



# **Aviation Professionals Study**

## **Part 3**

### **Review of the Present Capacity of Aviation Approved Training Centers to Meet the Forecast Capacity Building Demand**



**TABLE OF CONTENTS**

<b>Abbreviations</b>	<b>ii</b>
<b>1. Background</b>	<b>1</b>
<b>2. Capacity of AFI ATOs to Conduct Recommended Courses</b>	<b>1</b>
<b>Appendix A. Training Organizations in Africa</b>	<b>A-1</b>
<b>Appendix B. STPs, ITPs and Other Standardized Courses</b>	<b>B-1</b>

**ABBREVIATIONS**

<b>AAFSA</b>	Aviation Academy for Southern Africa
<b>AATO</b>	Association of African Training Organizations
<b>ACI</b>	Airports Council International
<b>AFI</b>	Africa-Indian Ocean
<b>AFSAC</b>	Académie Tuniso-Française de Formation en Sécurité et Sûreté de l'Aviation Civile
<b>AIAC</b>	Académie Internationale Mohamed VI de l'Aviation Civile
<b>AIS</b>	Aeronautical information services
<b>ANAC</b>	Autorité Nationale de l'Aviation Civile
<b>ANS</b>	Air navigation services
<b>APSAR</b>	Aviation Professionals Study for the Africa-Indian Ocean (AFI) Region
<b>ATA</b>	Aviation Training Academy
<b>ATED</b>	Aviation Training and Education Directory
<b>ATM</b>	Air traffic management
<b>ATNS</b>	Air Traffic and Navigation Services
<b>ATO</b>	Approved training organization
<b>BAGASOO</b>	Banjul Accord Group Aviation Safety Oversight Organisation
<b>CAA</b>	Civil aviation authority or an appropriate State aviation regulatory body
<b>CASSOA</b>	Civil Aviation Safety and Security Oversight Agency
<b>CATC</b>	Civil Aviation Training Center
<b>CBT</b>	Computer-based training
<b>CNS</b>	Communications, navigation and surveillance
<b>DGM SA</b>	Dangerous Goods Management South Africa
<b>EAA</b>	Ethiopian Aviation Academy
<b>EAMAC</b>	École Africaine de la Météorologie et de l'Aviation Civile
<b>EASA</b>	East African School of Aviation
<b>ECATC</b>	Ethiopian Civil Aviation Training Center
<b>EFO-CCAA</b>	École de Formation of the Cameroon Civil Aviation Authority
<b>EI</b>	Effective implementation
<b>ENA</b>	Escola Nacional de Aeronáutica
<b>ERNAM</b>	École Régionale de la Navigation Aérienne et de Management
<b>ERSI</b>	École Régionale de Sécurité Incendie
<b>ESAF</b>	Eastern and Southern Africa
<b>ESAT</b>	École Supérieure de l'Aéronautique et des Technologies
<b>FAA</b>	Federal Aviation Administration
<b>FAAN</b>	Federal Airports Authority of Nigeria
<b>GAT</b>	Global Aviation Training Office
<b>GCAA</b>	Ghana Civil Aviation Authority
<b>IATA</b>	International Air Transport Association
<b>LCCTC</b>	Loumed Cabin Crew Training Center
<b>MET</b>	Aeronautical meteorology
<b>NCAT</b>	Nigerian College of Aviation Technology
<b>RSOO</b>	Regional safety oversight organisation
<b>SMS</b>	Safety management system
<b>STP</b>	Standardized training package
<b>SUDAFast</b>	Sudan Academy for Aviation Sciences and Technology
<b>TPP</b>	TRAINAIR PLUS Programme
<b>United ATS</b>	United for Aviation Technology Services
<b>WACAF</b>	Western and Central Africa
<b>WBT</b>	Web-based training
<b>ZASTI</b>	Zambia Air Services Training Institute

## 1. BACKGROUND

1.1 In 2019, the Association of African Aviation Training Organizations (AATO) developed the “African Aviation Training Roadmap” for ICAO. AATO was given the task, in collaboration with ICAO’s Global Aviation Training Office (GAT) to research and design an aviation training roadmap for the African continent.

