DRAFT COMPREHENSIVE REGIONAL IMPLEMENTATION PLAN FOR AFRICA

PREPARED FOR THE 181ST SESSION OF THE COUNCIL

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1 EXECUTIVE SUMMARY

1.1 Safety is essential for the existence of civil aviation, which is recognized as one of the key enablers of the rapidly developing global economy. ICAO is recognized as the organization responsible for ensuring that Contracting States apply harmonized civil aviation Standards and Recommended Practices to facilitate the continued growth of aviation. Recognizing the critical importance of this mandate, the 35th Session of the ICAO Assembly resolved that ICAO should lead a Unified Strategy to resolve safety-related deficiencies that threaten the viability of civil aviation and the economies that depend on its safety and regularity.

1.2 Despite this mandate, ICAO and Contracting States have struggled to meet the challenges posed by civil aviation difficulties in the African region. The details of the many challenges facing aviation in the AFI Region can be found in numerous ICAO working papers and meeting reports and in the notes and meetings of other multinational bodies, such as the African Civil Aviation Commission (AFCAC).

1.3 The problems facing the States in the AFI Region and many other States are similar in nature; however, the acute economic and political issues influencing the situation in the AFI Region pose a complex challenge that truly demand a new approach resulting in a comprehensive regional plan.

1.4 The Council therefore agreed that, a Comprehensive Regional Implementation Plan for Africa should be developed. The plan should also be presented to a meeting to be convened immediately prior to the 36th Session of the Assembly. Thereafter, the RAN meeting scheduled early in the 2008-2009-2010 triennium should be a checkpoint for assessing progress in implementation.

1.5 The sustained improvement in the level of flight safety in the AFI Region requires ICAO to exert increased leadership in civil aviation issues. ICAO must integrate the regional office activities with the global ICAO Business Plan, positioning the regional office as the primary focal point for ICAO activities. The shift of ICAO's activity from the development of Standards to a broader activity relating to standards implementation will require a shift in focus. In the AFI Region, this calls for the creation of a comprehensive regional implementation plan that is endorsed by all stakeholders and supported with adequate funding and staffing. The Plan involves the regional offices in a leading role in the development and implementation of the plan.

1.6 The Plan has been developed to address the concerns expressed by Council and emphasizes a heightened leadership role by ICAO and accountability, supported by strong programme management and coordination activity. The Plan therefore adopts a Programme Management approach that emphasizes accountability through metrics development and reporting and is carefully integrated with other programmes in the region and with the ICAO Business Plan. The senior Regional Director in Africa will be appointed as Programme Manager and will be directly responsible and accountable for the implementation of the Plan.

1.7 The Plan will draw on expertise available in ICAO Headquarters and Regional Offices in Africa, AFI Planning and Implementation Regional Group (APIRG), regional and sub-regional safety oversight systems other contracting States, ICAO partners such as IATA IFALPA, IFATCA and other stakeholders including international funding agencies such as the World Bank. The Plan will also be integrated with ongoing COSCAP and Unified Strategy Programme (USP) activities.

1.8 Under ICAO leadership, the Plan for Africa calls for collaboration between regulatory agencies and industry in the implementation of initiatives aimed at rectifying safety deficiencies. Development and implementation of the plan will follow the methodology and process contained in the global aviation safety roadmap.

1.9 The initial Implementation phase of the plan is expected to cover a period of four years. Through a gap analysis, the near-term priorities listed under the objectives of the Programme will be validated and prioritized. It is expected that the near-term priority issues will be addressed during this period. Successful completion of the initial implementation phase will then enable the plan to subsequently address medium- and longer-term objectives in its later phases. Progress with respect to the satisfactory completion of activities will be monitored using metrics similar to those provided by the Global Aviation Safety Roadmap.

1.10 From a political point of view, the Plan will be implemented in close coordination with, and with support from, the African Civil Aviation Commission, APIRG and the African Union and regional bodies. Administrative support and accommodation for the Programme will be provided by the regional Offices in Africa.

2   BACKGROUND AND CONTEXT

An Overview of Operational Constraints

2.1   Level of air transport activity

Several reports have shown that although the potential for growth of air transport is high, the actual demand for air transport is low. Demand is constrained by the lack of political will to open up the markets and benefit from economies of scale within the context of the Yamoussoukro Decision. There are only about five intra-Africa routes where the level of air transport activity could be described as mature. In addition, not all the cities are connected by direct flights, making travel within Africa difficult and expensive. There is also a worsening vicious cycle effect between dwindling demand, diminishing revenue ratios and compensatory higher fares, which continuously plunges the industry into further difficulties.

Consequently, the industry fails to generate enough revenue to meet its operating cost and infrastructure development cost, which force its dependence on foreign aid or direct subsidy from governments that can hardly afford. Superficially, governments that opt out of subsidizing the industry can be seen as lacking the political will to address their safety problems, but the reality is that they just cannot support the industry from their meager resources.

2.2   Air transport liberalization efforts

Liberalization of the of the industry has been cited as the key to breaking the above mentioned vicious cycle to turn many routes into profit-centers, to fund operations and to finance infrastructure development and maintain the industry.

Unfortunately, despite several efforts including the current Yamoussoukro Decision strategy, there is obvious reluctance to engage in this undertaking, yet there has been a proliferation of meetings to devise competition rules that have been spanning a period of more than six years to-date without any tangible results. There is obvious lack of political will in this area and the only way ICAO can help is to cultivate that political will among the States concerned with clear leadership, guidance and financial support if necessary. This requires sensitizing the highest authorities in the States on the benefits of implementing the Yamoussoukro Decision.

2.3   Economies of scale

The need for the industry to grow to critical mass levels is fundamental for effective and sustainable development of the civil aviation industry in Africa in all its facets: infrastructure development and maintenance, efficient and effective air traffic management, aviation safety and adequate human resource. This can be achieved through a combination of solutions to operational problems. Cooperation is essential for effective implementation of market growth strategies such as liberalization approach of the Yamoussoukro Decision.

