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INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY



AIS Training Update

—
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NACC AIM Implementation Task Force
(AIM/TF/5)

28-29 November 2022

Presentation Outline

01

Aeronautical Information Services Training Manual

Doc 9991

02

ICAO TRAINAIR Plus Training Courses

AIQM and AIS OPS

03

Custom Training

Example: NOTAM Workshop

04

ICAO TRAINAIR Plus Training Development Guide

Doc 9941

01 Aeronautical Information Services Training Manual

Doc 9991



ICAO

Doc 9991
Aeronautical Information Services
Training Manual

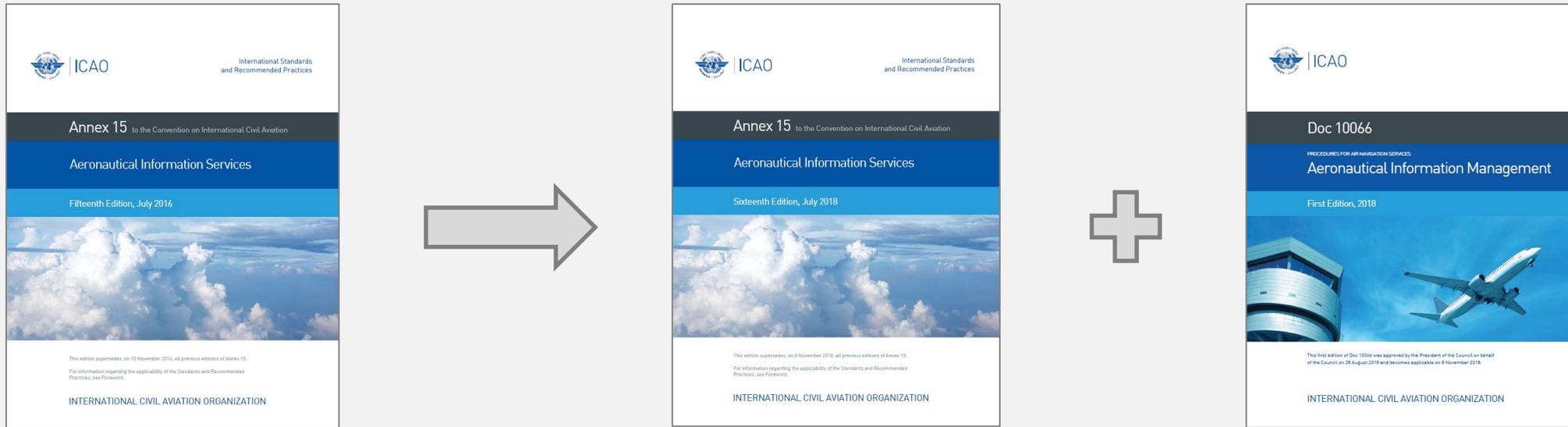
First Edition (unedited) — 2022

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INTERNATIONAL CIVIL AVIATION ORGANIZATION

AIS Training Manual – Background



- In 2018, publication of Annex 15 and PANS-AIM prepared for the transition from AIS to AIM
- This necessitated a complete review of AIS Manual (Doc 8126); release of 7th edition in Q2 2021
- Required guidance on quality requirement with Manual on QMS for AIS (Doc 9839); in Q2 2022
- Required guidance on training requirement with AIS Training Manual (Doc 9991); due in Q4 2022
- Development of two TRAINAIR Plus courses (AIQM and AIS OPS) by ICAO; in Q3 2022
- Doc 8126, Part IV Digital aeronautical information products and related services; expected Q3 2023

Aeronautical Information Services Training Manual

Doc 9991

As per QMS requirement, AIS personnel need to be competent to do their assigned tasks.

Hence the need for employing the adapted competency-based training and assessment (CBTA) model.

The model is based on the generic ICAO competency framework in PANS-TRG (Doc 9868).

Competency is defined as knowledge, skills and attitudes, as evidenced through observable behaviours, to perform an activity or task.

CBTA should be applied to all phases of AIS training, namely initial, functional, specialized and refresher training.



Doc 9991
Aeronautical Information Services
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INTERNATIONAL CIVIL AVIATION ORGANIZATION

Aeronautical Information Services Training Manual

Doc 9991

Table of contents

Chapter 1. Introduction, contains background and guidance for establishing a CBTA programme for an AIS organization.