1.2 The Roadmap was developed with a view to provide guidance on the development of training aviation personnel in Africa to meet future demands for the industry and in congruent with the ICAO strategic objectives, global and regional plans. It was intended to assist stakeholders develop and implement plans to ensure improved human resource requirements whilst providing harmonized and standardized quality training in Africa and to address performance issues identified through gap analysis.

1.3 The performance enablers that the Roadmap addressed were the standard of training, curriculum design, accreditation of qualifications, collaboration, sharing of data and global and regional plans.

1.4 The deliverables of the African Aviation Training Roadmap include the Roadmap itself, a list of accredited approved training organisations (ATOs), a list of available courses, a list of Instructors and their qualification, the actual training needs, facilities and infrastructure. The Roadmap also describes the intended audience and the stakeholders who will be the consumers of the information. Risks in implementing the Roadmap were highlighted according to the PESTEL<sup>1</sup> model and local relevancy.

1.5 An action plan with short, medium and long term goals are included in the Roadmap. In the short term, the Roadmap focuses on improving capacity and assisting States at the lowest compliance levels to achieve levels of effective implementation (EI) of 60 per cent and improving the EI to 90 per cent for States with an EI already above 60 per cent. In the medium term, the focus was to ensure adequate qualified personnel to replace the ageing staff, develop capacities for new technologies, harmonise and standardise training and designating centers of excellence in aviation training.

1.6 A training needs survey was recommended to be undertaken to inform future training requirements and ensure continuous data improvement and sharing across the continent.

1.7 This project, unlike the “Roadmap Study”, has been limited to the training of civil aviation safety inspectors. In Part 2 of this report, courses are recommended for immediate attention (cf. Table 2 of paragraph 3.1.2). Within this scope and relying on the data already gathered in the Roadmap study, this part of the current project reviews the capacity of ATOs in the Africa-Indian Ocean (AFI) region.

## 2. CAPACITY OF AFI ATOS TO CONDUCT RECOMMENDED COURSES

2.1 Appendix A and B of the Roadmap, reproduced below, contain the list of ATOs in the AFI region and a list of Standardized Training Packages (STPs) taught, respectively.

2.2 In section 3.1.2 of Part 2 of this report, we summarized 21 formal courses recommended for the short- to medium-term implementation as shown in the table below.

---

<sup>1</sup> Political, Economic, Social, Technological, Environmental and Legal

Title	Title
New Hire Employment Orientation/Indoctrination (CAA-specific)	Human Factors Principles
Introduction to Authorizing Documents	Safety Management (EN): Online
Introduction to Investigations	State Safety Programme
GSI OPS	ANS ATM Inspector
GSI AIR	ANS AIS Inspector
GSI PEL	ANS MET Inspector
CAA Approval of Training Organizations	ANS CNS Inspector
Surveillance of Service Providers	Aerodrome Certification
Auditing Techniques	Incident Investigation Techniques
Resolution of Safety Concerns	Integrated Safety Management Systems.
Various – Aircraft Accident Investigation	

Table 1: Recommended training courses for short- to medium-term implementation

2.3 New Hire Employment Orientation/Indoctrination is specific to each civil aviation authority (CAA). Therefore, the human resources departments should be encouraged to develop this training for its inspectors. Alternatively, regional safety oversight organizations (RSOOs), such as the Banjul Accord Group Aviation Safety Oversight Organisation (BAGASOO) or the Civil Aviation Safety and Security Oversight Agency (CASSOA) of the East African Community, may develop a generic version of this course to meet the needs of its members, especially where common or harmonized regulations are used by members.

2.4 As stated in Part 2 of this report, access to the Federal Aviation Administration (FAA) web-based training (WBT)/computer-based training (CBT) courses *Introduction to Authorizing Documents* and *Introduction to Investigations* may be negotiated with the FAA.

2.5 ICAO has confirmed that all ICAO-approved ATOs have the required facilities and are approved to host the GSI-AIR, GSI-OPS and GSI-PEL courses. However, as already stated in Part 2, section 2.4, GSI instructors are mainly from a pool of ICAO-certified instructors. As is peculiar with GSI, most of the instructors are CAA personnel and not necessarily staff of the ATOs. A summary of the current pool of certified GSI instructors is listed and discussed in Part 2 of this report.

