



# ICAO

International Civil Aviation Organization  
North American, Central American and Caribbean Office

**WORKING PAPER**

NACC/WG/4 — WP/19  
21/01/14

**Fourth North American, Central American and Caribbean Working Group Meeting  
(NACC/WG/4)**

Ottawa, Canada, 24 to 28 March 2014

- Agenda Item 4      Regional Cooperation and training matters to support implementation**  
**4.2      Review of air navigation implementation and performance-based  
          monitoring human factor and training matters**  
**4.2.1    CAR Region Aviation Training Plan**

**CAR REGION CIVIL AVIATION TRAINING; ICAO NEXT GENERATION OF AVIATION  
PROFESSIONALS (NGAP) AND TRAINAIR PLUS**

(Presented by the Secretariat)

| <b>EXECUTIVE SUMMARY</b>  |   |
|---|---|
| <p>This working paper presents follow-up on the training activities of the ICAO Next Generation of Aviation Professionals (NGAP) initiative, ICAO Civil Aviation Training Policy, and TRAINAIR <i>Plus</i> Programme as elements in the development of national aviation training plans and regional activities to guide CAR States with development of their aviation training programmes.</p> |   |
| <b>Action:</b>  | Action is presented in Section 6.   |
| <i>Strategic Objectives:</i>  | <ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li><li>• Security &amp; Facilitation</li><li>• Economic Development of Air Transport</li><li>• Environmental Protection</li></ul>  |
| <i>References:</i>  | <ul style="list-style-type: none"><li>• EB 2012/59, Schedule of the Next Generation of Aviation Professionals (NGAP) and TRAINAIR <i>Plus</i> Programme (TRAINAIR Plus) Regional Symposia, 10 December 2012</li><li>• Fifth Regional Symposium on the Next Generation of Aviation Professionals (NGAP) and TRAINAIR <i>Plus</i> – The Americas, Montego Bay, Jamaica, 5 to 7 February 2013</li><li>• EB 2013/54, ICAO Civil Aviation Training Policy, 15 October 2013</li></ul> |

## **1. Introduction**

1.1 Based on results from ICAO USOAP audits, many findings are related to insufficient qualified personnel with experience and adequate training and inadequate certification/license systems of authorities that regulate and monitor the performance of service providers, making evident the need and priority for States to focus efforts on these deficiencies.

## **2. ICAO Civil Aviation Training Policy**

2.1 ICAO's role in training is to support the human resources development strategies established by Member States and the aviation community. In 2010, an ICAO Civil Aviation Training Policy was developed and disseminated to States (EB 2010/40 refers) outlining the processes for the implementation of a comprehensive training framework. ICAO aviation training activities have evolved over time and now include many different elements from endorsement of training centres and/or courses and direct delivery of training, to joint agreements with Member States, organizations, training and educational institutions. The development of technology in recent years has also led to a wider range of training, thereby increasing the possibilities of capacity building. As a result, the ICAO Civil Aviation Training Policy has been updated (**Appendix A**) and came into effect on 1 January 2014.

2.2 A central ICAO aviation training unit will be responsible for the planning, management and coordination of all ICAO aviation training activities ensuring the efficient, effective and harmonized implementation of the Policy and response to training needs of Member States, international and regional organizations, industry and other partners.

## **3. ICAO TRAINAIR *Plus* Programme**

3.1 ICAO informed through its Electronic Bulletin, EB 2010/45, dated 6 October 2010, on a thorough review of the TRAINAIR Programme in which the new upgraded programme was released, which is called TRAINAIR *Plus*.

3.2 The new TRAINAIR *Plus* Programme includes a significantly revised course development methodology, a new approach to the guidance material sharing network, and a self-sustaining budgetary mechanism. The changes to the programme are in line with the ICAO training policy and NGAP initiatives (EB 2010/40).

3.3 The following Training Centres: CAA (Cuba), ASCA (Dominican Republic), CAATI (Jamaica), CIASA (Mexico), FAA Academy (United States) and ICCAE (COCESNA) have already obtained membership certification as TRAINAIR *Plus* full members. CAA-CATC (Trinidad and Tobago) has obtained membership certification as TRAINAIR *Plus* Associate Member.

## **4. Civil Aviation Training Centres (CATCs)**

4.1 The Civil Aviation Training Centres are an essential part of the ICAO training structure. Considering the training needs in the CAR Region and the update of the Regional Training Plan, the ICAO NACC Regional Office has compiled a list of training courses offered by the CAR Region CATCs, which is presented in **Appendix B**.

## 5. Next Generation Aviation Professionals (NGAP)

5.1 Due to these circumstances, ICAO launched the Next Generation of Aviation Professional (NGAP) initiative, which seeks to ensure that there will be sufficient competent and qualified aviation professionals to operate, manage, and maintain the future international air transport system.

5.2 The promotion of the NGAP initiative at a regional level was carried out through four regional conferences in 2011, which were held in the Republic of Korea, Morocco, Rumania, and Ecuador. The TRAINAIR *Plus* Global Symposium was carried out in Singapore in 2012; the meeting's documentation is available on the following website: <http://www.icao.int/safety/TrainairPlus/Pages/TRAINAIR-PLUS-Global-Symposium-2012.aspx>.

5.3 In 2013, with the assistance of member States, ICAO convened regional symposia, which were hosted by civil aviation administrations as well as TRAINAIR *Plus* members. The symposium corresponding to the CAR Region was held in Montego Bay, Jamaica, from 5 to 7 February 2013. A final event on TRAINAIR was held in South Africa from 10 to 12 December 2013.

5.4 The objectives of these regional symposia are to:

- a) offer an international forum to exchange best practices and acquired experiences in aeronautical training and to inform participants on the latest trends, techniques, and tools currently available in aviation training worldwide, including ICAO's
- b) provide a forum for TRAINAIR *Plus* members to communicate
- c) establish effective international communication liaisons in the training field between ICAO and States, training organizations, regional organizations, operators and the industry
- d) reach out to the next generation of aviation professionals: open a discussion link between ICAO, the aviation community, and students so that NGAP dissemination initiatives become focused and better guided

5.5 Each conference lasts three days. The first two days focus on global and regional initiatives. The third day is devoted to the new TRAINAIR *Plus* programme and also an interactive workshop with students and organized visits by the host organization.

