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Enhancing Safety through Cabin Crew Competency-based Training

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Overview

- ICAO Cabin Safety Programme
- Competency-based approach to training
- ICSG & process for updating material
- Overview of competency framework
- Example from competency framework
- ICAO Cabin Crew Safety Training Manual revision



ICAO's Cabin Safety Programme

- Regulations relating to cabin operations
- Operator's procedures and documentation
- Cabin crew training and qualifications
 - including facilities and devices
- Human performance
- Design and manufacturing
- Equipment and furnishings on board aircraft
- The operational environment



www.icao.int/cabinsafety

ICAO & Cabin Crew Safety Training

- ICAO (Annex 6 - Part 1) requires initial and recurrent cabin crew safety training
- ICAO developed guidance material on Cabin Crew Safety Training (Doc 7192 Part E-1)
 - Documentation addresses training requirements in Annex 6



Objectives of Revision

- Raise awareness of importance of cabin crew safety training
- Provide guidance material for initial & recurrent cabin crew safety training
- Revise manual reflecting competency-based training
- Provide additional guidance on aspects not addressed by ICAO standards



Why Move Towards Cabin Crew Competency-based Training?

- Ensure cabin crew members are proficient to perform duties & responsibilities
- Establish international baseline for cabin crew competencies
 - Encompasses safety, security and emergency training



Benefits from Competency-based Training

- Focused training on:
 - Job performance
 - Adult learner
- Competencies are observable and measurable
- Training is adaptable
- Better prepares cabin crew for on-the-job requirements
- Tool to improve quality of training
- Skills acquired may be transferable





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ICAO Cabin Safety Group: A Joint Industry-Regulatory Effort



AIRFRANCE



AIRBUS
AN EADS COMPANY

Avianca



CAAS
Civil Aviation Authority of Singapore



Australian Government
Civil Aviation Safety Authority



Kenya Airways
The Pride of Africa

SOUTH AFRICAN



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Provincial Airlines Ltd.



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Transport
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GCAA
دولة الامارات العربية المتحدة
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UAE General Civil Aviation Authority

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ICAO MPSG & IATA MAG: A Joint Effort on Cabin Health



State of Israel
Ministry of Transport
National Infrastructures and Road Safety

AIRFRANCE



AIR NEW ZEALAND



CIVIL AVIATION AUTHORITY
OF NEW ZEALAND



Civil Aviation Authority of Singapore



BRITISH AIRWAYS



Australian Government
Civil Aviation Safety Authority



CATHAY PACIFIC



Emirates



Lufthansa

Moving Towards Competency-based Training

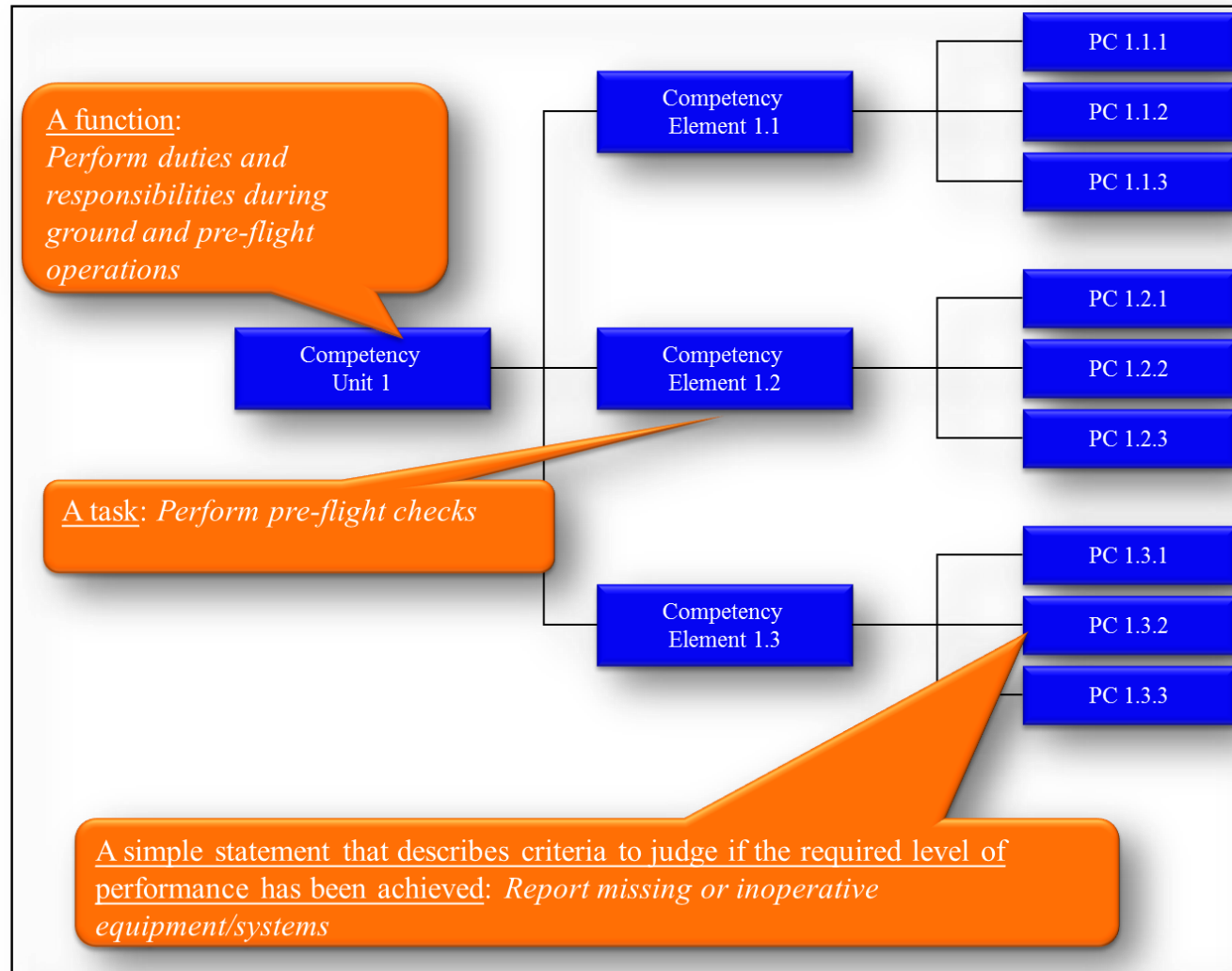
- Competency-based training and assessment:
 - Well-defined performance criteria
 - Emphasis on performance standards
 - Required knowledge and skills
 - Development of training to those standards
- Development of Framework as reference:
 1. Define end-state first – competencies to be achieved
 2. Reverse-engineer training and assessment based on end-state