2.6 The East African School of Aviation (EASA) has confirmed that the four recommended ANS inspector courses are taught at the academy, i.e. Air Navigation Services CNS Inspector, Air Navigation Services ATM Inspector, Air Navigation Services AIS Inspector and Air Navigation Services MET Inspector (see also Appendix B).

2.7 As stated above, for ICAO GSI courses the same principle applies to the ICAO course *CAA Approval of Training Organizations*. All ICAO-approved ATOs have the required facilities and are approved to host this course.

2.8 The status of the FAA Courses 15212001, *Surveillance of Service Providers* and 15209001, *Resolution of Safety Concerns* is not entirely clear. Currently, these courses are only taught by FAA instructors. There were reports that these courses were being converted to ICAO GSI courses. However, attempts to get a status report from the FAA failed. In the past, attendance to these courses was either at the

FAA Academy or as in-house courses taught by FAA instructors. Any ICAO-approved ATO may be used to host these courses.

2.9 BAGASOO, as an RSOO, has developed a generic version of the RSC and a course in the certification of air navigation ANSPs. These courses need to be validated by ICAO.

2.10 Safety management systems (SMS), auditing techniques and human factors principles are taught by various agencies, including ICAO and the International Air Transport Association (IATA) among others. These courses are available at:

- a) ICAO TRAINAIR PLUS Members, and
- b) IATA, through its Training Network ([www.iata.org/training-network](http://www.iata.org/training-network)) or as in-house training (on-demand) ([www.iata.org/training-inhouse](http://www.iata.org/training-inhouse)).

2.11 The Aviation Professionals Study for the AFI Region (APSAR) aims at developing a comprehensive database application designed to address the challenges of inadequate aviation professionals in the African region. The purpose of the application is to support the development of a sustainable pool of qualified aviation personnel capable of effectively carrying out regulatory and oversight responsibilities aligned with ICAO's Strategic Objectives.

2.12 The application should be developed in collaboration with AATO as part of this project to continuously record and maintain the capability of the AFI region's ATOs in conducting the above-mentioned recommended courses and others. AATO has been limited in the past in developing such a database due to funding challenges.

2.13 In conclusion, as stated in Part 2 of this report, more instructors fluent in French should be certified to teach the GSI courses, possibly pairing with more experienced English-speaking instructors for courses where participants will be predominantly French-speaking. Experts from the AFI region are invited to apply in ICAO to have in the roster of ICAO GSI instructors at least one more AIR instructor in the Eastern and Southern African (ESAF) region, as well as two PEL and two OPS instructors, one each from the ESAF and Western and Central African (WACAF) region, respectively.

2.14 As a general recommended strategy, AFI ATOs should be empowered through AATO for capacity building with a framework of the AFI region.

**APPENDIX A. TRAINING ORGANIZATIONS IN AFRICA**

State	Location	Training Center	TPP Member	Website	Contact
Algeria	Algiers	Établissement National de la Navigation Aérienne (CQRENA)	×	www.enna.dz	cqrena@enna-dz.com cqrena@enna.dz
Angola	Luanda	ENNA-EP/Centro Aeronáutico de Instrução	×	www.enna.co.ao	
Botswana	Gaborone	IAS Aviation Academy		www.flyias.net	
Cameroon	Douala	ERSI	×	new.ersi-asecna.com	contact.ersi@asecna.org
	Yaounde	EFO-CCAA <sup>2</sup>	×	www.ccaa.aero	
Côte d'Ivoire	Abidjan	ANAC <sup>3</sup>	×	www.anac.ci	sombo@anac.ci
Egypt	Cairo	Global Aviation Consultancy Service		www.globalaviation-cs.com	
		Egyptair Training Academy	×	training.egyptair.com	trainingcenter@egyptair.com
	Giza	Egyptian Aviation Academy (EAA)	×	www.eaaegypt.com	
	Obour City	United ATS <sup>4</sup>	×	www.unitedats.com	
Eritrea	Asmara	Eritrean School of Aviation (ESA)	×		bereketberhanegm@gmail.com
Ethiopia	Addis Ababa	EAA <sup>5</sup>	×	www.ethiopianairlines.com	
		ECATC <sup>6</sup>	×	www.flyethiopian.com	
Ghana	Accra	Crystal Galaxy College		crystalgalaxycollege.com	
		GCAA <sup>7</sup> Training Academy	×	www.gcaa.com.gh/gata	

