ICAO Guidance and Assessment Templates for the Quality Assurance of Training Material

Overview

This document, created by the Aviation Security Panel's Working Group on Training, is designed to provide an overview of key aspects for conducting the quality assurance of training materials and packages as part of:

- a desktop-based assurance of the materials alone;
- the delivery of a training module/course or workshop; and
- the assessment of materials and their delivery.

It should be used in conjunction with the **ICAO *Aviation Security Manual*** (Doc 8973 – Restricted), in particular **Chapter 8** (Recruitment, Selection and Training) and **Appendix 7** (National Civil Aviation Security Training Programme).

Relevant authorities may use the guidance and templates provided in this document for conducting quality assurance activities and assessments with respect to training material and/or delivery of training courses or workshops by training organizations, in accordance with their National Civil Aviation Security Training Programme (NCASTP). The guidance and templates may also be considered for inclusion as part of a local and/or national quality assurance strategy (where in place), or serve as the basis for the creation of a quality assurance planning/strategy programme.

Quality assurance activities should be carried out by persons with suitable aviation security competences and experience in the quality control/assurance of training (this should include having received informal and/or formal training). These activities should aim to support the delivery of high quality and technically accurate aviation security training by instructors and training organizations. The delivery of quality assurance activities should follow a logical sequence. For example, the lesson plans and training/assessment materials should be checked first, followed by quality assurance of the delivery and assessment. This ensures a cohesive and logical progression of training.

Quality assurance activities should be recorded as part of a robust document management system that allows easy tracking and links to version control of current training materials. These activities may also be a component of an organization's wider quality assurance programme.

Quality assurance of training materials

Annex A provides a template that can be used to quality assure training materials before and/or during the training delivery. Key points include:

- There should be a set minimum frequency at which training materials are subject to quality assurance. For example, this may be if a change was made to the material, or because the minimum interval has been reached for a routine assurance check.
- Quality assurance activities should ensure that the latest version of the material is assured and, where applicable, clearly indicates when training material is approved for use.
- Where the quality assurance activity includes material used for the delivery of training under a NCASTP, relevant material such as training syllabuses should be available to allow for a check on whether the required competencies and knowledge are covered in the course or workshop.

Quality assurance of training delivery through observation

Annex B provides a template that can be used to quality assure the delivery of a training course or workshop through observation, following and/or in combination with the quality assurance of the training materials. Key points include:

- Where applicable, a course guide (e.g. instructor's notes) should be available to the person conducting the quality assurance, to enable consideration of the planned activity for the course or workshop.
- The frequency of observation for quality assurance should be based on an assessment of requirements. For example, this may include prioritizing the assurance of:
  - training activities delivered by instructors new to the subject area/organization or those requiring additional support;
  - the first delivery of a new course or workshop for validation purposes;
  - experienced instructors or established courses/workshops that have not been observed yet as detailed in the quality assurance plan; and
  - ongoing requirements for national certification, which may require observations of instructors at prescribed intervals.

Quality assurance of assessment material and delivery

Annex C provides a template that can be used to quality assure the delivery of assessment material through observation, following and/or in combination with the quality assurance of the assessment materials and training observations. Key points include:

- The quality assurance of assessment delivery should be combined with checking the assessment material itself, though these two elements could be completed at different times.
- As with other quality assurance activities, the frequency of observations should be based on an overarching plan that prioritizes what type of quality assurance sampling will be undertaken.
- Persons undertaking the observation should be familiar with the concept of malpractice[1] and have access to the local requirements and processes of dealing with malpractice by both instructors and trainees.

[1] Examples of malpractice would include but not be limited to copying answers from another trainee or being given the correct answers by the instructor, using reference materials in a closed book exam, another person sitting the exam in place of the trainee or using a digital device to look up the correct answers.

Annex A

Internal Quality Assurance (IQA) – Review of Training and Assessment Materials

Course/Workshop Title		Module Title (if needed)	
Date of course		Date of quality assurance	
Creator of material		Reviewer name	
Are the materials new or an updated version of existing materials?		Date of feedback to material creator	
Version of material reviewed			

Item	Preferred Details	Reviewer Observations and Recommendations
Make Up of Training Materials/Package		
What type of materials does the course consist of in terms of the learning approach (e.g. lecture, exercises, tests, etc.)?	Diverse training materials/methodologies should be used to facilitate learning – please outline what type of materials are used. Opportunities for individual and small group work should be included where possible.	
Are the instructor materials available and fit for purpose (e.g. suitable for training delivery/assessment)? The instructor materials may be called different titles, including but not limited to: • Facilitator's Guide • Module/Lesson Plans • Instructor Guide • Marking Scheme • Assessment Specification	Instructor materials should contain the relevant detail that allow(s) the instructor(s) to facilitate the training. Questions to consider, include: • Are these materials available and to a sufficient depth to act as a lesson plan for guiding/standardizing instructors' delivery? • Does it highlight key messages/details and facilitate standardization between instructors? • Are the instructor materials appropriate for the scope of delivery? • Is there a separate script for instructors (noting a PowerPoint is not suitable as a replacement for a module plan)? • Where the materials relate to assessment, is there a clear mark scheme available that can be used by instructors?	

