# TRAINAIR PLUS
# OPERATIONS
# MANUAL
# (TPOM)

**2016** | **Third Edition**

International Civil Aviation Organization
*Approved by and published under the authority of the Secretary General*

# TRAINAIR PLUS
# OPERATIONS MANUAL
# (TPOM)

# TABLE OF CONTENTS

# 1

INTRODUCTION
AND DEFINITIONS

## 1.1 PURPOSE OF THE MANUAL

**1.1.1**  Competent personnel are essential to establish, manage and operate safe air transportation systems. Training of aviation professionals plays a critical role in achieving safety objectives, and ICAO is committed to supporting Member States in implementing high-quality standards in civil aviation training. As outlined in the ICAO *Civil Aviation Training Policy*, the TRAINAIR PLUS Programme (TPP) is a key element in ICAO's strategy to achieve this goal. The TPP provides its Members with support for new and existing Civil Aviation Training Centres (CATCs) through the provision of technical expertise and quality oversight. The result is a cooperative network of ICAO TRAINAIR PLUS Centres that develop and share high-quality, standardized aviation training materials for the benefit of all TPP Members.

**1.1.2**  The *TRAINAIR PLUS Operations Manual* (TPOM) (Doc 10052) is published primarily to provide Member States, CATCs and Members of the TPP information on the operation of the Programme. This manual sets forth the objectives and principles of the TPP and details the rules and requirements related to TPP Membership, the assessment process, and the development, validation and sharing of Standardized Training Packages (STPs) and other ICAO-harmonized Training Packages. It also addresses the administration and oversight of the TPP, including compe-tency requirements for various training professional levels, information processes and quality assurance.

**1.1.3**  The rules and operations of the TPP, as set forth in this manual, supersede any rules and principles that may have been applicable to the former TRAINAIR Programme.

## 1.2  RELATED MANUALS

**1.2.1**   The *Training Development Guide, Competency-based Training Methodology* (Doc 9941) provides a methodology for competency-based training. It serves as a guide to the development of training material in a consistent and systematic manner and also sets forth training development standards, making it practical for course material to be shared between participating TRAINAIR PLUS Members.

**1.2.2**   The *Manual on the Approval of Training Organizations* (Doc 9841) provides information and guidance to licensing authorities and CATCs on the implementation of Annex 1 — *Personnel Licensing* to the *Convention on International Civil Aviation* (hereafter referred to as the Chicago Convention) and other Annex Standards related to the approval of CATCs. It describes the process through which approval is granted to a CATC, the contents of an application proposal to become an approved CATC, and the quality assurance system needed to maintain approval.

**1.2.3**   *The Procedures for Air Navigation Services — Training* (Doc 9868) contains material that provides for the uniform implementation of the training required for pilot licenses and ratings found in Annex 1 to the Chicago Convention. This document is complementary to the Standards and Recommended Practices (SARPs) contained in Annex 1 and specifies, in greater detail than in the SARPs, the actual procedures to be applied by CATCs in providing training for aeronautical personnel.

## 1.3  DEFINITIONS AND TERMINOLOGY

When the following terms are used in this manual or other related TRAINAIR PLUS documentation, they have the following meaning:

**Assessor:** A training specialist who is approved by the Manager of the ICAO Global Aviation Training (GAT) Office as having the required competencies to conduct TRAINAIR PLUS assessment missions of Members and Membership applicants.

**Compliant Training Package (CTP):** A training package that complies with ICAO Standards and Recommended Practices (SARPs) and guidance material. It is presented as a fully documented and tested comprehensive package that reflects:

- the current technological and operational requirements specific to a particular training topic;

- ICAO SARPs, Annexes to the Chicago Convention and guidance material; and

- ICAO training objectives, and complements existing ICAO training and makes a significant contribution to aviation capacity building.

**Course Developer:** A training specialist who has completed a TRAINAIR PLUS Training Developers Course (TDC) and has the proven competencies to carry out TRAINAIR PLUS

procedures for preparing a training package. Further details are available in the *Training Development Guide, Competency-based Training Methodology* (Doc 9941).

**Expert Validator:** Also referred to as an expert, an expert validator provides specialized expertise in the development of a Standardized Training Package (STP) to the Course Development Unit (CDU) of a Civil Aviation Training Centre (CATC).

**ICAO Training Package (ITP):** A training package produced by ICAO or a Regional Training Centre of Excellence (RTCE) in accordance with the *Training Development Guide, Competency-based Training Methodology* (Doc 9941) or an equivalent Instructional Systems Design (ISD) methodology.

**Partnership Training Package (PTP):** Training material produced in partnership with ICAO and the training arm of a Corporate Member, industry partner or educational institution in accordance with the *Training Development Guide, Competency-based Training Methodology* (Doc 9941).

**Standardized Training Package (STP):** A training package produced in accordance with the *Training Development Guide, Competency-based Training Methodology* (Doc 9941).

**ICAO Qualified Instructor:** A Subject Matter Expert (SME) and training specialist who has successfully completed the ICAO instructor qualification procedure for a given course.

## 1.4 ACRONYMS

| | |
|---|---|
| ANB | Air Navigation Bureau |
| ATD | Aviation Training Directory |
| CAA | Civil Aviation Authority |
| CAP | Corrective Action Plan |
| CATC | Civil Aviation Training Centre |
| CDU | Course Development Unit |
| CTP | Compliant Training Package |
| DSA | Daily Subsistence Allowance |
| EX | Exercises |
| GAT | Global Aviation Training |
| ICAO | International Civil Aviation Organization |
| ICAO CDI/STD | ICAO Course Developer and Instructor Standardization Meeting |
| IQCD | ICAO Qualified Course Developer |
| ISD | Instructional Systems Design |
| ISDU | Instructional Systems Design Unit |
| ITP | ICAO Training Package |
| JA | Job Aid |
| MT | Mastery Test |
| MoU | Memorandum of Understanding |
| MP | Module Plans |
| NGAP | Next Generation of Aviation Professionals |
| OJT | On-the-job Training |
| PANS | Procedures for Air Navigation Services |
| PPT | PowerPoint Presentation |
| PQ | Protocol Question |
| PT | Progress Test |
| PTP | Partnership Training Package |
| QMS | Quality Management System |
| RTCE | Regional Training Centre of Excellence |

| | |
|---|---|
| SARPs | Standards and Recommended Practices |
| SME | Subject Matter Expert |
| STP | Standardized Training Package |
| TAC | Training Assessment and Consultancy Unit |
| TDC | Training Developers Course |
| TDD | Training Design and Development Unit |
| TIC | Training Instructors Course |
| TM | Trainee Manual |
| TMC | Training Managers Course |
| TPeMS | TRAINAIR PLUS electronic Management System |
| TP-IQCD | TRAINAIR PLUS ICAO Qualified Course Developer |
| TPOM | TRAINAIR PLUS Operations Manual |
| TPP | TRAINAIR PLUS Programme |
| TPSC | TRAINAIR PLUS Steering Committee |

# 2

ESTABLISHMENT
AND MANAGEMENT
OF PROGRAMME

## 2.1 TRAINING POLICY

**2.1.1**  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 based on international standards for Safety, Air Navigation Capacity and Efficiency, Aviation 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 with the implementation of these provisions.

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 other ICAO activity.

### 2.1.2  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*:  the acquisition of knowledge and skills provided by ICAO and/or Civil Aviation Training Centres (CATCs) associated with ICAO issuing a certificate of completion or a certificate of achievement with the ICAO emblem or an ICAO Programme emblem;

- *Recognition:* 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 the Annexes to the Chicago Convention and related guidelines;

- *Standardized training courses:*  specific operational or functional training courses recognized by ICAO and developed by CATCs or ICAO through the TRAINAIR PLUS Programme (TPP) or through the use of an Instructional Systems Design (ISD) methodology;

- *Targeted training activity:*  a mechanism for providing awareness or education through a specific/customized training activity coordinated through ICAO; and

- *Instructional systems design (ISD):* a formal process for designing training that includes analysis, development, design, implementation and evaluation.

All ICAO aviation training activities shall be planned, managed and coordinated by the ICAO Global Aviation Training (GAT) Office to ensure the efficient and effective implementation of this policy.

### 2.1.3   The four pillars

The implementation of the ICAO *Civil Aviation Training Policy* is based on the following four pillars:

### 2.1.3.1   TRAINAIR PLUS Programme (TPP)

The TRAINAIR PLUS Programme (TPP) 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, taking into account the specificities of Aviation Security Training, Economic Development of Air Transport, and Environmental Protection. The Programme will be composed of four modalities of recognition as follows:

*Recognized CATCs*
CATCs, upon application, shall be assessed by ICAO according to the specific requirements of the TPP. CATCs compliant with such requirements shall be recognized as TRAINAIR PLUS Members.

*Regional Training Centres of Excellence (RTCEs)*
In order to have the best possible consideration of regional aspects, but also with the intent of saving costs, each ICAO region may have amongst its TRAINAIR PLUS Members at least one leading CATC that shall be assessed by the GAT Office according to a set of high-level criteria approved by the Secretary General. CATCs that comply with those requirements shall be

recognized as RTCEs. They shall serve as focal points on the implementation of specific initiatives (such as Next Generation of Aviation Professional (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 *Training Development Guide, Competency-based Training Methodology* (Doc 9941).

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

**2.1.3.2**    Recognition by ICAO of aviation training activities

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 the ICAO Strategic Objectives and is consistent with global plans;

- there is a demonstration of compliance of the training activity with existing ICAO SARPs and guidance material;

- the activity has been structured using an ISD methodology, such as TRAINAIR PLUS or an equivalent methodology;

- there is a risk analysis and a mitigation strategy for any significant risks identified for relevant ICAO programmes;

- 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; and

- The funding has been ensured.

The recognition of a training activity will be valid for a period determined by the Secretary General.

ICAO has 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 documented by the GAT Office.

**2.1.3.3**    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.

**2.1.3.4**   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; and

- complements existing ICAO aviation training activities.

### 2.1.4   Financial aspects

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

- *technical assistance*, where 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, of which the funds are managed by the Technical Cooperation Bureau; and

- *cost-recovery activities*, where partial or full costs could be recovered from the activities.

### 2.1.5   Intellectual property and use of ICAO's name and emblem

Every effort shall be made to ensure that the intellectual property of ICAO shall be protected and that 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 ICAO's name and emblem shall be in full conformity with the policies and procedures concerning its use.

### 2.1.6   Publication

All relevant information related to ICAO aviation training activities shall be published in a dedicated area of ICAO's website (**www.icao.int/training**) as well as under each Strategic Objective.

### 2.1.7   Applicability

The ICAO *Civil Aviation Training Policy* is applicable to all aviation training activities provided by ICAO Bureaus, Regional Offices, CATCs that are Members of the TPP, and/or CATCs issuing a certificate of completion or a certificate of achievement with an ICAO emblem or special ICAO Programme emblem.

## 2.2 ICAO GLOBAL AVIATION TRAINING (GAT) OFFICE

**2.2.1**  The Manager of the GAT Office, under the Office of the Secretary General, is responsible for the management and execution the ICAO *Civil Aviation Training Policy*. Responsibilities of the GAT Office include, but are not limited, to the following:

- ensure the overall successful implementation of the TPP in line with Programme principles and objectives, with the aim of establishing and maintaining an ICAO worldwide cooperative network of CATCs demonstrating the highest possible standards of training;

- ensure the application of internal quality control processes within the GAT Office to provide confidence in the systematic and objective delivery of all aspects of the Programme;

- ensure permanent liaison between TRAINAIR PLUS and ICAO senior management and relations with States, Civil Aviation Authorities (CAAs) and within ICAO; and

- ensure that the Programme is efficiently and effectively operated on a cost-recovery basis.

**2.2.2**  The Manager of the TPP is responsible for the planning and implementation of overall Programme activities. Responsibilities for the TPP include, but are not limited to, the following:

- ensure that Training Developers Courses (TDCs), Training Instructors Courses (TICs) and Training Managers Courses (TMCs) are delivered on a regular basis to provide the necessary training to CATCs on the design and development of high-quality STPs;

- maintain the TRAINAIR PLUS electronic Management System (TPeMS) and the TRAINAIR PLUS Library, including the validation of the STP packages produced by CATCs;

- ensure the continuous implementation and maintenance of quality management standards, including the review of quality management reports; and

- act as *faculty manager* for TRAINAIR PLUS courses and validate TRAINAIR PLUS course materials.

**2.2.3**  The Manager of the Training Design and Development Unit (TDD) is responsible for the design and development of training courses (ICAO Training Packages (ITPs), Compliant Training Packages (CTPs) and Partnership Training Package (PTPs)).  Responsibilities include, but are not limited to, the following:

- lead the development, validation and evaluation of ICAO courses;

- lead the development and validation of ITPs;

- manage the implementation of the ICAO-Compliant Training Programme;

- manage the implementation of the ICAO Partnership Training Programme; and

- support the implementation of the TPP and relevant training activities.

**2.2.4**  The Manager of the Training Assessment and Consultancy Unit (TAC) is responsible for managing all activities related to TRAINAIR PLUS assessment. Responsibilities include, but are not limited to, the following:

- plan and conduct assessments of CATCs using reference documents;

- conduct and coordinate training needs analysis with CATCs, States and other stakeholders to ensure their compliance with ICAO requirements;

- provide advice to States, aviation industry and training institutions on ICAO provisions regarding training requirements;

- support CATCs in the implementation of their Corrective Action Plan(s) (CAPs) resulting from the assessments and in the development and implementation of a quality system to ensure their ability to deliver quality training; and

- manage direct communication forums for the CATCs, the States and the industry through the organization of events such as workshops and global and regional symposiums.

## 2.3 TRAINAIR PLUS STEERING COMMITTEE (TPSC)

**2.3.1** The TRAINAIR PLUS Steering Committee (TPSC) is responsible for providing ICAO with guidance and advice on the development and improvement of the TPP.

The TPSC brings together Full Members who serve voluntarily. While ICAO reserves the right to make final decisions regarding Programme policy and operation, the input of the TPSC is a valued component of the Programme.

The TPSC reports to the Secretary General of ICAO and coordinates its activities with the GAT Office, who is responsible for the Secretariat.

## 2.4 TRAINAIR PLUS ELECTRONIC MANAGEMENT SYSTEM (TPeMS)

**2.4.1**   The TRAINAIR PLUS electronic Management System (TPeMS) is a comprehensive system that manages all aspects of the TPP. These include the following processes:

- Membership application;

- development of the first STP to achieve Full Membership;

- development of ICAO-recognized courses (STPs, ITPs, CTPs);

- ordering of courses through the TRAINAIR PLUS Library;

- hosting of TRAINAIR PLUS courses;

- generating of certificates;

- upgrading of former TRAINAIR STPs; and

- submission of feedback forms.


## 2.5    PROGRAMME OBJECTIVES

**2.5.1**   ICAO has an important role to play in ensuring that the civil aviation community and especially States have access to the pool of qualified professionals needed to support the safe, secure and sustainable development of air transport. ICAO defines training Standards and encourages States to harmonize their training programmes to enhance their aviation personnel's capabilities to the highest possible level.

**2.5.2**   The goal of the TPP is to improve the safety and efficiency of air transport through the establishment, maintenance and monitoring of high standards of training and competency of aviation personnel on a worldwide basis and in a cost-effective manner. The specific objectives of the TPP are:

- promote the implementation of an affordable competency-based approach for aviation training;

- streamline and facilitate the implementation and the development of the TRAINAIR PLUS methodology used in STPs;

- coordinate and supply technical support for the training of course developers;

- provide quality control throughout the STP development process; and

- operate an international STP sharing system and cooperative training network.

**2.5.3**   The TPP is based on three inter-related tools:

- development of standardized training material;

- establishment of an international sharing mechanism of training courses;  and

- creation of an international sharing network between public as well as private centres.

**2.5.4**   The TPP addresses all fields of civil aviation activities, from basic equipment and systems training supporting new implementation projects, to graduate level courses for a variety of civil aviation professionals. Member States, international and regional organizations, airlines, airports, air navigation service providers, manufacturers, training and education providers and development organizations may be part of the TPP.

## 2.6   PROGRAMME PRINCIPLES

**2.6.1**   The TPP and related activities are governed by the following principles: cooperation, timeliness, quality, value recognition, professionalism, accountability, transparency fairness, consistency and cost recovery.

**2.6.1.1   Cooperation:** The TPP is a cooperative system that seeks to benefit as many CATCs as possible through the sharing and transfer of knowledge and technical expertise throughout the aviation community on a worldwide basis.

**2.6.1.2   Timeliness:** The TPP delivers timely, relevant information and training to its Members at all times.

**2.6.1.3   Quality:** Internal quality control and quality assurance processes are established and implemented by the GAT Office to the systematic and objective delivery of all products of the TPP and enhance customer satisfaction.

**2.6.1.4   Value recognition:** While new cost-recovery mechanisms have been introduced, the Programme offers value to Members by providing courses that are material dependent and fully validated by skilled, competent expert validators. STP fees contribute to value recognition.

**2.6.1.5   Professionalism:** TRAINAIR PLUS activities, including delivering training courses, developing STPs and performing assessments, are conducted by appropriately qualified experts.

**2.6.1.6   Accountability:** TRAINAIR PLUS Members are accountable for the quality of the course material they offer to other Members under the supervision of the GAT Office. While the new STP development system is structured to be more autonomous, Members must ensure that their STPs are current in order to remain in good standing.

**2.6.1.7   Transparency:** All methodological aspects of the Programme, including the assessment process, are available to interested CATCs and parties; however, individual assessment results are kept confidential between ICAO, the assessed CATC and the CAA of the concerned State.

**2.6.1.8   Fairness:** The TPP promotes fairness in all aspects of its activities, from evaluation of facilities during the Associate Membership assessment process, to the sharing of STPs available through the TRAINAIR PLUS Library.

**2.6.1.9    Consistency:** TRAINAIR PLUS assessments are conducted in a consistent and objective manner through the training and approval of assessors, the provision of guidance material contained in this manual, and the application of internal quality control processes. While individual Members are responsible for updating their STPs, the Programme reserves the right to eliminate STPs that are not current. Although the owner retains the rights to the course material, the course will no longer be considered an STP.

**2.6.1.10    Cost recovery:** The TPP is operated on a cost-recovery basis, with all technical support costs covered by Members.

## 2.7    PROGRAMME EXPANSION

**2.7.1**    The TPP, which was launched in 2010, has successfully expanded into a global cooperative network of CATCs and industry partners. This Programme is one of the key pillars of the ICAO *Civil Aviation Training Policy*, which entered into force on 1 July 2014, and assists in implementing sustainable human resources development strategies consistent with Assembly Resolution A38-12, Appendix D.

## 2.8    CATEGORIES OF MEMBERSHIP

**2.8.1**    The TPP is open to all CATCs and operators, provided they are recognized or approved by their respective governments.

**2.8.2**    Appendix 2 of Annex 1 — *Personnel Licensing* to the Chicago Convention and the *Manual on the Approval of Training Organizations*  (Doc  9841) establish ICAO guidance and requirements for training organizations that provide training services for the issuance of an aviation personnel licence or rating. With the objective of harmonizing the training approach of all its Members, TRAINAIR PLUS has implemented those requirements as a minimum standard to be met by all training organizations willing to join its network, regardless of the type of training provided (issuing a licence or rating after completion of the training, or not).

**2.8.3**    The network consists of the following five categories of Membership:



a) **Associate Members:** CATCs that successfully pass an on-site assessment. To become a TRAINAIR PLUS Associate Member, new applicants must complete the online application and successfully pass the TRAINAIR PLUS on-site assessment, conducted by an ICAO-qualified assessor, to determine compliance of the applicant with the criteria described in the ICAO *Training Organization Assessment Guidelines* and the TRAINAIR PLUS Protocol Questionnaire, based on Annex 1 — *Personnel Licensing* to the Chicago Convention and the *Manual on the Approval of Training Organizations* (Doc 9841).

**TRAINAIR PLUS** ICAO — FULL MEMBER

b) **Full Members:** TRAINAIR PLUS Members that develop STPs. CATCs that wish to improve and consolidate competency-based training within their organizations must develop an STP, including the provision of On-the-job Training (OJT) to their course developers, conducted by an ICAO-qualified validator. Once the STP is validated by ICAO, the applicant will be granted TRAINAIR PLUS Full Member status.

**TRAINAIR PLUS** ICAO — REGIONAL CENTRE OF EXCELLENCE

c) **Regional Training Centres of Excellence (RTCEs):** TRAINAIR PLUS leading Full Members in their region that can develop ICAO courses using ICAO provisions (Annexes to the Chicago Convention and guidelines). This Membership category offers additional partnership with ICAO for the development of ITPs. RTCEs will be assessed by the GAT Office according to a set of high-level criteria described in Electronic Bulletin EB 2014/22 dated 20 May 2014. CATCs that comply with these requirements and others, such as regional distribution, will be recognized as RTCEs.