5.6 All stakeholders in the transport system (civil aviation authorities, international organizations, airlines, operators, maintenance centres, airports, air transport service providers, training centres, manufacturers, etc.) benefit from these events. These symposia have been free of charge. Information related to TRAINAIR *Plus* events is available at <http://www.icao.int/safety/TrainairPlus/Pages/Upcoming-Events.aspx>

5.7 With the ICAO Aviation System Block Upgrade (ASBU) approach and emerging technologies for new automated and efficient services, the availability of qualified personnel and an adequate training infrastructure to maintain personnel up-to-date is critical. ICAO developed an initial CAR Training Plan in response to a mandate from the region Directors of Civil Aviation, which is presented in **Appendix C**.

## **6. Suggested actions**

6.1 The Meeting is invited to:

- a) take note and monitor the development of the NGAP initiative and the TRAINAIR *Plus* Programme;
- b) evaluate the training courses currently offered by the Civil Aviation Training Centres (CATCs) in the Region (Appendix B) and recognize the courses according to their existing and future needs; and
- c) based on the level of training for civil aviation personnel in NAM/CAR States/Territories, identify improvements and actions to coordinate and streamline training provision in the CAR Region.

-----



**International Civil Aviation Organization**

## **ELECTRONIC BULLETIN**

For information only

EB 2013/54

15/10/13

### **ICAO CIVIL AVIATION TRAINING POLICY**

ICAO's role in training is to support the human resources development strategies established by Member States and the aviation community. In 2010, an ICAO Civil Aviation Training Policy was developed and disseminated to States (EB 2010/40 refers) outlining the processes for the implementation of a comprehensive training framework. ICAO aviation training activities have evolved over time and now include many different elements from endorsement of training centres and/or courses and direct delivery of training, to joint agreements with Member States, organizations, training and educational institutions. The development of technology in recent years has also led to a wider range of training, thereby increasing the possibilities of capacity building. As a result, the ICAO Civil Aviation Training Policy has been updated (Attachment) and will come into effect on 1 January 2014.

A central ICAO aviation training unit will be responsible for the planning, management and coordination of all ICAO aviation training activities ensuring the efficient, effective and harmonized implementation of the Policy and response to training needs of Member States, international and regional organizations, industry and other partners.

**Enclosure:**

ICAO Civil Aviation Training Policy  
(1 January 2014)

Issued under the authority of the Secretary General



## ICAO CIVIL AVIATION TRAINING POLICY

### Introduction

ICAO's objective in aviation training is to support the Human Resources Development strategies established by Member States and the aviation community to ensure that they have access to a sufficient number of qualified and competent personnel to operate, manage and maintain the current and future air transport system at prescribed international standards for Safety, Air Navigation Capacity and Efficiency, Security and Facilitation, Economic Development of Air Transport, and Environmental Protection.

Aviation training is considered as a support function of ICAO.

While ICAO shall encourage and advise governments and operators of training facilities, it will not be in competition with them, nor infringe upon Member States' sovereignty.

The scope of ICAO training may encompass all aviation-related areas, but will mainly focus on the development of courses in areas in which ICAO has the intellectual property, such as Global Plans, Standards and Recommended Practices (SARPs), guidance material, global safety and air navigation issues, etc., in order to assist States, aviation industry and aviation professionals implement the new changes.

Aviation training shall only be undertaken by ICAO when it is determined that it is necessary to support Member States in the implementation of ICAO SARPs, Procedures for Air Navigation Services (PANS), air transport policies and guidance and the rectification of identified deficiencies or another ICAO activity.

### Implementation

ICAO shall provide information and advice to Member States as well as to operators of training facilities and other stakeholders, and shall cooperate, partner and/or collaborate, as appropriate, with other institutions such as United Nations organizations, international and regional organizations, educational institutions and industry.

For the purposes of this document the following definitions are used:

*Training* is the acquisition of knowledge and skills provided by ICAO Bureaus, Regional Offices and/or training organizations associated with ICAO issuing a certificate of completion or a certificate of achievement with the ICAO emblem or an ICAO programme emblem.

*Recognition* is a public statement of support, an acknowledgement of compliance. An ICAO recognition is a statement of support for the methods or practices of an aviation activity or organization or its delivery of a certain type or quality of service or product that comply with specific ICAO provisions contained in Annexes to the Convention on International Civil Aviation and related guidelines.

*Standardized training courses* are specific operational or functional training courses developed by training organizations or ICAO through the TRAINAIR PLUS Programme or through the use of an Instructional Systems Design methodology.

*Targeted training activity* is a mechanism for providing awareness or education through a specific/customized training activity coordinated through ICAO.

*Instructional Systems Design* is formal process for designing training which includes analysis, design and production, and evaluation.

Other learning interventions by ICAO such as seminars, symposia and publications will continue to be delivered by ICAO but are not covered by this policy.

All ICAO aviation training activities shall be planned, managed and coordinated by an ICAO aviation training unit to ensure the efficient and effective implementation of this policy.

## **The Four Pillars**

The implementation of ICAO's aviation training policy is based on the following four pillars:

### **1. TRAINAIR PLUS Programme**

The TRAINAIR PLUS Programme encompasses aviation training on matters related to Safety and Air Navigation Capacity and Efficiency, and will evolve in due course to include training on matters related to Security and Facilitation, Economic Development of Air Transport, and Environmental Protection. The Programme will be composed of four modalities of recognition as follows:

#### *Recognized Training Organizations*

Training Organizations, upon application, shall be assessed by ICAO according to the specific requirements of the TRAINAIR PLUS Programme. Organizations compliant with such requirements shall be recognized as TRAINAIR PLUS Members.

#### *Regional Training Centres of Excellence*

In order to have the best possible consideration of regional aspects but also with the intent of saving costs, each ICAO region shall have amongst its TRAINAIR PLUS Members at least one leading Training Organization which shall be assessed by the ICAO aviation training unit according to a set of high-level criteria. Training Organizations that comply with those requirements shall be recognized as Regional Training Centres of Excellence. They shall serve as focal points on implementation of specific initiatives (such as NGAP activities, runway safety, search and rescue, etc.) and enable regional solutions towards specific long-term objectives.

#### *Training Courses*

Design and development of training courses shall be recognized by ICAO according to the ICAO Training Development Guide, Competency-based Training Methodology (Doc 9941).

