



## Third Pan-African Aviation Training Coordination Conference

Cape Town, South Africa, 27 – 29 July 2011

### Annotated agenda and Programme

**Wednesday, 27 July 2011**

**0900 – 1000**

Opening Ceremony under the High Patronage of the Minister of Transport, South Africa

- Welcome note by DG South African Civil Aviation Authority
- Opening remarks by Ms. Monhla Hlahla, President, Airports Council International (ACI) – Africa
- Opening remarks by Dr. Elijah Chingosho, Secretary General, African Airlines Association (AFRAA)
- Opening address by Mr. Meshesha Belayneh, Regional Director, Eastern & Southern Africa, International Civil Aviation Organization (ICAO)
- Introduction of the Minister by the Director General of Transport, South Africa
- Opening Speech by the Minister of Transport, South Africa

**CONTENT:** Introductory remarks on the need for harmonization of aviation training in Africa and the implementation of the Special AFI-RAN Recommendation 5/8 (see attached background information)

**1000 – 1030**

**Coffee break**

**1030 – 1100**

**Report on the status of aviation training needs and resources in Africa:**

Mr. Maamoune Chakira, Regional Officer, AFI Comprehensive Regional Plan for aviation safety in Africa, ICAO Eastern & Southern Africa (ESAF)

**CONTENT:** The presentation will give an overview of the training needs (For each type of activity, the level of staffing, the types of courses, and the number of students per courses), and resources (number of training centers and their capabilities in terms of instructors, design of courses, classroom facilities, training aids and logistics for students). The activities covered include airline operations, aircraft maintenance, airport operations, air traffic services, and civil aviation regulations. The information is based on an initial survey conducted in 2009 and information updated by the initial respondents and new ones. All speeches in English.

**1100 – 1230**

**Panel 1: Creation of an Association of Training Organizations**

(facilitated by Capt. Ahmed Aly Negm, Deputy Dean, Egyptian Aviation Academy)

**Panellists:**

- Mr. Chris Zweigenthal, Chief Executive, Airlines Association of

Southern Africa

- Mr. Ali Tounsi, Secretary General, Airports Council International-Africa,
- Dr. Elijah Chingosho, Secretary General, African Airlines Association
- Ms. Sherry Reese, Division Manager, Airports & International Training, United States Federal Aviation Administration (FAA) Academy

**CONTENT:** The panel is to be facilitated by Capt Negm who will introduce the subject and the panellists (5mn), manage the questions and answers session, and wrapup the discussion, inviting participants who wish to pursue the discussion to join Group 1 (group to be formed at the end of the day 27th July). Each panellist is expected to make a short powerpoint presentation (15mns) to share the experience of its organization in establishing and maintaining the appropriate legal, organizational, and financial frameworks, for advancing the interests of its members, taking into account the specific operational and financial conditions of their specific activity and lessons that could be taken onboard by the Association of Training Organizations to be formed. All presentations will be delivered either in English and each presentation not to exceed 15 mns.

1230 – 1330  
1330 – 1500

**Lunch**

**Panel 2: Designation of Centers of Excellence** (facilitated by Rodney Subramany Manager : Instructional Design & Training Integrity, ATNS Aviation Training Academy )

**Panelists:**

- Mr. Rudolph Louw, Director, National Aerospace Centers of Excellence South Africa (CoE)
- Mr. Bernard Nsana, Director, Regional School of Fire-Fighting (ERSI)
- Dr. Getachew Biru, Dean, Ethiopian Airlines Aviation Academy
- Ms. Justina Nyaga, Ag Director, East African School of Aviation

**CONTENT:** The panel is to be facilitated by Rodney Subramany who will introduce the subject and the panellists (5mn), manage the questions and answers session, and wrapup the discussion, inviting participants who wish to pursue the discussion to join Group 2 (group to be formed at the end of the day 27th July). Each panelist is expected to share the experiences of his/her organization in establishing and maintaining excellence in the design, delivery of aviation courses, including the cooperation with institutions that provide similar training programmes and the implementation of Train-The-Trainers programmes, and lessons that could be taken onboard by the Association of Training Organizations and the Training Advisory Board to be formed when establishing centers of excellence continent wide. The presentation may be delivered either in English or French (Mr. Bernard Nsana) and each presentation not to exceed 15 mns.

1500 – 1600

**Panel 3: Creation of Training Advisory Board** (facilitated by Shadrack Lesoro, Manager, Human Resources, South African Civil Aviation)

**Panelists :**

- Mr. Mesfin Fikru, Air Safety Officer, African Civil Aviation Commission
- Prof. Laurent DALA, Head of Aeronautical Engineering, School of Mechanical, Industrial and Aeronautical Engineering, University of the Witwatersrand
- Mr. Andre Smit, Executive Officer, Aerospace Chamber, Transport Education and Training Authority (TETA)
- Mr. Jean Yves Kotto, Chairman, CAE Global Academy Douala

**CONTENT:** The panel is to be facilitated by Shadrack Lesoro who will introduce the subject and the panellists (5mn), manage the questions and answers session, and wrapup the discussion, inviting participants who wish to pursue the discussion to join Group 3 (group to be formed at the end of the day 27th July). Each panelist is expected to share the experiences of his/her organization in establishing and maintaining the appropriate legal, organizational, and financial frameworks, for issuing (or obtaining)

accreditation of training centers and instructors, and lessons that could be taken onboard by the Training Advisory Board to be formed. The presentation may be delivered either in English or French (Mr. Kotto) and each presentation not to exceed 15 mns.

1600 – 1630

**Coffee Break**

1630 – 1730

**Panel 4: Regional Training Policy and Requirements** (facilitated by Ken Kaunda, Chairman, ACI-Africa Human Resources Working Group)

**Panelists**

- Capt Mostafa Hoummady, Chief, ICAO Aviation Safety Training Section
- Mr. Garrison Russell, Programme Manager, United States Federal Aviation Administration (FAA) Academy,
- Mr. Tchagbele Sadamba, Director, African Civil Aviation and Meteorology School

**CONTENT:** The panel is to be facilitated by Ken Kaunda who will introduce the subject and the panellists (5mn), manage the questions and answers session, and wrapup the discussion, inviting participants who wish to pursue the discussion to join Group 3 (group to be formed at the end of the day 27th July). Each panelist is expected to share the experiences of his/her organization in establishing and implementing a national/regional/international training policy, and lessons that could be taken onboard by the Training Advisory Board and the Association of Training Organizations to be formed. The presentation may be delivered either in English or French (Mr. Tchagbele) and each presentation not to exceed 10 mns.

1730- 1745

**Formation of the Working Groups**

- Group 1: Creation of an Association of Training Organizations (chaired by Capt Ahmed Negm, Egyptian Aviation Academy; Rapporteur: Eric Khoza, DENEL training academy)
- Group 2: Designation of centers of excellence (chaired by Mr. Oumarou Ganda, Agence pour la Securite de la Navigation Aerienne en Afrique et Madagascar; Rapporteur; Mr. Rodney Subramany, Air Traffic & Navigational Services, ACI-Africa)
- Group 3: Creation of Training Advisory Board (chaired by Mr. Shadrack Lesoro; Rapporteur: Mrs. Fatima Gaye, Senegal civil Aviation Authority)
- Group 4: Regional Training Policy (chaired by Mr. Ken Kaunda, ACI-Africa, Rapporteur: Mr. Tchagbele Sadamba, Agence pour la Securite de la Navigation Aerienne en Afrique et Madagascar)

**CONTENT:** Presentation of the lists of participants per Group. Forms would have been circulated throughout the day requesting participants to choose the group they wish to participate in.

**Thursday, 28 July 2011**

*The discussions will be conducted in breakaway sessions, mainly in English. Interpreters to be on standby in groups 2 and 3 to assist in case of any difficulties for participants to make themselves understood among other participants. This will also help absorb the material which will be used as*

*the basis of the discussions the next day.*

|                    |   |
|--------------------|---|
| <b>0900 – 1030</b> | <b>Working Group Discussions</b>              |
| <b>1030 – 1100</b> | <b>Coffee break</b>                           |
| <b>1100 – 1300</b> | <b>Working Group Discussions</b>              |
| <b>1300 – 1400</b> | <b>Lunch</b>                                  |
| <b>1400 – 1530</b> | <b>Working Group Discussions</b>              |
| <b>1530 – 1600</b> | <b>Coffee break</b>                           |
| <b>1600 – 1700</b> | <b>Working Group – Preparation of Reports</b> |

***Friday, 29 July 2011***

**1030 – 1230**                      **Plenary Session: Presentation of the Reports of the Working Groups (Chaired by South African Civil Aviation Authority)**

**CONTENT:** Each Group will present in a Powerpoint form (20 mns) the outcomes of its discussions. Printed versions would be made available evening 28<sup>th</sup> July.

**1230 – 1400**                      **Lunch**

**1400 – 1500**                      **Conclusions of the Conference – Recommended Actions & Follow up mechanisms (Co-chaired by Mr. Meshesha Belayneh, Regional Director, ICAO ESAF, and AFCAC assisted by the chairpersons of the Working Groups)**

**CONTENT:** The chairperson will present the conclusions of the meeting based on the proposals of the Groups as amended by the plenary session. Hard Copy to be distributed before the beginning of the session.

**1500 – 1530**                      **Closing Ceremony**

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Additional Background Information



**SP AFI RAN  
(2008)**

# International Civil Aviation Organization

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## **SPECIAL AFRICA-INDIAN OCEAN (AFI) REGIONAL AIR NAVIGATION (RAN) MEETING**

Durban, South Africa

24–29 November 2008

**REPORT FOLDER**

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(ADREP/ECCAIRS) software tool or a compatible software tool based on the ADREP taxonomy or an ADREP compatible taxonomy as a regional safety reporting tool in the AFI Region, and to establish a task team to investigate and recommend the implementation of the reporting tool for the region that would meet all States' needs.

### **Training strategies for aviation safety in Africa**

5.46 The meeting recalled that training constitutes a significant contributing factor for safety and security in air operations. The safety and efficiency of international civil aviation depends primarily on the skills of the personnel that manage, operate and maintain its systems. These professionals must not only possess high individual skills, but in order for an international system to function safely and efficiently, they must also be able to work together as an “international team”. To achieve this goal, it is essential that the team members receive the same high quality training throughout the world. ICAO is committed to working with Contracting States to advance worldwide quality standards in civil aviation training.

5.47 Three areas were considered during this item: the need to harmonize training policies and standards in Africa; the skill shortage in African regulatory bodies and in the African aviation industry; and the implementation of the ICAO TRAINAIR Programme. All three topics were considered by the meeting to be inter-related.

5.48 The meeting acknowledged that the training capacity within Africa was limited and the available training institutions had not always kept pace with the advancements in civil aviation and training technology. As a result, training frequently had to be performed outside of the continent at great cost to government and industry. It was also cited that due to visa restrictions, trainees often could not be sent to locations where the training was being conducted. It was agreed that the training needs of Africa should be met within Africa to the extent possible.

5.49 It was also agreed that in order to determine the training resources required within Africa, the training demand would first need to be assessed. The shortage of skilled personnel in the African aviation industry and in African regulatory bodies had been a cause of serious concern for many years. What was particularly worrisome was that this shortage had recently intensified. African civil aviation faced additional problems due to the migration of aviation experts looking for better opportunities overseas. This was exacerbated by the number of impending retirements of many aviation professionals. Over the past few years African training institutions had not been able to fill these gaps.

5.50 Several steps would be needed in order to determine the demand and develop a strategic training plan. The meeting noted that the first step would be to analyze the training needs within Africa. This analysis would consist of a review of the skills and knowledge needed in the near, mid- and long-term to support civil aviation within the AFI Region. The next step would be to develop a strategic human resource plan that took into consideration the projected retirements of staff, staff loss due to other reasons and the growth of the aviation sector within the region. The combination of the skills and knowledge required, coupled with the projection of human resources required would provide a strategic view of the training resources that would be required over a five to ten year projection period. It was acknowledged that Africa could not afford to have a significant duplication in effort in civil aviation training and it would therefore be necessary to rationalize the capacity of training centres to provide regional training for Africa in select disciplines. The meeting agreed that this also would require strategic planning and cooperation among Contracting States. To facilitate the use of training facilities by multiple States, the meeting acknowledged that training standards between States would need to be harmonized. The meeting also concluded that regulations governing training would need to be reviewed to facilitate the use of multinational training facilities.

5.51 The meeting emphasized the need for quality assurance in civil aviation training. In this regard, the meeting strongly supported the ICAO TRAINAIR Programme as a means to enhance quality, as well as the cost-efficiency, of civil aviation training. However, it was also agreed that additional measures should be taken to enhance quality assurance of training centres in the AFI Region.

5.52 The meeting was informed that members of the TRAINAIR Programme established an active course development unit (CDU), with Course Developers trained to TRAINAIR standards. The CDU prepared Standardized Training Packages (STPs) with support and guidance from the ICAO TRAINAIR Central Unit. The Central Unit's guidance included keeping members advised of available STPs, monitoring the standards of STP materials under preparation and assisting Course Development Units in maintaining the required standards. TRAINAIR members improved the quality of the course materials that they developed through the use of a modern course development methodology. In addition, as a benefit of membership, the members freely shared high quality course materials with other members, thus improving both the quality and cost-efficiency of their training programmes. Course Developers were also trained in the techniques of adapting STPs (prepared at other locations) to meet local conditions.

5.53 The meeting agreed that the TRAINAIR Programme was an effective means to standardize training materials and facilitate coordination and cooperation among training centres. Instead of isolated approaches by training institutions with limited resources producing their own training courses in order to comply with amended or new ICAO SARPs, TRAINAIR members were equipped with the right tools, shared the burden in developing high quality training courses, and received technical backstopping from ICAO when necessary. Therefore, the meeting agreed that the TRAINAIR Programme should figure prominently in training standardization, as well as quality assurance in training.

5.54 Based on its consideration, the meeting agreed to the following recommendation:

**Recommendation 5/8 — Training strategies for safety in Africa**

That:

- a) States and organizations responsible for training in the AFI Region prepare an inventory of the training that is presently available in their civil aviation training centres;
- b) States review their regulatory frameworks to determine if there are any barriers to the use of training centres in other States and receiving credit for that training;
- c) AFI Comprehensive Implementation Programme (ACIP) in cooperation with AFCAC and other stakeholders organize Pan African Training Coordination Conferences that will serve as the framework for closer cooperation and harmonization of training requirements as well as standardization and quality assurance;
- d) the first Pan African Training Coordination Conference form a working group of training experts to define a master plan for harmonization of training in the AFI Region;
- e) based on an aggregated results of the gap analysis, ACIP include as part of its work programme, the conduct of a training needs analysis. The training needs analysis and States' human resource plans would establish a strategic plan to increase, as well as rationalize training resources within Africa;
- f) States and donors consider reinforcing the capacity of existing training centres;

- g) States and organizations responsible for training in the AFI Region consider membership in the TRAINAIR Programme; and
- h) States and service providers in the AFI Region support and fully participate in the TRAINAIR programme.

### **Follow-up action system on the implementation of safety related activities – audit results and follow-up by ICAO**

5.55 The meeting noted a status report on the activities carried out by ICAO aimed at the correction of safety and security-related deficiencies identified during audits conducted under Universal Safety Oversight Audit Programme (USOAP) and the Universal Security Audit Programme (USAP). These activities were coordinated throughout ICAO in order to prioritize and focus guidance and assistance to States, as well as to mobilize stakeholders and resources. In respect to transparency, the meeting also received a report on ICAO's approach towards States where a significant level of deficiencies had been identified. The meeting recalled, that in the event that such deficiencies were not corrected, the State could be recommended to the ICAO Council for action under Article 54 j) of the Chicago Convention.

5.56 The meeting was advised that in November 2006, the Secretary General established the Audit Results Review Board (ARRB), a high-level Secretariat board to review the specific safety and security histories of individual States referred to it and to serve as a forum for coordination within ICAO. States may be referred to the board for review on the basis of safety or security indicators related to their level of non-compliance during safety and security audits, as well as other safety indicators.