**TRAINAIR PLUS** ICAO — CORPORATE

d) **Corporate Members:** Industry organizations that wish to participate in the various TRAINAIR PLUS activities and have access to members of the network. As a Corporate Member, an organization can contribute to the Programme by making relevant knowledge, resources or tools available on a bilateral basis or for the network, such as subject matter expertise, as well as by developing PTPs or CTPs.

**TRAINAIR PLUS** ICAO — AFFILIATE

e) **Affiliate Members:** Aviation operators (airlines, aerodrome operators, handling agencies, service providers, etc.) that do not operate a CATC and wish to gain access to ICAO-harmonized Training Packages, as well as obtain ICAO training expertise and assistance. Affiliate Members can access a wide array of training repertoire from the TRAINAIR PLUS network, such as the ability to host ICAO-harmonized Training Packages.

## 2.9    COURSE DEVELOPMENT METHODOLOGY

**2.9.1**    Both Assembly Resolution A38-12, Appendix D, and the ICAO *Civil Aviation Training Policy* require the use of ISD methodology and a competency-based approach for development of training courses in aviation. TPP supports its Members in implementing an ISD methodology to develop any of the four categories of ICAO-recognized courses. In addition, a specific training development methodology contained in the *Training Development Guide, Competency-based Training Methodology* (Doc 9941) must be used for the development of STPs.

## 2.10  ICAO-RECOGNIZED COURSES

**2.10.1**   The ICAO portfolio of training packages are either developed by ICAO, TRAINAIR PLUS Members or partners. A training package comprises training material produced in accordance with a competency-based methodology, based on the *Training Development Guide, Competency-based Training Methodology* (Doc 9941), or an equivalent ISD methodology. Each training package contains necessary instructional materials for trainees and instructors.

**2.10.2**   Listed below are training packages that qualify for ICAO recognition:

a) **ICAO Training Package (ITP):** A training package developed by ICAO or an RTCE, in cooperation with ICAO, to meet specific needs and objectives;

b) **Standardized Training Package (STP):** A training package developed by ICAO, a TPP Full Member or an Associate Member for its first STP, in accordance with the *Training Development Guide, Competency-based Training Methodology* (Doc 9941);

c) **Compliant Training Package (CTP):** A training package developed by a TPP Associate, Full or Corporate Member, or an RTCE recognized by ICAO as compliant with ICAO SARPs and guidance material; and

d) **Partnership Training Package (PTP):** A training package developed within the framework of a cooperation and/or partnership agreement with the training arm of the Corporate Member or an industry partner. This package will be established or pursued when it is determined that the training activity fulfils the following criteria:

   1) fully complies with ICAO SARPs and policies;

   2) helps to achieve the objectives of ICAO's aviation training programme;

   3) complements existing ICAO aviation training activities; and

   4) represents a significant contribution to the aviation community.

## 2.11  INTERNATIONAL SHARING SYSTEM

**2.11.1**   STPs constitute the core of the TPP sharing mechanism to enhance the standardization and reduce the cost of training in technical and operational fields. TPP Members can purchase and implement other Members' STPs. Owners of STPs will be financially rewarded for each implementation of their STP. Since this approach is standardized among all Members, an STP produced by one Member can be used by any other Member with minor adaptations. ICAO facilitates the sharing of STPs via the TPeMS.

## 2.12  APPLICATION TO THE TRAINAIR PLUS PROGRAMME (TPP)

**2.12.1**   Potential Members who wish to join the Programme should visit the TRAINAIR PLUS website **www.icao.int/training** to initiate the application process.

## 2.13  THE ICAO AVIATION TRAINING DIRECTORY (ATD)

**2.13.1**   The ICAO *Aviation Training Directory* (ATD) is an essential component of the TPP. The ATD has undergone a significant overhaul in order to promote a larger and better-connected international aviation training community. It provides CATCs with enhanced visibility, enabling them to reach aviation training stakeholders from all ICAO Member States.

## 2.14  SUPPORTING NEXT GENERATION OF AVIATION PROFESSIONALS (NGAP)

**2.14.1**   ICAO has launched significant initiatives to support the Next Generation of Aviation Professionals (NGAP) in order to ensure that a sufficient number of qualified and competent aviation professionals are available to operate, manage and maintain the international air transport system in the future.

The TPP strongly supports NGAP strategies by:

- increasing the availability of highly qualified and required human resources;

- facilitating access to quality aviation training;

- providing reliable human resource data to support training needs and capacities;

- enabling and supporting the use of a competency-based approach in developing training; and

- promoting best practice methods and standards to demonstrate compliance with regulatory requirements, SARPs and national regulations.

# 3

TRAINAIR PLUS
PROGRAMME (TPP)
MEMBERSHIP

## 3.1 GENERAL BENEFITS OF MEMBERSHIP

**3.1.1**  Members of the TRAINAIR PLUS Programme (TPP) enjoy the benefits of being part of an established international cooperative network of CATCs. Through the international sharing network, Members have access to the all STPs prepared by other Members, and can import and adapt STPs to meet their local conditions.

**3.1.2**  Through the TPP, Members can progressively upgrade their curriculum by applying the TRAINAIR PLUS course development methodology and accessing a pool of validated STPs.

**3.1.3**  The TPP provides a forum that supports cooperation among Member States and a Programme for Members to exchange training best practices. Members are expected to participate in all TRAINAIR PLUS events as well as other relevant ICAO activities.

**3.1.4**  Full and Associate Members and RTCEs may use the TRAINAIR PLUS and ICAO logos on their publications and letterheads. However, TRAINAIR PLUS and ICAO logos should not be used on course certificates for courses that are not ICAO recognized. A certificate will be issued electronically by ICAO to the Member for each course participant for all TRAINAIR PLUS courses, and courses using STPs and ITPs. A reference code will allow the tracking and reporting of all training activities.

## 3.2 MEMBERSHIP REQUIREMENTS AND BENEFITS GRID

**3.2.1** The following grid summarizes the requirements and benefits for each TPP category of Membership:

**TRAINAIR PLUS Programme (TPP) Membership grid**

| | AFFILIATE | ASSOCIATE | FULL | RTCE | CORPORATE |
|---|---|---|---|---|---|
| **APPLICANTS** | | | | | |
| Government training organization | | ● | ● | ● | |
| Private training organization | | ● | ● | | |
| Aviation industry corporation | | | | | ● |
| Operator, air navigation service provider or any other operational entity not owning or operating a training centre | ● | | | | ● |
| **REQUIREMENTS** | | | | | |
| Assessment and reassessment every three years | | ● | ● | ● | |
| Payment of annual fee | ● | ● | ● | ● | ● |
| Use of an STP at least once a year | | ● | ● | ● | |
| Develop one STP | | | ● | | |
| Develop one ITP per year | | | | ● | |
| **BENEFITS** | | | | | |
| Technical assistance to develop STPs | | ● | ● | ● | |
| Continuous access to TPeMS | ● | ● | ● | ● | ● |
| Support to establish a CDU | | ● | | | |
| Host TRAINAIR PLUS courses | ● | ● | ● | ● | ● |
| Production of certificates through the TPeMS | ● | ● | ● | ● | ● |
| Listing in the ICAO ATD | | ● | ● | ● | ● |
| Generate revenues through the selling of STPs to other TPP Members | | | ● | ● | |
| Develop joint courses with ICAO | | | | ● | |
| Develop CTPs | | ● | ● | ● | ● |
| Develop PTPs | | | | | ● |
| Opportunity for its training arm to develop CTPs | | | | | ● |
| Link to Members' websites via the TRAINAIR PLUS website | ● | ● | ● | ● | ● |
| Technical support and expertise to implement a wide array of training solutions tailored to Members' needs | ● | | | | |
| Preferential fees for a wide range of ICAO courses and STPs | ● | ● | ● | ● | |

## 3.3 MEMBERSHIP REQUIREMENTS



**3.3.1**  In order to qualify as an **Associate Member**, a CATC shall:

- agree in writing to abide by the rules of the Programme as described in this manual;

- undergo a successful TRAINAIR PLUS assessment and implement fully the CAP to the satisfaction of ICAO;

- designate a focal point for all TRAINAIR PLUS activities;

- participate, on a regular basis, in TPP regional and global activities;

- use at least one STP per year;

- agree to follow-up assessments every three years from the date of the last on-site assessment; and

- pay the TRAINAIR PLUS Associate Membership fees.

**3.3.2**   In order to qualify as a Full Member, a CATC shall:

- establish and maintain a CDU with at least two active trained course developers who have successfully completed the TDC;

- develop a first STP;

- produce at least one validated STP every three years;

- consistently update the STPs it has originated;

- participate, on a regular basis, in TPP regional and global activities (e.g. ICAO TRAINAIR PLUS Global Symposium, Regional Conferences, Steering Committee Meetings, etc.); and

- pay the TRAINAIR PLUS Full Membership fee.
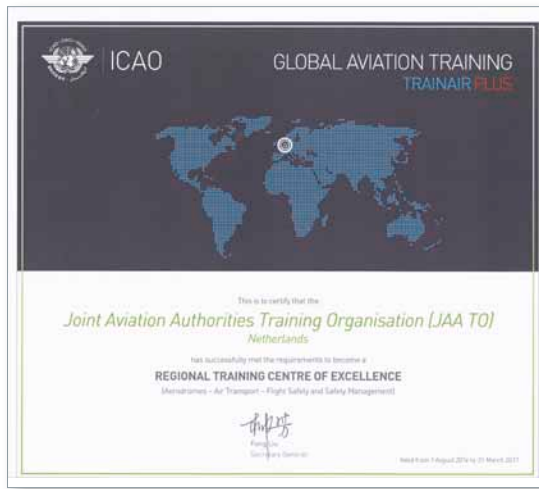
**3.3.3**   An **RTCE** will be selected based on successful demonstration of its compliance with all of the following criteria, as determined solely by ICAO:

- be a current Full Member of the TPP;

- have an established CATC with at least five years of experience in managing and delivering training activities;

- be a leader in training in the requested ICAO authorized area(s);

- have no open observation or recommendation from the last assessment;

- have an established CDU with at least two ICAO-qualified course developers;

- make available at least one senior course developer (having developed a minimum of three competency-based courses) to validate training courses developed by the CATC;

- make available at least one senior instructor to conduct training and oversight of the instructional team;

- provide access to Subject Matter Experts (SMEs) in at least one of the following authorized technical areas (aerodromes, air navigation, air transport, environment, flight safety and safety management, or security and facilitation);

- conduct courses in at least one of ICAO's six official languages;

- have a training administration and customer management system;

- have the ability and make a commitment to develop at least one competency-based course per year (minimum 30 hours of actual training time) in partnership with ICAO and based on training needs identified by ICAO;

- satisfy ICAO requirements for the volume of training delivered at the facilities of the CATC (measured in a student's X number of days in a course and ratio of national and international students);

- make available facilities for training foreign students, including accommodations, amenities, issuing of visas, etc.;

- satisfy ICAO requirements for clean, well-maintained, state-of-the-art facilities, including sufficient well-equipped classrooms, Wi-Fi, reliable high-speed Internet connectivity, etc.; and

- satisfy ICAO requirements for suitable, up-to-date training devices and equipment for the technical area in which they wish to be considered.



**3.3.4**  In order to qualify as a **Corporate Member**, an organization shall:

- agree in writing to abide by the rules of the Programme as described in this manual;

- contribute to the Programme by making available, on a bilateral basis, relevant resources such as non-STP courses;

- develop CTPs and/or PTPs;

- designate a focal point for all TRAINAIR PLUS activities;

- participate, on a regular basis, in TPP regional and global activities; and

- pay the TRAINAIR PLUS Corporate Membership fees.

**3.3.5** In order to qualify as an **Affiliate Member**, an aviation operator (airline, aerodrome operator, handling agency, service provider, etc.) that does not operate a CATC and wishes to gain access to ICAO-harmonized Training Packages, as well as obtain ICAO training expertise and assistance shall:

- agree in writing to abide by the rules of the Programme as described in this manual;

- designate a focal point for all TRAINAIR PLUS activities;

- pay the TRAINAIR PLUS Affiliate Membership fees; and

- participate, on a regular basis, in TPP regional and global activities.

**3.3.6** A CATC is considered a **Full** or **Associate Member** only once the assessment process is completed, payment is made, and the conditions for the Membership level sought are met. An organization seeking TRAINAIR PLUS Membership cannot extend its Membership to any activity made in association with any other non-TRAINAIR PLUS organizations.

## 3.4   TRAINAIR PLUS CERTIFICATES AND LOGOS

**3.4.1** TRAINAIR PLUS issues certificates through the TPeMS to all participants in courses held by Members using ICAO-harmonized Training Packages. Each certificate displays the ICAO TRAINAIR PLUS logo, the name of the participant, the name of the CATC and a unique identifier. The certificates are sent electronically to the CATC and must be signed by the Director of the CATC. The TRAINAIR PLUS logo can be used only on certificates attesting to the completion of an ICAO-harmonized Training Package course. The use of the TRAINAIR PLUS logo on a certificate is reserved solely for courses conducted using courses developed by TRAINAIR PLUS Members. The logo cannot be used on a certificate that is not an ICAO-harmonized Training Package.

## 3.5    TRAINAIR PLUS LOGO USAGE GUIDELINES

### 3.5.1.    Identification

When referring to Membership status within the TPP, the Member should identify itself as one of the following:

- TRAINAIR PLUS Associate Member;
- TRAINAIR PLUS Full Member;
- TRAINAIR PLUS Corporate Member;
- TRAINAIR PLUS Affiliate Member; or
- RTCE.

**3.5.1.1**    The following logos identify the various Memberships and should be used at all times by TRAINAIR PLUS Members when displaying their membership status.

ASSOCIATE MEMBERSHIP



CORPORATE MEMBERSHIP



FULL MEMBERSHIP



AFFILIATE MEMBERSHIP



REGIONAL TRAINING CENTRE
OF EXCELLENCE (RTCE)

**3.5.1.2**  TPP Members are encouraged to use the following identification in all their promotional and marketing documents:

- websites;
- brochures;
- flyers;
- email signatures;
- electronic signatures;
- packaging;
- door plaques; and
- other marketing/promotional material.

**3.5.1.3**  Logo usage on training package certificates

All certificates generated through the TPeMS must display the generic TRAINAIR PLUS logo as follows:



### 3.5.2  Purpose

**3.5.2.1**  A well-respected TRAINAIR PLUS brand image will enable Members, as well as the rest of the TRAINAIR PLUS community, to achieve the following:

- ensure immediate recognition of the training centre/organization as a Member of ICAO's cooperative network of CATCs;

- deliver the Member's messages clearly and consistently; and

- confirm the Programme's credibility.

### 3.5.3   Terminology

**3.5.3.1**   The TPP provides the Member with a Membership to an ICAO Programme. A Member must not make use of any other terminology (such as accreditation, endorsement or approval) in promotional documents to avoid jeopardizing the core values and objectives of the Programme and undermining the authority of ICAO Member States.

### 3.5.4   Trademark



**3.5.4.1**   The trademark of the TPP, which consists of the TRAINAIR PLUS name and ICAO logo, is responsible for protecting against any damaging or confusing usage.

**3.5.4.2**   While TPP Members are encouraged to use the TRAINAIR PLUS logo in the various contexts stipulated in 1.3, in order to fully promote the TPP and its community and activities, correct usage is paramount as the logo is an important element of the Programme's visual identity.

### 3.5.5   Correct use

**3.5.5.1**   The TRAINAIR PLUS logo should be displayed prominently and clearly to maximize its impact. A minimum clear space zone should appear around each of the four sides to allow the logo to breathe. There should be a clear space zone between the logo and other graphic elements, such as type, images, other logos and the edge of the pages to ensure the logo retains a strong presence wherever it appears. Where possible, there should be sufficient space around the logo.



X = clear space zone
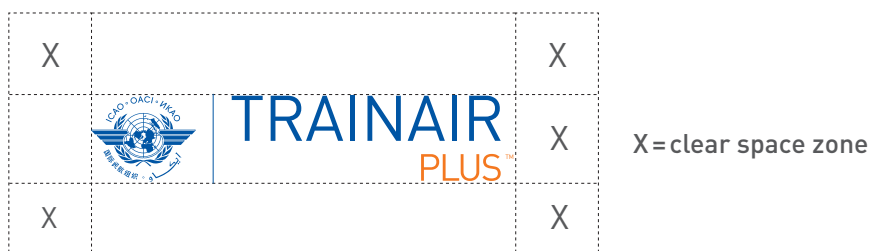
**3.5.5.2**   The logo must always be displayed at a size large enough to read the logo. This will vary based on the resolution of the media it is being used in; however, as a general rule, the logo circle should be no smaller than 1 em [3/8"] or 36 pixels in height. The logo may be positioned on a pale colour or photographic background.

### 3.5.6  Incorrect use

**3.5.6.1**   Derivative versions of the TRAINAIR PLUS logo are not allowed, as they dilute the Programme's brand identity. As well, users should never:

- stray from the colour palette;
- switch the colours;
- use the design on similarly coloured backgrounds;
- rearrange elements of the design; or
- stretch or distort the logo.

## 3.6    LANGUAGE OF COMMUNICATION

**3.6.1**   Communication between ICAO and TRAINAIR PLUS candidates or Members should preferably be in the English language or in one of ICAO's other official languages (Arabic, Chinese, French, Russian or Spanish). It should be noted that the use of a language other than English may necessitate some delays due to translation. This requirement applies to any official document requested by ICAO during the assessment process. It is the responsibility of the CATC to translate any required documents that are not available in one of ICAO's six official languages.

# 4

THE
MEMBERSHIP
PROCESS

## 4.1 GENERAL

**4.1.1**   The ICAO *Civil Aviation Training Policy* and the TRAINAIR PLUS Programme (TPP) require a formal assessment of CATCs that use the ICAO logo in their training certificates and/or are seeking TRAINAIR PLUS Membership. TRAINAIR PLUS Associate or Full Membership for CATCs is only granted after a successful assessment conducted by ICAO confirms that the candidate CATC has satisfied the ICAO requirements as an approved CATC. Only following a successful ICAO assessment can an organization become a TRAINAIR PLUS Associate or Full Member and maintain its status through the following assessment.

**4.1.2**   During the on-site assessment, it is essential that the candidate Member either identify a focal point able to communicate effectively in the language used for the assessment, or provide interpretation services.

**4.1.3**   The TRAINAIR PLUS assessment is linked to a specific location. If an organization seeking TRAINAIR PLUS Membership operates in more than one location, the assessment site will be selected by ICAO in cooperation with the training organization, and the certificate will only be valid for that location.

**4.1.4**   The ICAO assessment is valid for a period of three years from the date of the last on-site assessment. Follow-up assessments will be conducted by ICAO at least every three years, or more frequently if deemed necessary, in order to ensure that a CATC complies with the terms of the TRAINAIR PLUS Membership.

**4.1.5**   If ICAO becomes aware that a TRAINAIR PLUS Member no longer complies with the Programme requirements (including technical aspects or failure to submit fees in a timely manner), ICAO may temporarily suspend the CATC's Membership. ICAO will advise the CATC in writing of any non-compliance with the Programme requirements and may require that a CAP be submitted. If no action is taken within the prescribed time, ICAO may revoke the CATC's Membership and publish the information to those concerned, including all Members.

## 4.2. OBJECTIVES OF THE ASSESSMENT AND REASSESSMENT

**4.2.1**   The main objective of the assessment of a CATC is to analyse and determine its capability to become a Member of the TPP and assess its capability to use STPs developed by other Members. It provides a clear and independent vision of the operations within a CATC and highlights critical areas requiring improvements.

**4.2.2**   The assessment process has been implemented in the Programme with the objective of supporting its Members vis-à-vis their CAAs or any other level of government. The official ICAO report resulting from the assessment usually helps CATCs to justify additional funding in order to purchase new equipment required to improve the quality of training, as evaluated by ICAO and presented in the report.

**4.2.3**   The main objective of the reassessment is to ensure that the corrective actions resulting from the previous assessment have been correctly implemented, and that potential changes in the operations of the CATC since the previous assessments do not have an impact on the quality of training delivered.

**4.2.4**   As indicated in the TPOM, reassessments for all TRAINAIR PLUS Members are mandatory every three years from the date of the initial assessment. This allows ICAO to maintain an oversight on the quality and on the TRAINAIR PLUS activities of the CATC, thus ensuring that all Members continue to meet the established requirements.

## 4.3.   ASSESSMENTS OUTSIDE OF THE TRAINAIR PLUS PROGRAMME (TPP)

**4.3.1**   As indicated in 4.2.1, the ICAO assessment "provides a clear and independent vision of the operations within a CATC and highlights critical areas requiring improvements". ICAO can therefore provide this assessment service to any organization involved in aviation training wishing or needing to be benchmarked against ICAO reference documents, without necessarily having the objective of being a Member of the TPP. This service is offered in the form of a consultancy for all CAAs, governments, CATCs or manufacturers having training activities.