Chapter 2. contains guidance for adapting the ICAO competency framework to AIS, as well as regulatory, safety and performance aspects.

Chapters 3 and 4 provide specifics on designing an AIS CBTA and the various phases of AIS training.

The appendices contain examples of a training specification, an AIS adapted competency model, as well as a sample training syllabus, among others.

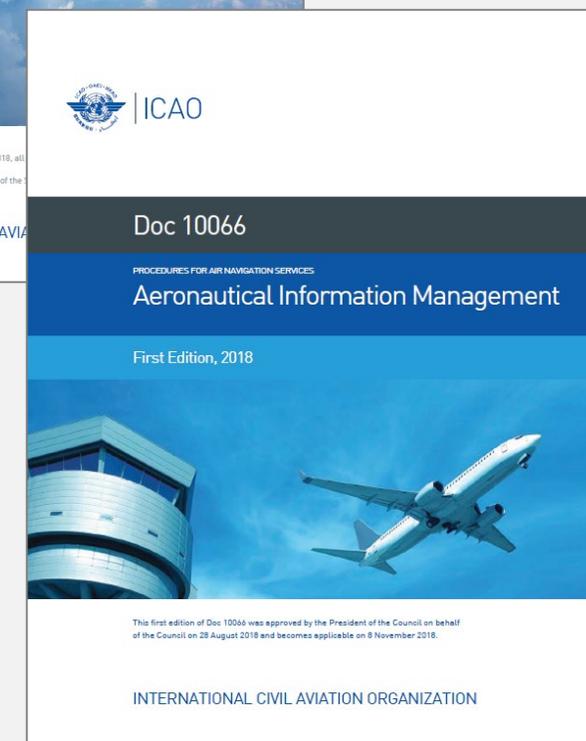
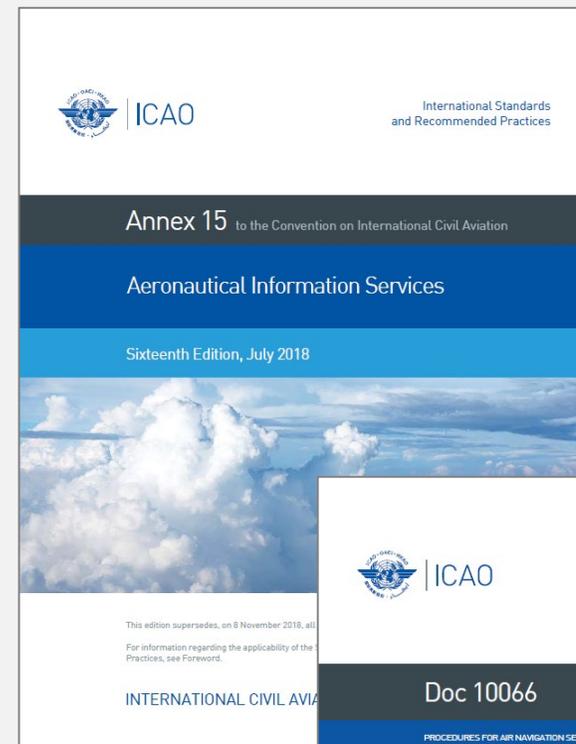