#### *Trainers*

Trainers shall meet the requirements of ICAO's Instructors Training and Qualification Procedure in order to be qualified.

## **2. Recognition by ICAO of aviation training activities**

Outside of the TRAINAIR *PLUS* Programme, ICAO may recognize training activities (i.e. activity or product such as targeted training activity or ad-hoc training) and the following principles shall be applied:

- The activity represents a direct benefit and added value for international civil aviation, promotes ICAO Strategic Objectives and is consistent with global plans;
- There is a demonstration of compliance of the training activity with existing ICAO Standards, Recommended Practices and guidance material;
- The activity has been structured using an Instructional Systems Design methodology, such as TRAINAIR *PLUS* or an equivalent programme;
- There is a risk analysis and a mitigation strategy for any significant risks identified for ICAO;
- Every effort has been made to ensure that ICAO incurs no additional liability as a result;
- The demonstration of compliance is confirmed through a documented quality assessment process;
- The funding has been ensured.

The recognition of a training activity will be valid for a period determined by the ICAO aviation training unit.

The aviation training unit will have the right to withdraw a recognition from a training activity at any time should the training activity fail to respect established requirements.

All ICAO-recognized aviation training activities will be listed by the aviation training unit.

## **3. ICAO-developed aviation training activities**

ICAO may develop its own training activities to meet specific requirements or objectives, for instance related to a Technical Cooperation or Technical Assistance project.

The principles used for recognition of aviation training activities above will also apply in such cases.

## **4. Cooperation and Partnership Agreements**

Agreements for cooperation and partnership between ICAO and Member States, United Nations organizations, international and regional organizations, educational institutions and the industry shall be pursued to the extent they help to achieve the objectives of ICAO.

Cooperation and partnership agreements shall be decided upon by the Secretary General and established or pursued when it is determined that the training activity fulfils the following criteria:

- Fully complies with ICAO SARPs and policies;
- Helps to achieve the objectives of ICAO's aviation training programme;
- Complements existing ICAO aviation training activities.



### **Financial aspects**

The following financing models shall be applicable to training and recognition training activities undertaken by ICAO:

- Technical Assistance, where the financing of the activities is from the Regular Programme and/or voluntary funds;
- Technical Cooperation, where the activities are financed by the States or donors and those funds are managed by the Technical Co-operation Bureau;
- Cost recovery activities, where partial or full costs could be recovered from the activities; and
- Profit-generating activities, where surpluses will contribute to the Regular Programme Budget.

### **Intellectual property and use of the ICAO's name and emblem**

Every effort shall be made to ensure that the intellectual property of ICAO shall be protected and no harm to ICAO's reputation shall result from aviation training activities provided by a third party using the ICAO name or emblem.

The use of the ICAO's name and emblem shall be in full conformity with the policies and procedures concerning its use.

### **Publication**

All relevant information related to ICAO's aviation training activities shall be published in a dedicated area of ICAO's website, as well as under each Strategic Objective.

### **Applicability**

The ICAO Civil Aviation Training Policy is applicable to all aviation training activities provided by ICAO's Bureaus, Regional Offices, training organizations that are members of the TRAINAIR *PLUS* Programme, and/or training organizations issuing a certificate of completion or a certificate of achievement with an ICAO emblem or special ICAO programme emblem.

### **Entry into force**

The ICAO Civil Aviation Training Policy enters into force on 1 January 2014 and replaces the version of 2010 (EB 2010/4 of 28 September 2010 refers).

-----

| Course   | Course Number or Catalog Num. | Target Audience  | Objectives  | Prerequisites or Requirements   | Duration | Location            | Number of Participants | Language | TRAINAIR PLUS (yes / No) | TRAINAIR (yes/no) | Start Date   | End Date      | No. of sessions |
|--|-------------------------------|--|---|---|----------|---------------------|------------------------|----------|--------------------------|-------------------|--------------|---------------|-----------------|
| Telecommunications for Radio Operators               |                               | All ground personnel operating on Airfields who are frequently required to have direct Radio Communication with the Control Tower, Company Personnel and other units.  | To bring airfield personnel up to date on Internationally established norms in the world of Radio communication with a view to improving general safety while at the same time enhancing the professional image of these Radio Operators.   | No specific academic prerequisites necessary. Ability to speak without impediment.  | 3 days   | Trinidad and Tobago |                        |          |                          |                   | Mon 7th Jan  | Wed 9th Jan   | 3               |
| Apron Control Course                                 |                               | Any airport personnel who require training on the management of traffic on the Apron of an Aerodrome and any member of the public who is interested in becoming an Apron Control Officer.  | To equip personnel with the knowledge and skills of the International Civil Aviation Organisation's Standards and Recommended Practices for the control of traffic on the Apron of an Aerodrome.  | 5 CXC or O'level Passes which must include Mathematics and English at Proficiency level 2 or higher; the individual must not suffer speech impediments or other physical impairments which would impact adversely on the performance of the Apron management Function.          | 17 days  | Trinidad and Tobago |                        |          |                          |                   | Mon 14th Jan | Thur 31st Jan | 17              |
| (USC) Aviation Security Programme Management (AVSEC) |                               | Individuals responsible for implementation of aviation security requirements in medium to small size aircraft operators, all airports and Indirect Air Carriers. This course would also be of interest to those individuals and managers who are seeking to apply a systems management approach to aviation security within their particular areas of jurisdiction. Individuals involved in the design and integration of security measures into airport environments would find benefit in this course. | To provide individuals with the knowledge and skills to institute an aviation security management system within an organization that is compliant with Federal requirements, International Standards and reflective of organizational needs   | Experience in the Management of the Security functions at Airports or at establishments responsible for Security sensitive materials and services   | M-F      | Trinidad and Tobago |                        |          |                          |                   | Mon 21st Jan | Fri 25th Jan  | 5               |
| AIS Course   |                               | Local and International -(New)Trainees in the field of Civil Aviation Division and Civil Aviation Authority, Airlines, Handlers, Dispatchers.  | To ensure that AIS/MAP Technical Officers achieve the required competency and skills the in day-to-day management and manipulation of aeronautical information/data, and to gain a thorough understanding of the nature and use of the information being handled.   |   | M-F      | Trinidad and Tobago |                        |          |                          |                   | Mon 4th Feb  | Fri 26th Apr  | 60              |
| Aerodrome and Approach                               |                               | Any individual between the ages of 18-27 working in the aviation environment or member of the public interested in Air Traffic Control.  | To prepare participants with the knowledge and skills of the International Civil Aviation Organisation's Standards and Recommended Practices for the control of traffic on and in the Vicinity of the Aerodrome and in the Approach Control Zone. It prepares candidates to accept On the Job training in Aerodrome Control towers and Approach Control Units towards Ratings in the functions of those units | 5 CXC or O'level Passes which must include Mathematics, Physics and English at Proficiency level 2 or higher; the individual must not suffer speech impediments or other physical impairments which would impact adversely on the performance of Air Traffic Control functions. | M-F      | Trinidad and Tobago |                        |          |                          |                   | Mon 6th May  | Fri 15th Nov  | 140             |