However, given the poor economic status of many of the countries liberalization alone is not enough. States with few operators and light activity may benefit from pooling expert resources with other similarly situated States. This relieves the pressure on training investment and the ongoing maintenance of compensation necessary to retain experienced personnel. Further efforts are required to group together equal-minded States to pool their resources into regional institutions to benefit from economies of scale. Fortunately, there are already efforts and existing institutions to that end. It is necessary for ICAO to take

the lead in helping these groups realize their goals. Areas that could be targeted for collaborative ventures and joint use include Air traffic and navigation services for which there are already efforts to establish Upper Airspace Control Centers (UACC) in SADC, EAC and COMESA.

To address air traffic service issues, ICAO convened the First Meeting of the AFI Air Traffic Services Providers in Dakar, Senegal (26 to 28 November 2002). The meeting was held in cooperation with the Agency for the Safety of Aerial Navigation in Africa and Madagascar (ASECNA) and the Air Traffic and Navigation Services of South Africa.

The Air Traffic Services Providers undertook to cooperate within the framework of :

- the effective implementation of ICAO Standards and Recommended Practices and the AFI Air Navigation Plan;

- the elimination of deficiencies affecting the Air Navigation and the implementation of the CNS/ATM Systems;

- the development of Training Plans and retraining of Human Resources; and

- the upgrading of the quality of services provided thanks to joint strategies to be developed within a permanent institutional framework.

Furthermore, the Air Traffic Services Providers recognized the necessity for a Single African Sky. It was agreed that this matter will be the subject of an in-depth consideration.

A second meeting of the Africa-Indian Ocean Air Traffic Services Providers was held in South Africa from 3 to 5 November 2004 under the auspices of the Air Traffic and Navigation Services South Africa (ATNS), the Agency for the Air Navigation Safety in Africa and Madagascar (ASECNA) and ICAO.

The two main operational areas that were discussed during the meeting were air traffic management in the AFI Region and the impact on the relevant recommendations and conclusions from the Eleventh Air Navigation Conference (Montreal, 22 September to 3 October 2003) and APIRG/14 (Cameroon, 23 to 27 June 2003. The second major area of focus was again the implementation of air navigation systems by ATS providers within the AFI Region, including a Single Sky Concept for the provision of air traffic services.

2.4   Aircraft maintenance facilities

Performance of major maintenance is still done outside the continent by many countries. This also include engine overhaul despite the existence of a few facilities with such capability in the continent. There have been efforts dating back to 1988 to identify and assign specialized maintenance work to maintenance facilities in the COMESA States. The COMESA effort was part of a broader AFCAC initiative through a feasibility study for the creation of a coordinated network of aircraft maintenance and overhaul centre in Africa. Specific centers were identified in six States. (Ethiopia, Zimbabwe, Kenya, Madagascar, Zambia and Tanzania). This collaborative effort could not however be developed further due to rivalries among the States. This effort needs to be rekindled taking into consideration developments that have taken place since then.

2.5   Private airlines and cross-border ownership

There are private airlines in all States which makes government influence in merging them into fewer large regional carriers more difficult than it would have been fourteen years ago when all airlines were 100 per cent government owned. The Yamoussoukro Declaration of 1988 was intended to merge those

individual airlines in an eight-year period, but even under their control and ownership, the governments failed to achieve this.

2.6   Sub-regional safety oversight operations

There are two common barriers to establishing flight safety organizations that are patterned after the model described in the *Manual of Procedures for Operations Inspection, Certification and Continued Surveillance* (Doc 8335) and the *Airworthiness Manual* (Doc 9760). First, most developing countries do not have an adequate basic air law and/or code of air navigation regulations. Second and most difficult to overcome, is the inability of developing countries to recruit, train and retain suitably qualified inspectors.

Given the above mentioned barriers and also the fact that the size of the air transport industry in most developing States is usually small, formation of a cooperative organization by a group of States for the provision or augmentation of certification and surveillance services in each State by a regional core of inspectors offers a practical and cost-effective solution to the problem.

There are existing examples of initiatives for the establishment of regional safety oversight systems (RSOOs) in the region, such as the Banjul Accord Group Aviation Safety Organisation (BAGASO) and the African and Malagasy Civil Aviation Authorities (AAMAC) ICAO should continue to promote this cooperation initiative throughout the AFI Region.

2.7   Training schools

The lack of qualified manpower poses a major constraint for the development of civil aviation in Africa. Due to inadequate financial resources and competing primary needs of the populations, the States, which are main stakeholders of civil aviation, do not have sufficient means to devote to the training of personnel in technical, management and leadership disciplines.

While a few key training resources are used by many States in the region, they vary in their financial capacity to invest in equipment and learning resources. Also, their small number has not contributed to specialization, exacerbating resource issues as aviation training increasingly demand significant infrastructure investment. If specialization could be coordinated among the existing and new institutions, the market may benefit from the economies of scale within the region. Resolving training constraints must also include the conduct of a detailed training analysis of the entire region.

2.8   Coordination

Different activities are being undertaken by various bodies in an uncoordinated manner in the AFI Region. ICAO's current diminished leadership role exacerbates the situation. ICAO has the mandate, experience and capability to direct activities within the region with respect to coordinating and mobilizing capital investments from Contracting States and interested donor agencies, at the same time facilitating the sharing and exchange of safety-related information.

2.9   Aircraft accidents and identifying the accident rate in Africa

A review of the ICAO Accident/Incident Data Reporting (ADREP) data for a ten-year period, from 1997 to 2006, shows that there was an increase in the number of accidents in the AFI Region. However, precise numbers are hard to come by in view of the poor reporting culture of the region. That the reporting culture in the AFI Region remains weak is underscored by the fact that, on average, over the period of 1990 to 2006, about 70% of accidents had not been reported to ICAO.

The ADREP data for 2002 to 2006 shows that, for aircraft with a maximum take-off mass greater than 2 250 kg, the rate of fatal accidents in the AFI Region involving scheduled operations was 4.6 accidents per million departures, or over eight times the world average. For the same period, the rate of passenger fatalities per million departures was 270, or over eleven times the world average. This situation must be addressed to ensure the safe and orderly growth of air transport throughout the region; in order to achieve this, the AFI accident should be brought down to at least the world average.