<sup>2</sup> École de Formation of the Cameroon Civil Aviation Authority

<sup>3</sup> Autorité Nationale de l'Aviation Civile

<sup>4</sup> United for Aviation Technology Services (United ATS)

<sup>5</sup> Ethiopian Aviation Academy

<sup>6</sup> Ethiopian Civil Aviation Training Center

<sup>7</sup> Ghana Civil Aviation Authority



State	Location	Training Center	TPP Member	Website	Contact
	Tema	Mish Aviation		www.mishaviation.com	info@mishaviation.com femi@mishaviation.com
	Takoradi	Institute of Aviation and Professional Studies		iapcollege.com	
		Prominence Aviation College		prominencecollege.com	
Kenya	Eldoret	Eldoret Aviation Training Institute		www.eldoretaviatraintraining.com www.eati.ac.ke	
	Nairobi	Aerolink Training Center			
		EASA	×	www.easa.ac.ke	
		Kenya Airways Pride Center		www.kqpridecenter.com	
		Moi University School of Aerospace		aerospace.mu.ac.ke	
	Wilson Airport	Aerosafe African Consultants		www.aerosafrica.com	
		Capital Connect Aviation Supplies		capitalconnectaviation.com	
		Flight Training Center		flighttrainingcenter.co.ke	
		Kenya School of Flying		www.kenyaschoolofflying.com	+254 206 007892, +254 206 008282
		Nairobi Flight Training		www.nairobiflighttraining.com	
		Ninety Nines Flying School		www.99flying.com	
		Pegasus Flyers (EA) Limited		www.pegasusflyersea.com	
		Proactive Training Services		www.proactiveairservices.com	
		Standards Aviation			+254 706 091811
		Sicham Aviation Limited			+254 206 003337
		Skylink Flight Services		skylinkflights.com	
		Skypath Aviation College			skypath@amrefke.org +254 20 2301958

State	Location	Training Center	TPP Member	Website	Contact
		Think Aviation Training		www.think.co.ke	
		Valentine Air Services		www.valentineairservices.com	
		West Rift Aviation Limited		westriftaviation.co.ke	
Libya		Alberta Libya for Technical Services & Consultancy		www.istcenter.com	
Mauritius	Plaine Magnien	Airports of Mauritius Co Ltd. Aviation Training Center	×	www.airportsofmauritius.aero	training@aml.aero
Morocco	Agadir	LCCTC <sup>8</sup>	×	www.lcctc.ma	loumedpncenter@gmail.com
	Casablanca	AIAC <sup>9</sup>	×	www.aiac.ma	
	Rabat	Groupe CFPNC/IATC Academy		www.groupecfpnc.com	secretariat@iatc.ma cfpnc@menara.ma
Mozambique	Maputo	Academia de Aviação de Moçambique ENA <sup>10</sup>	×	www.iacm.gov.mz	+258 823132330
Niger	Niamey	EAMAC <sup>11</sup>	×	www.eamac.ne	
Nigeria	Abuja	Aerokeys Training School Delfrilision Aviation School		www.aerokeys.com.ng	
	Asaba	Caverton Training Organization		caverton-offshore.com	
	Enugu	Afrowings Academy		www.afrowingsaviation.com	
	Ikeja	FAAN <sup>12</sup>	×	faan.gov.ng	
	Ilorin	International Aviation College		www.iac-ng.com	