5.57 The meeting noted that once a State's audit results had been reviewed, the board may recommend certain actions to the Secretary General in order to assist the State in addressing deficiencies identified during its safety and/or security audits. The responsibility for carrying out these recommendations was then assigned to the appropriate ICAO office, which was given a deadline by which it should provide a progress report. Once this report was received, the board then determined whether further action was required, whether the same course of action should be maintained, or whether the deficiencies had been resolved.

5.58 Once a State had succeeded in addressing the most serious deficiencies identified in the audit(s), or had complied satisfactorily with the recommendations of the board, it was then removed from the list of those States referred to the board.

5.59 In some cases, the audits had revealed safety concerns that require a timely response. The meeting recalled that as a result of a recommendation of the Directors General of Civil Aviation Conference (DGCA/06), a procedure was approved by the Council to address "significant safety concerns" on a timely basis. A significant safety concern occurs when the audited State allows the holder of an authorization or approval to exercise the privileges attached to it, although the minimum requirements established by the State and by the Standards set forth in the ICAO Annexes are not met, resulting in an immediate safety risk to international civil aviation. If the finding was considered to be a bona fide significant safety concern, a notification letter was sent to the State to take immediate corrective action within a specified time frame (normally two weeks). If a State did not respond appropriately by notifying ICAO of the actions that it would take, the significant safety concern was made available to all Contracting States through the ICAO secure website. In a situation in which a State was not responsive to ICAO recommendations to rectify significant safety concerns, the board may also refer a State to the Council for consideration under the procedure for transparency and disclosure regarding significant



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# Organisation de l'aviation civile internationale

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## RÉUNION RÉGIONALE SPÉCIALE DE NAVIGATION AÉRIENNE AFRIQUE-OCÉAN INDIEN (AFI RAN)

Durban, Afrique du Sud

24 – 29 novembre 2008

**RAPPORT**

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5.45 Compte tenu de ses délibérations, la réunion convient de la recommandation suivante :

**Recommandation 5/7 — Élaboration et mise en œuvre d'un système régional de compte rendu sur la sécurité**

Il est recommandé que les parties prenantes, et en particulier les États, acceptent de mettre en œuvre le logiciel ADREP/ECCAIRS (système de comptes rendus d'accident et d'incident/Centre européen de coordination des systèmes de comptes rendus d'incidents en navigation aérienne) ou un logiciel compatible fondé sur la taxonomie ADREP, ou une taxonomie compatible avec l'ADREP, comme système régional de compte rendu sur la sécurité dans la Région AFI, ainsi que de créer une équipe de travail chargée d'étudier et de recommander la mise en œuvre du système de compte rendu qui répondra aux besoins de tous les États de la région.

**Stratégies de formation pour la sécurité de l'aviation en Afrique**

5.46 La réunion rappelle que la formation contribue de façon significative à la sécurité et à la sûreté des opérations aériennes. La sécurité et l'efficacité de l'aviation civile internationale dépendent principalement des aptitudes de ceux qui gèrent, utilisent et entretiennent ses systèmes. Non seulement ces professionnels doivent-ils posséder des compétences individuelles supérieures, ils doivent aussi, pour qu'un système international fonctionne en toute sécurité et de manière efficace, être capables de travailler ensemble au sein d'une « équipe internationale ». Pour que cet objectif soit atteint, les membres de l'équipe doivent absolument recevoir une même formation de haute qualité, où qu'ils soient dans le monde. L'OACI est déterminée à travailler de concert avec les États contractants pour faire avancer les normes de qualité mondiales en matière de formation dans le domaine de l'aviation civile.

5.47 La réunion examine les trois domaines suivants au titre du point 5 de l'ordre du jour : la nécessité d'harmoniser les politiques et normes de formation en Afrique, la pénurie de main-d'œuvre dans les organismes de réglementation africains et l'industrie aéronautique en Afrique, ainsi que la mise en œuvre du Programme TRAINAIR de l'OACI. Elle estime que ces trois domaines sont étroitement liés.

5.48 La réunion constate que l'Afrique a une capacité de formation limitée et que les établissements de formation disponibles n'ont pas toujours progressé au même rythme que l'aviation civile et les moyens techniques de formation. Il s'ensuit que la formation doit souvent être acquise à l'extérieur du continent, ce qui entraîne des coûts élevés pour les gouvernements et l'industrie. Il est également mentionné qu'en raison des restrictions sur les visas, les stagiaires sont souvent incapables de se rendre aux endroits où est donnée la formation. La réunion convient que, dans la mesure du possible, les besoins de l'Afrique en matière de formation devraient être comblés à l'intérieur de l'Afrique.

5.49 La réunion estime aussi qu'avant de déterminer les ressources de formation dont a besoin l'Afrique, il convient d'évaluer la demande de formation. La pénurie de personnel qualifié dans l'industrie aéronautique africaine et dans les organismes africains chargés de la réglementation est cause de graves préoccupations depuis de nombreuses années, et il est particulièrement inquiétant de constater que cette pénurie s'est récemment intensifiée. L'aviation civile africaine est confrontée à des difficultés supplémentaires en raison de l'expatriation des experts en aviation qui cherchent de meilleures ouvertures à l'étranger. Cette situation est aggravée par les départs en retraite imminents d'un grand nombre de professionnels de l'aviation. Ces dernières années, les organismes de formation en Afrique ont été incapables de remédier à ces problèmes.

5.50 L'évaluation de la demande et l'élaboration d'un plan de formation stratégique devront se faire en plusieurs étapes. La réunion note que la première étape consiste à analyser les besoins en formation à l'intérieur de l'Afrique et que cette analyse doit comprendre une évaluation des compétences et des connaissances requises à court, moyen et long terme pour soutenir l'aviation dans la Région AFI. L'étape suivante est une planification stratégique des ressources humaines qui tient compte des départs à la retraite, de la perte de personnel pour d'autres causes et de la croissance du secteur de l'aviation dans la région. La définition des compétences et des connaissances exigées, combinée à la prévision des ressources humaines requises, donne une vue stratégique des ressources de formation nécessaires pour une période de prévision de cinq à dix ans. Il est constaté que l'Afrique ne peut pas se permettre d'importants chevauchements entre ses activités de formation en aviation civile et que la capacité des centres de formation doit donc être rationalisée pour assurer la formation régionale en Afrique dans des disciplines choisies. La réunion convient que cela exige aussi une planification stratégique et la coopération entre les États contractants. Elle estime que, pour faciliter l'utilisation des installations de formation par plusieurs États, les normes de formation doivent être harmonisées entre les États. Elle constate également que la réglementation sur la formation devrait être réexaminée pour faciliter l'emploi d'installations de formation multinationales.

5.51 La réunion souligne la nécessité de garantir l'assurance de la qualité de la formation dans le domaine de l'aviation civile. À cet égard, elle appuie fortement le Programme TRAINAIR de l'OACI comme moyen d'améliorer la qualité et le rapport coût-efficacité de la formation dans ce domaine. Cependant, elle convient aussi qu'il faudrait prendre des mesures supplémentaires pour renforcer l'assurance de la qualité des centres de formation dans la Région AFI.

5.52 La réunion est informée que les membres du Programme TRAINAIR ont créé un groupe actif de conception des cours (GCC), de concert avec des concepteurs formés selon les normes TRAINAIR. Le GCC prépare des mallettes pédagogiques normalisées (MPN) en bénéficiant de l'appui et des conseils du Groupe central TRAINAIR de l'OACI. L'assistance du Groupe central consiste notamment à informer les membres sur les MPN disponibles, à veiller à ce que les MPN en cours d'élaboration soient conformes aux normes et à aider les groupes de conception des cours à maintenir les normes prescrites. Les membres du Programme TRAINAIR améliorent la qualité du matériel pédagogique qu'ils élaborent en utilisant des méthodes modernes de conception des cours. En outre, un des avantages de la participation au Programme TRAINAIR est la possibilité pour les membres de s'échanger librement du matériel pédagogique de qualité supérieure, améliorant ainsi la qualité et le rapport coût-efficacité de leurs programmes de formation. Les concepteurs de cours sont également formés pour modifier les MPN d'autres établissements afin de les adapter aux besoins locaux.

5.53 La réunion convient que le Programme TRAINAIR est un moyen efficace de normaliser le matériel pédagogique et de faciliter la coordination et la coopération entre les centres de formation. Contrairement aux organismes de formation isolés, qui ont des ressources limitées et qui produisent leurs propres cours de formation pour se conformer aux nouvelles SARP ou aux SARP amendées de l'OACI, les membres du Programme TRAINAIR sont équipés des outils appropriés, partagent le fardeau de l'élaboration de cours de formation de qualité supérieure et, au besoin, reçoivent un appui technique de l'OACI. La réunion convient donc que le Programme TRAINAIR doit figurer bien en vue dans la normalisation de la formation et l'assurance de la qualité de la formation.

5.54 À l'issue de son examen, la réunion convient de la recommandation suivante :

**Recommandation 5/8 — Stratégies de formation pour la sécurité de l'aviation en Afrique**

Il est recommandé que :

- a) les États et les organismes responsables de la formation dans la Région AFI dressent un inventaire de la formation disponible actuellement dans leurs centres de formation de l'aviation civile ;
- b) les États examinent leurs cadres réglementaires pour déterminer s'il existe des barrières qui empêchent d'utiliser les centres de formation d'autres États et de recevoir des crédits pour cette formation ;
- c) le Programme de mise en œuvre complet AFI (ACIP), en coopération avec la CAFAC et d'autres parties prenantes, organise des conférences panafricaines de coordination de la formation qui serviront de cadre pour poser les fondations d'une coopération plus étroite et d'une harmonisation des exigences en matière de formation, y compris la normalisation et l'assurance de la qualité ;
- d) la première conférence panafricaine de coordination de la formation forme un groupe de travail de spécialistes de la formation pour définir un plan directeur pour l'harmonisation de la formation dans la Région AFI ;
- e) sur la base des résultats d'ensemble de l'analyse des écarts, l'ACIP prévoit dans son programme de travail la réalisation d'une analyse des besoins en matière de formation. L'analyse de ces besoins et les plans des États en matière de ressources humaines permettront d'établir un plan stratégique pour accroître et rationaliser les ressources de formation en Afrique ;
- f) les États et les donateurs envisagent d'augmenter la capacité des centres de formation actuels ;
- g) les États et les organismes responsables de la formation dans la Région AFI envisagent la possibilité de devenir membres du Programme TRAINAIR ;
- h) les États et les fournisseurs de services de la Région AFI appuient le Programme TRAINAIR et y participent pleinement.

**Système de suivi des activités liées à la sécurité — Résultats des audits et suivi par l'OACI**

5.55 La réunion prend note d'un rapport de situation sur les activités que mène l'OACI pour corriger les carences en matière de sécurité et de sûreté qui ont été constatées durant les audits effectués dans le cadre du Programme universel d'audits de supervision de la sécurité (USOAP) et du Programme universel d'audits de sûreté (USAP). Ces activités sont coordonnées dans l'ensemble de l'OACI afin d'hierarchiser et de cibler l'assistance apportée aux États et de mobiliser les parties prenantes et les ressources. Au chapitre de la transparence, la réunion reçoit un rapport sur la méthode suivie par l'OACI au sujet des États dans lesquels un nombre important de carences ont été observées. La réunion rappelle



# **INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO)**

## **Comprehensive Regional Implementation Plan for Aviation Safety in Africa**

*Report of the Training Experts Working Group (TEWG)*

*On the*

**Implementation of Recommendation 5/8 of the Special  
AFI Regional Air Navigation Meeting**

**[SP AFI RAN (2008)]**

**TRAINING STRATEGIES FOR AVIATION SAFETY  
IN AFRICA**

*May 2010*



## **Executive Summary**

This document is the final report of the Training Experts Working Group (TEWG) which was set up pursuant to Recommendation 5/8 (Training Strategies for Aviation Safety in Africa) of the Special Africa-Indian Ocean (AFI) Regional Air Navigation (SP-AFI RAN 08) Meeting.

The TEWG carried out its activities between July 2009 and May 2010.

It collected data from States, aviation services providers and training organizations throughout Africa on aviation training needs and available capacity. The information collected was stored in a database, analyzed to identify key areas of supply and demand, and to provide input into the Master Plan for Aviation training in the AFI region.

### **Data Collection**

In cooperation with SITA, a detailed questionnaire was designed and distributed to over 400 aviation organizations in English and/or French language.

Data was collected between 1 October and 30 December 2009. At the closure of the survey, 99 completed responses were received. Almost all stakeholder groups were well represented, with only maintenance organizations responses being limited. Most African regions were adequately covered, although some gaps were noted in the Banjul Accord Group and North Africa sub-regions.

### **Data Storage**

The data collected has been incorporated in a database which has now been set up, and can be made accessible through a weblink. Tailored queries can be run on the database to understand training demand and availability across Africa. Accessibility will soon be possible through the ICAO IDAP and ICAO ACIP portals.

### **Data Analysis**

The data collected shows that for some areas such as airport operations and regulatory activities, the demand for training is higher than the capacities currently available in Africa. Harmonization of aviation training was identified as one of the major means to address the existing gap between the demand and supply of aviation training in Africa. The TEWG reviewed the various barriers to the harmonization of aviation training in Africa.

### **Proposed Actions**

Based on the data analysis and the review of the barriers to the harmonization of aviation training in Africa, the TEWG identified several actions for implementation by States and Training Organizations with the objective of meeting the training demand in Africa through an increase, as well as rationalization of training resources within Africa. The proposed actions include:

- Harmonization throughout Africa of the competencies requirements for identified aviation specialists skills/jobs/functions;
- Cross-border accreditation of instructors and training organizations based on a set of common standards, including quality assurance, and a harmonized methodology for course syllabi design and implementation ;
- Establishment of centers of excellence to take the lead in the development and maintenance of training courses in each category of activities (Airline Operations, Aircraft Maintenance, Airport operations, Air Traffic Services, Regulatory);
- Set-up of an African Training Advisory Board to promote best practices, develop minimum standards and monitor implementation;
- Creation of an Association of African Training Organization (TO).

The proposed actions are submitted to the 2<sup>nd</sup> Pan-African Aviation Training Coordination Conference to assist it in the process of developing a master plan for harmonization of training in Africa.

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## **1. Introduction**

### **1.1. Purpose**

This document is the final report of the Training Experts Working Group (TEWG) which was set up in May 2009 by the training experts meeting held in Johannesburg, South Africa (May 2009) as a follow-up to the First Pan African Training Coordination Conference (Niamey, Niger, 17-19 February 2009) in furtherance to Recommendation 5/8 (Training Strategies for Aviation Safety in Africa) of the Special Africa-Indian Ocean (AFI) Regional Air Navigation (SP-AFI RAN 08) Meeting (Durban, South Africa, 24–29 November 2008).

Recommendation 5/8 calls for the establishment of a working group of training experts to define a master plan for harmonization of training in the AFI Region.

The present document summarizes the activities carried out by the TEWG between July 2009 and May 2010.

### **1.2. Scope**

One of the tasks of the TEWG was to communicate actions for stakeholders in order to harmonize aviation training in Africa, based on the analysis of the data collected on aviation training needs and capacities in Africa.

This final report presents the results of the data collection on aviation training supply and demand in Africa. It also reviews the existing barriers for harmonization of aviation training in Africa and proposes actions to be taken by States, Training Organizations in Africa and other stakeholders for the harmonization as well as standardization and quality assurance of aviation training in Africa.

### **1.3. Structure of the report**

The remainder of the report is structured as follows:

- Section 2 introduces the TEWG and its activities
- Section 3 discusses the aviation training needs and capacities in Africa and the AFI training database
- Section 4 is a gap analysis of the capabilities of the training organizations in Africa and the existing gap between training supply and demand
- Section 5 presents the existing barriers for the harmonization of aviation training in Africa
- Section 6 identifies actions to be undertaken by States, Training Organizations in Africa and other stakeholders
- Section 7 concludes the report.
- Appendix A gives the list of the members of the TEWG and participants to its activities
- Appendix B contains the list of aviation specialist skills/jobs/functions used to identify the level of staffing and training needs in Africa

- Appendix C contains the list of aviation courses used to identify the aviation training needs in Africa to fulfill the aviation specialist skills/jobs/functions listed in Appendix B.