2.10 Types of accidents

Analysis of the ICAO ADREP data for fatal accidents over the five-year period 2002 to 2006 and covering aircraft of a maximum take-off mass greater than 5 700 kg shows that power plant failure or malfunction, loss of control in flight, fire/smoke (post impact), controlled flight into terrain and runway excursions rank as the most significant types of accidents within the region.

Infrastructure deficiencies, such as the lack of appropriate aerodrome maintenance, especially as regards runway pavement and deficient aerodrome fencing, have already caused serious incidents. Although it appears that not all of these deficiencies are major contributors to accidents, a more in-depth assessment of these emerging hazards will need to be carried out to determine the level of threat posed. The assessment should include a detailed risk analysis conducted within the context of a safety management systems approach. In addition, obvious degradation of the ground infrastructure that can be observed in some places must be stopped before it contributes to an accident.

In the en-route phase, the quality of air traffic services is often below global standards and communication is sometimes impossible, to a point that crews often claim that they have crossed entire flight information regions (FIRs) without any radio contact with ATS. Again, this does not seem to have caused accidents so far. However, even with the use of the airborne collision avoidance system (ACAS) and the wide-spread use of the in-flight broadcast by pilots (IFBP) frequency, the constant growth in traffic may result in the situation changing in the future. Therefore, as in the case of infrastructure deficiencies, a proper risk analysis must be carried out to determine the threat posed and safety interventions required.

2.11 Safety Oversight Deficiencies

The key safety oversight issues identified in the AFI Region include the following:

- ICAO safety oversight audits and other ICAO missions have shown that many Contracting States in the African Region have not established effective safety oversight systems within the Civil Aviation Authority (CAA);

- States lack expertise, thereby creating a situation for unsafe conditions that could contribute to the high accident rate in the AFI Region;

- the lack of expertise, the lack of empowerment and the lack of appropriate delegation and authority to the operational level within the civil aviation administrations;

- a large group of States are still dependent exclusively on their State budget, as opposed to being autonomous civil aviation authorities, and thus face financial limitations. As a consequence, many administrations lack the necessary qualified technical and administrative staff to carry out their safety oversight obligations, as adequate training policies and programmes have not been put in place;

- some States in the region has achieved good progress, but the progress is not homogeneous;

- the absence of an appropriate system for the certification and the continued surveillance of air operators results in the conduct of air transport operations without the existence of an operations manual, a training programme or an accident prevention programme;

- in many cases, air operator certificates (AOCs) have been issued virtually on request without requiring applicants to demonstrate their capability and without prior inspections and controls to ensure that the prospective operator is capable of ensuring the conduct of air transport operations with an adequate level of safety; and

- not many States in Africa have the resources and the volume of air operations that can justify the maintenance of a national safety oversight workforce;

- slow progress by States in the implementation of action plans to resolve the ICAO USOAP audit findings;

- the need for African States to commit to implementation of ICAO provisions.

2.12 Infrastructure Deficiencies identified by APIRG

In order to enable the APIRG to make detailed assessments of deficiencies, States and appropriate international organizations including IATA and IFALPA, provide the information to the ICAO regional office for action as appropriate, including action at PIRG meetings. The information usually includes a description of the deficiency, risk assessment, possible solution, time lines, responsible party, agreed action to be taken and action already taken.

2.13 Major Safety issues identified by the APIRG include the following:

- Poor Communication links,

- Inadequate aerodrome fencing;

- Poor response from States in correcting the deficiencies identified;

- Non implementation of Air Routes;

- Non provision of Area Control Service;

- Training of staff, etc.

2.14 Culture Change Actions and a Leadership Role for ICAO

In spite of the numerous challenges that exist in the AFI Region with respect to improved air safety and efficiency, ICAO recognizes that experiences rooted in history and observations of the current situation can be contrasted with outcomes in other regions which face many of the same constraints, albeit in different combinations. In view of the denominators that are not only common to all problem areas in the region, but also common to many other regions, ICAO needs to focus on these issues as part of the emerging global strategy that emphasizes the implementation of SARPs over creation of new ones.

Coupled to the transformation of ICAO's role to include greater emphasis on the implementation of SARPs, is the need to also address the Organization's recent reduction in field resources involved with States at the point of service delivery in the field. ICAO has to balance tendencies to centralize the ICAO Secretariat and consolidate resources to meet existing funding constraints with the ability to maintain close contact with States that require the Organization's assistance and leadership. This cultural change is necessary if ICAO is to establish a strong international leadership position, not just in reference to

determining standards and practices for a safe and efficient aviation industry, but also in the operational implementation of such standards and practices.

Specifically, the Air Navigation Commission, as a result of its visit to the AFI Region, determined that the ICAO regional offices must increase their leadership role in assuring stakeholder involvement in SARP development, evaluating the safety/cost impact of new SARPs, developing implementing schedules for SARPs, evaluating the progress made in the implementation of SARPs and providing feedback to ICAO headquarters on the corrective action needed. This initiative will serve as a catalyst for the commitment of all partners, States, Industry, financial institutions and other donors.

To date, assistance to African States in the air transport sector has largely been characterized by independent initiatives of donor States and agencies that focus on identified components of the air transport sector. There are, for example, many important Programmes that have been executed through ICAO, the World Bank, the International Air Transport Association (IATA) and various other international, regional and bilateral donors. However, given the continuing problems that plague African air transport, a growing number of donor governments and lending institutions are calling for a coordinated assistance effort which will commit to a coordinated approach allowing policy makers and the donor community to work within a common strategic framework of identified priorities and goals under the ICAO umbrella.

The Plan addresses this issue and at the same time, strengthens all the various safety aspects such as organizational, managerial, institutional, economical, educational and political factors in the AFI Region.