## 4.4.   ASSESSMENT SCOPE AND CRITERIA

**4.4.1**   The TPP strives to achieve standardization and uniformity in the scope, depth and quality of the assessments conducted. In order to ensure that all CATCs are assessed in a consistent and objective manner, standardized assessment criteria and protocols have been developed to guide the assessor and the CATC through the assessment process.

**4.4.2**   The TRAINAIR PLUS assessment criteria are based on three ICAO reference documents:

- Appendix 2 of Annex 1 — *Personnel Licensing* to the Chicago Convention
- *Manual on the Approval of Training Organizations* (Doc 9841)
- *Training Development Guide, Competency-based Training Methodology* (Doc 9941)
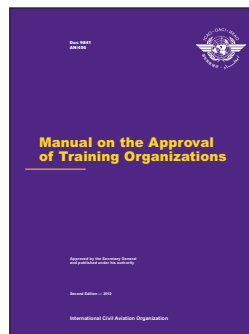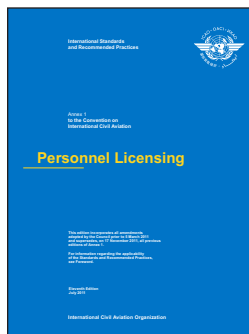
**4.4.3** Those documents are available via the ICAO online store at http://store1.icao.int/index.php

**4.4.4** The assessment covers the following eight areas of the operations of a CATC:

**1** Organization

**2** Training and Procedures Manual

**3** Training Programmes and Training Delivery

**4** Facilities

**5** Personnel

**6** Records

**7** Quality System

**8** Safety Management (if applicable)

## 4.5. ASSESSMENT PROCESS

**4.5.1** The assessment process covers four distinct phases:

| PHASE 1 Pre-assessment | → | PHASE 2 Self-assessment | → | PHASE 3 On-site assessment | → | PHASE 4 Post-assessment |
|---|---|---|---|---|---|---|

**4.5.2 Pre-assessment**

**4.5.2.1** Once the application has been received via the TPeMS, the GAT Office will review all information and documentation provided and decide if the organization can be considered as a potential candidate for the TPP. If it is the case, the GAT Office will approve the application and the TAC will contact the candidate CATC to coordinate a proposed schedule for the on-site assessment. At this stage, an estimate of the costs of the on-site assessment mission (travel expenses and daily subsistence allowance (DSA) in accordance with United Nations Staff Rules) for the ICAO official conducting the on-site assessment will also be provided. The invoice covering the assessment or reassessment fees will be issued and forwarded to the CATC for immediate payment.

**4.5.3 Self-assessment**

**4.5.3.1** Once ICAO approves the application of the candidate CATC, the applicant receives a link to fill a self-assessment questionnaire via the TPeMS. The form includes numerous questions reviewing the scope of the assessment as described in 4.4. The system directs the CATC to answer

the question while providing as an attachment the evidence for reference. It is mandatory that the CATC complete this phase before proceeding to the on-site assessment. It is a key element of the assessment process and has a strong and direct impact on the time that will be required on site.

### 4.5.4 On-site assessment

**4.5.4.1** Once ICAO is notified that the self-assessment phase has been completed, the assessor reviews all material and evidence submitted by the CATC to prepare the on-site phase of the assessment process. This phase consists of a four-day, on-site assessment mission at the CATC conducted by an assessor approved by the GAT Office. During this phase, the assessor will visit the facilities in order to ensure that they match the description received, and will observe that the current operations of the CATC are conducted along the same lines as described in the various documents provided during the self-assessment phase.

**4.5.4.2** The on-site assessment phase is conducted via the TPeMS, and it is therefore essential to ensure that the assessor has internet access during his/her visit. When reviewing and discussing each question with the CATC, the assessor has the possibility of selecting three options for each of the questions:

1. The question does not apply to the CATC: the assessor will indicate *Non-Applicable*.

2. The response provided by the CATC is satisfactory and the evidence supports the response: the assessor will then indicate *Satisfactory*.

3. The response provided by the CATC is not to the satisfaction of the assessor: the assessor will indicate *Non-Satisfactory*, which will result in two possibilities:

a) **Finding Category Two:** the process or service does not meet the requirements of the protocol specifications but is not critical to safety-related matters and does not affect notably the quality of the training. A **Finding Category Two** does not require a CAP and the CATC has a period of three years to resolve this matter. Comments to the observation only are required. Only if during a reassessment the assessor issues the same **Finding Category Two**, will it then generate a **Finding Category One**.

b) **Finding Category One:** the process or service does not meet the requirements of the protocol specifications, is critical to safety-related matters and does affect notably the quality of the training. The CATC must consequently prepare a CAP and evidence of its implementation becomes a prerequisite to the granting of a TRAINAIR PLUS Membership.

**4.5.4.3**   At the end of this phase, ICAO will generate an invoice covering all assessment costs (travel and living expenses of the assessor) reflecting the actual costs incurred. Immediate payment by the training organization is required in order to proceed to the next phase.

### 4.5.5   On-site assessment schedule

**4.5.5.1**   The standard time allotted by ICAO for the conduct of the on-site assessment by an ICAO assessor is four days, although this may be modified depending on the size and complexity of the CATC. The following table depicts a standard and average assessment schedule and the time allotted for covering the various critical elements and protocols.

| | DAY 1 | DAY 2 | DAY 3 | DAY 4 |
|---|---|---|---|---|
| **MORNING** | • Briefing with management of CATC<br>• Briefing with CDU on current activities (for reassessments) | Protocol questionnaire:<br>1- Organization | 3- Training programmes and training delivery | 7. Quality system |
| | | | 4- Facilities | 8- Safety management (if applicable) |
| **AFTERNOON** | Visit of facilities | 2- Training and procedures manual | 5- Personnel | Debriefing with management of CATC |
| | | | 6- Records | |

### 4.5.6  Post-assessment

**4.5.6.1**  The post-assessment phase encompasses all activities following the on-site assessment leading to the granting of a TRAINAIR PLUS Membership. These activities are mainly designed to cover the follow-up of the CAP (if any) and its implementation. The CAP and evidence of its implementation must be validated by the assessor, who will work in close cooperation with the CATC to conclude this phase.

**4.5.6.2**  If a Finding Category One has been identified by the assessor, the CAP provided by the CATC must specify actions taken and planned, together with a date of implementation. Upon execution of the CAP, the CATC must submit clear evidence of its full implementation to ICAO in the form of an implementation report via the TPeMS.

**4.5.6.3**  Once the assessor has validated the CAP and its satisfactory implementation, the ICAO Assessment Report will be generated by the TPeMS. This Report becomes the official ICAO Report, validating the assessment process and completing the last phase of this process.

**4.5.6.4**  At this stage, the CATC is granted a TRAINAIR PLUS Membership, and an invoice covering the annual membership fees is issued by ICAO. Payment of this invoice will be required before ICAO issues the certificate and plaque to the CATC.

## 4.6  MEMBERSHIP PROCESS FLOWCHARTS

**4.6.1**  The Associate Membership process consists of five phases:

a) application;
b) pre-assessment;
c) on-site assessment;
d) post-assessment; and
e) delivery of certificate.

The following figure depicts the workflow processes associated with each  phase:
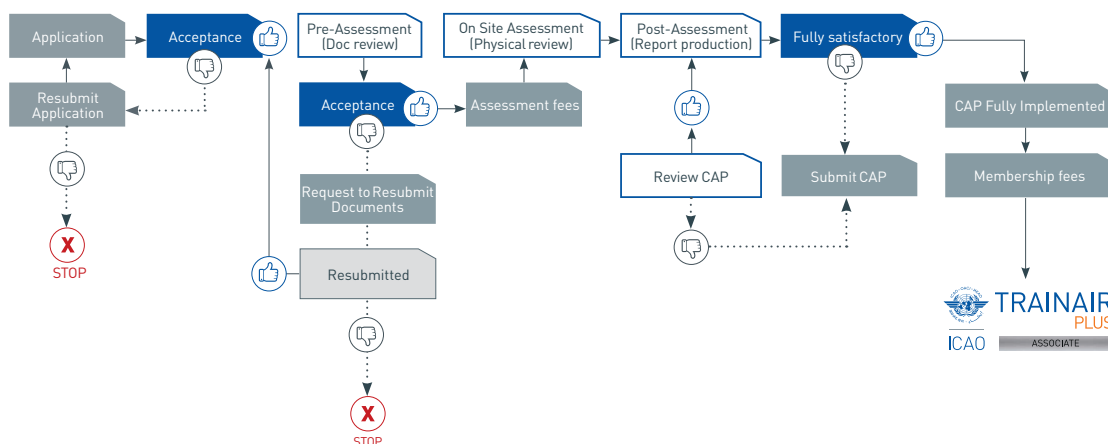


Figure 4.1  ASSOCIATE MEMBERSHIP PROCESS FLOWCHART

## 4.7    FOLLOW-UP ASSESSMENTS AND RENEWAL

**4.7.1**    Follow-up assessments will be conducted by ICAO at least once every three years, or more frequently if deemed necessary, in order to ensure that a CATC complies with the terms of its TRAINAIR PLUS Membership.

**4.7.2**    During the follow-up assessment, ICAO will  use the same processes and guidelines as followed for the initial assessment of the CATC, and will provide a report outlining the findings. If the CATC remains in compliance with the established requirements, the TRAINAIR PLUS Membership will be renewed in the applicable category (Associate or Full).

## 4.8    SUSPENSION AND REVOCATION

**4.8.1**    If ICAO becomes aware of non-compliance by the CATC with the Programme requirements, including technical aspects subject to successful assessment or failure to submit payments for fees in a timely manner, ICAO will temporarily suspend the Programme Membership. ICAO will advise the CATC in writing of any deficiencies noted and/or non-compliance with the requirements. The CATC will be required to submit a CAP acceptable to ICAO. If no action is taken within the prescribed time, ICAO will revoke the CATC Membership and publish the information to those concerned, including all Members.

**4.8.2**    The following infractions will be cause for suspension or revocation of membership:

- non-payment of fees within 3 months (without justification);
- failure to adhere to the rules of the Programme;
- inappropriate use of the Programme logo (only those certificates issued by ICAO for courses conducted by ICAO or ordered through the TRAINAIR PLUS Library are entitled to include the TRAINAIR PLUS logo); or
- inappropriate use of certificates issued by ICAO for STP courses. These courses shall only be taught  by authorized instructors.

# 5

## STANDARDIZED TRAINING PACKAGES (STPs)

## 5.1    STP DEVELOPMENT BY A CATC

**5.1.1**    In order to become a Full TRAINAIR PLUS Member, CATCs must first qualify for TRAINAIR PLUS Associate Membership and then develop STPs in accordance with the *Training Development Guide, Competency-based Training Methodology* (Doc 9941).

## 5.2    TRAINING DEVELOPMENT GUIDE, COMPETENCY-BASED TRAINING METHODOLOGY (Doc 9941)
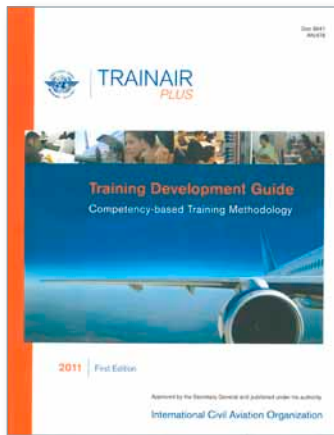


**5.2.1**    The *Training Development Guide, Competency-based Training Methodology* (Doc 9941) provides a methodology for the development of competency-based training courses. It serves as a guide for the development of training material in a systematic manner and also sets forth training standards, making it practical for course material to be shared between participating TRAINAIR PLUS CATCs.

**5.2.2**    The *Training Development Guide, Competency-based Training Methodology* (Doc 9941) describes in detail the methodology used to develop STPs. By applying this methodology, Members ensure that all STPs meet the same requirements, resulting in a harmonized, high-quality standard. Only those STPs that meet the requirements of the *Training Development Guide, Competency-based Training Methodology* (Doc 9941) will be approved and made available through the TRAINAIR PLUS sharing network.

**5.2.3**    The TRAINAIR PLUS STP preparation methodology is based on a systemic approach that consists of three principal stages: Analysis, Design and Production, and Evaluation. Members are required to provide a phase report to ICAO at each stage of the process. These reports are analysed by an ICAO-designated TRAINAIR PLUS expert validator who ensures that the STP meets the requirements of the *Training Development Guide, Competency-based Training Methodology* (Doc 9941). Feedback is provided to the CDU, including advice on corrective actions.

## 5.3    STP DEVELOPMENT PROCESS

**5.3.1**    Training material produced according to the procedures stipulated in the *Training Development Guide, Competency-based Training Methodology* (Doc 9941) takes the form of a fully documented and tested comprehensive package of training material that reflects the technological requirements relevant to the course. In the context of the TRAINAIR PLUS Programme (TPP), these packages are known as STPs, with each STP issued its own TRAINAIR PLUS serial number. Each STP contains a step-by-step guide for the instructor, all the reference material required by the trainee, a full set of tests, exercises, model answers and scoring keys, as well as all

the presentation material used in the course. All STPs are validated to prove their effectiveness and capacity for replication across international training platforms.

**5.3.2**   In order to produce STPs, Full Members must establish and maintain a CDU. This necessitates that the CATC retain an appropriate number of qualified and active course developers (two minimum). TRAINAIR PLUS Full Members should plan and budget for the TDCs, which are held on a regular basis throughout the year as advertised on the TRAINAIR PLUS website.

**5.3.3**   The development of a first STP can be challenging. TRAINAIR PLUS Associate Members new to the Programme must engage the services of a TRAINAIR PLUS expert validator to assist their CDU in completing the development of STPs. This entails payment of a salary and costs related to travel for the OJT of course developers and validation delivery.

**5.3.4**   Upon request by a TRAINAIR PLUS Member, the GAT Office may provide assistance to the CATC's CDU with an STP under development through subject matter technical expertise from the appropriate ICAO section. ICAO will provide an estimate of the cost for this service, which is to be absorbed by the CATC.

**5.3.5**   The following workflow charts show the three principal stages of the development of an STP and a step-by-step development process. Further detail on each step is available in the *Training Development Guide, Competency-based Training Methodology* (Doc 9941).

- The **Analysis stage** consists of three main steps: a preliminary study designed to identify training needs; a job analysis to determine performance and competency requirements; and a population analysis to gather information about the target population of future trainees.

- The **Design and Production stage** includes the design of the course curriculum, the design of individual modules, and production and developmental testing.

- The **Evaluation stage** consists of validating and revising the course, if necessary, to achieve end-of-module objectives.
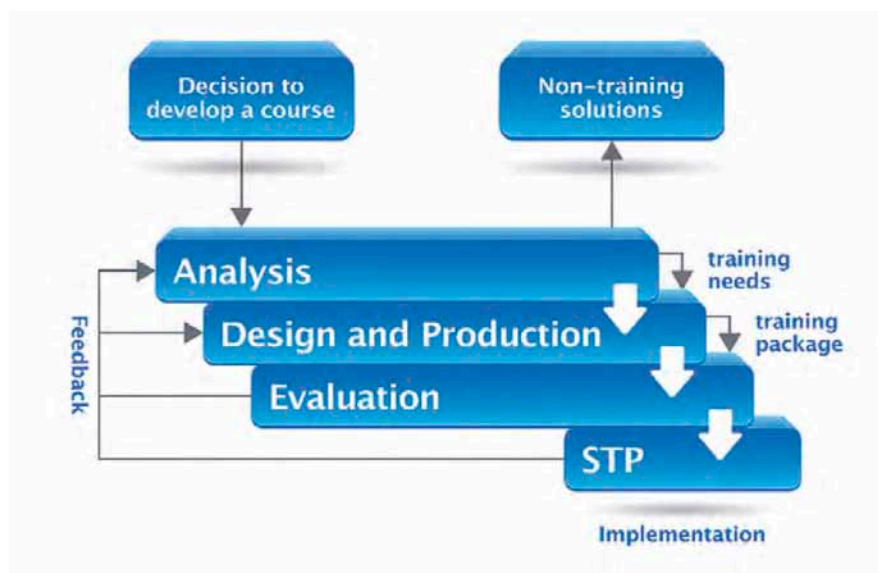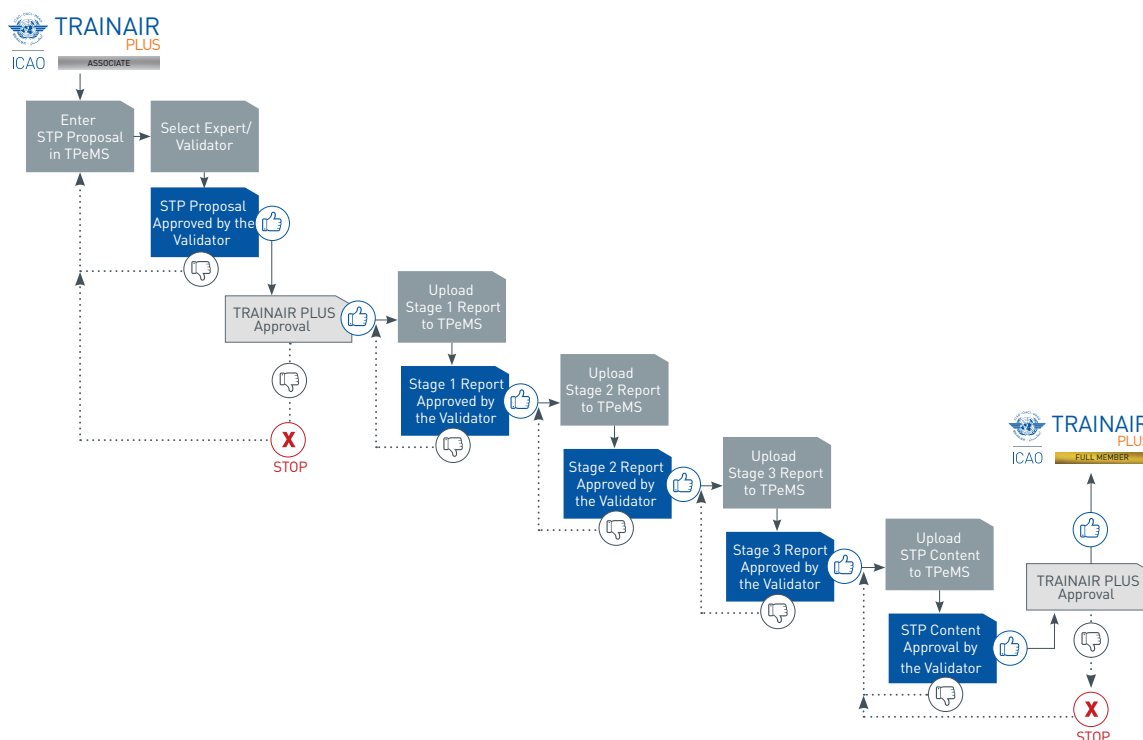
**Figures 5.1 and 5.2  Workflow Charts**

## 5.4    TRAINING OF COURSE DEVELOPERS

### 5.4.1    Number of course developers and SMEs for each STP

**5.4.1.1**    In order to ensure the full participation of course developers in the entire process of an STP development, the number of course developers for each STP development should be a minimum of two and maximum of four, with a minimum of two SMEs.

**5.4.1.2**    For the purpose of training course developers and the provision of OJT by a validator to ensure sufficient competency achievement to obtain the ICAO Qualified Course Developer (IQCD) certificate, the maximum number of course developers to undergo OJT is two per STP. Additional, qualified course developers may contribute to the development of an STP, but should not exceed four, including those who are qualified and those undergoing OJT.

**5.4.1.3**    In exceptional circumstances, an STP may be developed by only one experienced course developer or SME in the CDU if acceptable to the validator and approved by the Manager of the TPP.

### 5.4.2 Qualification of course developers and SMEs

**5.4.2.1**   To best apply the competency-based training methodology, course developers should develop their first STP within six months following completion of the TDC.

**5.4.2.2**   A 2-day minimum (12-hour training) condensed refresher training course provided on site by the validator prior to starting the work on the STP is required for course developers developing an STP 6 to 12 months following completion of the TDC.

**5.4.2.3**   A 5-day minimum (30-hour training) full refresher training course provided on site by the validator prior to starting the work on the STP is required for course developers developing an STP more than 12 months following completion of the TDC.

**5.4.2.4**   To ensure the validity of the STP content and comprehensiveness of the data provided to course developers, the SME must provide a valid curriculum vitae demonstrating at least three years of experience on the STP subject.

### 5.4.3 Training of course developers - OJT

**5.4.3.1**   For the first STP development, each course developer is required to undergo on-site OJT conducted by the validator for the entire process, with a physical face-to-face for Step 2 – Job Analysis  and Step 4 – Design of Curriculum.