5 Pieces of Competency Framework

1. Normal Operations
 2. Abnormal & Emergency Situations
 3. Security Threats
 4. Cabin Health
 5. Dangerous Goods
- Cabin crew skills
 1. Non-technical competencies
 - Additional competencies:
 1. Cabin Crew Instructor
 2. Cabin Crew Examiner
 3. Training Programme Developer

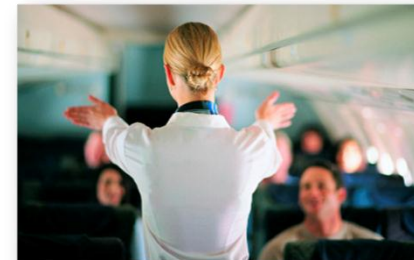


Structure of Competency Framework



Normal Operations

- Competency units group by duties by phase of flight
- They encompass competencies needed for safe operation of routine flight
 - Possibility of abnormal/emergency situations
- Competency elements include:
 - Duties & responsibilities to be performed (specific to phase of flight)
 - Management of passengers and cabin environment
 - Operation of systems/equipment
 - Communication
 - With flight crew, other cabin crew, and passengers
 - Management of any abnormal/emergency situation
 - Described in separate framework



Abnormal & Emergency Situations

- Generic competency unit:
 - “Manage abnormal and emergency situations”
- Competency elements not specific to phases of flight
- Competency elements cover specific situations:
 - Fire fighting
 - Smoke removal procedures
 - Cabin pressurization problems and decompression
 - Anticipated and unanticipated emergency landing/ditching
 - Evacuation
 - Flight and cabin crew member incapacitation
 - Rapid disembarkation



Security Threat Situations

- Generic competency unit:
 - “Perform duties and responsibilities related to unlawful interference”
- Competency elements not specific to phases of flight
- Competency elements cover specific situations:
 - Unruly passengers
 - Bomb threat in flight
 - Bomb threat on ground
 - Hijacking
 - Chemical/biological weapons



Dangerous Goods

- Competency unit: 1. Safe transport of DG in cabin
 - DG permitted by passengers and crew
 - Forbidden DG found on-board on ground
 - Procedures for forbidden DG s found on-board during flight
- Competency unit: 2. DG incidents during flight
 - Fire involving DG
 - Fire involving a PED or stand-alone lithium batteries
 - Spillage or leakage involving DG



Cabin Health

- Generic competency unit:
 - “Perform duties and responsibilities related to cabin health”
- Competency elements not specific to phases of flight
- Competency elements cover specific situations:
 - On-board medical events
 - Food Safety
 - Cabin disinsection



Human Performance & Crew Skills

- Manual defines set of cabin crew skills
 - As part of training & linked to competencies
- Guidance on observing behavioral skills that are *desired* and *undesired* in training environment
 - Embedded into simulated scenarios



Cabin Crew Skills

All cabin crew:

1. Communication
2. Teamwork and leadership
3. Error recognition and management
4. Workload and time management
5. Decision-making
6. Situational awareness

In-charge cabin crew member:

All CC, plus following:

1. Flexibility
2. Delegation
3. Empathy
4. Planning & coordinating resources



Example of Skills & Behavioral Indicators:

Communication

Skill Description	Behavioral Indicators
Demonstrates effective verbal, non-verbal and written communications, in normal, abnormal and emergency situations.	<p><u>Desired behaviors:</u></p> <ul style="list-style-type: none">• Conveys information clearly, accurately and concisely using standard operator phraseology.• Communicates with the appropriate crew member(s) using the operator's designated common language (multi-lingual flight/cabin crew) including pertinent information such as What, When, Where and How.• Is aware of, and correctly interprets, the non-verbal elements inherent in communication.• Actively listens, seeks clarification and asks relevant questions.• Transmits information in a timely manner. <p><u>Undesired behaviors:</u></p> <ul style="list-style-type: none">• Communicates using incomplete, untimely or unclear messages.• Inhibits the communication process.