## **2. The Training Experts Working Group (TEWG)**

### **2.1. History of the Training Experts Working Group (TEWG)**

The Special AFI RAN Meeting formulated several recommendations for implementation under the AFI Comprehensive Implementation Programme (ACIP), in cooperation with the African States, Regional Organizations, AFI-based aviation training institutions, and all stakeholders.

One of the Special AFI RAN Meeting recommendations directed at ACIP is Recommendation 5/8 - Training strategies for safety in Africa. The recommendation calls for a series of actions by States, Training institutions, services providers, donors, ACIP and AFCAC in order to strengthen the aviation training offer and harmonize the training requirements in Africa. With regard to ACIP, the Recommendation 5/8 specifically calls for:

- AFI Comprehensive Implementation Programme (ACIP), in cooperation with AFCAC and other stakeholders, to organize Pan African Training Coordination Conferences that will serve as the framework for closer cooperation and harmonization of training requirements as well as standardization and quality assurance;
- The first Pan African Training Coordination Conference form a working group of training experts to define a master plan for harmonization of training in the AFI Region;
- Based on aggregated results of the gap analysis, ACIP include as part of its work programme, the conduct of a training needs analysis. The training needs analysis and States' human resource plans would establish a strategic plan to increase, as well as rationalize training resources within Africa;

Pursuant to Recommendation 5/8, the 1<sup>st</sup> Pan-African Aviation Training Coordination Conference was held in Niamey, Niger, 17-19 February 2009. A follow-up meeting was held in Johannesburg, South Africa, 04-05 May 2009. The follow-up meeting of the 1<sup>st</sup> Pan-African Aviation Training Centers Coordination Conference served as a platform for outlining training needs, evaluating the training capabilities available throughout the continent, identifying the key challenges related to the provision of aviation training in Africa, and formulating the way forward for a coordinated approach of aviation training in Africa including a closer co-operation between Aviation Training Organizations, harmonization and standardization of aviation training in Africa.

The meeting further decided to form a Training Experts Working Group (TEWG) in line with recommendation 5/8 of SP AFI RAN meeting.

### **2.2. Terms of Reference of the TEWG**

The TEWG is comprised of training experts appointed by regional organizations involved in training, and the ICAO accredited training institutions in Africa. Each entity appointed one member. TEWG was tasked to:

1. Develop a framework for harmonization of aviation training in Africa,
2. Establish database for aviation training needs and capacities in Africa,
3. Determine and distribute actions for States and Training Institutions.

**Membership: Training experts from:**

- Airports Council International (ACI) - Africa
- Airports Company South Africa (ACSA) Training Centre
- African Airlines Association (AFRAA)
- Air Traffic National Services South Africa (ATNS)
- Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagascar (ASECNA)
- East Africa School of Aviation (EASA)
- Ecole Régionale de la Navigation Aérienne et du Management (ERNAM)
- Egyptian Aviation Academy (EAA)

The list of members nominated by their respective institutions is given in Appendix A to this report.

The TEWG received Secretariat support for its activities from ACIP in coordination with AFCAC. The Secretariat support included preparation and dissemination of pre- and post-meeting documentation, coordination of meetings and preparation of the final report. Also, to facilitate the exchanges between TEWG members, a dedicated e-forum was set up and managed by ACIP on the ICAO portal. The forum was opened to TEWG members only to allow for exchange of documents related to the work to be carried out by the TEWG and meetings. Finally, ACIP made the arrangements with technical and field partners for the set up of the database and collection of the data.

**2.3. Activities of the TEWG**

The TEWG began its activities on 02 July 2009 with a teleconference during which it adopted its work plan. The TEWG further held three meetings as follows:

- **Nairobi, Kenya, 17-18 September 2009 (hosted by AFRAA):** Finalization of the work Plan and working procedures, Review of the questionnaires and logistical arrangements for data collection and initial review of the database requirements; Adoption of the project timelines; Identification of the support required throughout the various organizations; Initial assignment of tasks and sub-tasks to TEWG members;
- **Dakar, Senegal, 12-13 November 2009 (hosted by ERNAM):** Update on the data collection and the site-visits; Review and finalization of the database requirements; Initial reports from TEWG members on tasks assigned; Adoption of the framework for the development of actions required in order to harmonize training.
- **Johannesburg, South Africa, 21-22 January 2010 (hosted by ATNS):** Review and analysis of the data collected; Updated reports from TEWG members on tasks assigned, guidance on the final report on the database development; Report from TEWG members on the development of actions; Adoption of the timelines for the finalization of the report.

In addition to the face-to-face meetings, TEWG members continued to exchange views and information via e-mail and the dedicated forum on the ICAO portal.

### **3. Scope of the problem being addressed**

#### **3.1. Aviation Training Needs in Africa**

In close cooperation with SITA as a technical partner, the TEWG developed a questionnaire aimed at quantifying the training needs for major aviation specialist skills/jobs/functions. The objectives were to capture the current level of staffing as well as the current and forecasted demand for training on each of the skills/jobs/functions required in air transport operation. The questionnaire was aimed at States civil aviation authorities, air navigation service providers (ANSP), approved maintenance organizations (AMOs), airports operators, airlines, and all pertinent aviation services providers.

The list of aviation specialist skills/jobs/functions and the corresponding courses included in the questionnaire are presented in Appendices B & C, respectively. The lists were not intended to be a full inventory of all the specialist skills/jobs/functions and courses required for regulatory and operational activities but a rather representative sample of such skills/jobs/functions to allow for a meaningful assessment of the current and forecasted training needs in the aviation sector in Africa.

The questionnaire was sent to all Civil Aviation Authorities and all known aviation service providers in Africa in hard copy and electronic file (CD-ROM, link to the dedicated website, and e-mail attachment), via letters, e-mail, and distributed at various aviation-related meetings attended by ACIP staff and TEWG members throughout Africa. Follow up was ensured on-site by SITA personnel, as well as through e-mail and letters from ACIP and TEWG members.

The survey was carried out between 01 October and 31 December 2009 and 66 responses were received from the following types of organizations:

- Civil Aviation Authorities (Regulator only) : 21;
- Air Navigation Service Provider (ANSP): 6;
- Airport Operator : 11;
- ANSP and Airport Operator : 4;
- Airline : 17;
- Airline and Approved Maintenance Organisation (AMO) : 2;
- Regulator and ANSP and airport operator: 4;
- Regulator and airport operator : 1.

The above number of responses can be considered an adequate representation of the civil aviation authorities (48% of the States), air navigation services providers (38% of the known ANSPs), and airport operators (40% of known operators) throughout Africa. However, the response is relatively low for airlines and Approved Maintenance Organizations (AMO) especially that very few major airlines responded. This is despite the efforts made by AFRAA to reach its members including through distribution of the questionnaire at key AFRAA meetings.

In terms of geographical representation, with the exceptions of North Africa (only two responses), all sub-regions were adequately represented in the responses.

Figure 1 below summarizes the current level of staffing and the demand for training based on the responses received.



Figure 1: Staffing and Training Needs per category of operations from the respondents

### 3.2. Aviation Training Capabilities in Africa

A questionnaire was also designed by the TEWG in cooperation with SITA to assess the training capabilities. The objectives were to capture the capabilities of the existing centers in terms of accreditation, quality control system, instructional staff, courses offerings, entry requirements, qualifications standards, training management, examinations management, training aids, syllabus development, and facilities and logistics extended to students.

The questionnaire was sent to 75 known aviation training centers in Africa in hard copy and electronic file (CD-ROM, link to the dedicated website, and e-mail attachment) via letters, e-mail, and distributed at various aviation-related meetings attended by ACIP staff and TEWG members

throughout Africa. Copies were also sent to all States civil aviation authorities requesting them to encourage the training centers in their jurisdiction to respond. Follow up was ensured on-site by SITA personnel, as well as through e-mail and letters from ACIP and TEWG members.

The survey was carried out between 01 October and 31 December 2009 and 33 responses were received from the following types of training organizations:

- 04 owned by Airlines;
- 02 owned by airports operators;
- 02 owned by CAAs;
- 04 owned by ANSPs;
- 21 autonomously owned.

From the data available, it can be inferred that the number of responses is representative of the existing training organizations owned or operated by airports operators, ANSPs, and autonomous institutions. However, training centers owned, and/or operated by airlines and Civil Aviation Authorities (CAA) are under-represented. For the CAA, the low response can be explained by the fact that most CAA training organizations operate on a needs basis. With regard to airlines owned training organizations, this is due to the low level of participation of airlines in the survey in general.

In terms of geographical representation, with the exceptions of the Banjul Accord Group (some major training centers did not respond), all sub-regions were adequately represented in the responses.

### **3.3. AFI Training Database**

The data collected by the TEWG with the technical assistance of SITA has been incorporated in a database. It contains all the data collected during the survey. The database (structure and website interface) has now been set up, and can be made accessible through a weblink. Tailored queries can be run on the database to understand training demand and availability across Africa, with filters applied by region, State, and language as appropriate.

The database can also be used to store information on courses run by each training organization and training demand by States and aviation services providers who have responded to the initial survey.

The AFI training database has functionalities to add new organizations and update information on organizations already included in the database as it is made available.

## **4. Gap Analysis**

### **4.1. Capabilities**

The data collected shows that the existing training organizations do not have adequate number of instructors to match the requirements for training. More than 67% of the training centers have

less than 10 instructors on a permanent basis and only 4 respondents have over 40 instructors on a permanent basis.

In terms of accreditation and quality assurance, most of the training centers have adopted national accreditation systems as required by the CAAs or local education board. Some training organizations have also embarked in international endorsements such as ISO, other national CAAs and international organization including ICAO TRAINAIR.

With regard to course syllabus design, there seems to be various approaches across the continent. Some training organizations use the competency-based approach for course development and assessment while others have performance objective course syllabi and some organizations combine those two approaches with the outcomes based approach.

Finally, there is a large variety in the capabilities of the training organizations across Africa in terms of classroom facilities and training aids. While most training organizations have video projection facilities and internet access, the number of classrooms is most of the time limited to 5-9 and limited capabilities of training aids such as simulators and learning laboratory facilities, with only 5 training centers having over 10 classrooms, and possessing simulators and learning laboratory facilities.

#### **4.2. Demand versus Supply**

In addition to the data collection, SITA carried out an initial gap analysis which informed the detailed review of the TEWG and the development of required corrective actions to address the gaps identified between the supply and the demand of aviation training in Africa.

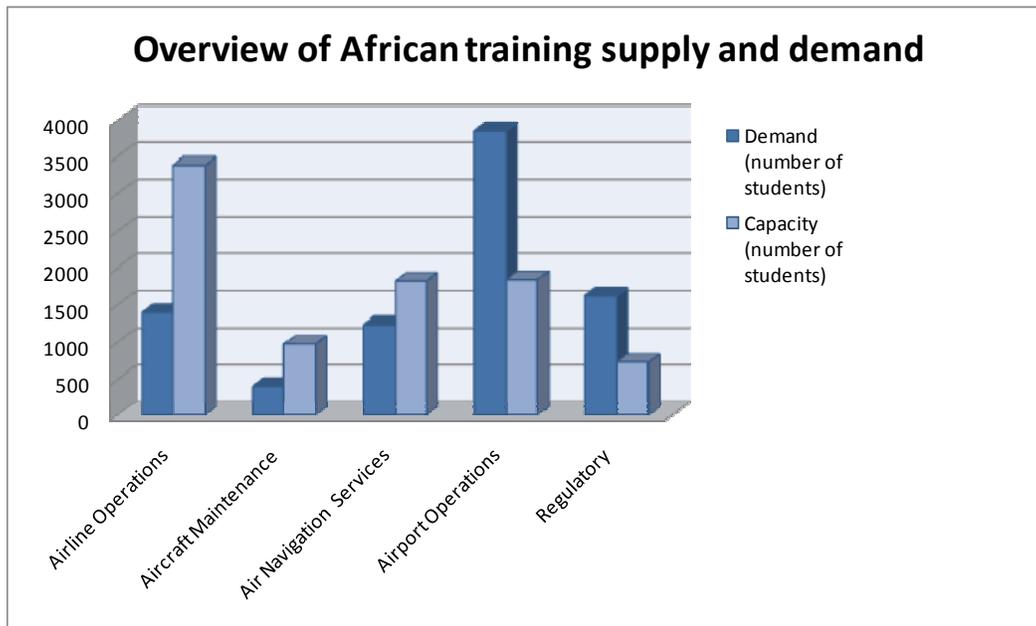
The remainder of the section is extracted from SITA report on the “AFI training database development”.

##### ***4.2.1 Overall situation***

The overall situation for aviation training in Africa can be represented by a supply versus demand analysis per category of courses. Figure 2 below shows the high level estimate per category of training.

The figure 2 clearly shows that airline operations are well supplied (compared to the database-generated demand figures). This should be interpreted with care, as not all airlines responded to the survey (particularly the large African airlines); most of the 19 airline respondents are small operators. Given this, it can be expected that the actual demand is far higher than is presented in the survey. However, with airline training being generally the most well established of any training category, it could be expected that the supply situation represents a realistic assessment.

Airport operations and regulatory courses appear to have the biggest imbalance in terms of the gap between supply and demand. For airport operations, this is magnified as the airport tends to have the largest number of potential trainees. For the regulatory courses, it is not immediately obvious why the imbalance between supply and demand exists. Part of the issue may be that much of the regulatory training comes from regulator peers or ICAO, and this supply may not have been adequately captured in the database.



**Figure 2: Overview of African training supply and demand**

The next step in the gap analysis is to look in more detail at the individual course categories, analysis supply and demand per region of Africa. Each of the following sections examines the supply and demand per category of activities and region of Africa.

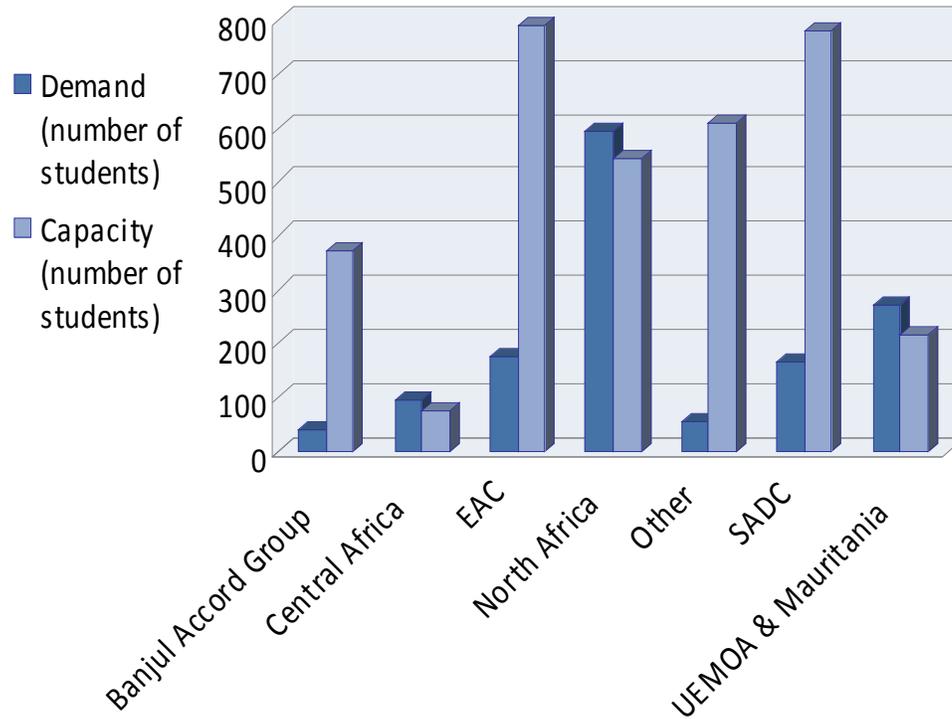
#### ***4.2.2 Airline operations***

Airline operations courses include training for:

- Flight crew (ab-initio and recurrent);
- Cabin crew;
- Dispatchers;
- Cargo personnel (including Transport of Dangerous Goods by Air);
- Airline safety and security managers.

