THE ROLE OF INTERNATIONAL CIVIL AVIATION ORGANISATION (ICAO) IN THE DEVELOPMENT OF NIGERIAN COLLEGE OF AVIATION TECHNOLOGY ZARIA.

BY

ESHIMIAKHE, FOLORUNSHO IREKHEAFE

A THESIS SUBMITTED TO THE DEPARTMENT OF POLITICAL SCIENCE,
FACULTY OF SOCIAL SCIENCES, AHMADU BELLO UNIVERSITY, ZARIA IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF
MASTERS DEGREE IN INTERNATIONAL AFFAIRS AND DIPLOMACY (MAID)

SEPTEMBER, 2002

CERITIFICATION

This project title "The Role of International Civil Aviation Organisation" (ICAO) in the Development of Nigerian College of Aviation Technology, Zaria by Eshimiakhe, Folorunsho Irekeafe meets the regulations governing the award of the degree of Master of International Affairs and Diplomacy (MIAD) at the Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

Dr. A. Dunmoye
Supervisor

26-10-2004
Date

Dr. A. S. Mohammed
Head of Department

27-10-04
Date

Dean, Postgraduate School

15/11/04
Date

DECLARATION

I hereby declare that this research work is my own original work. It has never been presented anywhere for the award of a degree.

All quotations and other sources of information have been duely acknowledged by means of references.

ESHIMIAKHE, F.I.

DEDICATION

This work is dedicated to my late parents Mr. Eshimiakhe Kadiri and Mrs B.A. Eshimiakhe who could not wait to enjoy the fruits of their labour. May their gentle souls rest in peace (Amen).

ACKNOWLEDGEMENT

In a work of this nature and academic work in general, one is bound to encounter problems, which in some cases are beyond his solution. It is important therefore, to acknowledge and appreciate the efforts made by all to the success of my academic endeavour and this thesis in particular.

Several persons deserve mention for their encouragement and contribution. First, I thank the Almighty God for His infinite mercies, guidance and protection throughout the duration of the course and always.

My gratitude goes to Dr. A. Dunmoye, my supervisor whose insights and constructive criticism gave dimension to the work. Very special thanks are due to my friends Amodu Malik and Toby Olowu for their personal advise.

I wish to express my appreciation to my friend P. J. Ezike who provided his perfect blend of encouragement.

My respects to Dele Ezekiel of Standard Construction Ltd., Kano, for his assistance through the several stages of life. I am deeply grateful to A.A. Abubakar, my class mate, for his advice and assistance.

My greatest debt of gratitude is to my wife, Esther, and our children, Daniel, George, Emmanuel (late) and Blessing, who not only showed great understanding and patience but have also become my life-support system.

To all of you:

I can no other answer make but thanks, thanks and ever thanks.

Shakespeare, Twelfth Night.

ABSTRACT

This study investigates the role of ICAO in the development of Nigerian College of Aviation Technology, Zaria. The objective is to determine the extent and in what form ICAO contribute d to the development of NCAT and aviation industry in Nigeria.

The location of the study is the Nigerian College of Aviation Technology, Zaria. Pilots, Aircraft Engineers, Air Traffice Conmtrollers, Administrators etc were inten iterviewed.

The findings of the study indicates that ICAO contributed greatly in terms of money, scholarships to Nigeria students, equipments, expert personnel to the development of NACT. However, it was discovered that the college still lack adequate equipment, personnel and funding.

It is recommended that the college be re-equipped with modem equipment and locally made trainer planes - Air Bettle that is cheaper and easier to maintain; qualified flying instructors should be employed while employers of aviation personnel should contribute some percentage of their annual income to the funding of the college.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURE

CHAPTER ONE

THE ROLE OF INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) IN THE DEVELOPMENT OF NIGERIAN COLLEGE OF AVIATION TECHNOLOGY, ZARIA

1.0 INTRODUCTION

The global nature of aviation has created a practical need for international cooperation and assistance among nations and agencies, in their continuing joint efforts to make air travel safer and more comfortable world-wide. This cooperative trend has become imperative especially for Third World nations, since aviation, because of universal nature of its stipulated principles, cannot be developed to internationally acceptable standards by any nation in insolation from the rest of the global community.

As part of this phenomenon, Nigeria in developing her civil aviation industry to its present stage, has received different forms of assistance from some international organizations, such as International Civil Aviation Organization (ICAO), International Air Transport Association (IATA), the United National Development Programme (UNDP) and the European Union. However, this study focuses on the contributions of ICAO, to the development of Nigerian College of Aviation Technology particularly and aviation industry in Nigeria in general.

By ICAO's regulatory, advisory, financial and technical assistance, the agency have over the years imparted positive influence on the pace and standard of aviation development in Nigerians as would be seen from the highlight of its activities.

Established in 1947, the International Civil Aviation Organization (ICAO) remains the main international regulator of civil aviation. The qualifications, Licensing and

operations of all civil airports, aircraft, aviation professionals, maintenance of instruments and facilities world-wide are based on regulations of ICAO in its Resolutions and Annexes. It could therefore be said that the development of aviation industry in Nigeria as strong category two member of the organization, is guided by ICAO.

However, by way of direct assistance, ICAO set up the standard for and was instrumental to the establishment of the Nigerian College of Aviation Technology (NCAT), Zaria, in 1964. From that year, too, the organization, in conjunction with the United Nations Development Programme (UNDP), provided technical supports to the institution for ten years, thus helping to nurse the training centre to high standards. To date, ICAO still maintains a radar instructor in the college and continues to advise the college on matters concerning equipment, maintenance, projects and personnel recruitment.

Just in February, 1993, the world aviation regulating agency again approved an eight-year rehabilitation master plan for NCAT, lasting till the 2000 and estimated to cost about $19.7 million. This was meant to raise the institution to African Regional Centre of aviation training, which would entail the expansion and upgrading of its courses for more comprehensive training and enlarged student population. Through these efforts, ICAO is helping directly in man power development for aviation in Nigeria.

The organization also assisted Federal Government in executing the 1985 - 90 national Air Navigation system plan, including the projection of number and training requirements of Air Traffic Controllers for Nigeria from 1990.

In 1976, the intervention of ICAO in the construction of the international terminal of the Murtala Mohammed Airport (MMA), Ikeja prevented Nigerian from making some huge

expenses on unnecessary facilities included in the plan by the foreign contractors.

By giving Nigerian aviation administrators and professional the opportunity to serve in various ICAO offices, too, the world body is exposing the country to first-hand knowledge of the latest trends, rules, technologies and practices in civil aviation. In this regard, Nigeria and Egypt are the only two African countries that have permanent representatives in the ICAO council which is its highest organ. Nigerians have at different times been at the head of ICAO's vital committees like the committee on unlawful intervention and the Finance Committee.

The Managing Director of the Nigerian Airspace Management Agency, has been on ICAO's implementation Task Force on Communication, Navigation, surveillance and Air Traffic Management (CNS/ATM). Other Nigerian official are playing different roles in various sub-committees, and in the African-India Ocean (AFI) regional arm of the organization, as well as numerous professional associations recognised by ICAO. The exposure and experiences of these Nigerians are at different times brought to bear on the development of aviation in the country.

Inspections conducted on aviation facilities in Nigeria at various times by officials of ICAO, its sub-units, and associations have also contributed to keeping Nigerian aviation Authorities on their toes in providing and maintaining the necessary facilities for the growth and development of aviation in the country.

1.1 STATEMENT OF RESEARCH PROBLEM

Certain probing questions come to mind when looking at the role of International Civil Aviation Organisation (ICAO) in the development of Nigerian College of Aviation Technology Three of such problem this study set to investigate are:

(a) Is the ICAO mission for establishing the college fulfilled?

(b) Have the objectives been met?

(c) What is the impact of the college on aviation in Nigeria and in Africa?

1.2 JUSTIFICATION OF STUDY

Only few people especially professionals know the contribution of ICAO towards the establishment and development of what is today known as Nigerian College of Aviation Technology (NCAT), Zaria.

This study, apart from enriching existing knowledge which professionals already have about Aviation in general and NCAT in particular, it will in no doubt expose to the public the contribution of ICAO to the establishment and development of NCAT.

The study will also bring to the fore the long-term objectives of the college which include:

(a) To provide the civil aviation industry in Nigeria, in particular, and in the African continent, in general, with highly trained personnel, namely pilots, Aircraft Maintenance Engineers, Air Traffic Controllers, Aeronautical Communications personnel and Aeronautical Telecommunications Engineers.

(b) To stimulate safe, regular, and efficient air transport services; and

(c) To boost economic growth in Africa.

1.3 LITERATURE REVIEW

The nature of the study call for a review of international organizations. International organiszations are agreements of states to engage in regular consultations under set rules or conditions and to establish mechanism for implementation of joint decisions.

