisations have established aviation programmes, aviation pages, and columns. With this step, they hope to compete with aviation magazines. Due to the high profile, caused by the high position of authority and management, the high financial buying power of those who patronise the industry, public relations in terms of sales of the products of aviation materials, and also the promotion of new luxury, classic products is very competitive. It could be said that while on land it is uneconomical to print newspapers and magazines with gloss colour separation, in the air passenger travel business, with the attendant already high light costs, this cost is negligible. In-flight magazines have also been introduced with very
beautiful colours for the promotions of leisure products, games, cultural heritage of various nationalities, perfumery, fashion, choice foods, and wines.

SITUATION IN NIGERIA

The Industry

Transportation is generally a patient requiring and planning demanding business, and its returns are long-term spread. There are many cities to be looked at while preparing the feasibility studies for a new business. These include but are not limited to the following: operationality, maneuverability/versatility, reliability, serviceability, trainability, and vendibility vis-a-vis regionalization are important issues of consideration before the acquisition of any make or model form of transport.

In Nigeria, the aviation industry is yet to develop its full potential. This is attributable to the developing nature of our technology, reduced buying power of our national currency, inflation on the prices of tickets, low availability of trained professionals, unstable environment policies, nonavailability of airplane spares, and the politicisation of the aviation business license. It is still a status symbol business concern without considering the proper acumen to run the trade. Some aviation business entrepreneurs initially saw it as high profile and lucrative, only to discover once it has been embarked on, that they are unable to support its ups and downs since it does not give the quickest returns on investments.

The obsolete level of many current airplanes confirms that presently, our entrepreneurs are being short-changed by the airplane vendors, or they lack sufficient knowledge in the assessment of airworthy planes, or the civil aviation regulatory and licensing authority requires further training to strengthen its performance in this area, or that Nigeria is being used as a dumping ground for “masked, makeshift” old airplanes. The above could be concomitant. A cursory look by the interested at any of many of our airport hangers should confirm that any airplanes have been abandoned, cannibalized of parts, and are lying waste on the tarmacs, thereof causing safety obstacles and eating up useful spaces at our aerodromes nationwide.

No doubt, Nigeria is good for airplane business because of its landmass, the high incidence of mobility of its citizenry, the low development of its road network, the existence of many centers of business and governance, and its large human population. Nigerians are aristocratic, capitalist republican, and ego in disposition.

Reporting:

Generally viewed aviation reporting in Nigeria is in its infancy. The problems militating against its sound growth are almost the same as those that are against the growth of the aviation

industry in Nigeria. These include the development stage of our telecommunication information dispatch highway technology, of a reliable demographic data bank. Also to be blamed are the reduced buying power of our national currency, double-digit inflation affecting the prices of newspapers, low availability of sufficiently trained professionals, unstable environment policies, non-availability of an airplane, lack of synergy spirit and zeal for mutual benefitting collaboration between all stakeholders in the aviation industry. High cost of purchase of requisite newsprint and electronic equipment for journalism. Aviation reporting cannot be divorced from the downturn of the industry as it is expected to supply the readership with information and comments on.

Notwithstanding, it is expected that the aviation reporter should use this time to avail himself of the rudiments of the trade in anticipation of brighter days ahead. Similarly, for the industry to stay afloat, there is a Siamese need for the aviation reporter to be encouraged and padded by the operators of the industry. These two stakeholders must see themselves as partners in progress, realising that the survival of one or the other is interdependent. There is an umbilical cord joining these two trades. Cultural heritage, fashion, cosmetics restaurants, and other high-brow service industries are called upon to effectively utilize the few hours offered by aviation travels, to reach out to the collection of its high power, high position, informed, sophisticated, critical in taste, and luxurious guests, to promote its products in aviation journals.

Issues of the environment in the areas of noise and atmospheric pollution by airplanes should receive more attention. Our environment belongs to all of us, only God who created it can renew it if it's damaged. He has not done anything about the depletion of our atmospheric Ozone layer. It could be rightly inferred that God expects us to be eternally consummated on how we use our natural endowments. We might say He left us with the dictum: "as we make our bed so we will lie on it'.
Thus, the aviation reporter is a friend of the environment and must be seen as a friend indeed to be at the forefront of championing the cause of it at all times through his articles, information, and comments.
(Perspective and Style by Clifford Osagiator- Obude, Chief Executive Officer, El-Bezaleel)

CHAPTER 9

STATE OF AVIATION REPORTING
By Captain Dele Ore

An article published in a very reputable daily newspaper recently sent me on a wild goose-chase combing through all statute books and supplements to unravel what amounts to professional misconduct by an airman. Having searched fruitlessly for weeks without a satisfactory answer I concluded after going over the contents of the article several times that the article must either be in error or inaccurate. An unnamed domestic operator was alleged to have dispatched one of its aircraft for maintenance in Middle East Country and as a result of a certain violation in the conduct of the operation of that ferry flight a panel of inquiry was set up by our ministry of Aviation to probe allegations of professional misconduct on the part of the crew members. The report was so confusing in its allegation that the ferry flight was delayed for twenty-four hours and that as a result of the delay, landing right was refused but since the captain was bent on landing, he had to declare an ‘’EMERGENCY’ before it was allowed to land. The panel set up by our Ministry of Aviation was said to have found the co-pilot and Flight Engineer guilty of professional misconduct. Then what became of the captain? The airline involved was said to have been fined three hundred and fifty thousand Naira (N350,000) as well. Seven passengers were alleged to have been carried on that ferry flight contrary to "Aviation Regulations " all these culminating in the Directorate of Safety Regulations and Monitoring (DSRAM) to have the crew sanctioned accordingly. I have laboured for weeks to get the correct story as well as waiting eagerly to see this story refuted in the appropriate dailies but without any success. Story 1 'has since been found to be very misleading and capable of misinforming the citizenry of this country. The truth of the matter was far from what was reported. As the story stands without being corrected, it portrays the aviation industry as being run arbitrarily without sets of rules, but this cannot be so because it is a highly regulated industry more so as we deal with other foreign countries.

The above event happened very recently in 1997 and it is to demonstrate what the state of aviation reporting is today. It is, however, a far cry from what it was a few years ago. It would be recalled that the first aviation encounter in Nigeria was not properly recorded and hence not also reported.

The pioneering efforts of Chief FEMI OGUNLEYE and MR. STANLEY EGBOCHUKWU as aviation correspondent for overseas aviation magazines and newspaper need to be commended as well as others involved in airport reporting who can be said to be among the forerunners. However, aviation reporting is far from just reporting events at airports. To buttress how important the subject matter is let us take the historic first flight into Nigeria as an example. What were the place, date, and time of the first flight? Because it was not reported or properly recorded, discrepancies exist about it till today. The Royal Air Force (RAF) flew a De-Havilland DH 86 aircraft from Khartoum via Maiduguri one Sunday afternoon in 1925 into Kano to investigate some political trouble brewing in Kano at that time. While some records indicate that the maiden flight into Nigeria must have taken place in July, some other records indicate that it was during the harmattan period which is between November to February. If the aircraft came from Khartoum via Maiduguri, then Kane was not the first place where an aircraft landed in Nigeria.

The advent of quality reporting of aviation arrived with the advent of the Guardian Newspaper, and I commend their efforts at maintaining a good standard of reporting aimed at

informing, educating, and “entertaining”. The entertaining aspect of this business, however, is what often gets one worried. This is a very serious business and when some of my friends’ clown with the serious subject matter in an attempt to entertain I always remember the word of ROBERT CRANDALL President of American Airlines when he said: "Airlines aren’t tools of Commerce - They are Commerce”.

From the operator’s point of view let me illustrate once again with another event that concerned me personally and involved a highly technical subject of "AQUAPLANING” and you will see what the press made of it: -

I operated in CALABAR on the 29th of September 1974. It was a routine scheduled flight WT 162 which departed Lagos for Calabar with a transit stop at Port-Harcourt. The Fokker Fellowship 28 aircraft with registration number 5N-ANB took off on schedule at 0805 local times with FRED AZIKE (now Nigeria Airways Chief Pilot) as my co-pilot. On this flight was the then Military Governor of the South-Eastern State Brigadier U.J. ESUENE, with most members of his cabinet en route to Calabar their State Capital The flight landed safely at Port -Harcourt and took off again at 0940 local times after thirty minutes of the transit stop. There was no significant w report before leaving Lagos and this was further confirmed at Port-Harcourt. Contact was made with Calabar Control after take-off from Port-Harcourt on the appropriate VHF frequency during which the current CALABAR weather report was also transmitted and the Co-pilot copied it. Besides the low cloud base of about five hundred feet which fully covered the airport, there was very good visibility, and the wind was virtually calm. Very vital information about the runway surface condition which was water-logged as a result of an oversight rain was not made known to the pilots.

Because of the full overcast therefore an instrument approach procedure was commenced with the only radio aid installed at Calabar at that time which was the Non-DIRECTIONAL BEACON (NDB) approach for Runway 21. Because of the calm wind condition, we had no reason but to be well lined up with the runway for a perfect touch-down into potential danger with the aircraft sailing away like a speedboat.

The passengers were oblivious to the impending calamity called aquaplaning and were applauding the perfectly smooth landing. Had the Air Traffic controller at Calabar airport alerted us about the flooded runway surface the situation called for a firm positive banging of the aircraft on the runway and not for a " greaser” as a smooth landing is called. There was no braking effect and for a fast jetliner without thrust reversers, we were far approaching the end of the short runway. A split-second decision not to execute a "touch-and-go” was made because of obstacles that were straight ahead on that old runway. The only alternative was to continue to recycle brake application until we started to have some braking action by which time, we had run out of available runway but managed to stop just a few feet into the stopway.

The "stopway” is the length of the hard but unpaved or unprepared surface capable of supporting the aircraft without any or too much damage. Passengers were disembarked from that resting position of the aircraft after we had performed the shut-down checklist. In order not to cause any damage to the aircraft it had to be towed rearwards which task was willingly performed for us by the Netherland Airport consultants, an Engineering firm that was preparing for the construction of the new airport runway. I learnt the very hard way that wet surface operations are hazarded by reduced braking force, slush, and aquaplaning due to the

jet’s higher ground speeds. After a thorough inspection of the aircraft and upon satisfying myself that the
aircraft had received no damage, we completed the return journey back to Port- Harcourt, and Lagos to accomplish WT 163 which eventually landed back in Lagos at 1345 local time. One of our local newspapers reporting the above incident on 30th September 1974 had a caption: "PLANE SKIPS TRACK-GOVERNOR IN PLANE CRASH!” The story bore no resemblance to the event described above. Those were the good old days and efforts made by the forerunners such as "Flight Africa Magazine” and Flight Express”, which were Chief FEMI OGUNLEYE’s initiatives that are already yielding results. One can only be proud of "Aviation and Allied Business” as the present leader in aviation reporting. The background of the individuals behind these magazines makes them authorities on what they produced.

Which therefore raises a fundamental issue. Do you have to be a professional in the aviation industry to be able to report events there accurately? My answer is definitely No! While specialisation may be ideal, any aviation journalist who wants to succeed in that field has to work very hard to know enough about the subject matter that he has to report upon. He has to be trained through the help of his management rather than having specialists such as Engineers, pilots, or ATC Officers take away job opportunities from budding journalists who are interested in reporting aviation. Besides, can the publisher pay enough to retain specialists to report aviation? We have observed that reporters are moved from their beat too soon to 'becoming experts in their chosen area and if well motivated and well paid they would be contended with whatever they are doing and eventually becoming experts without contesting to become EDITORS. When a specialist journalist can earn as much as his Editor or even more, he would try harder to educate himself to achieve a level of professionalism.

In reporting aviation events concerted effort must be made to distinguish between NORMAL, ABNORMAL, and EMERGENCY SITUATIONS. Under emergencies, the operator has a conflicting interest in protecting his company’s legal interest and divulging information that would provide accurate and correct reporting of events. There is usually so much confusion as to whether you are dealing with an AIRLINE, OPERATOR, AIR CARRIER, LICENCE HOLDER, or AIR TRANSPORT UNDERTAKING. The level of legal interest varies in the airline industry, and anybody involved in reporting aviation should avail himself to know the differences.

On June 20th, 1996, a Gulfstream 11 aircraft crashed at Jos killing all the occupants including the Administrator of Kano State and the expatriate pilot. In reporting the accident, an aviation journalist while paying glowing tribute to the exploits of Nigerian pilots disclosed that Nigerian Pilots were experts at Non-precision Approach for which he was intending to praise them. Little did that reporter know that the underlining innuendo is that Nigeria Pilots were reckless and irresponsible and could land in bad weather with no aid and by insinuation would be lacking in actual precision approaches. That was DEFAMATION at the highest of which I would like all aviation journalists to be very aware. To protect the interest of all Nigerian pilots" as a group the publication was actionable.

An industry where you have aircraft in the country manufactured by RUSSIA, BRITAIN, FRANCE, ITALY, BRAZIL, the USA, and CANADA language would not make job reporting easier. You will be alarmed to note the diverse difference between English-speaking countries themselves. Please take a look at some English terminologies and their American equivalents which you hear from time to time from various airmen and one can only hope that accident will not occur by reliance on one or other.

ENGLISH	AMERICAN
Accelerate –stop	Rejected take-off.
Allowance deficiency	No go item or
Boost pressure	Minimum equipment
Compressor	Spool
Manifold pressure	buckets
Clamshells Buckets	Spool up
Engine acceleration	METO (Maximum except take-off)
Maximum continuous	Yoke
Spectacles	Stabiliser
Tailplane	Thrust lever
Throttle	Gear
Undercarriage	Liftoff
Unstick	

You can now see as shown above that different SLANGS are used while dealing with this very critical subject matter. In this highly technical business (railed aviation, SLAT is easily confused with SLOT whereas a SLAT is a wing leading edge flap that extends to increase lift whereas a SLOT is either the space between the wing and extended slat or flap, or a gap, either permanently open or openable aft of the fixed wing leading edge. ATC also gives SLOTS as the time for departure.

A clean aircraft is not just washed but the airplane configuration with all extensible devices (gears, flaps, etc.) retracted.

ADC is not one of our local airlines but an Air Data Computer which is a device for correcting the information from the usual pressure and static sources and supplying it to servo-driven flight instruments, the autopilot, and flight directors. Furthermore, in aerodynamics when we talk of alpha, we do not mean the Big Daddy the Omnipotent but ‘’angle of incidence” and ETA is not estimated time of arrival but ‘’efficiency”.

CONCLUSION

Because effective reporting demands at least rudimentary knowledge of aviation to ensure professional touch, what is required are training, seminars, courses, workshops, and self-education. In the past, there had been seminars organized or sponsored by various interest groups at which manufacturers were jostling for positions to sell their products or for airlines trying to score public relations points.

In the final analysis, I would like to pass the bucks back to the operators to give more assistance to media education. Newspaper publishers and management must also be prepared to spend more money on the education of aviation journalists in their various establishments. As a first step, I am prepared to organise a one-week training workshop to cover the Theory of Flights, Airline Management, Familiarization with various types and models of aircraft, Air Traffic Control Systems, Meteorology, Aircraft, Avionic Financing, Insurance, Legal and Regulatory Framework of the Industry, Aviation Economics and Marketing, Consumer Protection, Flight Safety Matters, Search and Rescue, Aviation Medicine and Post Aircraft Accident Trauma education.

(State of Aviation Reporting by Captain Dele Ore, former Director of Flight Operations, Nigeria Airway)

CHAPTER 10

EVOLUTION OF AVIATION REPORTING
By Apagun Femi Ogunleye

PRELUDE

Circa: January 22, 1973 - dateline, Kano

I remember a day in 1973. We were just 22 days into the New Year. The harmattan haze was at its peak and the visibility was incredibly low making every motorist put on the headlamps of vehicles even at midday.

I could easily have been passed for a jester judging by my Arab-like dress and the dust had changed my posture, courtesy of the prevalent inclement weather, which had tasked many an air traffic controller and pilots operating within the airspace of Kano.

The day had provided a disastrous event for Nigerians and the world at large. It had, however, provided my reporting career, a fillip. A Jordanian B. 707, carrying home-returning pilgrims from Saudi Arabia, had crashed at Kano International airport, killing over 100 of its passengers. From as early as 7 a.m. of the day, Kano airport had turned into an unmanageable crowd centre.

Three musketeers we were -Stephen Bamigbele of New Nigerian Newspaper, Biodun; Famojuro of the Daily Sketch and yours sincerely of the Daily Times. The trio, who were chief correspondents of their newspapers respectively in Kano State had rushed to the Kano international airport for an on-the-spot assessment of the first and apparently, the worst air disaster in Nigeria after the civil war.

The day-to-day coverage of the accident and the subsequent Justice Muhammed Bello judicial inquiry instituted by the Federal Government on the accident vis-a-vis the alleged inadequacies of the then Federal Ministry of Transport and Aviation, undoubtedly, had formed part of my chequered exposure to the intricacies of aviation journalism.

Having been "deported" from Kano by the then state governor, late Police Commissioner Audu Bako in June 1974, a few months after I had completed coverage of the judicial inquiry into the famous air crash, my editors, in their wisdom, posted me to the Lagos airport (now Murtala Muhammed International airport) which was then the nerve-centre for "breaking news" in the country.

An airport reporter in my days was a generalissimo. He would report among others, politics, diplomacy, aviation, crime, and socials. In some cases, he shared the aspirations of the national leaders by being representative in focus, opinion, and information dissemination. His ability to separate his reportorial exuberance from patriotism and national objective stood him in good stead with trust and confidence as his reward from various government leaders with whom he had to interact. The integrity and credibility of an airport reporter in my time were as high as to qualify him for attendance of diplomatic and bilateral relations meetings between Nigeria and other governments at the airport without our mentors regretting.