Figure below shows the breakdown of airline operations course numbers per region of Africa. Unfortunately, the data appears to show very clearly that the distribution of airline respondents (mostly small operators from North Africa) heavily skew the demand data.

On the supply side, there appears to be adequate supply across each of the regions.



**Figure 3: Airline operations courses demand/supply per region**

#### **4.2.3 Aircraft maintenance**

Aircraft maintenance courses include:

- Aircraft maintenance, engineering and airworthiness;
- Aircraft line maintenance.

Figure shows the corresponding supply and demand for aircraft maintenance courses for each region in Africa.

The data shows a lack of maintenance training in the Banjul Accord Group and Central African region. Although there appears to be no corresponding demand, this is expected to be inaccurate, as the airlines in the region did not respond in adequate numbers.

The rest of the supply data is dominated by three or four main maintenance training organisations.

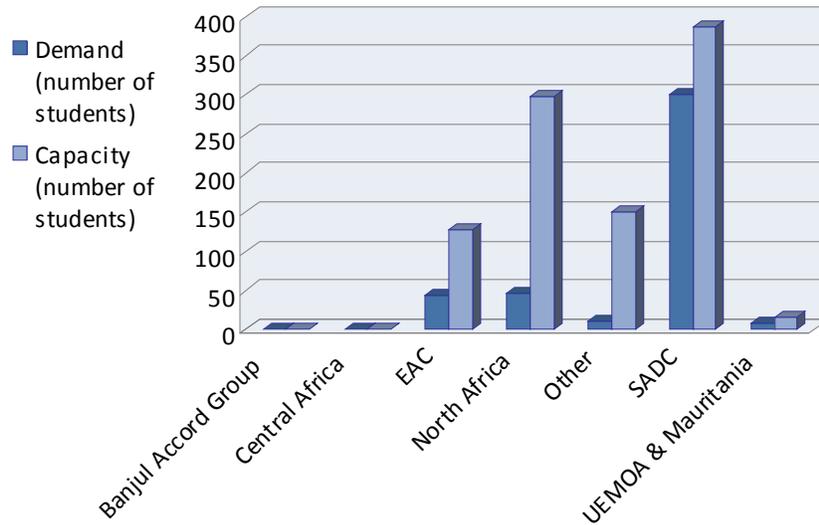


Figure 4: Aircraft maintenance courses demand/supply per region

#### 4.2.4 Air Navigation Services (ANS)

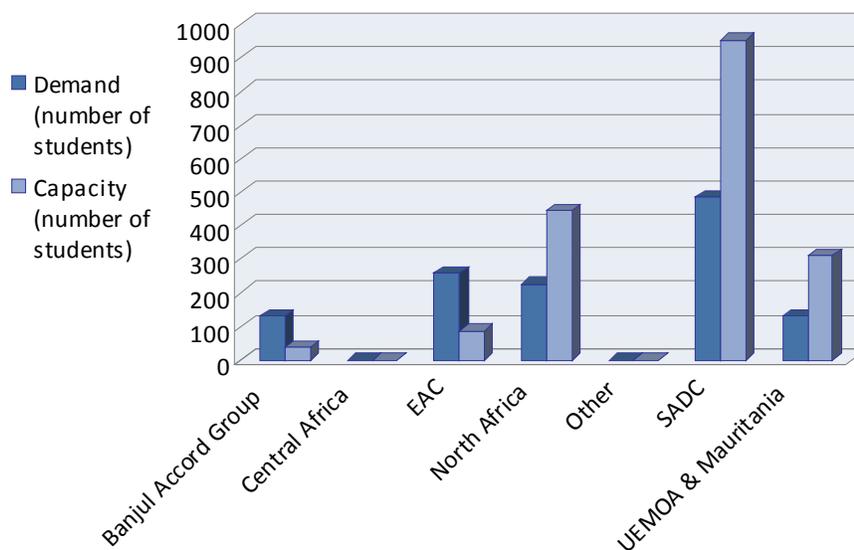
Air Navigation Services courses include training in:

- Air Traffic Controller (ATCO) courses (basic and specialist services, such as TWR/APP, ENR or Radar App);
- ATCO instructor;
- Radio operators;
- Airspace planning;
- Aeronautical information;
- Aeronautical meteorology;
- Air Traffic Services safety management, including accident/incident investigation and prevention;
- Communication, navigation and surveillance, including engineering and maintenance;
- Flight calibration.

Air Navigation Services training courses are provided by eleven of the training organisation respondents across Africa. These are spread across the regions. The demand is reasonably evenly spread. This is expected, as the demand should correspond to the provision of ANS, which is continent-wide.

No data was received from Central Africa and only one response from UEMOA & Mauritania. This can be explained by the fact that the States in those two regions are members of the Agency for Air Navigation Safety for Africa and Madagascar (ASECNA) and ANS-related training for ASECNA member States is provided by the ASECNA training organization based in Niamey, Niger (EAMAC).

The main training supply appears to be in the SADC and North Africa regions, with the EAMAC organisation also catering for the Central Africa and UEMOA region (in practice, the ASECNA member States).



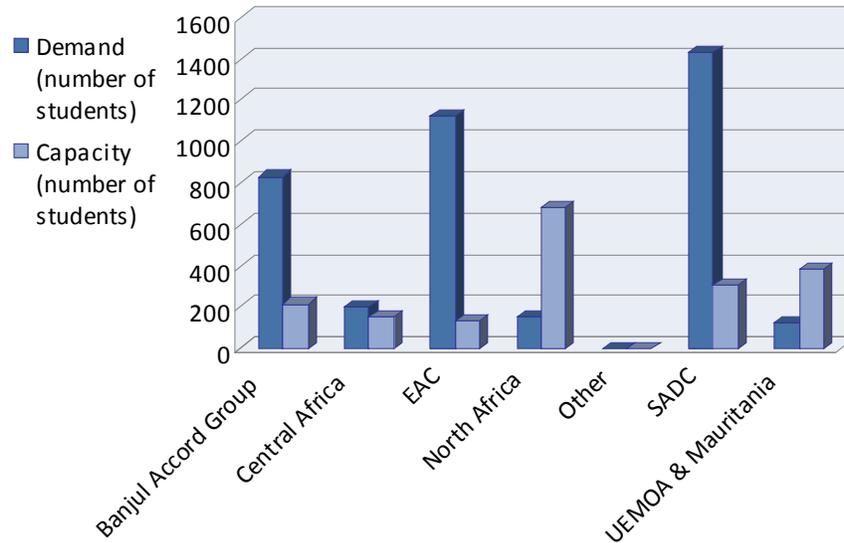
**Figure 5: Air Navigation Services courses demand/supply per region**

#### **4.2.5 Airport operations**

Airport operations courses include the following areas:

- Airport operations, including ground services;
- Airport safety management, including accident/incident investigation and prevention;
- Airport management;
- Airport engineering and maintenance;
- Airport fire services;
- Airport security.

Airport operations are one of the main areas where demand for training courses appears to significantly outweigh availability. Examining the issue on a regional basis across Africa, it appears as though the situation is particularly relevant in the Banjul Accord Group, EAC and SADC (see Figure below). Training appears to be provided in North Africa and UEMOA, through organisations in Morocco, Egypt and Senegal.



**Figure 6: Airport operations courses demand/supply per region**

#### 4.2.6 Regulatory

Regulatory courses included:

- Examiners for flight crew and ATCO licensing;
- Cabin crew examiners;
- Medical examiners;
- Government Safety Inspectors (GSI);
- Civil aviation administration and legislation;
- Safety management and regulation, including accident/incident investigation and prevention;
- Air transport statistics and economics;
- Inspectors.

The database analysis for the regulatory courses is shown in Figure below. Similarly to airport operations, it shows a clear imbalance of supply and demand across almost all regions of Africa.

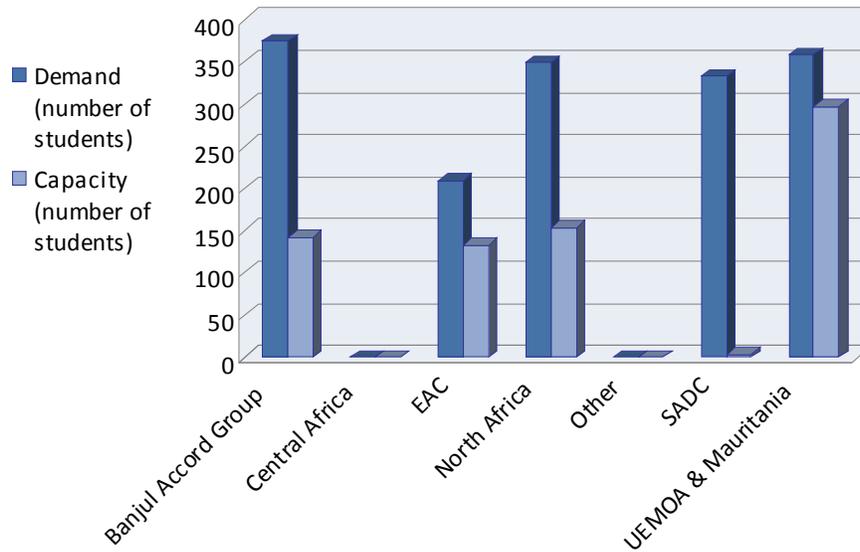


Figure 7: Regulatory courses demand/supply per region

## 5. Harmonization of Aviation Training in Africa

### 5.1. Need for harmonization

It appears from Section 4 above that the training capabilities available in Africa are not sufficient to meet the demand for training in many areas such as airport operations, air traffic services, safety oversight and others. There is a clear gap between the supply and demand for training throughout the continent. Based on international projections, the same can also be said with respect to air transport operators. However, since information in this area was lacking, definite determination could not be made in this area.

To meet the demand for aviation training in Africa, there is a need to invest in the modernization and expansion of the existing training organizations, and/or develop new ones. Investment is required to modernize existing and develop new training facilities including classrooms, training aids such as simulators and learning laboratories, and information technology to be at par with international training standards. Additional operational expenditures will also be required for the training organizations to be able to increase the number of qualified instructors and maintain their qualifications in line with the applicable international requirements. However, in order to attract the funds needed for such investment and sustain the operational expenditures, the training organizations need to improve on their ability to generate adequate funds through their training activities.

Under the current circumstances, the existing training organizations whether public or private are governed by national regulations and their ability to attract students from other States is limited even in areas where their capacity exceeds the national demand. As a result, their market base is restricted which in turn limits their ability to generate the necessary funds to modernize their

training facilities and aids, attract and retain qualified instructors, courses developers and other technical experts required to deliver quality training programmes.

Harmonization of aviation training requirements will make possible for students from multiple States to easily use the same training institutions and obtain diplomas/certificates which are recognized in their home State.

This is particularly important as globalization of international civil aviation operations has been gaining momentum in Africa with increased regional cooperation at the institutional and private level in the provision of air transport services, and safety oversight activities.

Harmonization of aviation training among States in Africa also offers an opportunity not only to increase the availability of affordable and quality training throughout the continent, but also to promote compatibility among operators and safety oversight organizations, to improve efficiency and effectiveness and to reduce the economic burden on States and aviation services providers who have to comply with different requirements for the training of their personnel.

Finally, throughout the continent, all States and stakeholders will benefit from a rationalization of the training resources reducing duplication of efforts and at the same time achieving economies of scale in terms of investment in training facilities and their related safety oversight.

Effective harmonization of aviation training will require addressing a wide range of issues related to differences of requirements on competencies, approvals of training organizations and other areas. The remainder of section 5 discusses the barriers to harmonization of aviation training in Africa. Section 6 presents proposals of actions to be implemented by States, aviation services providers, and training organizations in order to effectively harmonize aviation training in Africa.

## **5.2. Regulatory barriers – Competencies requirements**

International Standards and Recommended Practices (SARPs) are established for the licensing of specific aviation personnel. These SARPs include knowledge and skill requirements to perform specific aviation duties. Personnel required to be licensed include flight crew, aircraft maintenance engineers, air traffic controllers, and flight operation officers (dispatchers). In addition, guidelines exist for competencies requirements for most of the other categories of aviation personnel.

Competency is defined (ref. ICAO Annex 1) as the combination of skills, knowledge, and attitudes required to perform a task to the prescribed standard.

Aviation personnel can have varying degrees of educational background ranging from the self taught individual to the holder of a university degree or post-graduate degree. However, irrespective of educational background, all aviation personnel must undergo the necessary technical training that provides them with the competencies for assuming responsibility over their respective functions in line with the applicable SARPs and guidelines.

SARPs and guidelines provide a presentation of broad international specifications for licensing and certificating as may be applicable. Even when they are detailed, they do not necessarily cover all circumstances. Neither do they provide enough details for handling the day-to-day matters related to certification, licensing, or operational processes and procedures, including training personnel. In addition, some parts of the SARPs or guidelines leave to States to decide on the

additional details to be included in the national laws and regulations to comply with the international requirements. This includes the possibility for a State to implement requirements beyond the international standards.

The above flexibility applies to all international standards including competencies requirements. As a result, States, while complying with international requirements, may have established different competencies requirements for aviation personnel. These competencies requirements become part of the national regulations and a person cannot exercise his/her functions if not trained and fully met the requirements of the specific competencies. Differences in competencies requirements may include course entry requirements, number of training hours, assessment methods, and on-the-job training.

The TEWG has reviewed the existing competencies requirements in Africa for the aviation specialists skills/jobs/functions listed in Appendix B. The findings lead to group States into four categories.

Few States have developed and published competencies requirements for most of the specialists skills/jobs/functions in line with ICAO SARPs and guidelines, sometimes adding local requirements to take into account their local circumstances in terms of courses entry requirements, number of training hours and on-the-job-training. These competencies requirements are readily available to national and foreign training organizations that are then in a position to develop training courses accordingly.

A second category of States has adopted regulations from other States or regions of the world (i.e. USA, Europe) in terms of competencies requirements for those functions subject to licensing requirements such as flight crew and maintenance personnel. Competencies requirements for the remaining aviation specialists' skills/jobs/functions are also adapted from either the same States or regions of the world or ICAO SARPs and guidelines when available.

The third category contains the majority of States where competencies requirements have been adapted from ICAO SARPs and guidelines for those functions subject to licensing requirements. However, there are no competencies requirements published for the aviation specialists' skills/jobs/functions which are not subject to licensing requirements.

In the last category, there are States where competencies requirements have not been published for all aviation specialists' skills/jobs/functions.

In summary, the only commonality that currently exists in training requirements is through regulatory demands and those who are partners within cooperation arrangements between States.

As a result, it is difficult for a training organization in Africa to develop training programme that complies with the varying requirements of States in Africa. The majority of training organizations have training programmes aligned with their national regulations. For those training organizations with international programme, they can reach only a given region or group of States (i.e. those who have adopted similar requirements). Alternatively, to obtain approval from a given State (i.e. in response to a customer requirement from that particular State), a training organization needs to adapt its programme and make the necessary arrangements on an ad-hoc basis.

Consequently, students, States and aviation service providers in Africa turn to training institutions outside of the continent to address their training needs, believing that they are likely to receive better acceptance for training conducted outside Africa rather than training conducted in an

African based institution. Additional reason can be that African aviation training institutes are not adequately equipped (simulators, laboratories, etc.) as are based training institutes based outside of Africa.

### 5.3. Regulatory barriers –requirements for Approved Training Organizations (ATO)

Appendix 2 to ICAO Annex 1 sets the requirements for the approval of a training organizations. These requirements cover the training and procedures manual, training programmes, quality assurance system, training facilities, instructors and management personnel, and students' record.