**5.4.3.2**   For subsequent STP development, additional OJT may be required, depending on the validator's evaluation of the course developer's performance.

**5.4.3.3**   The validator will recommend the issuance of IQCD certificates only to those course developers who have successfully completed their OJT.

**5.4.3.4**   For all STP development, the validator is required to be present during the validation delivery and ensure that the validation report is implemented before submitting the STP content.

**5.4.3.5**   For long STPs, the validator may attend only during the last week of the validation delivery, if the CATC has at least one senior course developer able to lead the STP development and report to the validator.

## 5.5    SCOPE OF THE STP

**5.5.1**    No duplication of STP subjects is allowed in the TRAINAIR PLUS Library. When similarity is identified between STPs, the validator should assist the CATC in making revisions as needed in order to differentiate STPs, with less than 30 per cent duplication of subtasks from other STPs in the Library.

**5.5.2**    To facilitate the selection of STP subjects and the differentiation of STP scope, a list of STPs developed and those under development can be accessed via the TPeMS by all TRAINAIR PLUS Member CATCs and validators;

**5.5.3**    The STPs addressing the same scope may be developed in other languages with the approval of the Manager of the TPP.

## 5.6    DURATION OF THE STP

**5.6.1**    The duration for the first STP should be between 3 days (18-hour training minimum) and 2 weeks (60-hour training minimum). Such OJT is essential prior to the development of additional STPs by the course developers.

**5.6.2**    In the case where the first STP is less than 3 days (18-hour training), course developers will not be issued an IQCD certificate due to insufficient OJT.

**5.6.3**    For subsequent STPs, the duration may be shorter or longer but consideration should always be devoted, during consecutive STP development activities, to the development of the competency of course developers and the enhancement of their skills.

## 5.7    DEVELOPMENT SCHEDULE

**5.7.1**    To avoid duplication, an STP proposed by a CATC shall not be developed prior to its acceptance by the validator and TRAINAIR PLUS.

**5.7.2**    When a CATC decides to develop an STP, the *planned schedule* should be entered in the TPeMS and should be realistic and as close as possible to the *actual schedule*.

**5.7.3**    After completion of each stage, the *actual schedule* should be entered and reflect the real situation of the STP development.

## 5.8    ICAO TRAINAIR PLUS ACCEPTANCE OF STP PROPOSAL

**5.8.1**   The STP proposal should be entered in the TPeMS by the CATC and reviewed and submitted by the validator for TRAINAIR PLUS acceptance.

**5.8.2**   TRAINAIR PLUS acceptance is based on the STP subject not having duplication within the TRAINAIR PLUS Library. If this is the case, an STP number will be assigned.

**5.8.3**   Should insufficient information be provided, the STP proposal shall be rejected by the TPP, and a revision shall be required prior to resubmission.

**5.8.4**   When similarity is identified between STPs, the validator should assist the CATC in making revisions as needed in order to differentiate STPs, with less than 30 per cent duplication of subtasks from other STPs in the TRAINAIR PLUS Library.

## 5.9    STAGE REPORTS

**5.9.1**   After the completion of each stage, a stage report should be prepared by the CATC and provided to the validator for review, comments and final approval.

**5.9.2**   Following the approval of the final version of each stage report, the validator should upload it to the TPeMS stage by stage, with a copy to the CATC.

**5.9.3**   There is only one file to be uploaded at each stage; a report template for each of the three stages can be downloaded from the TPeMS.

## 5.10   ICAO TRAINAIR PLUS ACCEPTANCE OF STP CONTENT

**5.10.1**   The STP content should be uploaded by the CATC and reviewed and submitted by the validator for ICAO TRAINAIR PLUS acceptance.

**5.10.2**   The STP content consists of several folders: STP forms; instructor guide; trainee material; audio-visual aids; and OJT guidance material. ICAO reference material identification should be indicated, if applicable.

**5.10.3**   TRAINAIR PLUS acceptance is based on the completeness and consistency of the STP content. The STP content will be automatically stored in the TRAINAIR PLUS Library.

**5.10.4**   Should insufficient information be provided, the STP content shall be rejected by TRAINAIR PLUS, and a revision shall be required prior to resubmission.

**5.10.5**   When similarity is identified between STPs, the validator should assist the CATC in making revisions as needed in order to differentiate STPs, with less than 30 per cent duplication of subtasks from other STPs in the TRAINAIR PLUS Library.

## 5.11  STP VALIDATION

**5.11.1**   The STP validation shall be conducted by the TRAINAIR PLUS validator through the entire process of the STP development, while the TPP shall be responsible for the quality assurance of all STP development.

**5.11.2**   All TRAINAIR PLUS validators are required to attend the ICAO Course Developer and Instructor Standardization Meeting (ICAO CDI/STD) every two years in order to remain current.

**5.11.3**   The TPeMS will record the STP rejection history. Repetitive/frequent STP rejection will generate a system warning up until the loss of the TRAINAIR PLUS validator qualification.

## 5.12  STP CERTIFICATES

**5.12.1**   Following successful completion of a validated STP, the official certificate shall be generated with a unique identifier via the TPeMS. CATCs may print their own certificate.

**5.12.2**   No other type of STP certificate shall be recognized by the TPP.

**5.12.3**   TRAINAIR PLUS Member CATCs should ensure their training manuals clearly identify the process of issuing STP certificates.

## 5.13  INFORMATION EXCHANGE

**5.13.1**   Once a CATC joins the TPP, the Director of the CATC will nominate an official focal point who shall be responsible for all information exchange between TRAINAIR PLUS and the CATC.

**5.13.2**   All information exchange between TRAINAIR PLUS and the CATC should be routed via the focal point of the CATC.

**5.13.3**   In regard to specific STP development, the validator should work with course developers directly in order to provide them with sufficient and effective OJT.

## 5.14  STP EVALUATION

**5.14.1**   In regard to STP implementation, the CATC focal point shall be responsible for conducting the STP evaluation and submitting the evaluation information to TRAINAIR PLUS via the TPeMS, one week following completion of the STP.

## 5.15  UPDATING A VALIDATED STP

**5.15.1**   The CATC of the originating STP must ensure the STP content corresponds exactly to the requirements of the job and must keep it up to date.

**5.15.2**   Updating a validated STP may be undertaken by requesting TRAINAIR PLUS, via the TPeMS, to upload the STP update report containing the revised content.

**5.15.3**   Should major revisions be needed in regard to STP objectives, target population, job analysis or design of modules, revalidation will be required prior to STP implementation.

## 5.16  POST-VALIDATION ACTIVITIES

**5.16.1**   ICAO encourages validators to follow up with CATCs on STP implementation, STP evaluation, selection of other STPs from the TRAINAIR PLUS Library, proposal of subsequent STP development, etc.

## 5.17  IMPLEMENTATION

**5.17.1**   TRAINAIR PLUS Members may develop STPs on any topic to suit their training requirements. ICAO shall be notified prior to any course development in order to list the proposed STP in the TRAINAIR PLUS Library and therefore avoid duplication. ICAO will assign a provisional STP number once the proposal and project plan have been approved. Once an STP number is assigned, it is reserved by the Member.

**5.17.2**   The TPP is based on a cooperative system and, if requested, originators of an STP should be willing to assist other Members who are recipients of the STP to ensure its effective implementation. However, it is understood that unless otherwise arranged between Members, any costs involved in the implementation process shall be borne by the CATC requesting the assistance.

## 5.18  ADAPTATION AND TRANSLATION

**5.18.1**   As a general rule, all attempts should be made to implement an STP in its original format when similar trainees need to acquire similar skills in similar environments. However, there are times when an STP prepared in one CATC will need to be adapted to the local requirements of another CATC. In this context, there are two levels of adaptation of an STP:

- a minor adaptation to address local conditions that will not change the structure of the STP; and

- a major adaptation that involves substantial modification to some of the existing material and/or the development of new or complementary material, thus necessitating a revision of the structure of the STP.

**5.18.2**   In either case, a new STP number will not be assigned but will continue to be recognized by its original code, and all Members shall receive notification of the changes made to the STP.

**5.18.3**   Major adaptations require a bilateral agreement with the STP owner. Such agreement must be sent to ICAO.

**5.18.4**   The CATC that wishes to perform the adaptation must have TRAINAIR PLUS course development capability. Only Full Members can carry out major adaptations. Associate Members can carry out minor adaptations or a major adaptation as part of a project to become a Full Member. In this case, the Associate Member should establish a CDU.

**5.18.5**   The intellectual property rights for the STP remain with the originator of the STP at all times.

## 5.19  STP ASSEMBLY INSTRUCTIONS

**5.19.1**   Preparing an STP to TRAINAIR PLUS standards requires a considerable amount of dedicated effort on the part of the CDU. As each STP is finalized, it will not only be used on a permanent basis within the originator's CATC and be updated on a regular basis, but will also be made available to other interested participating CATCs via the TPeMS. It is therefore important that all of the relevant materials be correctly assembled and efficiently packaged to ensure that this high-quality material is provided to national and international users in a form that is easy to apply and which will adequately reflect the work that has gone into the STP's preparation.

**5.19.2**   A complete STP, ready for international distribution, should contain all materials that will assist the instructors who will be delivering the course. Moreover, the materials should be assembled in a useful and consistent manner.

**5.19.3**   An electronic copy of each new STP prepared shall be provided to ICAO free of charge. STPs forwarded to the TPP shall fully comply with all requirements contained in the *Finalized STP*

*Assembly Instructions.* In order for it to be uploaded to the TPeMS and included in the TRAINAIR PLUS Library, the STP must be assembled in compliance with the instructions below.

### 5.19.4  STP contents

| 1-STP INFORMATION | FORMAT | PURPOSE |
|---|---|---|
| 1.1 Cover Page | Pdf, Jpg | |
| 1.2 Form 1 Task List | Pdf | |
| 1.3 Form 2 task Description | Pdf | This folder of material will be used to introduce Members to the STP so that they can determine if it meets their training needs. |
| 1.4 Form 9 Course Description | Pdf | |
| 1.5 Form 10 Course Content | Pdf | |
| 1.6 Form 11 Instructor's Timetable | Pdf | |
| 1.7 Form 12 Facilities, Material, Equipment | Pdf | |

| 2-INSTRUCTOR MATERIALS | FORMAT | PURPOSE |
|---|---|---|
| 2.1 Instructor Guide | Doc, Pdf | |
| 2.2 Module Plans (MP) | Doc, Pdf | |
| 2.3 Progress Test (PT) | Doc, Pdf | This folder/binder should contain all material necessary for the instructor to conduct the course. |
| 2.4 Mastery Test (MT) | Doc, Pdf | |
| 2.5 Exercises (EX) | Doc, Pdf | |
| 2.6 Handouts (H) | Doc, Pdf | |
| 2.7 Model Answers (APT, AMT, AEX) | Doc, Pdf | |

| 3-TRAINEE MATERIAL | FORMAT | PURPOSE |
|---|---|---|
| 3.1 Trainee Manual | Doc, Pdf | This folder/binder should contain all material necessary for the trainee to participate in the course. |
| 3.2 Handouts (H) | Doc, Pdf | |
| 3.3 Exercises (Ex) | Doc, Pdf | |

| 4-INTERNAL FILE | FORMAT | PURPOSE |
|---|---|---|
| 4.1 Stage 1 Report | Doc, Pdf | This folder of documents is kept on file by the TPP for evaluation purposes. |
| 4.2 Stage 2 Report | Doc, Pdf | |
| 4.3 Stage 3 Report | Doc, Pdf | |

| 5-AUDIO-VISUAL AIDS | FORMAT | PURPOSE |
|---|---|---|
| 5.1 PowerPoint Presentations | PPT | |
| 5.2 Audio Files | MP3, Wav | This folder is required for all audio/video presentations. |
| 5.3 Video Files | AVI, FLV, WMV | |
| 5.4 Other Multimedia Files | As applicable | |

| 6-OJT GUIDANCE MATERIAL | FORMAT | PURPOSE |
|---|---|---|
| 6.1 Form 4 Job Aid Requirements | Doc, Pdf | This folder is required for OJT training. |

**5.19.5  Instructor material**

**5.19.5.1**   It is important that the instructor be provided with all the guidance required to ensure that the course development team's concepts for the course are effectively conveyed. The following should be included in the Instructor Material:

a) **Instructor Guide**

1) Complete set of Module Plans (see the *Training Development Guide, Competency-based Training Methodology* (Doc 9941), Form 6s); and

2) Any additional instructions or directions prepared for the instructor.

When operational examples are included, adequate instructions on the use of these examples should be included in the Instructor Material and in the Trainee Material as required. These should be attached to the appropriate Module Plans.

b) **Tests and Exercises**

1) Progress and Mastery Tests;

2) Exercises; and

3) Correction Guides, Model Answers, etc. for each.

c) **OJT Guidance Materials**

Where OJT is required to meet the STP's terminal objective, guidelines for both trainees and field supervisors must be part of the STP to ensure that both fully understand what is required of them. These should contain a clear statement of the objective(s) of the OJT, along with any necessary guidance materials, checklists, workbooks, etc. (Note that some of this material will also have to be provided in the Trainee Material).

**5.19.6   Trainee material**

**5.19.6.1**   The student should leave the course with a folder of handy and concise reference material, job-aids, etc., which have been extracted from the source documents. These will help the student to apply what has been learned in the course.

**5.19.6.2**   Even when a textbook is issued to each trainee, handouts are still useful as a supplement. Particularly, when technical manuals or manufacturers' handbooks are referred to in class, it is important that key job-aids (diagrams, checklists, etc.) from these documents be provided to the trainees, as it is unlikely they will always have access to such source documents.

**5.19.6.3**   PowerPoint presentations and audio-visual aids

a) good quality paper copies of each PowerPoint presentation, audio-visual aid or electronic file which can be easily reproduced on a wide range of computer printers should be included;

b) copies of any PowerPoint presentations or other audio or video materials should be prepared for the course. Include transcripts of any verbal messages to assist translations; and

c) details of any commercially procured material that is used need to be provided. This could include textbooks, PowerPoint presentations, videos, audio-visual presentations, etc. Details of the supplier of these items must be given to facilitate their procurement by the user.

**5.19.7   Electronic version requirements**

**5.19.7.1**   Contents

All written material and graphics should be provided to the TPP as part of the completed package. Electronic copies will also be important for the originating CATC when it becomes necessary to revise or update any of the materials in the future, and must therefore be included with the Master Copy of the STP.

**5.19.7.2** INDEX files

An index of the various files and guidance in assembling the individual files into the complete document shall be provided in a word processing application (named INDEX). The INDEX file shall contain the following information:

a) title of each file;
b) location of each file (Folder);
c) software used for preparing files;
d) short description of the contents of each file;
e) any special instructions required to use a given file; and
f) any information on password and other protection on any of the files.

NOTE: If an STP contains any copyrighted material (i.e. graphics, applications, etc.), explicit reference to the license must be included.

Sufficient information must be provided in the INDEX file to allow an individual who has no previous exposure to the electronic version of the document to print out and fully reassemble any hard copy document.

Note – It is important to ensure that the INDEX file is not password protected and that all files and/or CDs/memory sticks are clearly named and labelled.

**5.19.7.3** File format standards

There is a wide variation in word processing and computer graphics production packages in use by TRAINAIR PLUS Members. The TRAINAIR PLUS file format standards are written to provide flexibility in the software packages used within CATCs, while providing file format standards that will allow STPs to be easily exchanged electronically between Members.

CATCs may use any word processing programmes that have the capability of converting the document files using Microsoft Office programmes. Electronic versions of STPs available in the TPeMS must be available in a format that can be easily downloaded by the recipient.

**5.19.7.4** Sending the final STP via the Internet

Final STPs can contain over 100 computer files. A manual may be too large to transmit by email. When sending an entire STP via e-mail, there is a high risk that one or more files will be misplaced and therefore not included in the STP uploaded to the TPeMS. Currently, the solution to this problem is to transmit the final STP to the TPP via Dropbox or a similar large capacity file sharing site.

**5.19.7.5**  File designations

Consistent with the *Training Development Guide, Competency-based Training Methodology* (Doc 9941), Section 7.2.6 - Coding of Printed Material, all files submitted should be coded in the same way as the printed material:

| | | | |
|---|---|---|---|
| Answer | A | Mastery Test | MT |
| Exercise | Ex | Module Plan | MP |
| Job Aid | JA | PowerPoint Presentation | PPT |
| Handout | H | Progress Test | PT |

For example, the answer to Progress Test No. 2 in Module 7 would be file A.PT.7.2; Handout No. 2 in Module 8 would be: H.8.2.

**5.19.7.6**  STP covers

The STP cover is used as an icon to identify the STP in the TPeMS catalogue. In addition to an appropriate illustration, the cover should include the following:

▪ full name of the STP;

▪ final STP code;

▪ TRAINAIR PLUS logo; and

▪ Name and logo of the originator of the STP.

Below is an example of an STP cover that incorporates all of the required elements:



**5.19.8**  **Sharing STPs through the TPeMS**

**5.19.8.1**  Storage

Electronic versions of STPs will be stored on the ICAO Internet server in the TPeMS.

A catalogue of all STPs available in the TPeMS is provided on the TRAINAIR PLUS website. The electronic catalogue includes the following information:

a) course aim;
b) objectives;
c) target population;
d) prerequisites;
e) course content (listing of modules); and
f) listing of training equipment required to implement the course.

A password is provided to the focal points of all Members entitled to access the TPeMS. Members are responsible for maintaining the currency of the electronic version of the STPs they have created. Amendments to STPs stored in the TPeMS must be forwarded to the TPP.

**5.19.8.2**   Access

The Catalogue of STPs available through the Internet will be password protected in the TPeMS. All Members will be provided with a user name and password to access this information.

To download a course, "clicking" on the STP number in the Catalogue will provide the user with an active link to the STP electronic ordering process. An email message will automatically be sent to the TPP and the originator of the STP.

**5.19.8.3**   Owner responsibility

It is the responsibility of the owner of the STP to ensure that all files for the STP are stored in the TPeMS and that they are filed in a manner that allows other CATCs who order the STP to easily download the STP. All owners must check their STPs to ensure that they are complete and easy to download.

**5.19.8.4**   Labelling

It is important that all materials or files be clearly labelled so that each item can be clearly identified.

a)  each of the major elements (CDs, memory sticks, folders, etc.) should show both the full title of the STP and its complete identification code. Refer to the *Training Development Guide, Competency-based Training Methodology* (Doc 9941), Chapter 1, Figure 1.2 for the code arrangement and the TRAINAIR PLUS Library for details of specific STP codes;

b)  it is recommended that each major element include the name and logo of the originator's CATC, as well as the TRAINAIR PLUS logo, and that these be prominently displayed;

c)  all individual papers, handouts, tests, etc., should show the title of the STP and the ICAO course number on the front of the paper; and

d)  all individual items must also be coded using the TRAINAIR PLUS Course Materials Coding System as set out in of the *Training Development Guide, Competency-based Training Methodology* (Doc 9941), Section 7.2.6.

**5.19.9**   Storage of the master copy

The originator's CDU will be responsible for the storage of the Master Copy of each finalized STP. The Master STP should be assembled in the manner set out in this manual, along with a checklist to ensure that it is complete. All subsequent copies of the STP should then be produced from the Master Copy.

### 5.19.10   Conclusion

**5.9.10.1**   The course developers should be justifiably proud of the work they have put into preparing an STP. The packaging should reflect the quality of this work and the concepts developed through the course development process should be conveyed to the users.

**5.19.10.2**   Considering the months of dedicated effort that has gone into the production of this high-quality material, it is important that the process of assembling the materials for forwarding to other locations receives the same dedication and care.

## 5.20  PROCESS FOR ISSUING A TRAINAIR PLUS ICAO QUALIFIED COURSE DEVELOPER (TP-IQCD) CERTIFICATE

### 5.20.1   Requirements

**5.20.1.1**   In order to be issued a TRAINAIR PLUS ICAO Qualified Course Developer (TP-IQCD) certificate, the applicant must have:

- successfully completed a TDC;

- been issued a TDC certificate and a valid TDC code; and

- actively participated in all three stages of the development of a validated STP.

**5.20.1.2**   The TP-IQCD certificate is valid for a period of five years. To maintain its validity, course developers must develop or revise another STP within this five-year period or take a TDC refresher course.

**5.20.1.3**   All expert validators will be awarded the TP-IQCD certificate.

### 5.20.2  Process for issuing a TP-ICQD certificate

**5.20.2.1**  Upon validation of the STP, the expert validator confirms, via the TPeMS, the names of the course developers who participated in developing the STP.

**5.20.2.2**  The TPP focal point is advised, via the TPeMS, that the expert validator has approved the course developer.

**5.20.2.3**  Once approved, certificates are generated via the TPeMS for each TP-IQCD and forwarded to the CATC in electronic format.