2.15   Other projects that complement the AFI plan

2.15.1   The Global Aviation Safety Roadmap

The global safety aviation roadmap was developed by the industry safety strategy group (ISSG) in collaboration with ICAO, for addressing aviation safety through a process that would best prioritize safety initiatives and ensure their proper coordination throughout the world. Part one of the roadmap was handed over to ICAO in December 2005 and presented to the DGCA Conference on a global strategy for aviation safety held in March 2006. Part II of the roadmap was presented to the Air Navigation Commission in December 2006. The Council, acting on a recommendation of the Directors General of Civil Aviation Conference on a Global Strategy for Aviation Safety (DGCA/06, Montreal, 20 to 22 March 2006), agreed that "ICAO, in collaboration with all States and other stakeholders, should continue the development of an integrated approach to safety initiatives based on the Global Aviation Safety Roadmap which would provide a global framework for the coordination of safety policies and initiatives."

The Roadmap provides a means to ensure that safety initiatives throughout the world deliver improved safety by the coordination of effort, thus reducing inconsistency and duplication. The primary objective of the Roadmap is to provide a common frame of reference for all stakeholders, including States, regulators, airline operators, airports, aircraft manufacturers, pilot associations, safety organizations and air traffic service providers. The Roadmap will coordinate and guide safety policies and initiative globally, thus reducing the accident risk for commercial aviation. There are three essential areas of action required: action by States, action by industry, and regional actions. The roadmap contains a methodology and process for its development and implementation in different regions of the world.

A group of aviation experts from several African governments, the United States (US) Government, the World Bank, the African Civil Aviation Commission, the International Air Transport Association, Boeing, Airbus and the European Union and ICAO convened an informal think tank meeting

(Washington DC, 25 to 26 January 2007) on implementing the Global Aviation Safety Road Map in Africa.

2.15.2 Safe Skies for Africa

The programme was launched by the US in 1998 for the purpose of increasing the number of African States that meet ICAO standards for aviation safety and for improving security at airports in the region. The Safe Skies for Africa initiative focuses on conducting safety assessments and security surveys in select countries, and formulate action plans together with Africa civil aviation authorities to bring aviation safety and security practices in Africa up to accepted world standards.

2.15.3 Libreville Plan of Action

The Libreville Plan of Action was approved by the Ministers Responsible for Air Transport at a meeting of Member States of the African Union held in May 2006 in Libreville, Gabon. Of main importance was the Ministers' undertaking to reduce the rate of aircraft accidents in Africa to the world average by 2008 and to support and strengthen the African Civil Aviation Commission (AFCAC) to enable it to play its role. The Ministers also decided to strengthen Autonomous Civil Aviation Authorities, create regional and sub-regional aviation oversight organizations and support the IATA IOSA Partnership for Safety Programme for Africa.

2.15.4 AFI Safety Enhancement Team (ASET)

The African Ministers responsible for civil aviation agreed to the establishment of the ASET, during their meeting in Sun City. IATA has led the establishment of the AFI Safety Enhancement Team (ASET) with a view to correctly identify accident causes and trends and actively promote corrective actions. ASET brings together regulatory authorities, air navigation providers, airport operators, airlines and aircraft manufacturers.

2.15.5 ICAO/World Bank – Programme for Sustainable Air Transport in Africa

The objective of the World Bank Programme will be to contribute significantly to the economic and social betterment of African countries and peoples through sustainable development of the African air transport industry. There is a clear need for strategic thinking and planning to define and elaborate concrete actions that must be carried out at national, regional, and continental levels in order to achieve the right conditions for the continued development of this crucial transportation sector. The implementation of this Project will be coordinated under the umbrella of the Comprehensive Regional Implementation Plan for Africa.

2.15.6 Cooperative Developments of Operational Safety and Continuing Airworthiness Programme (COSCAP) and other Technical Cooperation Projects

In order to strengthen safety oversight capabilities within States, ICAO, through its Technical Cooperation Programme, has formulated intra-State (regional) Programmes, known as the Cooperative Development of Operational Safety and Continuing Airworthiness Programmes (COSCAPS). These Programmes are designed to achieve a level of regional cooperation that will ensure cost-effectiveness and optimization of human resources. The goal is to overcome financial and labour shortages that have adversely affected the effective implementation of State safety oversight obligations in the past and thus achieve regional harmonization of safety regulations, policies and procedures.

There are currently three cooperative developments of operational safety and continuing airworthiness programme (COSCAP) in the Western and Central African (WACAF) area of accreditation (COSCAP-Banjul Accord Group, COSCAP-Union Economique et Monetaire Ouest Africaine (UEMOA), COSCAP-Communaute Economique et Monetaire de l' Afrique Centrale (CEMAC) and two planned for the Eastern and Southern Africa area (ESAF) COSCAP-Southern African Development Community (SADC) and COSCAP for a Common Market for Eastern and Southern Africa (COMESA). They are essentially funded by Member States and donor Organizations.

There are other Technical Cooperation projects financed by the States and other stakeholders and covering a wide range of activities including provision of infrastructure and services, reinforcement of capacity of CAAs and air navigation service providers, etc. Some examples include the Civil Aviation Caretaker Authority for Somalia (CACAS) which provides flight information services in the Somalia FIR, the Airports/Airfields Rehabilitation project for the UN Mission in the Democratic Republic of Congo (MONUC), establishment of a Civil Aviation Authority in Botswana, reinforcement of the capacity of the Directorate General of Civil Aviation in Equatorial Guinea, among others.

2.15.7 AFI Planning and Implementation Regional Group (APIRG)

The AFI Planning and Implementation Regional Group (APIRG) was set up the Council of ICAO, in 1980, as recommended by the Sixth AFI Regional Air Navigation Meeting. (1979).

The objectives of the APIRG are to ensure the continuous and coherent development of the AFI Regional Plan and identify specific problems in the air navigation field and propose actions aimed at solving these problems.

APIRG continually up date and maintain a list of deficiencies in the aerodrome operational planning (AOP), communications, navigation, and surveillance (CNS), air traffic management (ATM), meteorological (MET), search and rescue (SAR), and aeronautical information service (AIS) fields. These deficiencies should be addressed as a matter of urgency.

The Secretariat of APIRG has proposed that the next meeting of the group be scheduled in the last quarter of 2007, six months later than the usual eighteen-month interval. This timeframe is considered ideal, as APIRG is the implementation arm in the region and the comprehensive implementation plan can be introduced. It will also be the first platform to address the technical element and combine the outcome of the political high-level meeting in the region. It is also envisaged that the agenda for the RAN meeting could be introduced.