The Sovereign state has been the primary actor in world politics and the essential building block of the state-based international system. Indeed , it is hard to conceive of any other form of organzing and conducting international relations. Yet there are alternatives.

International organization is one of these alternatives (Diehl; 1996). Experience has shown that there are many drawn backs to basing global relations on self-interested states operating in an anarchical international system. Many observers believe that global, regional, and specialized international organizations can and should begin authoritatively to regulate the behaviours of often conflicting states. Advocates of strengthened international organization believe that it is time to address world problems by working toward global solutions through global organizations. It is just possible that the ongoing organizations will serve as building blocks for a future, higher form of political loyalty and activity.

It is all too easy to dismiss the notion of international organization as idealistic dreaming. But there was also a time when we believed that the world was the centre of the universe. We now know that the sun does not turn around the Earth. We can also learn that the nation state need not be the centre of the political cosmos. Surrendering some of your country's sovereignty to an international organization may seem unsettling. It is neither

inherently wong, nor unheard of in today's world. The growth in number, functions, and authority of international organizations is one of the most important trends in recent international relations. To explore this change, this study will take up international organization as it currently exist. The primary focus will be the United Nations where ICAO is an Associated Agency.

TYPES OF INTERNATIONAL ORGANIZATIONS

The term international organization tends to bring the UN to mind. There are many more. They can be divided geographically into global or regional organizations and grouped by functions into general or specialized international organization. They may be associations of governmental entities. The UN, the General Agreement on Tariffs and Trade (GATT), the North Atlantic Treaty Organization (NATO), International Civil Aviation Organization (ICAO) etc are all examples of inter-governmental Organization.

The European Union (EU), the International Federation of Trade Unions, the International Political Science Association etc are examples of non-governmental international organisations. The focus of the study is on intergovernmental organizations (IGOs).

ROOTS OF INTERNATIONAL ORGANIZATION

International organization is primarily a modern phenomenon. Nearly al the IGOs were created in the last 50 years or so. The origins of international organizations extend far back in history. Three main root systems have nourished the current growth of international

organizations.

The first is the belief in a community of Human kind with the universal concern for the condition of humanity. Philosophers like William Penn, the Abbe de Sainte-Pierre, and Immanuel Kant, argued that the way to accomplish these ends was through general international organizations. The first example of an IGO based on these principles was the Hague system, named for the 1899 and 1907 peace conferences held at the city in the Netherlands. The conference adopted a series of standard to limit the conduct of war. World war I destroyed the plans for a third Hague conference in 1915, but the move toward universal organization was under way.

The next step along the part was the creation of the League of Nations after world war I. The League was intended mainly as a peace keeping organization, although it did have some elements aimed at social and economic cooperation. Despite the hopes with which it was founded, the League could not survive some of its own organizational inadequacies, the unstable post world war I peace, the Great Depression, and the rise of militant fascism. After only two decades of frustrated existence, the League died in the rubble to world war II.

The United Nations is the latest, and most advanced, developmental stage of universal concern with the human condition. Like the League of nations, the UN was established mainly to maintain peace. Nevertheless, it has increasingly become involved in a broad range of issues that encompasses almost all the world's concerns.

The second branch of the roots system is the idea that the big powers have a special responsibility to cooperate and preserve peace. The philosophy of big-power responsibility

was also evident in the council of the League of Nations. The council had authority (Article 4) to deal "with any matter within the sphere of activity of the League or affecting the peace of the world." Significantly, five permanent seats were assigned to the principal victorious allies of the world war I. The council was thus the concert of Europe (Beck, 1995, Lloyd, 1995).

When the UN succeeded the League of Nations, the special status and responsibilities of the big powers in the League's council were transferred to the UN.Security Council.

Functional cooperation as the third root system is composed of the specialized agencies that deal with specific economic and social problems.

An important phenomenon in the twentieth century is the rapid growth in the number, activities and importance of intergovernmental organizations.

More important is the expanding roles that they play. More and more common governmental functions are being dealt with by IGOs. Some of these expanding roles are dealt with by creating new IGOs. For example, the development of satellites and the ability to communicate through them and the need to coordinate this capability led to the establishment of International Telecommunications satellite organization (INTELSAT) in 1971.

The reason for the expansion of IGOs include increased international contact as a result of the revolutions in communication and transportation technologies, that have brought the world into much closer contact.

The world's increased interdependence, particularly in the economic sphere has fostered a variety of IGOs designed to deal with this phenomenon. Another reason is the

expansion of transnational problems that affect many states and require solutions that are beyond the resources of any single state. One such issue and its associated (IGO) is nuclear proliferation (International Atomic Energy Agency).

A fourth incentive for the expansion of IGOs is the failure of the current state-centered system to provide security. The agony of two world wars for example, convinced many that peace was not safe in the hands of nation-states.

The concentration of economic and military power in a handful of counties also account for expansion of IGOs. This has led less powerful actors to join coalitions in an attempt to influence events. "Vulnerability" has, thus, motivated counties to come together in such organizations as the 107-member Non aligned movement (NAM) and the Group of 77.

At this point, we should ask ourselves what it is that we want international organizations to accomplish ultimately? This question is especially important for the most significant and strongest IGOs.

The roles of IGOs, to date in their evolution, have been defined mostly in limited, traditional ways. There are however, a range of more far-reaching activities that some people believe IGOs can and should take up. The four roles are: interactive arena, creator and center of cooperation, independent international actor and supranational organization. The most common use of IGOs is to provide an interactive arena in which member states pursue their individual national interests (Alger, Lyons and Tent, 1995).

It should be noted that these four roles have been evaluated quite differently by the realists, idealists and the functionalists.

The realists believe that there are only two roles that IGOs can play. One is as an interactive arena in which each country pursues its narrow national intersts. The second role is that of promoting limited, pragmatic cooperation when that goal works to each state's advantage.

Idealists stress the roles that they believe IGOs can and will increasingly play as promoters of comprehensive cooperation, as independent actors, and even as supranational actors. With regard to war and peace issues, one realist"- idealist divergence in his commentary that the two schools "particularly disagree about whether IGOs markedly affect the prospects for international stability. Realists say No; idealists say Yes." What realists believe, the scholar continues, is that IGOs "are basically a reflection of the distribution of power in the world. They are based on the self-interested calculations of the great powers, ... have no independent effect on state behaviour..... and therefore..... are not an important cause of peace (Mearsheimer, 1995:7).

Idealists have a very different view (Majeski and Fricks, 1995). They reject realist analysis of IGOs as "incomplete and logically unsound" because, in part, it does not offer "a plausible account of the investments that states have made in such international institutions as the EU, NATO, GATT, and the regional trading organizations." Furthermore, and looking toward the future, idealists contend that IGOS are "essential if states are to have any hope of sustained cooperation" and that "international institutions .... will be components of any peace."

The functionalist theory on the other hand is essentially the conception that cooperation in non political fields such as economic, social, technical and humanitarian

matters is a major pre-requisite for ultimate solutions to conflicts and elimination of wars. The central them of functionalism is the believe that cooperation in social and economic spheres may lead to cooperation in political field. The major proponent of functionalism is David Mitrany who elaborated the theory in his two books - The working peace system and Functional theory of politics.

In his terms, "the problem of our time is not how to keep the nations peacefully apart but how to keep them actively together." The functionalist thus approach peace not directly by organizing around the point of national conflict but indirectly by seeking areas of mutuality and "binding together those interests which are common where they are common and the extent to which they are common."

The functionalists frawn at international organization's effort to provide a blue print that specify how nations should relate. They believe in fragmentic development of purpose with nation states cooperating in areas of competence and according to the interest requirement of their nations. To this end, international organization should seek to link authority with specific activity to break away from the traditional link between authority and definite territory.

The functionalists believe that war can be eliminated through the development of authoritative world functional institutions. According to them, the ideal peace is seen in terms of National Co-activity rather than national co-existence and there is faith in working peace and not in a protracted peace. They emphasize gradual integration which mitrany described as a "process of federation by installation."

The functionalists attribute the causes of war to institutional inadequacies of the nation state system. The system is faulty not because it is inappropriate or ineffective but because of the vertical division of state into sovereign states jealously guarded by government which are unable to solve the problems of its people and not willing to permit other authorities to solve the problems. The functionalist mission is to close the gap by organizing social layer to break down the zoning system associated with the principle of sovereignty. It is in line with national co-activity as put forward by the functionalist that ICAO assisted in the establishment of NCAT.