**5.20.2.4**  The CATC awards the certificates to the TP-IQCD.

## 5.21  MANAGEMENT OF THE WEB-BASED TRAINAIR PLUS LIBRARY

**5.21.1**  The administration of the TRAINAIR PLUS Library and the STP sharing mechanism form an integral part of the TPeMS. Because STP originators invest large amounts of resources to develop STPs, a fee is charged each time a CATC orders and conducts a course developed by another CATC.
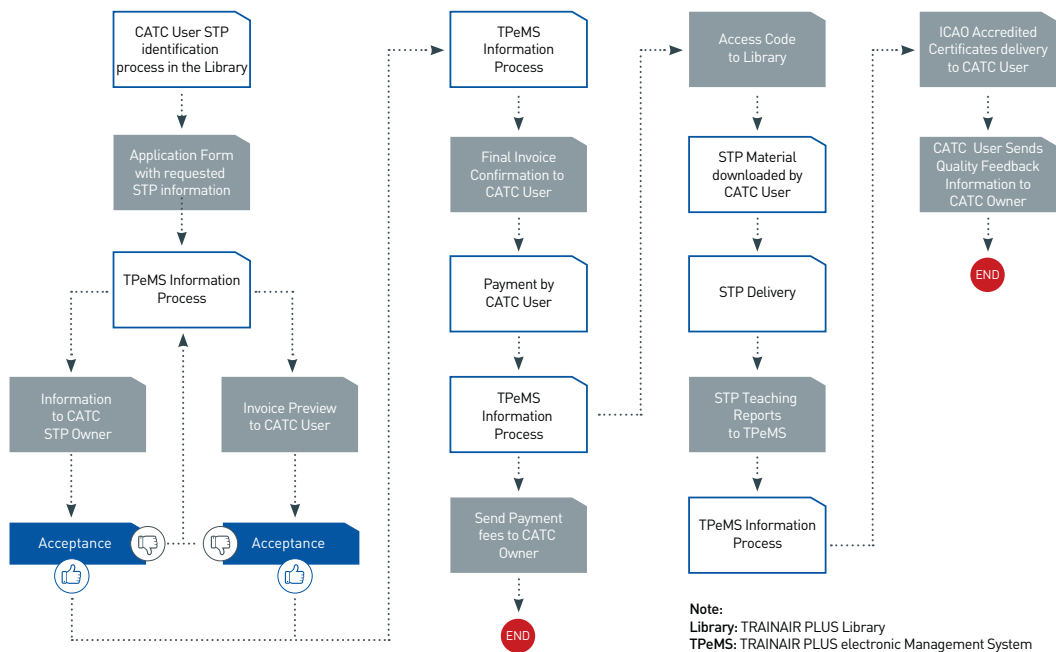


**Figure 5.3  TRAINAIR PLUS Library Workflow Chart**

**5.21.2**  Through its **Members Only** web portal, the (TPeMS) is a suite of web applications that manage the entire process including:

- A CATC's request to use an STP;
- owner approval to use the STP;
- request for additional information (if any);
- invoicing;
- payment confirmation;
- course material shipment information;
- issuing certificates for participants;
- participant grades; and
- course evaluation.
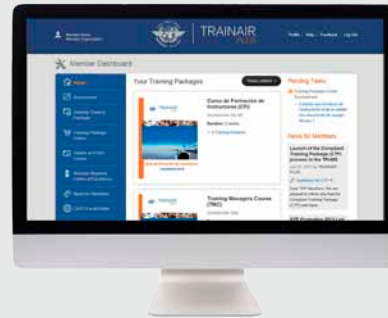
**5.21.3**  Using their passwords, Members have access to all the information they require to order other Members' STPs and administer the use of the STPs they have created. The electronic process helps to minimize the management costs and makes the TRAINAIR PLUS Library created by Members much more accessible and sustainable.

**5.21.4**  To cover administrative expenses, ICAO charges a fixed fee of US$ 1 500 for each STP purchase transaction. The remaining balance is paid to the originator of the STP.

## 5.22  EXCHANGE OF STPs

**5.22.1**  Standards: Only STPs that conform to the requirements of the *Training Development Guide, Competency-based Training Methodology* (Doc 9941) shall be included in the STP sharing system. The updating of STPs shall remain the responsibility of the owner. However, the CATC delivering an STP course is responsible for adapting the STP to local conditions.

**5.22.2**  Process: Only TRAINAIR PLUS Members have access to the sharing system. Members wishing to use STPs included in the sharing pool may do so via the TPeMS.

**5.22.3**  Master Copies: STPs shall remain the property of the STP owner. The originating organization shall retain a Master Copy (hard and soft copy). To facilitate sharing and revision of STPs, the electronic versions shall conform to TRAINAIR PLUS file format standards as contained in the STP assembly guidelines of the TPeMS.

**5.22.4**  Records: ICAO shall maintain records of all available STPs and keep Members updated on STPs that are planned, in progress and completed. A digital copy of each new STP must be made available to ICAO free of charge for recording and reference purposes.

**5.22.5    Feedback and Evaluation:** A questionnaire that allows the CATC to provide feedback on the quality of the course is included with each STP. This feedback is made available to the owner of the STP via the TPeMS.

**5.22.6    Certificates:** For each course conducted using an STP, a certificate will be issued by ICAO for each participant. Each certificate is generated electronically and indicates the name of the participant, the STP, the CATC conducting the course, a unique identifier for each participant, and an indication of whether the student attended or successfully completed the course. Please see the following example of a certificate:



## 5.23  MAXIMUM NUMBER OF STPs PER VALIDATOR

**5.23.1**    Due to workload and quality considerations, a validator should not accept to work on more than three STPs simultaneously.

**5.23.2**    In any event, a validator should not accept to work on more than five STPs simultaneously, with the exception of unforeseen circumstances duly documented and approved by the Manager of the TPP, for example, when an STP project is suspended.

# 6

## GUIDELINES FOR ICAO TRAINING PACKAGES (ITPs) DEVELOPMENT AND VALIDATION

## 6.1   DEFINITION

**6.1.1**   An ICAO Training Package (ITP) is a training package that can be developed by ICAO or an RTCE in cooperation with ICAO, using the *Training Development Guide, Competency-based Training Methodology* (Doc 9941) or an equivalent ISD methodology. An ITP should be based on ICAO SARPs and guidance material, as well as implementation practices.

## 6.2   OBJECTIVES

**6.2.1**   In accordance with ICAO Assembly Resolution A38-12, Appendix D, cooperation with a network of RTCEs will allow ICAO to effectively and efficiently respond to its mandate of assisting Member States in achieving and maintaining the competency of aviation personnel. RTCEs will be authorized to use ICAO provisions (*Convention on International Civil Aviation* (Doc 7300), its Annexes, and related guidelines) in the development of ITPs, in coordination with the GAT Office.

## 6.3   SCOPE

**6.3.1**   RTCEs are responsible for the development, delivery and evaluation of ICAO training courses in their specific authorized areas. The RTCEs authorized areas will include up to three of the following areas:

| AERODROMES | AIR NAVIGATION SERVICES | AIR TRANSPORT | ENVIRONMENT | FLIGHT SAFETY AND SAFETY MANAGEMENT | SECURITY AND FACILITATION |
|---|---|---|---|---|---|
| Annex 14 | Annexes 2, 3, 4, 5, 10, 11, 12 and 15 | | Annex 16 | Annexes 1, 6, 7, 8, 13, 18 and 19 | Annexes 9 and 17 |
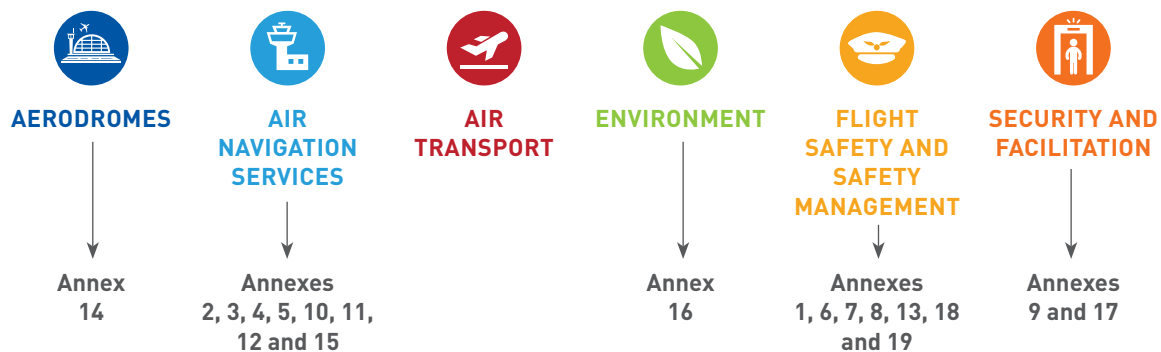
**6.3.2**   RTCEs are also encouraged to adjust and improve their course development and delivery strategies and tools, where necessary, in order to ensure the implementation of ICAO SARPs and guidance material through the sharing of best practices used on a national, regional or global level. ICAO validation, however, does not supersede the approval for training by a national or regional regulatory body, when applicable.

## 6.4   LANGUAGE

**6.4.1**   Communication between ICAO and RTCEs should preferably be in English. Notwithstanding, use of ICAO's other official languages (Arabic, Chinese, French, Russian and Spanish) would be acceptable if coordinated with the GAT Office during the ITP application process, and would be subject to the availability of ICAO experts with a command of the selected language, which may cause some delays.

**6.4.2**   This principle applies to any official document, including all course material requested by ICAO during the ITP development process. It is thus the responsibility of the CATC to translate any required documents that are not available in one of ICAO's six official languages. ICAO may wish to revise the translation, and the Member may be charged accordingly.

## 6.5   RESPONSIBILITIES

**6.5.1**   RTCEs applying for ITP development should assign a focal point who shall be responsible for the ITP project management within the RTCE and communication with ICAO. The focal point should be an ISD specialist approved by the GAT Office, who conducts the ITP internal validation of the course methodology. In addition, it is advisable for the focal point to have good written and oral communication skills in English. Course developers for ITP development should be IQCDs with a valid IQCD identification number.

**6.5.2**   The TDD, within the GAT Office, is responsible for the ITP project management and communication with RTCEs.

## 6.6   PROCESS

**6.6.1**   The ITP development process consists of the following five phases:

| PHASE 1 ITP application and coordination | PHASE 2 ITP development | PHASE 3 ITP validation | PHASE 4 ITP finalization | PHASE 5 ITP approval |
|---|---|---|---|---|

**6.6.2**   A web-based ITP development process, including templates for the relevant phases, is available to RTCEs via the TPeMS.

## 6.7 CRITERIA

**6.7.1**   The ITP validation encompasses reviews of the course methodology and content. The objective of this phase addresses the design of the training course and all its supporting documents. Specifically, one validator will examine whether the course complies with the ICAO competency-based training methodology, and another validator will conduct a technical review to verify whether the course content complies with the relevant ICAO SARPs and guidance material.

**6.7.2**   ICAO validation not only confirms that the training course meets the criteria for current standards of civil aviation as set forth by ICAO, but also introduces best practices for implementation recommended by the RTCE.

## 6.8 FEES

**6.8.1**   There are two categories of fees associated with the ITP developed by the RTCEs:

a) **Validation fee**

An ITP validation fee will be paid to ICAO once the ITP number is assigned by the GAT Office and prior to the ITP validation review. The fee for validating the course methodology will be funded by the GAT Office, while the fee for validating the course content will be funded by the RTCE.

The following table contains validation fees based on the expected time required to carry out the technical review and is determined by the course duration (number of training hours). Courses of more than 2 weeks (or 70 training hours) will be considered at a later stage.

| ITP Duration | ITP Validation Fee (funded by the RTCE) (US$) |
|---|---|
| 1 week (or up to 35 training hours) | $7 500 |
| 2 weeks (or between 35 and 70 training hours) | $12 500 |

b) **Annual implementation fee**

The revenues generated from the RTCE ITP will be shared as follows: 75 per cent for the RTCE and 25 per cent for ICAO.

## 6.9  OWNERSHIP

**6.9.1**  The ITP is the result of joint efforts between ICAO and the RTCE, thus ICAO and the RTCE share the intellectual property of the ITP. SARPs and guidance material provided by ICAO shall remain the property of ICAO.

**6.9.2**  Delivery of the validated ITPs requires coordination with ICAO; details will be included in the Appendix to the Memorandum of Understanding (MoU) between the RTCE and ICAO.

## 6.10  ENTITLEMENT

**6.10.1**  RTCEs offering ITPs may issue certificates to all the participants via the TPeMS attesting to the successful completion of the training course. Each certificate displays the TRAINAIR PLUS Programme (TPP) logo, the RTCE logo, the name of the participant, the title of the ITP, the signature of the Manager of the GAT Office and the Director of the RTCE, and a unique identifier.

**6.10.2**  It should be noted that ICAO recognition of an ITP is non-transferable and cannot be extended or transferred to another training course of the RTCE or generalized to various training courses.
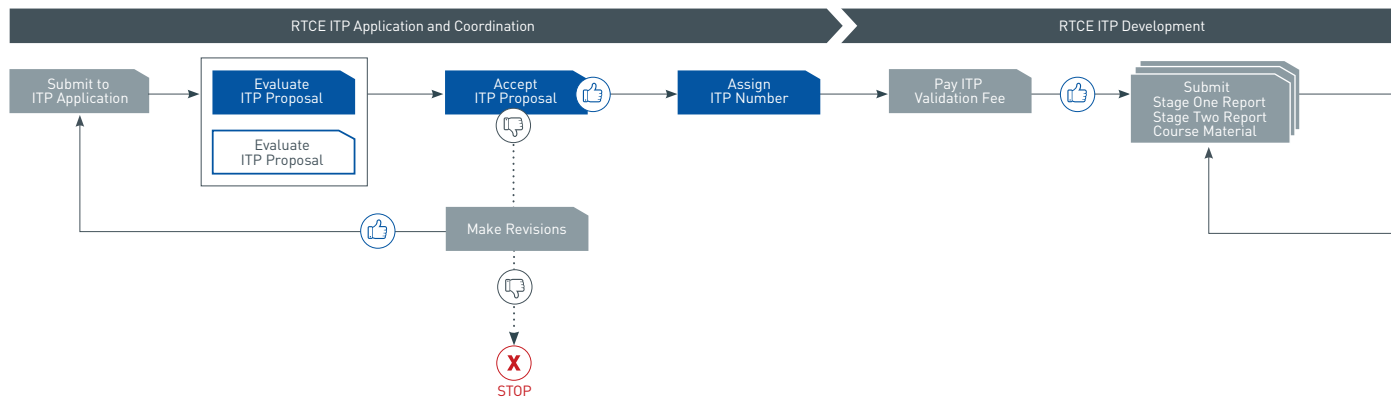
Figure 6.1  RTCE ITP Development Process

## 6.11  VALIDITY

**6.11.1**    The recognition of an ITP is valid for a maximum period of three years. ICAO reserves the right to suspend the certificates at any time if the conditions stipulated in the MoU between the RTCE and ICAO, including its Appendix, are not respected by the RTCE.

## 6.12  FOLLOW-UP ASSESSMENT

**6.12.1**    RTCEs are responsible for ensuring that the ITPs they develop are up to date and in compliance with the relevant ICAO SARPs and guidance material. They must also establish a course evaluation mechanism to follow up on the implementation of their ITPs and provide an annual implementation report to ICAO, including number of deliveries, number of trainees, course evaluation by trainees, instructors and clients.

**6.12.2**    There are no follow-up assessment fees, unless revisions to the ITP are proposed. Any proposed revisions must be presented to ICAO for approval. The RTCE must submit the revised course material, including all the supporting documents. Depending on the complexity of the revisions, a formal review may be required, which could eventually entail additional fees for a technical review. Once the review and approval processes are completed, the revised ITP will begin a new three-year validity period.
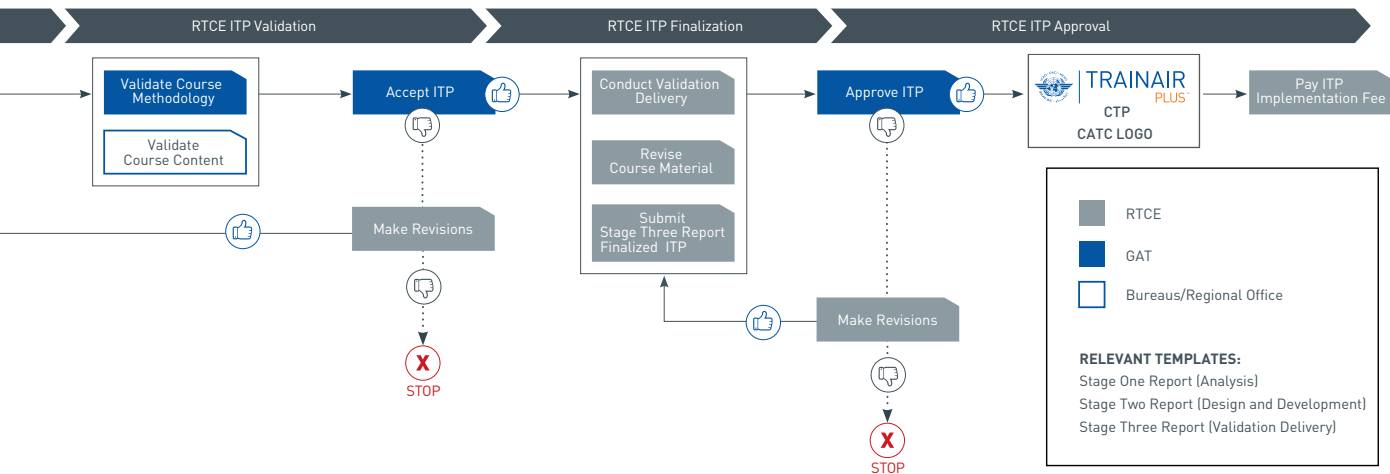
**6.12.3** In addition to the continuous monitoring of the implementation of the ITP and the annual implementation report submitted by the RTCE, a comprehensive follow-up assessment of the ITP implementation and results will be conducted by ICAO every three years in order to reassess the validity of the ITP. For this three-year reassessment period, the RTCE shall submit to ICAO an ITP triennial report detailing the following:

a) course implementation statistics;

b) list of instructors;

c) list of participants who successfully completed the training course;

d) results of the course evaluation plan:
    1) level 1 evaluation: summary of course evaluation questionnaire;
    2) level 2 evaluation: summary of mastery test results;
    3) level 3 evaluation: summary of the participants' improvement in post-training behaviour; and
    4) level 4 evaluation: summary of the results of the organization benefiting from the training course; and

e) list of revisions proposed to the course material (if applicable).

**6.12.4** Once the triennial report has been accepted by ICAO, the ITP's validity period will be renewed for three consecutive years.

# 7

## GUIDELINES FOR COMPLIANT TRAINING PACKAGES (CTPs) RECOGNITION
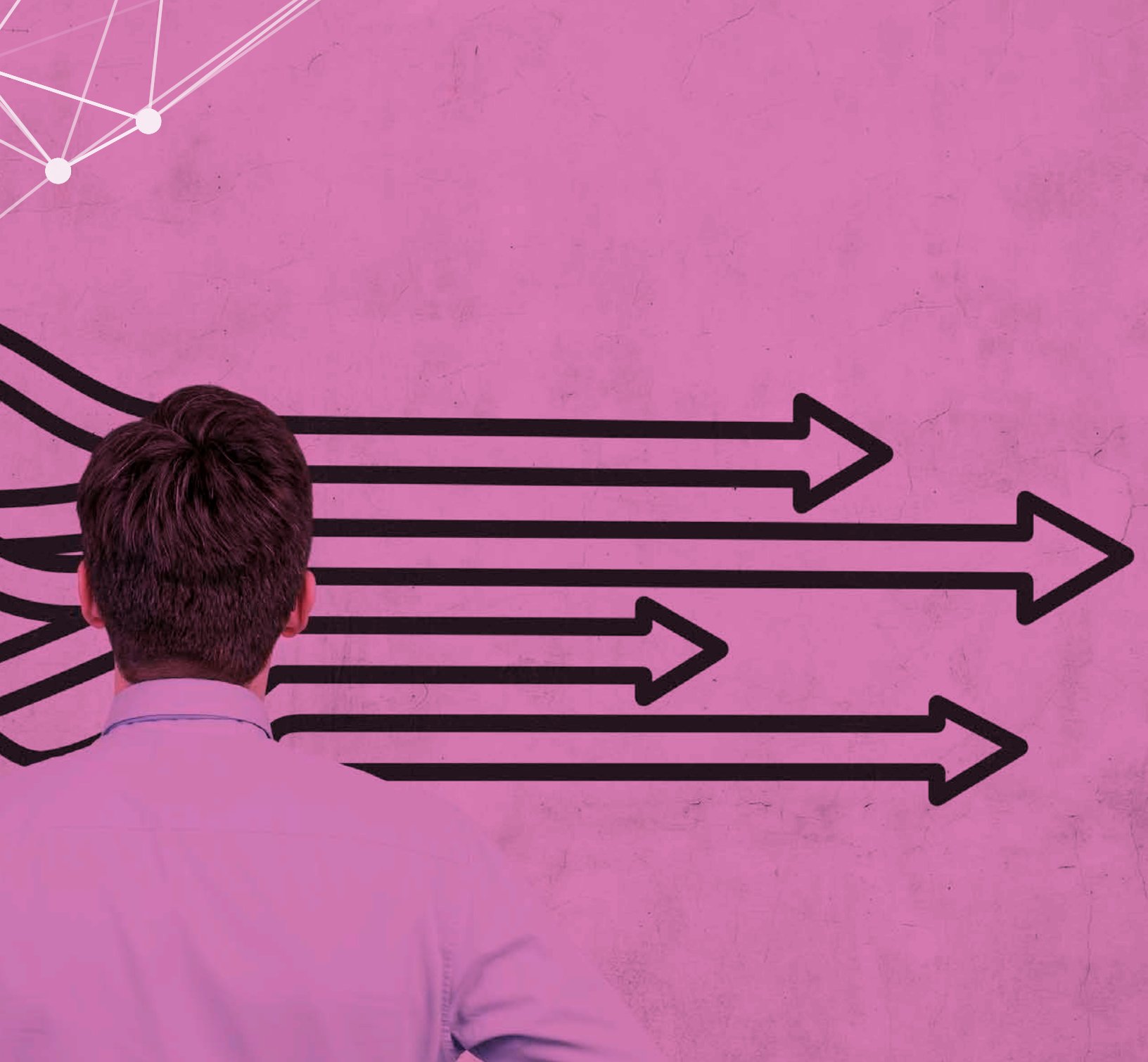
## 7.1  DEFINITION

**7.1.1**   A Compliant Training Package (CTP) is an existing training package developed by a TRAINAIR PLUS Programme (TPP) Associate, Full, or Corporate Member, or an RTCE, based on operational experience, regulations and procedures in relation to ICAO SARPs and guidance material. The CTP was developed using the *Training Development Guide, Competency-based Training Methodology* (Doc 9941) or an equivalent ISD methodology, and is submitted for recognition by ICAO as compliant.