CONTENTS

	Page (xiii)
Glossary.....	1-1
Chapter 1. Introduction.....	1-1
1.1 Prerequisites for establishing a CBTA programme.....	1-1
1.2 Benefits of a CBTA programme.....	1-1
1.3 General provisions for CBTA.....	1-2
1.4 Competency.....	1-2
1.5 Organization of AIS training.....	1-3
1.6 The Phases of AIS training.....	1-4
1.7 ICAO Competency framework.....	1-4
1.8 The Instructional systems design model.....	1-4
1.9 Overview of competency-based training and assessment workflows.....	1-5
Chapter 2. Developing competency-based training.....	2-1
2.1 Overview.....	2-1
2.2 Adapting the ICAO competency framework to AIS.....	2-1
2.3 Understanding the regulatory context of AIS training.....	2-1
2.4 Understanding the safety context of AIS training.....	2-1
2.5 Understanding the performance components of AIS competencies.....	2-2
Chapter 3. Design of AIS CBTA.....	3-1
3.1 General.....	3-1
3.2 Workflow 1: Analyse the training need.....	3-1
3.3 Workflow 2: Design CBTA.....	3-3
3.4 Workflow 2 - Part 1: Design adapted competency model.....	3-5
3.5 Workflow 2 - Part 2: Design training and assessment plans.....	3-8
3.6 Workflow 3: Develop the training and assessment materials.....	3-16
3.7 Workflow 4: Conduct the course.....	3-16
3.8 Workflow 5: Evaluate course.....	3-16
Chapter 4. AIS training phases.....	4-1
4.1 General.....	4-1
4.2 Initial training.....	4-1
4.3 Functional training.....	4-2
4.4 Specialized training.....	4-3
4.5 Refresher training.....	4-3
Appendix A – Example training specification.....	A-1
Appendix B – Example AIS adapted competency model.....	B-1
Appendix C – Example evidence guide.....	C-1
Appendix D – Example competency checklist.....	D-1
Appendix E – Example competency assessment form.....	E-1
Appendix F – Sample Syllabus.....	F-1

Annex 15 and PANS-AIM

Amendments and updated cross-references to the AIS Training Manual (Doc 9991) will be added in the next editions of Annex 15 and PANS-AIM (Doc 10066).

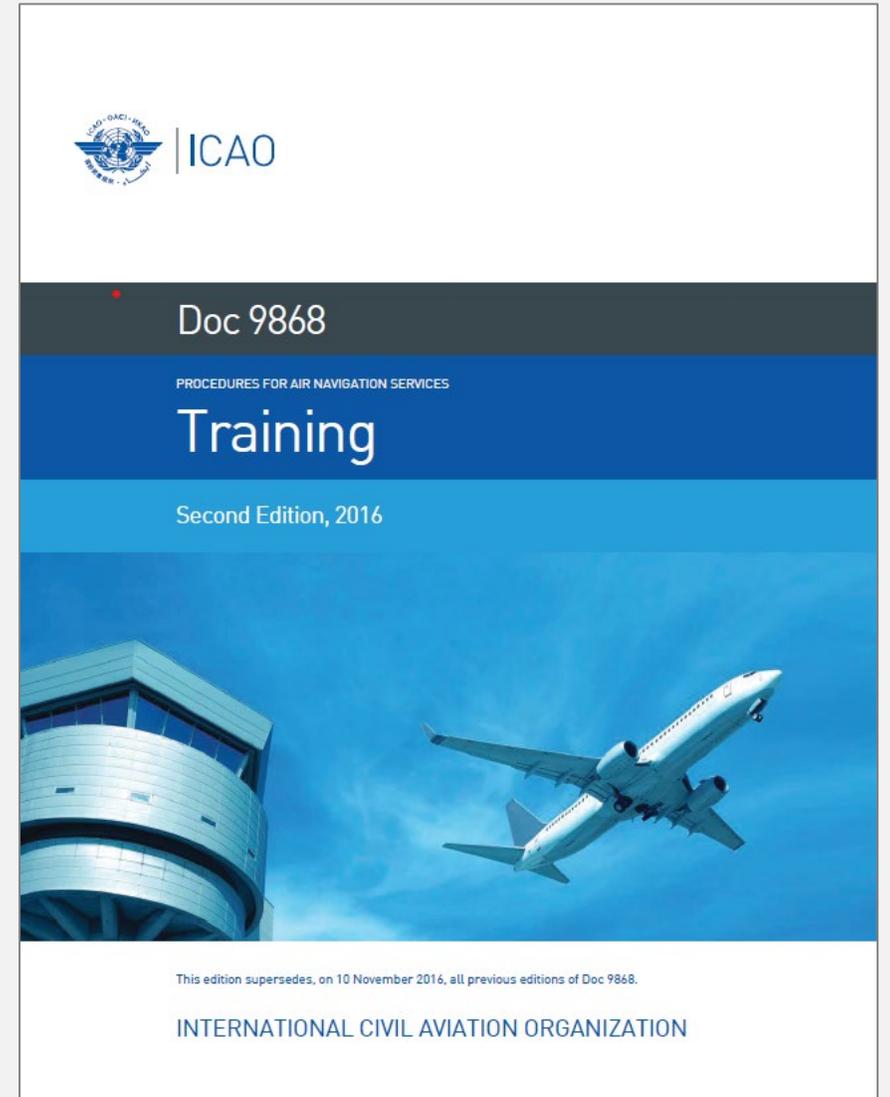


Procedures for Air Navigation Services – Training (PANS-TRG)

Doc 9868

Provides the generic ICAO competency framework which is then adapted to the various aviation domains (e.g., flight crews, aircraft maintenance personnel, ATCOs, etc).