Virtual/e-learning delivery considerations (if applicable)	If the materials are being used for a virtual delivery, have they been suitably adapted? Questions to consider, include: • Have they been reviewed and adapted where required to take into account the limitations of remote delivery? • Are there suitable joining and introductory guidance on the technology used (i.e. access requirements, security and user guidelines)? This should include where applicable assessment of any pre-course/workshop preparation.	
Training Materials/Package – Overview		
Do the training materials use the corporate format/organizational branding?	To include: • Correct corporate style/organizational branding used for training materials (including templates where required); and • Logos and references as appropriate on materials.	
For the introductory/closing session, are the aims and objectives of the course/workshop covered in the training material?	Are they reviewed at the end of the course? They may either be covered as part of an activity and/or through visual display on a PowerPoint or other material.	
Are all sources of materials appropriately referenced?	Material obtained directly from either ICAO or other external sources must always be referenced.	
Flow of materials	The flow of the training material should align with systematic processes, which are designed	

	in such a way as to meet the learning aims/objectives. The order should feel logical and make sense. Where applicable, does the sequencing of modules/chapters/sections follow applicable technical guidance provided by the State/ICAO?	
Is the content technically accurate and does it reflects the aims and objectives in its make up?	Training and assessment materials should reflect the correct technical content and applicable national regulatory requirements. The content should be covered to ensure the aims and objectives are met. For assessment materials, consider: • Are the questions valid, fair and reliable? • Have the answers been covered in the training course or workshop?	
Is appropriate version control applied to all training materials?	Version control and the owner of the material should be included in either the title of the document or the footer. The latest version should be used for review.	
Presentation Materials to Participants		
Use of presentation materials (i.e. PowerPoint, Storyboards, and other visuals)	Presentation materials should only be used as visual aids, including to summarize key points, and should be limited to the minimum number of slides needed.	

	Check slides and their content – wording should be limited and not aimed at simply being read out by the instructor. Key messages should be provided in the presentation materials (providing a summary). Graphics, where used, should be of sufficient size to be fit for purpose, and they should be meaningful, engaging and relevant.	
Are the presentation materials accessible to all trainees?	Check that: • A limited amount of information is on each slide and avoid long sentences; • Plain language is used and abbreviations are avoided, unless they have already been explained or are common; • The writing is in a dark font and the background is light enough to provide clear contrast. A cream background is often more accessible than pure white; • Content is in line with organizational requirements/branding for font and style; • Where applicable, bullet points are used to assist in making slides easier to follow; and • Colour is not the only indicator of meaning (e.g. priority items shown in another colour/bolded).	
Handouts and Activity/Exercise Materials		

Use of handouts and activity/exercise materials	Check that: • Handouts and exercises provided to the participants for reference are clearly marked for ease of reference; • The purpose of the handout/exercise is clear; and • Instructions, where included, are clear.	
Are handouts and activity/exercise materials accessible to trainees?	Check that: • Content is in line with organizational requirements and branding for accessible fonts and style; • The material creates appropriate headings and use of bolding to make it more accessible; • There is sufficient contrast between the font colour and the background; • Appropriate spacing is used; • Abbreviations, when used, are used appropriately (e.g. explained in full if used for the first time in document); and • Use of particularly long sentences is avoided and use of words/phrases are suited to the audience (e.g. wording is accessible for those who are not proficient in the language used in the materials).	
Activity/exercise materials utilizing electronic means (e.g. polls, apps, virtual activities, etc.)	Check that: • The module considers alternatives if the required technology is not available/accessible to all trainees (e.g. contingency plan);	

	• The purpose of the activity is set out clearly; and • The instructions used for the trainees include how to use the technology, if applicable.	

Specific Content Recommendations		
Course/Module/Section	**Identified Issue (Slide Number, activity, etc.)**	**Recommendation**
Ex: Air Cargo and Mail Security, Module 2	• *Slide 24: Need more detail on high risk cargo* • *Slide 44: Perhaps more participation* • *Activity 7 – no alternative option highlighted if app cannot be used for any reason*	• *Review Doc 8973 and reflect high risk cargo section* • *Consider creating an exercise on considering different types of high risk cargo* • *Create alternative option required if not all trainees can access app*

Internal use only

Feedback identified and given to Instructor (material creator):
Any agreed actions:
Instructor comments:

Annex B

Internal Quality Assurance (IQA) – Course/Workshop observation

Course/Workshop Title		Module Title (if applicable)	
Date of course/workshop		Date of quality assurance	
Format (classroom/virtual/practical)		Reviewer name	
Location (if applicable)		Date of feedback to instructor	