I am very proud to have belonged to the group of reporters at Lagos Airport who sanctioned the former Head of State, General Yakubu Gowon, David Ejoor (rtd), and Edwin Clark, then

Information Minister, in maligning the Press for unproven allegations. General Gowon, however, showed classic and exemplary leadership through his reconciliatory gesture, which culminated in a grand reception for the Airport correspondents and other media practitioners in Nigeria.

I can recall also the opportunity given me by Major-General Joseph Garba (rtd), a one-time Minister of External Affairs, to sit by him when he was discussing the modalities of ECOWAS formation with Mr. Abdul Diouf, the then Senegalese Prime Minister at the Presidential lounge of the airport (against the demand of External Affairs bureaucrats). The report of the meeting was published as a front-page lead in the Sunday Times and I received a commendation from the Minister. Neither could I forget how Sehinde Dagunduro of New Nigerian Newspaper, Kola Adeshina of the defunct WNBS/WNTV, and yours sincerely, received General Idi Amin, then Ugandan President and Chairman of OAU, on an unscheduled visit to Nigeria in 1975 before the proper host flew from Dodan Barracks to receive him.

Several "freedom fighters" as they were then known and today heads of their states, were regular guests of the airport reporters each time they were in Nigeria for one help or the other. The familiarity was so close that we were the link between some of these leaders and the at the airport premises. It is difficult to forget the positive role of our great friend "Papa Limbo"- the late Mr. P. L. Lawson who was the civil airport commandant. He collapsed and died at the airport while receiving international guests for the International Festival of Arts and Culture (FESTAC) in Nigeria in 1977. He was a great mentor to the airport journalists.

In our time, the airport reporter would prefer to be called and addressed as a political/diplomatic correspondent. We worked hard to earn the name. News about aviation at that time was very limited to sporadic union-oriented events from Nigeria Airways and associated businesses around.

With all modesty, however, I feel proud to be identified as a pioneer of aviation journalism in the real sense of it in Nigeria. This is not without recognising the efforts of Mr. Stanley Egbochukwu, my very good friend who rose to chief executive status in the Concord Group of Newspapers. Stanley was before me, a correspondent for the World Air News, a South African-based aviation magazine, which I, wrote for between 1974 and 1980.

For records and for the sake of the younger generation of journalists, particularly whose beat is the airport in Lagos, I hasten to digress and recall what motivated me to establish the first indigenous aviation magazine in Nigeria. As I had mentioned somewhere here, my first taste of aviation reports for international readers was in the World Air News. I had picked an edition of this magazine on the table of the late Chief F.M.C. Obi, the then most powerful individual in aviation matters in Nigeria. Chief Obi was the Permanent Secretary of the Ministry of aviation, the Chairman of the Board of Directors of Airways, and the Chief executive of the national airline.

I applied to the Editorial Office of the magazine in Winchester, England requesting to be considered for a reporter for the journal in Nigeria. The acceptance of my scripts earned me regular payment for my contribution and the Publisher, Mr. Tom Chalmers offered me a West African editorial position. My source of aviation news became enlarged and more credible when I joined Nigeria Airways in 1976. This was advantageously disposed World Air News. Either to lack of knowledge or deliberate misuse of privileged position, some unknown characters, did a fast one on my association with the World Air News. First, it was a "letter to

the editor" published in one of the Daily Times editions in 1979 alluding to being a correspondent for World Air News (being published under the auspices of Tom Chalmers PTY Limited with an office in Durban- an indication that it is a South African registered undertaking) as being an agent of South African which, at that time, was a 'no go' area for Nigeria and Nigerians as a result of the apartheid regime then in practice.

The action was followed by a petition, undoubtedly, perhaps, by the same character, to the national security agency, who later denied me a trip to an IATA meeting in Geneva by withdrawing me from a scheduled flight, held my passport, and sought explanations from me for the alleged hobnobbing with South Africa.

When I eventually got out of the tango, it took me no time to think Afrikair as my first publication reporting aviation news in Nigeria. This magazine which made its debut in April 1980 was read by African and other international delegates to the 10th annual general all assembly of AFKAA held at the National Theatre, Lagos. I ran seven issues of this magazine before I changed the name to Flight Africa, which I suspended following my recall into service at Nigeria Airways in 1993. Besides Flight Africa, I ran a tabloid named Flight Express. Flight Express, which was launched in December 1989 later, became a household newspaper for aviation and airline patrons. Flight Express, though, remains one of the official outlets of the African Airlines Association (AFRSS); it has suffered the same fate as its sister, Flight Africa, as a result of my recall to service. These publications will return to the stable immediately after I finally retire from Nigeria Airways.

Although the aviation business has developed tremendously between 1974 and date, the level of its report for public understanding is still far below expectation. Very few journalists among the lot who derive joy in the appellation of "aviation correspondent' are yet to be adequately equipped with what can earn them the appellation.

Suffice it to say that today's aviation correspondent must learn to know beyond "Mr. A said and Mr. B explained" syndrome. The reporter must know the basics of the rules and regulations that guide the business; he must know about the principles of the bilateral, the traffic freedoms, and different roles of the authorities controlling the business e.g., Federal Airport Authority of Nigeria., (FAAN) the Nigerian Civil Aviation Authority (NCAA) the Nigerian Airspace Management Authority (NAMA) the national airline and other airlines.

Different types of aircraft, engines and their manufacturers, and the history and functions of international bodies such as IATA, ICAO, AFRAA, AFCAC, IFALPA, etc. must form part of the knowledge of an aviation correspondent.

Finance engineering has become an integral part of modern management in any business but is more complex in the aviation industry. Since the business is seriously capital intensive and as banking facilities for long-term outlays like aviation has become very difficult for financial houses to negotiate, journalists who want to report the business's creditability must be versed in the intricacies of financial syndication. Nor can a reporter seeking respectability in the field of aviation escape from knowing about environmental demands in business.

Has any of us lived or visited friends along Dopemu, Oko-Oba, Shasha, Ogba, and Iju, all on the outskirts of Lagos, to be able to know the effect of aircraft noise on the community? Has any reporter taken time to investigate how much airlines have spent repairing engines damaged as a result of bird strikes? What are precautionary measures against bird strikes and what can

be done to stop or minimise the sporadic banditry on aircraft, baggage, and people at our airport? These are just a few of the numerous posers to any enterprising reporter.

Tried as the League of Airport and Aviation Correspondents (LAAC) had done overtime to organise workshops and symposia to back up their knowledge of the business they are reporting and contribute to available information on the business, they seem to have limited their scope to the short-term benefit of the events. I have yet to see a compendium of published discussions of the past, which should have served as good reference materials not only for the journalists but also for other interested bodies. Besides, has the LAAC either as a corporate body or its members individually affiliated with any of their foreign counterparts? Are they aware of the Aviation Space Writer Association and the like?

The advantage of such an exercise is very obvious. This is a challenge, if we are conversant with what obtains in the industry worldwide, it will not be difficult for us to sensitize our readers on the correct procedure and position on matters that relate to the patrons of the industry.

In the expressions of the legal people, he who wants equity must come with clean hands". This is to say that if the aviation business wants quality media reports about the business and those who manage it, a qualitative environment that will encourage access to information must be a sine qua non to quality management.

Some 20 years ago in my heydays as a spokesman for Nigeria Airways, I initiated and got the assistance of several people in the industry, at home and abroad, to organise an international workshop for reporters on aviation beat. All media reporters at Lagos airport and other specialist journalists attended the workshop, which was held in the College of Aviation Technology environment in Zaria. They were addressed by various experts and other aviation administrators from all over the world. It was a tremendous success.

Thereafter, I encouraged the exposure of the journalists to international events on aviation by making Nigeria Airways sponsor many of them to aviation-related occasions such as aircraft delivery, IATA, AFRAA, and other relevant conferences. The impact of these exercises on the. productivity of the selected journalists was rewarding, not only to the journalists but also to the aviation industry as manifested by the quality of media reports.

Without any intent to berate the dynamism embedded in journalism and aviation which must have informed the movement of people from one beat to the other, the regularity at which the journalist on aviation beat are re-deployed contrasts the objective of the special exposure and is counterproductive to specialisation.

Therefore, a workshop or seminar that will update the knowledge and widen the scope of an aviation journalist must be regularly organised and sponsored by the industry.

For the journalist, patience, dedication, and hard work are attributes that can see a good one through in his desire to win an award as an aviation reporter. He will not be judged by his association with the biggest names in the airline or related businesses whose interests dominate his reports.

The airlines and other organisations relevant to the aviation industry should assist in the development of aviation journalism as a specialization. Not only should they invest in the

education of members of the corps of airport reporters, but they should also provide an enabling environment including facilities to enhance their knowledge of the business as it is developed worldwide.

British Airways deserves our commendation as the first foreign airline in Nigeria to have ever organised an award of excellence for aviation journalism. I was among the first three recipients. Part of the prerequisite of the award included a guided tour of British Airways headquarters and travel and leisure places in Britain. It was a rewarding gesture for the recipients and public relations per excellence for the airline.

As the aviation industry faces the challenge of the millennium information becomes a veritable tool that will enhance managerial skills, and media and their practitioners are, among the only vehicles through which the anticipated results can be achieved. Nigeria of course is blessed with quality media people who should be encouraged to play the roles.

(Evolution of Aviation Reporting by Apagun Femi Ogunleye, former General Manager, Corporate Affairs, Nigeria Airways)

CHAPTER 11

CHALLENGES AND EXPECTATIONS
By Emmanuel Ukpong

Let me begin by saying that although this paper is without the benefit of empirical research, I believe airport reporting has a fairly long history, pre-dating the Gowon era. There is an ample amount of archival recording of vintage Nigeria Airways and BOAC aircraft such as the Comets and DC-3s. There is a picture of Sir... Bourdillon boarding what is believed to be the first commercial flight from Nigeria. We have a picture of the Lagos airport control tower taken around 1952. Credit must indeed be given specifically to aviation photo reporting. I recently saw the picture of the late Dr. Nnamdi Azikiwe arriving at the Lagos airport sometime in 1969 to negotiate a settlement to the civil war. And of course, it was at the same airport in 1975 that General Yakubu Gowon took that famous salute while departing for the OAU summit in Kampala. It was to be his very last salute as Head of State, and aviation reporters were on hand to record it for posterity. No one can recall these momentous events without giving due credit to aviation reporting.

As you can imagine, there were only a handful of aviation reporters in those days as there were very few newspapers (Daily Times, Tribune, West African Pilot) and maybe one radio station (NBC) with meaningful representation at the airport. A few names readily come to mind: Chief Femi Ogunleye of the Daily Times who, as you all know, went on to become the PRM of Nigeria Airways for many years, and Mr. Toye Akiode who later edited Vanguard, structurally and operationally, aviation reporting in Nigeria was not a formal business in the 60s. Many of the reporters covered the industry on a part-time basis. They had no office at the airport; instead, they were content to hang around die terminal buildings and under the trees. Technical issues and events went largely uncovered; VIP movements and interviews were the major sources of dews.

Needless to say, the situation is completely different now. In my view, Aviation remains the most important beat in the country today. Yes, there was occasional uneasiness emanating from the activities of the state house correspondent's corps but that was because the federal capital was in Lagos. However, the movement to Abuja has completely neutralised the influence of the state house as a beat. On the other hand, the aviation beat has grown from strength to strength.

It is better organised, through its umbrella organisation, the League of Airport and Aviation Correspondents, LAAC. Numerically, LAAC is growing rapidly. At the last count, there were about 31 members, representing various newspapers, television, and radio stations. I am told that other reporters are queuing up to join. It is also interesting to note that electronic media organisations such as OOBC, Channels Television, and AIT are showing interest in aviation reporting. Nearly every newspaper seeks some form of representation at the airport.

Aviation reporters also have the greatest opportunities to be independent and objective. Similarly, there are immense opportunities for self-improvement. For example, the annual LAAC seminal' which was initiated in 1990 by Deola Fadairo is in its seventh year now. It is an open secret that other beats are now adopting many such activities believed to be pioneered by LAAC. Facility trips that offer badly needed exposure and education abound. I must at this point applaud Mr. Chris Aligbe who became the first public relations practitioner to take aviation reporters' exposure seriously by persuading Nigeria Airways Management to fly two

reporters to Algiers for the AFRAA AGM in 1990. He has continued to be an exemplary practitioner, and I am proud to say that Utibe Ukim and myself were the first beneficiaries of this facility.

It must be said at this point, that organisation and exposure are worthless if they are not being used by aviation reporters to fulfill their obligations to society. But what are these societal expectations? Are they being met by aviation reporters? In my view, reporters are the eyes and ears of the larger society. They depend on you to report not only what is happening but what is likely to happen. They want to know the implications and significance of events and issues. They want to know the progress and failures recorded by individuals as well as organisations. They rely on human interest aspects of this highly technical industry.

The big question is, are you meeting these expectations? In my candid opinion, not quite well. Especially in recent years. Reporters must be judged by the stories they produce. I looked back recently and concluded that there has been a steady decline in the standard and volume of stories emanating from the aviation beat (maybe the PROs are doing a wonderful job after all). There are no "earthquake stories" in the same class as the 57 suitcases in the recent Guardian coverage of the Nigeria Airways Insurance crisis. I have mind stories that are not only revealing-shocking if you like-but are capable of stirring up a chain of events that can result, possibly, in some form of national self-re-examination and soul-searching; stories that can galvanise the entire industry against the forces of stagnation, bureaucratic insincerity, greed, official half-truths, and operational incompetence. These are the stories we miss and will continue to miss.
I also notice that in terms of output, aviation stories are shrinking both in prominence and volume. Thus, on one particular fortnight, there were no single lead aviation stories in any major daily in the country, worse, aviation stories are now moving into the inside pages.

It is also my opinion that with reporters closing for work at 3.30 pm, the industry is under covered. My dear colleagues, the most active period at MMA international terminal, the nation's premier entry, and exit point is between 7 pm and midnight, by which time you all would have, of course, gone home. This is just one of the challenges facing aviation reporting. There are many others. The blanket coverage of institutions at the expense of personalities, the sagging imagination in photo reporting; the near death of human interest reporting denial of access to some parts of the airports; frequent posting of reporters from the beat; uncooperative attitude of PROs and their failure to explain the role of reporters to their respective managements; the ever nagging question of ethics; the worrisome unwillingness of reporters to function as individuals; the declining attention to analytical reporting, especially in the key area of passenger interest. The foregoing is only a comprehensive but by no means an exhaustive list of the challenges facing aviation reporting. I will explain each in turn.

With the kind of coverage being given at the moment, one gets the impression that aviation is made up of just aircraft, airlines, and buildings. We must begin to recognise the fact that aircraft are flown by people, airlines are run by people, and buildings are managed by people. These people deserve equal coverage and mention in the media. Their triumphs should be highlighted, not only because of their high news value but because of the strong potential in raising the spirits of these people who collectively move the industry forward. Similarly, their failures and low points must be reported to help expose, correct and prevent future recurrence.

Take Nigeria Airways. It is one of Nigeria's most important and enduring institutions, despite its travails. Its management and other staff must constantly be in the spotlight or under the

media microscope if you like. Their personalities, state of mind, mental alertness, capabilities – professional or otherwise-and even their social correctness must be scrutinized at all times. The aim is to ensure that they are doing the right thing at all times. And you are the only professionals so privileged and so appointed to do this.

Aviation photojournalism is in dire need of greater imagination and creativity. Long gone are the days when photo reporters used to wait at the presidential lounge and take repeated, and predictably boring, pictures of the president. These times call for a lot more than that. The dictum: one picture speaks more than a thousand words, rings true. Therefore, the current unpardonable sight of the destitute taking over terminal one of the Lagos airports is tailor-made for the camera. So is the sad scene of stranded West Coast passengers warming their soup in front of the international terminal building.

You will agree with me that one picture of such scenes - well taken, properly captioned, and printed on a prominent page- would embarrass the appropriate authorities into action. Television coverage could convey an even stronger meaning.

This brings us to the human interest factor, which has suffered a long neglect in aviation reporting. The photo opportunities described above constitute good human interest angles. But I also have in mind the ill-fated ADC flight 086 of November 1996. Although the entire unfortunate episode was of great human interest, some of the most moving and tear-jerking parts were largely ignored. For example, I recently met an ADC cabin staff who was rostered to be on that flight. She had boarded the aircraft for the Lagos Port Harcourt leg of the flight but was soon asked to disembark because there was already enough cabin crew on board. That was how God saved her.

There is also a story of a certain gentleman at Port Harcourt Airport who arrived a little late for the same flight 086. As he raced across the tarmac towards the waiting aircraft, the ground staff were already pushing away the gangway. Again, that was how God chose to save him.

Even the air traffic controller who was on duty at that fateful moment should have thoroughly scrutinized the aviation reporters what was his state of mind before and after the crash? Can he function again as an ATO? Is he feeling guilty? These are the things people want to read about. And the reporter is in the privileged position to ensure that this happens.

The aviation reporter would not be too far off if you blamed these lapses on a lack of access to resource materials as well as to some vital parts of the airport. But the point is that the public expects so much from him and does not seem ready to accept excuses. However, the denial of access to some parts of the airports, in the name of security, is real and must be examined in detail.