However, IGOs tend to be mechanisms of member states and seldom develop a life of their own. By participating in intergovernmental organisations, however, member states's policies are in part shaped by the organisations. This influence is limited by the capacities of states to determine their own policies. More over, the mechanisms of the IGOs often facilitate the goals os members. They provide forum for communication among member and confer status particularly on smaller members, and are institutions for the transfer of technical assistance and funding for the less developed countries. The world Bank for instance, has the capacity to drawn on technical experts for assisting under developed counties in planning the development of their economics (international studies quarterly, 11 March, 1967). Other specialized agencies such as ICAO associated with the UN also have the capacity to offer technical assistance in their respective specialized fields hence ICAO assisted in the establishment of Nigerian College of Aviation Technology, Zaria.

1.4 THEORETICAL FRAMEWORK

This study is conducted within the frame work of systems theory forward by David Easton. The system-level of analysis had a world view that takes a "Top-Down" approach to analyzing global politics. This level theorizes that the world's social-economic-political structure and pattern of interaction (international system) strongly influence the policies of states and other international actors. Therefore, understanding the structure and pattern of international system will lead to understanding how international politics operates. The system is structured in such a manner that only the powerful states dominate the system. Thus, they have the veto power at the UN to determine what assistance should be given to who. A state receiving assistance from the system -IGO (UN), surrenders a fraction of its sovereignty to the Organisation as its policies will be influenced by the Organisation. In this regards, the policies of the Nigerian College of Aviation, Zaria as they affect training of personnel, acquisition of equipments, training standards etc are determine by International Civil Aviation Organization.

The core meaning of this approach is that the international system consist of a set of interrelated variables which are structured into an identifiable pattern. The pattern tends to be maintained as actors in the system conform to identifiable modes of behaviour. The international system is seen to be an open system which is subsystem dominant. That is, the system is influenced by inputs from its environment, and it is controlled by the sovereign actors rather than by an over-arching authority.

Many factors determine the nature of any given system. Systemic factors include its structural characteristics, power relationships, economic patterns, and norms of behaviour.

Emphasis is always on the economic pattern because it is with it the system reward and punish states. It is also within the economic sphere that we have input in the form of demands and output which are responses to the demand. Thus, the inequitable distribution of wealth among the countries of the world has created tension along what is known as the North-South Axis. This has also made the system to become increasingly interdependent, with a rising number of interactions across an expanding range of issues which are relatively non political.

The interdependent nature of any political system makes it possible for both the developed and less developed counties to come under one umbrella referred to as Intergovernmental Organization (IGO) such as the United Nations. The IGOs (UN) as an umbrella body perform certain universal functions. Almord itemise these functions into eight which can be grouped into two.

They include:

(a) Political socialization

(b) Recruitment

(c) Interest articulation

(d) Interest aggregation

(e) Political communication.

These category form the input functions performed by non governmental subsystem - the larger society.

The second groups consist of:

(a) Rule making

(b) Rule application

(c) Rule adjudication which together form output function performed mainly by the authority of the system (IGO).

Political communication which is an aspect of input function, is described as the blood of the political system. Again, according to Almord, the blood is the neutral medium carrying the claims, protest and demands from members of IGOs through the veins to the heart (UN government), through the arteries (UN) flow the output of rules, regulations, and adjudication in response to the claims and demands. It is this output of rules and regulation that determine what assistance IGOs can render and to which state it should be given. This implies that it is on the basis of Nigeria's demand and what the system stands to gain that ICAO assisted Nigeria in the establishment of the Nigerian College of Aviation Technology.

In any political system, inputs are not all supportive. demands can be challenging to the system. The system must develop necessary mechanisms to match the demands in other to survive. To withstand violent demands, it must have extractive, regulative and distributive capabilities. The IGOs have only succeeded in extracting from and regulating the behaviours of member states while they have failed to evenly distribute aid and assistance to member states. For instance, aid and assistance are selectively given to nations where the authority of IGOs have vested interests. Thus, it is economic factor that informed ICAO's assistance in the establishment of NCAT.

1.5 PROPOSITIONS/HYPOTHESES

The following hypotheses will be tested.

1. ICAO's assistance is motivated by economic gain.
2. The organization's assistance contributed to the development of NCAT.
3. By this assistance, Nigeria's Aviation policies is determined by ICAO.
4. Nigeria has surrendered part of its sovereignty to ICAO because of the assistance.

1.6 METHOD OF DATA COLLECTION AND ANALYSIS

The data for this work are basically primary and secondary in nature. Primary data will be obtained directly from aviation professionals by interview while secondary data will be obtained through library research, and other documented sources.

Descriptive statistics will be used to analyze the data appropriately and to show the relationship between ICAO and the establishment of NCAT.

1.7 SCOPE OF STUDY

This work which set out to investigate the role of ICAO in the development of NCAT, has Aviation College and ICAO's activities as its scope.

1.8 LIMITATION OF THE STUDY

In carrying out this study, the researcher identified time, cost and management of data as limitations of the work. The research is limited to NCAT Zaria to save cost, time and for effective management of data.

1.9 DEFINITION OF CONCEPTS

The following concepts are herein defined as they apply to the study. International governmental organization - Organization whose membership is governments of states and whose activities covers political and non-political spheres.

Aviation - A unique industry responsible for air transportation, management of Nigerian airspace, enforcement of air safety regulations etc.

Aviation College - An institution established for the training of all aviation personnel such as pilots, Aircraft Engineers, Air Traffic Controllers etc.

CHAPTER TWO

2.1 HISTORICAL SURVEY OF GLOBAL AVIATION INDUSTRY

Aviation industry the world over started with the invention of the practical Aeroplane by the Wright Brothers - Wilbur and Orville Wrighty on December 17, 1903. The aeroplane is wholly the invention of our own age. From very early times, the flight of birds inspred in men in the desire to fly. They sought the secret of flight by watching the albatross, moSt wonderful of all gliders. They envied the powers of eagle and were probably fascinated by sea-birds like the Kitti-wake.

The designers of heavier-than-air flying machines therefore turned their attention back to the true masters of flight-birds. In 1889 a German engineer named Otto Lilienthal. inspired by the flight habits of storks, published "Bird Flight as the Basis of Aviation". Two years later he built his first simple glider. In 1896, after about 2,000 glider flights, Lilienthal was killed while practicing with a monoplane. Actave Chanute, a French-born American engineer, elaborated on Lilienthal's design and developed a double-winged glider that again represented a significant advance in aviation industry. And the design of a heavier-than-air flying machine.

Enter the Wright brothers. Proprietors of a bicyccle shop in Dayton, Ohio, U.S.A., Orville and Wkilbur Wright began their first gliding experiments in 1900, building on the accomplishments of Liliethal and Chanute. The Wrights worked slowly and methodically over the next three years, making repeated experimental flights at Kitty Hawk, North Carolina. They developed new designs with the aid of wind tunnels, the first of which they made for themselves from a laudry starch box. For their first powered flight, they built their

own four-cylinder, 12 horse power engine and mounted it on the lower wing of a new plant. The engine powered two wooden propellers, one on each side of the plane's rear rudder.

On December 14, 1903, the Wrights' new invention rose off its wooden launching track for the first time - and stayed aloft for three and a half seconds. Three days later the brothers flew the machine again. Eventually it remained airborne for nearly a full minute and covered a distance of 260 meters. The airplane was a success.

Surprisingly, this landmark accomplishment was given little attention by the rest of the world. When the New York Times finally carried a story about the Wright brothers in January 1906, it said that their "flying machine" had been developed in strict secrecy and that the brothers had obtained only "some slight success in flying through the air".

The world in general was skeptical of aviation industry in its early years. Even Chanute, one of the aviation's note worthy pioneers, predicted in 1910: "In the opinion of competent experts it is idle to look for a commercial future for the flying machine. There is, and always will be, a limit to its carrying capacity which will prohibit its employment for passengers or freight".

Nevertheless, aviation technology advanced rapidly in the years following the Wrights' first flights. Within five years the brothers had built a tw0-person biplane that could speed along at 71 kilometers per hour and climb to an altitude of 43 meters. In 1911 the first U.S. transcontinental airplane crossing was made; the trip from New York to California took about 49 days. During World War I, air craft speeds were pushed from 100 kilometers per hour to over 230 killometers per hour. Altitude records soon toped 9,000 meters.

Aviation records continued to grab headlines in the 1920's> Two American army officers made the first nonstop flight across the United States in 1923, journeying from coast to coast in less than 27 hours. Four years later Charles A. Lindbergh won instant fame by flying nonstop from New York to Paris in 33 hours and 20 minutes.

Meanwhile, the fledgling commercial airlines were starting to attract customers. By the end of 1939, air travel had caught on to the point that U.S airlines were serving nearly three million passengers annually. The standard airliner of the late 1930's, the DC-3, carried just 21 passengers at a cruising speed of 270 kilometers per hour; but after World War II, commercial airplanes grew much larger and more powerful, achieving crusing speeds of over 480 kilometers per hour. The British introduced commercial turbojet service in 1952. And jumbo jets such as the 400-seat Boeing 747, made their debut in 1970.