The overall Comprehensive Regional Implementation Plan for Africa will be closely linked to the activities of APIRG.

2.15.8 Unified Strategy Programme

Assembly Resolution A35-7 (*Unified strategy to resolve safety-related deficiencies*) established the unified strategy to resolve safety-related deficiencies. In doing so, the Assembly recognized that not all Contracting States have the requisite human, technical and financial resources to adequately perform safety oversight. To this end, the Assembly directed the Council to adopt a flexible approach for the provision of assistance through the ICAO Regional Offices to support regional and sub-regional organizations. ICAO has undertaken a huge effort, through the unified strategy, aimed at correcting deficiencies and expert assistance in the Nairobi and Dakar areas of accreditation.

2.15.9 Directors General of Civil Aviation in Europe

The 126th Meeting of Directors General of Civil Aviation in Europe (Paris, 6 December 2006) recommended that the European Civil Aviation Conference (ECAC) continue to promote the transposition of European know-how to the global aviation system and, as a first step, to formulate an agenda to support aviation safety in Africa. This is seen as a positive development and will significantly contribute to the efforts of ICAO.

2.15.10 IATA Operational Safety Audit (IOSA)

The IATA Operational Safety Audit (IOSA) Programme is an internationally recognized and accepted evaluation system designed to assess the operational management and control systems of an airline. Through IOSA, airlines structures and operational procedures are checked against ICAO Standards and Recommended Practices (SARPs) as well as the best practices of the industry. By 2007, all IATA Members will need to have successfully undergone the IOSA audit in order to achieve or maintain IATA Membership.

3 PLAN DESCRIPTION

3.1 Comprehensive Regional Implementation Plan for Africa

In order to address all the concerns expressed by the Air Navigation Commission (AN-WP 8176) as a result of its visit to the AFI Region, the Council, agreed that, amongst other items, a Comprehensive Regional Implementation Plan for Africa, including resource requirements, should be developed within six months and that the report on the plan should be presented to the Council during its 181st Session (C-DEC 179/14). The plan should also be presented to a meeting to be convened immediately prior to the 36th Session of the Assembly (18 to 28 September 2007) to take advantage of the attendance of the high-level State Representatives. Thereafter, the regional air navigation (RAN) meeting scheduled early in the 2008-2009-2010 triennium should be a checkpoint for assessing progress in implementation. The Council also agreed that the regional offices should be charged with the follow-up of the plan, with close support and guidance from Headquarters. The Secretary General was also invited to look into the possibility of preparing a draft Assembly Resolution for consideration by the Council.

3.2 Elements requiring immediate actions

Through analysing data and information obtained from a variety of sources, including the Universal Safety Oversight Audit Programme (USOAP), APIRG, ICAO ADREP, IATA IOSA reports, etc. a determination will be made of the elements requiring immediate action. These might include Airworthiness of aircraft, Operations of Aircraft, Aerodrome deficiencies, Accident and incident reporting and investigation,   Communications deficiencies, Inadequate trained staff ,inadequate preparation and implementation of action plans, etc.

3.3 Objectives of the Programme

- Near-term objectives:

- Finalize the comprehensive regional implementation plan for Africa, after additional guidance from the ANC and Council through the approval process, and further refine the resource requirements and mission travel based on the findings of a gap analysis;

- Increase ICAO leadership and accountability in programme coordination and management across the AFI Region;

- Establish Implementation modalities applying the methodology of the Global Aviation Safety Roadmap;

- Effective implementation of the Plan with respect to rectifying deficiencies identified by USOAP, IATA IOSA and other similar auditing tools, as well as those in the infrastructure area identified by APIRG, which are considered as requiring urgent action;

- Ensure efficient management of the Plan.

- Medium-term objectives:

- to strengthen civil aviation authorities with respect to their safety oversight capabilities;

- to increase compliance with ICAO SARPs and industry best practice;

- to increase the number of qualified personnel on industry and oversight level;

- to improve the quality of inspectors and other civil aviation staff through training;

- to ensure impartial and unimpeachable investigation and reporting of serious accidents and incidents;

- to enhance regional cooperation;

- to enhance capacity of regional and sub-regional safety oversight systems;

- to ensure expeditious implementation of aviation safety management systems for airports ANSP's and airlines;

- to improve assistance in oversight to least developed States;

- to provide expert aviation knowledge within the reach of the targeted States via the web.

- Long-term objectives:

- to increase credibility of States and regional organizations, attracting investors and customers for the industry;

- to increase relevance of the global SARPs development and implementation process to the region, and increased participation of States in the process of developing SARPs;

- to heighten transparency into the region's aviation oversight activity, enabling more rapid problem solving and regionally prioritized action;

- to provide a structured and coordinated approach for participation of all stakeholders active in the effort to increase aviation safety in the African Region; Allowing efforts to be driven not only to States but also to all stakeholders involved in the air transport system;

- to establish coordination and cooperation in training activities in Africa.

3.4   Link between the AFI Plan and ICAO's Strategic Objectives

The objectives of the Plan are closely linked to Strategic Objective A: Safety – Enhance global civil aviation safety and Strategic Objective D: – Enhance the efficiency of aviation operations as included in the ICAO Business Plan. The AFI Implementation Plan will also be closely linked to the Air Navigation Integrated Programme (ANIP).

3.5   Expected results of the Plan

The results of the Plan will, to the extent possible, be measured against the performance indicators/metrics contained in the Road Map as well as other metrics derived from ICAO Standards.

- improved aviation safety record for the whole region;

- coordinated implementation actions linked to other high-level decisions and action plans e.g. Libreville Plan of Action and the ICAO World Bank for Sustainable Air Transport in Africa.

- coordinated actions of all stake holders providing assistance to States in the AFI Region;

- more efficient and safer air transport system for the general public in Africa;

- The Plan will also lead to:

- a new business approach within ICAO to empower the regional offices to carry out ICAO's mandate in a sustainable way;

- empowerment of the regional Directors to take on the challenge to implement the Plan — and hold them accountable for their efforts;

- improved coordination and collaboration with industry;

- a structured programme management approach to activities undertaken by ICAO and other role players in Africa.