| Course   | Course Number or Catalog Num.          | Target Audience  | Objectives  | Prerequisites or Requirements   | Duration        | Location            | Number of Participants  | Language        | TRAINAIR PLUS (yes / No)      | TRAINAIR (yes/no)        | Start Date                 | End Date      | No. of sessions |
|--|--|--|---|---|-----------------|---------------------|-------------------------|-----------------|-------------------------------|--------------------------|----------------------------|---------------|-----------------|
| Threat and Error Management  |  | All operational Aviation personnel and persons employed in safety sensitive areas  | To be able to Identify Threats in the operational environment. To describe the importance of Threat awareness in the operational environment and to develop organizational, team based and individual systems and procedures to effectively manage the impact of Threats, and mitigate the outcome of Errors in the operational | No specific prerequisite other than working in an environment of a safety-sensitive nature  |                 | Trinidad and Tobago |                         |                 |                               |                          | Thu. 27th Jun              | Fri. 29th Jun |                 |
| Human Factors  |  | ATC Recruits, operational ATC Personnel and ATS Management Personnel responsible for the management of the ATC Service.  | To understand the elements of Human Factors and how they affect the performance of persons who function in Safety-related areas with the sole purpose of reducing accidents and Incidents.  | Newly employed persons in ATC and other safety-sensitive functions and new managers who are required to supervise others functioning in a safety-sensitive area | T-F             | Trinidad and Tobago |                         |                 |                               |                          | Tue 25th Jun               | Wed. 26th Jun | 4               |
| Safety Management Systems  |  | Local and International - New and Trainees in the field of Civil Aviation, Airlines, Handlers, Dispatchers.  | To develop participants knowledge of safety management concepts and ICAO SARPs on safety management. To develop participants knowledge to certify and oversee the implementation of key components of SMS in compliance with ICAO SARPs and national regulations  |   | M-F             | Trinidad and Tobago |                         |                 |                               |                          | Mon 15th Jul               | Fri 19th Jul  | 5               |
| Effective Supervision  |  | Any person who is responsible for staff and wishes to become a supervisor or a manager.  | To prepare supervisors and potential supervisors to manage workers on the facilities to achieve maximum output and to achieve the best results.   |   | T-F             | Trinidad and Tobago |                         |                 |                               |                          | Tue 10th Sep               | Fri 13th Sep  | 4               |
| OJT Instructor Techniques  |  | Any person who is responsible for training subordinate staff in any function in any field of work.   | To provide On-The-Job Coaches with the techniques and skills of OJT to achieve the best results.  | Ability and desire to pass on skills necessary to accomplish a work activity and to encourage others to perform   | M-F             | Trinidad and Tobago |                         |                 |                               |                          | Mon 16th Sep               | Fri 20th Sep  | 5               |
| Approach Radar   |  | Rated Air Traffic Controllers in Aerodrome and/or Approach Control or Rated Area Procedural Controllers who are required to perform the functions of Radar Control   | To upgrade the skills of Procedural Controllers to include functioning in an environment where Radar Control is also performed  | Ratings in either Aerodrome or Approach or Area Procedural Control  | M-F             | Trinidad and Tobago |                         |                 |                               |                          | Mon 21st Oct               | Wed 4th Dec   | 35              |
| (USC) Human Factors in Aviation Safety   |  | This course has been carefully designed to appeal to a wide-spectrum of professionals actively involved in aircraft operations. There is special emphasis for safety managers, training, flight department and maintenance managers and supervisors, pilots, air traffic controllers, dispatchers and schedulers | To provide class participants with human factors knowledge and practical tools that can be readily applied to improve safety within their respective organizations.   | No specific prerequisite other than working in an Aviation environment of a safety-sensitive nature   | 5 Days          | Trinidad and Tobago |                         |                 |                               |                          |                            |               |                 |
| (USC) Accident/Incident Response Preparedness & Legal Aspects of Aviation Safety |  | Individuals in aviation safety who may be involved in aircraft accident investigation- Air Worthiness Inspectors   | To provide the participant with a working knowledge of the legal processes and trends affecting aviation safety.  | No specific prerequisite other than working in an environment of a safety-sensitive nature  | 5 Days          | Trinidad and Tobago |                         |                 |                               |                          |                            |               |                 |
| <b>PROGRAM AND COURSE TITLE</b>  | <b>Course Number or Catalog Number</b> | <b>Target Audience</b>   | <b>Objective</b>  | <b>Prerequisite</b>   | <b>Duration</b> | <b>Location</b>     | <b>No. Participants</b> | <b>Language</b> | <b>TRAINAIR PLUS (yes/no)</b> | <b>TRAINAIR (yes/no)</b> | <b>Additional comments</b> |               |                 |