I believe that before a reporter is deemed qualified to cover this beat, he must be presumed to be responsible, trustworthy, and competent. In other words, he must be trusted enough by his organisation to be deployed to cover aviation. Similarly, he must be trusted enough by FAAN to be accredited. But it seems to me that to be accredited without being given access to all parts of the airport is tantamount to being allowed to cover the airport with one hand tied to the back. Aviation reporters must therefore be given unfettered access to all parts of the airport. Photo reporters should be exempted from the current non-photograph restrictions at the airports. Please allow me to seize this opportunity to call on the FAAN to see to that. Reporters are loyal, law-abiding, and part and parcel of the aviation community and must be treated as such.

They need access to information. They need access to key areas of the airport. They need to see things for themselves. They need to understand what improvements are being introduced in the terminals and airfields, and they need to see to understand and be convinced. This is even more in the interest of the authorities. I believe that reporters perform a special function and as such must be allowed to enjoy the special privileges that come, universally, with it.

In the Nigerian media system, reporters are often moved too frequently from beat to beat. Aviation reporting is a victim of this practice. Reporters have been redeployed from aviation just after a couple of months or just two years, for obviously no good reasons. This is when reporters are beginning to settle down.
This is when respective media organisations and the aviation industry should be reaping the benefit of the reporters' on-the-beat education and experience. This is when they are redeployed to other beats or newsrooms. This, needless to say, is extremely depressing. Aviation reporters should be allowed to achieve full specialisation and enhance their careers. This is for the simple reason that it is good for the reporter, good for his media organisation, good for the aviation industry, and good for the country. And what is wrong with that?

I will now turn my attention to the PROs, very briefly. I am quite sure you know that reporters are ordinary folks who are just trying to do their job as best as they can. You should take part in explaining this to your respective organisations, especially the management. Not only should you explain, but you must also persuade them to take this view and, therefore, begin to give more access and cooperation to reporters. Otherwise, you would have failed woefully. I will firmly refuse to comment on the absentee, "no comment and don't quote-me PROs".

To return to the main issue here, your respective managements, individually or collectively, have contributed to the education and exposure of reporters in various ways. I have in mind the courses at NCAT, the seminars, the workshops, foreign trips, etc. It is only fair and right for you to allow your various managements to tap into this exposure to which they have so generously contributed. It is only fair and right for the reporters to put to good use the education and exposure they have acquired on the job.

So, I am saying, by all means, do your job but at the same time allow the reporter to do theirs. But how? Very simple. Give them access to the managing director and other key officials; access to statistics and other information and assist in every way possible. The reporters need your cooperation to function effectively.

To be very honest with you, I have never stopped wondering whether LAAC is a perfect phenomenon. Granted that I was once a member, although not a very active one, the LAAC idea to me seems agreeable only to the extent that it promotes group interest. The reporters, who may not realise it, are better off individually in terms of career advancement. Generally speaking, journalism is a very individualistic career and must be seen as such. The sharing of stories among reporters through press conferences, press releases, and other well-choreographed fora does little or nothing to improve the performance of the reporter as an individual representing an organisation. The real danger is that because you operate as a group if something goes wrong with the work of one reporter, it robs off every other reporter on the beat. The group idea, it would appear to me, is, perhaps unintentionally, largely for the convenience of the PROs. For the PROs, it is a lot easier for the reporters to be dealt with as a group.

Still, LAAC remains a force that must be reckoned with. This is precisely why it must address ethical issues such as how to cover organisations that show immense generosity to the reporters. Is it right to bite the finger that feeds you? If not, is there a chance that operational or administrative lapses from such generous organisations can go unreported? If yes, are you standing on ethically firm ground? These must be resolved by LAAC itself. The question of ethics, as you can imagine, deserves another workshop of its own, and time would not permit me to delve into it.

(Challenges and Expectations by Emmanuel Ukpong former Aviation Correspondent, Guardian Newspapers)

CHAPTER 12

EXPECTATIONS AND LIMITATIONS
By Lateef Lawal

Aviation Journalism as we know it today started in the early 1980s when a few journalists were posted by their various media outfits to the Murtala Mohammed Airport, Ikeja as Airport correspondents.

Those few journalists, including my humble self, went a step further than just reporting the movement of personalities in and out of the airport, including the conduct of spot interviews with top government functionaries, politicians, and those in business, but to reporting more on technical and managerial aspects of air transport.

Before this period, reporters posted to the beat concentrated much more on spot interviews of very important personalities in our society and periodic reports on the only scheduled airline of the time - Nigeria Airways.

The gradual sophistication of reporting the aviation industry in the country in the early 1980s could therefore be said to have been propelled first by the enthusiasm shown by the new generation of reporters who felt that their scope of duties ought to be wider than just popular "he said: he added" syndrome.

Their urge to get much more technical was also given a boost by the growth of the air transport business, which was partially liberalised by the federal government between 1979 and 1985 leading to the breaking of the monopoly earlier enjoyed by the national carrier. This heralded airlines such as Okada, Kabo, Gas, and many more thereafter. With many airlines providing services to the travelling public, several aircraft were imported and with each importation, journalists on the beat were able to get much more familiar with aircraft type, mode of operations, and the urge to scoop one another for news material on the beat became very high.

As a result of the stiff competition then and the constant reports and commentaries published by the few media houses that had correspondents on the beat during the early 1980s others felt the need to be represented on the beat.

Following this development and especially during the early days of the Buhari/Idiagbon regime, when capital punishment was the vogue for hard drug couriers and their barons and the attendant flashy headlines given such reports filed by the core of the then airport/aviation correspondents, other media not represented quickly rose to the challenge of the day by deploying their reporters/ correspondents to the beat.

In those days, it was normal for some of us to see an incident of tyre burst of an aircraft while on a take-off run as big news or an aborted take-off due to technical reasons as - passengers escape death". For those of us that filed such stories and were given front-page headline treatment, it was the biggest scoop of the day, and for many of us that missed such news or refused to file such material(s), it was gloomy. We face constant harassment and queries by our editors or news editors.

This, is because, many of us take delight in filing such materials as news, and majority of our editors or news editors then were uninformed about the industry and we see the air transport

business as something alien due to lack of exposure, and so any incident such as tyre burst must be and should be given front-page attention,

If we have to be reporting every day the incidents, such as tyre bursts of cars and businesses on our roads throughout the over 30 states of our country, Nigeria, I don't think newspapers, radio, and television houses will have space or air time left for other materials from other social, economic and political sectors or sub-sectors of the nation.

This issue I have just raised is just a very minute aspect of the problems arising from ignorance on reporting the aviation beat. For quite some time, lots of misrepresentations of facts (like it happens in other spheres of specialized reporting) as regards aircraft types dotted the pages of our newspapers, journals, on radio and TV, while reporting events relating to air transport.

These errors at times are adduced to printers' devil, and on many occasions, traced to a lack of understanding of the industry by the journalist in his/her write-up, the photojournalist, while writing captions for his/her pictures or that of the sub-editor or copy reader on materials received from the field.

Many of us even today, that have had the privilege of having stayed on this beat for 2-5 years do not even know the type of aircraft being used by some airlines. At times if we know, we find it difficult to physically identify the aircraft model where it is seen in another livery.

On many occasions, you read or hear a reporter referring to a Nigeria Airways Boeing 737 that had an incident a while ago outside Lagos as an Airbus and to an Okada or Kabo Boeing 727 as BAC 1-11. Tb such reporters any aircraft in the fleet of Nigeria Airways is an Airbus A310. Similarly, due to its popularity in the recent past among private airline operators, any aircraft that had an incident or accident is BAC 1-11.

Even though some of us were even privileged to have gone on sponsored courses (courtesy of the former Federal Civil Aviation Authority, (FCAA) to get us familiar with the intricacies of the industry, we still have in our midst aviation journalists referring to Tampico, a propeller aircraft as a jet aircraft. This misinformation and ignorance are not limited to us as a professional sub-group. Security operatives are not left out. For example, on a bright afternoon, sometime in 1989, one of the operatives saw a plane taxiing to a stop at the international wing of the airport and said: "Lateef if I am not mistaken, that plane is an Airbus". I quickly corrected him... "No — that is a Boeing 737 of Air Afrique:

He added, "sincerely speaking, Lat, do you know that I have been finding it very difficult to identify these aircraft"?

We cracked jokes over it and later went our different ways. Imagine if my friend has been detailed to look out for a particular aircraft coming into the country through any of our airports with contraband, or there is a supposed enemy of the state on board the aircraft, that should be called for questioning. The suspect would have escaped, simply because the wrong plane was the object of the search. We as journalists reporting this beat are also prone to this ignorance which tends to affect our news materials. We should therefore be able to shake off the yoke of ignorance by getting acquainted with the industry.

The only way to do this is to ensure that we constantly read aviation journals, both from within and outside the country, on the developments within the industry and the way experts address

various issues. It is by doing this that we can get properly informed and in return inform our readers and people within the aviation industry so that we don't continually become laughingstocks.

Immediately after the November 7, 1996, ADC plane crash in Ejinrin, near Itoikin, Lagos, very many of our media houses fed the public with lots of misinformation as regards the search and rescue operations and what was salvaged from the wreckage. You find reporters referring to Auxiliary Power Unit (APU), as an Aircraft Engine recovered.

In covering the airports many of us have had to run into problems with security operatives partly due to overzealousness on the part of f security men, while many of us have the wrong notion that because we are journalists covering the beat, we have unlimited access to prohibited areas to non-passengers and sterile parts of the airport.

This has been one major area of conflict between many of us and security operatives. Fortunately, the majority of our colleagues have travelled far and wide passing through the terminals of airports and I doubt very much that excepting the airline and airport officials and security men on duty at arrival halls, one can find any journalist carrying out his duty inside arrival or departure halls.

It is here you find journalists who are not even posted to cover the airport turn themselves into passages officers to impress their bosses that they know the terrain better by getting into the arrival hall to receive their boss(es) instead of waiting in the open arrival lounge where they, like any other member of the public are legally allowed to wait.

It is in light of the above that I enjoin my colleagues to strive to know and abide by the regulations prohibiting access to sterile areas of an airport because an airport, like our land borders or seaports, is a security zone and we all know what security is in the well-being of any nation. If we can achieve this, there will be fewer areas of friction between us and various agencies of government working within the airport.

Generally speaking, aviation reporting in Nigeria is still undergoing some sort of metamorphosis, like the country's aviation industry. When we, as aviation journalists can get properly acquainted with the mechanisms of the industry by reading aviation journals/texts, organizing workshops, and through exposure to air shows in advanced countries, then we can say that we have arrived at aviation reporting. Then, the majority of us would have been well-grounded in the usage of correct terminology when writing our reports, analyses, and commentaries.

(Expectations and Limitations by Lateef Lawal, Publisher, Nigerian Commercial Aviation News Magazine)

CHAPTER 13

ACCESS TO INFORMATION
By Tunji Oketunbi

AN OVERVIEW

I do not intend to go into the history of aviation reporting which I think now is more than two decades old. Regardless of its shortcomings, aviation reporting in Nigeria has come of age with a lot of potential for future growth. Its limitations, to a large extent, have been informed by the level of growth of the aviation industry itself and the willingness of the practitioners to improve. However, aviation reporting here still leaves a lot of room for improvement as serious errors that could be misleading, embarrassing, and or even outright devastating are still noticeable in reports on aviation in our publications.

I will not go into details about these lapses, some of them bordering on obvious ignorance of certain aspects of aviation operations by the writer partially informed by the environment where he works. My mandate here is to address access to information as it affects aviation reporting. It is imperative, nevertheless, to examine the aviation subsector as a service industry and the role of an aviation reporter in its development.
The aviation industry all over the world plays a vital role in the lives of the people and the world economy. Indeed, it is a catalyst for economic growth; it offers the fastest means of transportation that speeds up economic and social activities. It also generates millions of jobs globally and substantial income for several countries.
As a service industry, it is a fragile system that responds quickly to changes in public opinion. For instance, a negative report bordering on safety may adversely affect the patronage of an airline.

Aviation Reporter's Role in Aviation Development
An aviation reporter is a link between the industry and the public. In performing his role as a watchdog, the reporter carefully observes and provides the public with information on activities, events, and personalities in the industry. He also relays the feelings and opinions of the public, especially consumers or users of aviation services to the operators. In this way he gets the two sides informed and ensures a cordial relationship between industry and the public. The aviation reporter also has the responsibility to educate his readers on various issues, activities, and developments in the aviation subsector. This becomes necessary as aviation is a technical field and often it is not unusual to find many people confused about its operations. Apart from explaining to the public various aviation policies by the government an aviation reporter equally has the responsibility to guide the government in policy formulation by expressing public opinion and industry stakeholders' concerns on a particular proposed policy or an already made policy. An aviation reporter, therefore, needs to be well-informed for him to be involved in the development of the industry.

Information As a Vital Tool for Effective Aviation Reporting
For an aviation reporter to effectively carry out his assignment of reporting the industry access to information plays a fundamental role.

Information to a reporter is like raw materials to a manufacturer. He needs it to write an accurate story. In fact, without information, a reporter easily turns into a fiction writer or at the best

speculative writer. Lack of information had given birth to many misleading stories with the attendant embarrassment and injuries to persons and corporate bodies.
Information where it is available to a reporter enables him to educate his readers on issues affecting the industry. You may be surprised that the aviation reporter also educates workers, including professionals, in the industry.

Besides, access to information helps the reporter in his job and in turn benefits the industry. The information helps the reporter to fulfill his role of informing, educating, and entertaining his readers.
In summary, information is a vital tool for a good aviation reporter without which he can be compared to a grounded aircraft.

Having looked at the importance of information to an aviation journalist let us briefly look at the current level of access to information in the industry.

Sourcing Information, how easy?
To tell the truth, it has not been easy for an average aviation reporter to access information in the industry. Getting information from various organizations and their officials is like trying to squeeze water from the stone. Ironically, these are the people who would be accusing the reporters of not highlighting the activities of the industry.
Even passengers or users of the airport who would complain about the shortcomings of the facilities of the airport and services of the operators decline comments when accosted for interviews.

During accidents or the attendant search and rescue information flow becomes a very erratic giving room for speculations and misrepresentations of situations. Yet, the International Civil Aviation Organization (ICAO) recommended arrangements for information center and regular press briefings, during accidents. One does not need to travel abroad to see how accidents are covered by the press there and the latitude of freedom reporters enjoy in the course of doing the job.
Some airlines also try to conceal or give a fake figure of casualties during accidents.
I want to summarize the factors militating against easy flow access to information as civil service orientation, fear of being misquoted, dearth of a reliable database, technological backwardness, and distrust between public relations officers and reporters.

How to Access Information
It is important to examine various avenues for accessing information and see how an average Nigerian aviation reporter had fared.

The Public Relations Officer
In exploring sources of information this is a major source that would readily come to mind, but which, unfortunately, has provided very limited information, far less 'than an aviation reporter requires to effectively do this job.

In advanced societies, for instance, all you need to do to get the information you need regarding an organization is to contact its press/public relations officer who will provide you with materials and answer all your questions.
The distrust that exists between the reporter and the P.R.O. constitutes a serious constraint to accessing information. The P.R.O. fears the reporters may use any information released to him to harm the organization and jeopardize his job.

The reporter, on the other side, is not happy that the PR man is hoarding information from him and making his job difficult. But on average, I must say the relationship between the PR officers and the reporter in this industry is relatively cordial but could be better,

One can equally note that while some PROs are forthcoming during press inquiries some would frustrate reporters with 'no comments' or 'I don't know' or even become elusive. Some may even ask you to come back for answers to inquiries they will never give you.
Some reporters have also not helped the situation by not being discretional with information obtained when writing their reports.
However, both the reporter and the public relations officer can build confidence in each other which will benefit the two parties in the long run.

Interviews
This entails discussions with industry operators, professionals, officials, and other stakeholders. It also includes formal and informal or personal discussions with the groups mentioned above and the people around the airport. Through this, a reporter develops source and cultivate them. The constraint here is that very few want to talk with a reporter for fear of being quoted or misquoted. This fear, although exaggerated, may not be unfounded. Besides, the majority of workers in the industry have this civil service mentality of 'seen but not heard'. However, this remains a good source of information for a diligent reporter.

Wide Reading/Self-Education
I see this source as the most vital asset for any aviation reporter. A reporter's hunger for knowledge and thirst for reading materials relating to aviation will be shown in their work.
It is not how long you have been here or your medium that matters. It is how well-informed you are in the field you are covering that distinguishes your work and consequently you. When I was posted to the aviation beat a few years ago I took it as a duty to educate myself to enable me to become relevant in my job. This line of action was informed by the realization that aviation is a vast field and highly technical. This involves consulting professionals in the industry for tutorials reading all manners of materials including foreign publications, the more I do this the more excited I am about aviation and the more I want to report it, and the more it bears on my works.
The advantage of this is that a reporter is well informed on a particular subject which earns him respect before a PRO or an official who may have to think twice before concealing information from him.
The constraint here is the dearth of reading materials in the industry.

Seminars, Conferences, etc.
These fora offer an aviation reporter a veritable source of information and means of self-education. Here speakers from different areas of the industry present papers or speak on various subjects from which a reporter builds up his rapporteur and source good stories.
Events of his nature are also good meeting points between a reporter and his would-be sources who ordinarily may be difficult to see.

Organized Courses
An aviation reporter can boost his information base by attending specialized courses on aviation which enhances his knowledge of the industry and improves his reports.
For now, only the Federal Airport Authority of Nigeria, (FAAN) sponsors reporters to the Nigeria College of Aviation Technology (NCAT) or a specialized course.
This is a good source of information for a reporter if fully appreciated.

Observation and Investigation
Through personal observation of activities in the industry, a reporter can access information that would help him write a good copy.
Investigating a story also usually leads a reporter to mines of information and enhances his knowledge of the industry.
Reporters' laziness is, however, a major constraint here.