Another breakthrough came in 1976 when a team of British and French engineers introduced the Concorde, a delta-winged jet liner capable of carrying 100 passengers at twice the speed of sound- more than 2,300 kilometers per hour. But steep operating costs have limited the wide spread use of commercial supersonic planes such as Concorde.

Aviation industry is shaping the world. Even if you have never flown in an airplane, your life has probably been shaped by these rapid technological advances in aviation industry. Airfreight operation span the globe; often, the food we eat, the clothes we wear and the machinery we use at work or at home have been flown in from across the ocean or across a continent. Letters and packages are whisked from country to country by means of airmail. Business rely heavily on courier services by plane to conduct daily transactions. The good and services available to us and the prices we pay for them have all been influenced by man's

ability to fly.

Aviation has also generated profound social changes. Without a doubt, the world has shrunk, thanks to aviation. Within a few hours, you can be almost anywhere in the world- if you can afford it. News travels fast, and so do people.

With air traffic increasing, some fear that the skies are becoming more dangerous as a result of many commercial planes jetting out o different directions. To avert such dangers, the Federal Aviation Administration, charged with the task of ensuring air safety was established. Air Traffic controllers are also trained to control, direct and separate aircrafts flying at different levels in the sky in accordance with ICAO's standard to ensure safety. Inside the flight deck of a passenger plane, primary instruments and controls are duplicated - one set on the left for the captain and the other on the right for the copilot. Thus, in the likely event of one of the pilots collapsing, the other has all the controls needed to fly safely.

Another safety factor on the flight deck is that as a precaution, the captain and the copilot usually have different meals. This is so because in the unlikely event of food poisoning, only of the them would be affected.. As aviation technologies advances, more safety measures are put in place to aid landing and taking off of aircrafts. For instance, there is the instrument landing system for night flights, Distance Measuring Equipment which indicate how far or near an aircraft is from the airport.

Aviation industry is dynamic. It changes with new technology hence training is always emphasized in the industry to meet with the changing nature of today's world. The future of the industry looks brighter as more inventions are being made to reduce the risk associated with the industry.

2.2 NIGERIAN AVIATION INDUSTRY

Aviation industry in many developing countries, especially in Africa and Asia, more or less has the same beginning. Available historical information reveal that the inception of aviation in Nigeria was a child of crisis'.

The first flight into the country was actuated by a political exigency arising from a feud between the then colonial administration under the leadership of Sir Clifford and the people of Kano.

During the crisis in mid 1925, a British Royal Air Force fighter landed on a polo ground in Kano. This occurred 22 years after the first controlled and sustained power-driven flight operated by Orville Wright took place in North Carolina, United States.

The mission of the crew was to carry out a surveillance of the riotous situation which started as a protest by the Kano indigenes against the high handedness of the British Resident District Officer.

After the first flight, the Royal Air Force then decided to operate to Kano and Maiduguri from Sudan once a year, relying on available intelligence reports and the navigational aids in the aircraft.

At the end of the war, the Royal Air Force (RAF) resumed flights to Nigeria, carrying passengers and mail on the Lagos - Port Harcourt - Enugu - Jos route with an aircraft charted from the British Overseas Airways Corporation (BOAC). The joint effort of RAF and BOAC was not limited to Nigeria, as it was extended to other English speaking West African countries of Ghana, Gambia and Sierra Leone.

Also after the war, what could be considered to be a first attempt was made to manage and control the Nigerian airspace, named Kano Flight Information Region (FIR). This responsibility was given to the then Director of public works who was mandated by the Colonial Government to use the Air Navigational Order of the United Kingdom to carry out this function.

Between 1945 and 1960 when Nigeria became independent, efforts were made to further develop the aeornautrical infrastructure to support a viable air transport operation. Facilities at the various existing air fields especially in Lagos and Kano were upgraded to facilitate the expansion of commercial air transport. The activities of BOAC in the Anglophone West African countries led to a commercial region al airline called West African Airways Corporation (WAAC) in 1947. WAAC played a very useful role in linking the British West African colonies with the United Kingdom, through Sudan. It was also through the foresight of WAAC management that expansive land areas were acquired in the present day Lagos state Government Reservation Area (GRA) and Murtala Mohammed Airport, which today constitute a big asset to Nigerian Airways. WAAC's operations brought a significant growth to aviation in Nigeria.

The regional airline developed a domestic market by creating route network. This was made possible by the development of a number of aerodromes and airfields at Kano, Gusau, Maiduguri, Yola, Sokoto, Jos, Kaduna, Ilorin, Ibadan, Benin> Others were at Lagos, Calabar, Port Harcourt and Tiko in the Cameroons. WAAC's fleet size became expanded as more routes were opened and the load factor increased.

Ghana's attainment of independence in 1957 brought about the disintegration of WAAC. The new independent state created its own airline while Gambia and Sierra Leone pulled out for logistic reasons.

Following the sharing of assets of WAAC, Nigeria inherited some aircraft and landed property which were later acquired by West African Airways Corporation (Nigeria) Limited, a company incorporated by the Federal Government on August 23, 1958, in partnership with the British Overseas Airways corporation (BOAC) and Elder Dempster Limited in May 1961. WAAC (Nig.) Limited was re-registered as Nigeria Airway Limited following Nigerian governments acquisition of the combined interests of BOAC and the Elder Dempster lines.

In realisation of the importance of aviation to economic growth and development, the civilian government of Sir Tafawa Balewa of the First Republic signed into law a civil aviation act (1964 No. 30), which became operational on the first day of December 1965. The Act set out various government regulations like civil aviation fees (landing and parking fees), aircraft performance regulation, licensing regulations, air traffic control rules accident investigation etc.

The Civil Aviation Department of the Federal Ministry of Transport was given the statutory responsibility of regulating civil aviation practice and business by enforcing all the rules and regulations enunciated in the act. The department was also responsible for installation and serviceability of navigational and communication aids in all airports in the country.

Up till early eighties, the Nigerian Airways as Nigeria's national carrier continued to enjoy monopoly in scheduled domestic services. The airline, in the sixties, tried to develop an extensive network of routes, flying to virtually all major towns in Nigeria where airports were available. More aircraft, notably Fokker 27 and Fokker 28 were acquired for this purpose.

It must be noted that just around the time Nigeria Airways came into existence, licence was given to a number of private companies to provide charter services. Some of the airlines are Aero contractors, Pan African Airlines and Bristow Helicopters. As a monopolist, the Nigeria Airways made it absolutely impossible for the other airlines to operate scheduled services.

After the Nigerian civil war and during the oil boom era, the Nigeria Airways, with support of the Federal Government, increased its fleet size tremendously to about twenty-two in order to cope with its ever-increasing volume of passengers on both domestic and international routes.

Also during the economic boom of the seventies, more foreign carriers discovered a profitable market in Nigeria. European airlines like
Swiss Air, Balkan, Iberia, Sabena and many others joined the British Airways. KLM and Lufthansa in operating scheduled international flights to Nigeria.

As at August 1993, about 21 foreign carriers were flying into Nigeria. The figure has since dropped with the exits of airlines like Iberia, Air India, Varig, American Trans Air and Saudi Air. As the domestic and international flight operations were expanding, the federal military Government decided to develop aviation infrastructure to the highest international

standards. The Nigerian Airports Authority (NAA) was established by Decree 45 of 1976 to implement the Aerodrome Development programme. The Authority also got a statutary responsibility to manage all the airports under the programme. Airports of international standard were built in Lagos, Calabar, Kano, Port-Harcour and Abuja. Others were built in Benin, Sokoto, Maiduguri, Kaduna, Jos, Enugu, Akure, Ilorin, Yola, Makurdi and Ibadan.

At the peak of the oil boom era, the national carrier, inspite of its expanded capacity and monopolistic power, was unable to meet the air transport demand of domestic passengers. The airline was bedervilled with operational inefficiency, lack of schedule integrity and unprofitability which later resulted in a significant drop in capacity.

When it became obvious that the Nigeria Airway could no long cope with domestic air transport. Licences were given to private operators in the early eighties to operate domestic scheduled and non-scheduled passenger services. The first three beneficiaries of this policy were Okada Air, Kabo Air and Gas Air.

The operations of these private airlines thus put an end to the monopoly of Nigeria Airways and engendered competition in the domestic airline market. With the adoption of the structural Adjustment Programme (SAP), domestic aviation started witnessing gradual deregulation as control on routes were relaxed and negotiations encouraged in determining air fares. This development encouraged the formation of more airlines.