**PROGRAM: AIR NAVIGATION SERVICES**

| CATC 2013 Schedule                        |                               |   |  |  |          |   |                        |          |                          |                   |            |          |                 |
|---|-------------------------------|---|--|--|----------|---|------------------------|----------|--------------------------|-------------------|------------|----------|-----------------|
| Course                                    | Course Number or Catalog Num. | Target Audience   | Objectives   | Prerequisites or Requirements  | Duration | Location  | Number of Participants | Language | TRAINAIR PLUS (yes / No) | TRAINAIR (yes/no) | Start Date | End Date | No. of sessions |
| Air Traffic Control Assistant/Flight Data | ICAO 051                      | Graduates of high school with no experience in aviation but who are desirous of employment as Air Traffic Assistants/ Flight data Processors                                | Given lectures, demonstrations and practical training, the participants will have sufficient knowledge and experience in Flight Data Processing and of the ATS system to meet the standards prescribed for Assistant Air Traffic controllers/Flight Data Processors  | High school education with passes in at least 6 subjects at grades (1or2,CXC) or grades (A,B or C, GCE) or equivalent, and must include Mathematics, English Language, Geography or Physics or other science subjects.<br><br>2 passes at "A" level or equivalent. Proficiency in both written and spoken English. Satisfactory performance at interview and meet the medical requirements of ICAO Annex 1, Personnel Licensing. | 5 weeks  | Jamaica Civil Aviation Authority Training Institute | 12                     | English  | Yes                      |                   |            |          |                 |
| Aerodrome Control Procedural              | ICAO 052                      | Graduates of high school with no experience in aviation but who are desirous of pursuing a career in Air Traffic Control; and Air Traffic Assistants/Flight Data Processors | Given lectures, demonstrations and practical training on an Aerodrome Control simulator, then On-the-Job Training in an Aerodrome Control Tower, the participants will be able to attain the OJT training hours, sufficient knowledge and skill to meet the standard prescribed by ICAO Annex 1, Licensing for Aerodrome Controllers.        | High school education with passes in at least 6 subjects at grades (1or2,CXC) or grades (A,B or C, GCE) or equivalent, and must include Mathematics, English Language, Geography or Physics or other science subjects.<br><br>2 passes at "A" level or equivalent. Proficiency in both written and spoken English. Satisfactory performance at interview and meet the medical requirements of ICAO Annex 1, Personnel Licensing. | 8 weeks  | Jamaica Civil Aviation Authority Training Institute | 12                     | English  | Yes                      |                   |            |          |                 |
| Approach Control Non-Radar (Procedural)   | ICAO 053                      | Licensed Aerodrome Controller students who have successfully completed the ICAO Course 052  | Given lecturers, demonstrations and practical training on an Approach Control simulator, then On-the-Job training in an Approach Control Unit, the participants will be able to attain OJT training hours, sufficient knowledge and skill to meet the standard prescribed by ICAO Annex 1, Licensing for Aerodrome Controllers.              | Successful completion of Aerodrome Control Course. Proficiency in both written and spoken English. Meet the requirements of ICAO Annex 1, Personnel Licensing.   | 6 weeks  | Jamaica Civil Aviation Authority Training Institute | 12                     | English  | Yes                      |                   |            |          |                 |
| Approach Control Radar                    | ICAO 054                      | Licensed Approach Procedural Controllers or students who have successfully completed the Approach Control Procedural Course ICAO 053  | Given lecturers, demonstrations and practical training on an Approach Control simulator, then On-the-Job training in an Approach Control Unit, the participants will be able to attain OJT training hours, sufficient knowledge and skill to meet the standard prescribed by ICAO Annex 1, Licensing for Aerodrome Controllers.              | See "Target Population". Proficiency in both written and spoken English. Meet the medical requirements of ICAO Annex 1, Personnel Licensing.   | 6 weeks  | Jamaica Civil Aviation Authority Training Institute | 12                     | English  | Yes                      |                   |            |          |                 |
| Area Control Non-Radar (Procedural)       | ICAO 055                      | Approach Procedural Controllers, Approach Radar Controllers, Graduates of Approach Procedural Course  | Given lecturers, demonstrations and practical training on an Area Control procedural simulator, then On-the-Job training in an Area Control Unit, the participants will be able to attain the OJT training hours, sufficient knowledge and skill to meet the standard prescribed by ICAO Annex 1, Licensing for Area Procedural Controllers. | Successful completion of Approach Procedural Course. Proficiency in both written and spoken English. Meet the medical requirements of ICAO Annex 1, Personnel Licensing.   | 8 weeks  | Jamaica Civil Aviation Authority Training Institute | 12                     | English  | Yes                      |                   |            |          |                 |
| Area Control Radar                        | ICAO 055                      | Area Procedural Controllers, Approach Radar Controllers, Graduates of Approach Procedural Course  | Given lecturers, demonstrations and practical training on an Area Control procedural simulator, then On-the-Job training in an Area Control Unit, the participants will be able to attain the OJT training hours, sufficient knowledge and skill to meet the standard prescribed by ICAO Annex 1, Licensing for Area Procedural Controllers. | Successful completion of Approach Procedural Course. Proficiency in both written and spoken English. Meet the medical requirements of ICAO Annex 1, Personnel Licensing.   | 8 weeks  | Jamaica Civil Aviation Authority Training Institute | 12                     | English  | Yes                      |                   |            |          |                 |