PANS-TRG (Doc 9868) will be amended to include in Part VI – Training and assessment for other aviation personnel, the competency-based training and assessment for aeronautical information services (AIS) personnel.



02

ICAO TRAINAIR Plus Training Courses

AIQM
AIS OPS



ICAO

GLOBAL AVIATION TRAINING
TRAINAIR PLUS™



Air Navigation

**Data-Centric
Aeronautical Information
System Operations (AIS OPS EN)**

 Virtual Classroom

www.icao.int/training



Air Navigation

**Aeronautical Information
Quality Management
(AIQM EN)**

 Virtual Classroom

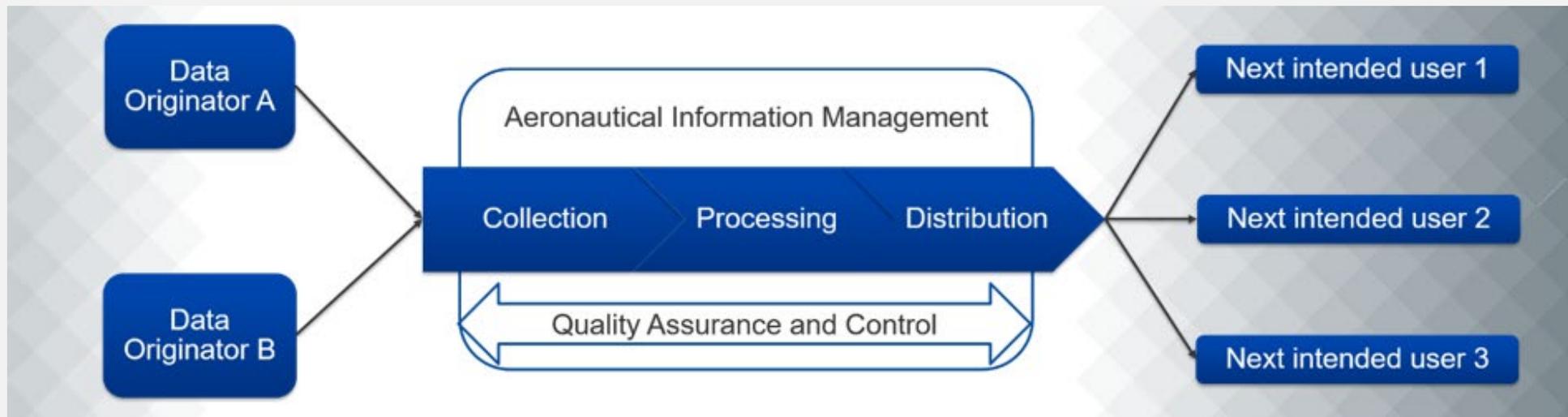
ICAO TRAINAIR Plus Courses for AIS

ITP/ANS/029/AIQM/046EN

Aeronautical Information Quality Management (AIQM)

- 2 day course
- Target audience: Managers (ANS, AIS providers, safety inspectors, airport operators, etc.)
- In English (other languages to follow)
- Developed using competency-based methodology, Training Development Guide (Doc 9941)
- Classroom or Virtual classroom
- Max. participants: 15 (25 with 2 instructors)
- ICAO Certification
- Register at <https://igat.icao.int/ated/TrainingCatalogue/Course/5639> or [5582](#)