The Internet
This is another veritable source of information on international aviation business. Major global aviation bodies can be contacted by visiting their websites. This is the beauty and the wonder of technology. Very few reporters, however, currently have this opportunity.

Conclusion
Having realized how important access to information is to the journalist and its attendant benefits to the industry I want to believe that our attitude from henceforth will change.
For the PROs, I hope they would improve upon the level of access to information they extend to reporters to know fully well the devastating consequence of concealing information. Journalists on the other hand should be discretional with information obtained to ensure accountability in the system without destroying the industry. However, a change of orientation by all would do the industry a lot of good.

(Access to Information by Tunji Oketunbi, Aviation Correspondent, Guardian Newspapers)

CHAPTER 14

EFFECTIVE REPORTING
By Pat Agbaeru

In discussing this topic, time and space may not allow us to trace the history of aviation reporting in the country. However, one considers it relevant to pay tribute to those individuals and organisations who, over the years, have made outstanding contributions to the growth of this specialisation by publishing aviation journals or aviation columns in the newspapers, or by producing aviation programmes in the electronic media.

Today, a lot of aviation correspondents also maintain weekly columns and air times on industry matters in their respective media, in addition to sending in stories daily for regular usage in such media. These people and in fact, all beat reporters deserve some accolades for the good job they are doing.

Based on experiences from all these efforts, I am sure we all agree that resources for effective reporting of the industry are not readily available and should indeed be a topic for consideration, especially because of the great challenges the new millennium is likely to present before the profession.

The Constraints

It is common knowledge that our environment and institutional factors in many cases have not been in favour of effective reporting. The constraints that have affected the job so far can be found in the briefs below:

Bureaucratic seal on information which is largely promoted by the predominantly civil service posture of the industry is top on the list. The management of most aviation companies and even some of the public relations staff are reluctant to give information. To them, the civil service rule overrides the theory of public interest, only very few public affairs officers have been quite cooperative and effective. Let us hope that the situation will improve along with the ongoing promotion of public accountability.

Worse still, the non-governmental organisations such as private airlines, which depend on public patronage for their survival, have little regard for giving information to the public through the media. For instance, not more than three of them have a defined arrangement for public affairs. So, if you go to most of these airlines to confirm any story, you are on your own.

The lack of reference materials has also been a major setback. Our aviation organisations are not very familiar with setting up libraries or information shelves, where at least harmless publications and photographs relevant to such companies, activities, and their officials could be kept for interested journalists and other people who may want to extract some information from them.

In the same way, professionals, managers, and other leaders of the industry have so far not been interested in documenting their achievements, professional experiences, and features of their professions in the form of books or some other durable format. So, journalists find it difficult to access information on such personalities or their professions, especially when these veterans have retired.

Legal restrictions like the law against taking photographs around the airport have made it almost impossible for airport photojournalists to take significant photographs of core aviation equipment and activities; consequently, such pictures are scarce in our reports.

The situation in most of our media houses also is less than encouraging. The journalist is poorly remunerated, his meager salary is not paid for several months, and neither is his transport claim. Then, of course, he is ill-equipped in terms of tools for the job.

The editorial orientation of several media organisations further restricts effective reporting. Many editors, in desperation for scoops, do not give the journalists time for a thorough investigation of a story. This, coupled with the difficulty posed by the news sources, only guide the average reporter into doing untidy jobs sometimes, which would still be published.

The constraints cited above are mostly caused by institutional arrangements. But of course, the reporter himself has some personal constraints. After all, he is human and cannot be perfect, as the subsequent numbers indicate.

I think, for instance, that most of us are too confined to our immediate environment. Apart from many of us not having regular contact with other airports across the country, even the Lagos airport where we are based is under-reported. For several weeks or months, a greater percentage of us hardly visit the charter terminal, terminal 2, or the Cargo/Hajj terminal; even our presence at the International Terminal is irregular. But again, if the conditions of service, including monthly wages, are not motivating; then they form part of the excuse for this.

Over-concentration on airport reporting; for some present generation of correspondents, the emphasis is more on the passage of VIPs (executive tourism), organised events, and other general stories. Investigation reporting and technical issues are under-reported. However, there are colleagues, too, who are known for their keen interest in those areas.

Syndication of stories: sharing stories and jointly deciding how to write them may not be totally out of place, especially where people have a common understanding. This, however, has made some of us relax our zeal to search for stories on our own. Further, there are instances where you notice that a number of the reporters involved cannot defend such stories after getting them published.

Education

While all of us need continuous education and awareness on advancements in the industry, such initial tasks as knowing the unique features of different types of aircraft commonly operated in our environment, being able to distinguish between a jet and a turboprop and understanding the respective function of the major organisations in the industry still elude many journalists long after they have been posted to the beat.

On occasions in the past, we had been embarrassed with allegations that one or two of OUT colleagues misused information obtained in confidence by either quoting officials who did not want to be quoted or passing vital documents from one party in a dispute to the opposition camp rather than using them for story writing. These, of course, killed the trust the affected sources had in the reporters initially; and their impression of journalists generally must have been impaired.

Strange and newsworthy objects and equipment have passed through our environment unrecorded in pictures because our photojournalists, in most cases, even where they had opportunities to take the photographs were not just alert, besides not having such accessories as the zoom lens.

On a general note, the presence of military personnel at our civil airports for many years seems to have intimidated many an average airport reporter. We expect a significant improvement in this situation soon, in line with a civil rule.

Challenges ahead

Having observed these areas of weakness, one would want to project into the kinds of challenges the near future is likely to present to us, to consider how much improvements would enable us effectively to face the tasks ahead:

1. Sophisticated Technology: Aviation technology is ever advancing.

Modem aircraft are getting extensively computerised; instrument landing aids and old air traffic control facilities are giving way to satellite-based systems and concepts, and airport installations and services are being automated in compliance with the Y2K deadline. We must be adequately exposed to these changes and be able to correctly explain them to all classes of our readers.

2. The creation of new organisations like NAMA, NCAA, and FAAN would, of course, herald a major expansion in the scope and tempo of activities in the industry, new management set-ups, new labour groupings, and new issues. We should also be prepared to cope with them.

3. Privatisation of parastatals is a new trend. It will bring in new business alliances and management orientations, different labour and press relations, more airlines are being expected, liberalisation of our international routes is being considered. International aero-political and economic concepts like globalisation and liberation are fast closing in on our environment. Our responsibility as communicators is to understand these changes very and correctly explain same to our readers.

4. New regulations: the current thinking in some quarters of the local industry is that standards should be set for various activities that are allied to the aviation sector, including aviation journalism. If that does happen, we may be subjected to closer monitoring and would, therefore, have to be more careful.

Resources required and suggestions for improvement

Considering these challenges, what sort of resources, cooperation, and environment do we then require for effective reporting of issues and events?

First and foremost, we cannot run away from the need for broad-based education. General education, professional education, and industry education are all vital in making a reporter resourceful.

Information technology is the current thing and will be central in most activities in the next few years. We need, therefore, to have access to both the skill and the equipment. Meanwhile, simple communication tools like walkie-talkies, telephones, and pagers, at least very soon, should be part of an average journalist who is expected to effectively cover a beat like aviation.

We would also need well-grounded and committed public relations managers who are proactive; public relations managers who are part of major decisions of their companies' management and are empowered and willing to give out facts of public interest to the journalist. Reference library, as earlier stated, should also be considered as part of the PR setting. A journalist, of course, is expected to have a mini library at home to enhance his efforts.

There is also the need for public relations personnel to accept that a reporter who states the facts of a story is not necessarily antagonistic towards any of the parties concerned, especially if both sides are given balanced representation. He is only defending the ethics of his profession; and balanced, factual stories are a vital feature for effective reporting.

A good reporter should also be able to develop resources for industry professionals, decision-makers, labour leaders, and other stakeholders. If we relate well with them, prove to them that we are knowledgeable and respectable, and protect their identity when we extract information from them of course, they will be cooperative. PR officers, too, sometimes request concealment of identity and we ought to cooperate. It would be rewarding to develop similar contacts in relevant institutions, companies, and airports across the country and beyond. Exchanging information with them will provide immense resources to the correspondent.

The provision of these and other resources certainly requires the cooperation of all the interested parties. While the journalist has to show interest in getting the exposure and facilities, his employers should be able and willing to give him the necessary incentives towards effective performance, including sponsoring him to seminars, workshops, airshows, and other educative fora. This would help the media organisation and the journalists to maintain objectivity and balance in their reports.

The aviation companies, as part of their contribution to developing the industry, are, of course, expected to continue assisting in this regard. Meanwhile, appreciation must go to Nigeria Airways and FAAN, for having been so helpful in exposing many of us to resourceful events. Thus, as we wish to work in an orderly aviation environment, we equally expect improved media organisations and well-paid journalists.

Luckily, our aviation industry is blessed with an organised crop of reporters. The League of Airport and Aviation Correspondents (LAAC) could become a vital platform in providing some resources to its members for effective reporting of the industry. In this regard, I suggest that members who have the opportunity of attending seminars, airshows, and conferences, should bring back to the secretariat some extra copies of the documents to enrich the league's library. The association could, as an entity, apply to publishers of industry journals and newspapers within and outside the country for regular complimentary copies. Members should be encouraged to read these for improved awareness. Those that are fresh on the beat should also be assisted in getting acquainted with the environment and topical subjects.

Yet, despite our efforts at promoting standard and effective representation of the industry, let us not lose sight of the episodic reporter, who will stray into the environment once in a while, do a damaging or sensational story and sneak away. He may not be easily tamed.

Indeed, as long as the industry thrives, for so long shall those in it continue to seek more and better resources to render better services. For the journalist, this statement is even more relevant because he has to be familiar with every other profession within the system to report them

effectively to the public. Although, as very resilient professionals, one dares say that we have done well so far; and will succeed in meeting the challenges of the future. But professionalism, integrity, and cooperation must remain the keywords.

(Effective Reporting by Pat Agbaeru, Former Editor of Aviation and Business Update Journal)

CHAPTER 15

TOOLS FOR AVIATION REPORTING

By Sam Adurogboye

Introduction

The above subject to my mind is universal.

Universal in the sense that there is no Nigeria Aviation and as such there cannot be a Nigerian way of reporting it.

What is aviation reporting? Aviation reporting, simply put, is the act of news gathering on aviation matters for presentation to a mass audience through the media of mass communication. Aviation reporting goes beyond the usual spot personality interviews. This is more of airport reporting than aviation except that aviation reporting derived its root from it. Having said that I would like at this stage to welcome you all aboard.
My presentation is in two parts, the journey so far, how to get it right, or better put, how it could be improved, and the necessary tools to improve aviation reporting in the new millennium.

To many people in society, the mass media mean no other than being the primary source of information. The media's impact on society is so great that a very large number of readers, viewers, and listeners take their words as the gospel truth. The main architect of the media and of the information that goes in and out of them are the journalists or reporters, as the case may be.

The acceptability of the concomitant role (s) of the media is therefore not a surprise, hence the attraction of a constitutional backing as evident in the provisions of the 1999 constitution of the Federal Republic of Nigeria in section 21. This is a mere transplant of the provisions of the 1979 edition. It stipulates in part thus: the media of mass communication shall have the responsibility of holding the government accountable to the governed through effective reporting of events...

This provision has its roots in section 36 of the same constitution which in itself guarantees the right to own, establish and operate any medium for the dissemination of information; ideas, and opinions.

It is in the exercise of these rights and privileges that the media practitioners often incurred the wrath of the over-zealous law enforcement agents or those with a skeleton in their cupboards, though this area is not the subject of discourse herein.

However, for me to give an account of how reporting has been in the aviation industry since 1994 to date, the period of my sojourn in this sector I have specifically been asked to do, is as good as asking me to give an overview of media coverage of the sector within the period.
This will lead us to the journey so far.

The Journey So Far

Reporting Aviation Industry by any journalist could be very exciting provided the atmosphere is conducive, and here lies the wax of the matter. Thank God democracy is here and we are beginning to enjoy some level of freedom and liberty but the story had not been that pleasant. This, however, depends on which side of the divide one is. Because conduciveness is subjective in that the atmosphere that is not palatable to one may be palatable to another. But on the whole, I make it bold to say that it is NOT very pleasant. Many factors have been responsible for the discomfort, some of which are enumerated below:

1. **Poor state of the national economy:** This has resulted in the low level of activities in the industry such that the media too have little to do or cover as fewer activities are taking place. Imagine an industry with about 150 registered airlines with some having 20-26 aircraft that have now been reduced to about 10 struggling airlines with one to three aircraft on each fleet.

2. **Unfavourable Policies**: Media activities have been slowed down inadvertently in the industry via governmental policies or those of its agencies and parastatals. Before now, aviation reporters used to have unrestricted access to any part of the airport upon obtaining the necessary on-duty card, but that approval has since been cancelled without explanation thereby inhibiting their operations.

3. **Inadequate Training and Exposure:** It is a known fact that the aviation industry is a high-tech sector that is ever-changing. This presupposes that for, one to be in a position of reporting and analysing events and issues accurately one requires adequate training, retraining, and exposure to issues and events within and abroad. This again is not within the reach of all the practicing journalists, except for the few whose organisations are involved in spasmodic retraining exercises and the few that are being taken to Nigeria College of Aviation Technology courtesy of the League of Airport and Aviation Correspondents (LAAC). Sponsorship consideration over the years had been borne solely by the Federal Airports Authority of Nigeria (FAAN). One has to commend the authority for its consideration and investment.

4. **Lack of Motivation Arising from Poor Remuneration:** Do not be surprised to hear that journalist, aviation reporters inclusive, are the "least paid in the bracket and nobody gets to know because the individuals involved have no platform to say it. This has impacted the practice of the profession in a way. I have once heard a staff of the Federal Airports Authority of Nigeria (FAAN) for instance accuse the aviation reporters of a cover-up by not reporting the two-week delay in payment of their salaries at a time most of the accused persons were being owed an average of five to ten months salaries in their respective offices.

5. **Changes in Communication and Aviation Technology:** With the rapid level of changes in communication technology and the aviation industry, a reporter needs to stay abreast of these changes to be able to function. But again, this is another area that had been inhibiting journalism practice in the sector. How many of us have a laptop? How many have access to the internet? How many of us and how often?

6. **Journalists as Enemy or Tool:** Will it not be right to say that each society gets the type of journalist it deserves or that the aviation reporters of today are a reflection of

today's aviation industry? Some chief executives, government officials, and their agents see journalists as enemies regarding this set of practitioners while some as tools that should be used and dumped. But how has it benefited the two? Negatively! This has been the situation.

7. **Ethical Questions:** So many things are happening, both on the side of the aviation reporters, who are members of the League of Airport and Aviation Correspondents (LAAC), vis-a-vis the image makers for the organisations operating in the sector that is still questionable. Having a body like LAAC is desirable as long as it promotes professionalism on the part of the practitioners. But its existence has not encouraged healthy competition among the writers. This has gradually made some colleagues to be so complacent thereby rendering them ineffective on the beat. It is as if you must belong to LAAC to be able to function as an aviation reporter - to which I say "no".

Again, information management and the art of public relations in this sector vary. While some subscribe to pure professional practices, some adopt otherwise. Some public affairs officials have never confirmed or denied knowledge of an event or an issue since I came on board. There are those you cannot even see as a journalist not to talk of seeing their boss for the needed information. And like I said, there are good guys, professionals to the core.

The dilemma of a writer in an environment like this is better imagined. An example is if a journalist has a report, nobody to confirm or deny or you can't even find the officer. How and what do you report? Rumour? And if one must act professionally, stories would be left unreported, and somebody somewhere is shouting "these journalists have been settled.

I can go on and on, but time and space will not permit, but one thing is established and that is the fact that the environment in which we are practicing the profession is not yet conducive. This is not to say that there are not glittering moments arising from individuals, input, efforts, and desire to excel in this chosen career, but I feel it should have been better than it had been the situation not the way it had been. This again leads us to:

How to get it right: - Having taken time to diagnose the problems with aviation reporting in Nigeria, it is not difficult therefore to prescribe remedies as highlighted herein:

(1) Training of journalists, particularly those in specialised fields like aviation needs to be taken seriously by their employers, and the money spent on such exercise by organisation is well spent in that the outcome is for the good of the entire society.

(2) Exposure to local and international conferences is increasingly necessary to sharpen one's skills regularly.

(3) Adequate remuneration is good for journalists just as it is for the workers in the aviation sector. While not holding the sector responsible for this inadequacy or as an excuse for any shortcoming, it is only good that we point it out so that one comes to terms with the frame of mind these journalists who are themselves not spirits are operating from.

(4) There is nothing a journalist cherishes as being accorded access to his/her source even when the facts being sourced cannot be reached. An inaccessible chief executive stands the risk of being misrepresented more than those accessible as gray areas could always be cleared during such encounters. In a situation where aviation journalists are restricted from having

access to the site of an accident plane while information about it is not forthcoming as stipulated even by the International Civil Aviation Organisation (ICAO), the same officials do turn around to blame the press for misrepresentation.

(5) Individual's quest for respect and dignity on the part of the journalist needs to be encouraged by the individuals and their employers via the constant provision of tools of the trade and development of self. It is not ideal for a journalist to rely on communication facilities in offices other than for sending/filing in their reports.

In conclusion, I would like to say that Aviation Reporting in itself is very exciting.

This is so because it is an environment where you meet people of all shades, characters, and colours. It is a capital-intensive industry because of the ever-changing high technology involved. It is a business for those with the necessary financial muscle and managerial competence.