4   PROGRAMME MANAGEMENT AND IMPLEMENTATION

4.1   Management of the Programme

Under the Plan, every action taken within the AFI Region will benefit from a disciplined, metrics-based programme management approach. Although ICAO will not be directly responsible for implementing all activities in the region, it is ideally suited to serve as the coordinating and programme management focal point for change. Regional Office personnel will therefore need to be extensively trained in program management disciplines, and their activities must be aligned with and guided by the global planning activities of ICAO Headquarters. In order to facilitate this process, the Air Navigation Implementation Plan (ANIP) and other Headquarters Business Planning tools will be extended to the regional offices.

The Plan will be managed by the Senior Regional Director, who will report to a Steering Committee (SC). The SC will establish a work programme in the form of preliminary annual work plans for the four years of the Plan and a detailed work plan for the first year of operation, identifying objectives, outputs and activities to be undertaken. The SC will monitor the progress of activities undertaken under the Plan and membership of the Committee will ensure representation of all stakeholders and interested parties.

4.2   Development and Implementation

The Comprehensive Regional Implementation Plan for Africa will be developed following the steps outlined in the Global Aviation Safety Road Map, to include identification of key stakeholders, determination of the safety strength enablers, identification of risks, performance of a gap analysis and development of prioritized recommended actions. The plan will be implemented through the application of a Programme Management process with clearly defined objectives, outputs, activities and metrics. This process will also include continuous monitoring and evaluation.

The following table outlines the management and implementation of the programme in terms of its immediate objectives outputs and activities. Performance indicators (Metrics) are included for the purpose of measuring outputs.

4.3 Management, Implementation and Evaluation (objectives, outputs and activities)

Programme Phase	Objectives	Output	Activities (To be established through Gap analysis)	Time Frame	Responsibility	Performance Indicators/ Metrics
Plan Initiation and Assessment	Develop a comprehensive regional implementation plan for Africa, including resource requirements	Comprehensive Imp Plan for AFI	identification of key stakeholders determining safety strengths and enablers, e.g ICAO regional offices identifying risks Coordination with APIRG Plan meeting prior to Assembly and Assembly	D*+2 Months	ICAO Secretariat	C-DEC 181

Programme Phase	Objectives	Output	Activities (To be established through Gap analysis)	Time Frame	Responsibility	Performance Indicators/ Metrics
Programme Planning	Establish Implementation modalities	Sufficient funds Steering Committee Programme Manager GAP Analysis Work Program Programme Office	establish Programme budget establish funding mechanism establish Programme Steering Committee Appointment of PM and Programme Team Members performing a gap analysis developing prioritized recommended actions Provide office space procure office equipment, deploy Administrative staff	D+5 Months	Council Secretariat Secretariat PM/ PT/Secretariat/ ANC PM/RD/Secret ariat/HRB	Proper funding Job Descriptions USOAP/IOSA/APIRG Global Aviation Road map Relevant Office and equipment specifications Job Description
Programme Implementation	Effective implementation of the Plan	Decreased number of deficiencie s identified through	Effective Implementation of USOAP Action Plans; Conducting fact finding	D*+3 years and 6 months	PM/PT//Secret ariat/Contracti ng States/COSCA Ps/other Intl	Reduction of accident rate in Africa

Programme Phase	Objectives	Output	Activities (To be established through Gap analysis)	Time Frame	Responsibility	Performance Indicators/ Metrics
		audits	missions		Organizations such as IATA, IFALPA, World Bank /Industry Partners/etc.	USOAP Results/ IOSA
			Conducting assistance missions			ICAO SARPs & Guidance Material
		Decreased number of deficiencies identified through APIRG	Development of regulatory requirements			Best industry practices
			training seminars and on-the-job training			global aviation safety plan
			provide on-line assistance to States			global aviation safety roadmap
		AFI/8 RAN				Doc 9734 A & B
			develop effective incident reporting systems and ensure appropriate legislative and regulatory frameworks in place			
			conduct of a continuous monitoring system (including assessments, audits, etc.			
			Develop effective aviation safety data collection and sharing systems			

Programme Phase	Objectives	Output	Activities (To be established through Gap analysis)	Time Frame	Responsibility	Performance Indicators/ Metrics
			ensure effective incident and accident investigation			
			expeditious implementation of Safety Management Systems.			
			Establish Regional Safety Oversight Systems (RSOOs)			
			Coordinate the activities of African Union, AFCAC, APIRG and all other role players		PM/Secretariat /ANC	
			Plan the AFI/8 RAN			
On-going monitoring and end of Programme evaluation	Ensure efficient management of the Plan,	Programme Reports Council & ANC Reports EAO Audit Reports	Conduct Steering Committee meetings Management and Audit Review by EAO Technical review by USP Report to Council and	D+4 years	Secretariat/Council/ ANC/PM/RD/Steering Committee (SC)	Audit Reports Regional Office Manual, ICAO Financial Rules, TCB Field Operations Manual,

Programme Phase	Objectives	Output	Activities (To be established through Gap analysis)	Time Frame	Responsibility	Performance Indicators/ Metrics
		APIRG Reports	ANC Preparation of end of Programme reports			

4.4   Financial requirements and management

The financial requirements and voluntary contributions associated with the Plan will be managed from Headquarters through the ICAO Enterprise Resource Planning (ERP) system. The overall management of the Plan will be by the Programme Manager under the direction of Steering Committee. Overall coordination of the African Plan with various stakeholders will be carried out by the ICAO Headquarters Secretariat and Regional Offices.

4.5   Timeline and Schedule of Activities

The initially phase of the Plan will run for four years. On the basis of the assessment of three-year progress, the Council will make a decision on subsequent phases and activities of the Plan.

4.6   Key milestones

A high level meeting will be held immediately prior to the 36th Session of the Assembly to discuss the AFI Plan, and, in particular, safety-related issues in the region. The meeting will allow for presentations by ICAO, IATA, AFCAC, and other stake holders to highlight the problems at the highest level. ICAO will present the comprehensive implementation plan for endorsement by the AFI States. The draft agenda of the meeting appears at Appendix A.