As the Nigerian Aviation sub-sector continued to grow, the need to ensure the safety of the Nigerian airspace and flight operations through effective management became imperative. To achieve this, the civil Aviation Department (CAD) of the Federal Ministry of Transport and Aviation was made an autonomous authority in 1990, in accordance with

Decree No. 8, 1990.

The outcome was the Federal civil Aviation Authority (FCAA) now Nigerian Airspace Management Agency (NAMA) which is charged with the responsibility of regulating air traffic services and secure the safety, efficiency and regularity of air navigation within the Nigerian airspace. The industry at 76, has also demonstrated enough readiness to be part of the Future Air Navigational System (FANS). This is evidenced by Nigeria's position as a core member of the Task Force on the implementation of FANS concept in the African-Indian Ocean Region. Presently, efforts are also being made to further enhance communication through the satellite communication project being sponsored by the European Economic Community now European Union.

Meanwhile, the state of the industry today cannot be dissociated from that of the nation's economy. Industry watchers believe that the Nigerian aviation market has enormous potentials.

However, the depressed economic system, as shown by symptoms like the weakness of the national currency against world major convertible currencies, has retarded the continued growth of the aviation sub-sector. Also as a result of the poor national economy, the volume of passengers have dropped and many airlines have also folded up.

However, Government's indispensable role in the development of Aviation in Nigeria predates the second world war. Because of the capital intensive nature of aviation; successive governments in Nigeria have played a leading role in making aviation what it is today in the country.

In the area of infrastructural development, tremendous efforts have been made, a build-up of which earns Nigeria a category II status in the classification of rating made by the International civil aviation organization (ICAO).

It is on record that the first foundation for aviation development was laid by the colonial administration in 1935 when work commenced on the construction of six aerodromes in six Nigerian towns, namely Maiduguri, Lagos, Kaduna, Minna, Oshogbo and Kano.

In 1950, following the appointment of Mr. E.H. Coleman as Director of Civil Aviation for the British Colonies in West Africa by the Government in London, the Civil Aviation Department (CAD) was created to take over the provision and maintenance of air transport facilities, including aerodromes and communication services among others. The CAD later became the technical arm responsible for Civil Aviation development and administration in the early set-up at the Ministry of Aviation, which, as it still is today, the policy formulating and supervisory organ.

The pace of development of air transport facilities then was limited because the CAD was neither autonomous nor specialised really in any aspect of civil aviation; it did not have enough technical expertise to effectively pursue a well coordinated development progamme on airport and aeronautical facilities to match any projected growth in traffic, was subjected to ministerial bureaucracy and under funding.

Another milestone in Nigeria's aviation development was the decision of the Tafawa Balewa Government to establish the Nigerian Civil Aviation Training Centre (NCATC) IN Zaria in 1964. It was a very significant action because it was this training school, now called

the Nigerian College of Aviation Technology (NCAT), which produced over 90 percent of the professionals in the Nigerian aviation industry today.

Between 1967 and 1970, the civil war paralyzed civil aviation in Nigeria, including even the modest pace of development already achieved. However, by the end of the war in 1970, the oil boom in the country then had begun to attract unprecedented volume of air traffic to Nigeria: passengers, freight and aircraft alike.

As part of this phenomenon, Nigeria in developing her civil aviation industry to its present stage, has received different forms of assistance from some international organisations, such as International Civil Aviation Organisation (ICAO), International Air Transport Association (IATA), the United Nation Development Programme (UNDP) and the European union.

By way of direct assistance, ICAO set up the standard for and was instrumental to the establishment of the Nigerian college of Aviation Technology (NCAT) Zaria, in 1964. In 1976, the intervention of ICAO in the construction of the International terminal of Murtala Mohammed Airport, Ikeja prevented Nigerian from making some huge expenses on unnecessary facilities included in the plan by the foreign contractors.

The United Nations Development Programme (UNDP) on the other hand in cooperation with ICAO, especially through financing, in promoting the growth of aviation in Nigeria in the areas of technical assistance.

Perhaps European Union's biggest and most striking support to the growth of aviation in Nigeria is the funding of the new satellite communication (SATCOM) project, meant to help the country fit into the ICAO's new concept of Future Air Navigation System (FANS).

The SATCOM is expected to enhance effective communication between different airports and between aircraft and control stations within Nigeria as well as across several countries in West and Central Africa.

Aviation in Nigeria has also benefitted from the efforts of both agencies to interpret Africa's peculiar economic and technical constraints during policy formulation by global bodies like ICAO and IATA, so that such policy could be sympathetic to African Operators where possible. Aircraft age and noise regulations are some examples.

With the creation of the Nigerian Air Space Management Agency (NAMA) Nigeria'S rating at the ICAO and other relevant Organisations has improved following the country's appreciable records in trying to meet the global standards in aviation. Closely connected to this is the enormous increase in both domestic and international air traffic being recorded by Nigeria in recent years as well as the improved Aeronautical Fixed Telecommunications Network (AFTN) and NAMA's new advanced calibration system are some of the projects experts believe will bring Nigeria into higher standards in Aviation industry.

CHAPTER THREE

3.1 NCAT AS AN AVIATION TRAINING INSTITUTION

The emergence of the West African Airway Corporation (WAAC) gave a boost to the development of airline services in the British colonies of Nigeria, Ghana, (then Gold Coast), Sierra Leone and the Gambia. With WAAC also came the West African Air Transport Authority (WAATA) which acted as the supervisory agency and sourced manpower for the airline, inclose co-operation with the colonial offices.

Of course the skilled personnel then like the pilots, aircraft maintenance engineers, air traffic controllers, communication technicians, airport and airline managers were sourced mainly from Britain, while some of the semi-skilled and most of the junior staff were West Africans.

However, with Nigeria's total acquisition of WAAC in May 1959 and subsequent withdrawal of other partners, the responsibility for the manpower needs of the emerging Nigeria Airways also fell on Nigeria's colonial government.

Furthermore, when Nigeria became independent in October 1960, the responsibility became that of the indigenous government.

The independence also came with increase in the volume of air traffic to Nigeria as new investors, promoters of international trade, diplomatic missions foreign airlines and other sectors began to increase their presence in Nigeria as a way to identify with the young nation and take part in developing the huge resources noticed in the country.

These brought to Nigeria the challenge to provide effective air transport services like air traffic control, aeronautical telecommunication and airport facilities, as well as make the

Nigeria Airways capable of moving the traffic effectively and projecting Nigeria's new national identity positively. To achieve and sustain all this, Nigeria needed a pool of indigenous pilots, engineers, communication and aeronautical telecommunication personnel.

Of course, initially they were being trained abroad; but to actualize the nations's independence, expedite aviation development in the country, increase the opportunities and pace of training for Nigerians, the Federal Government began negotiations with the International Civil Aviation Organization (ICAO) in 1959, which resulted in the establishment of the Nigerian Civil Aviation Training Centre (NCATC) in Zaria in 1964.

The establishment was backed by an Act referred to as Nigerian Civil Aviation Training Centre Act, 1964, No. 31. The Act states that:

1. - (1) There shall be established at Zaria a training organisation to be known as the Nigerian Civil Aviation Training Centre (hereafter in this Act referred to as "the training centre") which shall be a body corporate under that name and, subject to the provision of this Act, the training centre shall be charged with the general dury of providing:-

(a) Civil aviation courses, standard or special, designed for use in flight training or in airport operation and management as may from time to time be prescribed under this Act for approved persons.

(b) Training of approved persons in installation, maintenance and operation as the case may be, of technical equipment the use of which is calculated or likely to increase - the margin of operational safety of civil aircraft services;

(c) Equipment and necessary facilities for technical research or normal use by approved persons at the training centre as may from time to time be authorised or allowed by the board of governors under this Act.

2. Courses provided for the purposes of subsection (1) of this section shall include the organisation or incidental study groups and the delivery of necessary series of lectures; and if approved. fees may be calculated and be charged at such rate. not exceeding the estimated cost of course, as may be prescribed under this Act.

3. The training centre as a body corporate shall have perpetual succession and a common seal which shall be kept in the custody of the principal of the training centre; and the training centre may hold or acquire property. movable and immovable, but shall not mortgage, charge or dispose of any property held by it over the value of fifty pounds without the consent in writing of the Minister.

4. The Minister shall appoint a fit person as head of the training centre and its principal; and the principal shall be responsible to the board of governors under this Act for the day today administration and control of the training centre, and shall perform such other duties as may from time to time be prescribed under this Act.