Item	Standard	Observation
Environment/Preparation		
Set up of training space	For in-person courses/workshops: Consider sufficient and working lighting, heating, and furnishings. Is the space and set-up conducive to learning? For virtual courses/workshops: Is the software used accessible to all trainees? Does it work and is the quality sufficient for the training course? Are there any security restrictions that have/have not been taken into account?	
Course start/finish times	Did the course start and finish at the agreed time, and in accordance with the course plan/instructor notes?	
Training materials	Are only materials which have been approved and quality assured being used?	
Training Delivery		
Course introduction	Was the course explained in terms of what would be covered and through which methods? Were any	

	formative/summative assessment elements explained?	
Aims and objectives	Were the aims and objectives explained at the start of the lesson and how they were going to be met?	
Subject matter knowledge	Do the instructor(s) read from the slides or are they able to expand beyond and use their knowledge? Are they able to answer questions correctly?	
Communication	Are they able to project their voice and communicate clearly? Is their body language supportive of the course? Are exercises, when used, clearly explained and facilitated by the instructor? How is feedback delivered after exercises/activities? For virtual learning: Is the volume adequate and, where applicable, is the video/camera feature used by the instructor?	
Equality	Are all trainees given an equal chance to participate and contribute to the course?	
Delivery pace	Is the pace appropriate, e.g. the material is not rushed through and time is given for questions? Is the course plan/instructor guide adhered to in terms	

	of time planning? Are adequate breaks provided, and if the course is virtual, has the overall length of exposure to screen viewing devices been considered?	
Attainment		
Aims and objectives	Have all trainees achieved the training outcomes and passed applicable tests/exams at the end of the course?	
Formative assessment (where applicable)	Has appropriate formative assessment (in line with the course plan) been used during the course to check on the progress of trainees?	

Specific Content Recommendations		
Course/Module/Section	**Identified Issue (Slide Number, activity, etc.)**	**Recommendation**
Ex: Air Cargo and Mail Security, Module 2	• *Section 1 – slides 4-6*	• *This section would have benefitted from a slightly slower pace to ensure trainees can progress with you to digest the detailed information.*
Ex: Air Cargo and Mail Security, Module 2	• *Section 2 – slide 7*	• *Avoid reading the content of the slides or the module plan as this does not allow you to interact with the trainees or maintain eye contact. Use the preparatory time to review the module plan – reach*

		out to a colleague if you would like support in preparing for the course.

Internal use only

Feedback identified and given to Instructor:
Any agreed actions:
Instructor comments:

Annex C

Internal Quality Assurance (IQA) Assessment observation

Course/Workshop Title		Module Title (if applicable)	
Date of module/course		Date of quality assurance	
Format (classroom/virtual/practical)		Reviewer name	
Location (if applicable)		Date of feedback to Assessor	

Item	Standard	Observation
Environment/Preparation		
Set up of training space	For in-person assessments: Consider sufficient and working lighting, heating, and furnishings. Is the space and set-up conducive to the assessment? Does it provide a barrier to malpractice? For virtual learning: Is the software used accessible to all trainees? Is the set up sufficient to ensure a fair and valid assessment can be undertaken? Are there any security restrictions that have/have not been taken into account?	
Materials	Are there enough assessment forms/materials including any additional equipment and/or software needed for assessments? Are the assessment materials, equipment, and/or software accessible to all trainees? Are the assessment materials used approved through the local quality assurance process?	
Needs of trainees	Have any adaptions for trainees with additional needs been considered and implemented? Is the assessor aware of trainees who require additional needs (e.g. aids or extra time, where agreed)?	

Assessment Delivery		
Assessment introduction	Have the trainees been fully briefed on what they are to be assessed on?	
Ground rules	Has the assessor ensured that the ground rules of the assessments have been set, including timings, pass marks/grading, closed/open book, etc.?	
Start/Finish times	Did the assessment start and finish on time?	
Assessors aptitude	Did the assessor ensure impartiality throughout the assessment phase?	
Malpractice	Was it made clear to trainees that malpractice would not be tolerated and was the assessment delivered in such a way that malpractice was deterred? Did any malpractice occur?	
Post Assessment Administration		
Materials	Does the assessor have a clear marking guide? Is the equipment and/or software properly configured to correctly assess the acquisition, when applicable, of the competencies by the trainees?	

Marking	Are the assessment papers and supporting materials marked and configured correctly?	

Specific Content Recommendations		
Course/Module/Section	**Identified Issue (Slide Number, activity, etc.)**	**Recommendation**
Ex: Air Cargo and Mail Security, Module 2	• *Trainees were observed to be exchanging answers during the written test as they were not observed*	• *Ensure an invigilator is present during assessment to provide supervision*

Internal use only

Feedback identified and given to Assessor:
Any agreed actions:

If you have any questions on the ICAO Guidance and Assessment Templates for the Quality Assurance of Training Material, please contact ICAO's Implementation Support and Development - Security (ISD-SEC) team at isd@icao.int.