| CATC 2013 Schedule  |                               |   |  |  |          |   |                        |          |                          |                   |            |          |                 |
|---|-------------------------------|---|--|--|----------|---|------------------------|----------|--------------------------|-------------------|------------|----------|-----------------|
| Course  | Course Number or Catalog Num. | Target Audience   | Objectives   | Prerequisites or Requirements  | Duration | Location  | Number of Participants | Language | TRAINAIR PLUS (yes / No) | TRAINAIR (yes/no) | Start Date | End Date | No. of sessions |
| Air Navigation Aids Technicians ATC Produres Basic Indoctrination   | ICAO 059                      | Air Navigation Technicians and non-Air Traffic Controllers  | Given lecturers and demonstrations the participants will have sufficient knowledge of Air Traffic Control and the International Civil Aviation Organization (ICAO) to meet the standards required to relate to ATC and function in the Air Navigation Department   | Proficiency in both written and spoken English.  | 1 week   | Jamaica Civil Aviation Authority Training Institute | 12                     | English  | Yes                      |                   |            |          |                 |
| Flight Planning Seminar   |                               | Air Traffic Controllers, Aeronautical Information Personnel and non-air traffic controllers   | The Flight Planning Seminar is geared towards educating current users such as Air Traffic Controllers and Aeronautical Information Officers on the changes in the Flight Plan Format   | Proficiency in both written and spoken English.  | 1 day    | Jamaica Civil Aviation Authority Training Institute | 12                     | English  | Yes                      |                   |            |          |                 |
| Automated Messaging Handling System (AMHS)                          |                               | Air Traffic Controllers, Aeronautical Information Personnel and non-air traffic controllers and users of the system   | To sensitize the Aviation Industry of the changes from the AFTN to AMHS  | Proficiency in both written and spoken English.  | 2 days   | Jamaica Civil Aviation Authority Training Institute | 12                     | English  | Yes                      |                   |            |          |                 |
| <b>PROGRAM: AVIATION SECURITY, DANGEROUS GOODS AND FACILITATION</b> |                               |   |  |  |          |   |                        |          |                          |                   |            |          |                 |
| Crisis Management   |                               | Staff at the mid to senior management levels of organizations within a State that have been assigned responsibility under the State's National Civil Aviation Security Programme to form part of the crisis management element to respond to acts of unlawful interference occurring within that State. | Trainees will be able to explain the need for crisis management plan to respond to major security emergencies occurring at airports; describe the essential components of a crisis management plan; identify the composition and function of a crisis management team; describe the essential facilities necessary in support of a planned response to crises; and list the system testing features necessary to ensure currency in crisis   | Three (3) years experience in a management/supervisory position with organizations mentioned in the target population      | 5 days   | JCAA AVSEC  | 15                     | English  |                          |                   |            |          |                 |
| Aviation Security Management  |                               | Staff at the mid to senior management levels of organizations within a State involved in aviation activities  | Trainees will be able to use appropriate reference documentation to assist in the implementation of security programmes and procedures; recognize the basic measures applied to ensure protection of civil aviation; participate in the development and implementation of appropriate contingency plans; manage response to security incidents or major security emergencies; implement a quality control programme; understand the implications of security on design on new facilities; and implement the relevant contents of an Aviation Security Programme. | Management or Senior Supervisor who have previously received aviation security awareness or any other aviation course.     | 3-4 days | JCAA AVSEC  | 15                     | English  |                          |                   |            |          |                 |
| Ground Services Security  |                               | Any airport personnel who requires training in ground security services   | Trainees will understand the need for security awareness; be aware of the security procedures at check-in, screening points, and boarding gates; appreciate the need for procedures concerning the handling, carriage and disposal of restricted and dangerous articles; assist in the process of protecting and searching aircraft; implement the security requirements for hold baggage and passenger/baggage reconciliation; and understand the procedures for handling bomb threats to aircraft on the ground.   | Successfully complete secondary school or equivalent education and have a written and oral comand of the English Language. | 4 days   | JCAA AVSEC  | 15                     | English  |                          |                   |            |          |                 |

| CATC 2013 Schedule                                |                               |  |  |   |          |            |                        |          |                          |                   |            |          |                 |
|---|-------------------------------|--|--|---|----------|------------|------------------------|----------|--------------------------|-------------------|------------|----------|-----------------|
| Course  | Course Number or Catalog Num. | Target Audience  | Objectives   | Prerequisites or Requirements   | Duration | Location   | Number of Participants | Language | TRAINAIR PLUS (yes / No) | TRAINAIR (yes/no) | Start Date | End Date | No. of sessions |
| Cargo Security                                    |                               | Aviation Personnel who requires training in cargo security and any member of the public who is interested in becoming a regulated agent. | Trainees will understand the nature of the threat posed to civil aviation by restricted items; apply appropriate security controls to cargo consignments from acceptance until the departure of the aircraft; understand the need to inspect, screen, or search air cargo consignments accordance with prescribed security principles; and apply appropriate response action to a security emergency related to suspect cargo. | Trainees currently involved in a cargo operation or in the process of entering into a cargo operation | 4 days   | JCAA AVSEC | 15                     | English  |                          |                   |            |          |                 |
| Aviation Security Instructor Certification Course |                               | Aviation Personnel who are required to train industry on all aspects of aviation security  | Trainees will be qualified AVSEC experts having instructional skills and tools necessary to conduct JCAA AVSEC training  | Aviation personnel required to train others in aviation security matters                              | 7 days   | JCAA AVSEC | 15                     | English  |                          |                   |            |          |                 |
| Detection of Suspect Passenger (Available 2014)   |                               | Airport personnel that have day to day interactions with passengers at an airport  | Trainees will be able to identify characteristics of suspicious passengers   | Currently working at an airport or about to start employment in an airport environment                | 5 days   | JCAA AVSEC | 15                     | English  |                          |                   |            |          |                 |

**APPENDIX C**

**CAR REGION  
REGIONAL AVIATION TRAINING PLAN**

---

## **CAR REGION REGIONAL AVIATION TRAINING PLAN**

### **1. *Objective***

Given the importance of training of personnel involved in the various areas of civil aviation, the dynamic and constantly changing processes and systems to meet growing demands and subsequent technological innovations, this office conducted a survey of needs and training capabilities at the regional level. With this information, it will be possible to know directly from the States what specific issues are priorities for aviation personnel training, as well as exploring the possibilities that can be provided by States through their respective training centres controlled by the aeronautical authorities.

The inventory of States' training needs was identified for 2012 through 2016, and will be shared with the CAR Region's Civil Aviation Training Centres (CATCs). CATCs will determine the different courses that would need to be implemented to meet the demands expressed by States.

### **2. *General Considerations***

At the NACC/DCA/2 Meeting, the Directors of Civil Aviation expressed that the objective of human resource planning is to ensure that Civil Aviation Authorities have sufficient staff trained in the various air navigation services, formulating Conclusion 2 / 27 - *Human Resources Planning and Education*, which recommended that the Civil Aviation Authority begin, as soon as possible, the process of human resource planning and instruction required to implement the new emerging systems. The governments should, therefore, develop training programs and human resource planning in different aeronautical areas.

Similarly, the Directors at the NACC/DCA/3 Meeting formulated conclusions:

NACC/DCA/3/11 - *Human Resource Planning and Training in the NAM / CAR Regions* and NACC/DCA/3/12 - *Aviation Training Strategy for the CAR Region* in order that ICAO, in coordination with States, prepare a training strategy taking into account human resource planning and training in the NAM / CAR Regions.

The Central American States adopted the NAM/CAR Regional Plan for Implementation of Air Navigation Based on Performance (NAM/CAR RPBANIP) as a reference for the development of their national plans, in which activities such as training, human factors, planning and skills are key elements for successful implementation. These elements require considerable coordination at all levels. Consequently, the States, through their training centres (CATCs), such as ICCAE, should also adopt a similar approach for the development and implementation of their courses and activities for the achievement of an ATM system based on performance.

### **3. *Principles***

Based on the needs expressed by the States, and taking into account the availability of offered courses, the CAR Region Training Plan suggested the approach of course availability for 2012 and 2013 for planning purposes for both the States and the training centres. Since the Plan is dynamic and depends on factors such as the number of students in the courses and availability of instructors for the courses, the Plan will be updated for 2014 to 2016, taking into account the history and experience of supply and demand of the courses between 2012 and 2013.