The TEWG has reviewed the situation of implementation of requirements related to approval of training organizations using available information from ICAO USOAP audits, ACIP gap analysis, and direct consultations with selected States. The situation is similar to the one related to the competencies requirements described in section 5.2.

Few States have developed and published requirements for the approval of training organizations in line with ICAO SARPs and guidelines, sometimes adding local requirements to take into account their local circumstances. These requirements for training organizations are embedded in the national safety oversight system and the States approve and supervise national and foreign training institutions that provide training to licenses holders of those States and other categories of personnel not subject to licensing requirements.

A second category of States has adopted regulations from other States or regions of the world (i.e. USA, Europe) in terms of requirements for the approval of training organizations.

The third category contains States where requirements for the approval of training organizations have been adapted from ICAO SARPs and guidelines for those functions subject to licensing requirements. However, there are no requirements for the approval of training organizations published for institutions that provide training to aviation specialists' skills/jobs/functions which are not subject to licensing requirements.

In the last category, there are States where requirements have not been published for the approval of training organizations.

Even for those States that have established and published regulations related to the approval of training organizations, they do not always have the necessary capabilities to oversee the approved training organizations. There are instances where a training organization does not get clear guidance on the approval process and hence is not in a position to meet the necessary requirements to obtain the approval of or acceptance by the State authorities or a foreign State.

As a result, it is difficult for a training institution in Africa to obtain approvals as a training organization from States in Africa other than the State of nationality. The majority of training organizations in Africa have thus obtained approval from their own State of nationality; however, it is obvious that they need to receive recognition/approval by other States to provide training to students from other State under an international training programme which, in very few cases is obtained on an ad-hoc basis.

#### 5.4. **Other barriers**

In addition to the competencies requirements and processes related to the approval of training organizations, the TEWG identified other barriers that may limit the abilities of training institutions in Africa to attract students beyond their national borders.

These additional barriers are presented below.

##### **5.4.1 *Instructors/Facilitators:***

The data collected has shown that the increase in demand for training has not been matched by the availability of qualified instructors or teachers.

Training Organizations have met the shortage of instructors by developing trainers from the industry. This is particularly relevant for training organizations owned by the State or an aviation services provider such as airport operator, air navigation services providers or airline. Such ad-hoc arrangements lead to a diminution of the perceived or real quality of training provided.

Even in cases that there are some trained trainers but coming from say an airline, civil aviation authority or an airport background, there could still be some barriers in terms of the ability of the facilitator to provide examples or facilitate beyond his/her type of organization. For example, someone from an airline background facilitating a Human Factors course can effectively put his points across by citing relevant examples from the airline business. The learners from the airline industry can readily identify with the examples provided and challenges involved such as challenges related to working in an aircraft fuel tank or doing an aircraft turnaround servicing in harsh weather conditions. However, participants from the other areas such as air navigation service providers would not see the relevance of some of these examples and the facilitator may have very little understanding of the human factors issues confronting air navigation service providers. This can reduce the effectiveness of the instructor and cause frustration and lack of interest in the students if some examples fall outside the instructor's area of competency.

Similar challenges can be cited for various other courses. For example, the safety management system requirements for civil aviation authorities, airports and airlines have different emphasis making it a challenge to find a facilitator who can effectively meet the needs of the learners from these different areas.

##### **5.4.2 *Logistics:***

The issue of logistics was highlighted by the data collected. The major issues raised included accessibility of the training centre as well as students' facilities at the centre such logistics.

Logistics related barriers include availability of flights to the nearest airport to the training centre, distance between the training centres and nearest airport/city, visa acquisition, availability, cost and quality of accommodation

#### **5.4.3 Lack of adequate resources:**

It was noted that some States and aviation services providers may be constrained by financial resources. Therefore, even though the need for training is clearly self evident, people may still not be trained. Alternatively, when training programme is arranged as part of an aid programme from a financial institution or a donor State/region, the training takes place in the State/region that provides the funding or a training organization approved by the State/region providing the funding.

It was also noted that there is lack of sufficient numbers of adequately trained and experienced personnel in some organizations. So the few qualified personnel tend to be overworked and the entity concerned may find that it cannot spare the people for refresher and other training due to operational requirements. This has a detrimental impact in terms of human resource development for the people concerned.

#### **5.4.4 Language:**

The issue of different educational systems in different States posing a barrier to cooperation and harmonization of training on the continent was raised by the TEWG. The level of fluency in foreign languages (English/French) varies considerably among the aviation personnel. This is because the minimum qualifications for entry into some of the areas like air traffic controllers, technicians or artisans vary between States even where the education systems may be similar.

There is also a disparity in terms of availability of instructors who are able to speak both French and English, so one finds a bias towards courses in English than say courses in French. This disadvantages French speaking countries.

The languages of the AU also include Arabic, Portuguese. The use of Arabic is particularly prevalent in North African States and yet there are limited instructors proficient in Arabic. Similarly, there is a significant number of Portuguese speaking States who are disadvantaged due to lack of instructors who can use Portuguese. There are also insufficient foreign language schools on the continent for those aviation personnel who may require improving their proficiency in the desired language of training.

#### **5.4.5 Lack of incentives:**

States and aviations services providers have some very highly qualified personnel who do not use or avail their skills for training activities simply because there is lack of incentives to do so. For instance, there are some people who can provide high quality training on specific subjects but since their main duty is on certain other functions, it is difficult to attract them to spare some time to be trainers. For example, there are scores of managers who possess MBA degrees and have done IATA and other Managerial and Leadership training and they could assist an organization conduct leadership, team building or supervisory training to some of the up-coming managers for a week or two in a year but find no reason why they should do that.

## **6. Proposed actions**

The previous sections of the report presented the database on aviation training needs and available resources in Africa. Harmonization of aviation training was identified as one of the major means to address the existing gap between the demand and supply of aviation training in Africa. It also discussed various barriers to harmonization of aviation training in Africa.

One of the tasks assigned to the TEWG was to determine actions for implementation by States and Training Organizations with the objective of meeting the training demand in Africa through an increase, as well as rationalization of training resources within Africa.

The remainder of this section presents the actions proposed by the TEWG. They are submitted to the 2<sup>nd</sup> Pan-African Aviation Training Coordination Conference to assist it in the process of developing a master plan for harmonization of training in the AFI Region pursuant to recommendation 5/8 of SP AFI RAN.

### **6.1 Maintaining the database on training needs and resources**

The AFI training database has data entries representing States and aviation services providers who require training and organizations that offer training throughout Africa including the data received after the closure of the survey. However, the entries in the database have not been formally validated by the respective owners. Also, so far, only the administrator has access to the entries.

The information in the database provides a quantification of the individual, sub-regional and regional training needs and resources. It can therefore be a useful tool to assist all stakeholders in the implementation of the various actions necessary to ensure provision of aviation training meeting the demand in Africa. The TEWG recommends that:

- a) The AFI training database to be hosted on a website managed by ICAO, and accessible to all registered stakeholders.*
- b) The database to provide functionalities for entering, validating, and retrieving data on training needs and resources.*
- c) Access rules to be defined for entering and validating data entries from organizations in order to maintain the data integrity.*

### **6.2 Harmonization of competencies requirements**

The differences of competencies requirements where they exist constitute a major barrier for training organizations in Africa to be able to provide training programmes that meet the demand of customer organizations beyond their national borders.

Similarly, students cannot attend training programmes in training organizations based outside their State without the assurance that they will receive credit in their State for that training as part of fulfillment for licenses, degrees, or certificates required to perform their jobs.

To address the above, the TEWG recommends that:

- a) *States, and aviation services providers develop a list of aviation specialists skills/jobs/functions for which competencies requirements shall be harmonized;*
- b) *States, and aviation services providers, with the assistance of AFCAC and ICAO establish common competencies requirements for the aviation specialists skills/jobs/functions identified above. Wherever it is not possible to establish harmonized competencies requirements for the entire continent, a sub-regional approach can be considered;*
- c) *States establish common criteria for mutual recognition of credits, certificates, diplomas, or degrees obtained from Training Organizations in Africa, and, for training courses that are in line with the harmonized competencies requirements;*
- d) *Training organizations develop training courses to meet the national, sub-regional, regional requirements to be established;*
- e) *Training organizations cooperate among themselves in the development of harmonized training programmes to meet sub-regional, regional requirements, and reduce duplication of resources for course development.*

### **6.3 Harmonization of ATO requirements**

The differences of requirements for approval of training organizations where they exist constitute another major barrier for training organizations in Africa to be able to provide training programmes that meet the demand of customer organizations beyond their national borders. Similarly, students cannot attend training programmes in training organizations based outside their State without the assurance that the training organization is approved by their national authorities. The TEWG recommends that:

- a) *States, with the assistance of AFCAC and ICAO establish common requirements for the approval of training organizations. Wherever it is not possible to establish harmonized requirements for the entire continent, a sub-regional approach can be considered;*
- b) *States establish common criteria for mutual recognition of credits, certificates, diplomas, or degrees delivered by Training Organizations in Africa that have been approved in accordance with the common requirements for the approval of training organizations.*

### **6.4 Addressing the other barriers for training across the Continent**

In addition to the regulatory barriers, there are other barriers precluding students and their employers to enroll in training institutions in Africa beyond their national borders. These barriers include availability and qualification of instructors, and logistics capabilities of the training centers. To address such barriers, the TEWG recommends that, as part of the harmonization of the requirements for training organizations:

- a) *States, with the assistance of AFCAC and ICAO establish common requirements for instructors to facilitate cross-border accreditation of instructors;*
- b) *States, Training Organizations with the participation of ICAO, ACI-Africa, AFRAA and other regional aviation organizations develop and implement “train-the-trainer” programs to fill the required number of instructors to meet the demand for training in Africa;*

- c) *Training Organizations upgrade their facilities to meet the minimum requirements to provide for a favorable learning and living environment for national and non-national students.*

## **6.5 Courses Standardization**

Training organizations throughout Africa use different methods for developing training courses material. Discussions with stakeholders indicated that the adoption of a harmonized methodology for the design and implementation of courses syllabi would greatly help improve efficiency and reduce duplication of efforts. One of such methodologies is the ICAO TRAINAIR Programme which is an international cooperative system for civil aviation training institutions. It offers the advantage of developing training packages according to a globally accepted method and standard. Participation in the ICAO TRAINAIR could serve as a tool for harmonization as the programme enables members to both enhance the quality and cost-efficiency of course development, while at the same time standardizing the instructional approach used by members world-wide.

Therefore, the TEWG recommends that:

- a) *Training Organizations, with guidance from the States, ICAO and AFCAC, establish a harmonized methodology for course syllabi design and implementation, including course duration. Wherever it is not possible to establish harmonized course syllabi development for the entire continent, a sub-regional approach can be considered;*
- b) *In developing the harmonized methodology for course syllabi design and implementation, a comparative approach of the existing internationally recognized already widely used across most African regions including ICAO TRAINAIR could be used.*

## **6.6 Quality Assurance**

The lack of quality assurance system contributes to a perception that the quality of training provided in training organizations in Africa is lower than the ones provided in similar institutions outside Africa. This contributes, among other factors to the preference of overseas training organizations over those based in Africa. The TEWG recommends that:

- a) *States as part of the harmonization of the requirements for the approval of training organizations introduce standards for quality assurance;*
- b) *In developing the harmonized quality standards, a comparative approach of the existing internationally recognized and widely used training quality assurance, including ICAO TRAINAIR standards be implemented by all African aviation training institutes.*

## **6.7 Establishing Centers of Excellence**

Training organizations in Africa duplicate activities that impact their limited resources, each developing courses syllabi similar to those already developed by sister organizations and establishing mechanisms for delivering and managing the courses. Some States and training organization do not have the resources to establish and maintain adequate examinations management system. The TEWG is of the view that increased cooperation and sharing of resources between training organizations in areas such as course design and delivery and examination management would contribute to a continuous improvement of the quality of the training provided across Africa. The TEWG recommends that:

- a) *For each category of activities (Airline Operations, Aircraft Maintenance, Airport operations, Air Traffic Services, Regulatory), States, with the assistance of AFCAC and ICAO, and the participation of AFRAA and ACI-Africa, identify 4 centers of excellence that will take the lead in the development and maintenance of training courses in the designated area of competence;*
- b) *The designation of centers of excellence to take into account the geographical location and languages used throughout the continent;*
- c) *The centers of excellence be the repository of the course and have the leadership in the development of courses material, instructional support and research in the designated area of competence;*
- d) *Training Organizations planning to offer a course in each area obtain the course material and instructional guidance and support from the center of excellence on terms to be set in the general framework of setting and designating the centers of excellence;*

## **6.8 An Association of African Training Organization (TO)**

Unlike other service providers, Training Organizations (TO) do not have an association that can advance their interests and foster cooperation among themselves. The creation of an organization of the TO would greatly facilitate the implementation of the actions suggested in this report by providing a single point of entry for interactions between the TOs and other stakeholders. The TEWG, therefore, recommends that:

- a) *Training Organizations (TO) in Africa form an association with the objectives among others to foster cooperation and sharing of resources among themselves and with the States and aviation services providers, and provide a point of contact with States and aviation services providers on matters related to aviation training in Africa;*
- b) *ICAO and AFCAC organize the first conference of African TOs to serve as the platform for launching the TOs association.*

## **6.9 Training accreditation & oversight**

The implementation of harmonized competencies requirements, processes for approval of training organizations, courses standards, quality assurance and centers of excellence would require a dedicated body to ensure promotion of best practices, development of standards and monitoring. The TEWG recommends that:

- a) *States, with guidance from ICAO and AFCAC, and participation of ACI-Africa, AFRAA and other stakeholders set up a “Training Advisory Board (TAB)” entrusted with the leadership in the promotion and monitoring of implementation of the activities related to harmonization of aviation in Africa;*
- b) *ICAO, in cooperation with AFCAC to provide support in the development of the framework for the creation of the TAB.*

## 7 Conclusions

The report summarizes the activities of the TEWG for the period July 2009 – May 2010. The information is intended to provide input into the Master Plan for Aviation training in the AFI region.

The TEWG have gathered and analyzed data from aviation organizations encapsulating all disciplines in the aviation sector. The survey provided insight into the state of aviation training on the continent. This information is designed to leverage aviation best practices in Africa, and steer aviation training on the continent, into the world class domain.

The AFI database developed throughout this project as a repository of aviation research information, available on a single online location, would benefit States, aviation services providers and training organizations in their quest for solutions to meet the demand for aviation training in Africa.

However, the creation of an aviation training database is one part of the journey, in pursuit of aviation safety best practices. The journey must continue with our ability to leverage of the best practices of African role players in the aviation environment. Harmonization of training capacities, along the complete training value chain, must be the next logical step.

The aviation industry, in Africa would benefit from the harmonization of aviation training in Africa, in the following manner:

1. Increased availability of aviation training in Africa to meet the demands of the aviation industry in the continent;
2. Holistic improvement of quality of training courses;
3. Courses developed within an African context, following a standardized Regulatory Framework;
4. Leverage of economies of scale through pooling of resources;
5. Leverage of industry best practices throughout the continent and trans-regionally;
6. Cost benefit of non-duplication of design activities.

The availability of quality training programmes, harmonized throughout Africa would have an immeasurable impact on aviation training, and subsequently, safety, on the continent.

