



**COMPREHENSIVE REGIONAL IMPLEMENTATION PLAN FOR AVIATION
SAFETY IN AFRICA (AFI PLAN)**

FOURTEENTH AFI PLAN STEERING COMMITTEE MEETING

(Montréal, Canada, 24 October 2014)

Agenda Item 1: Progress report on the outcome of AFI States inventory on training needs and courses available.

(Presented by the Secretary)

EXECUTIVE SUMMARY

This paper presents information related to training planning in Africa based on ICAO USOAP results including USOAP-CMA and the following major surveys conducted in the continent:

- AFI Training Database Development, FINAL REPORT, January 2010, prepared for ICAO ACIP
- FAA Africa Team, 5 year Planning Survey Report (April 2014)

Although DP/02 does not contain an exhaustive list of training courses, information collected indicates existence of diverse regulatory training and a challenging situation affecting the outcome.

Action: The Steering Committee is invited to:

- a) note the information contained in the paper; and
- b) provide further instructions for the implementation of a coordinated training programme to assist African States in their capacity building in order to have access to qualified personnel.

1. BACKGROUND

1.1 Training provided currently for Aviation Safety Inspectors (ASI) in Africa is originating from various sources:

- a) Courses developed by some training centres (EAMAC Niger, EASA Kenya, ATNS South Africa);
- b) United States for several African States eligible for assistance under Safe-Skies or use of FAA GSI courses delivered by African or FAA instructors;

- c) Other ICAO Member States such as Singapore;
- d) European courses delivered by private training centres; and
- e) ICAO seminar/workshops or courses delivered under Technical Assistance or Technical Cooperation programme.

1.2 An Aviation Training Database was developed by SITA Consulting on behalf of ACIP in 2010 (document available for the AFI PLAN-SC/14) and demonstrated main following findings that affect qualification of ASIs in Africa:

- a) in the area of aircraft operations, airline training (flight and cabin crew and other airline ground personnel) is the most developed in Africa;
- b) airport operator training has significant gaps across the continent, and airport operator training gap is exacerbated by the large number of personnel that may need to be trained at an airport (variety of target audience and their training needs);
- c) maintenance training is localised in few regions;
- d) demand for aviation training is generally increasing across Africa;
- e) the ability of training organisations to meet increasing demand will mainly depend on existence of valid courses and programmes and upon qualified instructor availability;
- f) there is no cross-border accreditation of training providers ensuring any training organization is appropriately endorsed according to a common standard;
- g) there is no harmonisation of course syllabi; and
- h) there is no harmonisation of course design.

1.3 Recently, the FAA has conducted another survey and identified a list of training requested by the respondents including the priorities. The results of the survey have been used in the next section of this paper on “Identification of Training Needs”.

2. IDENTIFICATION OF TRAINING NEEDS

2.1. Competencies are defined as a combination of knowledge, skills and attitude to accomplish a task. It is related to an expected level of performance, work conditions and environment. The lack of established competencies constitutes one of the challenges for identifying appropriate training and evaluating the outcome of training provided. No training needs analysis has been conducted so far for African States to determine training needs. This constitutes the second challenge for building competencies. **Attachment A** includes examples of learning profiles for ASIs with various specialties.

2.2. The results of the survey conducted by the FAA indicate the following training demand expressed by the respondents.

- a) Request for assistance from the FAA has been identified for the following areas (ranked by priority):

- Aviation Safety/Flight Standards ;
- Air Traffic Management (ATM);
- Communications/ Navigations/Surveillance (CNS);
- Aerodromes and Ground Aids;
- Aviation and Environment;
- Aviation Meteorology;
- Issues Affecting Multiple Disciplines;
- General Management (Finance, Human Resources, Legal, Training, etc.);
- Aviation Medicine;

b) With respect to Aviation Safety and Flight Standards, the survey also provides a list of priority topics and jobs where additional skilled personnel is required:

- Aviation Safety/ Inspectors Training (OPS);
- Safety Inspector On-Job-Training;
- Safety Manager Training;
- Safety Inspector Training Aerodromes
- Safety Inspector Training (AIR);
- Safety Inspector Training (PEL).