According to the training needs expressed by Member States and the training offered by training centres, we can infer that the needs are basically covered. However, the following considerations are required:

- 1) The training survey forms sent by the ICAO NACC Office only took into account the existing courses and a plan for 2011, and not a long-term period, e.g., 2011-2016. Therefore, it was not possible to establish a course plan for the full five years.
- 2) The expectations or the contents of the courses requested by States may differ or vary from the program and content of the courses offered. So it is important to clarify the scope of the required courses and know in detail the programs offered.

To implement a training plan that responds to the needs expressed by the States, it should combine the different options available and optimize them, creating new mechanisms to consider the dynamism of the information and how to process and deliver it in a harmonized regional environment, which is, among others, the objective of TRAINAIR *PLUS* program.

It will therefore be necessary:

From the survey of needs, remove items from the same area (e.g., air traffic management) with similar titles or same or similar content and group them by specialty.

1. The NACC Office specialist in the area in question will formulate a tentative program with the States according to their needs, based on their knowledge and experience of the subject. All States in the region will be consulted on the resulting program for final approval.
2. 3. Once agreed, the training plan and its contents will be evaluated by the potential training centres capable of carrying out the agreed training plan. In cases where no CATC meets the course expectations as defined by the training plan, the ICAO NACC Regional Office Training Coordinator may request the review of the existing regular course to satisfy State requirements.
3. The training plan, as agreed and defined, will be included in the regular programmes of the TRAINAIR *PLUS* Centres and will generate the appropriate review mechanism based on dynamic information and new requirements that may arise through amendments and a harmonized regional process.

Also, taking into account the ICAO Safety Strategic Objective and State interest in this area as reflected in the survey, States would consult with the ICAO NACC Office Regional Officer for Flight Safety regarding training deficiencies and associated training provided by RASG-PA.

4. The Regional Officer for Technical Cooperation will receive training requests from States and coordinate and communicate with other NACC Regional Officers and outside groups or institutions or training centres outside of ICAO in planning courses for States.

#### **4. *Application***

This document applies to all CAR Region States and Territories and all international organizations that provide services as CATCs.

**5.                    *Recommendations***

This plan is seen as a dynamic one that will be updated continuously.

It is important that those CAR Region States and Territories who have not yet implemented a training plan for air navigation services and the safety of civil aviation employees, consider this training plan to meet their training needs.

In addition, it is recommended that CAR Region States and Territories develop a Human Resources Plan that includes a programme designed for civil aviation personnel training and promote the attendance of their specialists at activities supported by ICAO (courses, seminars, workshops, etc.) taking into consideration that such activities are conducted in order to supplement and update civil aviation personnel training.

**6.                    *Annexes***

- a.       Table of courses based on needs expressed by the States/Territories and the capabilities of the CATCs.
- b.       Survey results are shown at the end of this Plan for reference purposes.

| <b>CAR REGION REGIONAL PLAN FOR AERONAUTICAL TRAINING</b>            |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
| <b>Implementation of AGA Systems</b>                                 | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> |
| Aerodrome Certification  | X           | X           | TBD         | TBD         | TBD         |
| Aeronautical Studies   | X           | X           | TBD         | TBD         | TBD         |
| Runway Safety  | X           | X           | TBD         | TBD         | TBD         |
| <b>Implementation of AIM Systems</b>                                 |             |             |             |             |             |
| Quality Management System (QMS)                                      | X           | X           | TBD         | TBD         | TBD         |
| Eaeronautical Informaiton Publication (eAIP)                         | X           | X           | TBD         | TBD         | TBD         |
| Aeronautical Information Exchange Model (AIXM)                       | X           | X           | TBD         | TBD         | TBD         |
| Data Quality And Integrity Monitoring                                | X           | X           | TBD         | TBD         | TBD         |
| Electronic Aeronautical Charts                                       | X           | X           | TBD         | TBD         | TBD         |
| Digital NOTAM  | X           | X           | TBD         | TBD         | TBD         |
| Electronic Terrain Obstacle Data (eTOD) for Areas 1 And 3            | X           | X           | TBD         | TBD         | TBD         |
| Metada Development Workshop fnd AIXM                                 | X           | X           | TBD         | TBD         | TBD         |
| Electronic Terrain Obstacle Data (eTOD) for Areas 2 And 4            | X           | X           | TBD         | TBD         | TBD         |
| <b>Implementation of ATM Systems</b>                                 |             |             |             |             |             |
| Implementation of New ICAO FPL Format and ATS Operational Procedures | X           | X           | TBD         | TBD         | TBD         |
| CDM Implementation   | X           | X           | TBD         | TBD         | TBD         |
| PBN Procedures Design  | X           | X           | TBD         | TBD         | TBD         |
| Continuos Descent Operations (CDOs)                                  | X           | X           | TBD         | TBD         | TBD         |
| PBN Airspace Concept Workshop  | X           | X           | TBD         | TBD         | TBD         |
| PBN Operational Approvals  | X           | X           | TBD         | TBD         | TBD         |
| Performance Framework and Aviation System Block Upgrades             | X           | X           | TBD         | TBD         | TBD         |
| SMS Implementation for ANS And ATS Safety Oversight Workshop         | X           | X           | TBD         | TBD         | TBD         |
| ATS Capacity Methodology   | X           | X           | TBD         | TBD         | TBD         |
| Flexible Use Airspace (FUA)  | X           | X           | TBD         | TBD         | TBD         |
| <b>Implementation of CNS Systems</b>                                 |             |             |             |             |             |
| Situational Awareness Options/ Improvements Workshop                 | X           | X           | TBD         | TBD         | TBD         |
| ADS-B Trials and Analysis Meetings                                   | X           | X           | TBD         | TBD         | TBD         |
| Data Link Application Implementation Workshop                        | X           | X           | TBD         | TBD         | TBD         |
| Air-Ground and G-G ATN Application Implementation Workshops          | X           | X           | TBD         | TBD         | TBD         |
| CAR Regional Networks Integration Meeting                            | X           | X           | TBD         | TBD         | TBD         |
| AIDC Implementation Workshop   | X           | X           | TBD         | TBD         | TBD         |
| Mode S Radar Implementation Meeting                                  | X           | X           | TBD         | TBD         | TBD         |
| GBAS CAT I Implementation Workshop                                   | X           | X           | TBD         | TBD         | TBD         |
| GNSS/SBAS Implementation Workshop                                    | X           | X           | TBD         | TBD         | TBD         |
| <b>Implementation of MET Systems</b>                                 |             |             |             |             |             |
| MET QMS  | X           | X           | TBD         | TBD         | TBD         |
| Preparation And Dissemination of Safety Critical OPMET Data          | X           | X           | TBD         | TBD         | TBD         |
| Meteorological Downlinks   | X           | X           | TBD         | TBD         | TBD         |
| XML OPMET Data Exchange  | X           | X           | TBD         | TBD         | TBD         |
| <b>Implementation of FS Systems</b>                                  |             |             |             |             |             |
| SSP Implementation   | X           | X           | TBD         | TBD         | TBD         |
| SMS Implementation   | X           | X           | TBD         | TBD         | TBD         |