**Appendix A to the report of the Training Experts Working Group (TEWG)**  
**List of Members of the TEWG**

- ✓ **Airports Council International (ACI)-Africa** : Mr. Ken Kaunda, Chairman, Human Resources Working Group, General Manager, Human Resources Development, Kenya Airports Authority (KAA) ,
- ✓ **Airport Company South Africa (ACSA) Training Center** : Ms. Tebello Mokhema, Human Resources and Talent Development Manager,
- ✓ **African Airlines Association (AFRAA )**: Dr. Elijah Chingosho, Technical & Training Director,
- ✓ **Agence pour la Securite de la Naviation Aerienne en Afrique et Madagascar (ASECNA )**: Mr. Tchagbele Sadamba, Manager, Ecole de l'Aviation Civile et de la Meteorologie (EAMAC)
- ✓ **Air Traffic National Services South Africa (ATNS) Training Center** : Mr. Rodney Subramany, Manager: Training Integrity, Aviation Training Academy,
- ✓ **East African School of Aviation (EASA)** : Mr. George P. Ochiel, Chief Lecturer, AIS
- ✓ **Ecole Régionale de la Navigation Aérienne et du Management (ERNAM)** : Mr. Oumarou GANDA, Manager, AVSEC Training Center
- ✓ **Egyptian Aviation Academy (EAA)** : Capt. Ahmed Aly Attia Negm, Business Development Manager

**Other participants and contributors to the activities of the TEWG**

- ✓ Mr. Eric Khoza, General Manager, Denel Center for Learning and Development (DCLD), South Africa
- ✓ Mr. Rudolph Louw, National Aerospace Center of Excellence, Department of Trade, South Africa
- ✓ Mr. Augustin Mfoudi, Manager, Employment and Training, ASECNA

**Appendix B to the report of the Training Experts Working Group (TEWG)**  
**List of aviation specialist skills/jobs/functions included in the training needs questionnaire**

|  |
|--|
| <b><i>AIRLINES OPERATIONS –</i></b>  |
| Technical crew<br>Cabin Crew<br>Pilot instructor/examiner<br>Dispatcher<br>Air Operations Officer<br>Ground Operations Officer<br>Cargo personnel (handling of dangerous goods or live animals)<br>Technical training instructor<br>Dangerous goods instructor<br>Safety Manager<br>Security Manager |
| <b><i>AIRCRAFT MAINTENANCE –</i></b>   |
| Aircraft Mechanic<br>Aircraft Technician<br>Aircraft Engineer  |
| <b><i>AIRPORT OPERATIONS –</i></b>   |
| Ground Flight Safety Manager<br>Ground Flight Safety Officer<br>Quality Assurance Officer  |
| Operations Officer<br>Apron Controllers (Marshalls)<br>Fire Fighting Officer   |

|  |
|--|
| Security Officer   |
| <b><i>AIR NAVIGATION SERVICES –</i></b>                    |
| Engineer - Communications/Navigation/Surveillance          |
| Aeronautical Information Officer                           |
| Airspace Designer/Manager                                  |
| Air Traffic Control Officer - Aerodrome Control            |
| Air Traffic Control Officer - Approach (Non-Radar) Control |
| Air Traffic Control Officer - Area (Non-Radar) Control     |
| Air Traffic Control Officer - Approach/Area Radar Control  |
| Engineer - Electro Mechanics                               |
| Engineer – Air Traffic Services                            |
| <b><i>REGULATORY -</i></b>                                 |
| Aviation Legal Officer                                     |
| Air Transport Officer                                      |
| Airworthiness Inspector                                    |
| Flight Operations Inspector                                |
| Inspector Training System                                  |
| Ground Operations Inspector                                |
| Aerodromes Inspector                                       |
| Air Traffic Services Inspector                             |
| Aviation Security Inspector                                |
| Legislation and Enforcement Officer                        |
| Personnel Licensing Officer                                |
| Aircraft Accident/Incident Investigator                    |
| Safety Manager   |

Other (please specify):

**Appendix C to the report of the Training Experts Working Group (TEWG)**

**List of training courses for aviation specialist skills/jobs/functions included in the training needs questionnaire**

| <b><i>AIRLINES OPERATIONS –</i></b>   |
|---|
| Multi-crew Pilot Licence (MPL)<br>PPL / CPL / IR<br>MPL instructor<br>Cabin crew<br>Cabin Crew instructor<br>Airline Safety management<br>Airline Security<br>Air Operations management<br>Transport of Dangerous Goods by Air<br>Airline ground services – ALL |
| <b><i>AIRCRAFT MAINTENANCE –</i></b>  |
| Aircraft maintenance / engineering / airworthiness<br>Line maintenance  |
| <b><i>AIRPORT OPERATIONS –</i></b>  |
| Airport Safety management<br>Airport Accident/Incident investigation and prevention<br>Airport management<br>Airport engineering and maintenance – ALL<br>Airport fire service – ALL<br>Airport ground services – ALL   |

Airport ground services  
Airport Operations  
Airport Security

***AIR NAVIGATION SERVICES –***

Air traffic controller course (basic licence)  
Air traffic controller instructor  
ATC specific training (ENR, APP, radar, SAR etc)  
Radio operator (aeronautical comms ops)  
Airspace planning  
Aeronautical Information – ALL  
Aeronautical Meteorology – ALL  
Air Traffic services Safety management  
Air Traffic services Accident/incident investigation and prevention  
Communications, Navigation and Surveillance  
Flight calibration – ALL  
Engineering and maintenance – navigational aids

***REGULATORY –***

MPL examiner  
Air traffic controller examiner  
Cabin Crew examiner  
Medical Examiner  
Airspace planning/management  
Aeronautical Information – ALL  
Aeronautical Meteorology – ALL

Safety management

Accident investigation and prevention - ALL

Civil aviation administration and legislation

Air transport statistics and economics

Communications, Navigation and Surveillance

Government Safety Inspectors – Personnel Licensing

Government Safety Inspectors – Airworthiness

Government Safety Inspectors – Operations

Government Safety Inspectors – Aerodromes

Government Safety Inspectors – Air Traffic Services

Government Safety Inspectors – Training Organisations

Other (please specify below):



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## REPORT

### **Second Pan-African Aviation Training Coordination Conference,**

**Cairo, Egypt, 22-24 June 2010**

1. The Second Pan-African Aviation Training Coordination Conference, organised by the ICAO AFI Comprehensive Implementation Programme (ACIP) in cooperation with the African Civil Aviation Commission (AFCAC), and hosted by the Ministry of Civil Aviation of Egypt was held in Cairo, Egypt, 22 – 24 June 2010.
2. The Conference brought together 116 delegates from 31 States civil aviation authorities, 14 aviation services providers, 16 aviation training organizations, and 5 regional and international organizations.
3. The Conference opened on 22 June 2010 with a welcome note from Pilot Hassan Mohamed Hassan, Chairman of Egyptian Aviation Academy (EAA). He highlighted the investments made by the EAA to develop world class training facilities and programs for the Egyptian aviation industry and is also open for other African States. He also reiterated the readiness of the EAA to continue to cooperate with training institutions throughout Africa.
4. The Conference was also addressed by Mr. Guelpina Ceubah, President of the African Civil Aviation Commission and Mr. Raymond Benjamin, Secretary General, Secretary General, International Civil Aviation Organization (ICAO).
5. In his opening remarks, Mr. Guelpina Ceubah informed the participants that the promotion of aviation training in Africa was at the core of the functions of AFCAC and as such the organization is ready to continue to play its role in the process of harmonizing aviation training in Africa pursuant to the recommendations of the Special AFI-RAN meeting held in Durban, in November 2008.
6. The Secretary General of ICAO, Mr. Raymond Benjamin, started his address by thanking the Government of Egypt and the Egyptian Authorities for having accepted to host this important conference for the aviation community in Africa and worldwide. He recalled that the exercise conducted by ACIP, supporting the activity of the Training Experts Working Group (TEWG) allowed the identification of the gap in training needs and existing capacities in a number of African States throughout the Continent. He reiterated that ICAO stands ready to provide support in maintaining the database developed as recommended by the Special AFI RAN Meeting and in analyzing training-related trends. He exhorted the participants to devise solutions that pool the inherent strengths and resources of existing training institutions through harmonization, standardization and quality assurance of training dispensed. He also encouraged the aviation training institutions throughout Africa to establish an umbrella organization to effectively and collectively make their positions and concerns known at international aviation gatherings and before government regulatory authorities, including ICAO.
7. The Conference was officially opened by Capt. Sameh El Hefny, President of Egyptian Civil Aviation Authority on behalf of H.E. Mr. Ahmed Shafik, Minister of Civil Aviation, Egypt. In his opening speech, Capt El Hefny recalled the importance of availability of qualified personnel as an integral part of the evaluation of the safety

oversight capabilities of a State under ICAO USOAP and level of implementation of safety best practices under the ICAO Global Aviation Safety Plan (GASP). He commended the achievements of ICAO through the effective implementation of the AFI Plan and ACIP in developing capabilities and building capacity in Africa through training of aviation safety experts for the African civil aviation regulators and its aviation industry. He reiterated Egypt's support to ICAO and ACIP activities including those related to the harmonization of aviation training in Africa.

8. The Conference served as a platform for reviewing training needs, evaluating the training capabilities available throughout the continent and identifying the barriers constraining the availability of affordable quality training programmes in Africa.
9. The Conference formulated the way forward for a coordinated approach of aviation training in Africa through a closer co-operation between aviation training organizations; harmonization of competency requirements and approval processes of training organizations; and establishment of criteria for mutual recognition of credits, certificates, diplomas, or degrees. It also suggested the implementation of harmonized standards for quality assurance; standardization of courses; and the development of "train the trainers" programme.
10. The Second Pan-African Aviation Training Coordination Conference received the report of the Training Experts Working Group (TEWG) that was set up in May 2009, pursuant to Recommendation 5/8 of SP/08 AFI-RAN meeting, with a mandate to review training needs and available capacity in Africa. The TEWG reports provided insight into the state of aviation training needs and the training capacity available throughout the continent as well as on the barriers preventing harmonization of aviation training in Africa.
11. The Conference further addressed the following fundamentals related to aviation training in Africa:
  - a) **Current and forecasted demand for training in Africa:** The Conference was appraised by aviation services providers (SODEXAM, Ivory Coast and ASECNA) on their respective experiences and challenges in terms of assessing and addressing the current and forecasted training needs. It further reviewed the training needs of African States civil aviation authorities and the African aviation industry based on data that has been collected by the TEWG. The data gathered from 66 States civil aviation authorities and aviation services providers indicated that there is a high and increasing demand for aviation training throughout Africa and across all sectors of the industry.
  - b) **Capacity for aviation training in Africa:** The Conference was presented with case studies from training organizations in Africa (East African School of Aviation, Kenya, Egyptian Aviation Academy, Egypt, National Aerospace Center of Excellence, South Africa) on their respective experiences in assessing and meeting the current and forecasted training needs of their customers throughout the continent. It also assessed the capabilities of the aviation training institutions currently existing in Africa based on the data collected by the TEWG. The available data from 33 training organizations showed that the training capacity currently available in the continent is not adequate to respond to the current and future demands for aviation training in Africa. The capabilities of the training organizations are further constrained by the differences of regulatory requirements between States and the lack of mutual recognition of credits, certificates, diplomas, or degrees among African States.
  - c) **Barriers to harmonization of aviation training in Africa:** The conference was briefed by a training institution (Denel Center of Learning and Development, South Africa), a regulator/service provider (Civil Aviation Authority of Zimbabwe,

Zimbabwe) and a regional organization (Union Economique Et Monetaire Ouest-Africaine, UEMOA) on their respective experiences in assessing and overcoming the barriers to delivering or purchasing training services in Africa. Harmonization of aviation training was identified as one of the essential tools to address existing gap between the demand and supply of aviation training in Africa. The conference identified a wide range of issues that need to be addressed for the successful harmonization of aviation training in Africa. These include differences of regulatory requirements between States making it difficult for training organizations to develop training programmes that comply with the varying requirements of States in Africa. The processes of approvals of training organizations, where they exist, vary between States. It is therefore difficult for a training institution to obtain approvals as a training organization from States other than the State of nationality. Other barriers include insufficient number of instructors/facilitators, limited learning facilities, logistics difficulties related to access to training centers and accommodation for foreign students.

12. The Conference recognised that States, aviation services providers, and aviation training organizations need to establish a closer working relationship in order to develop solutions that will allow for the demand of aviation training in Africa to be met in as much as possible within the continent in a sustainable manner while providing aviation professionals throughout Africa with the required skill and quality training, at par with the other regions of the World.
13. The Conference participants agreed on a set of actions to be implemented by ICAO, AFCAC, States, aviation services providers and aviation training organizations in Africa for an effective harmonization of training requirements and rationalization of the capacities. They further recommended that:
  - a. ICAO should continue to collect data, maintain a database on aviation training needs and capacities in Africa, and provide bi-annual report on the state of aviation training needs and the training capacity available throughout the continent. The report should include information on existing and emerging barriers preventing harmonization of aviation training in Africa;
  - b. States should identify a Point of Contact to coordinate efforts required in the collection and dissemination of data related to training needs and capacities and provides ICAO with the necessary information.
  - c. Aviation training organizations should implement SMS, coordinate and integrate course development through the establishment of Centers of Excellence. These would be mandated to conduct Research and Development (R&D) and create and maintain harmonized and standardized training courses in specific areas of competence.
  - d. Aviation training organizations should form an Association of Training Organizations to foster cooperation and sharing of resources among themselves and that will also serve as the focal point and advocate on matters related to aviation training in Africa.
  - e. States should form a “Training Advisory Board (TAB)” entrusted with the leadership in the implementation and monitoring of activities related to harmonization and rationalization of aviation training in Africa. The TAB should also be tasked with the development of a common African Aviation training accreditation system recognized around the world.
  - f. States and aviation training organizations should cooperate and agree on harmonized common competencies requirements for key aviation specialists skills/jobs/functions and common criteria for mutual recognition of credits,

certificates, diplomas, or degrees obtained from African training organizations, including prior learning and train-the-trainers programmes.

- g. States should cooperate and agree on harmonized common requirements for the approval of training organizations throughout the continent.
  - h. Aviation service providers should make use of the training institutions available in Africa.
  - i. The TEWG should continue its activities that shall also include overseeing and reviewing the implementation of the recommendations from the Conference. It should also call for the participation of States, aviation services providers and training organizations for additional expertise and inputs.
14. The Conference called upon ICAO and AFCAC to continue to support States, aviation services providers and aviation training organizations in the implementation of the recommendations of the Conference.
  15. Regional Aviation Organizations such as AFRAA, ACI-Africa are called upon to play a key role in the implementation of the recommendations, in the area of their respective competence.
  16. International partners and other stakeholders are urged to support States, aviation services providers and aviation training organizations in the implementation of the recommendations in line with ICAO Assembly Resolution A36-1.
  17. It is anticipated that the implementation of the recommendations forwarded would facilitate the use of training centres in Africa by multiple States contributing to a rationalization of the training resources and oversight of training organizations by States, reducing duplication of efforts while achieving economies of scale in terms of investment in training facilities and related oversight.
  18. The Conference adopted the attached Common Strategic Framework and Action Plan which details the required steps for the implementation of harmonized and standardized training in Africa in line with recommendation 5/8 of SP AFI RAN (2008).
  19. The Conference further recommended that the 3<sup>rd</sup> Pan-African Aviation Training Coordination Conference should be held in the third quarter of 2011 to review the implementation of the attached Common Strategic Framework and Action Plan for the implementation of the recommendations of the 2<sup>nd</sup> Pan-African Aviation Training Coordination Conference and give further instruction as may be required.

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**Common strategic framework and action plan for  
African States, aviation training organizations, and aviation services  
providers on the implementation of  
Recommendation 5/8 of Special AFI RAN meeting**

**A. Background**

Pursuant to recommendation 5/8 of SP/08 AFI-RAN meeting, a Training Experts Working Group (TEWG) was established in May 2009 with a mandate to review training needs and available capacity in Africa.

The TEWG submitted its report to the Second Pan-African Aviation Training Coordination Conference which was held in Cairo, Egypt, 22 – 24 June 2010.

Using the information collected through an Africa-wide survey, on the state of aviation training needs and capacities in Africa, conducted in cooperation with SITA and analysed by the TEWG, the Conference reviewed the training needs, evaluated the available training capabilities and identified the barriers with the aim to increase the availability of affordable quality training programmes in Africa.