3. INVENTORY OF EXISTING COURSES FOR AVIATION SAFETY INSPECTORS

3.1. Courses delivered by African Training Centres recognized by ICAO

a) EASA (Kenya)

- EASA is a TRAINAIR PLUS Full Member and a GSI training centre. They deliver GSI OPS and AIR courses in addition to their own Standardized Training Packages addressing Air Navigation Services Inspections (three completed plus one under development). EASA delivers courses in English and they are well supported by Kenya Civil Aviation Authority for the provision of qualified instructors.

b) EAMAC (Niger)

- EAMAC is a TRAINAIR PLUS Full Member. They deliver comprehensive programmes addressing all Air Navigation and Aerodrome fields in addition to some educational courses for Civil Aviation Authorities and an Aerodrome Certification course in French. EAMAC is well supported by ASECNA and work in close collaboration with ENAC Toulouse. However, EAMAC needs support from African States for the provision of qualified instructors for regulatory courses.

c) ERNAM (Senegal)

- ERNAM is a TRAINAIR PLUS Associate Member and a GSI training centre. They deliver GSI OPS and AIR courses in English and French. ERNAM is well supported by ASECNA but needs support from African States for the provision of qualified instructors for regulatory courses including GSI.

d) ATNS (South Africa)

- ATNS is a TRAINAIR PLUS Associate Member and a GSI training centre. They deliver GSI OPS and AIR courses and could deliver EASA ANS STPs if they have qualified instructors. ATNS needs support to have access to qualified instructors.

3.2. Courses delivered by the FAA

- a) The FAA supports aviation training in Africa through the Safe Skies Programme with the following 2 streams:
- GSI in collaboration with ICAO and three ICAO recognized GSI training centres (EAMAC, EASA and ATNS);
 - Other courses delivered directly by the FAA but not coordinated with ICAO (GAT Office).

3.3. Courses delivered by ENAC

- a) ENAC supports the development of France DGCA and provides a variety of training courses and programmes which could be used for capacity building.
- b) ENAC delivered a training programme in EAMAC (several educational courses in aviation) for Civil Aviation Authorities from ASECNA member States. These courses are still available and could be used as part of an educational programme in combination with courses developed by Morocco

3.4. Courses delivered by Morocco

- a) Morocco has a standard Inspector Development and Qualification Programme addressing general and technical training.

3.5. Courses delivered by the European Aviation Safety Agency

- a) EASA (Europe) doesn't have specific Aviation Safety Inspectors training programme but uses other parties to provide training.

3.6. Courses delivered by ICAO

- a) In addition to Seminars/Workshops which are more educational and informative, ICAO delivers 3 types of training in Africa:
- USOAP-CBT
 - Other Technical Courses (Ex: ECCAIRS)
 - TRAINAIR PLUS Courses (Course Developers, Instructors, other STPs).

4. CHALLENGES FACING CAPACITY BUILDING IN AFRICA

4.1. African States receive training from various sources but the challenges facing capacity building in Africa is not only due to the lack of training. There are several training centres established on the continent with appropriate facilities to deliver training but they need to have access to valid course materials and instructors. The list of African TRAINAIR PLUS Members is in **Attachment B**.

- 4.2. Challenges facing capacity building in Africa can be summarised as follow:
- a) Training and competency requirements not identified by Civil Aviation Authorities and the aviation industry;
 - b) Training is provided on ad-hoc basis rather than planned;
 - c) On several occasions trainees have been identified as not meeting the entry level;
 - d) Training sources not consistent;
 - e) Training provided not consistent with staff responsibilities; and
 - f) Oversight over training organizations and programmes in Africa and abroad not adequate.

5. THE WAY FORAWRD

5.1. The situation of building capacity in aviation in Africa and more specifically for Civil Aviation Authorities requires a coordinated roadmap including the following:

- a) An established Master Plan with a clear and monitored schedule of implementation;
- b) Identified training and competency requirements for Civil Aviation Authorities and aviation industry staff and management positions;
- c) Identified consistent training programmes (combination of courses) to be completed by aviation personnel including ASIs as well as a list of high quality, valid and credible training courses consistent with these training programmes;
- d) A Train-The-Trainer programme addressing all existing and potential courses in addition to a roster of qualified instructors;
- e) Commitment from all stakeholders to ensure that only trainees meeting entry level requirements will be enrolled;
- f) A comprehensive and shared evaluation of training outcomes identifying who has been trained on what and what was the result for the individual, the organization (employer) and relevant ICAO programme; and
- g) Enhanced role of CAAs for oversight on training organizations and programmes in Africa and abroad.

5.2. The following should also be considered in the mid-term for the sustainability of the capacity building programme:

- a) Implementation of a Human Resource Development methodology by all African States for the recruitment and training of aviation personnel;
- b) Identification of learning profiles for ASIs in various specialties;
- c) Establishment of a mid/long term Train-The-Trainer planning
- d) Improve attraction and retention measures for all key staff including ASIs, managers and instructors;
- e) Establish an African Instructor Accreditation programme to facilitate exchange of instructors between training centres and States; and
- f) Encourage the use of TRAINAIR PLUS STPs and other courses to be developed by ICAO Regional Training Centres of Excellence in order to reduce the cost of production.