## 7.2  OBJECTIVES

**7.2.1**   This new initiative by the GAT Office will allow ICAO to extend its ability to implement key activities derived from strategic objectives involving training. These objectives can be achieved by facilitating the harmonization of training that is compliant with ICAO SARPs and ensuring that sufficient qualified and current aviation professionals manage and support the international air transport system. Furthermore, the CTPs address the objective of ensuring a sufficient level of protection of ICAO intellectual property rights.

## 7.3   SCOPE

**7.3.1**   The CTPs address the need of standardizing civil aviation training practices all over the world. In fact, it creates the opportunity for ICAO to gain greater insight into the applicable methodology and the technical content of the courses developed by CATCs. This improves ICAO's outreach in aviation training, as CTPs must be ICAO-compliant according to the provisions contained in the Annexes to the Chicago Convention and other ICAO documents and guidelines.

**7.3.2**   CATCs will be encouraged to adjust and improve their course development and delivery strategies and tools, where necessary, in order to meet the most current standards in aviation training. As a result, training activities all over the world will be compliant with the ICAO *Civil Aviation Training Policy* provisions, and thus meet best practices as carried out by ICAO. ICAO compliance, however, does not supersede the approval for training by a national or regional regulatory body, when applicable.

## 7.4   LANGUAGE

**7.4.1**   Communication between ICAO and CATCs should preferably be in English. Notwithstanding, use of ICAO's other official languages (Arabic, Chinese, French, Russian and Spanish) would be acceptable if coordinated with the GAT Office during the CTP application process and would be subject to the availability of ICAO experts with a command of the selected language, which may cause some delays.

**7.4.2**   This principle applies to any official document, including all course material requested by ICAO during the process. It is thus the responsibility of the CATC to translate any required documents that are not available in one of ICAO's six official languages. ICAO may wish to revise the translation, and the Member may be charged accordingly.

## 7.5   RESPONSIBILITIES

**7.5.1**   CATCs applying for CTP recognition should assign a focal point who shall be responsible for the CTP project management within the CATC and communication with ICAO. The focal point should have successfully completed the TDC and possess a valid course developer identification number. In addition, it is advisable for the focal point to have good written and oral communication skills in English.

**7.5.2**   The TDD, within the GAT Office, is responsible for the CTP project management and communication with CATCs.
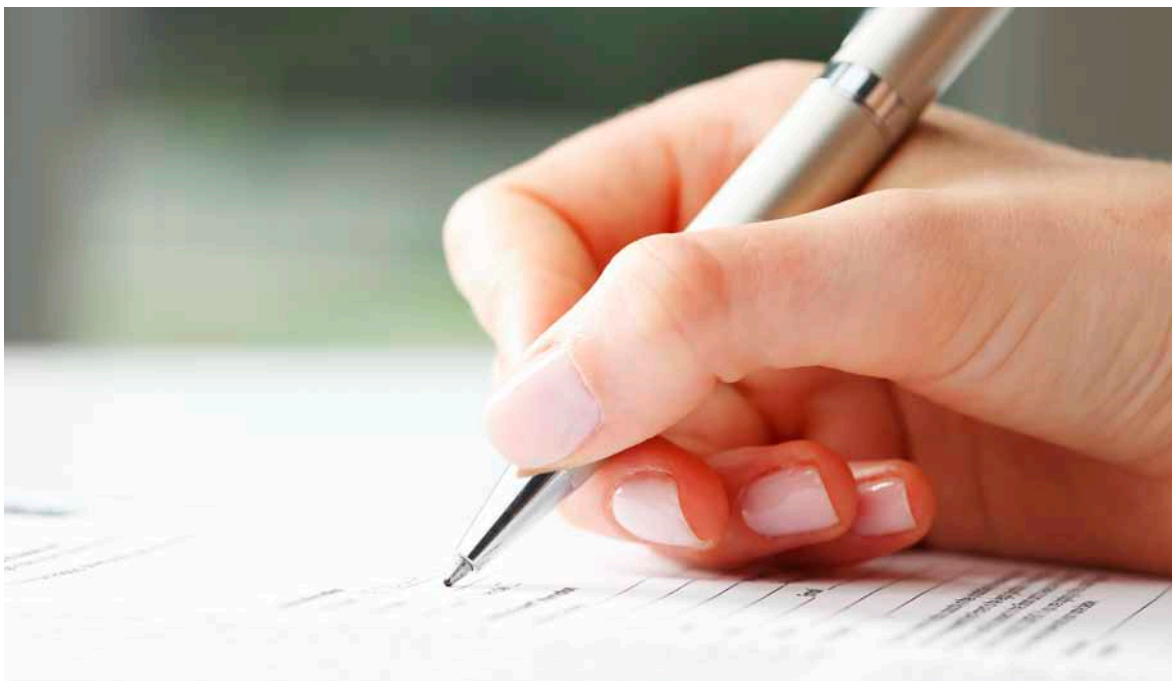
## 7.6 PROCESS

**7.6.1**  The CTP validation process consists of the following four phases:

| PHASE 1 CTP application | → | PHASE 2 CTP proposal evaluation | → | PHASE 3 CTP validation | → | PHASE 4 CTP approval |
|---|---|---|---|---|---|---|

**7.6.2**  A web-based CTP validation process, including templates for the relevant phases, is available to TPP Members via the TPeMS.

## 7.7 CRITERIA

**7.7.1**  The CTP validation encompasses review of the course methodology and content. The objective of this phase addresses the design of the training course and all its supporting documents. Specifically, one validator will examine whether the course complies with the ICAO *Training Development Guide, Competency-based Training Methodology* (Doc 9941), and another validator will conduct a technical review to verify whether the course content complies with the relevant ICAO SARPs and guidance material.

**7.7.2**  ICAO recognition is limited to confirming that the training course meets the criteria for current standards of civil aviation, as set forth by ICAO.

## 7.8   FEES

**7.8.1**   There are three categories of fees associated with the CTP:

a)   Application fee

A non-refundable CTP application fee of US$ 5 000 will be paid to ICAO to cover the administrative and technical work conducted for the review of the proposed CTP as defined in the application.

b)   Validation fee

A CTP validation fee will be paid to ICAO once the CTP number is assigned by the GAT Office and prior to the CTP validation review. The fee covers the validation of course methodology and content.

Considering the different levels of work expected from RTCEs (with ICAO senior course developer(s)), Full Members (with IQCD(s)), Associate or Corporate Member (with course developer(s)), the matrix below contains validation fees based on the estimated time required to carry out a review and is determined by the course duration (number of training hours). Courses of more than 70 training hours will be considered at a later stage.

| CTP Duration | TPP RTCE (US$) | TPP Full Member (US$) | TPP Associate Member/Corporate Member (US$) |
|---|---|---|---|
| less than 20 training hours | $7 500 | $10 000 | $12 500 |
| between 20 and 35 training hours | $10 000 | $12 500 | $15 000 |
| between 35 and 70 training hours | $15 000 | $17 500 | $20 000 |

c)   Annual implementation fee

Annual implementation fees cover the use of the ICAO platform for the delivery and continuous monitoring of the CTPs, including the use of the TPeMS, the promotion of training activities, the generation of course certificates with the ICAO TPP logo, and support to the course owner in regard to the ICAO provisions used in the course material.

**CTP Annual implementation fee**

On an exceptional basis, the CTP implementation fee will be determined with further coordination with the TRAINAIR PLUS Programme, mainly CTPs with an ICAO course as prerequisite, or CTPs essential for the implementation of ICAO Programmes.

| CTP Duration | TPP RTCE (US$) | TPP Full Member (US$) | TPP Associate Member/Corporate Member (US$) |
|---|---|---|---|
| 35 hours or less | $5 000 | $7 500 | $10 000 |
| more than 35 hours | $7 500 | $10 000 | $12 500 |
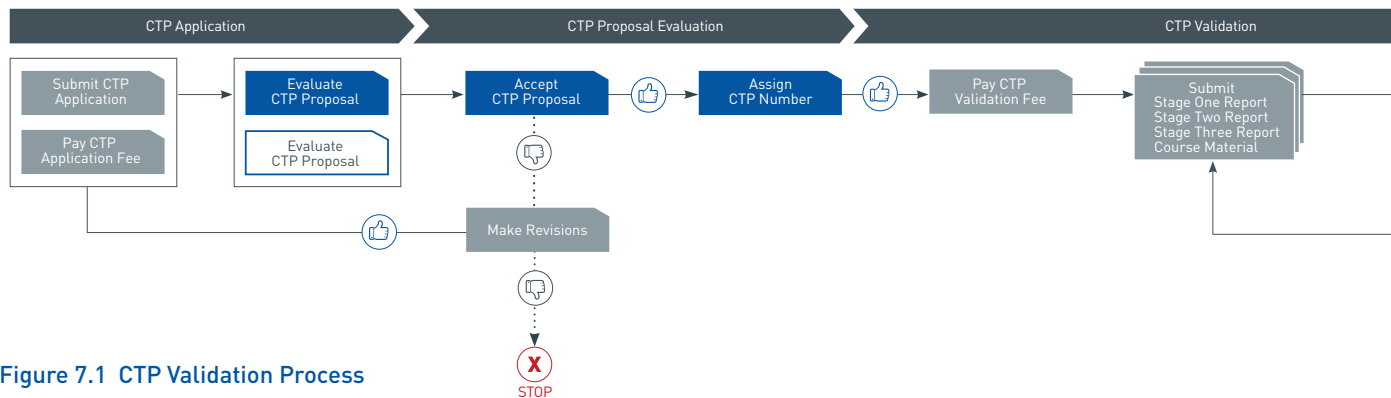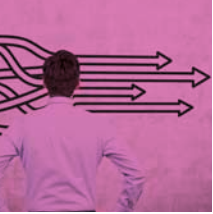
Figure 7.1  CTP Validation Process

## 7.9   OWNERSHIP

**7.9.1**   The training course recognized as an ICAO CTP remains the full property and responsibility of the CATC. By granting this recognition, ICAO makes no claim about owning, using or modifying the training course.

## 7.10  ENTITLEMENT

**7.10.1**   CATCs offering CTPs may issue certificates, via the TPeMs, to all the participants attesting to the successful completion of the training course. Each certificate displays the ICAO TPP logo, the CATC logo, the name of the participant, the title of the CTP, the signature of the Manager of the GAT Office and the Director of the CATC, and a unique identifier.

**7.10.2**   It should be noted that ICAO recognition of a CTP is non-transferable and cannot be extended or transferred to another training course of the CATC or generalized to various training courses.

## 7.11  VALIDITY

**7.11.1**   The recognition of an ICAO CTP is valid for a maximum period of three years. ICAO reserves the right to suspend the certificates at any time if the conditions set forth in this manual are not respected by the CATC.

## 7.12  FOLLOW-UP ASSESSMENT

**7.12.1**   CATCs are responsible for ensuring that the CTPs they develop are up to date and in compliance with the relevant ICAO SARPs and guidance material. They must also establish a course evaluation mechanism to follow up on the implementation of their CTPs and provide an
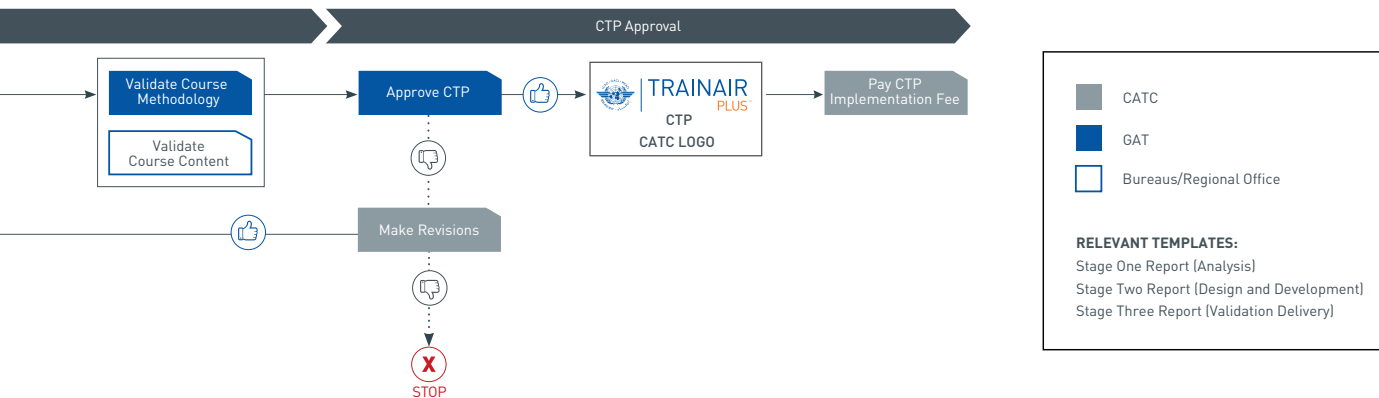
annual implementation report to ICAO, including number of deliveries, number of trainees, course evaluation by trainees, instructors and clients.

**7.12.2**    There are no follow-up assessment fees, unless revisions to the CTP are proposed. Any proposed revisions must be presented to ICAO for approval. The CATC must submit the revised course material, including all supporting documents. Depending on the complexity of the revisions, a formal review may be required, which could eventually entail additional fees for a technical review. Once the review and approval processes are completed, the revised CTP will begin a new three-year validity period.

**7.12.3**    In addition to the continuous monitoring of the implementation of the CTP and the annual implementation report submitted by CATCs, a comprehensive follow-up assessment of the CTP implementation and results will be conducted by ICAO every three years in order to reassess the validity of the CTP. For this three-year assessment period, CATCs will submit to ICAO a CTP triennial report detailing the following:

a) course implementation statistics;

b) list of instructors;

c) list of participants who successfully completed the training course;

d) results of the course evaluation plan:
   1) level 1 evaluation: summary of course evaluation questionnaire;
   2) level 2 evaluation: summary of mastery test results;
   3) level 3 evaluation: summary of the participants' improvement in post-training behaviour; and
   4) level 4 evaluation: summary of the results of the organization benefiting from the training course; and

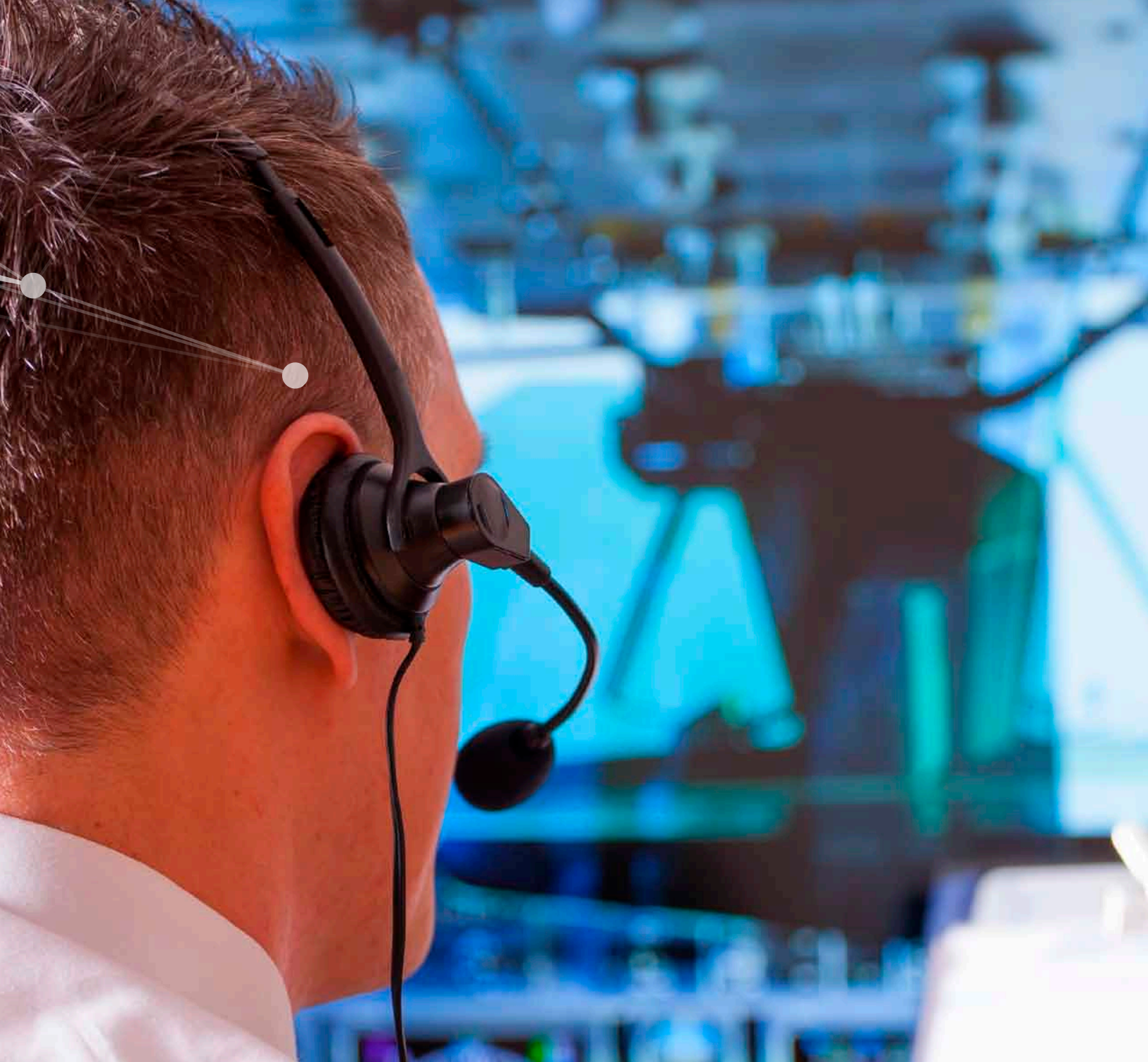e) list of revisions proposed to the course material (if applicable).

**7.12.4**    Once the triennial report has been accepted by ICAO, the CTP's validity period will be renewed for three consecutive years.

# 8

## COMPETENCY-BASED COURSES FOR CATC CORE TRAINING STAFF

## 8.1 TRAINAIR PLUS TRAINING DEVELOPERS COURSE (TDC)

**8.1.1** The TRAINAIR PLUS Training Developers Course (TDC) is a core training activity of the TRAINAIR PLUS Programme (TPP). It is the main tool used to consolidate the implementation of the Programme among CATCs, through the creation of a team of course developers trained to work in CDUs.

**8.1.2** The course provides professionals with advanced techniques for applying an ISD methodology under the TPP. It is an instructional development workshop with focus on the practical aspects of developing training programmes.