AIQM – Course Overview



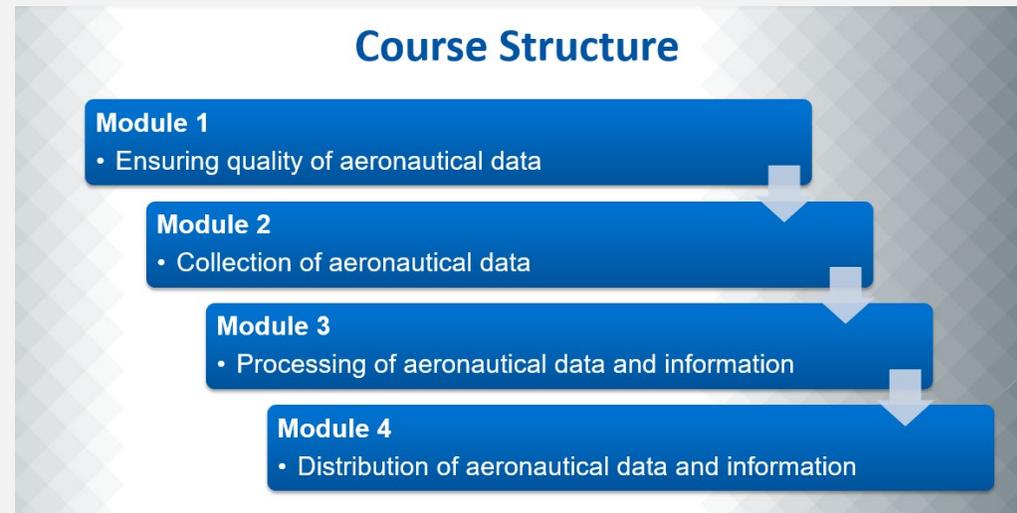
- Three modules:
 - Module 0 – Orientation
 - Module 1 – Aeronautical Information Quality Management
 - Module 2 – Wrap-up
- Introduces the aeronautical data chain
- Emphasizes that quality is established at origination and can subsequently only be maintained
- Highlights importance of Quality Management System and Formal Arrangements
- Contains group discussions, quizzes, hands-on exercises, progress and mastery tests

ICAO TRAINAIR Plus Courses for AIS

ITP/ANS/029/AIS OPS/047EN

Data-Centric Aeronautical Information System Operations (AIS OPS)

- 5 day course
- Target audience: AIS operational staff
- In English (other languages to follow)
- Developed using competency-based methodology, Training Development Guide (Doc 9941)
- Classroom or Virtual classroom
- Max. participants: 15 (25 with 2 instructors)
- ICAO Certification
- Register at <https://igat.icao.int/ated/TrainingCatalogue/Course/5640> or [5605](#)



- Four main modules: quality management, collection, processing, and distribution of aeronautical data and information
- Introduces and covers the entire aeronautical data chain from origination to next intended users
- Detailed description of all functions of an AIS
- Introduces and explains new concepts like aeronautical data catalogue, data quality requirements, metadata, data product specification, digital data sets, information exchange model, data set distribution service, etc.
- Contains group discussions, quizzes, practical exercises, progress and mastery tests

03

Custom Training

Example: TZA NOTAM Workshop



ICAO Technical Cooperation Bureau

Example Tanzania Civil Aviation Authority (TCAA)

Series of AIM Workshops

- 2 weeks of workshops (for managers and AIM operational staff)
- In preparation of acquisition of AIS automation system
- Based on AIQM and AIS OPS courses
- Custom NOTAM workshop, incl. review and analysis of TZA NOTAM
- Included briefing of Director General
- AIM workshops were well received by all participants