Structure of Competency Framework & Training Manual Structure

1. Competency unit
2. Competency element
3. Performance criteria
4. Reference material
 - required during training
5. Duties which may be specifically assigned to a designated in-charge cabin crew
 - in multi-crew operation



- Guidance material provided on:
- a) Conditions under which training should be conducted
 - classroom-based training
 - hands-on exercises
 - etc.
 - b) Performance standard
 - required to verify that performance criteria are met
 - c) Required knowledge
 - that trainees must possess
 - d) Skills
 - to support competencies

COMPETENCY FRAMEWORK FOR CABIN CREW DUTIES AND RESPONSIBILITIES DURING ABNORMAL AND EMERGENCY SITUATIONS

Competency unit: 1. Perform duties and responsibilities during an abnormal or emergency situation

The competencies described below relate to duties and responsibilities that are performed by a cabin crew member in the event of an abnormal or emergency situation.

Competency element	Performance criteria	I/C Duty	Reference
1.1 Apply fire fighting procedure	1.1.1 Detect and eliminate fire hazards		Operations Manual
	1.1.2 Locate source of fire		
	1.1.3 Identify the type of fire		
	1.1.4 Apply communication procedures		
	1.1.5 Use appropriate fire fighting equipment and protective equipment, as required		
	1.1.6 Fight fire		
	1.1.7 Manage passengers and cabin, as required		
	1.1.8 Apply post-fire fighting procedure		
	1.1.9 Complete the applicable documentation	X	

Example of CE: Apply Fire Fighting Procedure

Performance Criteria

1.1.1 Detect and eliminate fire hazards

1.1.2 Locate source of fire

1.1.3 Identify the type of fire

1.1.4 Apply communication procedures

...



Performance Standard

a) Cabin surveillance to identify/monitor potential sources of fire. This includes, but not limited to:

- i. debris in ovens (e.g. oil spills, papers, inserts);
- ii. electrical malfunctions (e.g. tripped circuit breakers, overheating IFE);
- iii. lavatories (e.g. waste bins, panels);
- iv. investigating abnormal smells; and
- v. detecting smoke (e.g. coming from panels, due to electrical systems, etc.).

...

Example of CE: Apply Fire Fighting Procedure

Performance Criteria

1.1.1 Detect and eliminate fire hazards

...

Performance Standard

a) Cabin surveillance to identify/monitor potential sources of fire. This includes...



Knowledge

- a) Understanding of fire prevention techniques. This includes, but is not limited to:
- i. monitoring smoking in the cabin and lavatories;
 - ii. inspecting the integrity of automatic lavatory extinguisher;
 - iii. checking that the lavatory waste bin cover flap is closed at all times;
 - iv. preventing ignited materials from being discarded in trash carts; and
 - v. identifying and eliminating hazardous flammable materials.

Example of CE: Apply Fire Fighting Procedure

Performance Criteria

1.1.1 Detect and eliminate fire hazards

...

Performance Standard

a) Cabin surveillance to identify/monitor potential sources of fire. This includes...



Skills

- a) Communication;
- b) Teamwork and leadership;
- c) Error recognition and management;
- d) Workload and time management;
- e) Decision-making;
- g) Planning and coordinating resources (for in-charge cabin crew); ...

Example of CE: Apply Fire Fighting Procedure

Reference

a) Operations manual

Conditions

- a) Classroom & computer-based
- b) Hands-on exercise:
 - on retrieving and operating fire fighting & protective equipment
- c) Simulated fire fighting exercise:
 - in representative training device capable of reproducing appropriate environment/equipment characteristics
 - where cabin crew apply operator procedures & associated crew responsibilities for dealing with situation
- d) Live fire fighting using fire fighting equipment:
 - e.g. extinguisher, PBE, gloves, axe, etc.



Revision of ICAO Training Manual

1. Cabin Crew Training Requirements and Qualifications
2. Training Facilities and Devices
3. Competency-based Training Approach
4. Aviation Indoctrination
5. Normal Operations Safety Training
6. Abnormal and Emergency Situations Training
7. Dangerous Goods
8. Human Performance
9. Cabin Health
10. Aviation Security
11. Safety Management Systems
12. Fatigue Management
13. In-Charge Cabin Crew Training
14. Management Aspects of the Cabin Safety Training Programme

Conclusion

- ICAO sees benefits in competency-based approach to cabin crew safety training:
 - Ensure cabin crew are proficient to perform duties & responsibilities
 - Establish international baseline for cabin crew competencies
- Competency-based training and assessment guidance:
 - Well-defined performance criteria
 - Emphasis on performance standards
 - Required knowledge and skills
 - Development of training to those standards
- ICSG work continues until end 2013
- Planned release of revised ICAO training manual in 2014



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