<sup>8</sup> Loumed Cabin Crew Training Center

<sup>9</sup> Académie Internationale Mohamed VI de l'Aviation Civile

<sup>10</sup> Escola Nacional de Aeronáutica

<sup>11</sup> École Africaine de la Météorologie et de l'Aviation Civile

<sup>12</sup> Federal Airports Authority of Nigeria

State	Location	Training Center	TPP Member	Website	Contact
	Kaduna	AFIT AMEL School		www.afit.edu.ng	
		Dornier Aviation Training School		www.dananig.aero	
	Lagos	Aeroconsult		www.aeroconsultonline.com/training	
		Aero Training School			
		Falcon Aviation		falconaviationtraining.com	
		International Helicopter School of Flying			
		Javi Aviation		javiaviation.com	
		Landover Business School		landover.aero	
		Private Flyers International		Personal Website	
		Universal School of Aviation		www.universalschoolofaviation.com.ng	
	Zaria	NCAT <sup>13</sup>	×	ncat.gov.ng	
Senegal	Dakar	ERNAM <sup>14</sup>	×	ernam.org	
Sudan	Khartoum	SUDAFAST <sup>15</sup>		sudafast.edu.sd	
South Africa	Bonaero Park	Comair Ltd			dy.moonsammy@comair.co.za
	Gauteng	Avscan Training		www.avscan.org	
		ETS Emergency Training Solutions		www.etsafrica.co.za	woboys@etsafrica.co.za
	Johannesburg	International House Johannesburg		www.ihjohannesburg.co.za	
		ATNS <sup>16</sup> ATA <sup>17</sup>	×	www.atns.co.za	

<sup>13</sup> Nigerian College of Aviation Technology

<sup>14</sup> École Régionale de la Navigation Aérienne et de Management

<sup>15</sup> Sudan Academy for Aviation Sciences and Technology

<sup>16</sup> Air Traffic and Navigation Services

<sup>17</sup> Aviation Training Academy

State	Location	Training Center	TPP Member	Website	Contact
	Kempton Park Johannesburg	AAFSA <sup>18</sup>		www.aafsa.co.za	iasa@mweb.co.za training.aafsa@aafsa.co.za
		DGM SA <sup>19</sup>		www.dgmsa.com	
Tunisia	Gammarth	Aviation Training Center of Tunisia		www.atct.com.tn	tarek.benaissi@atct.com.tn
	Sousse	CFOR		www.cfor.com.tn	
	Tunis	AFSAC <sup>20</sup>	×	www.afsactunisie.com	training@afsactunisie.com
		Safe Flight Academy		www.sfa.tn	contact.pilot@sfa.tn
		Airline Flight Academy		www.afa.com.tn	afa@unat.ens.tn airlineflightacademy@yahoo.fr
		ESAT <sup>21</sup>		www.esat.ens.tn	
Uganda	Madera	East African Civil Aviation Academy		www.flysoroti.ac.ug	
United Republic of Tanzania	Dar es Salaam	CATC <sup>22</sup>	×	www.catc.ac.tz	
		Regional Aviation College			+255 222842186, 0754754632 regionaltz@habari.co.tz
		Tanzania Aviation University College			tauc2009@yahoo.co.uk
Zambia	Lusaka	ZASTI <sup>23</sup>		www.zasti.ac.zm	

<sup>18</sup> Aviation Academy for Southern Africa

<sup>19</sup> Dangerous Goods Management South Africa

<sup>20</sup> Académie Tuniso-Française de Formation en Sécurité et Sûreté de l'Aviation Civile

<sup>21</sup> École Supérieure de l'Aéronautique et des Technologies

<sup>22</sup> Civil Aviation Training Center

<sup>23</sup> Zambia Air Services Training Institute

**APPENDIX B. STPS, ITPS AND OTHER STANDARDIZED COURSES**

This list of STPs and M-ITPs corresponds to June 2023. As the development of new training within the ICAO TRAINAIR PLUS Programme (TPP) network is very dynamic, interested parties are invited to visit the ICAO Aviation Training and Education Directory (ATED) for updated information (<https://igat.icao.int/ated/TrainingCatalogue>).