X = Available, TBD = To be determined

## **AVIATION TRAINING NEEDS SURVEY FINDINGS AND CAPABILITIES OF STATES IN THE REGION**

### **1) General**

Given the importance of personnel training involved in the various areas of civil aviation, the dynamic and constantly changing processes and systems to meet growing demands and subsequent technological innovations, the ICAO NACC Regional Office conducted a survey of needs and training capabilities at the regional level. With this direct information from States it will be possible to identify specific training areas needed for aviation personnel, as well as explore what States are able to provide through their respective CATCs.

The inventory of States' training needs was identified for 2012 through 2016, and will be shared with the CAR Region's Civil Aviation Training Centres (CATCs). CATCs will determine the different courses that would need to be implemented to meet the demands expressed by States.

### **2) Analysis of material received**

In response to the survey, the States and organizations listed below submitted the information requested:

- Barbados
- BVI-Montserrat-Anguilla
- CIPE (Instituto de Argentina)
- Cuba
- Ecuador
- Guatemala
- ICCAE (El Salvador)
- ASA and SENEAM (México)
- Dominican Republic
- Saint Lucia
- St. Vincent and The Grenadines
- Trinidad y Tobago

#### **2.1) Training requirements by area:**

- 2.1.1) ATM
- 2.1.2) CNS
- 2.1.3) SAFETY
- 2.1.4) AIM
- 2.1.5) AGA
- 2.1.6) MET
- 2.1.7) AVSEC
- 2.1.8) Legal and administrative
- 2.1.9) Training for teaching and/or training of inspectors

**2.1.1 ATM**

Aerodrome Control  
Inspector SAR  
ATM Applications  
RNAV/RNP Course  
ATFM Course  
Quality Control of Aviation Services  
Statistical Information and Forecasts of Accidents/Incidents of Aircraft (ATM/SAFETY)  
ATC  
CNS/ATM Seminar

**2.1.2 CNS**

Non-Radar and Radar  
CNS - Update on Technologies  
GNSS Implementation  
ADS-B and Multi-Lateralization  
Advanced GNSS Course  
AMHS Seminar  
CNS /ATM Seminar  
CNS Supervisor  
Quality Control of Aviation Services  
New Technologies for Air Navigation  
Radar Training  
Radar Technician

**2.1.3 SAFETY**

SMS Developments  
USOAP Auditor  
Accident Investigation  
SMS  
SSP  
Operational Safety Risk Assessment  
Airport Operational Safety  
National Operational Safety Inspectors  
Statistical Information and Forecasts of Accidents/Incidents Aviation  
Effective Supervision for Change  
SMS for Airports  
PEL / Licensing Training  
Operational Safety on the Air Side and Operations  
Safety Human Factors  
Preventative Systems Management

**2.1.4 AIM**

Aeronautical Information Management  
Electronic Aeronautical Charts  
e-TOD & WGS84 Data Quality Control and Assurance (Annex 4 Aeronautical Charts,  
Annex 15 Aeronautical Information Services)  
Data Collection and Processing Electronic Terrain and Obstacles (e-TOD)  
Aeronautical Information Exchange Model (AIXM see. 5.0 / ver.5.1)  
Special Data Processing (GIS)  
GML Data Processing  
XML Document Processing and Associated Technologies (XSLT, XSD)  
PANS-OPS (Procedures Design IFR / VFR)  
Quality Control Aeronautical Information Services (QMS)  
Aeronautical Charts (electronic)  
Officer Training in Aeronautical Information Management

**2.1.5 AGA**

Aerodrome Certification (3)  
Ramp Check  
Emergency Plan  
Noise and Emissions  
Emergency Plans and Rescue and Fire Fighting  
Airport Pavement Design  
Electrical Systems at Airports  
Airport Pavement Maintenance  
Airport Planning (2)  
Design and Operation of Air Terminals  
Environment  
Airport Management (2)  
Air Cargo Management  
Aviation Infrastructure  
Airport Services  
Pavement Management Systems  
Aeronautical Studies  
Endangered Bird and Wildlife Prevention  
Rescue and Fire Fighting  
Airport Strategic Management  
Airport Master Plan

**2.1.6 MET**

Quality Control of Aviation Services  
Mesoscale Connective Cells  
Clear air Turbulence  
Numerical Prediction and Modelling  
Tropical Meteorology  
Air Masses and Fronts  
Meteorology

**2.1.7 AVSEC**

- Aviation Security Inspectors
- Crisis Management
- Cargo Aviation Security
- Management of Aviation Security
- Aviation Security Instructors
- FAL/AVSEC
- FAL/MRTD
- AVSEC Courses
- Basic Safety Course
- Security Supervisor
- Quality Control Program for Civil Aviation Security
- Screener Certification Workshop
- Airport Security Program
- Cargo and Mail Security Systems Course

**2.1.8 AIR TRANSPORT AND LEGAL**

- Civil Aviation Administration
- Aeronautical Law
- Transport and Aviation Policy
- Registration of Licenses
- Airport Fees and Costs

**2.1.9 TRAIN THE TRAINER AND TRAINING FOR INSPECTORS**

- QMS
- DG Education Appellant
- Management Training
- Aeronautics Supervision
- Human Resources Management
- Service Levels
- Instructor Development Workshop
- Instructor Certification (2)
- Quality Management in Aviation
- Operations Management
- National Inspectors