The Act among other has a board of governors charged with the responsibility for the organisation. administratina and policy planning of the training centre. The board consist

among others, a Chariman. one fit person appointed by the International Civil Aviation Organisation (ICAO) referred to in the Act as "the executing agency". Also the Act provides that the director for the time being of the United Nation's Special Fund programmes in Nigeria (which fund is hereafter in this Act referred to as "the Special fund"). Again, section 4(1) of the Act state how the funds of the training centre shall be sourced. Among the various sources, the Act stated clearly that donations, grants and subsidies shall be provided by special agencies (ICAO and UNDP), and donor countries.

The agreement between Nigeria and ICAO/UNDP is also contained in the Act establishing the college. The Agreement read in part that the establishment of the training centre shall be a joint venture among the Federal Government of Nigeria, the United Nations Development Programme (UNDP) and the International Civil Aviation Organization (ICAO) which shall be referred to as the executing agency. This joint venture agreement was to last 10 years (1964 - 1974), at the end of which Nigerian Government will assume full responsibility for the centre.

Even at the termination of UNDP/ICAO programmes of assistance at the end of 1974, Nigerian Government requested the executing agency (ICAO/UNDP) for a gradual withdrawal of its expert personnel to enable Nigeria train enough personnel that will take over from these experts. Thus, ICAO personnel were still serving the college at various capacities up till late 198's. Though ICAO experts are gone, the training syllabus of the college, equipment used etc must conform with that of ICAO standard.

The centre which was renamed the Nigerian College of Aviation Technology (NCAT) in 1986, was set up as a joint venture between the Federal Government of Nigeria, the ICAO

and the United Nations Development Fund (UNDP). The UNDP and ICAO maintained a 10-year joint assistance programme for the college which ended in December, 1974, leaving the total funding of the College to the Federal Government. However, ICAO has continued to provide consultancy services to the college on projects, equipment maintenance and staffing.

The mandates of the College from inception include to train, on a continuous basis, the personnel required to ensure regular, efficient and safe air and ground operations in civil aviation in the country and West Africa generally, in accordance with international standards.

Thus, NCAT, since then, has been the training ground for pilots, aircraft maintenance engineers, Air Traffic controllers, Aeronoutical Electronic personnel and Telecommunication technicians serving in Nigeria and abroad. In fact, over 90 percent of such professionals in Nigeria today are products of NCAT which has also developed its own instructors over the years. According to records, the college has trained over 3,000 skilled personnel since its inception, including about 480 pilots, for various countries.

3.2 OBJECTIVES OF THE COLLEGE

The long-term objectives of the college are:

1. To provide the civil aviation industry in Nigeria, in particular, and in the African continent, in general, with highly trained personnel, namely pilots, Aircraft Maintenance Engineers, Air Traffic Controllers, Aeronautical Communications Personnel and Aeronautical Telecommunications Engineers;
2. To stimulate safe, regular, and efficient air transport services; and
3. To boost economic growth in Africa.

3.3 FUNCTIONS OF THE COLLEGE

The statutory functions of the college, as stipulated in the enabling Act of parliament (1964), are to:

(a) Provide civil aviation courses, standard or special, designed for use in flight training or in airport operations, and management as may, from time to time, be prescribed for approved persons;

(b) Provide training of approved persons in the installation, maintenance and operation, as the case may be of technical equipment, the use of which is calculated to, or likely to, increase the margin of operational safety of civil aircraft services; and

(c) Provide equipment and necessary facilities for technical research or normal use by approved persons at the college as may, from time to time, be authorized or allowed by the Board of Governors of the institution.

The college over the year has grown, developed and change. This word "change" is used synonymously to mean progress, increase, expansion, enlargement, and extension in the defined and established boundaries of the entity concerned. Alfred North Whitehead (1861 - 1947) reminds us that:

> "...the art of progress is to preserve order amid change and to preserve change amid order....."

Today, incredible changes have taken place in the college. It has "grown" and it has "developed." Let us examine same of the indicator of growth and development, three of which are:

(a) Increases in the number of modular training progrmmes and courses development from the inception of the college.

(b) Increases in the number and quality of graduates trained by the college since it commenced training; and

(c) Other miscellaneous indicators.

One dimension of growth can be seen in the enlargement in training programme developed. The college started its training activities with 4 schools and a few training department. The table below shows that, at the end of the 20th century, each of the schools now has four training Departments. The number of training courses developed and ran by each of the schools, as well as those planned for the future, are shown on the table.

TABLE 3.1: TRAINING COURSES RAN IN NCAT AS AT DECEMBER, 1999 AND THOSE PLANNED FOR THE FUTURE

School	No. of Courses	Planned	Total
Flying	11	6	17
Aircraft Maintenance Engineering School	7	7	14
Aeronautical Telecommunications Engineering School	7	-	7
Air Traffic Services/Communications school	22	88	110
	47	101	148

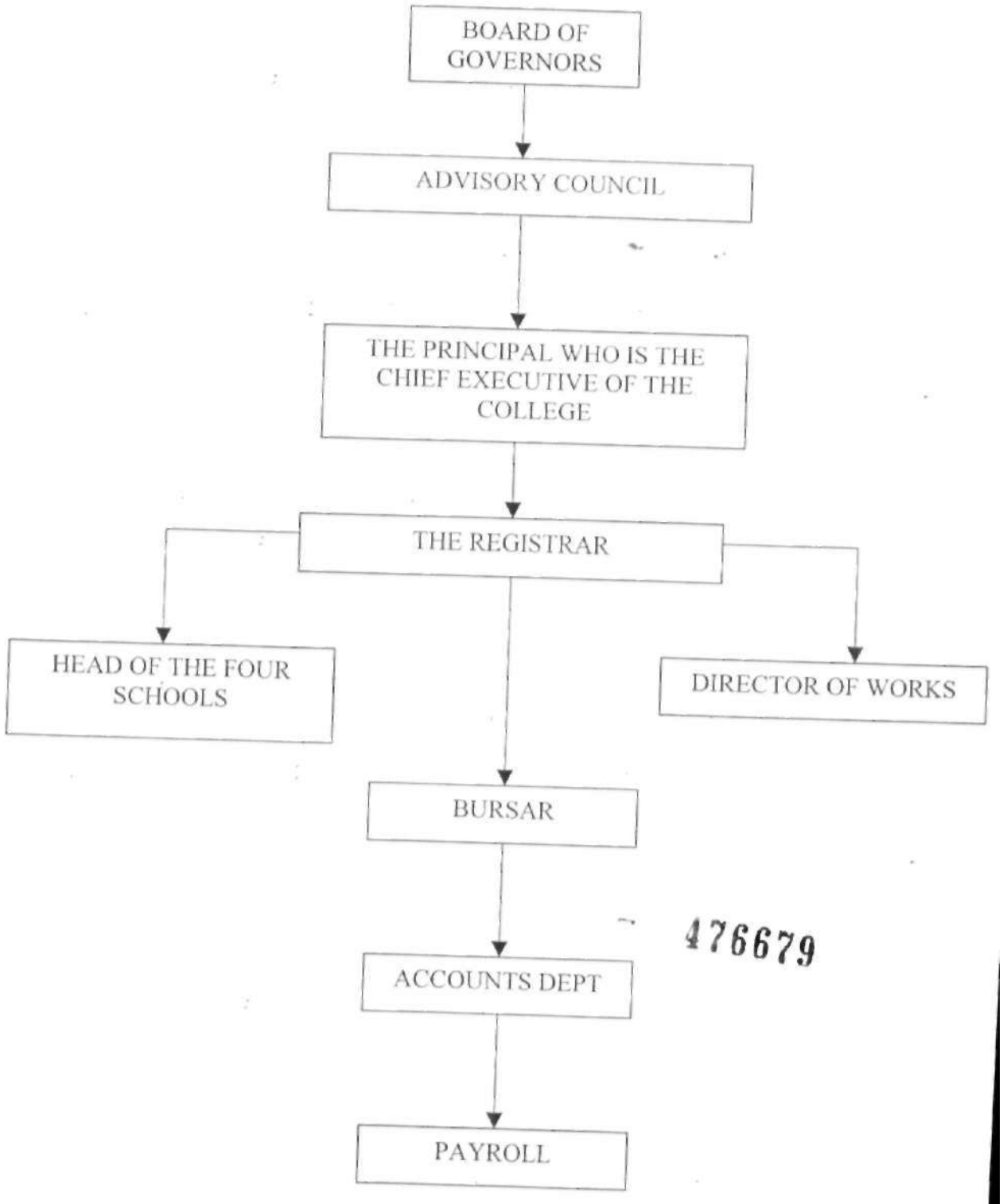
On the aggregate, the table records the courses at present available as 47. Courses planned for the immediate future in the schools are 101. If and when the planned courses are

introduced and, if logistics problems do not derail or dislocate the plan, the schools will be running 148 aviation technology training courses in this decade and beyond.