**B.1 STPs**

State	Training Center	Website	Title	Language
Cameroun	ERSI	<a href="http://www.ersi-asecna.com">www.ersi-asecna.com</a>	Lutte contre les feux mineurs d’avion Feux Généralisés d’avion	
Ethiopia	EAA	<a href="http://ethiopianairlines.com/ea">ethiopianairlines.com/ea</a>	ICAO English Language Proficiency Interlocutor/Rater Initial Training: Virtual Classroom ICAO English Language Proficiency Interlocutor/Rater Initial Training ICAO English Language Proficiency Interlocutor/Rater Recurrent Training Weight and Balance for Wide Body Aircraft (B767, B777, B787 and A350) Radiotelephony Communications for Pilots Aircraft Systems Troubleshooting Aviation English for Aircraft Maintenance Technicians Aircraft Emergency Landing and Evacuation Procedures Training for Cabin Crew	
	ECATC	<a href="http://www.flyethiopian.com">www.flyethiopian.com</a>	Elementary Fire Fighting	English
Egypt	Egyptair Training Academy	<a href="http://training.egyptair.com">training.egyptair.com</a>	Aircraft Loading for Load Master A320NEO CFM LEAP 1A Engine Run-up	
	United ATS	<a href="http://www.unitedats.com">www.unitedats.com</a>	Aerodrome Pre-Flight Bulletin Issuance Aerodrome Obstacles Evaluation	

State	Training Center	Website	Title	Language
			Transition from AIS to AIM Initial PANS OPS 1	
Kenya	EASA	www.easa.ac.ke	Air Navigation Services CNS Inspector (virtual and classroom)	English
			Air Navigation Services ATM Inspector (virtual and classroom)	English
			Performance Based Safety Oversight Management	English
			Air Navigation Services MET Inspector	English
			Air Traffic Safety Electronic Personnel (ATSEP) Competency Assessor	English
			CAA Approval of Training Organizations: Virtual Classroom	English
			CAA Approval of Training Organizations	English
			Air Navigation Services AIS Inspector	English
Morocco	AIAC	www.aiac.ma	Human Factors Frontline ATM Operators	English, French
			Conception et mise à jour d'un Manuel de Formation et de Procédures (MFP) pour un organisme de formation agréé	
Niger	EAMAC	www.eamac.ne	Spécialiste en installation et maintenance du balisage lumineux d'aérodrome MCR 5000 – v2	French
			Spécialiste en Maintenance des Stations VSAT Aéronautiques	French
			Supervision de la gestion de l'information aéronautique (AIM)	French
Nigeria	NCAT	ncat.gov.ng	Airport Emergency Procedures	English
			Air Traffic Safety Electronics Personnel (ATSEP) – Basic	English
			ATSEP Communication Equipment Maintenance	English
			ATSEP Surveillance Maintenance	English
			ATSEP Airport Power Systems and Facilities Maintenance	English
			ATSEP Navigation Aids Equipment Maintenance	English

State	Training Center	Website	Title	Language
			ATSEP – Data Processing & Automation	English
			ATSEP – Systems Monitoring & Control	English
			ATSEP Pre On-The-Job Training	English
Senegal	ERNAM	ernam.org	Gestion du Trafic Aérien sur un Aérodrome AFIS	
South Africa	ATNS ATA	www.atns.co.za	Performance-based Navigation (PBN) for Air Traffic Services Officers (ATSOs)	English
			Quality Management System (QMS) Internal Auditors Course	
			ATM/CNS Computer Networking	
United Republic of Tanzania	Tanzania Civil Aviation Training Centre	www.catc.ac.tz	Conveyors (Belt and Carousel) Maintenance Course	
			Approach Control Procedural Refresher	
Tunisia	AFSAC	www.afsac-tunisie.com	Gestion Efficace du Processus Lettres OACI aux États	French

## B.2 STPs Under Development

State	Training Center	Website	Title	Language
Cameroon	ERSI	www.ersi-asecna.com	Lutte Contre les Feux Mineurs d’Avion	French
Ethiopia	EAA	ethiopianairlines.com/ea	Aviation English for Aircraft Maintenance Technicians & Engineers	English
Kenya	EASA	www.easa.ac.ke	Air Navigation Services MET Inspector	English
			Air Navigation Services AIS Inspector	English
Niger	EAMAC	www.eamac.ne	Spécialiste en installation et maintenance du balisage lumineux d’aérodrome MCR 5000 – v2	French
			Gestion d’un Espace Aérien RVSM	French
			Mesure des Paramètres Météorologiques en Altitude	French
South Africa	ATNS ATA	www.atns.co.za	Internal Auditors Course	English

---

Performance-based Navigation (PBN) for Air Traffic Services English  
Officers (ATSOs)

---