Reporting the industry, therefore, requires some level of competence too and dexterity. As we enter the new millennium it is essential that those of us in the field or the prospective aviation reporters would not only be required to have a mastery of the language of aviation but must be backed up with adequate retraining and well-equipped for the job to be able to compete favourably with colleagues from any part of the world.

There is also the need for image makers in the industry to be more receptive to journalists by being accessible, available, and forthcoming on issues when approached.

Similarly, there is a greater need than ever before for my colleagues to imbibe the spirit of competition by doing away with much of “this is how we have been doing it”.
Attempting to be independent-minded and competitive should not be equated to a desire to make a name, but is anything wrong with that?

(Tools for Aviation Reporting by Sam Adurogboye, former Aviation Correspondent, Sketch Newspapers Limited)

CHAPTER 16

INTERNATIONAL CIVIL AVIATION ORGANIZATION AND THE NIGERIAN CIVIL AVIATION STRUCTURE: THE ROLE OF THE MEDIA

By Ibrahim. Auyo

The Nigerian Aviation industry has come of age, with a history much older than the Country's independence itself.

The first recorded flight on Nigerian soil originated in the then-colonial protectorate of Sudan and landed in Kano in 1925. This was reported by the Kano Chronicle, which was then a monthly publication. Since then, the media has continued to play a significant role in this regard.

As you are fully aware, Aviation is an International phenomenon, that cuts across national boundaries. The major meeting point for nation-states across the globe for concerted actions for the development of safety in the Industry has been the United Nations, through its specialized agency, the International Civil Aviation Organization (ICAO).

ICAO is concerned with setting standards and recommending practices that nation-states must comply with to ensure a safe, efficient, orderly, and economic air navigation system worldwide.

It is in an attempt to carry out these tasks that various national and transnational organizations such as the African Civil Aviation Commission (AFCAC), African Airlines Association (AFRAA), and the International Air Transport Association (IATA) among other regional aviation bodies too numerous to mention, have emerged.

However, the World Aviation body (ICAO) has not for one minute lost sight of its central focus, and that is to say that the aviation business must be carried out strictly in line with the rules of the game which are universal. Where national variations exist, they must not be International standards.

It is in light of this background that the world body (ICAO) has for about a decade recommended to member states the concept of separating the provider of Aviation services from the regulator. This is aimed at building checks and balances within the system to guarantee safety.

My brief presentation will focus on three phases of the role of the media:
First, what role did the press play in the realization or otherwise of the new aviation structure in Nigeria?

Secondly, what role is the press playing in the sustenance or otherwise of the existing structure, and

Finally what role should the Press play or ought to play in the present scheme of affairs?

Without mentioning individual media organizations, let me turn over the collective credit of a hard and protracted fight for the institutionalization of an (ICAO) recommended Civil Aviation

structure in Nigeria to a specialized body of Aviation Correspondents through which organizational efforts, the voices of experts, governmental actions, the international consensus among other variables found expression.

We must accept the fact that Aviation reporting is not an all-comers affair. The business is simply technical and requires at least some basic knowledge of its concepts and operations for anyone wishing to delve into it. The aviation reporters have got these qualities which they rightly applied towards the realization of the noble goal of an ICAO recommended Civil Aviation structure in Nigeria.

I wish to recall here briefly that top-level officials of ICAO were in the Country in the middle of 2000 year, and they expressed satisfaction with the new structure, which they believe has now paved the way for a focus on developmental issues in the industry.

Apart from the aviation reporter's association which comprises most of the Country's National Dailies, other periodicals such as the Aviation & Allied Business Update, the Flight Safety Foundation magazine - Skywatch, Nigerian Commercial Aviation News, African Aviation magazine, African Airline magazine, the Maritime & Aviation magazine, the New Transport magazine, Radio & Television Stations, particularly the Nigerian Television
Authority (NTA) and the Federal Radio Corporation of Nigeria (FRCN), to mention a few, all played significant roles in the area of public enlightenment most especially stressing the desire to have an internationally recognized Civil Aviation structure in the Country.

Media projections of public fora at which views on this subject matter were freely expressed, such as Vision 2010 and the Nigerian Aviation Industry, the 1999 Policy Workshop on the Industry, and the Leadership Conference, among others cannot be overemphasized. The views that were articulated through the media and other administrative channels to policymakers culminated in the formulation of a Civil Aviation Policy in 1999. Through this policy, the
Nigerian Airspace Management Agency (NAMA), for these noble efforts.

Let me however point out that at the point it became clear that these agencies were going to be created, a few dissenting voices echoed again, through the press. Rather than suppress the voice of reason, these voices reinforced the impetus for the realization of the new structure. Here we are today, with the question of structure firmly put behind us, having also secured ICAO commendation, we must move, and fast too, to put the Nigerian Aviation practice on a global scale. What are we doing in this regard?

For the Nigerian Airspace Management Agency, we are committed to the establishment of a dynamic Airspace Architecture that will meet the requirements of a safe, efficient, and economic Air Navigation System must point out here, that I am perfectly satisfied with the role the Nigerian Press is playing in projecting those activities. NAMA handles one of the most technical aspects of the industry which has to do with the provision of navigation, landing, and communication facilities as well as search and rescue, air traffic control, and aeronautical information services. The Nigerian media has taken pains to come along with us in this highly technical business, by decoding the sophisticated information to the policymakers and the ordinary man. We appreciate this role, and we will do everything possible to support the media in this regard.

At the moment, NAMA is coordinating efforts with FAAN, NAL, NCAA, and NCAT to come up with a package for the training of Aviation reporters to enable them to sharpen their skills.

In a couple of weeks, we shall come up with the specifics of this joint effort. As soon as possible reporters will benefit from the two weeks course billed for Zaria.

What role should the media play or ought to play in sustaining the ICAO-recommended aviation structure that presently holds sway in Nigeria? My honest advice is that we all fought for this desirable structure to put things right. It will neither make sense nor logic to turn around and destroy what we have collectively built.

I urge aviation reporters therefore to engage in constructive criticism, and positive exposure of the activities of these agencies to enhance their development. They must, however, speak when they should. Aviation reporters have been entrusted with the voice of the people. History will (not forgive those who keep mute when they ought to speak. Speak to improve and not to destroy.

You should also take interest in the positive developments taking place in the industry and project them accordingly. I must point out here that a media culture has evolved in Nigeria. This has to do with perceiving what is newsworthy only when it is bad news. Positive developmental news has been relegated to the background such that the reader/listener himself has been disoriented to believe that only bad news is news. Aviation reporters owe a responsibility to the public for a complete re-orientation to enable the public to appreciate and take delight in the good news.

I cannot end this paper without intimating to you some new developments in NAMA.

That is to say that officials of the Federal Aviation Authority (FAA) of the United States are currently on a five-day working visit to our Agency. The mission is to undertake a technical assessment of the Agency's air navigation programme and map out a programme to assist NAMA in its modernization efforts.

Highlights of the areas being looked into include: -

- Standardizations in the procedure, operations, and technical evaluation.
- Assistance in the area of calibration with the view to reducing cost
- An alternative power supply to navaids, with the solar energy option, is being considered which will also reduce costs from the present use of power generating sets.
- Maintenance of Navaids facilities
- Training of manpower in identified areas
- Airspace planning and management
- Facility exchange programme for technical and operational personnel.
- Systems rehabilitation, replacements, and overhaul
- National Air Navigation Service architecture.
- Project design and implementation
- Quality assurance training.
- Strategic planning

A programme of action is already being developed by the two bodies (FAA and NAMA) to effect rapid implementation of planned programme and projects.

The FAA's assessment of the eight-month-old Agency is that we have done creditably well. Rather than send us to bed, this assessment has rekindled our zeal and determination to re-double our efforts in ensuring the safety of the Nigerian Airspace.

I urge aviation reporters to keep the public informed in all that we are doing, but please, do not tell the public an iota of what we have not done for that will amount to over-projection. If you hide whatever our achievements are, then you may have succeeded in suppressing the truth.

(International Civil Aviation Organization and The Nigerian Civil Aviation Structure: The Role of The Media by Ibrahim. Auyo, Managing Director, Nigerian Airspace Management Agency, NAMA)

C H A P TE R 17

CORPORATE MANAGEMENT AND STRATEGIES FOR IDEAL IMAGE

By Phil Osagie

It gives me enormous pleasure to share ideas on one of the most appropriate topics of the moment; Aviation Reporting in the new millennium; Corporate Management and Strategies for Ideal Image.

I will take off, by first of all defining succinctly, some key operational terms that will be lavishly used in the business of the discourse.

IMAGE
The general impression that a person, firm, or product, gives to the public, is reputation. It is also the creation of a desired public acceptance through public relations, publicity, and advertising.

COMMUNICATION
According to the World Book Dictionary, it means giving information or news by speaking or writing, transmitting, and transferring thoughts, and some information. The essence of communication is to affect, to influence with intent. Simply put, it involves the transmission of messages to evoke a response. Communication is part of everyday life. Mostly we use words to communicate, by speaking or writing. People have a purpose when they communicate, sometimes the purpose can be quite vague, as when we are chatting with friends.

In this case, the purpose is more social than informative, however, the purpose can be quite specific. Written communication is usually more formal in style than spoken communication, the message must be gotten across in words alone. Effective writing requires knowledge of grammar and the ability to use words skillfully.

Corporate and individual expectations in the new millennium are very challenging and tasking. It is only those that are at the forefront of technology that can perform optimally then. With the development of super technology equipment and appliances, communication becomes easy and efficient. Affordability remains a key factor that will be resolved. Aviation Reporting will be one of the major sectors that demand attention.

The continued development of the aviation industry depends largely on the prowess, commitment, and ability to communicate effectively. Generally, reporting and dissemination of information require speed, accuracy, and depth. Speed is a very key factor that must never be neglected as it helps the target audience make up their minds.

For instance, there should be a clear-cut approach to reporting flight schedules in any media. In reporting also, there is the need to include the weather situation, which will be an important guide for flight schedules.

For efficiency and production in the aviation industry, there is a basic need to understand the sector very well, and to perfectly use the terminologies when reporting. Emerging and improved technology has made the world a global village. This represents the key issue of

globalization, which can be seen as the evolution that restructures interactive phases among nations by breaking down barriers in the areas of culture, commerce, communication, and several fields of endeavour. Reporters have availed themselves of the opportunities of getting information via the Internet, and e-mail. The speed of information dissemination is thus made easy. Other global issues like mergers and acquisitions make funds and information available to the merging parties. There are also improved technology transfers and training opportunities. In the new millennium, there is a need for mergers, to create a more competitive advantage for most corporate bodies.

TIPS ON AVIATION REPORTING IN THE NEW MILLENNIUM

1. Understand all the issues involved both global and local
2. Stay well informed, read the wide and open mind
3. Have a strong desire to make a difference without undue sensationalisation. Strive to be a good hero
4. Aim for specialisations. The Aviation industry is vast. Look for an area or aspect you can be a master of.
5. Be in tune with the advancement of technology. Understand the systems, not just the news.
6. Create issues of great public interest and keep the issues in focus. Do not be content with just one of exposes
7. Develop a style of your own.
8. Exploit strategic partnerships and alliances
9. Be pulse sensitive. Know the pulse and thinking of the government and other key targets.

(Corporate Management and Strategies for Ideal Image by Phil Osagie, Chief Executive Officer, JSP Corporate Communications)

CHAPTER 18

MANAGING THE MEDIA
By Chris Aligbe

What is the basis for a relationship? Are there any? And if, what kind of relationship should there be?

My first impression is that by sheer accident we are working in the same environment and have therefore become environmentally constrained to relate.
But if this was the only factor, there would not be any need to discuss the relationship. The fundamental, albeit, immutable nexus holding the reporter and the public relations personnel in the industry is the roles of the two dramatics personae. The marauding reporter on the one role sniffs about ubiquitously, armed with his charter as the watchdog of society, intent on opening the can of worms he has concluded, even a priori, is being hidden from him. On the other role, public relations officers armed with their charter to ensure a positive image for this organization, develops a strategy of containment to keep in check the busy-body reporter.
The interesting thing about these two opposing roles is that the more successful each role performer is, the greater his standing in his organization ipso facto, within this setting, a prima facie conflict scenario is perceived to be in existence.

But again, the very interesting thing is that neither the reporter nor the PR Chief can succeed in his role without the cooperation of the other. I must however add that this dependence is less mandatory for the reporter than for the public relation personnel. This is because apart from the reality that no one in his right senses can ignore the fourth estate or its representative, there are so many information windows open to the reporter in any organization. This puts personnel at the mercy of the reporter despite other levels of media relationship beyond the control of the reporter which he can utilize if well cultivated.

Apart from the professional roles element, one other very important factor is that unknown to the reporter, the nature of the aviation industry which is global demands reasonable protection from damage by all operators in the industry. This demand imposes a common social responsibility on all actors. And it is only in a state of healthy relationship that role-players can determine the defining lines of this national interest. The fostering of this induced symbiotic relationship is as beneficial to the reporter as it is to the personnel.

This is a role that most reporters don't seem to understand or accept, particularly because of their distrust of personnel and because of their belief in what they consider universal theoretical principles of classroom journalism. But it is a role in which none should fail. The experiences of Nigeria Airways and some aviation reporters in this are conclusive.

The full implication of the above is that, for both role players and, certainly more for the personnel, a healthy relationship is mandatory.

If this is so, how then stands the beat reporter who is at the lowest point of the ladder in the gamut of cultivable relationships which also enclose media executive editorial staff and columnists among others?

I must say without any reservation, that the beat reporter, though lowest in the ladder, is the most critical in the chain of necessary media relationships. This relationship can be created and

cultivated in different ways depending on the style of the personnel, the nature and degree of vulnerability of the organization media-wise, and the efficiency and effectiveness of the organization in meeting set objectives. Even when an organisation is doing so excellently well, its performance can only be brought fully to the public through well-managed media relations.

Profile of Today's Aviation Reporter

He/She is usually on the youthful side between the 25 years and 35 years bracket. Quite reasonably educated aspires to professional excellence and pride, believes he/she has a right to know, is usually self-respecting, and cherished being respected. He/She is not exposed globally, is amenable to enlightenment, aspires to knowledge, and performs better with exposure. Like most humans, the aviation reporter is emotional, sympathetic, and appreciative, does not like being ignored and so is also worried about economic realities and personal survival. Some of them possess some very strong personal sterling or disturbing qualities all of which moderate reporter/PR officer relations. But an understanding of roles, environment, and social responsibilities dictates, and the general psychology of the reporter as well as individual peculiarities of reporters are germane to a healthy and fruitful relationship.

Nigeria Airways Experience

In Nigeria Airways PR division, based on the understanding of the intervening variable stated above, we firmly believe that unless we create, nurture and sustain a mutually beneficial relationship with the media in general and the beat reporter in particular, our corporate goals may not be achieved without unnecessary pains and setbacks.

It is along this line that we have built a relationship we are modestly proud of with the reporters. In the last eight years, we have managed successfully to move away from the market-type cash-and-carry relationship of the 80s to an enlightenment-based professionally-sound relationship with the reporter. Within this approach, we have used very minimally other levels of media relationships and I must add that we have not had cause to resort to them. We have also tried to impress on the reporters that attempts by them to use other levels of relationships within the airline may not yield any dividends.

All of these have been mutually beneficial.

One last view I would like to leave with you is that the reporter in the aviation industry must be accepted and treated as a member of the family and not as an outsider to avoid unnecessary hiccups. Unless a reporter becomes an infant terrible do not close him out.

(Managing the Media by Chris Aligbe, General Manager, Corporate Affairs, Nigeria Airways)

CHAPTER 19

CRISIS MANAGEMENT AND MEDIA EXPECTATIONS - THE FAAN EXAMPLE

By Slylvester Oputa

1 feel honoured to be asked to share with you my crisis management experience and the role of the mass media in this entire experience. I have been asked to limit the scope of this paper to the experience in FAAN and I believe this is expedient not only because it would make the paper less theoretical but also because various industries and environments have crises that are peculiar to them.

For example, the common issues that generate crises in the oil industry may be different from those obtainable in the banking and Finance industry. The frequency of crises also differs from industry to industry because some industries or environments are more volatile or strategic than others.

Times of crisis in an organisation is the most trying for the public relations practitioner and his relationship with the media usually determines, to a large extent, the kind of testimony he gives at the end of such crises. This, however, does not suggest that effective crisis management is determined entirely by the referent power of the public relations man, that is, his cordial and fruitful relationship with the media. There are other internal and external factors, which play equally crucial roles in dousing the embers of conflicts before they develop into crises. One such factor (if not the most important factor) is the adoption of sound management.
policies with human considerations.

A listening and responsive management would always ensure that issues that concern the welfare of various publics are not allowed to degenerate into crises before meaningful action is taken. Such management would also be very sensitive to its immediate environment, concerning discharging its corporate social responsibilities, without compulsion.

It may then be logical to assert that the role of the mass media in crisis management starts when these human interest policies fail to yield results and irreconcilable differences arise between parties in a crisis, over an issue in which the contending parties have a common interest.

The traditional roles of the media in society, as we all know, are to educate, inform and entertain but embedded in those traditional roles are such considerably influential functions as agenda-setting and information gatekeeping which could sway public opinion in whatever direction the media so desire. Governments, pressure groups, and most enlightened people, including public relations practitioners recognise this power of the media.