**8.1.3** The course will train civil aviation course developers to design and develop STPs to TRAINAIR PLUS competency-based training standards by either upgrading existing conventional courses developed by the CATC to qualify as a TRAINAIR PLUS STP, or by creating a new TRAINAIR PLUS STP. Upon successful completion of the course, trainees will be able to identify the TRAINAIR PLUS training development methodological standards to:

- analyse training needs and choose strategies;
- analyse jobs and target populations;
- determine training objectives;
- sequence objectives and group them into modules;
- prepare and validate tests;
- design modules;
- produce and validate training material; and
- assist in OJT, planning and monitoring.

**8.1.4** CATCs that wish to host a TDC may do so by applying via the TPeMS.

**8.1.5.** ICAO will assign instructors, provide course material and charge the host CATC US$ 500 per participant to cover administrative and course material costs.

**8.1.6** The host CATC will determine the registration fees per course participant. The host CATC is responsible for covering the costs of the instructor, including travel and DSA, and providing the course venue and catering, in addition to recruiting participants.

**8.1.7** Particular attention should be paid to the selection of TDC participants as, once fully trained, they should be capable of preparing STPs according to international standards. Such STPs will be an important contribution to the global exchange of TRAINAIR PLUS STPs.

**8.1.8** Course developers will be registered in a database in the TPeMS.

## 8.2 TRAINAIR PLUS TRAINING INSTRUCTORS COURSE (TIC)

**8.2.1**   The Training Instructors Course (TIC) will enable participants to methodically conduct training courses in accordance with ICAO instructor competencies and develop the required training strategies for course delivery. The TIC will train instructors to deliver STPs, based on the TRAINAIR PLUS methodology, as well as conventional courses.

**8.2.2**   Upon successful completion of the course, participants will be able to:

- prepare a training environment that includes facilities, equipment and instructional material;

- manage trainees by using effective training strategies;

- conduct training with a variety of instructional methods;

- perform trainee assessments appropriately, objectively and accurately; and

- perform course evaluations effectively.

**8.2.3**   The TIC has been updated to include a new instructor competency framework and to incorporate e-learning as part of the course structure.

**8.2.4**  Particular attention should be paid to the selection of TIC participants as, once fully trained, they should be capable of delivering instruction for STPs according to international standards.

**8.2.5**  While instructors are not selected for their expertise in a particular discipline, they must be trained to teach course material in accordance with the TRAINAIR PLUS standards.

**8.2.6**  Instructors must meet the background and qualifications described in the TRAINAIR PLUS *Instructors Selection Guide*.

**8.2.7**  Instructors will be registered in a database in the TPeMS.

**8.2.8**  The target population for the TIC is as follows:

- pre-service and in-service instructors with little or no formal training background;

- aviation training instructors and aviation professionals who are dedicated to the implementation of competency-based training programmes;

- SMEs and specialists who wish to upgrade their instructional competencies; and

- current instructors who wish to refresh and upgrade their trainer competencies.

## 8.3    TRAINAIR PLUS TRAINING MANAGERS COURSE (TMC)

**8.3.1**    The Training Managers Course (TMC) is most beneficial for those who are responsible for establishing, managing or operating a CATC, including current and future training, such as:

- directors;

- heads of departments; and

- training managers.

**8.3.2**    The TMC addresses the operational aspects of managing a CAT that meets the required standards of operation, training delivery and quality management. It will enable the participants to apply the ICAO *Training Organization Assessment Guidelines* in order to prepare their CATC to meet and maintain operational and quality standards for ICAO recognition.

**8.3.3**    Upon completion of the course, participants will be able to manage their operational teams to:

- identify requirements for the establishment of a CATC;

- evaluate the level of compliance of a CATC with ICAO provisions; and

- develop an action plan to ensure compliance of a CATC with relevant international requirements.

# 9

TRAINAIR PLUS
INTERNATIONAL
MEETINGS

## 9.1 TRAINAIR PLUS GLOBAL SYMPOSIUM

**9.1.1**  ICAO will conduct a global symposium for all TRAINAIR PLUS Members on a yearly basis.

**9.1.2**  ICAO's main objectives in organizing this event are to:

- inform participants on the latest trends, techniques and tools currently available in aviation training worldwide;

- provide an international forum to exchange best practices and experiences in aviation training in general, and also more specifically on the TRAINAIR PLUS Programme (TPP);

- develop awareness of the Programme and generic themes related to aviation training; and

- establish effective communication links at an international level in the field of training between ICAO and the CATCs, States, regional organizations, operators and the industry.

**9.1.3**  The Symposium will be held over a four-day period and will be based on the following format:

- Days 1 and 2:  worldwide and regional initiatives in the field of training will be presented. Panels divided into specific subjects will debate training-related issues. During the opening ceremony, new TRAINAIR PLUS Full and Associate Members will be presented their official certificates and plaques;

- Day 3:  dedicated to TPP achievements and updates, and interactive workshop presenting TRAINAIR PLUS to the community; and

- Day 4:  dedicated to visits organized by the host, including training facilities, industrial sites, etc., thereby providing a showcase to the host organization.

**9.1.4**   ICAO will manage the content of the Symposium's programme, mainly the selection of the lecturers and moderators, and the coordination of the schedule with the host State/organization.

**9.1.5**   The host organization will be responsible for all other activities. These activities include, but are not limited to, the following:

- booking and setting-up of conference facilities;

- developing and maintaining a website for the Symposium to provide all relevant information to participants, such as online registration and the Symposium's programme;

- managing the registration process for all participants;

- providing staff to assist in the administration of the Symposium (registration, delivery of badges, participants information, etc.);

- providing and coordinating all the logistics;

- ensuring availability of all audio-visual equipment (projectors, computers, speakers, communications system, etc.);

- providing interpretation in multiple languages as required;

- providing food and beverages for refreshment breaks during the Symposium;

- organizing social events (cocktails, dinners) in association with potential sponsors (optional);

- providing a booth to ICAO at no cost to present its various documents and material. The booth should include a computer and a large screen to display presentations;

- promoting the event to the aviation community, nationally and internationally; liaising with local and regional media if required;

- providing participants with a list of preferred hotels and rates;

- organizing the local visits and informing ICAO of the visit programme;

- providing or covering travel and accommodation expenses for ICAO officials; and

- assisting participants in obtaining their visas to enter the country (when applicable).

## 9.2   TRAINAIR PLUS REGIONAL CONFERENCES

**9.2.1**   A Regional Conference will be held each alternating year under a framework of agreement with the host Member or State.

**9.2.2**   ICAO's main objectives in organizing this event are to:

- inform participants on the latest trends, techniques and tools currently available in regional aviation training;

- provide an international forum to exchange best practices and experiences in aviation training in general, and more specifically on the TPP;

- develop awareness of the Programme and of generic themes related to aviation training; and

- establish effective communication links at a regional level in the field of training between ICAO and CATCs, States, regional organizations, operators and the industry.

**9.2.3**   The Conference will be held over a three-day period, plus one additional day for technical activities, and will be based on the following format:

- Days 1 and 2:  worldwide and regional initiatives in the field of training will be presented. Panels on specific subjects will discuss and debate training-related issues. During the opening ceremony, new TRAINAIR PLUS Full and Associate Members will be presented their official certificates and plaques;

- Day 3 (AM):  dedicated to TPP achievements and updates, and interactive workshop presenting TRAINAIR PLUS to the community in full detail; and

- Day 3 (PM):  dedicated to visits organized by the host, including training facilities, industrial sites, etc., thereby providing a showcase for the host organization.

**9.2.4**   ICAO will manage the content of the Conference's programme, mainly the selection of the lecturers and moderators, and the coordination of the schedule with the host State/organization.

**9.2.5**   The host organization will be responsible for all other activities. These activities include, but are not limited to, the following:

- booking and setting-up of conference facilities;

- developing and maintaining a website for the Conference to provide all relevant information to participants, such as online registration and the Conference's programme;

- managing the registration process for all participants;

- providing staff to assist in the administration of the Conference (registration, delivery of badges, participants information, etc.);

- providing and coordinating all the logistics;

- ensuring availability of all audio-visual equipment (projectors, computers, speakers, communications system, etc.);

- providing interpretation in multiple languages as required;

- providing food and beverages for refreshment breaks during the Conference;

- organizing social events (cocktails, dinners) in association with potential sponsors (optional);

- providing a booth to ICAO at no cost to present its various documents and material. The booth should include a computer and a large screen to display presentations;

- promoting the event to the aviation community, nationally and internationally; liaising with local and regional media if required;

- providing participants with a list of preferred hotels and rates;

- organizing the local visits and informing ICAO of the visit programme;

- providing or covering travel and accommodation expenses for ICAO officials; and

- assisting participants in obtaining their visas to enter the country (when applicable).

## 9.3   ICAO COURSE DEVELOPER AND INSTRUCTOR STANDARDIZATION MEETINGS (ICAO CDI/STDs)

**9.3.1**   Every second year, a number of ICAO Course Developer and Instructor Standardization Meetings (ICAO CDI/STDs) are held on a regional basis where appropriate.

**9.3.2**   ICAO CDI/STDs are a key element of the TPP. They are a unique platform for training professionals to exchange their views and discuss challenges and opportunities for improvement of training deliverables. They provide a forum for instructors, course developers and course validators to meet and exchange their experiences and best practices in implementing the TRAINAIR PLUS methodology and the ISD methodology.

**9.3.3**   ICAO CDI/STDs also provide an opportunity for participants to enhance their skills in regard to the development and delivery of STPs and identify methods, techniques, tools and procedures for the continuous improvement of the TPP course development methodology. ICAO encourages all instructors, course developers and validators to attend and exchange their views and keep up to date on changes affecting the training industry. Participants and presenters are awarded certificates of attendance if they qualify as TPP instructors, course developers or course validators and if they attend for the total duration of the Meeting.

**9.3.4**   An ICAO CDI/STD will be held over a three-day period based on the following format:

| DAY<br>**1** | DAY<br>**2** | DAY<br>**3** | DAY<br>**4**<br>(OPTIONAL) |
|---|---|---|---|
| <ul><li>Opening Ceremony</li><li>Two panels (AM)</li><li>Two panels (PM)</li></ul> | <ul><li>Two panels (AM)</li><li>Two panels (PM)</li></ul> | <ul><li>Two panels (AM)</li><li>Wrap-up session (PM)</li><li>Closing ceremony</li></ul> | <ul><li>May be dedicated to site visits organized by the host organization to showcase their training facilities or any other related facilities</li></ul> |

**9.3.5**   In line with ICAO's environmental initiatives, all ICAO CDI/STDs should be paperless. All information related to the ICAO CDI/STD (working papers, PowerPoint presentations, agenda, etc.) should only be published on the event's website established by the host organization and should be updated daily if required. No paper copies of the programme are to be made available to participants, and the importance of having a well-designed and maintained website cannot be overemphasized. Participants are encouraged to use laptops or tablets.

**9.3.6**   ICAO will manage the content of the ICAO CDI/STD programme, mainly the selection of the themes, lecturers and moderators, and the coordination of the schedule with the host State/organization.

**9.3.7**   ICAO will design an advertisement page which will be used to promote the ICAO CDI/STD. This advertisement will be posted on the ICAO website for promotional purposes. ICAO will also promote the ICAO CDI/STD to States and CATCs via invitation letters from Regional Offices and/or an Electronic Bulletin, and emails to its contacts list.

**9.3.8**   The host organization will be responsible for all other activities. These activities include, but are not limited to, the following:

▪ booking and setting-up of meeting facilities; these should include a conference room able to accommodate approximately 60 to 100 participants, an open space area for the various presentation booths and the refreshment breaks, a small room dedicated to the secretariat, including utilities such as printers and computers, and a meeting room dedicated to ICAO meetings able to accommodate 5 to 10 people;

- developing and maintaining a website for the ICAO CDI/STD. This website will be used for online registration and will also provide all relevant information to participants, including programme, hotel rates, visa processing, etc. Presentations and working papers will be uploaded on this website as soon as they are available and preferably before the event. The website should remain operational for at least one year after the event;

- managing the registration process for all participants. ICAO will require weekly updates on registered participants before the event in order to monitor the level of attendance;

- providing staff to assist in the administration of the ICAO CDI/STD before and during the event (registration, delivery of badges, participants' information, etc.);

- providing and coordinating all the logistics;

- ensuring availability of all audio-visual equipment (projectors, computers, speakers, communications system, etc.);

- providing simultaneous translation, when applicable;

- providing food and beverages for refreshment breaks;

- providing a booth to ICAO at no cost to present its various documents and material. The booth should include a computer and a large screen to display presentations;

- promoting the event to the aviation training community, nationally and internationally, and liaising with local and regional media if required;

- negotiating with surrounding hotels to provide participants with a list of preferred hotels and rates;

- organizing local visits and informing ICAO of the visit programme;

- covering travel and accommodation expenses for all ICAO officials;

- assisting all participants in obtaining their visas to enter the country; and

- organizing social events (cocktails, dinners) in association with potential sponsors (optional).

# 10

SUMMARY
OF FEES

## 10.1  APPLICATION AND ANNUAL MEMBERSHIP FEES

**10.1.1**  Fees associated with the TRAINAIR PLUS Programme (TPP) include the following:

- assessment fees;

- assessment travel costs;

- annual membership fees; and

- fees for development and usage of ICAO-harmonized Training Packages

| Type of fees | AFFILIATE | ASSOCIATE | FULL | RTCE | CORPORATE |
|---|---|---|---|---|---|
| **APPLICATION/ASSESSMENT FEE (US$)** | | | | | |
| Government | N/A | $12 000 | N/A | $10 000 | N/A |
| Private | N/A | $15 000 | N/A | $10 000 | N/A |
| **REASSESSMENT FEE (US$)** | | | | | |
| Government | N/A | $9 000 | $9 000 | $9 000 | N/A |
| Private | N/A | $12 000 | $12 000 | $12 000 | N/A |
| **ANNUAL MEMBERSHIP FEE (US$)** | | | | | |
| Government | $10 000 | $18 000 | $12 000 | $20 000 | $20 000 |
| Private | $15 000 | $20 000 | $15 000 | $20 000 | $20 000 |
| **ASSESSMENT TRAVEL COSTS** | | | | | |
| Airfare + DSA* | N/A | TBD | TBD | TBD | N/A |

*The assessment and reassessment entail an on-site mission. Travel for the assessor is governed by the conditions and provisions of ICAO's travel rules, policies and procedures. Air travel will be by business class if the journey is nine hours or longer, and by economy class if the journey is less than nine hours. The assessor is also an entitled to a DSA, which is an allowance that is intended to account for lodging, meals, gratuities and other general expenses of the assessor and is promulgated by the International Civil Service Commission of the United Nations. This figure is updated every month; consequently, the final figure may change at the time of the assessment mission. The DSA may also be adjusted if the hotel rate is higher than the one used for the calculation of the DSA.

**10.1.2**  ICAO is committed to ensuring that the TPP is managed and implemented in a cost-effective manner. All Members will be charged an annual membership fee by ICAO in accordance with the applicable category of Membership. Membership fees are approved by the Secretary General and will be communicated to all Member States in addition to being published on the TRAINAIR PLUS website.

**10.1.3**  In determining their overall budgets, TRAINAIR PLUS Members should make provisions for the following additional expenses:

- provision of a TRAINAIR PLUS expert validator for STP validation for CATCs who wish to become Full Members;

- training of course developers in a TDC; and

- assistance of ICAO or an SME in developing an STP.

## 10.2  VALIDATION FEES OF A STANDARDIZED TRAINING PACKAGE (STP)

| | QUANTITY (WORKDAY) | FEE (US$)/ WORKDAY | DSA & TRAVEL[4] | TOTAL (US$) |
|---|---|---|---|---|
| Validation Process (mandatory)[1] | 20 | $450 | | $9 000 |
| OJT — Stage 1 Step 2 (optional)[2] | 5 | $450 | TBD | $2 250 + TBD |
| OJT — Stage 2 Step 4 (optional)[2] | 5 | $450 | TBD | $2 250 + TBD |
| OJT — Stage 3 (mandatory)[3] | 5 (minimum) | $450 | TBD | $2 250 minimum + TBD |

1. The validation process represents 20 workdays required for the validation of the three stages, which can be completed remotely or on site, depending on the agreement between the validator and the CATC.

2. OJT is mandatory for the first STP. The CATC is required to contract a TRAINAIR PLUS validator to provide an OJT for course developers during the DACUM session of Stage 1 step 2 and Stage 2 step 4. It is estimated that five workdays will be required. For subsequent STPs, this OJT is optional.

3. During the Evaluation stage, also known as Stage 3, it is mandatory for the validator to be present during the validation delivery. It is estimated that a minimum of five workdays will be required. However, the time frame may vary depending on the course duration and the level of expertise of the course developers.

4. The DSA is an allowance which is intended to account for lodging, meals, gratuities and other expenses of United Nations travellers and is promulgated by the International Civil Service Commission of the United Nations. As per United Nations rules of travel, should time of travel exceed nine hours, a business class ticket will be purchased.

## 10.3  VALIDATION FEES OF AN ICAO TRAINING PACKAGE (ITP)

**10.3.1**    There are two categories of fees associated with the ITP developed by the RTCEs:

a)  **Application fee**

An ITP validation fee will be paid to ICAO once the ITP number is assigned by the GAT Office and prior to the ITP validation review. The fee for validating the course methodology will be funded by the GAT Office, while the fee for validating the course content will be funded by the RTCE.

The table below contains validation fees based on the expected time required to carry out the technical review and is determined by the course duration (number of training hours). Courses of more than 2 weeks (or 70 training hours) will be considered at a later stage.

| ITP Duration | ITP validation fee (funded by the RTCE) (US$) |
|---|---|
| 1 week (or up to 35 training hours) | $7 500 |
| 2 weeks (or between 35 and 70 training hours) | $12 500 |

b) **Annual implementation fee**

The revenues generated from the RTCE ITP will be shared as follows: 75 per cent for the RTCE and 25 per cent for ICAO. ICAO will provide the RTCE with ICAO reference material for each participant enrolled in an ITP.

## 10.4  VALIDATION FEES OF A COMPLIANT TRAINING PACKAGE (CTP)

a) **Application fee**

A non-refundable CTP application fee of US$ 5 000 will be paid to ICAO to cover administrative costs and technical work conducted by ICAO for the review of the proposed CTP as defined in the application.

b) **Validation fee**

A CTP validation fee will be paid to ICAO once the CTP number is assigned by the GAT Office and prior to the CTP validation review. The fee covers the validation of course methodology and content.

Considering the different levels of work expected from RTCEs (with ICAO senior course developer(s)), Full Members (with IQCD(s)), Associate or Corporate Member (with course developer(s)), the matrix below contains validation fees based on the estimated time required to carry out the review and is determined by the course duration (number of training hours).

| CTP Duration | TPP RTCE (US$) | TPP Full Member (US$) | TPP Associate Member/Corporate Member (US$) |
|---|---|---|---|
| less than 20 training hours | $7 500 | $10 000 | $12 500 |
| between 20 and 35 training hours | $10 000 | $12 500 | $15 000 |
| between 35 and 70 training hours | $15 000 | $17 500 | $20 000 |

c) **Annual implementation fee**

Annual implementation fees cover the use of the ICAO platform for the delivery and continuous monitoring of the CTPs, including the use of the TPeMS, the promotion of training activities, the generation of course certificates with the ICAO TPP logo, and support to the course owner regarding ICAO provisions used in the course material.

| Course Duration | RTCE (US$) | Full Member (US$) | Associate Member/ Corporate Member (US$) |
|---|---|---|---|
| 35 hours or less | $5 000 | $7 500 | $10 000 |
| more than 35 hours | $7 500 | $10 000 | $12 500 |

## 10.5  FEES FOR TRAINAIR PLUS CAPACITY BUILDING COURSES

| | Hosted at ICAO Headquarters (per participant) (US$) | Fees charged to TRAINAIR PLUS Members (per participant)* (US$) |
|---|---|---|
| Training Developers Course (TDC) | $1 500 | $500 |
| Online Instructional Techniques (TIC Part 1) (English only) | $500 | $500 |
| Training Instructors Course (TIC Part 2) (English only) | $1 000 | $400 |
| Training Instructors Course in Spanish or French | $1 500 | $600 |
| Training Managers Course (TMC) | $1 500 | $675 |

*The fee per participant is charged to TRAINAIR PLUS Members when the course is hosted on site.