In line with the Decision taken by the ICAO Council,(179/14), the AFI/8 Regional Air Navigation Meeting in the next triennium will serve as a checkpoint for implementation and will offer an opportunity to strengthen region-wide commitment at the political and technical levels. This forum will also serve as a platform bringing together States, service providers and users alike. It should be noted that the agenda for the RAN meeting is closely linked to the Comprehensive Regional Implementation Plan for Africa and will be developed in parallel with the implementation plan for Council approval.

Other key milestones will include the APIRG meeting, bi-annual Steering Committee Meetings and evaluation activities. The need for the continuation of the Plan will be reviewed by the ANC and Council after the three-year progress report.

4.7   Stakeholder Involvement

The Stakeholders in the civil aviation sector are States, ICAO, airlines/operators, airports, air navigation service providers, aircraft and equipment manufacturers, maintenance and repair organizations, regional organizations, international organizations and industry representatives.

The ICAO partners will work to achieve the objectives of the Plan and will be represented at each stage of its development and implementation. All stakeholders will be represented on the Steering Committee. A proposed list of stakeholders can be found at Appendix B.

4.8   Safety strengths and enablers

ICAO has the broad mandate, experience and capability to achieve long-term growth and stability within the region. Other strengths underpinning the effective implementation of the Plan may include those already suggested in the Global Aviation Safety Roadmap. In this respect the ICAO Regional Offices in Africa will be expected to play a major role as enablers of the Plan. The Regional Offices have direct contact with the States in their respective areas of accreditation and can therefore contribute to assistance at the regulatory level. To address the activities at the user level, IATA and the IOSA process will play a

significant role. Other enablers may include: World Bank, AFRAA, IATA partnership for Safety Initiative and Regional Economic Communities etc.

4.9   Gap analysis

The Programme Manager will be responsible for performing a gap analysis, taking into consideration the USOAP and IOSA Audit findings, ADREP reports and deficiencies identified by APIRG. When the assessment is complete, a detailed plan including the actions to be taken, strategy to be employed, and final resources required will be established. The gap analyses will be performed in close coordination with all stakeholders through the Steering Committee.

4.10   Coordination with other relevant programmes and plans

As already indicated in this document, there are a number of other programmes and plans being implemented in the AFI Region. To avoid duplication of effort all aviation initiatives in the region will be coordinated within the framework of the AFI Plan. Coordination will be effected at various levels to include ICAO Headquarters, Regional Offices and the Steering Committee.

5   RESOURCE REQUIREMENTS

The execution of the Comprehensive Regional Implementation Plan for Africa falls within the general mandate of the Dakar and Nairobi Regional Offices. However, it is clear that these offices do not have the resources required to effectively support the Plan and there is a need to complement the resources already provided under the Regular Programme. There are various options available to secure the required resources, including an Assembly Resolution calling for voluntary contributions.

5.1   Regular programme resources allocated to the plan.

To start, current resources of the Nairobi and Dakar Offices (Appendix A refers) allotted in the Regular Programme budget will be focused towards the implementation of the Comprehensive Regional Implementation Plan for Africa. This will include:

- general supervision and management of the implementation plan by the Senior ICAO RD in Africa; and

- assignment of three-quarters of the time of existing Regional Officers in the required fields to the implementation plan.

5.2   Additional resources required to support the plan.

Action	Estimated total cost for the first 4 years	Description
Hiring of experts	USD 2.6M$*	Initial assessments indicate that there are additional requirements in the AFI Regional Offices for experts in the Flight Safety, Aerodrome, Air routes and Ground Aids and ATM (RVSM) fields. **

Action	Estimated total cost for the first 4 years	Description
Training Requirement	USD 50,000	Training in Programme Management and Principals are an essential requirement for all persons involved in the management of the Plan.
Missions	USD 250,000	Sufficient resources should be provided to support mission travel undertaken to develop and implement the Plan.
Steering Committee Meetings	USD 120,000	Sufficient resources should be provided to support the organization of Steering Committee Meetings. Where possible, IT solutions will be used, to reduce costs.
Seminars and Workshops in States	USD 200,000	Support of the convening of seminars and workshops in States
Programme Office	USD 100,000	Computer equipment for additional staff, office supplies, communications, furniture, etc.
Total	USD 3,770,000	4-year period
The total amount required per annum is USD $ 945 000		
* Based on an assumption of 5 Professionals and 1 GS for administrative duties.		
** An exact number of additional required expertise in the various fields can only be determined after the execution of the gap analyses as described in Para 4.9		

6   TOTAL BUDGET ESTIMATE

In addition to current Regional Programme resources that will be allocated to the implementation of the initial phase of the Plan, the investment required is estimated at USD $ 3.77 million for the four-year period. This amounts to a total of USD $ 945 000 per year. A refined resource requirement, including mission travel, will be established after the completion of the gap analyses.

7 MONITORING AND EVALUATION

The Air Navigation Commission (ANC) will monitor and evaluate the implementation of the Plan and report to Council on the results achieved. This will include the review of deficiencies identified by APIRG, Review of the APIRG Report, Review of the planned RAN agenda and Report.

7.1 Monitoring and reporting schedule and responsibilities

Output	Individual responsible for reporting	Individual or group reported to	Reporting Date
GAP Analysis	PM/RD	Steering Committee	1st Meeting
Reduction in accident rate in AFI to below the world average	PM/Regional Director	Steering Committee ANC & Council	Every six months
Increase the number of African States that meet ICAO standards for aviation safety and Industry best practice	PM/Regional Director	Steering Committee ANC & Council	Every six months
Adequate numbers of qualified inspectors and other CAA technical personnel	PM/Regional Director	Steering Committee ANC & Council	Every six months
Programme Reports Council & ANC Reports Audit Reports	PM/RD PCO/USP	Chairman of the Steering Committee	Every six months
Report to 37th Assembly	RD/PCO/USP	Assembly	3 Years
APIRG Reports	Secretary of APIRG/PCO	ANC & Council	Annually

Output	Individual responsible for reporting	Individual or group reported to	Reporting Date
WEB based question and answer system	PCO	ANC	Sept 2007

8   BUDGET AND FUNDING ARRANGEMENTS

Part of the initial Program will be funded through the Triennium budget for 2008-2010. The Secretary General and Council will establish the level. However, additional resources will be required to implement the Plan over the four-year period. There are various options available for this purpose.