**B. Common Strategic Framework for a coordinated approach for aviation training in Africa**

The Conference formulated the following actions for States and training organizations as the way forward for a coordinated approach of aviation training in Africa:

- a) ICAO should continue to collect data, maintain a database on aviation training needs and capacities in Africa, and provide bi-annual report on the state of aviation training in Africa;
- b) States should appoint a Point Of Contact to coordinate efforts required in the collection and dissemination of data related to training needs and capacities.
- c) Aviation training organizations in Africa should implement SMS, coordinate and integrate course development through the establishment of Centers of Excellence.
- d) Aviation training organizations should form an Association of training organizations.
- e) States should form “Training Advisory Board (TAB)”.
- f) States and aviation training organizations should cooperate and agree on harmonized common competencies requirements for key aviation specialists skills/jobs/functions and common criteria for mutual recognition.
- g) States should cooperate and agree on harmonized common requirements for the approval of training organizations throughout the continent.
- h) Aviation service providers should make use of the training institutions in Africa.
- i) The TEWG should continue its activities towards the implementation of the recommendations from the Conference.

An action plan for the implementation of the above recommendations by July 2011 is presented in Section C, below.

### C. Action plan for a coordinated approach to aviation training in Africa

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|---|
| <b>C.1 - Cooperation between aviation training organizations</b>  |
| <b>Objective</b>  |
| <ul style="list-style-type: none"><li>• Foster cooperation and sharing of resources among training organizations;</li><li>• Create an Association of Aviation Training Organizations that would advocate on matters related to aviation training in Africa;</li></ul>   |
| <b>Actors</b>   |
| <ul style="list-style-type: none"><li>• TEWG</li><li>• Training organizations</li><li>• Regional and International Organizations: ICAO, AFCAC, and AFRAA</li></ul>  |
| <b>Mechanism – Continuation of the activities of the TEWG under revised Terms of Reference</b>  |
| In the area of cooperation between training organizations, the TEWG is requested to:  |
| <ul style="list-style-type: none"><li>• Develop the framework for standardization of training programme and instructor qualifications;</li><li>• Develop a framework for standardization of criteria for approval of aviation training organizations</li><li>• Establish criteria for endorsement of Centers of Excellence</li><li>• Conduct the preparatory activities leading to the formal creation of the Association of Training Organizations;</li><li>• Identify actions and assistance required from States, ICAO, AFCAC, AFRAA, and other partners to enable the newly created association to operate efficiently and effectively.</li></ul> |
| <b>Activities</b>   |
| (1) By 30 November 2010, TEWG to adopt its revised work programme, and identify stakeholders and partners; [Adapt and assign Secretariat, invite meeting]   |
| (2) By first quarter 2011, hold the conference for the formal creation of the Association of African Training Organizations;  |
| (3) By second quarter 2011, formalize the relationship between the newly created Association of African aviation training organizations, States, aviation services providers, regional and international organizations on matters related to aviation training in Africa.   |

## C.2 - Cooperation between States in Africa on training

### *Objective*

- Foster cooperation and sharing of resources among States on training related matters, including accreditation and oversight;
- Create Training Advisory Board (TAB), a focal point of States on matters related to aviation training in Africa, including accreditation and oversight;
- Establish a framework for implementation monitoring of the activities related to harmonization and standardization of aviation training in Africa;
- Establish a framework for the development of a common African Aviation training accreditation system recognized around the world.

### *Actors*

- TEWG
- Training Organizations
- States
- Regional and International Organizations: ICAO, AFCAC, and AFRAA

### *Mechanism*

– *Continuation of the activities of the TEWG under the revised Terms of Reference*

In the area of cooperation between States, the TEWG is requested to:

- Conduct the preparatory activities leading to the formal creation of the “*Training Advisory Board (TAB)*”;
- Identify further actions required by States and assistance needed from ICAO, AFCAC, AFRAA and other partners to operationalize the TAB and enable it to operate efficiently and effectively.

### *Activities*

- (1) By first quarter 2011, hold the conference for the formal creation of the African “*Training Advisory Board (TAB)*”
- (2) By second quarter 2011 formalize the relationship between the newly created Board, training organizations, States, aviation services providers, regional and international organizations on matters related to aviation training in Africa.

### **C.3 - Rationalizing Training Capacities in Africa**

#### ***Objective***

- Improve usage of aviation training institutions in the continent by multiple States;
- Improve availability of quality aviation training in Africa.

***The principal way of achieving within a reasonable time the above objectives is to create Centers of Excellence throughout Africa***

#### ***Actors***

- States
- Training Organizations:
- Regional and International Organizations: ICAO, AFCAC, and AFRAA

***Mechanism – Continuation of the activities of the TEWG under revised Terms of Reference***

#### ***Activities***

- (1) By last quarter 2010, draft procedures and criteria for designation of Centers of Excellence, and an initial list of Centers of Excellence;
- (2) By first quarter 2011, obtain agreement from Training Organizations on the procedures and criteria for designation of Centers of Excellence (at the first meeting of the association of Training Organizations);
- (3) By second quarter 2011, propose to the *Training Advisory Board (TAB)* an initial list of Centers of Excellence for accreditation.

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|---|
| <b>C.4 – Harmonization and standardization of training</b>  |
| <b>Objective</b>  |
| <ul style="list-style-type: none"> <li>• Harmonize competencies requirements for key aviation specialists skills/jobs/functions;</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Harmonize requirements for the approval of training organizations;</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Establish common criteria for mutual recognition of credits, certificates, diplomas, or degrees delivered by aviation training organizations in Africa.</li> </ul>   |
| <b>Actors</b>   |
| <ul style="list-style-type: none"> <li>• TEWG</li> </ul>  |
| <ul style="list-style-type: none"> <li>• States</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Training Organizations:</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Regional and International Organizations: ICAO,AFCAC, and AFRAA</li> </ul>   |
| <b>Mechanism – Continuation of the activities of the TEWG under revised Terms of Reference</b>  |
| <b>Activities</b>   |
| (1) By last quarter 2010, draft an initial list of the key aviation specialists skills/jobs/functions for which competencies requirements are to be harmonized;   |
| (2) By second quarter 2011, obtain agreement from aviation training organizations and States on the key aviation specialists skills/jobs/functions for which competencies requirements are to be harmonized;  |
| (3) By second quarter 2011, submit to the <i>Training Advisory Board (TAB)</i> ” and the Association of African Training Organization a proposal on harmonized requirements for the approval of training organizations including quality assurance standards.                           |
| (4) By second quarter 2011, submit to the <i>Training Advisory Board (TAB)</i> ” and the Association of African training organization a proposal on common criteria for mutual recognition of credits, certificates, diplomas, or degrees delivered by training organizations in Africa |
| (5) By second quarter 2011, submit to the <i>Training Advisory Board (TAB)</i> ” a proposal on harmonized competencies requirements for the aviation specialists skills/jobs/functions.   |

#### **D. Conclusion**

The actions presented in this common strategic framework and action plan are conceived to contribute to improve the availability of affordable and quality training programmes, harmonized and standardized throughout Africa, and the promotion of a common African aviation training accreditation system recognized around the world.

It suggests the continuation of the activities of the TEWG to speed up implementation. In the area of aviation training organizations, the TEWG will address issues specific to cooperation between training organizations and rationalization of training resources. TEWG will continue to focus on the development of framework for harmonization of aviation training in Africa through cooperation between States on aviation training matters including accreditation and oversight as well as the harmonization and standardization of training.

It is anticipated that the TEWG will complete its additional tasks by the second quarter of 2011, developing organizational capabilities within States and aviation Training Organizations through the newly created bodies to pursue and monitor the various activities related to the continuous harmonization and standardization of training in Africa.

The 3<sup>rd</sup> Pan-African Aviation Training Coordination Conference requested by the Conference to be held in the third quarter of 2011 will review the implementation of the action plan and assess progress made in the development/establishment of the Association of Training Organizations and Regional Training Organizations.

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## RAPPORT

### **Deuxième Conférence Pan-Africaine de Coordination des Centres de formation en Aviation,**

**Le Caire, Egypte, 22-24 juin 2010**

1. La Deuxième Conférence Pan-Africaine de coordination des centres de formation en aviation, organisée par le Programme de Mise en Œuvre complet du Plan AFI de l'OACI (ACIP) et la Commission Africaine de l'Aviation Civile (CAFAC), et abritée par le Ministère de l'Aviation Civile d'Egypte s'est tenue au Caire du 22 au 24 juin 2010.
2. La Conférence a rassemblé 116 délégués venant de 31 Autorités de l'aviation civile des Etats, 14 fournisseurs de services, 16 organismes de formation en aviation et 5 organisations régionales et internationales.
3. La conférence s'est ouverte le 22 juin 2010 par un mot de bienvenue du Pilote Hassan Mohamed Hassan, Président de l'Académie d'Aviation d'Egypte (EAA). Il a souligné les investissements faits par l'EAA pour développer des installations et programmes de formation de renommée mondiale pour l'industrie de l'aviation en Egypte, mais qui restent également ouverts à d'autres Etats Africains. Il a également réitéré la disponibilité de l'EAA à coopérer avec d'autres instituts de formation à travers l'Afrique.
4. Des allocutions d'ouverture ont été également prononcées par Mr. Guelpina Ceubah, Président de la Commission Africaine de l'Aviation Civile et Mr. Raymond Benjamin, Secrétaire Général de l'OACI.
5. Dans ces remarques liminaires, M. Guelpina Ceubah a informé les participants que la promotion de la formation de l'aviation en Afrique a été au cœur des fonctions de la CAFAC et à ce titre l'organisation est prête à continuer à jouer son rôle dans le processus d'harmonisation de formation en aviation en Afrique, conformément aux recommandations de la réunion spéciale AFI-RAN qui s'est tenue à Durban, en novembre 2008.
6. Dans son allocution d'ouverture, le Secrétaire général de l'OACI a remercié les autorités égyptiennes pour avoir accepté d'accueillir cette importante conférence pour la communauté de l'aviation en Afrique et dans le monde. Il a rappelé que l'exercice mené par l'ACIP en soutien à l'activité du Groupe de travail d'experts en formation (TEWG) a permis d'identifier l'écart entre les besoins en formation et les capacités existantes dans un certain nombre de villes africaines à travers le continent. Il a réitéré que l'OACI est prêt à fournir un appui au maintien de la base de données ainsi développée et à analyser les tendances liées à la formation. Il a exhorté les participants à trouver des solutions qui mettent en commun les points forts inhérents et les ressources des institutions de formation existantes à travers l'harmonisation, la normalisation et l'assurance de la qualité de la formation dispensée. Il a également encouragé les institutions de formation aéronautiques à travers l'Afrique à mettre en place une association professionnelle afin de défendre de manière efficace et collective leurs positions et préoccupations dans les réunions de l'aviation internationale et devant les autorités de réglementation des États, y compris l'OACI.

7. La Conférence a été officiellement ouverte par Capt. Sameh El Hefny, Président de l'Autorité de l'Aviation Civile d'Egypte, au nom de S.E. Mr. Ahmed Shafik, Ministre de l'Aviation Civile, Egypte. Dans son discours d'ouverture, le Capt EL Hefny a rappelé l'importance de la disponibilité de personnel qualifié en tant que partie intégrante de l'évaluation des capacités de supervision de la sécurité d'un État au titre de l'USOAP de l'OACI et le niveau de mise en œuvre des meilleures pratiques de la sécurité dans le cadre du Plan Mondial de la Sécurité de l'OACI (GASP). Il a salué les réalisations de l'OACI pour la mise en œuvre effective du plan AFI et ACIP notamment dans le développement des capacités à travers l'Afrique par la formation d'experts en sécurité aérienne au profit des organismes de réglementation de l'aviation civile et de l'industrie aéronautique africaines. Il a réitéré le soutien de l'Egypte à l'OACI et aux activités ACIP, y compris celles liées à l'harmonisation de la formation de l'aviation en Afrique.
8. La Conférence a servi de plateforme pour examiner les besoins de formation, l'évaluation des capacités de formation disponibles à travers le continent et pour identifier les obstacles limitant la disponibilité de programmes de formation abordables et de qualité en Afrique.
9. La conférence a formulé la voie à suivre pour une approche coordonnée de la formation en aviation en Afrique à travers une coopération plus étroite entre les organismes de formation en aviation, l'harmonisation des exigences relatives aux compétences et processus d'approbation des organismes de formation et l'établissement de critères pour la reconnaissance mutuelle des crédits, des certificats, ou diplômes. Elle a également suggéré la mise en œuvre de normes harmonisées pour l'assurance qualité, la normalisation des cours, et l'élaboration de programmes de «formation des formateurs».
10. La Deuxième Conférence Pan-Africaine de coordination des centres de formation en aviation a reçu le rapport du Groupe de Travail d'Experts en formation (TEWG) a été créé en mai 2009 conformément à la recommandation 5/8 de la réunion AFI-RAN SP/08, un avec pour mandat l'examen des besoins en formation et des capacités disponibles en Afrique. Le rapport du TEWG a fourni un aperçu de l'état des besoins de formation en aviation et des capacités de formation disponibles sur tout le continent ainsi que les obstacles qui empêchent l'harmonisation de la formation en aviation en Afrique.
11. La Conférence a également abordé les questions suivantes relatives à la formation de l'aviation en Afrique:
  - a) **La demande actuelle et les prévisions de besoins de formation en Afrique** : La Conférence a été informée par des présentations de fournisseurs de services (SODEXAM Côte d'Ivoire, ASECNA) sur leurs expériences respectives et les défis en termes d'évaluation et de réponse aux besoins de formation actuels et futurs. Elle a en outre passé en revue les besoins en formation des autorités de l'aviation civile des États de l'Afrique et de l'industrie aéronautique africaine sur la base des données qui ont été recueillies par le TEWG. Les données recueillies auprès de 66 autorités de l'aviation civile et prestataires de services d'aviation ont indiqué qu'il existe une demande forte et croissante en formation en aviation en Afrique et dans tous les secteurs de l'industrie.
  - b) **Les capacités de formation en Afrique**: Des études de cas ont été présentées à la Conférence par des organismes de formation en Afrique sur leurs expériences respectives dans l'évaluation et la réponse aux besoins actuels et prévus de formation de leurs clients à travers le continent. Elle a également évalué les capacités des institutions de formation aéronautique qui existent actuellement en Afrique sur la base des données recueillies par le TEWG. Les données disponibles à partir de 33 organismes de formation ont montré que la capacité de formation actuellement disponible sur le continent n'est pas adéquate pour répondre aux besoins actuels et futurs en matière de formation de l'aviation en Afrique. Les capacités des organismes

de formation sont en outre limitées par les différences d'exigences réglementaires entre les États et le manque de reconnaissance mutuelle des crédits, des certificats, diplômes ou grades entre les États africains.