A remarkable achievement has also be made in the number of graduates produced by the various schools. For instance, it has been observed that the four schools since 1968 to 1999 have produced a total number of 4,747 graduates.

Fig. 3.2

ORGANIZATIONAL STUCTURE OF NCAT



In order to achieve the objectives and accomplish the mission orientation of the college, the Government provided for the formation of a leadership group as stated above.

The role of credible leadership in the management of any organization cannot be over emphasized. Thus the Federal Government entrusted the task of the organizational, administrative, policy planning and implementation of the college into the hands of a Board of Governors and an Advisory Council as provided for by the Nigerian Civil Aviation Training Centre Act, 1964, as amended by Decree 20 of 1977, and later, the Nigerian civil Aviation Training Centre (Amendment) Bill of 1983. Accordingly, the Board is made of the following members:

(a) Chairman and five other members appointed by the president of the Federation.

(b) One representative of the Federal Ministry charged with the responsibility of civil aviation matters.

(c) One representative of the Nigerian Air Force;

(d) The Chief Executive of the College; and

(e) The managing Director of the Nigerian Airways Limited.

The Advisory Council consists of not less than 10 members but not more than 20. They are appointed by the Honourable Minister of Aviation from among representatives of the government, airlines and civil aviation bodies making use of the college.

The council advises the Board of Governors on courses of instruction being provided or to be provided by the college. It also makes recommendations to the Honourable minister on the holding of the conferences and meetings at the college which members of the council deem necessary and suitable.

The Chief Executive is to among other exercise the powers conferred upon him by the Board of Governors of the college; co-ordinate and approve all activities of the college. implement policies of the Board, and set up progammes and standard qualifications for appointments and entries into various courses etc.

The entry requirements into flying school include:

(a) A first degree in any natural science disciplines with at least five (5) credits at "O" level which must include Mathematics, Physics and English language. A credit in Geography is an add advantage.

(b) Passing the prescribed ICAO medical fitness test:

(c) Satisfactory flying aptitude, determined by tests and interview.

CHAPTER FOUR

4.0 DATA PRESENTATION AND ANALYSIS

This chapter presents data on the role of international civil Aviation Organization (ICAO) in the development of Nigerian College of Aviation Technology Zaria. The analysis is mainly descriptive, using percentages. Descriptive analysis takes care of data that could not be stated in tabular form. Such data were obtained from professional aviators.

4.1 CHARACTERISTICS OF RESPONDENTS

The unit of analysis consist of 100 respondents, out of whom 68% represent male while 32% are female. The analysis can be seen from the table below:

Table 4.1: Characteristics of Respondents in terms of sex

Sex	Number	Percentage (%)
Male	68	68
Female	32	32
Total	100	100%

Table 4.2: Occupational characteristics of Respondents

Occupation	Number	Percentage (%)
Pilots Aircraft Engineers Air Traffic Controller Aeronautical Engineers	59 31 8 2	59 31 8 2
Total	100	100%

The table shows that 59% of the respondents are pilots, 31% are aircraft engineers, 80% Air Traffic Controllers and 2% Aeronautical Engineers.

Table 4.3: Educational Qualification of Respondents

Educational Level	Number	Percentage (%)
Quranic	0	0
Primary	6	6
Post-primary	13	13
Tertiary	81	81
Total	100	100%

Table 3 shows that non of the respondents had Quranic education, 6% had primary education, 13% had post primary while 81% had tertiary education.

Table 4.4: Age characteristics

Age Range	Number	Percentage (%)
Below 20	0	0
21 - 40	94	94
41 - 60	6	6
60 and above	0	0
Total	100	100%

The table indicate that 94% of the respondents are between 21 - 40 years while 6% are between 41 - 60 years old.

4.2 ICAO's ASSISTANCE

The opinion of professionals such as pilots, aircraft engineers, air traffic controllers etc were sort to find out the extent ICAO's assistance helped in the establishment of aviation college. Zaria and the development of aviation industry in Nigeria generally.

Table 4.5: What motivated ICAO to assist in establishing Nigeria College of Aviation.

Contribution	Number	Percentage (%)
Training of personnel	82	82
Setting minimum standard	4	4
Provision of equipment	12	12
Provision of expertriate's advice	2	2
Total	100	100%

The above table indicate that 82% of the population agree that ICAO has contributed immensely in the area of training aviation personnel, 4% of them said that ICAO contributed by setting minimum standard for aviation industry; 12% maintained ICAO contributed through the provision of equipment, while on 2% said ICAO's contribution is mainly in the provision of expert advice. This table disagree with hypothesis two as it can be seen that ICAO contributed greatly to the development of NCAT and aviation industry as a whole.

Five pilots were asked to express their opinion on whether the aim of establishing NCAT has been fulfilled. They all expressed similar opinion as they maintained that above 90% of aviation personnel are today trained at NCAT. They said further, that apart from the high cost of training abroad, western countries because of September 11, 2001 incendent, are

no long willing as before to train pilots and even aircraft engineers for other counties. One of them gave the example of their colleagues who was denied training programme last year in U.S. because he was already having ratings in four different aircrafts.

The Manager of the Nigerian Airspace Management Agency was asked how does ICAO's activities affect aviation polices in Nigeria. He explained that the technical polices, that is the installation of al types of equipment, rules guiding flight operations, design of courses for various personnel, technical language, codes and symbols, safety rules, categories of aircraft to be used at what airports etc. are determined by ICAO which nations of the world must comply with. Although other administrative policies affecting aviation industry are determined by Nigeria, such policies have to be in conformity with ICAO's regulations. To this extent, one can infer that Nigeria aviation policies are partly determine by ICAO - (hypothesis 3).

Again, because Nigeria can not operate its aviation industry outside ICAO's rules, one may be correct to say that the nation has surrendered a fraction of its sovereignty to ICAO.

The chief executive of the college was ask to comment on the standard of training of the institution. He stated that aviation the world over has a uniform training standard set by ICAO and that no aviation institution is allowed to deviate from ICAO standards. He went further to say that the training standard of NCAT since it was established have always conformed to that of ICAO.

The chief executive was again asked to comment on the management of the college as it affect training. He pointed out that the period of military rule especially during Abacha

reduced the College to a mere shadow of its former self.

According to him, this period saw a situation whereby non professionals were entrusted with the management of the school. This resulted to the inability of the college to graduate any flying student; expertriates from ICAO left as the organization withdrew its training assistance, wrong type of training aircrafts were bought by these non professional managers of the college and appointments were given on the basis of where you come from and not on merit.

He said presently, the college is faced with the problem of qualified flying instructors, and lack of enough fund to effectively manager the institution. He explained that Federal Government is already having discussions with ICAO officials on how the organization can assist the college in training pilots. The government wants ICAO to send some pilots who will work hand in hand with Nigerian pilots the college already have. Also, the federal government is requesting ICAO to pay 60% of the cost of keeping the expertriate pilots while it will pay the remaining 40%. This arrangement if finalised, the college stand to enjoy smooth flight training.

The head of flying school was asked to explain why he college still send its pilots and engineers on courses abroad instead of training them here. He stated that pilots and engineers are sent abroad for type-rating on different aircrafts, simulator and conversion courses, and even for abinitio training on things like helicopter piloting and maintenance courses on Air-borne radios and advanced Air Traffic Control, which are not available locally. All these no doubt, have raised the cost of manpower supply to the college in particular and aviation industry in general especially under the current high cost of procuring

foreign exchange. He also said that the absence of adequate training facilities has in recent years caused long extension of course durations and cost of training locally. The cost of training abroad, which is the alternative, is prohibitive. For instance, while NCAT would charge between 850,000.00 and N1,000,000 for the basic training of a pilot, an average training centre abroad would ask for about 50,000 U.S. dollars (about N5.1 million).

For these, as well as the general economic constraints of recent years and the apparent non-existence of a mandatory man power training policy enforced on Nigerian airline operators, most of them these days, hardly sponsor fresh candidates on training. The few who train as engineers and pilots occasionally prefer to take holders of the basic licence and send them on type-rating; or better still send already type-rated professionals on conversion courses. He expressed fear that if urgent measures are not taken by government and operators to improve training facilities in the country and intensify local manpower training, expatriate pilots and engineers particularly may soon dominate the industry.

The head of aircraft maintenance engineering department was asked if the type of aircraft presently in use at NCAT meet ICAO standard. He answered yes but emphasized that the aircrafts are very expensive to maintain. He therefore suggest that the locally made *trainer planes - Air Beetle which is cheaper to operate and easier to maintain be purchased* to boost training capacity of the college.