Suggestion for Regional Training Events

For example, organized in conjunction with a regional AIS meeting

AIS Training and/or NOTAM Workshops

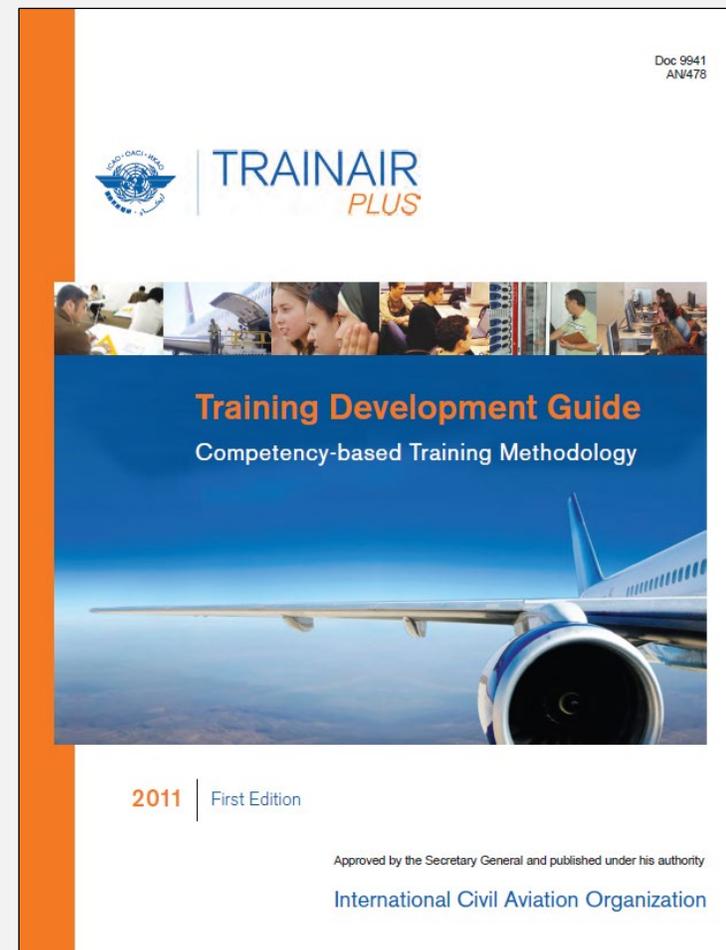
- Can pool participants from multiple countries
- For example, 5 countries @ 3 participants = 1 instructor
- Currently, there is a roster of 3 instructors
 - Alexander Pufahl, TRAINAIR-certified instructor and course developer
 - Ruedi Schneeberger, Consultant
 - Roland Baumann, Consultant