- c) **Les barrières à l'harmonisation de la formation en Afrique:** La conférence a été informée par un organisme de formation (DCLD, Afrique du Sud), un régulateur/fournisseur de services (Autorité de l'Aviation Civile du Zimbabwe) et une Communauté Economique Régionale (UEMOA) sur leurs expériences respectives à évaluer et surmonter les obstacles à la fourniture ou l'achat de services de formation en Afrique. Harmonization of aviation training was identified as one of the essential tools to address existing gap between the demand and supply of aviation training in Africa. L'harmonisation de la formation de l'aviation a été identifiée comme l'un des principaux moyens de combler l'écart existant entre la demande et l'offre de formation en Afrique. La conférence a identifié un large éventail de questions qui doivent être traitées en vue de réussir l'harmonisation de la formation en aviation en Afrique. Ceci inclut les différences d'exigences réglementaires entre les États qui rendent difficile pour les organismes de formation d'élaborer des programmes de formation conformes aux différents besoins des États en Afrique. Les processus d'agrément des organismes de formation, là où elles existent, varient selon les États. Il est donc difficile pour une institution de formation d'obtenir les approbations en tant qu'organisme de formation pour des États autres que son État de nationalité. D'autres obstacles incluent un nombre insuffisant de formateurs / facilitateurs, l'insuffisance des installations de formation, les difficultés logistiques liées à l'accès aux centres de formation et d'hébergement pour les étudiants étrangers.
12. La Conférence a reconnu que les États, les fournisseurs de services, et les organismes de formation en aviation ont besoin d'établir une relation de travail plus étroite afin de développer les solutions qui permettront à la demande de formation en aviation en Afrique d'être satisfaite autant que possible au sein du continent de manière durable tout en offrant aux professionnels de l'aviation à travers l'Afrique les compétences requises et une formation de qualité, à égalité avec les autres régions du monde.
13. Les participants à la Conférence ont adopté un ensemble d'actions à mettre en œuvre par l'OACI, les États, les fournisseurs de services et les organismes de formation aéronautique en Afrique pour une harmonisation effective des besoins de formation et la rationalisation des capacités. Ils ont en outre recommandé que:
- L'OACI devrait continuer à recueillir des données, maintenir une base de données sur les besoins et les capacités de formation en aviation en Afrique, et de fournir un rapport bi-annuel sur l'état des besoins de formation en aviation et les capacités de formation disponibles sur tout le continent. Le rapport doit inclure des informations sur les obstacles existants et émergents qui empêchent l'harmonisation de la formation en aviation en Afrique ;
  - Les États devraient identifier une personne ressource pour coordonner les efforts nécessaires à la collecte et la diffusion des données relatives aux besoins et aux capacités en formation et fournir à l'OACI les informations nécessaires.
  - Les organismes de formation en aviation en Afrique devraient mettre en œuvre le SMS, coordonner et intégrer l'élaboration de cours par la création de centres d'excellence. Ces centres seraient chargés de mener la Recherche & Développement (R&D) et de créer et de maintenir des cours de formation harmonisés et normalisés dans des domaines spécifiques de compétence.
  - Les organismes de formation de l'aviation devraient former une association des organismes de formation pour favoriser la coopération et le partage des

ressources entre eux et servir également de point focal et de promotion des questions relatives à la formation en aviation en Afrique.

- e. Les États devraient former un "Conseil Consultatif de la Formation (TAB)" chargé de la direction de la mise en œuvre et du suivi des activités liées à l'harmonisation et la rationalisation de la formation en aviation en Afrique. Le TAB devrait également être chargé de l'élaboration d'un système commun d'accréditation africain de la formation, qui serait reconnu dans le monde.
  - f. Les États et les organismes de formation en aviation devraient coopérer et se mettre d'accord sur les exigences harmonisées des compétences requises pour les spécialités/emplois/fonctions clés de l'aviation et des critères communs pour la reconnaissance mutuelle des crédits, des certificats, diplômes ou grades obtenus dans les organismes de formation africains, y compris les programmes de pré-apprentissage et de formation des formateurs.
  - g. Les États devraient coopérer et convenir de l'harmonisation des exigences communes pour l'agrément des organismes de formation à travers le continent.
  - h. Les fournisseurs de services devraient faire usage des institutions de formation disponibles en Afrique.
  - i. Le TEWG devrait poursuivre ses activités et notamment la mise en œuvre des recommandations de la Conférence. Il devrait également de faire appel à la participation des États, des fournisseurs de services et les organismes de formation en aviation pour l'expertise et informations supplémentaires.
14. La Conférence a invité l'OACI et la CAFAC à continuer d'appuyer les États, les fournisseurs de services d'aviation et les organismes de formation aéronautique dans la mise en œuvre des recommandations de la Conférence.
  15. Les organisations professionnelles régionales de l'aviation telles que l'AFRAA, ACI-Afrique sont appelés à jouer un rôle clé dans la mise en œuvre des recommandations, dans le domaine de leurs compétences respectives.
  16. Les partenaires internationaux et d'autres parties prenantes sont invités à aider les États, les fournisseurs de services et les organismes de formation aéronautique dans la mise en œuvre des recommandations de la Conférence, en conformité avec l'OACI résolution de l'Assemblée A36-1.
  17. Il est envisagé que la mise en œuvre des recommandations transmises facilitera l'utilisation de centres de formation en Afrique par plusieurs États contribuant à une rationalisation des ressources de formation et de supervision des organismes de formation par les États, réduisant la duplication des efforts tout en réalisant des économies d'échelle en termes d'investissements dans les installations de formation et de la supervision associée.
  18. La Conférence a adopté le cadre stratégique commun et un plan d'actions en annexe qui détaillent les étapes nécessaires à la mise en œuvre de la normalisation et de l'harmonisation de la formation en Afrique, conformément à la recommandation 5/8 de la réunion SP AFI RAN (2008).
  19. La Conférence a également recommandé que le 3e Conférence Pan-africaine de coordination des centres de formation en aviation ait lieu au troisième trimestre de 2011 pour examiner l'état d'avancement du cadre stratégique commun et du plan d'actions pour la mise en œuvre des recommandations de la 2e Conférence Pan-africaine de coordination des centres de formation en aviation et de donner d'autres instructions en tant que de besoin.

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## **Cadre Stratégique commun et plan d'action pour Les Etats Africains fournisseurs de services en aviation et organismes de formation en aviation pour la mise en œuvre de la Recommandation 5/8 de la Réunion Spéciale AFI RAN**

### **A. Historique**

En application de la recommandation 5/8 la réunion spéciale AFI-RAN (2008), un Groupe de Travail d'Experts en Formation (TEWG) a été mis en place en mai 2009 avec pour mandat de revoir les besoins de formation et les capacités disponibles en Afrique.

Le TEWG a soumis son rapport à la Conférence Pan-africaine de coordination des centres de formation en aviation qui s'est tenue au Caire du 22 au 24 juin 2010.

Utilisant les données recueillies à travers une enquête conduite sur l'ensemble du continent en coopération avec SITA et analysées par le TEWG, la Conférence a passé en revue les besoins de formation, évalué les capacités de formation et identifié les barrières avec l'objectif d'augmenter la disponibilité en Afrique de programmes de formation de qualité et coûts raisonnables.

### **B. Cadre Stratégique Commun pour une approche coordonnée de la formation en aviation en Afrique**

La Conférence a formulé les actions suivantes pour les Etats et organismes de formation comme la voie à suivre pour une approche coordonnée de la formation en aviation en Afrique:

- a) L'OACI devrait continuer à recueillir des données, maintenir une base de données sur les besoins de formation en aviation et des capacités en Afrique, et fournir le rapport bi-annuel sur l'état de la formation de l'aviation en Afrique;
- b) Les Etats doivent désigner un point de contact pour coordonner les efforts nécessaires à la collecte et la diffusion des données relatives aux besoins et les capacités de formation.
- c) Les organisations de formation de l'aviation en Afrique devraient mettre en œuvre le SMS, coordonner et intégrer l'élaboration de cours par la création de centres d'excellence.
- d) Les organisations de formation de l'aviation devraient former une association d'organismes de formation.
- e) Les Etats devraient mettre en place un " Conseil Consultatif de la Formation (TAB)".
- f) Les États et les organismes de formation en aviation devraient coopérer et s'accorder sur les exigences harmonisées des compétences requises pour les spécialités/emplois/fonctions clés de l'aviation et des critères communs pour la reconnaissance mutuelle.
- g) Les Etats doivent coopérer et s'accorder sur l'harmonisation des exigences communes pour l'agrément des organismes de formation à travers le continent.
- h) Les fournisseurs de services aéronautiques devraient faire usage des institutions de formation en Afrique.
- i) Le TEWG devrait poursuivre ses activités vers la mise en œuvre des recommandations de la Conférence.

Un plan d'action pour la mise en œuvre des recommandations ci-dessus pour le mois de juillet 2011 est présenté dans la section C ci-dessous.

### C. Plan d'action pour une approche coordonnée de la formation en aviation en Afrique

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| <b>C.1 - Coopération entre organismes de formation</b>   |
| <b>Objectifs</b>   |
| <ul style="list-style-type: none"><li>• Favoriser la coopération et le partage de ressources entre les organismes de formation ;</li><li>• Créer une Association des organismes de formation qui assurerait la défense des intérêts sur les sujets relatifs a la formation en Afrique;</li></ul>   |
| <b>Acteurs</b>   |
| <ul style="list-style-type: none"><li>• TEWG</li><li>• Organismes de formation</li><li>• Organisations Régionales et Internationales: OACI, CAFAC et AFRAA</li></ul>   |
| <b>Mécanisme – Continuation des activités du TEWG sur la base de Termes de Référence révisés</b>   |
| Dans le domaine de la coopération entre organismes de formation, le TEWG est chargé de:  |
| <ul style="list-style-type: none"><li>• Elaborer le cadre pour la normalisation des programmes de formation et des qualifications des instructeurs;</li><li>• Elaborer un cadre pour la normalisation des critères d'agrément des organismes de formation aéronautique;</li><li>• Établir des critères pour l'approbation de centres d'excellence ;</li><li>• Mener des activités préparatoires à la création officielle de l'Association des organismes de formation;</li><li>• Identifier les actions et l'assistance requise des États, de l'OACI, de la CAFAC, de l'AFRAA, et d'autres partenaires pour permettre à l'association nouvellement créée de fonctionner effectivement et efficacement.</li></ul> |
| <b>Activités</b>   |
| (1) Au 30 novembre, le TEWG adopter son programme de travail révisé et identifie les partenaires et intervenants [Adapter et assigner les rôles, invitation aux réunions]  |
| (2) Au premier trimestre 2011, tenir la conférence pour la création officielle de l'Association des Organisations africaines de formation;   |
| (3) Au deuxième trimestre 2011, officialiser la relation entre la nouvelle Association des organismes africaines de formation en aviation, les États, les fournisseurs de services de transport aérien, les organisations régionales et internationales sur les questions relatives à la formation en aviation en Afrique.   |

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| <b>C.2 - Coopération entre les Etats Africains dans le domaine de la formation</b>   |
| <b>Objectifs</b>   |
| <ul style="list-style-type: none"> <li>• Favoriser la coopération et le partage de ressources entre les Etats dans le domaine de la formation, y compris l'accréditation et la supervision ;</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Créer un Conseil Consultatif de la Formation (TAB), un point focal des États sur les questions relatives à la formation en aviation en Afrique, y compris l'agrément et la supervision des organismes de formation;</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Mettre en place un cadre pour le suivi de la mise en œuvre des activités liées à l'harmonisation et la normalisation de la formation en aviation en Afrique;</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Établir un cadre pour le développement d'un système commun d'accréditation de la formation en aviation en Afrique et reconnu dans le monde..</li> </ul>   |
| <b>Acteurs</b>   |
| <ul style="list-style-type: none"> <li>• TEWG</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Etats</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Organismes de formation</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Organisations Régionales et Internationales: OACI, CAFAC et AFRAA</li> </ul>  |
| <b>Mécanisme – Continuation des activités du TEWG sur la base de Termes de Référence révisés</b>   |
| Dans le domaine de la coopération entre Etats, le TEWG est chargé de:  |
| <ul style="list-style-type: none"> <li>• Mener les activités préparatoires à la création officielle du "Conseil Consultatif de la Formation (TAB)";</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Identifier les actions complémentaires nécessaires par les États et l'assistance nécessaire de la part de l'OACI, la CAFAC, l'AFRAA et d'autres partenaires pour rendre opérationnel le TAB et lui permettre de fonctionner effectivement et efficacement.</li> </ul> |
| <b>Activités</b>   |
| (1) Au premier trimestre 2011, tenir la conférence pour la création formelle du “Conseil Consultatif de la Formation (TAB)” ;  |
| (2) Au Deuxième semestre 2011 formaliser la relation entre le conseil nouvellement créé, les organismes de formation, les Etats, les fournisseurs de services, les organisations régionales et internationales sur les sujets relatifs a la formation en Afrique.  |

### **C.3 - Rationalisation des capacités de formation en Afrique**

#### ***Objectifs***

- Améliorer l'utilisation des instituts de formation en Afrique par plusieurs Etats;
- Améliorer la disponibilité d'une formation de qualité en aviation en Afrique.

***Le moyen principal d'atteindre les objectifs ci-dessus dans un délai raisonnable est créer des Centres d'Excellence à travers l'Afrique***

#### ***Acteurs***

- Etats
- Organismes de formation
- Organisations Régionales et Internationales: OACI, CAFAC et AFRAA

***Mécanisme – Continuation des activités du TEWG sur la base de Termes de Référence révisés***

#### ***Activités***

- (1) Au dernier trimestre 2010, établir un projet de procédures et critères de désignation des Centres d'Excellence et une première liste de Centres d'Excellence;
- (2) Au premier trimestre 2011, obtenir l'accord des Organismes de formation sur les procédures et les critères de désignation des centres d'excellence (à la première réunion de l'Association des Organismes de formation);
- (3) Au deuxième trimestre 2011, proposer au « Conseil consultatif de la formation (TAB) » une première liste de centres d'excellence pour accréditation.

#### C.4 – Harmonisation et standardisation de la formation

##### **Objectifs**

- Harmoniser les compétences requises pour les spécialités/emplois/fonctions clés de l'aviation ;
- Harmoniser les exigences pour l'approbation des organismes de formation;
- Établir des critères communs pour la reconnaissance mutuelle des crédits, des certificats, diplômes ou diplômes délivrés par les organismes de formation de l'aviation en Afrique.

##### **Acteurs**

- TEWG
- États
- Organismes de formation
- Organisations Régionales et Internationales: OACI, CAFAC et AFRAA

##### **Mécanisme – Continuation des activités du TEWG sur la base de Termes de Référence révisés**

##### **Activités**

- (1) Au dernier trimestre 2010, établir un projet d'une liste initiale des spécialités/emplois/fonctions clés de l'aviation clés pour lesquelles les exigences de compétences doivent être harmonisées;
- (2) Au deuxième trimestre 2011, obtenir l'accord des organismes de formation de l'aviation et des États sur spécialités/emplois/fonctions clés de l'aviation clés pour lesquelles les exigences de compétences doivent être harmonisées;
- (3) Au deuxième trimestre 2011, soumettre au Conseil consultatif de la formation (TAB) et l'Association africaine des organismes de formation une proposition sur les exigences harmonisées pour l'approbation des organismes de formation y compris les normes d'assurance qualité ;
- (4) Au deuxième trimestre 2011, présenter au Conseil consultatif de la formation (TAB) et l'Association des organismes de formation africains une proposition sur des critères communs pour la reconnaissance mutuelle des crédits, des certificats, diplômes ou diplômes délivrés par les organismes de formation en Afrique ;
- (5) Au deuxième trimestre de 2011, soumettre au « Conseil consultatif de la formation (TAB) » une proposition sur les exigences harmonisées de compétences pour les spécialités/emplois/fonctions clés de l'aviation clés.

## **D. Conclusion**

Les actions présentées dans ce cadre stratégique commun et le plan d'actions sont conçues pour contribuer à améliorer la disponibilité d'une formation de qualité et de coût abordable, harmonisée et normalisée à travers l'Afrique, ainsi que la promotion d'un système commun Africain d'accréditation de la formation en aviation, reconnu à travers le monde.

Il suggère la poursuite des activités du TEWG en vue d'accélérer la mise en œuvre des recommandations. Dans le domaine des organismes de formation aéronautique, le TEWG devra traiter des problèmes spécifiques à la coopération entre organismes de formation et la rationalisation des ressources de formation. Le TEWG continuera de se concentrer sur le développement du cadre pour l'harmonisation de la formation en aviation en Afrique à travers la coopération entre les États sur les questions de formation en aviation, y compris l'accréditation et la supervision ainsi que l'harmonisation et la normalisation de la formation.

Il est prévu que le TEWG achèvera ses tâches supplémentaires au deuxième trimestre 2011 avec le développement de capacités organisationnelles au sein des États et des organismes de formation par la création de nouvelles instances qui seraient chargées de poursuivre et assurer le suivi de la mise en œuvre des diverses activités liées à l'harmonisation et la normalisation continue de la formation en Afrique.

La 3ème Conférence Pan-africaine de coordination des centres de formation qui a été demandée par la Conférence de se tenir au troisième trimestre 2011 examinera la mise en œuvre du plan d'action et évaluera les progrès accomplis dans le développement / mise en place de l'Association des organismes de formation et les organisations régionales de formation.

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