## 10.6  STANDARDIZED TRAINING PACKAGE (STP) COST MATRIX

### 10.6.1  Fees per use

**For one implementation**

| STP Duration | FULL MEMBER (US$) | | ASSOCIATE (US$) | |
|---|---|---|---|---|
| | Gov't | Private | Gov't | Private |
| 1 week | $3 000 | $3 750 | $3 750 | $5 000 |
| 2 weeks | $3 500 | $4 375 | $4 375 | $5 500 |
| 3 weeks | $4 000 | $5 000 | $5 000 | $6 250 |
| 4 weeks + | $4 500 | $5 625 | $5 625 | $7 000 |

## Administrative fees for ICAO

| STP Duration | FULL MEMBER (US$) | | ASSOCIATE (US$) | |
| --- | --- | --- | --- | --- |
| | Gov't | Private | Gov't | Private |
| 1 week | $1 500 | $1 500 | $1 500 | $1 500 |
| 2 weeks | $1 500 | $1 500 | $1 500 | $1 500 |
| 3 weeks | $1 500 | $1 500 | $1 500 | $1 500 |
| 4 weeks + | $1 500 | $1 500 | $1 500 | $1 500 |

## Shared fees for the provider CATC

| STP Duration | FULL MEMBER (US$) | | ASSOCIATE (US$) | |
| --- | --- | --- | --- | --- |
| | Gov't | Private | Gov't | Private |
| 1 week | $1 500 | $2 250 | $2 250 | $3 500 |
| 2 weeks | $2 000 | $2 875 | $2 875 | $4 000 |
| 3 weeks | $2 500 | $3 500 | $3 500 | $4 750 |
| 4 weeks + | $3 000 | $4 125 | $4 125 | $5 500 |

## 10.6.2 Fees Per Use

Fees for each additional implementation represent 50 per cent of the standard fee. To benefit from this fee, all additional purchases must be submitted in one request.

## Two or more implementations

| STP Duration | FULL MEMBER (US$) | | ASSOCIATE (US$) | |
| --- | --- | --- | --- | --- |
| | Gov't | Private | Gov't | Private |
| 1 week | $1 500 | $1 875 | $1 875 | $2 500 |
| 2 weeks | $1 750 | $2 188 | $2 188 | $2 750 |
| 3 weeks | $2 000 | $2 500 | $2 500 | $3 125 |
| 4 weeks + | $2 250 | $2 813 | $2 813 | $3 500 |

### Administrative fees for ICAO

| STP Duration | FULL MEMBER (US$) | | ASSOCIATE (US$) | |
|---|---|---|---|---|
| | Gov't | Private | Gov't | Private |
| 1 week | $750 | $750 | $750 | $750 |
| 2 weeks | $750 | $750 | $750 | $750 |
| 3 weeks | $750 | $750 | $750 | $750 |
| 4 weeks + | $750 | $750 | $750 | $750 |

### Shared fees for the provider CATC

| STP Duration | FULL MEMBER (US$) | | ASSOCIATE (US$) | |
|---|---|---|---|---|
| | Gov't | Private | Gov't | Private |
| 1 week | $750 | $1 125 | $1 125 | $1 750 |
| 2 weeks | $1 000 | $1 438 | $1 438 | $2 000 |
| 3 weeks | $1 250 | $1 750 | $1 750 | $2 375 |
| 4 weeks + | $1 500 | $2 063 | $2 063 | $2 750 |

## 10.7  PAYMENT DEADLINES

**10.7.1**   All invoices are due upon receipt.  Should payments not be received within a three-month period without justification, the Membership will be suspended and/or revoked.

**APPENDIX**
INSTRUCTIONAL SYSTEMS
DESIGN UNIT (ISDU)

# INTRODUCTION

The TRAINAIR PLUS Programme (TPP) is seeking to further support its Members through the evolution of the Course Development Unit (CDU) to the Instructional Systems Design Unit (ISDU). While the CDU provided Members with a structure to develop courses using the TRAINAIR PLUS methodology found in the *Training Development Guide, Competency-based Training Methodology* (Doc 9941), the ISDU, when fully implemented in a Civil Aviation Training Centre (CATC), will provide Members with enhanced training development capacity and improved quality control. A fully implemented ISDU will enable CATCs to identify and produce a variety of quality training products with greater efficiency, leading to accelerated and broader cost recovery and revenue generation. This appendix details the ISDU in order for CATCs to consider the procedures and benefits for full implementation.

# 1. GENERAL

## 1.1   Primary responsibility

**1.1.1**   The primary responsibility of the TRAINAIR PLUS ISDU in a CATC, Member of the TRAINAIR PLUS network, is to develop and deliver high-quality, competency-based training courses tailored to the needs of each Member State and its region. These courses developed by the TRAINAIR PLUS ISDU are based on an extensive training needs analysis and assessment of capacity building requirements. Training courses are competency-based, task-oriented, material-dependent, including required knowledge, skills and attitudes with practical applications, and are focused on solutions to priority problems in the field of civil aviation.

**1.1.2**   The primary objective of the TRAINAIR PLUS ISDU is to ensure competency level in graduates.

**1.1.3**   The TRAINAIR PLUS ISDU supports the CATCs' Quality Management System (QMS) as per the following:

- advisory on expected quality of materials to be developed;

- monitor the real implementation of quality policies as established by QMS; and

- audit results of training process quality.

## 1.2   Goal

**1.2.1**   The goal of the TRAINAIR PLUS ISDU is to develop and deliver competency-based courses that promote the transfer of learning by trainees to the workplace. Competency-based instruction is intended to allow instructors to:

a) work with faculty, administration, staff and participants to establish policies and procedures for course offerings that emphasize quality and use best practices;

b) collaborate for excellence in teaching by developing opportunities for the CATC;

c) provide an opportunity for testing new technologies as they become available (fostering innovation); and

d) participate in close cooperation on quality assurance processes during the design and delivery of training materials.

### 1.3   TRAINAIR PLUS Instructional Systems Design Unit (ISDU) characteristics

**1.3.1**   The TRAINAIR PLUS ISDU workflow process determines instructional needs and develops solutions, proposes how to implement those solutions, and assesses the degree to which the instructional needs were met. To achieve this in the most effective and efficient way, key characteristics are applicable to the TP ISDU, such as:

a) goal-directed: ISDU guides the preparation of instruction to accomplish specific goals and objectives;

b) ensure consistency throughout the whole process: ISDU emphasizes the consistency of each step throughout the process, for instance the objectives, instruction and evaluation;

c) systems approach: all the components in the system work together toward a defined goal; interdependence: all the components in the system depend on each other for input and output;

d) feedback mechanism: the entire system uses feedback to determine whether the goal is met; and

e) effective proactive interaction to three band:  CATC QMS – in the field (industry) research for competency training objectives; and training objectives in CATC designing services.

### 1.4   Objectives

**1.4.1**   The TRAINAIR PLUS ISDU was created with the following objectives:

a) develop ICAO-recognized Training Packages;

b) continue development and upgrading of standardized, competency-based conventional courses;

c) ensure the implementation of all current training programmes into advanced technology;

d) select, implement and maintain an Instructional Systems Design (ISD) learning system applicable for all training delivery;

e) assess the ongoing training needs identified by the CATC;

f) create and implement a systematic planning process based on careful analysis to devise instructional programmes close to the TRAINAIR PLUS methodology, as applicable;

g) monitor instructors' competency before, during and after training delivery; and

h) create an action plan to support the QMS implementation.

# 2. ORGANIZATIONAL STRUCTURE

## 2.1 TRAINAIR PLUS ISDU within the organizational structure

**2.1.1**  The CATC structure should ensure that the delivery of training meets clients' needs and expectations while maintaining compliance with the applicable regulatory requirements. The TRAINAIR PLUS ISDU is one of the key components in any CATC's organizational structure, and is an important requirement for the CATC in maintaining a TRAINAIR PLUS network membership.

**2.1.2**  The following organizational charts are by no means exhaustive and are not intended to meet all operational requirements. They are provided solely to assist CATCs in developing and maintaining an organizational structure that is consistent with the needs of an effective quality system governance model.
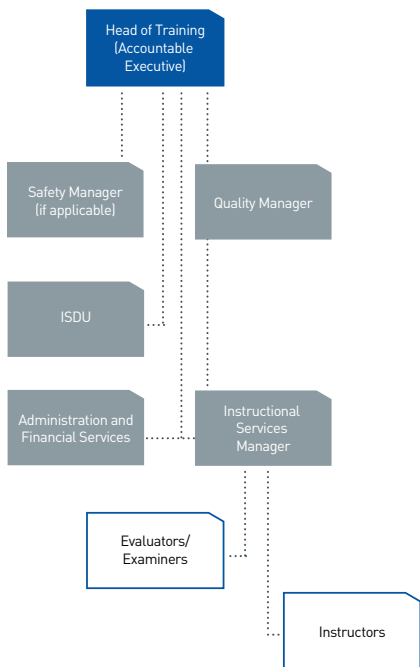


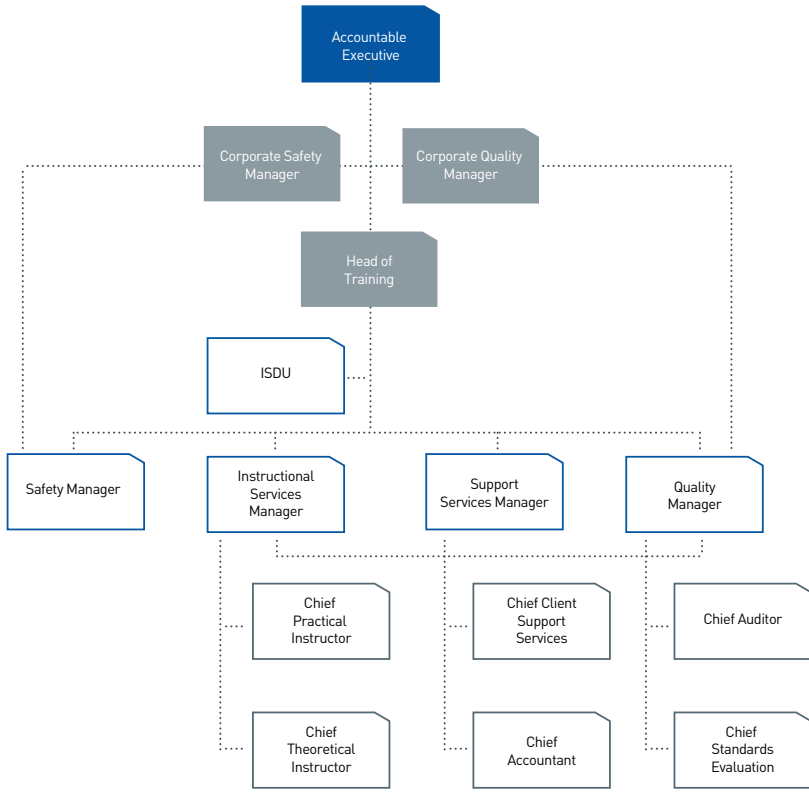**Figure 1.  A TRAINAIR PLUS ISDU within the organizational structure of a very small generic CATC**

**Figure 2. A TRAINAIR PLUS ISDU within the organizational structure of a small/medium generic CATC**
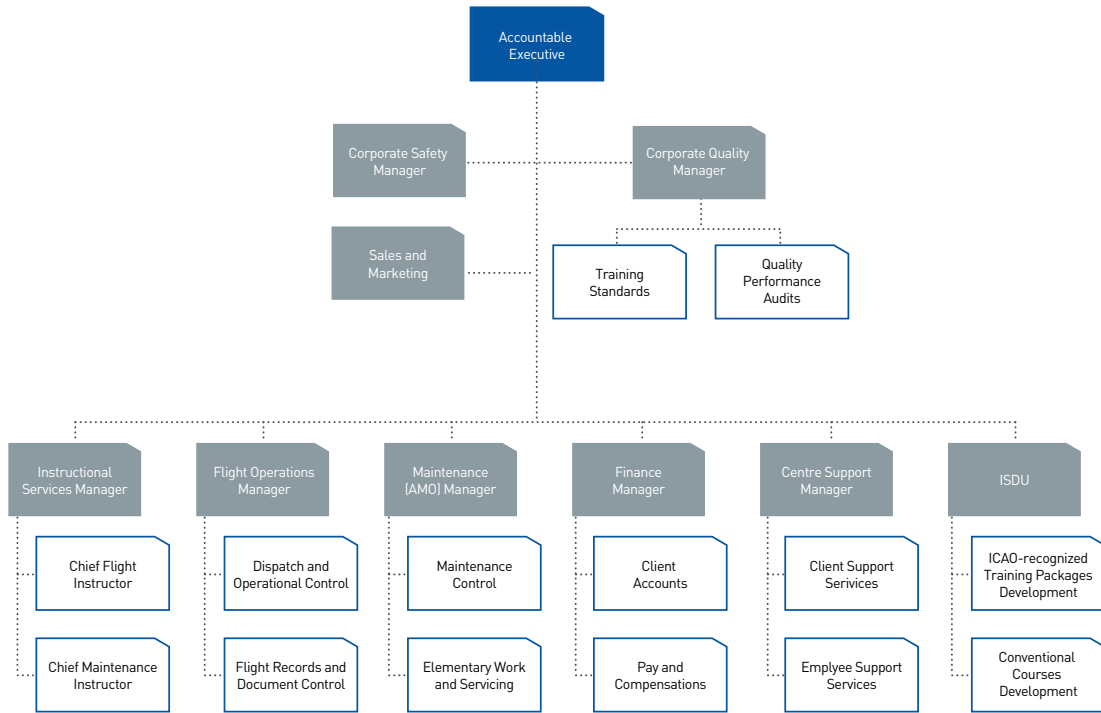


**Figure 3. A TRAINAIR PLUS ISDU within the organizational structure of a large (complex), multi-faceted generic CATC**

## 2.2 Staff

**2.2.1**   The TRAINAIR PLUS ISDU is staffed by a team of ISD specialists (former course developers) who are experts in the development and delivery of competency-based training courses in accordance with the ICAO instructor competency framework. ISD specialists are primarily trained on the TRAINAIR PLUS methodology in accordance with the *Training Development Guide, Competency-based Training Methodology* (Doc 9941). A similar and approved competency-based course development methodology is also accepted.

**2.2.2**   Criteria for selecting the TRAINAIR PLUS ISDU staff can be determined using the following recommendations:

- ✓ Professionals in the field of aviation with different specialties
- ✓ Possess more than five years of experience in their specialties
- ✓ Demonstrate computer literacy, use of MS Office and multimedia equipment
- ✓ Demonstrate an analytical and responsible attitude
- ✓ Preference is given to senior instructors who are specialists in the competency-based training methodology

## 2.3 TRAINAIR PLUS ISDU structure

**2.3.1**   As a key component of the CATC's organizational structure, the TRAINAIR PLUS ISDU should be structured and provided with appropriate facilities.

**2.3.2**   The following structure is provided solely to CATCs in developing and maintaining a TRAINAIR PLUS ISDU structure that is consistent with the needs of an effective quality system governance model.
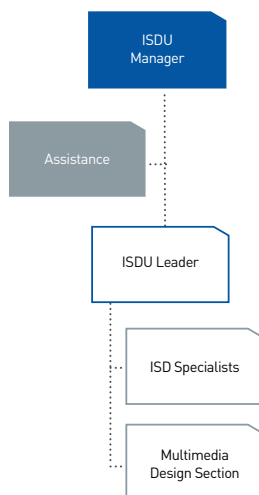


**Figure 4.  TRAINAIR PLUS ISDU structure**

**2.4    Roles and responsibilities**

**2.4.1**    To effectively manage the TRAINAIR PLUS ISDU staff, it is important to provide them with a clear definition and understanding of their roles and responsibilities in the workplace, which in turn will provide them with a good understanding of the job and tasks they are to perform as an individual and within a team.

**2.4.2**    The TRAINAIR PLUS ISDU workflow should be designed to ensure the compliance of the following roles and responsibilities:

a)  development of ICAO-recognized Training Packages;

b)  development of competency-based training;

c)  development/update/upgrade of STPs;

d)  update/upgrade of other conventional courses (instructor dependent);

e)  validate competency-based courses;

f)  determine training needs;

g)  support human resources development strategies;

h)  advise on problems related to instruction;

i)  advise on problems related to work performance;

j)  implement the evaluation training system, including training effectiveness and impact in performance;

k)  implement an instructor validation mechanism; and

l)  support and provide technical advice to quality assurance staff.

**2.4.3**    ISDU responsibilities

The responsibilities of the manager are as follows:

a)  coordinate, lead and monitor work projects, priorities and needs within the Unit;

b)  assign work activities and projects as needed to ensure smooth operations, completion of work and office organization;

c)  serve as a resource to other office personnel and assist them in addressing non-routine issues, problems or questions;

d)  oversee all the activities of the ISDU;

e)  manage expenses and maximize profits; ensure human resources, equipment and supplies are used in a cost-effective manner;

f)  manage department employees;

g) conduct interviews and make hiring decisions, ensure staff are trained, conduct performance evaluations, define employee roles and responsibilities within the Unit and provide leadership; and

h) establish department policies, identify objectives and goals, monitor progress toward goals, communicate progress and any need for change to employees and according to the upper-level hierarchical structure.

The responsibilities of the leader are as follows:

a) develop a project plan;

b) lead course development with ISD specialists;

c) monitor and audit the design of training programmes in accordance with the *Training Development Guide, Competency-based Training Methodology* (Doc 9941) and other related ICAO documents;

d) evaluate the quality of deliverables: stage reports, materials and packaging to increase the first-time acceptance rate;

e) complete procedures in the TRAINAIR PLUS electronic Management System (TPeMS) if required; and

f) prepare and evaluate validations deliveries.

The responsibilities of the specialist are as follows:

a) liaise and conduct training needs analyses to determine training needs and training curricula;

b) design and develop instructional material for training courses that support development skills;

c) revise and structure content and activities to match learning needs;

d) develop evaluation strategies;

e) adapt instructional materials;

f) develop instructor guides that provide clear objectives and direction for delivering the course content;

g) ensure that course materials are complete; and

h) consult the Subject Matter Experts (SMEs) for technical input during the course development process.

**2.4.4**   Multimedia Design Section responsibilities

The Multimedia Design Section can be staffed with personnel specialized in different multimedia areas. Its responsibilities should include:

a) provide creative images; and

b) create media to support learning.

**2.4.5**   Administrative assistance responsibilities

The TRAINAIR PLUS ISDU administrative assistance supports the document management, reporting, writing and storing of information.

**2.5 Facilities**

**2.5.1**    To achieve successful course development and instructional processes, the TRAINAIR PLUS ISDU must have the right tools, supplies and equipment at its disposal in order to perform its job efficiently. The TRAINAIR PLUS ISDU should be equipped with all the necessary items, including:

a)  work station for each ISD specialist;

b)  facilities for group work and meetings;

c)  high-quality color printer/scanner;

d)  advanced communication devices;

e)  multimedia projector;

f)  computer equipment with advanced technology;

g)  office environment with adequate lighting and ventilation; and

h)  others as applicable.

## 3.  ASSESSMENT

**3.1**   The TRAINAIR PLUS ISDU is assessed by the TRAINAIR PLUS Programme Protocol Questions (PQs). The assessment criteria include:

a)  establishment;

b)  operational status;

c)  instructional systems designer's identification;

d)  qualifications and training provided to ISD specialists;

e)  implemented methodology in course development;

f)  ISDU facilities; and

g)  records of course development.

# 4. METHODOLOGICAL CONSIDERATIONS IN COURSE DEVELOPMENT

## 4.1 Development of ICAO-recognized Training Packages

**4.1.1** Listed below are training packages that qualify for ICAO recognition:

a) **ICAO Training Package (ITP)**: A training package developed by ICAO or a Regional Training Centre of Excellence (RTCE) in cooperation with ICAO, based on ICAO Standards and Recommended Practices (SARPs) and guidance material;

b) **Standardized Training Package (STP)**: A training package developed by ICAO, a TRAINAIR PLUS Full Member, or an Associate Member for its first STP, in accordance with the *Training Development Guide, Competency-based Training Methodology* (Doc 9941);

c) **Compliant Training Package (CTP)**: A training package developed by a TRAINAIR PLUS Associate, Full or Corporate Member, or an RTCE and recognized by ICAO as compliant with ICAO SARPs and guidance material; and

d) **Partnership Training Package (PTP)**: A training package developed within the framework of a cooperation and/or partnership agreement with the training arm of a Corporate Member or an industry partner. PTPs are related to management training and educational programmes in aviation.

**4.1.2** The TPP supports its Members in implementing an ISD methodology to develop any of the four categories of ICAO-recognized courses. In addition, a specific training development methodology contained in the *Training Development Guide, Competency-based Training Methodology* (Doc 9941) must be used for the development of STPs.

## 4.2 Development of conventional courses

**4.2.1** For the development of conventional courses, it is recommended to implement performance based methodological concepts described in the *Training Development Guide, Competency-based Training Methodology* (Doc 9941). Such conventional courses may be upgraded following the procedures described in Chapter 9 of this manual.

# 5. TRAINAIR PLUS SUPPORT FOR THE ISDU

**5.1** TRAINAIR PLUS is launching a new training course for the ISDU leader (see 2.4.4) The course entitled *Leading a Quality ISDU* will welcome experienced course developers who wish to lead the course development process and team by guiding, monitoring and ensuring quality control over methodology and deliverables. The ISDU leader will play a key role in enabling the CATC to expand its training products and services by ensuring efficient and effective processes within the ISDU.