This is without prejudice to the fact that consumers of information also have the power to select what kind of information they are exposed to, pay attention to, perceive or even retain, depending on their various social backgrounds and relationships. It has been determined, through many years of research, that issues beget conflicts and conflicts beget crises. It could then be said that crises would have mimrmised if there is effective conflict management just as conflicts could be curtailed if there is planned and deliberate issues management. Conflicts and crises are common in organisations and in fact, in all human endeavours but what matters most

is how they are managed whenever they arise. There is no doubt, however, that it is better to forestall crises than manage them.
An issue could be defined as a subject matter that is of interest to all or some of the public of an organisation. It could also be defined as an event or matter that has potential or realised consequences for the public of an organisation while others could simply see it as an easily identifiable matter around which public opinion has been formed.

From the above definitions, it is obvious that issues management should be an integral part of the public relations function. It is unfortunate, however, that public relations departments pay little or no attention to issues management but concentrate their efforts on crisis or conflict management. Experience has shown, though, that this situation may not be entirely the fault of public relations people as most organisations, especially in the public sector, perceive public relations as a firefighting function that is meant to manage A suppress crises rather than prevent them.

From the foregoing, one could be tempted to ask this pertinent question-why dwell on crisis management instead of issues management? After all public relations experts believe that crisis management is an indication of failure on the part of the management of an organisation.

This assertion is based on the fact that the public relations process involves the transfer of hostility to sympathy, prejudice to acceptance, apathy to interest, and ignorance to knowledge.

Besides, preventive planning is naturally preferable to remedial planning in PR practice because the former isolates problems and removes them before they mature or become issues. The answer to the above question would be that crisis, in itself, is not entirely bad in PR practice. If properly managed, a crisis could stimulate long-term planning that might forestall future crises. For example, most organisations in this country would only realise the importance of public relations when they run into crises and begin to have bad press mentions. At such times, funds that had not been available for even routine PR functions would then become available for more expensive but less elaborate fire brigade projects, designed to check the escalation of such crisis.

Again, it is not all crises that go through the process of issues-to-conflicts to crises, as mentioned earlier in this paper. Some crises could result from rumours or conspiracies that are unknown to the organisation concerned while others arise from unforeseen circumstances. There would, therefore, not be any opportunity for such an organisation to engage in issues or conflict management before the crisis erupts.

Crisis Management in FAAN
The Western encyclopedic unabridged dictionary of the English Language defines crisis as “a condition of instability, as in social, economic, political or international affairs leading to a decisive change.” This definition explains why I said earlier that times of crisis are the most trying or difficult for the public relations man.

A condition of instability is inimical to effective public relations practice and any practitioner who finds himself in that situation needs all the assistance he can get to reverse it since no establishment can survive in an atmosphere of instability.

The aviation industry in which FAAN operates is safety-oriented, apart from being an important catalyst of socio-economic development. Add these to the fact that the safety of the

country's airspace and airports falls under the jurisdiction of FAAN, and you would appreciate how problematic a condition of instability would be for the authority. This is to say that any crisis in FAAN which leads to the disruption of the Authority's operations, would affect the Federal Government, even if indirectly, not just because is government-owned but mainly because of the place our airports occupy in national security.

A crisis in FAAN could either be internal or external in nature-internal crises being those that arise as a result of a misunderstanding between FAAN and its internal public and external crises being those that affect the authority's external public. External crises also include crises that may arise as a result of such emergencies as accidents or near-accidents that are not traceable to or directly linked with the activities of FAAN. Unfortunately, crises in this latter category have, so far, constituted a greater percentage of crises managed by FAAN'S Public Affairs Department. International crises such as those arising from industrial disputes account for only a small percentage of crises managed by the department.

I wish to state at this point, and I do so with every sense of responsibility that FAAN, since its inception in 1995, has been fortunate to enjoy relative industrial peace because of the great understanding shown by the industrial unions in their interaction with management. In this paper, I shall limit my discussion to aircraft emergencies, which have been more predominant among the crises that we have had to manage in the past, even though passing remarks would be made on industrial disputes or crises. For obvious reasons, I shall also avoid the mention of specific crises.

EMERGENCY

In the event of an emergency such as an aircraft accident, the first step that is usually taken is to mobilise search and rescue efforts, in conjunction with the affected airline and relevant government agencies, including the police. This step would be taken at about the same time that the Federal Government is alerted of the incident.

Members of the public are kept away from the scene of the accident through the assistance of law enforcement agencies, to avoid sundry accidents that might arise from further explosions or stampedes. This is aside from ensuring that undesirable elements do not cash in on the emergency to loot property and that the immediate surrounding of the accident is free, to facilitate the evacuation of accident victims and movement of rescue facilities. If the emergency is of such magnitude that entails the closure of an airport, a Notice to Airmen (NOTAM) is immediately sent to all parts of the world to alert aviators of the closure of that airport. Flights to that airport would then be diverted to the nearest airports. Otherwise, normal flight operations would continue, even while rescue operation is going on.

An information coordination centre is set up immediately, to collate and disseminate to the media relevant information concerning the emergency as events unfold. This centre is run by very senior officers from FAAN and the affected airline and coordinated by the head of public affairs. It is open for 24 hours, to answer vital inquiries from concerned members of the flu public, in addition to receiving breaking news on the crisis.

Airport correspondents have discovered that even when they are allowed access to the scene of the accident, they would still need to come to the information centre to get accurate information on developments concerning the crisis, as most officials who could otherwise talk to them, would now refer them to the centre. Some reporters resent this idea but

I wish to point out here that only one source of information must be maintained during crises to avoid various versions of "facts" about such incidents involving human lives and national security. Inaccurate or false information in such situations could cause incalculable damage to families and organisations.

What the public affairs department expects of the media in times of crisis is mutual trust or understanding. There is a tendency for the media to feel that the information coordination centre or even the head of public affairs is holding back vital information concerning such incidents. This, sometimes, prompts them to seek alternative but unauthoritative sources, which, at best, offer speculative information. Journalists with whom the PR man has had some rapport in the past should believe him when he tells them in confidence, for example, that the names of passengers and crew involved, would not be made public immediately, for security reasons. The cause of the accident may also not be available before investigations by a team of aviation experts.

Some journalists could be tempted to publish speculative stories on such issues either because of deadline pressures or due to reasons motivated by competition. My humble opinion is that speculative stories have a way of lowering the public esteem of the media if such stories turn out to be false, in the end.

In an internal crisis caused by labour disputes, the department's major focus is to bring management and unions to dialogue on the issues that led to the crisis, and with a profound sense of humility, I can report that we have succeeded in most cases. At such meetings, management would make available to union leaders, relevant information that would clear any suspicion or fear. When stories appear in the media concerning such crises, without a piece of knowledge, we first talk to the union leaders and then to the press represented by the League of airport and aviation correspondents, the management's side of the story.

This is with a mind to bringing the union leaders to discuss with management their grievances at a round-table conference.

It should be repeating the obvious to state that union leaders know the power of the media in molding public opinion, and they would stop at nothing to bring the media to their side, in times of crises. Sometimes, inaccurate information is disseminated concerning goings-on in management, the publication of which could fan the ember of crises rather than douse them, especially if the public interest is involved.

I have learnt from my experience over the years that the retraction of stories by the media has little or no impact on the public, once they have formed an opinion based on an earlier story. This, therefore, calls for caution on the part of my colleagues in the media, in reporting stories given to them by one side in a crisis. One of the ethics of the journalism profession demands that both sides in a crisis be given equal opportunities to state their cases so that the judgment as to who is right or wrong is left entirely to the public. Opinionated stories are geared towards swaying public opinion in a pre-determined direction, thereby suppressing the truth.

Finally, what is expected of the media in periods of crisis is fair coverage and truth. That is to say that the media, as the watchdog of the public, should work only in the overall interest of the public. One sure way of doing this is to ensure that, at all times, the public is fed with nothing but the truth about events happening around them, even if it means waiting a little

longer for the truth. The motto of the Guardian Newspapers says it all - conscience is an open wound, and only the truth can heal it.

(Crisis Management and Media Expectations by Sylvester Oputa, General Manager, Corporate Affairs, Federal Airports Authority of Nigeria, FAAN)

C H A P TE R 20

REPORTING AVIATION AGENCIES
By Zakari Haruna

The business of aviation reporting is very crucial to the success and development of the Aviation Industry. The perception that people have internationally, and indeed the travelling public, to a large extent depends on aviation reporting. The aviation reporter is the most important bridge between activities of the industry vis-a-vis information and education to the consumers and the international community.

As the fourth estate of the realm, the aviation industry certainly cannot be seen to be functional and operational without the reporter's input. The reports, articles, criticisms, and analyses go a very long way to shaping the industry.

The NCAA, as an organisation that wants and believes strongly in issue-driven aviation reporting and adequate training, is looking into supporting the training of aviation reporters. The training may be in the form of workshops or sponsorship to relevant institutions. There is an adage that says "if you don't train them don't blame them". We only hope that if and when a decision is taken it will be of immense benefit to all. I am also using this opportunity to encourage aviation reporters to be scholarly and read different kinds of journals and books on aviation, working well with the internet to become a set of aviation reporters that would be reference points.

This is instructive as it is high time aviation reporters started being considered to serve in aviation committees and boards of parastatals.

NIGERIA CIVIL AVIATION AUTHORITY

Let me use this opportunity once again to restate the mission of the NCAA which is to regulate, monitor, and promote the safety, efficiency, security, economy, and reliability of air navigation while protecting the interest of consumers and the general public.

NCAA is now involved in the development of a comprehensive information database and improvement of its monitoring capability for the safety and security of all airports and airstrips in the country at all times in line with ICAO standards and specifications.

Our main preoccupation at the moment is to ensure that the country attains the American Federal Aviation Administration (FAA) International Aviation Safety Assessment (IASA) Category I status and achieves success in the International Civil Aviation Organisation (ICAO) Safety Oversight Mandatory Audit.

I wish to state emphatically that from recent developments, some reporters are of the disposition that the NCAA should shut down operators in the occurrence of the slightest incident. One of the cardinal points of our mission is economic regulation which translates to the fact that a balance should be achieved between effective regulations according to ICAO stipulations, and the promotion of growth for the capital-intensive aviation industry. NCCA is the reporters' partner in progress, and everybody has a role to play in safety regulation. For emphasis, the reporter's mode of reports determines the development in the industry.

Meanwhile, in pursuit of safe flight operations in and out of the nation's airspace, the Nigerian Civil Aviation Authority (NCAA) has reminded aircraft operators of the mandatory requirement to obtain Air Operator Certificate (AOC) under the Chicago convention. This certificate is issued to an operator upon satisfying both airworthiness and flight operations AOC requirements as well as some economic issues relating to relating and liquidity requirements in compliance with Annexes 1, 6, and 8 of the convention.
To ensure that operators currently holding AOCs are indeed competent to assure the safe operation of aircraft they operate, NCAA has embarked on an exercise of re-certification of such operators and certification of those that have commenced operations without fulfilling AOC requirements in total.

Consequently, all commercial operators of aircraft are accordingly required to complete NCAA's new application form for AOC and provide information on flight crew as well as maintenance personnel on NCAA forms designed for that purpose while AOC will now have a validity period of one (1) year.
A review of this policy decision formed the plank of discussion at a meeting the Authority had with the Airline Operators of Nigeria (AON).
Additionally, under the new dispensation, foreign-registered aircraft operating in Nigeria must be placed on the Nigerian register of aircraft within (4) months. It is to be noted that a Nigerian operator shall not utilize a wet lease aircraft for its operations for a total period of four (4) months within 12 months.

In addition, the country of registration must be verified to be an International Civil Aviation Organisation (ICAO) member state while evidence must be produced that the Civil Aviation Authority of that state was audited by the ICAO and found satisfactory.

In the same vein, commercial operators are also reminded of their responsibility regarding the following: -

(i) Making arrangements with aircraft manufacturer/design organization to receive Serve Bulletins and other continuing airworthiness information. Adequate arrangements must also be made for receipt of Airworthiness Directives on aircraft types being operated.

(ii) Deciding to receive information on system difficulty reports from the design organisation of aircraft which they operate and to furnish such reports to the Authority for monitoring purposes.

(iii) Development and monitoring of aircraft maintenance reliability data and provide these to the authority on a timely basis for analysis.

(iv) Formally, reporting to the authority, major repairs and alterations to be made on aircraft for approval.

(v) Submission of international lease agreements to the Civil Aviation Authority for evaluation and making necessary arrangements for the exchange of continuing airworthiness and maintenance reliability information.

(vi) Use of the JAR 145 format of Certificate of Release to Service (CRS to release the aircraft check.

(vii) To have in place a fuel quality audit programme and conduct fuel storage audits using a fuel quality manual.

(viii) Development of a fuel contamination prevention procedure and inspection check.

(ix) Ensuring approval of the NCAA is obtained before the commencement of Extended range operations (ETOPS).

(x) Co-ordinating with the authority and aircraft manufacturers to establish the lease risk bomb location site and procedures in the event of unlawful interference.

(xi) Adhering at all times to the manufacturer's requirements in respect of extended storage of aircraft and long-term maintenance and parts verification and integrity.

(xii) Compliance with the requirement in installation of certain equipment viz GPWS require (from 1st January 1999), ACAS II (from 1st January 2001), pressure altitude reporting transponder, Digital FDR, and GPS or equivalent long-range navigation equipment.

(xiii) To have in place a standard weight and balance methodology for computing the weight and centre of gravity of each aircraft in the operator's fleet.

(xiv) To make available and ensure the use of checklists (at maintenance facilities) for critical maintenance tasks such as refueling/de-fueling, engine run-up, aircraft taxi, APU operations, etc., and that procedural methodologies for approval or training records.

(xv) To have in place a programme for staff training (initial, recurrent, etc.) and keeping of training records.

(xvi) All forms of a training programme for maintenance and operations personnel must be submitted for approval.

(xvii) Submission to the NCAA for review and approval, contractual arrangements for maintenance and overhaul time limits, short-term escalation prevent authorization, parts borrowing authority, etc.

(xviii) Maintenance of a record of compliance with all ADs and sending copies to the NCAA.

(xix) Establishment and maintenance of a flight safety and accident prevention programme; and

(xx) To ensure each aircraft in operation is maintained, airworthy and the C of A each valid.

Operators are strongly advised to ensure that all the above items are in place and that the ongoing audit inspection of operators will also be used to check whether compliance with the above-mentioned items is being demonstrated.

(Reporting Aviation Agencies by Zakari Haruna, Managing Director of the Nigeria Civil Aviation Authority, NCAA)

CHAPTER 21

INTERNATIONAL CIVIL AVIATION ORGANISATION (ICAO)

INTRODUCTION

On 17th December 1903, in North Caroline, a frail structure of metal, wood, and fabric struggled into the air and carried a single passenger 260 metres. This was the first recorded flight by a heavier-than-air powered machine, but it was also the culmination of experiments made by men of many nations during the previous century. Even at the moment of its birth, the aeroplane was a creation of no one nation or one technology. Today, almost 91 years later, the international character of air transport is self-evident. The scheduled airlines of the world now carry more than one billion passengers and fly around 13,5000 million kilometres. The world is enveloped by a network of air routes and the air has become a highway for world commerce.

This development of the aeroplane into a major instrument of transport has brought with it international problems - the coordination of techniques and laws, the dissemination of technical and economic information - far beyond the ability of individual governments to solve. The need for safety and regularity in air transport involves the necessity of building aerodromes, setting up navigation aids, and of establishing weather reporting systems. The standardization of operational practices for international services is of fundamental importance, so that there may be no error caused by misunderstanding or inexperience. The establishment of such standards, standards for rules of the air, for air traffic control, for personnel licensing, for the design of aerodromes, and so many details of prime importance to air safety, all require more than national action.

The Second World War had a major effect on the technical development of the aeroplane, telescoping a quarter-century of normal peacetime development into six years. A vast network of passenger and freight carriage was set up but there were many problems, both political and technical, to which solutions had to be found to benefit and support a world at pi

There was the question of commercial rights - what arrangements would be made for airlines of one country to fly into and through the territories of another. There were other concerns concerning the legal and economic conflicts that might come with peacetime flying across national borders such as how to maintain existing air navigation facilities, many of which were located in sparsely settled areas. For these reasons, the government of the United States conducted exploratory discussions with other allied nations during the early months of 1944. Based on the talks, invitations were sent to 55 allied and neutral states to meet in Chicago in November 1944. Of these 55 states, 52 attended.

For five weeks, the delegates of the 52 nations considered the problems of International civil aviation.

The outcome was the Convention on International Civil Aviation (CICA), whose purpose is best outlined in the Preamble: “WHEREAS the future development of international civil aviation can greatly help to create and preserve friendship and understanding among the nations and peoples of the world, yet its abuse can become a threat to the general security, and

WHEREAS it is desirable to avoid friction and to promote that cooperation between nations and peoples upon which the peace of the world depends.

Therefore, the undersigned governments having agreed on certain principles and arrangements so that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established based on equality of opportunity and operated soundly and economically;

“Have accordingly concluded this Convention to that end.”
The permanent body charged with the administration of these principles is the International Civil Aviation Organization (ICAO).

The 96 articles of the Chicago convention establish the privileges and restrictions of all contracting states, provide for the adoption of International Standards and Recommended Practices regulating air navigation, recommend the installation of navigation facilities by contracting states and suggest the facilitation of air transport by the reduction of customs and immigration formalities. The convention accepts the principle that every state has complete and exclusive sovereignty over the airspace above its territory and provides that no scheduled international air service may operate over or into the territory of a contracting state without its previous consent.

A matter to which the Chicago conference attached great importance was the question of the exchange of commercial rights in international civil aviation. It was not found possible to reach an agreement satisfactory to all, but the conference also set up two supplementary agreements, the International Air Services Transit Agreement (IASTA) and the International.