8.1   Need for an Assembly Resolution

It should be recalled that the Council (179/14) invited the Secretary General to investigate the need for an Assembly Resolution to assist with implementation. To implement the comprehensive regional implementation plan for Africa, an Assembly Resolution will be required to request additional assistance from States and Industry in this global effort. It is proposed that States and donors be approached to make voluntary financial and in-kind contributions to fund the Programme.

IATA will be tasked with mobilization of funds from industry. An application will also be made to International Financial Facility for Aviation Safety (IFFAS) for funding.

8.2   Planned Budget and Work Plan

Programme Objective	Programme Output	Time Frame	Responsible	Key Activities	Resources Required	Source of Funds	PLANNED BUDGET			
							2007 US$	2008 US$	2009 US$	2010 US$
Develop a comprehensive regional implementation plan for Africa, including resource requirements	Implementation Plan for AFI	2 Months	Secretariat	identification of key stakeholders determining safety strengths and enablers, e.g ICAO regional offices identifying risks Coordination with APIRG Plan meeting prior to Assembly	5 P 1 GS	RP				

Programme Objective	Programme Output	Time Frame	Responsible	Key Activities	Resources Required	Source of Funds	PLANNED BUDGET			
							2007 US$	2008 US$	2009 US$	2010 US$
Establish Implementation modalities	Sufficient funds Steering Committee Programme Manager GAP Analysis Work Program Programme Office	5 Months	Council Secretariat Secretariat PM/ PT/Secretariat/ ANC PM/RD/Secret ariat/HRB	establish detailed Programme budget establish funding mechanism establish Programme Steering Committee appointment of team Members performing a gap analysis developing prioritized recommended actions Provide office space procure office equipment, deploy Administrative staff		RP				

Programme Objective	Programme Output	Time Frame	Responsible	Key Activities	Resources Required	Source of Funds	PLANNED BUDGET			
							2007 US$	2008 US$	2009 US$	2010 US$
Effective implementation of the Plan	Decreased number of deficiencies identified through audits	3.5 years	PM	Effective Implementation of USOAP Action Plans;			2007 US$	2008 US$	2009 US$	2010 US$
				Conducting fact finding missions			530 000	530 000	530 000	530 000
	Decreased number of deficiencies identified through APIRG			Conducting assistance missions						
				Development of regulatory requirements						
	AFI/8 RAN (2008/2009)			training seminars and on-the-job training						
				provide on-line assistance to States						
				develop effective incident reporting systems and ensure appropriate legislative and regulatory frameworks in place						
				conduct of a continuous						

Programme Objective	Programme Output	Time Frame	Responsible	Key Activities	Resources Required	Source of Funds	PLANNED BUDGET			
							2007 US$	2008 US$	2009 US$	2010 US$
Ensure efficient management of the Plan,	Programme Reports Council & ANC Reports EAO Audit Reports APIRG Reports		Secretariat/Council/ ANC/PM/RD/ Steering Committee (SC)	Conduct Steering Committee meetings Management and Audit Review by EAO Technical review by USP Report to Council and ANC Preparation of end of Programme reports			$30 000	$30 000	$30 000	$30 000
Continuation of the Plan after the initial 4 year period	ANC & Council	after 3 years	Secretariat/ANC/Council	Establish the need for the continuation of the Plan one year before the end of the four-year term						

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APPENDIX A

PROFESSIONAL CATEGORY RESOURCES OF THE WESTERN AND CENTRAL AFRICAN AND EASTERN AND SOUTHERN AFRICAN REGIONAL OFFICES

Western and Central African Office (Dakar)

Existing Professional staff:

	Field	Level
1.	Regional Director	P-O
2.	Deputy Regional Director	P-5
3.	CNS Officer	P-4
4.	CNS (Vacant)	P-3
5.	ATM/SAR	P-4
6.	MET	P-4
7.	AIS/Charts	P-2
8.	Admin Officer	P-2
9.	AGA	P-4

Eastern and Southern African Office (Nairobi)

Existing Professional staff:

	Field	Level
1.	Regional Director	PO
2.	Deputy Regional Director	P- 5
3.	CNS Officer	P-4
4.	ATM/SAR	P-4
5.	MET	P-4
6.	ATM/SAR	P-3
7.	Admin Officer	P-2
8.	AGA	P-4
9.	Flight Safety	P-4

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APPENDIX B

KEY ROLE-PLAYERS/PARTNERS

The following role-players, in line with the Road Map, have been identified.

International State Authorities / Organizations

- Aviation authorities / safety agencies (US FAA, French DGAC, Dutch CAA, etc.)
- World Bank
- African Development Bank
- European Union

Regional State Authorities / Organizations / Groups

- African Union (AU)
- ECOWAS – Economic Community of West African States
- SADC – Southern Africa Development Community
- UEMOA – Union Economique et Monetaire Ouest Africaine
- UNECA – United Nations Economic Commission for Africa

Regional Safety Organizations

- AAMAC—African and Malagasy Civil Aviation Authorities
- AFCAC – African Civil Aviation Commission (AFCAC is the civil aviation commission of the African Union)
- AFRASCO – African Airlines Safety Council
- ASET – Africa and Indian Ocean Safety Enhancement Team
- ASECNA – Agence pour la Securite de la Navigation Aerienne en Afrique et Madagascar
- BAGASO – Banjul Accord Group Aviation Safety Organization
- Flight Safety Foundation

Industry Organizations

- IATA – International Air Transport Association
- IFALPA – International Federation of Airline Pilots Associations
- Aircraft manufacturers: Airbus, Boeing, ATR, etc.
- AFRAA – African Airlines Association
- ACI-Africa – Airports Council International – Africa

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