04

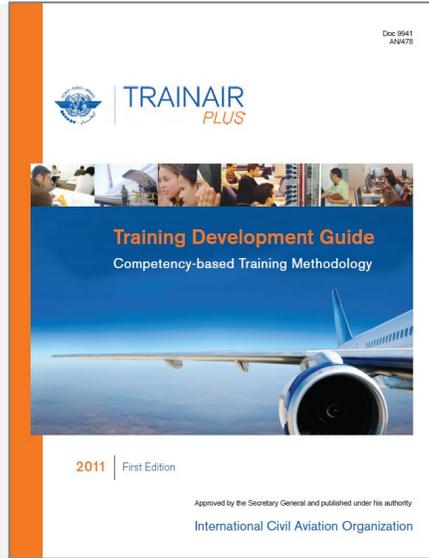
Training Development Guide

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Doc 9941

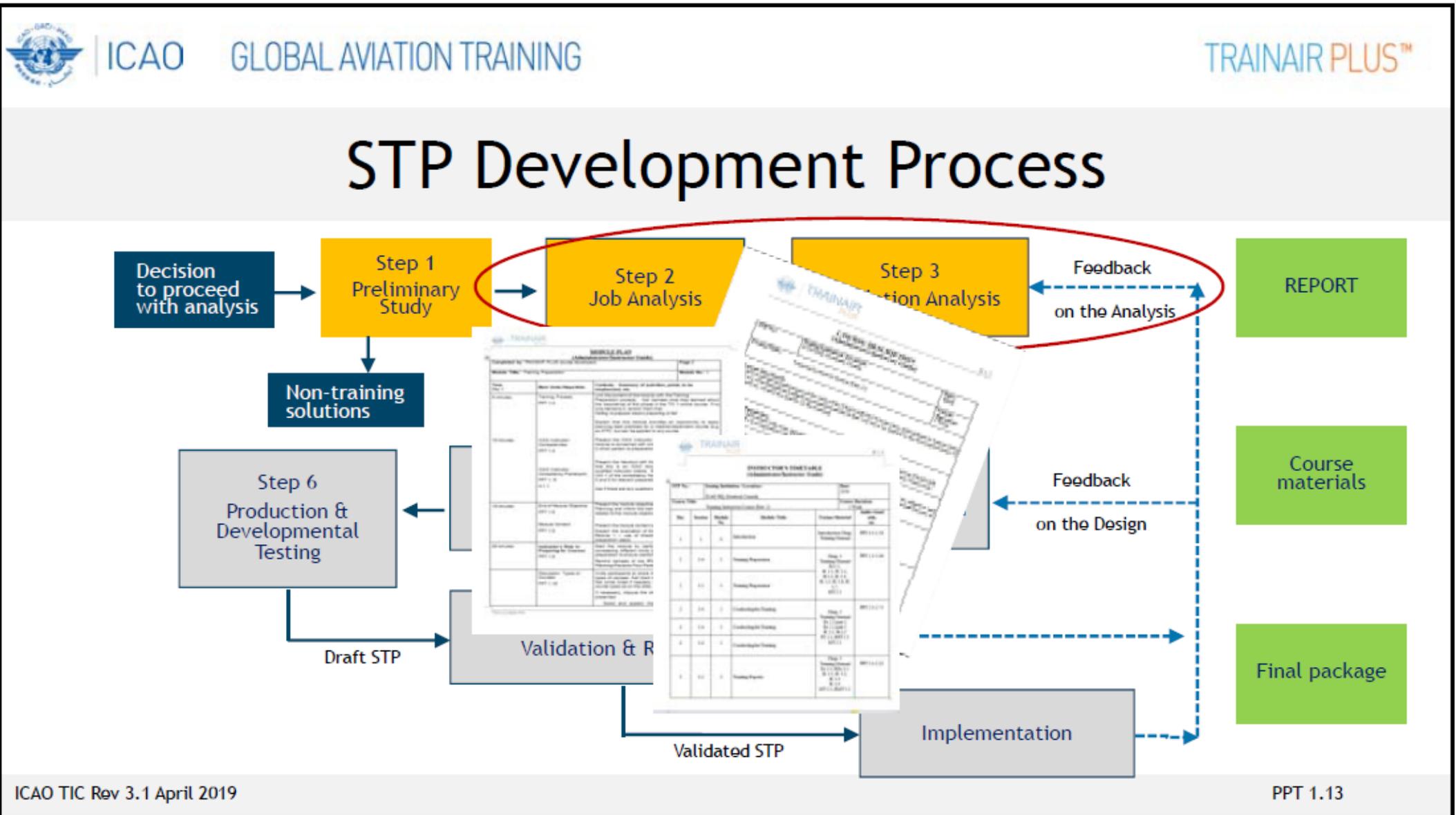


TRAINAIR Plus – Training Development



- Training Development Guide – Competency-based Training Methodology (Doc 9941)
- Guidelines for the development of online courses (supplement to Doc 9941)
- TRAINAIR Plus Operations Manual (TPOM) (Doc 10052)

TRAINAIR Plus – Training Development



TRAINAIR Plus – Training Development



Module plan – M.0: Orientation

Virtual Class

STP No: ITP/ANS/029/AIQM VC/046EN	Location:	Date: March 2022
	Completed by:	Page 1 of
Module title: Orientation VC		Module no: M.0
Function no: N/A	Task no(s): N/A	Subtask no(s): N/A
End-of-module objective N/A		
General notes for the instructor The documentation should be available to all participants. See Standard above.		

Module outline

STP No:		Page 1 of
Module title:		Module no: M.1
Dur ati on	Main unit (presentation slide, activity, testing, etc.)	Instructional guidance (summary of activities, points to be emphasized, etc.)
	Slide 1	Introduce the title of module (on the slide).
	Slide 2	Introduce AIM Course - Manager
	Slide 3	Instructor should introduce him/herself.
	Slide 4	Ask participants to each take a turn introducing themselves, indicate their current job title, and their safety management experience. You may ask participants to state their expectations of the course in "chat".
	Slide 5	Inform participants: <ul style="list-style-type: none"> • Avoid using their cellphones during class • Thank participants for being on time, and request that they return from breaks on time. • Emphasize that the course is an opportunity to share the collective experience of the participants, and encourage students to participate and contribute to group discussions. • If desired, ask participants to mute their microphone when not talking, and inform them that they can use the chat function to add to the discussion. • Emphasize that having the video facilitates a more positive virtual classroom experience.

- Detailed instructor guide
- Explanations regarding every slide and exercise, including how much time to spend on each task



Thank You!