Air Transport Agreement (IATA) - which bore on this subject; the first made provision for aircraft of any signatory power to fly over or to land for a technical reason- in the territory of any other signatory, the second provided further, among other things, for the carriage of traffic between the state of registration of the aircraft and any other signatory state. As of October,
In 1990, 100 nations had accepted the Transit Agreement and 11 states remain parties to the Transport Agreement.

The convention on International Civil Aviation provided that ICAO would not come into being until the convention was ratified by 26 states in the meantime a provisional organization (PICAO) was formed with advisory powers only, to operate until the permanent organization was created, PICAO functioned for 20 months until, on 4th April 1947, ICAO officially came into existence. At the invitation of the government of Canada, Montreal was chosen as the headquarters of the organization.

In the 20 months of the provisional body’s life, the foundation for an international organization devoted to the needs of civil aviation was laid and PICAO’s 50 contracting states took concerted action to provide and maintain the facilities and services necessary for the operation of air services across national borders.

2.2 The International Civil Aviation Organization

The aims and objectives of ICAO are to develop the principles and techniques of international air navigation and to foster the planning and development of international air transport to:

(a) ensure the safe and orderly growth of international civil aviation throughout the world

(b) encourage the arts of aircraft design and operation for peaceful purposes

(c) encourage the development of airways, airports, and air navigation facilities for international civil aviation

(d) meet the needs of the peoples of the world for safe, regular, efficient, and economical air transport

(e) prevent economic waste caused by unreasonable competition

(f) ensure that the rights of contracting States are fully respected and that every contracting state has a fair opportunity to operate international airlines.

(g) avoid discrimination between contracting states

(h) promote the safety of flight in international air navigational air navigation

(i) promote generally the development of all aspects of international civil aeronautics,

ICAO has a Sovereign body, the Assembly, and a governing body, the council.
The Assembly meets at least once in three years and is convened by the council, each contracting state is entitled to one vote, and decisions of the Assembly are taken by a majority of the votes cast except when otherwise provided in the convention. At this session, the complete work of the organization in the technical, economic, legal, and technical assistance fields is reviewed in detail, and guidance is given to the other bodies of ICAO for their future work.

There are 177 contracting states of ICAO as of October 1993.

The ICAO Council
The council is a permanent body responsible to the Assembly and is composed of 33* contracting states elected by the Assembly for a three-year term. In the election, adequate representation is given to states of chief importance in air transport, states not otherwise included which make the largest contribution to the provision of facilities for civil air Navigation, and states not otherwise included whose designation will ensure that all the major geographic areas of the world are represented on the council.

The council, the Air Navigation Commission, the Transport Committee, the Committee on Joint Support of Air Navigation Services and the Finance Committee, provide the continuing direction of the work of the organization. One of the major duties of the council is to adopt International Standards and Recommended Practices and incorporate these as Annexes to the Convention on International Civil Aviation. The council may act as an arbiter between contracting states on matters concerning aviation and the implementation of the convention: it may investigate any situation which presents avoidable obstacles to the development necessary to maintain the safety and regularity of operation of international air. transport.

Representative Bodies of the International Civil Aviation Organization

The Assembly: Composed of all the contracting states: (sovereign body of ICAO)

The Council: composed of 33 contracting states elected by the Assembly. The council elects its own President, (Executive body of ICAO) Composed of 15 members appointed by the council from nominations received from contracting states.

The Air Transport Committee: Composed of members appointed by the council from representatives of council members states.

The Committee on Joint Support of Air Navigation Services:
Composed of not more than 11 and not less than 9 members elected by the council from representatives of council member states.

The Personnel Committee:
Composed of not more than 15 and not less than 13 members elected by the council from representatives of council member states.

The committee on Unlawful Interference:
Composed of 15 members elected by the council from representatives of council member states.

The ICAO Secretariat
Corresponding to each ICAO committee and Division is a section of the ICAO secretariat, made up of staff members selected for technical competence in their respective fields, which supplies technical and administrative aid to the government representatives made of ICAO council, committees, and divisions. The secretariat is headed by a secretary-general who is appointed by the council. It is divided into five (5) main divisions.

(a) the Air Navigation Bureau.
(b) the Air Transport Bureau.
(c) the Technical Assistance Bureau.
(d) the Legal Bureau, and
(e) the Bureau of Administration and services.

Because the work of the secretariat reflects a truly international approach, senior personnel are recruited on a broad geographical basis. In addition to the regular staff, the services of experts are obtained from time to time by loan or secondment from contracting states while clerical or secretarial employees are generally recruited locally in the areas where the organization has offices. (7 regional offices).

Publications
A wide variety of technical, economic, and legal publications is produced by the International Civil Aviation Organization. These publications include such items as Annexes to the convention, procedures for Air Navigation Services, the ICAO Training Manual, Regional Air Navigation Plans, Aircraft Accident Digest, a lexicon of terms used in connection with International Civil Aviation, Digests of Statistics, Minutes and documents of the legal committee, etc. A catalogue of these publications is available free of charge upon request.

Public Information publications of the Organization, available free of charge upon request, include a memorandum on ICAO, Facts about ICAO, and brochures published from time to time. The ICAO Journal, published monthly, is available on a subscription basis.

Recommended Practice
A specification whose uniform application is desirable but not essential (Application is not mandatory).

Procedures For Air Navigation Services Plans:
Comprise mostly of operating procedures. Not yet mature enough for adoption as SARPS, the material of a more permanent character is appropriate or too detailed for incorporation in an annex.

Annexes to the ICAO convention on International Civil Aviation
Annex 1 - Personnel Licensing: Licensing, Licensing of flight crews, air traffic controllers, and aircraft maintenance personnel.

Annex 2 -Rules of the Air: Rules relating to the conduct of visual and instrument flights.

Annex 3 - Meteorological Service for International Air Navigation. Provision of meteorological services for international air navigation and reporting of meteorological observations from aircraft.

Annex 4 - Aeronautical Charts: Specifications that will ensure similar operations throughout the world a level of safety above a prescribed minimum.

Annex 5 - Units of measurement to be used in Air and Ground Operations, dimensional systems to be used in air and Ground operations.

Annex 6 - Operation of Aircraft. Specifications that will ensure similar operations throughout the world a level of safety above a prescribed minimum.

- International Commercial Air Transport – Aeroplanes
- International General Aviation – Aeroplanes
- International Operations - Helicopters.

Annex 7 - Aircraft nationality and Registration Marks. Requirements for registration and identification of aircraft.

Annex 8 - Airworthiness of Aircraft, Certification, and inspection of aircraft according to uniform procedures.

Annex 9 - Facilitation, Specifications for expediting the entry and departure of aircraft, people, cargo, and other articles at international airports.

Annex 10 - Aeronautical Telecommunications. Standardisation of communications equipment and systems (volume 1) and communications procedures (volume II).

Annex 11 - Air Traffic Services. Establishment and operation of Air Traffic control, Flight Information, and Alerting Services.

Annex 12 -Search and Rescue. Organization and operation of facilities and services necessary for search and rescue.

Annex 3 - Aircraft Accident investigation. Uniformity in the notification, investigation, and reporting of aircraft accidents.

Annex l 4 - Aerodromes. Specifications for the design and operations of aerodromes (volume 1) and heliports (volume II).

Annex 15 - Aeronautical Information Service. Methods for the collection and dissemination of aeronautical information required for flight operations.

Annex 16- Environmental Protection. Specifications for aircraft noise certification, noise monitoring, and noise exposure units for land–use planning (volume 1) and aircraft engine emissions volume II).

Annex 17 - The Safe Transport of Dangerous Goods by air: Specifications for the labelling, packing, and shipping of dangerous cargo.

Annex 18 - Annexes, except Annex 9, are the responsibility of the Air Navigation commission.

Annex 19 - is the responsibility of the air Transport committee.

CHAPTER 22

COMMUNICATION AND NAVIGATIONAL AIDS MAINTENANCE

RADIO COMMUNICATION:
Radio communication is divided into three parts, namely:
(i) Ground-to-air communication
(ii) Air-to-Air Communication
(iii) Air-to-Ground Communication

Communication Equipment consists of Transmitters and receivers which enable messages to be passed from one point to the other. The Frequency spectrum covered is from very low frequency (VLF) to Extremely High Frequency (EHF).

Navigational Aids Equipment helps the pilot to safely navigate the aircraft in air space and during landing. The frequency spectrum covered here is from low frequency (LF) to extremely High frequency (EHF).

The different types of Navigational Aids Equipment in use are as follows:
(i) The Non-Directional Radio Beacon (NDB).
(ii) The very High-Frequency Direction Finder (VDF)
(iii) The very High-Frequency Omni-directional Radio Range (VDR)
(iv) The Distance Measuring Equipment (DME)
(v) The Instrument Landing System (ILS)
(vi) To some extent, Radio Direction and Ranging (RADAR).

All these items of Equipment will be treated BRIEFLY one by one.

THE NON-DIRECTIONAL RADIO BEACON (NDB)
An NDB (Non-directional radio beacon) is a low-frequency, non-directional radio beacon. It operates by transmitting a signal in all directions which is received by an aircraft's direction finder (DF).

It provides a signal that the aircraft can receive on its direction finder and from that knowledge, determine in which direction the ground NDB station is located for the location of the aircraft. It provides only "RELATIVE" bearings. An NDB is perhaps the simplest and least expensive type of navigation aid. It is still used extensively throughout the world and can be of tremendous help to the pilot where more sophisticated systems such as VOR and DME are not available.

VERY HIGH-FREQUENCY DIRECTION FINDER (VDF).
The V.D.F. (very high-frequency Direction Finder) is a ground Receiver that receives transmitted radio frequency signals in the band 100- 156 MHZ and it is associated with two separate 25Hz signals. One of these has its phase varying under the azimuth angle of arrival of the transmitted signal and it is called the ''VARIABLE PHASE". The other 25Hz has a constant phase in all directions, irrespective of the angle of arrival of the transmitted signal this is the "REFERENCE PHASE".

Provided the V.D.F. Receiver is situated within the range of the transmitting source, both 25Hz signals are along the magnetic north of the V.D.F. The electrical phase difference between the

two 25Hz signals increases and corresponds to the azimuth angle with a clockwise rotation of the transmitting point (e.g., Aircraft). For example, when the aircraft is East of the V.D.F., the phase difference is 90, and so on until it reaches 360 or 0 at the magnetic North when another revolution starts.

It is this phase difference in 25Hz that will activate the V.D.F. indicator to show bearing information. It is therefore justifiable to summarize, that the V.D.F. is a ground receiver that provides the Aircraft with 360 radial bearing information to the extent of its useful range.

THE VERY HIGH-FREQUENCY OMNI-DIRECTIONAL RADIO RANGE (VOR)
A (VOR) is a Very High-Frequency Omni-Directional Radio Range. It provides accurate bearing signals (with relation to magnetic north) to an aircraft, to let the pilot know the exact angular bearing his aircraft is, to a point on the ground. It also advises the pilot on the exact heading he must fly to go "to" or "from" the VOR. It is an accurate navigation facility unaffected by bad weather.

VOR stations can be located in an airport, and they can also be located^ at any point along a flight path (air route) between airports. In this last case, they are usually referred to as ENROUTE VOR.

THE DISTANCE MEASURING EQUIPMENT (DME)
A (DME) is a Distance Measuring Equipment. This equipment is located at points on the ground that receive and retransmit signals to aircraft that are equipped with airborne type DME (Interrogator). These signals tell the pilot in the aircraft his exact distance from that ground DME station.

INSTRUMENT LANDING SYSTEM (ILS)
This system is an instrument Approach Aid to a visual landing which is presented to and interpreted by the pilot in his aircraft. The ILS requires a visual indicator in the control cabin which conveys to the pilot any deviation from a pre-determined flight path. This information is presented by the ILS indicator which gives information on Azimuth and Elevation leading to the ILS reference point on the runway in use. In addition, the range from touchdown is given through Marker Beacons placed along the approach path, at known distances, and emitting identification signals which are received both orally and visually in the control cabin.

The ground radio transmitters which comprise the system, i.e., the localizer, the Glide Path, and the Marker Beacon transmitters, provide a continuous radiation pattern, the operation of which is monitored against part or complete failure. - As the radiation patterns are interpreted by receivers in the aircraft, there is no limit except that imposed by separation requirements to the number of aircraft which can work the system simultaneously.

RADAR
RADAR is Radio Detection and Ranging.
With the advent of high-speed aircraft and a large number of military and civil planes flying the airways, the need for instantaneous information of a positive nature concerning the position of all aircraft has become a pressing problem. Radar can furnish all the required data instantaneously and renew this data information to the controller. Radar is ground-based and completely self-contained. It can be maintained and repaired at the time any trouble occurs,

without waiting for the aircraft to land. Standby equipment can be provided for emergency use in case a failure occurs.

Information furnished concerning the postilion of the aircraft is not ambiguous. Darkness, weather effects, obstructions to vision, speed, type of aircraft, and other characteristics do not affect the (accuracy of the information furnished to the controller. Features of the radar systems have been designed to eliminate these variables and thus instill confidence in the systems under all possible conditions.

Two very broad classifications of radar systems exist. Those systems where the target is a passive device are called primary radar and those systems in which the target modifies the echo actively, are called secondary radar.

MAINTENANCE OF COMMUNICATION AND NAVIGATIONAL AIDS SYSTEMS.

8.1 Introduction

There is no machine or equipment, no matter how good or expensive, that will not break down if it is not maintained. What determines most the life span of equipment is the level of maintenance. With adequate maintenance, the equipment can function for up to ten (10) to fifteen (15) years, so for equipment to serve properly, there must be adequate maintenance.

8.2 Different Types of Maintenance

There are two types of maintenance, namely:

(i) Preventive Maintenance:
(ii) Curative Maintenance

Preventive Maintenance: is the maintenance done, when no fault exists. It is done in form of ROUTINE MAINTENANCE, which is divided into the following:

- Daily Routine
- Weekly Routine
- Monthly Routine
- Quarterly Routine
- Bi-annual Routine
- Yearly Routine

8.3 Routine Maintenance

During this Routine Maintenance, the READINGS recorded from the equipment are checked against the manufacturers' specifications. Those are the Readings obtained during the Commissioning of the Equipment. These Readings are used as the Reference Vector. From the Readings taken during Routine Maintenance, we can know the state of the units, the un, and the racks which make up the equipment.

If reading in a particular unit or panel is low, we find out why and the cause is rectified to bring up the unit or rack to its optimum level. At the quarterly or Bi-annual routines, some components may be changed, if they are showing signs of deterioration. At the time of the yearly routines, components are changed, because they have exceeded their useful life span.
This situation is more peculiar with Navigational Aids Facilitates which operate in higher CATEGORIES. With this type of arrangement, there is NEVER equipment.

8.4 Curative Maintenance

In this state of the equipment, a fault has occurred. The TECHNOLOGIST or TECHNICIAN removes the faulty unit, takes it to the workshop, and repairs it. The faulty equipment which was MAIN is switched off and the standby equipment is now operational (The MAIN). At the end of the repairs, the unit is put back, the equipment is switched on, and put on TEST for some time before it can be made OPERATIONAL again.

The Requirements for Adequate Maintenance

(i) Properly trained Manpower
(ii) Well Equipped workshop;
(iii) Adequate Test Instruments
(iv) Adequate Tools
(v) A geed supply of spare parts
(vi) A safe store, where the temperature is adequate for the items and components stored there.
(vii) Facilities for the calibration of the communication and Navigational Aids Facilitates.

In addition, the following actions must be taken:

- The Test Instruments must be calibrated every two (2) years, otherwise, they will not give accurate readings;
- The Navigational Aids Facilities must be flight checked (Calibrated) every six (6) months. It is only then we can be sure that the signals they transmit are accurate.
- The Maintenance staff must be trained and re-trained as the Technology is advancing each day.
- Spare parts for the equipment must be manufactured locally to prevent the ACUTE shortage and eventual shutdown of the facilities;
- The calibration aircraft and the calibration Team must be available all the time;
- The cooling systems in the stores, the workshops, and the equipment rooms must be working all the time.
- There should be an adequate backup power supply to NEPA;
- All the operational Navigational Aids must be DUAL installation (main and standby). If the main equipment is faulty, then the standby equipment automatically takes over.
- The spare parts for the equipment in the stores, should not fall below MINIMUM STOCK before fresh orders are made. In this way, we will not run out of vital spare parts.

Finally, the Nigerian College of Aviation Technology, Zaria (NCAT) MUST be given the necessary facilities to provide all the levels of Manpower Training needed for the maintenance of the communication and Navigational Aids Facilities in the Country.

(A lecture notes at the 1995 Aviation Correspondent Programme at NCAT, Zaria.)

CHAPTER 23

THE "SIX FREEDOMS" OF THE AIR

Freedom 1
This is the right of transit without landing.

Freedom 2
The right of non-traffic stops for refueling etc., but not sitting down or picking up a load.

Freedom 3
The right to set down traffic from Nation ‘A’ at Nation ‘B’

Freedom 4
The right to pick up traffic from Nation ‘B’ for Nation ‘A’

Freedom 5
The right to carry traffic between foreign territories, e.g., Nation ‘B’ and Nation ‘C’

Freedom 6
The right to carry traffic from Nation ’B’ through its own nation to Nation ‘C’

Cabotage
The right to carry traffic within the territory of a foreign nation.