The contributions made by ICAO to the development of NCAT can be quantified in terms of expert personnel supplied by the organization, equipment and in monetary from. The 5th half-yearly progress report of 31st March, 1967 indicated that ICAO and UNDP gave NCAT £11,570 in 1965 while it contributed additional £8,392.00 in 1966. In June 1970,

ICAO/UNDP again contributed $849,000 to the development of the centre while in 1973 the organization supplied to the training centre equipment worth $680,412.17.

Other areas ICAO assisted NCAT include the supply of expert personnel, Fellowships and scholarships given to Nigerian students to study abroad. The first principal and project manager of the training Centre was Mr. O. of Storm Sent by ICAO. In 1964 alone, 14 ICAO expert personnel worked with the centre in various capacities.

In 1974, three fellowships were offered to three Assistant Link Instructors - in-Training (all Nigerians) by the Dutch Technical Assistance through ICA) to train as link instructors in the Netherlands. In the same year, ICAO gave scholarships to seven Nigerian students of the centre to study Aircraft Engineering, flying, Air traffic control etc. Again, 9n 1964, ICAO gave scholarship to eleven Nigerian students of the centre to under go course in Air traffic control, flying and Aeronautical meteorology familiarization course. These scholarship were meant to train in Nigerians who will taken over from ICAO personnel who were being gradually withdrawn.

Available data reveal that at one time or the other the college received bilateral assistance from member nations of ICAO. One of such assistance was given by the Swedish Government in the form of associate experts. Between 1964 and 1970, five Swedish associate experts in Radio Maintenance, flying instructors, and Aircraft Maintenance experts were serving with the Training Centre while three more were expected to arrive.

On the surface, these assistance were meant to develop NCAT and Nigeria Aviation Industry as a whole. On the long run, ICAO took a fraction of our soverignty in return for their assistance to the extent that training activities of the college are subjected to conform

with ICAO standard.

Also, as a way of regulating the training activities of NCAT, the school according to the 11th Half-yearly progress Report of 1969/1970, forwarded a request to ICAO/ARB (Air Registration Board of the Organization (ICAO)) for approval of the college training syllabus. To support the request, the syllabus of the flying school was extended by three months to provide more of the practical training on the Cessna 150 aircraft. This again point out the role of ICAO in the development of NCAT.

It is important to note that the 30 months civil war delayed the development and operation of the training centre. In consequence, the Nigerian Government requested through the resident representative of ICAO/UNDP in Lagos an extension of the project by three years. The Government also at that time requested for the gradual withdrawal of International personnel to enable Nigerians studying abroad return to replace them.

It is clear from the above that Nigeria could not have developed NCAT all alone because Nigeria lack the technology and technical know-how to undertake such venture. Thus, the assistance the nation received from ICAO has made NCAT to submit to the control and dictates of the organizaion. For instance, up till date, ICAO determines the type of trainer aircraft NCAT should have and the training standard the college should maintained. In line with ICAO control measures and standard setting, even qualified Nigerian pilots are required to undergo other qualifying courses before they can tech students how to fly.

When asked to comment on NCAT training syllabus as it relates to ICAO, Mr. Emasuen, a pioneer staff for the college stated the college can not design its own training syllabus different from that of ICAO. This is because ICAO is the body that sets standards

which the college must follow. He stated further that we can not run away from the control of ICAO because we lack the technologies to stand on our own.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY OF MAJOR FINDINGS

This section presents the summary, conclusion and research recommendations of this study as follows:

In this study, the focus has been on the role of International Civil Aviation Organization (ICAO) in the Development of Nigerian College of Aviation Technology, Zaria.

The principal objective of the study was to test the role of ICAO in the development of Nigerian College of Aviation Technology. I also tested what motivated ICAO to assist Nigeria in the development of the college. Also determined was the role of ICAO in the development of aviation industry in Nigeria. In specifically tested how ICAO's policies affect aviation industry in Nigeria.

It was observed that ICAO contributed greatly to the establishment and still contributing to the development of the college by providing funds, manpower need ; and equipment (hypothesis 2). The assistance is commendable because the country would not have been able to do it all on its own.

Similarly, it was found that Nigeria's aviation policies are guided by that of ICAO (hypothesis 3). This is so because the organization is the only body the world over that regulates global aviation activities. It was also found that ICAO contributed expert personnel, money and equipment to th4e development of NCAT. This has made NCAT to submit its authority to the control of ICAO.

Unfortunately, it was discovered that Nigeria by strictly adhering to ICAO's rules and regulations, it has surrendered a fraction of its sovereignty to ICAO (hypothesis 4). This is because Nigeria can not operate its aviation industry outside ICAO's regulation. If it does, it will be sanctioned.

Interestingly, it was found that NCAT since inception has trained many aviation professionals both from Nigeria and other African countries. I also observed how the college has grown and developed over the years.

However, the research revealed that the college is faced with problems ranging from funds, lack of enough qualified training instructors to lack of training facilities. It was also discovered that these problems have contributed to the extension of the duration of courses. Also the lack of training facilities as revealed by the research, has made the college and airline operators to now train their personnel abroad which is a lot expensive. My interview with the Chief Executive of the college and the head of flying school department confirm all these.

5.2 CONCLUSIONS

Base on the above findings, the following conclusion is made. The assistance of ICAO greatly contributed to the development of NCAT. The organization's contribution can mainly be seen in the area of provision of expertriate personnel, training equipment and grants in monetary terms which make ICAO to have control over NCAT.

It would appear that Nigeria aviation industry can not operate outside the regulations of ICAO because the nation lack the necessary technology.

It also appears that the benefit of ICAO to aviation industry in Nigeria is in training of personnel, provision of equipment, setting rules and taking measures to ensure the compliance to safety standards at all airports, and the regulation of the activities of airline operators.

Observed criticism of ICAO include the determination of Nigeria aviation policies which tends to limit the nations sovereignty.

5.3 RECOMMENDATIONS

From the findings, the following recommendations are made:

1. Nigerian College of Aviation Technology which is still the leading training centre for aviation professionals in the country be re-equipped with trainer aircraft and modern simulators, including the locally made trainer planes - Air Beetle that is cheaper and easier to maintain.
2. The management of NCAT should go far and wide to engage qualified flying instructors to enhance smooth training.
3. Employers of aviation personnel in Nigeria should be made to contribute some percentage of their annual income to the funding of the college. Alternatively a certain percentage of the value of every air ticket sold by airlines in the country should be channelled to funding NCAT.

REFERENCES

1. Awake Magazine, March 8, 1999.
2. Aviation and Allied Business Journal of Aviation Development, Vol. 4, No. 2 of April - June 1995.
3. Anderson, R.B. (1994). Inter-IGO Dynamics in the post-cold War World: Prentices Hall, N.J.
4. Archer Clive, (1983); International Oganizations, Allen and Unwin, London.
5. Charlston K. (1962). Law and Organisation in World Society. Prentice-Hall International eds.
6. Charles H. Gibbs-Smith (1970). Avition, An Historical Survey from its Origin to the end of World War II, N.J. Prentice-Hall.
7. Easton David (1965). A framework for Political Analysis; Englewood Cliffs, N.J. Prentice-Hall.
8. Encyclopedia of Science and Technology, Vol. 1, p. 916 - 917, 237 - 242 and 461 - 462.
9. Iain Macmillan (1967). Civil Aviation. Lutterworth Press, London.
10. International Civil Aviation Organiztion at 50: An ICAO publication Dakar; 14th - 16th Nov., 1994.
11. John T. Rourke (1997). International Polities on the World State; Hill Companies Inc., 6th ed.
12. John C. Walike (1977). Foreign Policy Analysis. Merrill Political Science Series, University of Iowa.

13. Nigerian Civil Aviation Training Centre Act, 1964, No. 31.

14. Nigerian Civil Aviation Training Centre; 5th Half-Yearly Progress Report and Accounts period ended 31st March, 1967.

15. Nigerian Civil Aviation Training Centre; 11th Half-Yearly Progress Report and Accounts June, 1970.

16. Nigerian Civil Aviation Training Centre; 15th Half-Yearly Progress Report, 30th June, 1972.

17. Nigerian Civil Aviation Training Centre; 18th Half-Yearly Progress Report and Accounts, 31st December, 1973.

18. Nigerian Civil Aviation Training Centre; 19th Half-Yearly Progress Report and Accounts, 30th June, 1974.

19. Nigerian Civil Aviation Training Centre; 23rd Half-Yearly Progress Report 30th June, 1976.

20. Nigerian Civil Aviation Training Centre; 29th Half-Yearly Progress Report and Accounts, 30th June, 1979.

21. Olusegun Agagu (2002). NCAT at 35. A publication of Nigerian College of Avation, Zaria.

22. Terrence Boughton (1963). The story of the British Light Aeroplane. William Clowes & Sons Ltd., London.

23. Williams Joy (1966). The Aviators. Angus and Robertson, London.