-END-



DP 02 Attachment A: Examples of learning profiles for Aviation Safety Inspectors and some available courses and Seminars/Workshops (SW)

Notes:

- Fr. : Course available in French
- En. : Course available in English
- N : Not available
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| Area | Common General Courses and SW | Common Technical Courses | Technical Specific Courses |
|----------------------------|--|---|--|
| Personnel Licensing | <ul style="list-style-type: none"> • State Aviation Legislation (N) • Civil Aviation regulations (N) • International Civil Aviation Organizations (N) • Safety Oversight functions (En.+Fr.) | <ul style="list-style-type: none"> • Auditing Techniques (En./Fr.) • Conducting Inspections (En./Fr.) • Team work (En.) • Communications (En.) • Enforcement (N) • Writing Inspection Reports (N) | <ul style="list-style-type: none"> • Administrating a Personnel Licensing System (N) • Conducting Training Organization Approvals (En.) • Approval of Training Programmes (N) • Etc. |
| Aircraft Operations | | | <ul style="list-style-type: none"> • Conducting AOC holder certification (En./Fr.) • Conducting approval of AOC Manuals (En./Fr.) • Etc. |
| Dangerous Goods | | | <ul style="list-style-type: none"> • Conducting AOC holder certification (N) • Conducting approval of AOC Dangerous Goods Manual (N) • Conducting DG inspections (N) • Etc. |

| Area | Common General Courses and SW | Common Technical Courses | Technical Specific Courses |
|---------------|-------------------------------|--------------------------|--|
| Cabin Safety | | | <ul style="list-style-type: none"> • Conducting AOC holder certification (En.) • Conducting approval of AOC Manuals (N) • Approval of Cabin Crew Training (N) • Etc. |
| Airworthiness | | | <ul style="list-style-type: none"> • Conducting AOC holder certification (En./Fr.) • Conducting approval of AOC Manuals (En./Fr.) • Etc. |
| Aerodrome | | | <ul style="list-style-type: none"> • Conducting an Aerodrome certification • Conduction Aerodrome audits and inspections • Etc. |

Other ASI profiles and training areas where training needs to be identified:

1. Aircraft Certification
2. Air Navigation Services
3. Safety Management
4. Accidents and Incident Investigation
5. Accident and Incident Reporting



DP 02 Attachment B: African TRAINAIR PLUS Members

| Regional Office | State | Training Organization | TRAINAIR PLUS Membership |
|-------------------|---------------------|--|--------------------------|
| ESAF (6) | ETHIOPIA | Ethiopia Civil Aviation Authority Training Centre (ECAATC), Addis Ababa | Associate Member |
| | ETHIOPIA | Ethiopian Aviation Academy (EAA), Addis Ababa Website: www.ethiopianairlines.com | Associate Member |
| | KENYA | East Africa School for Aviation (EASA), Nairobi Website: www.easa.ac.ke/ | Full Member |
| | SOUTH AFRICA | Air Traffic and Navigation Services Limited-Aviation Training Academy (ATNS), Gauteng Website: www.atns.co.za/ | Associate Member |
| | SOUTH AFRICA | 43 Air School Air Traffic Control College, Port Alfred Website: www.43airschool.com/atc-training | Associate Member |
| | TANZANIA | Civil Aviation Training Centre (CATC) of Tanzania, Dar Es Salaam Website: www.tcaa.go.tz/ | Associate Member |
| WACAF (4) | CAMEROUN | École Régionale de Sécurité Incendie (ERSI), Douala, Website: www.ersi-asecna.com | Associate |
| | NIGER | École Africaine de la Météorologie et de l'Aviation Civile (EAMAC), Niamey Website: www.eamac.ne | Full Member |
| | NIGERIA | Member since: 10-September-2012 Nigerian College of Aviation Technology (NCAT), Zaria Website: www.ncat.gov.ng | |
| | SENEGAL | École Régionale de la Navigation Aérienne et du Management (ERNAM), Dakar Website: http://www.asecna.aero/ | Associate Member |
| EURNAT (1) | MOROCCO | L'Académie Internationale Mohamed VI de l'Aviation Civile (AIAC) Location: Casablanca, Morocco Website: www.aviation.ma | Associate Member |
| MID (2) | EGYPT | Egyptair Training Center, Cairo Website: http://training.egyptair.com | Associate Member |
| | SUDAN | Sudan Academy for Aviation Sciences and Technology (SUDAFAST), Khartoum | Full Member |