C H A P TE R 24

AIRLINES IN NIGERIA

FOREIGN AIRLINES

S/NO	NAME	ADDRESSES
1	Aeroflot-Russian International Airlines	36, Tafawa, Balewa Square, Lagos
2	Air Afrique	24, Amodu Tijani Street, Off Sanusi Fafunwa St., Victoria Island, Lagos
3	Air Cargo	C/o Station Manager, Murtala Muhammed Airport, Ikeja.
4	Air France	Plot 999F(4th floor ICON Building) Idejo-Danmole Street, Off Adeola Odeku, Victoria Island, Lagos
5	Air Gabon	Shop 26, Tafawa Balewa Square, Lagos
6	Air Guinea	Murtala Muhammed Airport, Ikeja
7	TAP Air Portugal	6/8 Ozumba Mbadiwe Street, Victoria Island, Lagos
8	Alitalia	7, Oyin Jolayemi Street, Victoria Island, Lagos
9	Balkan Bulgarian Airlines	Shop 18, Tafawa Balewa Square Complex, Lagos
10	British Airways	C & C Towers, Plot 1684, Sanusi Fafunwa St., Victoria Island, Lagos
11	Cameroon Airlines	16, Oko-Awo Close, Adetokunbo Ademola Street, Victoria Island, Lagos
12	Egypt Air	39-41, Martins Street, Lagos. Or c/o Station Manager, Murtala Muhammed Airport, Ikeja
13	Ethiopian Airline	Shop 20-24A Tafawa Balewa Square Complex, Lagos. Or 4, Idowu Taylor Street, V/Island, Lagos
14	Ghana Airways	128, Awolowo Road, S.W. Ikoyi, Lagos
15	Kenya Airways	C/o KLM Dutch Airlines Okoi Arikpo House, 5 Idowu Taylor Street, Victoria Island, Lagos.

16	KLM Royal Dutch Airlines.	5, Idowu Taylor Street, Victoria Island, Lagos
17	Lufthansa German Airlines	150, Broad Street, Lagos
18	Middle East Airlines	1682, Sanusi Fafunwa Street, Lagos
19	Sabena Belgian World Airlines	Plot Pc 10, Engineering Close, Off Idowu Taylor Street, Victoria Island, Lagos
20	South African Airways	28c Adetokunbo Ademola Street, Victoria Inland, Lagos
21	Swiss Air Transport Company	Plot 1261, Adeola Hopewell Street, Victoria Island, Lagos.

DOMESTIC AIRLINES

S/NO	NAMES	ADDRESSES
1	Aerocontractors Company of Nigeria Limited.	Murtala Muhammed Airport (Old Local Airport) Ikeja.
2	African Chartered Services Limited	Plot 621 Maitama District, P. O. Box 5677 Wuse, Zone 3, Abuja
3	Afrijet Airlines Limited.	NAHCO Building, Murtala Muhammed Airport, Ikeja
4	Afriwest Airlines	Plot 6 Afisman Drive, Off Obafemi Awolowo Way, Ikeja.
5	Afro International Enterprises Nigeria Limited	113, Ladipo Street, Plot 16 Matori Industrial Estate, Mushin-Lagos
6	Agro Development & Allied S Africa Limited	Kilometer 20, Yola Fufore Road, P O. Box 1200 Yola
7	Air Cargo Africa Limited	Plot 148 Trans -Amadi Industrial Layout, P.O.Box 4067, Port-Harcourt
8.	Air Dan	12A Talabi Street, Adeniyi Jones Ikeja
9.	Air Kariv Limited	8, Recreation Ground Layout, Boro Park, P. O. Box 4324, Port-Harcourt.
10	Air Meridian Limited	13A Ayinde Giwa Street, Ire-Akari Estate, Isolo-Lagos
11	Air Technic (Nig.) Limited.	Murtala Muhammed Airport, P. O. Box 55581, Ikeja
12	Albarka Air Services	8 Audi Street, Off Aso Drive, Maitama District Abuja
13	Al-Donaj Airlines Limited	144, Akilo Street, Ogba Industrial Estate, Ikeja
14	Ali Airlines Limited	6, Davies Street, Marina, Lagos
15	Allied Air Limited	NAHCO Building, Murtala Muhammed Airport.
16	All-States Travel and Tour Nigeria Limited	77, Ibrahim Taiwo Road, P.O. Box 12313, Kano

17	Ambjek Air Services Limited	Room 115, Hajj Cargo Terminal, Behind Panalpina, P. O. Box 5036, MMA Ikeja
18	Amed Air (Nig.) Limited	45B Corporate Drive, Dolphine Scheme 1, Ikoyi, Lagos
19	Asel Air Services Limited	Plot 287, Ajose Adeogun Street, Victoria Island-Lagos
20	Associated Airline Services	Associated House, Moshood Abiola Crescent, Ikeja
21	Aviation Development Company	84, Opebi Road, Ikeja
22	Aviation Management Services Limited	1, Waziri Ibrahim Crescent, P.O. Box 8458, Kaduna
23	Bakoji Airlines Services Limited	2, Lapai Road, Ungwan Rimi, Kaduna.
24	Barnax Airlines (Nig.) Limited	172A Aba Road, P.M.B. 5355 Port-Harcourt.
25	Belair Air Services Limited	Nurses House, 2nd Floor, Plot PC 42, Afribank Street, Lagos
26	Bellview Airlines Limited	Bellview Plaza, 666 Opebi Road, Ikeja- Lagos. P.O. Box 6571, Lagos.
27	Bristow Helicopters (Nig) Limited	106, Local Airport Road, Ikeja
28	Bizel Limited	19B Mobolaji Bank Anthony way Maryland Ikeja-Lagos
29	Black Gold Airlines Limited	1, Ship House, Ilorin Road. P. O. Box 3113, Kaduna
30	Capital Airlines Limited	8b, Owo-Awo close, V/Island Lagos.
31	Central Airlines Limited	Investment House, 21/25 Broad Street Lagos
32	Century Aviation (Nig) Limited	41, Calcutta Crescent, Apapa Lagos
33	Chanchangi Airlines (Nig.) Limited	8, Amadu Bello Way, P.O. Box 679 Kaduna

34	Chrome Air Services Limited	228B, Muri Okunola Street, P.O. Box 71898, Victoria Island Lagos
35	Chuddy Airline Limited	108, Western Avenue Surulere, Lagos
36	City Link Aviation Services Nig. Limited	P.O. Box 7792, Diabu Port-Harcourt
37	Dakin Aviation And Travel Limited	U.I Secretariat Road, PMB 24 U.I Post office, Agbowo, Ibadan, Oyo State
38	Dalorima Airline Limited	38, Baga Road, P.M.B 1362, Maiduguri
39	Dan Musa Transport Services	Plot 25, Opebi Road, Ikeja, Lagos
40	DAS A P Airline Limited	64, Abeokuta Road, Ikeja, Lagos
41	Detibe Aviation Services Ltd	Rassim Ibrahim Road, Maiduguri
42	Diligent Travels (Nig)Ltd	82, Allen Avenue, Ikeja, P.O. Box 5730, Marina, Lagos
43	Dornier Aviation (Nig) Ltd	Old Airport, P.O. Box 5162, Kaduna
44	Dove Airlines Ltd	57, Akinola Cole Crescent, off Adeniyi Jones Avenue, Ikeja, Lagos
45	Earth Airline Services Ltd.	95, Adeniyi Jones Avenue, Ikeja, Lagos
46	E.A.S. Airlines	29, Adeniyi Jones Avenue, Ikeja, Lagos.
47	Eco Air Limited	24/28, Strachan Street, P.O. Box 72833 Victoria Island, Lagos
48	EL-SHADDAI Airlines	103, Herbert Macaulay Street. Yaba, Lagos
49	Emma-Nik Aviation Services (Nig) Limited	17, Muritala Mohammed International Airport Road, Ajao Estate P. O. Box 4598, Ikeja, Lagos
50	Emwai Airlines	3, Kanta Road, P. O. Box 9717, AliTura House, Kaduna
51	ETCO (Nig) Ltd.	14, Creek Road, Apapa, Lagos
52	Evergreen Aviation (Nig) Ltd.	72A, Surulere way, Dolphin Estate Ikoyi, Lagos.
53	Express Airways (Nig) Ltd	84, Awolowo Road, P.O. Box 5100, South-West, Ikoyi, Lagos

54	Ezi Air Limited	3, Remi Fanikayode Street, Ikeja, Lagos
55	Farprodei Airlines (Nig) Ltd	53, Oregun Road, Oregun, Ikeja, Lagos
56	Fassey Aviation Limited	84, Opebi Road, Ikeja, Lagos
57	Faybau Air Services Ltd	8, Ositelu Street, GCA Compound Terminal 2, Muritala Mohammed Airport, Ikeja, Lagos
58	Freedom Air Services Ltd.	Domestic Terminal, Muritala Mohammed International Airport, P.O. Box 14648 Ikeja, Lagos
59	Fresh Air Limited	2, Allen Avenue, lkeja, Lagos
60	Friendship Airline Limited	117, Agbani Road, Enugu, Anambra State.
6l	Gaadi Airlines Limited	11, Muritala Mohammed Int. Airport Rd. Ajao Estate P.O. Box 3929, Oshodi, Lagos
62	Gabriel Associated Travels and Tours	13, David Street (1st Floor) off Broad Street, Lagos
63	Galaxy Airways Limited	31 Inabere Street, P.M.B. 21544 Ikeja,
64	Global Cargo Services 1 (Nig) Limited	1A Limpopo Street, Maitama, P.O. Box 166 Wuse, Abuja
65	Gold Airlines Limited	4th Avenue, 12 Road, Festac Town Lagos
66	Greendale Aviation Company Limited	Ind. Estate P.M.B. 21060 Ikeja, Lagos
67	Greenland Air 6/7, Services Limited.	Gboko Road, Anguwa Kana, Kaduna
68	Greenwings Limited	41, Tafawa Balewa Road, Kaduna
69	Gulumba Air Services (Nig) Limited	1, Siltan road, P.O.Box 1949, Maiduguri.
70	Habib Aero Limited Estate, Yaba, Lagos	Paul & Paul House, Matori Industrial
71	Hakan Limited	11, Sowemimo Street, G.R.A. Lagos
72	Havilah Air Services Limited	6/8, Market Street, Ebute-Meta, Lagos

73	Holiday Travels	Suite 2G, Plot 17, Ahmed Onibudo Street, Victoria Island. Plot 1, Block B, General Jemibewon Street, Ogudu G.R.A, Ojota Lagos
74	Horizon Airlines Limited	P.O. Box 8166, WUSE Abuja International Airport
75	Houston Trans. Atlantic Ltd	12. Strachan Street, Lagos
76	Idris Air Limited	17, Martin Street, P.O. Box 3371, Lagos
77	Isyaku Rabiu & son Air Services (Nig) Limited	58, Ibrahim Taiwo Road, P.O. Box 582 Kano
78	Inter-continental	25, Adeniyi Jones Avenue, Ikeja-Lagos
79	Inter-Discount Trade Limited	Away House, Lagos Badagry, P.O. Box 4834 Iganmu
80	Inter-guide Air Limited	15, Aromire Avenue, Ikeja, P.O. Box 923, Agege Lagos
81	Jambo Airlines Limited	Plot 17, Oba Akran Avenue, Ikeja
82	Jaus Airlines Limited	3rd Floor, Crusader House, commercial Avenue Yaba, Lagos
83	Jet Fleet (Nig) Limited	80-82 Tafawa Balewa Road P. O. Box 342 Kano
84	Kabo Airlines Limited	36E Ado Bayero Road, P. O. Box 1856. Kano
85	Kenuz Airlines Limited	12, Sowemimo Streer, G.R.A Ikeja, Lagos
86	Koda International Limited	11, Awonike crescent, Surulere
87	Landford Airlines Limited	AS21, Bao road, Bauchi, Bauchi State
88	Lampex Airline Limited	1, Unity Road, Ikeja
89	Links Air Limited	1681, Sanusi Fafunwa Street, Victoria Island, Lagos
90	Mabaze Airlines Limited	Agbowo Shopping complex, Shop 18 Victoria Island
91	Macdaros Airline Limited	32, Pioneer Avenue, Independent layout Enugu

92	Marghi Airlines Limited	1, Murisari Apena street, Mafoluku Oshodi, Lagos
93	Marghris Limited	Flat3B, Caterers Court, 1-6 Onituna road, Ikoyi, Lagos
94	Mambay Aviation Limited	1A, Foret Street, Kaduna
95	Mambilai Air Limited	6, Sunmo Jibowu Street, SW, Ikoyi, Lagos
96	Marghris Limited	Flat3B, Caterers Court, 1-6 Onituna road, Ikoyi, Lagos
97	Medic Air West African Limited	33A, Bishop Oluwole Street, Street, 72426, Victoria Island, Lagos
98	Mega Transport Services Limited	12, Ogundare Street, Aguda, Ha road, I 2166, Mail box, Surulere, Lagos
99	Morgan Inter trade (Nig) Limited	SWA/1405, Ibrahim Babagida road, Dugbe, Ibadan
100	N.A.S. Air Nig. Limited	3, Ono Ighodalo Street, Ojota Ogudu. P.O. Box 90, Ikeja
101	Network Aviation Services	8A, Ogunjebe Street, Papa-Ashafa, Dopemu, Agege, P.O. Box 2317, Ikeja, Lagos
102	Nigeria Airways Limited	Airways House M.M.A. Ikeja
103	Nigeria Bottling Company Plc.	3rd Floor, Eddo Houe, P.O. Box 159, Lagos
104	Northeast Airlines Limited	Maiduguri International Airport P.O. Box 201, Maiduguri, Borno State.
105	Northwest Air Services Limited	Plot 406, Sdkin Yaki, Kano P.O. Box 4160, Kano
106	Northern Air Charter Limited	34, Adetokunbo Ademola Street, Victoria Island, Lagos
107	Nyemoru Airways Nigerian Limited	24, Potts Johnson Street, P.O. Box 9208, Port-Harcourt.
108	Okada Airlines Limited	Terminal 1 Muritala Mohammed Airport, Ikeja, Lagos
109	Ophons International	10, Jubril Martin Street, Off Ajose Adeogun

	Limited	Street, V/Island, Annex, Lagos
110	Oriental Airlines	14, Simbiat Abiola road, Ikeja. General Aviation Terminal, 3, Muritala Muhammed Airport, Ikeja.
111	Overland Airways Limited	116, Otigba Street, Ikeja Lagos
112	Pan Nnannah Airways Limited	Plot 90, blotch, Latif Salami Street, Ajao Estate, Mafoluku Oshodi, Lagos
113	Peace Travals	5, Western Avenue (3rd Floor) P.O. Box 672, Sururlere, Lagos
114	Prelude Air Limited	12A, Akin Adesola Street, Victoria Island, Lagos
115	Race Cargo	
116	Rodze Air Limited	Plot 1372, Abidjan Street, Wuse zone 3, Abuja
117	Routair Aviation Services Limited	Old Domestic Terminal, Muritala Mohammed Airport, Ikeja. P. O. Box 2616, Festac town, Lagos
118	Royal Airlines Limited	5, Ibrahim Taiwo Road, Kano
119	Royal Phoenix Air Limited	13-15, Wharf Road, P.O. Box 155
120	Royal Star Airlines Limited	Suite 3D, Princess Court, Ahmed Onibudo Street, Victoria Island, Lagos
121	Rumugu Air Space Domestic (Nig) Limited	General Aviation Terminal, Old Airport, New exit, Ikeja, Lagos
122	Salama Airlines Limited	42, Alhaji Azeez Street, Mafoluku Oshodi, Lagos
123	Salbas Airline Limited	Salbas Building, 3, Kaslim Ibrahim way P.O.Box 4781, Jemeta, Yola
124	Saudi Tours (Nig) Limited	Lapal House, 235 Igbosere road, Lagos
125	Savannah Airlines Limited	1A, Idowu Martins Street, P.O. Box 70947, V/Island, Lagos
126	Selcon Airlines Limited	39, Caulcrick Road, Apapa, Lagos.
127	Shaft Air Services Limited	9, Caulcrick Crescent Apapa, Lagos.

128	Shannah Airlines Limited	12, Market St, P.O. Box 4639, Marina, Lagos
129	Sky Executive Aviation Services Limited	Bemms Compound, General Aviation Apron, Old Domestic Airport, P.O. Box 21335, Ikeja, Lagos
130	Slok Air (Nig) Limited	10, Randle Road, Apapa, Lagos
131	S.M.A. Airlines Limited	Muritala Mohammed airport, Old Domestic Airport Ikeja, Lagos
132	Sosoliso Airlines Limited	99 Opebi Road Ikeja
133	Southern Airlines Limited	18A, Oko-Awo Close, V/Island
134	Sparrows Air Limited	55, Allen Avenue, Ikeja, Lagos
135	Stallion Air Limited	6b, Dalbeto Road, Palm-Grove Estate, Lagos
136	Stillwaters Aviation Services Limited	4, Alhaji Jimoh Street, Adeniyi Jones P.O. Box 7867, Ikeja, Lagos
137	Thames Air Services and Charter services	30, Rhodes Crescent, P.O. Box 450, Apapa, Lagos
138	Trans Air Services Limited	5, Bompai Road, P.O. Box 2773, Kano
139	Trand Oceanic Airways	U2, Manona Drive, P.O. Box 9336, Kaduna
140	Triax Airlines Limited	1, Kings Road, New Haven, Enugu
141	Tropic Air Services	8, Ibiere Crescent off Kofo Abayomi Avenue, P.O. Box 1687, Apapa, Lagos
142	Veritas Airline (Nig) Limited	17, Martins Street, Lagos
143	Western Airlines Limited	18, Muri Okunola Street, Victoria Island
144	Yakamata Air Services Limited	13E, Ado Bayero Rd, P.O. Box 2189, Kano.
145	Yasava Aeronautics, Aerospace consultants	68, Eleke Crescent, Victoria Island, Lagos.